RELATIVE ATTRACTIVENESS OF DIFFERENT FINANCIAL INSTRUMENTS IN THE URBAN CENTERS OF ASSAM

A Thesis Submitted to Tezpur University for the Degree of Doctor of Philosophy in the Department of Business Administration

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This is to certify that the thesis entitled "Relative Attractiveness of Different Financial Instruments in the Urban Centres of Assam", written and submitted by Chandan Goswami towards the fulfillment of the Degree of Doctor of Philosophy in Management Sciences of Tezpur University, is a record of genuine research work done by Chandan Goswami under my supervision and guidance. The thesis, or part thereof, has not been submitted to any other University/Institution for any research degree.

H Goswami

Date: 1/8/2000

C O N T E N T

PREFACE

The study "**Relative Attractiveness of Different Financial Instruments in the Urban Centers of Assam**" has been carried out as fulfillment for the degree of Doctor of Philosophy of Tezpur University, under the guidance of Dr. Homeswar Goswami, Professor of Economics, Dibrugarh University.

In the study, the hypothesis taken for testing is that like the financial institutions, the individual savers from the household sector also distribute savings over a number of financial instruments following the principles of portfolio management. Apart from testing the hypothesis mentioned, the study has tried to find out the popularity of the different financial instruments that exist in the market for holding one's savings with the segmental variations in the popularity levels. Moreover, it has also tried to find the level of satisfaction of the individual savers with the existing financial instruments. Suggestions have been put forward regarding measures to modify the existing financial instruments so that the level of the individual savers increases. A new financial instrument has also been suggested.

The author takes this opportunity to offer his heartfelt gratitude to Dr. Homeswar Goswami, Professor of Economics, Dibrugarh University for his

sustained and continuous guidance and help on all grounds.

The author would also like to offer his gratitude to Dr. Atul Goswami, Professor, OKD Institute of Social Change and Development, for his help in carrying out the study.

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(Chandan Goswami)

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CHAPTER ONE

INTRODUCTION

CHAPTER ONE: INTRODUCTION

The role of capital in the growth of an economy is enormous. An economy with inadequate capital has to look for ways to accumulate it. The accumulation of capital depends on savings. If the whole income of an economy is spent on consumption, capital formation can never take place. Income is generally earned in terms of money and savings can also be held as money. If savings remain in this form, again capital formation cannot take place. Capital is formed only when money-savings are converted into new capital assets. This process of capital formation passes through three stages:

(a) creation of savings by surplus of income over expenditure;

(b) mobilization of the savings, and their canalization into productive channels; and

(c) the conversion of the mobilized money-savings into new capital assets, i.e., investment.

Generally, when an individual buys an NSC or other such bonds, it is regarded as savings and when an individual buys an equity, the act is regarded as an investment. But the ultimate objective of both the individuals is the same. In this particular study, the act of setting aside a

portion of current income for future use, in whatever form, expecting return, will be regarded as savings unless that amount is used in any business endeavor. It will be regarded as investment only when saving is actually converted into capital assets.

In Macro-economics, an economy is divided into four sectors: the household sector, the business sector, the government sector and the external sector. The act of savings is done by the household sector and the act of investment by the business sector and to some extent by the government sector. A small portion of the aggregate savings (total savings of the economy) may also come from the government sector out of surplus earned from the public enterprises. But the performance of the government in running business enterprises being what it is, surplus from public enterprises is unlikely to contribute significantly to aggregate savings.

Apart from savings, investment can also be done through deficit financing by the government. But the inflationary impact of deficit financing may push down the rate of investment in real terms. Thus the bulk of aggregate savings has to come from the household sector.

The rate of savings in the household sector is dependent, inter alia, on

(a) the level of income and its growth rate; and

(b) the incentive provided to the savers to abstain themselves from immediate consumption and/or the reward offered for sacrificing liquidity.

Before going into details regarding savings, it is to be determined first the forms in which savings can be held. The widely accepted form of saving instruments include:

(a) Money, which includes cash, precious metals, government bonds, available or unused consumer credit, and the cash values of life insurance policies;

(b) Debt instruments which means marketable and negotiable evidence of loans

(c) Equities, which are ownership rights in business.

But for the purpose of this study, different forms of savings will be divided as:

(a) Cash which including precious metals;

(b) Real estates; and

(c) Financial instruments comprising of bonds (government as well as corporate), Life insurance policies, securities issued by corporate houses, and different forms of deposits in banks.

The various forms of savings mentioned above are termed as financial assets

It is very clear that for capital formation, savings are to be held in the third form, i.e., financial instruments.

Already the two factors have been listed on which the rate of savings depends. Savings can be stepped up by manipulating these two factors, either singly or jointly. Since it is extremely difficult to maintain an increasing rate of growth of income over a longish period, more attention has to be paid to inducing the members of the household sector to step up the savings rate even at the same level of income. Apart from this, increase in the rate of savings in the form of cash, precious metals and real estates is not going to help in capital formation in any way. So, incentive measures have to be incorporated in the financial instruments to induce savers to save in them. To do this, first it is to be found out why different people choose different forms of savings and then what additional incentives

are necessary to make the financial instruments more attractive to them.

The members of the household sector are found making a compromise between the two conflicting attributes of return and liquidity in making saving related decision.

The saver's preference for different assets will decide his/her asset portfolio. The portfolio of assets will differ from person to person depending on a number of factors. The asset portfolio is likely to be dissimilar for different income segments, professions, age groups, source of income. It may also differ on the basis of stability of income of the saver and ease of acquisition and disposal of the instruments etc. At the same time, portion of the savers who save in cash/precious metals may switch over to buying financial instruments if some additional incentives are incorporated in them.

The proposed study will try to unfold the reasons behind different categories of savers mentioned above preferring different financial instruments. It will also try to find out the additional attributes needed in the financial instruments to make more and more savers interested in them. This is likely to immensely increase the rate of capital formation, ultimately leading to growth

of the economy. It will also be beneficial directly to the organization issuing financial instruments, besides providing the necessary incentive to the members of the household sector to increase the rate of savings and holding the same in financial instruments satisfying their scale of preference.

More specifically, the objectives of the proposed study are as follows:

(1) To gauge the degree of popularity of different financial instruments in the urban centers of Assam;

(2) To find out the variations in the popularity of various financial instruments among different segments of savers;

(3) To suggest additional attributes needed for increasing attractiveness of existing financial instruments.

(4) To suggest the characteristic features to be incorporated in the new financial instruments.

It is generally seen that the Financial Institutions follow certain guidelines in selecting their asset portfolio. In doing that

they try to strike a balance between return and risk. The central hypothesis set up for testing in the present study is that the members of the household sector also distribute savings over different assets by following the same principle.

In the following report, a brief description of portfolio management followed by the financial institutions and its applicability to the savings of the members of the household sector is given in Chapter Two. In Chapter Three, the methodology adopted for carrying out the study is described. Chapter Four describes the characteristics of the existing financial instruments. The central hypothesis and the sub-hypotheses and the testing of these hypotheses are dealt in in Chapter Five. After collecting the necessary information and analyzing them, the popularity of different financial instruments and segmental variations thereof, i.e., difference in the degree popularity in the different strata of population, are described in Chapter Six. Additional attributes needed to be incorporated in the existing financial instruments to make them more attractive are discussed in Chapter Seven and a new financial instrument is proposed in Chapter Eight. Chapter Nine is summary and conclusion.

REVIEW OF LITERATURE

"Economic growth is the increase in the economy's potential, or full-employment, real national income."[1] When there are unemployed resources, the economy's actual output is below its potential output. Then output can be increased, even in the relatively short term, by measures that absorb unemployed resources. But, by itself, full employment of an economy's resources does not necessarily mean that the economy will grow. Growth is essentially a long-run phenomenon - the potential full-employment output of the economy is increasing over time.[2]

Increases in the productive capacity in the economy over time (i.e., the growth rate) are usually measured by calculating the rate of change of real gross national product per head of the population. It is argued that for growth, investment in capital goods is essential. Investment in capital goods involves saving, that is present sacrifice of consumer goods enjoyed.[3]

Thus, it is necessary to have a look at the saving rate in the Indian economy to find out the reason for the lack of economic growth.

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[1] Richard G. Lipsey, "An Introduction to Positive Economics", 7th Edition, 1989, Page 643
[2] J. Harvey, "Modern Economics", 6th Edition, 1993, Page 406
[3] J. Harvey, "Modern Economics", 6th Edition, 1993, Page 410

Dr. H.R. Machiraju had pointed out that the rate of savings in India has more than doubled in 45 years (up to 1996) since the commencement of the First Plan in 1951. The gross savings of the household sector have gone up from 7.7 per cent in 1950-51 to 19.8 per cent in 1995-96. There has been sporadic rise and fall in the savings rate in the Indian Economy. The savings in the Indian Economy were mainly in the Social Security Funds, which includes provident fund schemes, pension and life insurance funds. They constituted 31.2 per cent of financial assets (gross) in 1995-96. Next to follow were savings in the banking sector till 1996-97. Its share in household financial assets (gross) was 28.2 per cent in 1995-96. Household holdings of currency constituted 13.1 per cent of financial assets (gross) in 1995-96. The share of claims on government that includes mainly government bonds, in the household sector's total financial assets (gross) was 8.7 per cent in 1995-96. Household's investment in shares and debentures, including units of Unit Trust of India was only 4.9 percent of household's total financial assets (gross) in 1995-96.[4]

But looking at the slow growth rate of capital and hence, industrialization, it is obvious that the rate of savings is to be increased even further in the Indian Economy. Hence the factors that will lead to an increase in the savings rate

[4] Dr. H.R. Machiraju, "Indian Financial System", 1st Edition,

are to be determined and based on this knowledge; steps are to be taken to improve the situation.

Savings are contributed by the three sectors into which the economy is divided - the household sector, the public sector and the domestic corporate sector. Out of these three sectors, the household sector contributes the maximum percentage - 77 percent (in 1994-95).[5] But, the fact that is of concern is that a major portion of the savings of the household sector goes into hoarding of precious metals.

Hence it is essential to find out what attracts the savers to save in a particular form which can generate capital and incorporate them in the saving instruments to attract the savers to save in that type of assets. National income and its distribution mostly determine the overall level of saving. Other influencing factors are the reward for saving as reflected in the rate of profit earned on direct investment or the yields/interest rates associated with the diverse instrument in which saving is held and rate of change in general price level.[6] The institutional factors that influence savings are special efforts made to mobilize savings through setting up new institutions and new instruments.

1998, Page 2.3 - 2.4

[5] Dr. H.R. Machiraju, "Indian Financial System", 1st Edition, 1998, Page 2.2

[6] Dr. H.R. Machiraju, "Indian Financial System", 1st Edition, 1998, Page 2.1

It has to be remembered that savings rate also depends on the motive for saving. People have many motives for saving. For most savers, interest in saving is largely pecuniary, to earn a return on their money.[7] There may be other indirect pecuniary motives like tax saving etc. Apart from pecuniary motives, there may also be non-pecuniary motives like security etc.

Though pecuniary return is the major motive for saving, it is interesting to note that most savers do not place available funds into one, two, or even three saving instruments promising greatest returns. This suggests that other factors besides pecuniary return are considered in the selection process. Savers not only like return, they dislike risk. The holding of an assortment of saving instruments attests to that fact. Most of the saving instruments involve risk. And the relation between risk and return is direct. Higher the return of a saving instrument, higher is the risk involved with the instrument.

Hence, the ultimate decisions to be made in savings are (1) what financial instruments should be held, and (2) how much money should be allocated to each.[8] These decisions are normally made in two steps. First, estimates are prepared of the return and risk associated with available financial instruments over a forward holding

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[7] Donald E. Fischer, Ronald J. Jordan, "Security Analysis and Portfolio Management", 6th Edition, Page 65

period. Second, return-risk estimates must be compared in order to decide how to allocate available funds among these financial instruments on a continuing basis.

Prospective savers are consumers and they are shopping for various financial instruments. They are influenced by advertising, by the company's image, and, predominantly, by price. Savers usually do not fill their shopping bags with only one saving opportunity, and they try to be sophisticated shoppers when they select a portfolio of financial instruments.[9]

It is a general phenomenon that no saver is obliged to take any risk on his or her savings. One may save all one's money in a government bond or a bank fixed deposit and receive fixed interest. This type of saving is called risk-free saving. On the other hand, one may also save in rather risky investments, in the expectation of earning very high returns. It appeals to common sense that one will invest in a risky venture only if one expects to earn a return in excess of the risk-free return.[10]

As return and risk are so important for a saver in deciding which financial instrument to choose

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[8] Donald E. Fischer, Ronald J. Jordan, "Security Analysis and Portfolio Management", 6th Edition, Page 65

[9] James C. Van Horne, "Financial Management and Policy", 9th Edition, Page 51

[10] "Security Analysis", Study material of the Institute of Chartered Financial Analysts of India, Page 209

for saving one's money in, it is necessary to have to have a look at what is return and what is risk.

The term return from a saving instrument means benefit from that venture. In the field of finance, return is almost invariably associated with a percentage and not a mere amount.[11]

Risk, on the other hand, is the variability of the return of the financial instrument. The most common measures of riskiness of a financial instrument are the standard deviation and variance of returns.[12]

Return on a typical saving consists of two components. The basic component is the periodic cash receipts (or income) on the saving, either in the form of interest or dividends. The second component is the change in the price of the asset - commonly called the capital gain or loss. This element of return is the difference between the purchase price and the price at which the asset can be sold; therefore, it can be a gain or loss.[13]

Risk has many subsets. Total risk refers to the overall variability of the returns of a financial

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[11] "Security Analysis", Study material of the Institute of Chartered Financial Analysts of India, Page 209

[12] "Security Analysis", Study material of the Institute of Chartered Financial Analysts of India, Page 218

[13] Donald E. Fischer and Ronald J. Jordan, " Security Analysis and Portfolio Management", 6th Edition, 1995, Page 66

instrument. Total risk has two principal components: the undiversifiable and the diversifiable risk components. Undiversifiable risk is the risk that must be borne by virtue of being in the market. This risk arises from systematic factors that affect all securities of a particular type, such as all common stocks. Diversifiable risk can be removed by proper portfolio diversification. The basic idea is that the ups and downs of individual securities due to company-specific events will cancel one another out.[14]

Though it is said that most of the financial instruments involve risk, some instruments like government bonds involves so little risk that these instruments can be safely assumed to be risk-free. Hence, analysis of financial instruments is to be done under two situations. First, assuming that the government bonds and such assets bear no risk and analyze different financial assets to find out which will bring the highest return. But more realistic is assuming risk to be present in the financial assets. If this is so, finding out the asset with the highest return will not suffice. It is also to be found out the degree of risk associated with each asset. The first type of analysis is commonly known as analyzing under certainty and the second as analyzing under risk.

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[14] Robert A. Strong, " Portfolio Management Handbook", 2nd

The conventional basic view of the valuation of assets under certainty is that their price is the discounted value of their future income.[15] Formulae for calculating present value are used for valuation of the financial assets under certainty.

The concept of risk can be defined as the chance of receiving a lower yield than expected with increased risk increasing the chance of lower yields. Decisions for the selection of a portfolio of assets are viewed as balancing the undesirability of more risk against the desirability of higher yields. Like eating delicious fatty foods and risking the accompanying increased chance of arteriosclerosis, the saver is viewed as facing a set of opportunities where higher expected yields are available only at increased risk.[16]

The different methods for evaluating financial instruments under both certainty and risk have been described in the chapter "Portfolio Management and the Household Sector."

It is to be remembered that most savers do not take up the complex task of analyzing the different financial instruments to find out where to save. Different organizations take up this

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Indian Edition, 1998, Page 22

[15] Robert D. Auerbach, "Financial Markets and Institutions", 8th Edition, 1990, Page 195

[16] Robert D. Auerbach, "Financial Markets and Institutions", 8th Edition, 1990, Page 205

task. These organizations analyze the different financial instruments available in the market and give them ranks. Organizations like CRISIL, ICRA go for ranking the different financial instruments available in the market, so that savers find it easy to choose among different financial instruments.

CHAPTER TWO

PORTFOLIO MANAGEMENT AND THE HOUSEHOLD SECTOR

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Introduction:

It is generally seen that individual savers do not hold their savings in one particular financial asset. They select a set of financial assets among which they distribute their savings in various proportions depending on their scale of preference. Just as in the case of consumption, an individual distributes his disposable income over a bundle of goods to maximize satisfaction, in the case of savings too, (s)he distributes his/her savings over a set of financial assets to maximize return. But in the case of savings, return is not the only criterion for selecting a portfolio. Had that been the case, an individual saver would have placed all his/her funds in the financial asset expected to yield maximum return. That an individual saver does not do this suggests that some other factors are considered besides return in the selection process. The other important factor is risk that the saver wants to minimize.

The ultimate saving related decisions to be made by a saver are (a) the selection of financial assets to be held, and (b) the amount of savings to be allocated to each asset.[1] These decisions are generally made in two steps. First, an estimate is made of the likely return from and/or

risk of the available financial assets. Then, based on these return-risk estimates an individual saver decides the composition of the portfolio. The first step is known as Security Analysis and the second step is known as Portfolio Selection and Management. This selection process is a continuous one subject to various considerations including emergence of new financial assets.

The degree of risk involved in all types of financial assets is not equal. It depends on the credibility of the issuer and the nature of return on the asset (e.g., interest, dividend etc.). Moreover, certain financial assets are assumed to be without risk, like bonds issued by the government, bank deposits, etc. (This assumption will be relaxed later). Hence, the set of financial assets can be divided into two categories -- one without risk and the other, with risk. The selection procedures for these two sets are different. So, they are discussed separately as 'Criteria under Certainty' and 'Criteria under Risk'.

Criteria under Certainty:

In the following section, selection criteria of a portfolio of assets that are assumed to be risk free are presented. To make things simple, it is assumed that saving decisions are mutually exclusive, which means that if a particular saver decides to hold his/her savings in financial asset A, (s) he is not going to choose financial

asset B. This holds good in the case of different combinations of financial assets as well taking each combination as one financial asset.

Yield from a financial asset can be broadly categorized into pecuniary and non-pecuniary. Pecuniary yield includes monetary benefits earned from a financial asset. Examples of pecuniary yields are interest earned on bank deposit, dividend earned on an equity, interest earned on bonds, etc. Non-pecuniary yields, on the other hand, include security, mortgagibility of the asset, the purchasing power of saving held in the form of cash, the psychic satisfaction derived from articles like gold ornaments etc.

Non-pecuniary return plays an important role in the saving related decision of an individual. An individual saver must hold at least a small amount of his saving in the form of cash, which does not yield any pecuniary return, so as to use its purchasing power whenever the need arises. This will be used to find out the importance of cash in the portfolio of an individual saver.

Hence, the return from a financial asset

R = pecuniary + non-pecuniary returns.

The pecuniary return generally consists of two components. One component is the periodic cash inflows, either in the form of interest or dividend and the other component is the change in

the price of the asset. In the case of bonds issued by the government, bank deposits, etc., which are assumed to be risk free so far, the second component is not applicable, because the maturity value is given and these assets are mostly non-marketable. And the first component is fixed and given.

Valuation of such an asset is done by using the discounted cash flow (DCF) method. The conventional basic view of the valuation of assets is that their price is the discounted value of their future income.[2] Hence, it is called the present value of the income stream. This takes care of the time value of money. The formula for finding out the present value of an income stream is[3]

$$PV = R_1/(1+r) + R_2/(1+r)^2 + \text{-----} + R_n/(1+r)^n$$

where PV is present value, R_j (j = 1 to n) is the return at the 'j'th period and 'n' is number of periods. 'r' is the discount rate, i.e., the rate of return that could have been earned had the amount been saved in some other financial asset.

To illustrate, let us take the example of a NSC of Rs. 1000/- that doubles at the end of the sixth year. Let the discount factor bé 10% (As the NSC gives a return of approximately 12%, it is assumed that the opportunity cost of saving in NSC is 10%. If the opportunity cost of saving in NSC is more than 12%, NPV will be negative. Here, the direct monetary return is considered without

taking into account the indirect return such as tax benefit enjoyed by the saver.

$$PV = 0/(1+.10) + 0/(1+.10)^2 + \text{---} + 2000/(1+.10)^6$$

$$= \text{Rs. } 1120/-$$

So, the present value of Rs. 2000/- at the end of the sixth year is Rs. 1120/-. But, an individual saver has to pay only Rs. 1000/- for this. So, the saver stands to gain.

To find out the net gain, the Net Present Value (NPV) is calculated.[4]

$$NPV = -I_0 + PV$$

Where I_0 is the amount saved in period 0

If the NPV of a financial asset is positive, it indicates there is positive gain and it is paying to save in that particular financial asset.

If the case of a Fixed Deposit is considered, it is seen that the interest earned in each period (year) is resaved. The amount earned as interest is to be discounted and regarded as savings in the period in which the interest was earned. So, the formula for finding out NPV will take the following form:[5]

$$NPV = -I_0 + (R_1-I_1)/(1+r) + \text{---} + (R_n - I_n)/(1+r)^n$$

If the whole interest earned is resaved in the intermediate periods {i.e., period 1 to (n-1)}, earnings during this period will be zero and the terminal value (earning at the end of the term) will be used to find out NPV.

Another tool that is used is the Internal Rate of Return (IRR). Here the rate of discount (r in the NPV formula) at which NPV is zero is calculated. This involves finding out that particular rate of return that the financial asset must generate in order to let saver be at par (no gain no loss situation). The decision rule is to select the financial asset with the highest IRR. The justification is that the higher the IRR of a financial asset, the higher is its capacity to withstand fluctuation in the bank interest rate and inflation.

So far, pecuniary incomes earned directly have alone been considered. But, in some cases, there are some indirect, but substantial pecuniary returns of financial assets. For example, if the case of the NSC scheme of the Government of India is considered, it is seen that apart from the direct pecuniary return of doubling of the amount at the end of the sixth year, savers enjoy tax concession throughout the life of the asset, which is the indirect pecuniary return. Under such a situation, the indirect pecuniary returns earned over the life of the financial asset will have to be discounted and added to the NPV. In the case of the NSC, income tax rebate that the saver gets from period zero through period five

will have to be calculated, discounted and added to the NPV.

Criteria under Risk:

Though it is generally believed that risk is associated with equities and bonds alone, in reality all financial assets involve some risk. Risk is nothing but the possibility that realized returns will be less than the returns that were expected. It is true that the possibility is much more in case of equities and bonds, but it is not non-existent in case of other financial assets. Even in the case of cash, the purchasing power may go down more than what was expected due to actual inflation rate exceeding the expected inflation rate.

Depending on the causes of risk, their controllability and source, risks have been divided into Systematic and Unsystematic risks. Systematic risks refer to that portion of total risk caused by factors affecting the return and price of all financial assets. Economic, political, and sociological changes are sources of systematic risks. Their effect is to cause prices of nearly all individual common stocks and/or bonds to move together in the same direction. For example, the Harshad Mehta Security scam made the prices of all equities and bonds go down. These risks are beyond the control of individual firms/industry.

Unsystematic risk, on the other hand, is unique to a firm or industry. Factors, such as management capability, consumer preferences, and labour strikes give rise to unsystematic risks. These risks are within the control of individual firm/industry.

SYSTEMATIC RISK

(a) Market risk: Market risk refers to the reaction of savers to the events in the market place, which ultimately affect the prices of equities. Because of certain happenings, savers' attitude towards a particular equity or equity as a class may change. Variability in return of most common stocks that is due to changes in savers' expectation is referred to as market risk

The events referred to above can be either tangible or intangible. Tangible events refer to real happenings such as political, social or economic. For example, the threat of a war, oil shortage, etc., may make savers anticipate lower return and cause prices of stocks and bonds to go down.

Though market risk is usually touched off by real events, it becomes aggravated by the collective emotional instability of savers.

(b) Interest-rate risk: Interest-rate risk refers to the uncertainty in the future market value and income due to fluctuations in the general level of interest rates. The root causes of interest-

rate risk are the fluctuations in the interest rate paid on different types of deposits in banks and in the interest rate paid on government securities. As the interest rate increases and return goes up, savers switch over from risk-prone securities and bonds to risk-free securities and bonds issued by the government because the difference in return decreases. This causes the price of securities and bonds issued by private corporations and other financial assets go down.

(c) Purchasing-power risk: Saving is nothing but postponement of current consumption. When an individual buys a financial asset, the amount of money used cannot be spent for consumption during the life of the asset. If during this period, the prices of desired goods and services increase by more than what was expected, the individual loses purchasing power. As purchasing-power risk is due to increase in the price level, it has come to be identified with inflation.

UNSYSTEMATIC RISK

The uncertainty regarding ability of issuer to make payments on securities crops up from two sources:

(a) the operating environment of the business; and

(b) the financing of the firm.

The first is referred to as business risk and the second as financial risk.

(a) Business risk: Business risk is a function of the operating conditions faced by a firm and the variations in the income from securities of these firms due to these.

Business risk can come from the efficiency level at which the firm operates and from the circumstances under which the firm must operate. From this standpoint, business risk can be divided into internal and external business risks.

(b) Financial risk: Financial risk is associated with the way in which a company finances its activities. Financial risk is gauged by looking at the capital structure of a firm. The interest the firm has to pay on its borrowed fund constitutes this particular risk. The presence of debt and preferred stock in the capital structure on which interest/fixed dividend must be paid makes the residual earning of the firm for dividend payment vary from time to time more than if they were absent. Financial risk is avoidable to the extent that management has the freedom to decide to borrow or not to borrow funds. A firm with no debt financing has no financial risk.

Financial risk can be looked from two different angles. One from the angle of a saver who saves in debt instruments and the other from one who saves in equities. Savers saving in equities face

risk as discussed above. A saver saving in debt instruments faces the risk of the firm defaulting to pay. This is also known as the default risk.

Assigning risk allowances: The different types of risks mentioned above is to be quantified as required rate of return is to be calculated. The required rate should comprise a riskless rate plus compensation for individual risk factors. So, the required rate of return 'r^1' is[6]

$$r^1 = i + p + b + f + m + o$$

where,
- i = real interest rate (riskless rate)
- p = purchasing-power risk allowance
- b = business-risk allowance
- f = financial-risk allowance
- m = market-risk allowance
- o = allowance of 'other' risks

To calculate this 'r^1' first the riskless rate of return is to be determined. This can be done by considering the rate of return given by government bonds, or savings deposits of banks. In the Indian context, the return on NSC can be taken as the riskless rate.

Quantification of elements of systematic and unsystematic risks is near impossible because of overlapping effects. Hence, all are packaged into a single measure of risk and used to analyze different financial assets.[7]

The Expected Rate of Return: The expected rate of return, also called the expected yield is the weighted average of different possible yields. The weights are probabilities P_i, which are formulated in such a manner that they add up to one. The formula for the expected rate of return $E_{(r)}$is[8]

$$E_r = P_1r_1 + P_2r_2 + \text{----} + P_nr_n$$

Where, P_i (i=1 to n) = probabilities adding up to one

r_i (i=1 to n) = different yields

n = number of alternatives

The following example makes the concept of E_r clear.

Table 2.1: Expected Yield of an Asset A

(1) Possible alt. rates of return (%)	(2) Probability of each alternative	(3) Expected value of each alt. (1X2)
7	0.05	0.35
8	0.10	0.80
9	0.20	1.80
10	0.30	3.00
11	0.20	2.20
12	0.10	1.20
13	0.05	0.65
	1.00	**Expected yield** = 10.00

The probabilities assigned to each possible yield are assigned after analysis of economic, industry and company factors.

Quantification of Risk: The risk of earning less than the expected yield is to be examined now. Before going into risk, let us consider another example of expected return of Asset B.

Table 2.2: Expected Yield of an Asset B

(1) Possible alternative rates of return (%)	(2) Probability of each alternative	(3) Expected value of each alt. (1X2)
9	0.30	2.7
10	0.40	4.0
11	0.30	3.3
	1.00	Expected yield = 10.00

So, we see that Assets A and B have identical expected average returns of 10%. But the spreads for both are different. For Asset A, the range is wider (7 to 13) than Asset B (9 to 11). However, a wider range of outcomes does not necessarily imply greater risk; because the range as a measure of dispersion ignores the relative probabilities of each of the outcomes.

The statistical measure of risk is calculated from the variation around the average of each alternative possibility (E_r). The total variance is measured by a statistical tool called variance (d^2). Since this is squared and the expected values are not, the square-root of the variance is taken, which is called standard deviation (d).[9]

The higher the standard deviation, the more risky the asset is considered to be. Standard deviation is, therefore, a direct measure of risk.

Finding out the standard deviations of equity A and B as in Tables 2.1 and 2.2 will make the concept clear. This is shown in Tables 2.3 and 2.4.

Table 2.3: Standard Deviation of the E_r of Asset A

(1) Possible alt. Rate of return	(2) Deviations {(1) - E_r}	(3) Squared deviation %	(4) Prob. Of each alternative	(5) Weighted squared deviation %
7	-3	9	0.05	0.45
8	-2	4	0.10	0.40
9	-1	1	0.20	0.20
10	0	0	0.30	0.00
11	1	1	0.20	0.20
12	2	4	0.10	0.40
13	3	9	0.05	0.45
				$d^2 = 2.10$
				$d = 1.45$

Table 2.4: Standard Deviation of the E_r of Asset B

(1) Possible alt. Rate of return	(2) Deviations {(1) - E_r}	(3) Squared deviation %	(4) Prob. Of each alternative	(5) Weighted squared deviation %
9	-1	1	0.30	0.30
10	0	0	0.40	0.00
11	1	1	0.30	0.30
				$d^2 = 0.60$
				$d = 0.77$

So, we see that Asset B is less risky than Asset A. This calculation of risk by using standard deviation includes both systematic and unsystematic risks.

Portfolio Opportunities: After analyzing the return and risk of individual financial assets,

it has to be decided now how to distribute a fixed amount, at a point of time, among different financial assets.

To simplify the decision problem, it is assumed that only two assets, A_1 and A_2 are available. The expected yields on these two assets are r_1 and r_2 and their associated standard deviations are d_1 and d_2.

The expected return of the portfolio (E_{rp}) composed of these two assets is to be calculated. If the respective proportions of assets A_1 and A_2 in the individual's portfolio are X_1 and X_2 (when $X_1 + X_2 = 1$), then the E_{rp} is[10]

$$E_{rp} = X_1E(r_1) + X_2E(r_2)$$

Similarly, the risk of the portfolio is also to be ascertained. But it is not as simple as calculating return. It is not a simple weighted average of the standard deviations of the individual securities. Portfolio risk depends not only on the riskiness of the assets constituting the portfolio, but also on the relationship among those assets.[11] The portfolio risk will be more if yields on each asset vary together (positively correlated) than if the yields varied in opposite direction (negatively correlated).

Hence, to measure the risk of the portfolio, the degree of relationship among the assets is to be calculated, which can be done by finding out either covariance or correlation.

The formula for finding out covariance on assets A_1 and A_2 is[12]

$$d_{1,2} = E\{[r_1 - E(r_1)][r_2 - E(r_2)]\}$$

This formula describes the covariance in terms of the deviation of each asset's yield from its mean.

The correlation technique is a related tool to measure association that is frequently used. It is calculated by dividing the covariance by the product of the standard deviation of the series of yields for each asset[13]

$$P_{1,2} = d_{1,2}/d_1d_2$$

where $P_{1,2}$ is the correlation between the assets A_1 and A_2. The correlation may vary from +1 to -1. Perfect positive correlation ($P_{1,2} = +1$) means that yields of both the assets will move in the same direction and by the same degree. If the correlation is -1, (perfectly negative correlation), the yields of the assets will move by the same proportion, but in the opposite direction.

The following formula can be used to measure the variance of the entire portfolio:[14]

$$d_p^2 = X_1^2d_1^2 + 2X_1X_2P_{1,2}d_1d_2 + X_2^2d_2^2$$

It is clear that if $P_{1,2} = +1$, the standard deviation of the entire portfolio becomes the weighted average of the risks of each asset. If the correlation is -1, d_p becomes[15]

$$d_p = X_1 d_1 - X_2 d_2$$

In this case, because the correlation is perfectly offsetting, it is possible to derive a value for X_1 that makes d_p equal to zero. In other cases (i.e., when $P_{1,2}$ is not equal to 1), the equation for d_p can be solved through graph to find out the minimal value of d_p. By doing this, the distribution of fund in different financial assets to minimize risk can be derived.

Portfolio of Riskless and Risk-free Assets: The analysis of portfolio selection under uncertainty when extended to the entire portfolio provides a range of useful implications. As the portfolio of an individual saver generally consists of a risk-free asset, one such asset is included in the portfolio.

To proceed in this matter, three assumptions are to be made:[16]

(1) First, the market is efficient, which means that prices and yields reflect all available information. This assumption allows continuous adjustment to equilibrium prices and yields on all assets.

(2) The second assumption is that all savers assign the same probability to the different alternative yields. This also means that they assign the same risk measure to each asset. This condition is known as homogenous expectation of risk and rates of return. This assumption does not mean that all savers have the same tastes and preferences for risk, only that they assess each asset in the same way.

(3) Third, savers can borrow at the risk-free rate of interest. This increases the price of the financial asset by the amount of the risk-free rate of interest. It is assumed that this is earned through the return on the risk-free asset. This is seen done by savers to avoid paying income-tax in India. Savers take loans to buy LIC Policy or NSC to get tax exemption.

The standard deviation of the yield of the riskless asset is zero, $d_s = 0$. The riskless interest rate and the yield on the riskless asset are r_s.

The new combined portfolio combination of the riskless asset and the risky assets has the following expected yield:[17]

$$E(r_{cp}) = X_1 r_s + (1 - X_1) E(r_k)$$

where $E(r_{cp})$ is the expected yield on the combined portfolio and $E(r_k)$ is the expected yield on the risky assets.

The standard deviation of the combined portfolio, d_{cp}, the measure of its risk is[18]

$$d_{cp} = (1 - X_1)d_{rk}$$

where d_{rk} is the standard deviation of the risky assets. The risk-free asset is not included because the standard deviation of the yield on the riskless asset is zero. Hence the covariance between the yield on the riskless and the risky assets is also zero, as there is no correlation between a moving variable and a constant.

The next step in the analysis is to specify which combination of risky assets will be combined with the riskless asset. This can be done with the help of the Capital Market Line (CML), which is nothing but the efficient frontier (feasible area of the combined yield-risk locus).

To find out the relationship between each risky asset's yield and risk, the Security Market Line (SML) is used. The SML equilibrium yield can be transformed into an equivalent equilibrium price. The development of this price is called the Capital Asset Pricing Model (CAPM).

Between the systematic and unsystematic risks, unsystematic risks can be diversified away. But there is no way of doing this with systematic

risks. The efficient market portfolio (portfolio with maximum yield and minimum risk) exhibits this risk. If efficient portfolios diversify away unsystematic risk, their yields will move together with general economic activity. The rates of return of all efficient combination of assets will, therefore, be perfectly correlated.

The systematic risk of the combination of the risky assets is measured by the Beta coefficient.[19]

$$B_j = d_{j,m}/d^2(r_m)$$

where Bj is the Beta coefficient of the 'j'th asset, $d_{j,m}$ is the covariance between the 'j'th asset and the market index, and $d^2(r_m)$ is the variance of the market portfolio. The larger the beta coefficient, the greater the return in a rising market and the greater the loss in a falling market(assuming unsystematic risk to be zero).

Using beta as the measure of non-diversifiable risk, the CAPM is used to calculate the required return on a security according to the following equation:[20]

$$R_s = R_f + B_s(R_m - R_f)$$

where, R_s = the return required on the saving
R_f = the return that can be earned on a risk-free asset

R_m = the average return on all securities

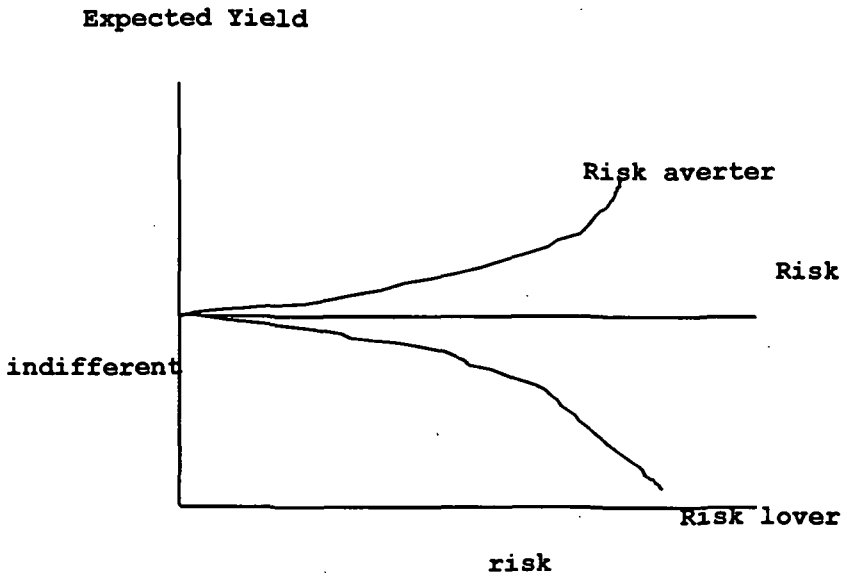
B_s = the beta risk

It is clear that the required return for a given security increases as the beta increases.

Evaluating Risk: In the end, savers must relate the risk perceived in a given security not only to return, but also to their own attitudes toward risk.

To depict a saver's perception of risk, the indifference curve or utility curve concept is adopted. It is believed that utility curves exist for three different types of savers - risk indifferent, risk averter and risk lover.

Diagram 2.1: Utility Curves of Three Different Types of Savers[21]



Because of difference in the preference of the savers, specifying a general acceptable level of risk is impossible. However, most savers are assumed to be risk-averters. For a risk-averse saver, the required return increases for an increase in risk. However, the amount of return required by each saver for a given increase in risk will depend upon how the saver trades risk for return - i.e., the degree of risk aversion.

In the decision process, savers evaluate the risk-return behaviour of each alternative saving avenue to ensure that the return expected is reasonable given its level of risk.

BOND ANALYSIS[22]

It is the general misconception that bonds do not yield a good return and at the same time, risk associated with it is also low. Actually, the risk and return characteristics of bonds range from very safe to very speculative.

In the context of portfolio, the role of bond is generally to providing steady periodic income. Saving in company bonds of good quality can provide a steady income combined with safety of the principal. Also the interest rate on such bonds is 3 - 4 percentage points higher than on government bonds and bank fixed deposits.

A bond has a face value/par value that implies the money value of the loan certificate. Interest is payable on each bond at a specified rate, called the coupon rate, on the face value. So, clearly the main cash inflow from a bond is periodic interest on the face value. Capital gain is also possible if the bond was bought at discount, but this is generally not the intention of the bondholder. Hence, the cash flow of a bond could be predicted with high degree of accuracy by an analyst. The structure of this cash flow falls into one of the following four groups depending on the type of bond. But, it is worth mentioning that all four of the following may not be found in India.

(1) **Annuities:** Most bonds are annuities plus an ultimate repayment of principal. An annuity is the promise of a fixed amount on a regular periodic schedule for a finite length of time. A $9\ ^{1}/_{2}$ percent coupon bond with semiannual interest payments might currently sell for Rs. 900/- and mature in eight years from now. At maturity the bondholder gets back Rs. 1,000/- . So, it is known that the bond's present value is Rs. 900/-, its term is eight years, and the future cash flows are Rs. 47.50 every six months for eight years and a single Rs. 1,000/- payment in eight years. The only thing unknown in the valuation equation is the discount rate. The discount rate that equates the present value of the future cash flows with the current price of the bond is the bond's ***Yield to Maturity*** (the bond's IRR).

(2) **Zero Coupon Bonds:** This is a special type of bond where no annuity is paid. This means that there is no periodic repayment, but repays the whole amount on the day of maturity.

(3) **Variable Rate Bonds:** Some securities may not carry a fixed interest rate but allow it to fluctuate in accordance with some market index. These securities are termed as variable rate bonds.

(4) **Consols:** In the case of consols, a rate of interest is paid perpetually. The bond never matures and the interest is received forever.

BOND YIELD:

Coupon Rate: Coupon rate is the rate of interest specified in the bond that is paid to the bondholder periodically.

Current Yield: The actual purchase price of a bond may be different from the face value. But, the periodic return is paid according to the coupon rate on the face value. This periodic return as a percentage of the actual cost of the bond is known as the current yield.

For example, if a 15% bond of Rs. 1,000/- face value is purchased at Rs. 950/-, the yearly interest of Rs. 150/- will give a current yield of 15.79% on actual cost.

Yield to Maturity (YTM): The current yield takes into account only the return associated with interest payments. Capital gains or losses are not included in the current yield. A bond's YTM means the total return the bondholder receives if the bond is kept for its entire life.

The exact computation of YTM involves the use of Present Value Method. It is same as calculating IRR of the bond.

A simpler approximate method of calculating YTM is to take annual average of the capital gain and add it to the annual interest in order to derive the total annual return. The total annual return is then converted to percentage of amount invested in the bond. For this purpose, the amount invested is to be taken as the average of the purchase price and the maturity value.

YTM (approx.) =(Annual int. + Annual Avg. Cap. Gain)/Avg. Investment

where,

Annual avg. Cap. Gain = (maturity value - purchase price) / no. of years hold

Avg. Investment = (purchase price + maturity value) / 2

BOND RISK:

As mentioned earlier, there is a misconception that bonds are not risky. In reality bonds do carry risk, but the nature of risk associated with bonds is different from that of equities.

(A) **Default Risk:** The primary risk for the bond investor is that the issuing company may fail to honour its obligations towards bondholders regarding interest and repayment. This risk is termed as default risk.

The default risk varies with the type of bond and the financial strength of the issuer. The saver can judge the ability of the issuer to pay interest and repay the principal in the future from the 'ratings'/'grades' given by credit rating agencies.

To minimize default risk, the saver may spread his/her money over a number of bonds issued by different organizations.

(B) **Interest Rate Risk:** Changes in market rate of interest have an effect on the market prices of existing bonds. Increase in the market rate of interest reduces the market price of existing bond and vice versa.

It is obvious that increase in the market rate of interest will reduce the market price of short-term bond by a lower degree than that of long-term bonds. Hence, investing in short term bonds

can reduce interest rate risk. Also the saver has to monitor the interest rate movement before saving in bonds.

Another way of minimizing interest rate risk, specially when there is frequent fluctuation in the market interest rate, is to save in ***floating rate bonds*** (FRBs). FRBs mean bonds whose coupon rate is adjusted periodically taking into account the change in the market rate of interest. It is to be kept in mind that FRBs are not advantageous when there is a possibility of market rate of interest coming down.

(C) **Inflation Risk:** Inflation may reduce the real value of money over long periods. All savings having fixed money value get eroded in real terms due to inflation. To preserve the real value of investment, one should ensure that the rate of return (after tax) on savings exceeds the rate of inflation and that a sufficient part of the return is reinvested.

(D) **Illiquidity Risk:** A saver has to maintain a balance between liquidity and rate of return. Bonds yield more return than many of the liquid assets like currency and bank deposits, but are less liquid.

Some bonds are listed for trading in the stock exchanges. But in India there is practically no trading of bonds. Moreover, all the bonds are not listed. Hence, the bondholder has to hold the bond till the sate of maturity.

The bondholder may minimize this problem by proper planning. (S)he can buy bonds of different maturity periods to mature when liquid asset is needed.

'Put' and 'Call' options: The provision of 'put option', i.e., the right of the bondholder to demand early repayment from the issuing company after a certain period reduces, to some extent, both the illiquidity risk and the interest rate risk.

But bonds with 'call option', i.e., the right of the issuing company to repay bonds prematurely after a certain minimum period, creates a 'call risk' for the bondholder. This is because the issuing company would be exercising the call option only if the market rate of interest falls.

CREDIT RATINGS

Credit rating is a simple and easy to understand symbolic indicator of the opinion of the credit rating agency about the risk involved in a borrowing program of an issuer with reference to the capability of the issuer to repay the debt as per terms of issue. It is to be kept in mind that this is neither a general-purpose evaluation of the company nor a recommendation to buy, hold or sell a debt instrument.

Ratings are based on an in-depth study of the industry as well as an evaluation of the strengths and weaknesses of the company. An analysis of the protective factors, marketing strategies, competitive edge, level of technological development, operational efficiency, competence and effectiveness of management, hedging of risks, cash flow trends and potential, liquidity, financial flexibility, government policies, past record of debt servicing, sensitivity to possible changes in business/economic circumstances is done before a rating/grade is given to a debt instrument.

Once a rating/grade is accepted by the company, the rating agency continuously monitors the corporate and the rating/grade is monitored till the life of the instrument, and can be changed in any direction if necessary. Hence the rating is valid during the life of the instrument unless it is changed.[23]

CREDIT RATING SYMBOLS AND THEIR MEANINGS:

CRISIL' classification:[24]

AAA **Highest Safety**	Debentures rated 'AAA' are judged to offer highest safety of timely payment of interest and principal. Even if the circumstances providing the degree of safety change, they are most unlikely to affect

adversely the strong position of such issues.

AA
High Safety

Debentures rated 'AA' are judged to offer high safety of timely payment of interest and principal. They differ in safety from 'AAA' issues only marginally.

A
Adequate Safety

Debentures rated 'A' are judged to offer adequate safety of timely payment of interest and principal; however, changes in circumstances can adversely affect such issues more than those in the higher rated categories.

BBB
Moderate Safety

Debentures rated 'BBB' are judged to offer sufficient safety of timely payment of interest and principal for the present; however, changing circumstances are more likely to lead to a weakened capacity to pay interest and repay principal than for debentures in higher rated categories.

BB **Inadequate Safety**	Debentures rated 'BB' are judged to carry inadequate safety of timely payment of interest and principal, while they are less susceptible to default than other speculative grade debentures in the immediate future, the uncertainties that the issuer faces could lead to inadequate capacity to make timely interest and principal payment.
B **High Risk**	Debentures rated 'B' are judged to have greater susceptibility to default; while currently interest and principal payments are met, adverse business or economic conditions would lead to lack of ability or willingness to pay interest or principal.
C **Substantial Risk**	Debentures rated 'C' are judged to have factors present that make them vulnerable to default; timely payment of interest and principal is possible only if favourable circumstances continue.

D **Default**	Debentures rated 'D' are in default and in arrears of interest or principal payments or are expected to default on maturity. Such debentures are extremely speculative and returns from these debentures may be realized only on reorganization or liquidation.

Note: Sometimes '+' or '-' signs are added to the rating symbols to give a finer classification within a category.

Classification by ICRA:[25]

(A) For long term debt-debentures, bonds and preference shares:

LAAA **Highest Safety**	Indicates fundamentally strong position. Risk factors are negligible. There may be circumstances adversely affecting the degree of safety but such circumstances, as may be visualized, are not likely to affect the timely payment of principal and interest as per terms.

LAA+ **LAA** **LAA-** **High Safety**	Risk factors are modest and may vary slightly. The protective factors are strong and the prospect of timely payment of principal and interest as per terms under adverse circumstances, as may visualized differs from LAAA only marginally.
LA+ **LA** **LA-** **Adequate Safety**	Risk factors are more variable and greater in periods or economic stress. The protective factors are average and any adverse change in circumstances, as may be visualized, may alter the fundamental strength and affect the timely payment of principal and interest as per terms.
LBBB+ **LBBB** **LBBB-** **Moderate Safety**	Considerable variability in risk factors. The protective factors are below average. Adverse changes in business/economic circumstances are likely to affect the timely payment of principal and interest as per terms.

LBB+ **LBB** **LBB-** **Inadequate Safety**	The timely payment of interest and principal are more likely to be affected by present or prospective changes in business/economic circumstances. The protective factors fluctuate in case of changes in economic/business conditions.
LB+ **LB** **LB-** **Risk Prone**	Risk factors indicate that obligations may not be met when due. The protective factors are narrow. Adverse changes in business/economic conditions could result in inability/unwillingness to service debts on time as per terms.
LD **Default**	Extremely speculative. Either already in default in payment of interest and/or principal as terms or expected to default. Recovery is likely only on liquidation or reorganization.

(B) For medium term debt - including fixed deposit programmes:

MAAA **Highest Safety**	The prospect of timely servicing of interest and principal as terms is the best.
MAA+ **MAA** **MAA-** **High Safety**	The prospect of timely servicing of the interest and principal as per terms is high, but not as high as in MAAA rating.
MA+ **MA** **MA-** **Adequate Safety**	The prospect of timely servicing of the interest and principal is adequate. However, debt servicing may be affected by adverse changes in the business/economic conditions.
MB+ **MB** **MB-** **Inadequate Safety**	The timely payment of interest and principal are more likely to be affected by future uncertainties.
MC+ **MC** **MC-** **Risk Prone**	Susceptibility to default is high. Adverse changes in business/economic conditions could result in

	inability/unwillingness to service debts on time and as per terms.
MD **Default**	Either already in default or expected to default.

(C) Short-term debt - including commercial paper:

A1+ **A1** **Highest Safety**	The prospect of timely payment of debt/obligation is the best.
A2+ **A2** **High Safety**	The relative safety is marginally lower than in A1 rating.
A3+ **A3** **Adequate Safety**	The prospect of timely payment of interest and installment is adequate but any adverse change in business/economic conditions may affect the fundamental strength.
A4+ **A4** **Risk Prone**	The degree of safety is low. Likely to default in case of adverse changes in

business/economic conditions.

A5 Default	Either already in default or expected to default.

(D) Equity Grades:

It is to be kept in mind that equity grades do not forecast the future market price of the stock and do not indicate the company's compliance or violation of any statutory requirements related to the issue or stock market listing. The equity grades group together similar entities in terms of earnings prospects and inherent risks.

ER1A Excellent Earnings Prospect, Low Risk	Indicates fundamentally an exceptionally strong position. The level, growth and quality of earnings over the medium term are of the highest grade and changes in economic/business circumstances, as may be visualized, are unlikely to significantly impair the underlying fundamentals.

ER1B Excellent Earnings Prospect, Moderate Risk	Indicates fundamentally a very strong position. The level, growth and quality or earnings over the medium term are of the highest grade. However, changes in economic/business circumstances, as may be visualized, may moderately impair the likely earnings and underlying fundamentals.
ER1C Excellent Earnings Prospect, High Risk	The likely level, growth and quality of earnings over the medium term are of the highest grade, but there are also some inherent elements of risk that can significantly impair the likely earnings and underlying fundamentals.
ER2A Very Good Earnings Prospect, Low Risk	Indicates fundamentally a very strong position. The level, growth and quality of earnings over the medium term are of a very high grade and changes in economic/business circumstances, as may be visualized, are unlikely to significantly impair the *underlying fundamentals.*

ER2B Very Good Earnings Prospect, Moderate Risk	Indicates fundamentally a strong position. The level, growth and quality of earnings over the medium term are of a very high grade and changes in economic/business circumstances, as may be visualized, may moderately impair the likely earnings and underlying fundamentals.
ER2C Very Good Earnings Prospect, High Risk	The likely level, growth and quality of earnings over the medium term are of a very high grade, but there are also some inherent elements of risk that can significantly impair the likely earnings and underlying fundamentals.
ER3A Good Earnings Prospect, Low Risk	Indicates fundamentally a very strong position. The level, growth and quality of earnings over the medium term are of a high grade and changes in economic/business circumstances, as may be visualized, are unlikely to significantly impair the underlying fundamentals.

ER3B Good Prospect, Moderate Risk	Indicates fundamentally an above average position. The level, growth and quality of earnings over the medium term are of high grade and changes in economic/business circumstances, as may be visualized, may moderately impair the likely earnings and underlying fundamentals.
ER3C Good Prospect, High Risk	The likely level, growth and quality of earnings over the medium term are of a high grade, but there are also some inherent elements of risk that can significantly impair the likely earnings and underlying fundamentals.
ER4A Moderate Prospect, Low Risk	Indicates fundamentally an average position. The level, growth and quality of earnings over the medium term are moderate and changes in economic/business circumstances, as may be visualized, are unlikely to significantly impair the underlying fundamentals.

ER4B Moderate Earnings Prospect, Moderate Risk	Indicates fundamentally an average position. The level, growth and quality of earnings over the medium term are moderate and changes in economic/business circumstances, as may be visualized, may moderately impair the likely earnings and underlying fundamentals.
ER4C Moderate Earnings Prospect, High Risk	The likely level, growth and quality of earnings over the medium term are moderate, but there are also some inherent elements of risk that can significantly impair the likely earnings and underlying fundamentals.
ER5A Weak Earnings Prospect, Low Risk	Indicates fundamentally a below position. The level, growth and quality of earnings over the medium term are low and changes in economic/business circumstances, as may be visualized, are unlikely to significantly impair the underlying fundamentals.

ER5B Weak Earnings Prospect, Moderate Risk	Indicates fundamentally a weak position. The level, growth and quality of earnings over the medium term are low and changes in economic/business circumstances, as may be visualized, may moderately impair the likely earnings and underlying fundamentals.
ER5C Weak Earnings Prospect, High Risk	The likely level, growth and quality of earnings over the medium term are low, but there are also some inherent elements of risk that can significantly impair the likely earnings and underlying fundamentals.
ER6A Poor Earnings Prospect, Low Risk	Indicates fundamentally a poor position. The level, growth and quality of earnings over the medium term are the lowest and changes in economic/business circumstances, as may be visualized, are unlikely to significantly impair the underlying fundamentals.

ER6B Poor Prospect, Moderate Risk	Indicates fundamentally a very poor position. The level, growth and quality of earnings over the medium term are the lowest and changes in economic/business circumstances, as may be visualized, may moderately impair the likely earnings and underlying fundamentals.
ER6C Poor Prospect, High Risk	The likely level, growth and quality of earnings over the medium term are the lowest, and changes in economic/business circumstances, as may be visualized, can significantly impair the likely earnings.

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CHAPTER THREE

METHODOLOGY

CHAPTER THREE: METHODOLOGY

The research carried out is an exploratory research. On the basis of the findings of the research, new plans and strategies are formulated to increase the saving rate of the household sector.

It has been mentioned earlier that to increase the growth rate of the Indian economy, investment has to be increased for which, the saving rate within the economy is to be increased. And it has also been mentioned that the household sector is the best bet to do so.

To increase the saving rate in the household sector, it is to be known first what are the saving instruments that the savers prefer. The savers' perception regarding the different saving instruments is to be known for the purpose of development of the saving instruments so that they can become more attractive to the savers and the members of the household sector become more interested in savings. Moreover, what unfulfilled needs remain to be fulfilled by the saving instruments are also to be known so that new saving instruments can be developed to satisfy all the savers.

Three towns have been selected as the study locale, viz., Guwahati, Tezpur and Tinsukia. Being the gateway to the different States of the North East and the focal point of industry and trade, Guwahati, for obvious reasons, is inhabited by people of all income groups, ranging from the highest to the lowest. Tinsukia town is the district headquarters of Tinsukia district in Upper Assam. It is a very important commercial center of Upper Assam where the Tea Industry of Assam is heavily concentrated. Thus, Tinsukia's importance is both commercial and industrial. Tezpur is the headquarters of Sonitpur district of Central Assam. Although it has a few industries, it is more famous for its tourist spots. The inhabitants are mostly fixed income earners.

In order to capture a true profile of buyers of saving instruments, the population has been divided into the following segments: Industrialists (Large and Medium), Industrialists (Small), Business Executives, Officials and Employees, Professionals, Teachers, and Self-employed. Samples have been selected from these different segments. But it is worth mentioning here that responses from the segment Industrialists (both Large & Small, and medium) were very few and hence those segments have been taken out of the analysis.

The size of the sample was finalized in the following manner:

Table 3.1: Proposed distribution of Sample among Different Towns and Occupation Strata

Strata/Place	Guwahati	Tinsukia	Tezpur	Total
Industrialists (L&M)	5	5	5	15
Industrialists (Small)	10	10	10	30
Bus. Executives	45	25	15	85
Officials & Employees	50	30	40	120
Professionals	50	40	30	120
Teachers	50	25	35	110
Self-employed	50	50	50	150
Total	260	185	185	630

There have been some minor deviations from the sample distribution proposed while collecting

responses from the respondents. Moreover, as information was collected through questionnaire administration, a number of respondents had to be left out from the analysis as the questionnaire they filled out were incomplete. The filled-in questionnaires where the personal information was missing were considered to be incomplete and removed from the analysis. Moreover, it is to be mentioned that responses from the segment Industrialists (L& M) and Industrialists (Small) were very few and could not be used for analysis purpose.

The final distribution of sample is as follows:

Table 3.2: Distribution of Sample among Different Towns and Occupation Strata

Strata/Place	Guwahati	Tinsukia	Tezpur	Total
Bus. Executives	24	22	00	46
Officials & Employees	66	44	57	167
Professionals	22	17	21	60
Teachers	23	31	19	73
Self-employed	25	28	52	105
Total	160	142	149	451

For collecting information from the members of the household sector, the questionnaire method was adopted. For this purpose, a set of questionnaire was prepared. The questionnaire was prepared to bring out information regarding the savers' motive for saving, awareness regarding existence of different saving instrument, preference for different saving instrument, reasons for preferring any saving instrument, preference for different types of monetary and non-monetary returns, and satisfaction level with the existing saving instruments. Moreover, it is also tried to find out if any need remains to be fulfilled by the existing saving instruments. If so, suggestions are sought from the savers so that either a new saving instrument can be developed on the basis of the needs of the savers, or an existing saving instrument can be modified.

The questionnaire also included questions regarding personal information of the respondents so that a segmental analysis can be carried out.

Though the questionnaire was primarily administered personally, in some cases third party help was taken to administer the questionnaire due to time constraint.

The collected information was tabulated and analyzed using the SPSS Package. To test the hypotheses, Proportion Test, specifically the z Test was used. To test the relationship between variables Correlation analysis combined with t Test was used. For the exploratory part of the project, Cross tabulation was mainly used.

While presenting the information, tables and different types of graphs have been used.

One of the objectives of the study is to find out the characteristic features to be incorporated in a new financial instrument and explore the possibilities of developing a new financial instrument in India. To achieve this objective, the Delphi Technique was adopted. For this purpose a panel of experts from different fields was selected. This panel consisted of persons from top level executives, professionals, academicians, practicing tax consultants, and experts on Money Market. The whole process was completed in three phases. In the first phase, a questionnaire was prepared to find out the perception of the experts regarding the saving habits of the different segments of the savers. Moreover, a rough plan for a new saving instrument was proposed in the questionnaire and views from the experts were sought regarding the feasibility and viability of the proposed saving

instrument. Based on the responses of the experts in the first round of questionnaire administration, a second set of questionnaire was prepared. This is basically done to sort out the variations in the views of the experts in the first phase of questionnaire administration. The same process was carried on for the third time so that a consensus can be arrived at.

Based on the findings of such an exercise through Delphi Technique, a new instrument of saving, called the Defence Bond is proposed in the present study. To position the Defence Bond, a study taking 150 samples from Tezpur Town has been carried out with a view to finding out the attributes to make the instrument's (Defence Bond) USP.

CHAPTER FOUR

EXISTING FINANCIAL INSTRUMENTS AND THEIR ATTRIBUTES

CHAPTER FOUR: EXISTING FINANCIAL INSTRUMENTS AND THEIR ATTRIBUTES

The number of financial instruments available for holding one's savings is very high. And it will be a stupendous task to list out all the financial instruments and analyze their attributes. Hence those financial instruments have been considered for the study that are most widely used by the savers.

The financial instruments that have been included in the analysis are:

1. Cash
2. Jewellery
3. Savings Bank Deposit (Bank)
4. Fixed Deposit (Bank & NBFI)
5. Recurring Deposit (Bank & NBFI)
6. National Savings Certificate
7. Indira Vikash Patra
8. Kishan Vikash Patra
9. LIC (Endowment)
10. LIC (Money back)
11. LIC (Children Policy)
12. LIC (Pension Policy)
13. Provident Fund
14. Public Provident Fund
15. Postal Life Insurance
16. Bonds
17. Shares

18. Mutual Fund Schemes
19. Real Estate

The analysis has been done on the basis of the following attributes:

Return: Monetary + Non-monetary

Monetary: Direct + Indirect

Risk: Interest Rate Risk + Default Risk + Market Fluctuation + Change in Government Policies

1. **CASH:**

Monetary Return: Both direct and indirect: nil

Non-monetary Return: Psychological satisfaction and liquidity in times of emergency. Because of the uncertainty regarding the future, liquidity has to be maintained and cash is the most liquid form of asset.

Risk: The only risk involved with cash is that the purchasing power goes down in the event of inflation and as it has no monetary return, the saver incurs loss.

2. **JEWELLRY:**

Monetary Return: Appreciation in price of precious metals.

Non-monetary Return: Psychological satisfaction of possessing jewellry.

Risk: Possible depreciation in the price of precious metals.

3. **SAVINGS BANK DEPOSIT (BANK):**

Monetary Return: Nominal

Non-monetary Return: It is almost as liquid as cash.

Risk: Nil. In extremely rare cases, there may be default risk.

4. **RECURRING DEPOSIT (BANK & NBFI):**

Monetary Return: Moderate in case of banks and high in case of NBFIs.

Non-monetary Return: Makes it easier to pay yearly installments.

Risk: Nil. In extremely rare cases, there may be default risk in case of banks. But, in the case of NBFIs, the default risk is medium to high depending on the financial strength of the organization.

5. **FIXED DEPOSIT (BANK & NBFI):**

Monetary Return: Low to moderate depending on the term of the asset in case of banks. But the return is high in the case of NBFIs.

Non-monetary Return: Mortgagibility.

Risk: Nil. In extremely rare cases, there may be default risk in the case of banks. But, in the case of NBFIs, the default risk is medium to high depending on the financial strength of the organization.

6. **NATIONAL SAVING CERTIFICATE:**

Monetary Return: Moderate. But consists indirect monetary return in the form tax savings for five years.

Non-monetary Return: Mortgagibility.

Risk: Change in the government policies may reduce indirect monetary return. Moreover, it consists of Interest Rate Risk. The lock- in

period is also very high - six years. This reduces the liquidity of the asset, but the mortgagibility nature takes care of this problem. In extremely rare cases, the government may default.

7. **INDIRA VIKASH PATRA:**

Monetary Return: High

Non-monetary Return: Certificates are not registered and hence money accounted for can be used for earning a return through this asset.

Risk: It consists of Interest Rate Risk. In extremely rare cases, the government may default. The government has discontinued this scheme.

8. **KISHAN VIKASH PATRA:**

Monetary Return: High.

Non-monetary Return: Mortgagibility. Lock-in period is also very low compared to NSC. It is only two and half years.

Risk: Change in government policies may reduce monetary return. Moreover, it consists of Interest Rate Risk.

9. LIFE INSURANCE POLICIES (ENDOWMWNT):

Monetary Return: High. Also consists of indirect monetary return in the form of tax savings.

Non-monetary Return: Mortgagibility. Both banks and LIC itself offer loans against Life Insurance Endowment Policies. Financial security of the family in case of sudden demise of the policy-holder is an added psychological return.

Risk: Change in government policies may reduce indirect monetary return. Moreover, it consists of Interest Rate Risk.

10. LIFE INSURANCE POLICIES (MONEY-BACK):

Monetary Return: High and periodical. Also consists of indirect return in the form of tax savings.

Non-monetary Return: Mortgagibility. But only banks offer loans against Life Insurance Money-back Policies. Financial security of the family in case of sudden demise of the policy-holder is an added psychological return.

Risk: Change in government policies may reduce indirect monetary return. Moreover, it consists of Interest Rate Risk.

11. LIFE INSURANCE POLICIES (CHILDREN):

Monetary Return: High and periodical. Also consists of indirect return in the form of tax savings.

Non-monetary return: Financial obligations regarding children education is taken care of. Hence, the policyholder has financial security.

Risk: Change in government policies may reduce indirect monetary return. Moreover, it consists of Interest Rate Risk.

12. LIC (PENSION POLICY):

Monetary Return: Moderate and periodical. Also consists of indirect return in the form of tax savings.

Non-monetary Return: Periodic and steady cash flow after retirement for the salaried class provides financial security at old age.

Risk: Change in government policies may reduce indirect monetary return. Moreover, it consists of Interest Rate Risk.

13. PROVIDENT FUND:

Monetary Return: High. Also consists of indirect monetary return in the form of tax savings.

Non-monetary Return: It is compulsory form of saving for government and semi-government employees. A saver can take loans against provident fund savings.

Risk: The possibility of government to default exists.

14. PUBLIC PROVIDENT FUND:

This scheme provided by the government to general public is similar to the provident fund scheme of government and semi-government employees, with some added attributes.

Monetary Return: High. Also consists of indirect monetary return in the form of tax savings.

Non-monetary Return: Highly liquid after completion of three years of opening of the account.

Risk: Change in government policies may adversely affect return.

15. POSTAL LIFE INSURANCE:

Monetary Return: High. Also consists of indirect monetary return in the form of tax savings.

Non-monetary Return: A saver can take loan against a postal life insurance policy.

Risk: In extremely rare cases, the government may default.

16. MUTUAL FUND SCHEMES:

There are numbers of mutual fund schemes offered by different organizations. The leading player in this field is the Unit Trust of India. The schemes are different for different target segments. The monetary return and non-monetary return varies according to the needs of the target markets.

17. BONDS:

Monetary Return: Usually the monetary return of a bond offered by any organization is high.

Non-monetary Return: Some of the bonds are mortgagable.

Risk: Depending on the nature of the organization offering bonds, the risk varies. Mainly default risk is associated with bonds.

18. SHARE:

Monetary Return: Very high, depending on the market situation.

Non-monetary Return: Nil.

Risk: There is high risk of market fluctuation of share prices.

19. REAL ESTATE:

Monetary Return: High.

Non-monetary Return: Mortgagibility.

Risk: Rare chance of market price of real estates going down. Government policies may affect price of real estates in both ways.

This chapter is only to give a brief outline of the attributes of the financial instruments that are included in the analysis. The perception of different of the savers may not coincide with the nature of the attributes outlined here. The perception of the savers will be dealt with in a different chapter.

CHAPTER FIVE

HYPOTHESIS TESTING

CHAPTER FIVE: HYPOTHESIS TESTING

The central hypothesis to be tested is that just as the Financial Institutions try to minimize risk and maximize return by skilful management of assets, a member of the household sector also distributes savings over different saving instruments by following the same principles.

To find out whether the household savers follow the principles of portfolio management, the hypothesis is to be broken into smaller segments. To find the applicability of the hypothesis, the following three questions are to be answered:

a) Do the savers have a pre-set rate of return?

b) Do the savers include indirect return while calculating the return of a saving instrument?

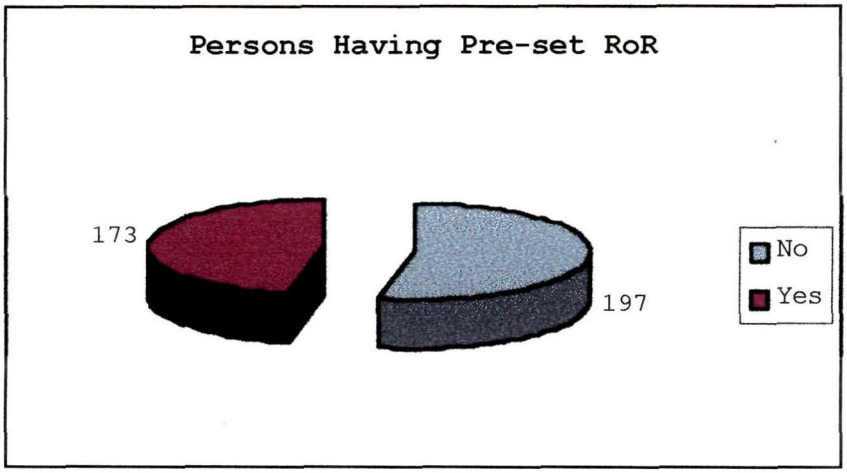
c) Do the savers try to strike a balance between return and risk while preparing their saving portfolio?

Analyzing the first point, i.e., whether the savers have a pre-set rate of return which is considered before choosing any saving instrument it is found that out of the 370 respondents who

replied to the question, 197 respondents (53.24%) do not have a pre-set rate of return.

Based on this information one cannot generalize a conclusion. To do that statistically, the 'z' Test has been applied.

Diagram 5.1



Null Hypothesis:

H_0: Individual savers are indifferent about having a pre-set rate of return, i.e., $H_0p = 0.5$.

Alternate Hypothesis:

H_a: Individual savers do not have a pre-set rate of return, i.e., $H_ap > 0.5$.

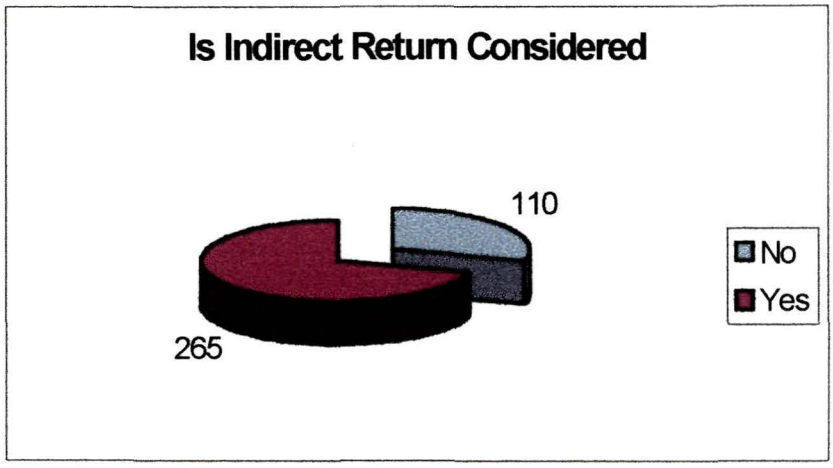
No = 197 Yes = 173 N = 370

The calculated value of 'z' is 1.2474.

The tabulated value of 'z' at 2.5% significance level (one tail) is 1.96.

Since the calculated value is smaller than the tabulated value, the Null Hypothesis is accepted. This means that the individual savers are indifferent about having a pre-set rate of return. Even if some of the savers have a pre-set rate of return, not much importance is placed on it.

Diagram 5.2



Analyzing the second point, it is found that out of the 375 respondents who replied to the question regarding consideration of indirect return while return of a saving instrument is calculated, 265 respondents (70.67%) considered indirect return of an asset.

To prove the applicability of this finding to the whole population, the 'z' Test is applied.

Null Hypothesis:

H_0: The individual savers are indifferent about indirect return of a saving instrument, i.e., $H_0p = 0.5$.

Alternate Hypothesis:

H_a: The individual savers consider indirect return while calculating return of a saving instrument, i.e., $H_ap > 0.5$.

Yes = 265 No = 110 N = 375

The calculated value of 'z' is 8.01.

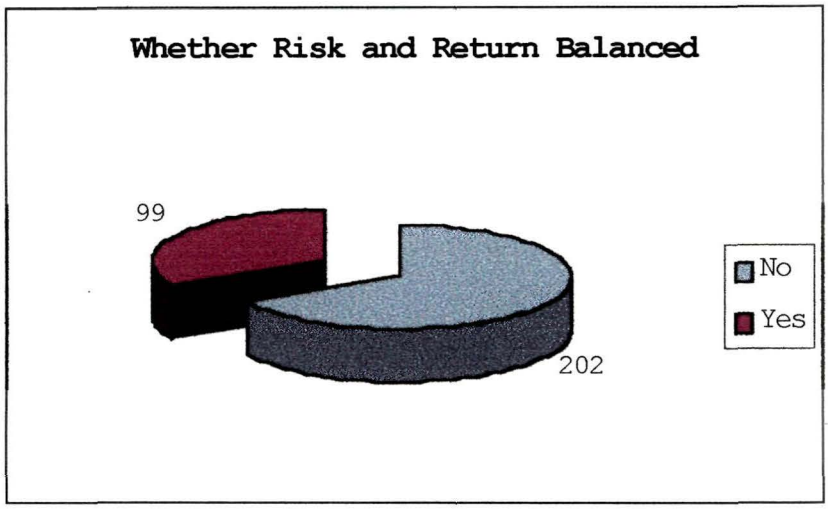
The tabulated value of 'z' at 2.5% level of significance (one tail) is 1.96.

Since the calculated value is larger than the tabulated value, the Null Hypothesis is rejected. This means that the individual savers consider indirect return while calculating return of a particular saving instrument.

The third point was regarding whether the individual savers try to strike a balance between

risk and return while selecting the portfolio of saving. Out of the 301 responses received, 202 (67.11%) were negative and 99 (32.89%) were positive.

Diagram 5.3



To test the applicability of this finding to the whole population, the 'z' test is applied.

Null Hypothesis:

H_0: The individual savers are indifferent about balancing risk and return while selecting a saving portfolio;
i.e., $H_0p = 0.5$.

Alternate Hypothesis:

H_a: The individual savers do not try to strike a balance between risk and return while selecting a saving portfolio, i.e., $H_ap > 0.5$.

No = 202 Yes = 99 N = 301

The calculated value of 'z' is 5.94.

The tabulated value of 'z' at 2.5% significance level (one tail) is 1.96.

Since the calculated value is larger than the tabulated value, the Null Hypothesis is rejected. **This means that the individual savers do not try to strike a balance between risk and return while selecting their saving portfolio.**

The above analysis shows that though the individual savers consider indirect return while selecting a saving instrument, they are indifferent about a pre-set rate of return and do not try to strike a balance between risk and return while selecting a saving portfolio. So, the central hypothesis that just as a Financial Institution tries to minimize risk and maximize return by skilful management of assets, a member of the household sector also distributes savings over different assets by following the same principle can be rejected. **This means that a member of the household sector do not follow the principles of Portfolio Management while deciding on the saving portfolio.**

CHAPTER SIX

POPULARITY OF DIFFERENT FINANCIAL INSTRUMENTS

CHAPTER SIX: POPULARITY OF DIFFERENT FINANCIAL INSTRUMENTS

The objective of this chapter is to describe the overall popularity of the different financial instruments and at the same time also to describe the segmental variation in the popularity of the financial instruments. It is obvious that all the financial instruments are not equally popular among the savers of the household sector. Because of the difference in the attributes present in different financial instruments, the popularity of the instruments varies. Moreover, different segments of the population have different motives for saving. Because of this, the need for the presence of different types of attributes is necessary to attract savers from different segments. Hence, the popularity of the saving instruments varies in different segments of the population.

The saving instruments that have been included for the purpose of analysis are:

1) Cash
2) Jewellery
3) Savings Bank Deposit (Bank)
4) Fixed Deposit (Bank and NBFI)
5) Recurring Deposit (Bank and NBFI)
6) National Savings Certificate (NSC)
7) Indira Vikash Patra (IVP)

8) Kishan Vikash Patra (KVP)
9) LIC (Endowment)
10) LIC (Money Back)
11) LIC (Children Policy)
12) LIC (Pension Policy)
13) Provident Fund (PF)
14) Public Provident Fund (PPF)
15) Postal Life Insurance (PLI)
16) Bonds
17) Shares
18) Mutual Fund Schemes
19) Real Estate

The population has been divided into five different segments on the basis of the occupation, viz., Business Executives, Officials and Employees, Self-employed, Service holders and Teachers. A difference has been brought in between 'Officials & Employees' and 'Service-holders' in the level of job. Third and fourth grade government employees and similar positions in the private organizations have been included in the segment 'Service holders'. Higher level officers have been included in the segment 'Officials & Employees'. The basic idea is that the need for different attributes will vary on the basis of what profession the saver belongs to. This happens because of the difference of the nature of income in different occupations.

Table 6.1: Distribution of Sample over Different Segments

Occupation	Frequency	Percent
B E	46	10.2
O&E	76	16.9
Professional	60	13.3
SE	105	23.3
Service	91	20.2
Teaching	73	16.2

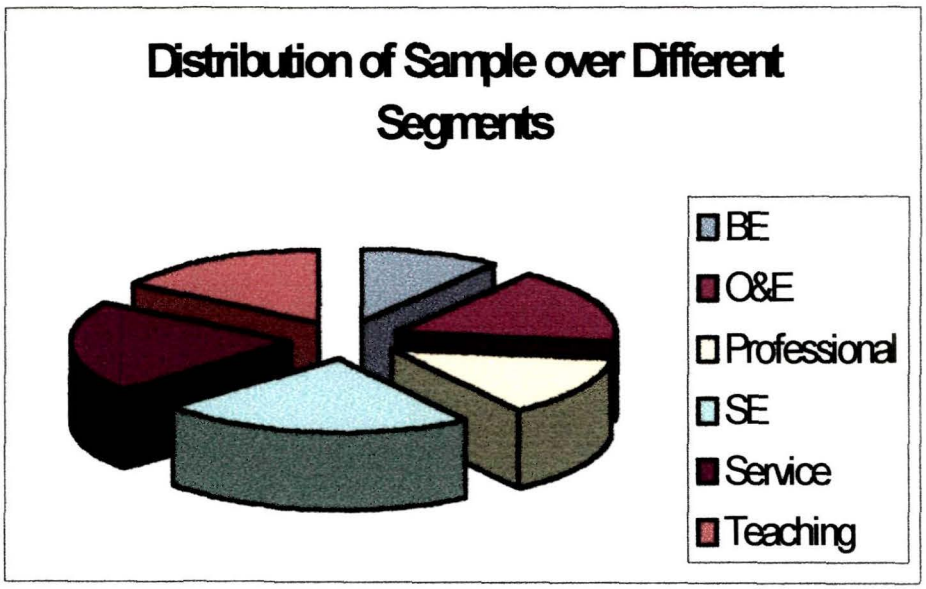


Diagram 6.1

In the beginning, it is to be known what is the motive behind saving. Some major motives have been identified and the individual savers have been asked to assign priority to these. The different motives presented before the savers were:

1) to save tax
2) to spend on expensive consumer durable/religious or social functions
3) to provide for unforeseen events
4) to provide for children's education
5) to provide for old age
6) for the pleasure of saving

It is evident from the analysis that the concern for keeping provision for unforeseen events is the topmost priority in the minds of the savers from the household sector, followed by concern for saving tax. It can be seen in Table 6.2 that 39.7 percent of the respondents assigned priority 1 to the motive 'To Provide for Unforeseen Events and 31.7 percent to 'To Save Tax'.

Table 6.2: Motive for saving; Priority 1

	Motive	Frequency	Percent
Missing		2	0.4
	To save tax	143	31.7
	To spend on expensive consumer durable/social or religious function	10	2.2
	To provide for unforeseen events	179	39.7
	To provide for children's education	35	7.8
	To provide for old age	74	16.4
	For the pleasure of saving	8	1.8
	Total	451	100.0

In second priority also, as can be seen in Table 6.3, 28.8 percent of the respondents have responded as the motive 'To Provide for Unforeseen Events'. It is followed by 'To Provide for Children's Education' (24.2%) and 'To Provide for Old Age' (12.9%).

An interesting point to be noted in Table 6.3 is that the percentage of respondents abstaining from assigning the second priority is very high (22.6%). This implies that most of the savers do not have a second priority for saving. The reason for saving for these savers is one and fixed.

Table 6.3: Motive for saving; Priority 2

	Motive	Frequency	Percent
	To save tax	33	7.3
	To spend on expensive consumer durable/social or religious function	16	3.5
	To provide for unforeseen events	130	28.8
	To provide for children's education	109	24.2
	To provide for old age	58	12.9
	For the pleasure of saving	3	0.7
	Total	349	77.4
Missing		102	22.6
Total		451	100.0

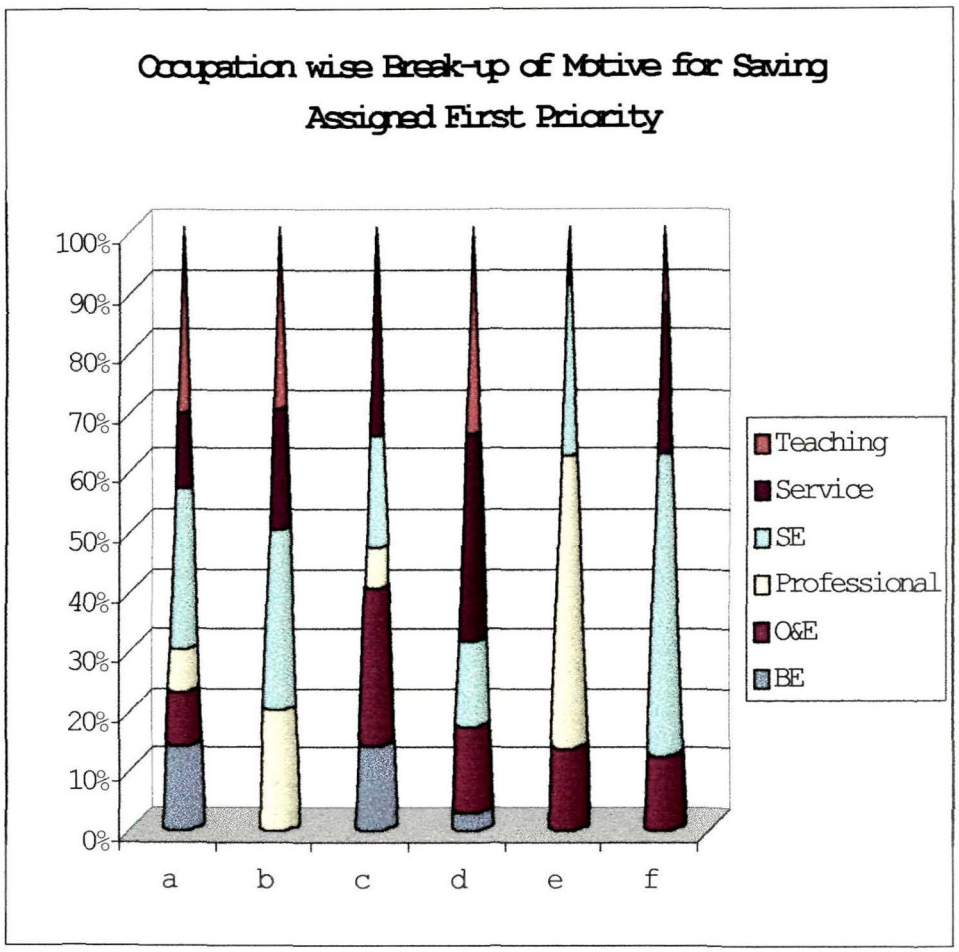
It is evident from the above that the savers from the household sector mainly save with the motive for providing for unforeseen events. This motive

is followed by the intention to save tax and to provide for old age and children's education.

The motive for saving is found to vary with occupation. If an occupation wise break-up of the motive for saving that has been assigned the first priority by the respondents is done, it is found that the mentioned variation is very evident (Table 6.4). The motive to save for saving tax is the highest among the teachers and self-employeds. To provide for unforeseen events is the highest among service holders and officials and employees. On the other hand, to provide for old age is the main priority to save among professionals.

Table 6.4: Occupation wise Break-up of Motive for Saving Assigned First Priority

	MOTIVE FOR SAVING; PRIORITY 1					
	To save tax	To spend on expensive consumer durable/ social or religious function	To provide for unforeseen events	To provide for children's education	To provide for old age	For the pleasure of saving
BE	20		25	1		
O&E	13		47	5	10	1
Profess -ional	10	2	12		36	
SE	38	3	33	5	21	4
Teacher s	44	3	11	12	2	1
Service - holders	18	2	51	12	5	2



a - to save tax; b - to spend on expensive consumer durable/religious social function; c - to provide for unforeseen events; d - to provide for children's education; e - to provide for old age; f - for the pleasure of saving

Diagram 6.2

The occupation-wise break-up of priority for saving shows that teachers give maximum importance on saving tax, followed by motive to provide for children's education, which is again followed by saving for unforeseen events. Teachers do not give much importance on saving for old age and to spend on expensive consumer

durable/social or religious functions. This is evident from diagram 6.3.

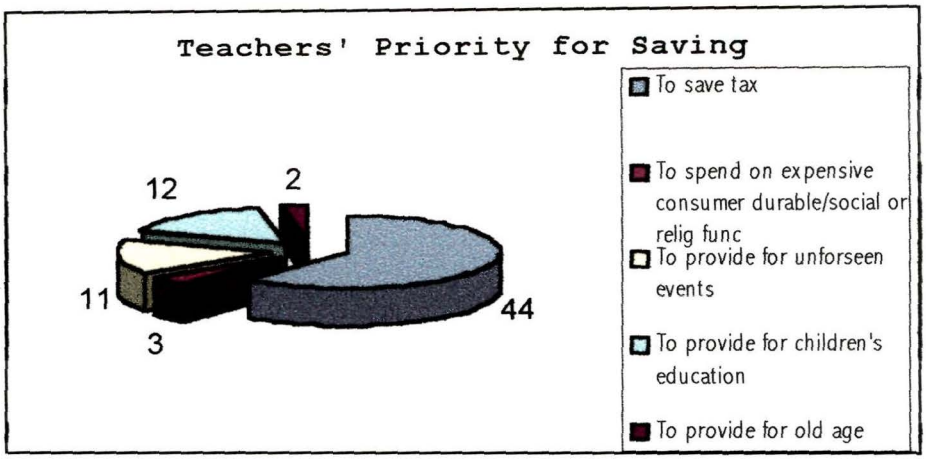


Diagram 6.3

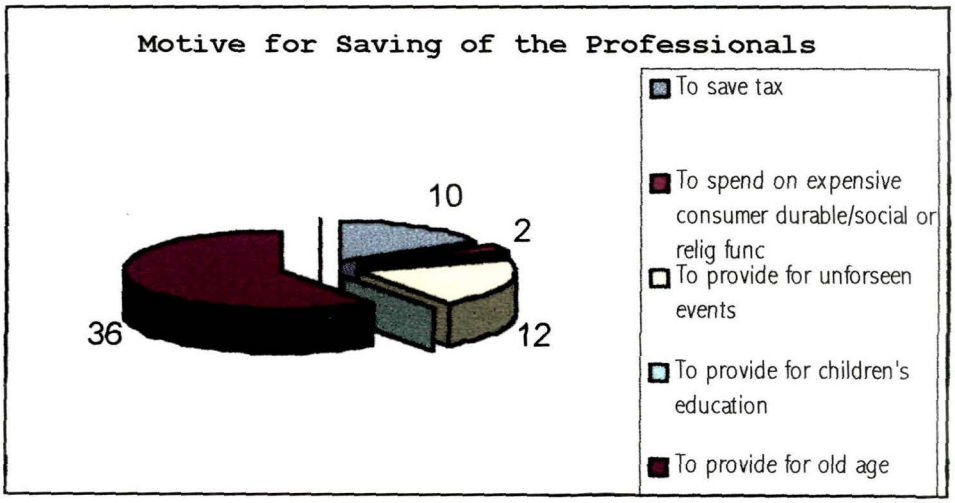


Diagram 6.4

For the professionals, providing for old age 1is the major motive for saving, which is followed by motive to provide for children's education and to save tax. This is shown in diagram 6.4.

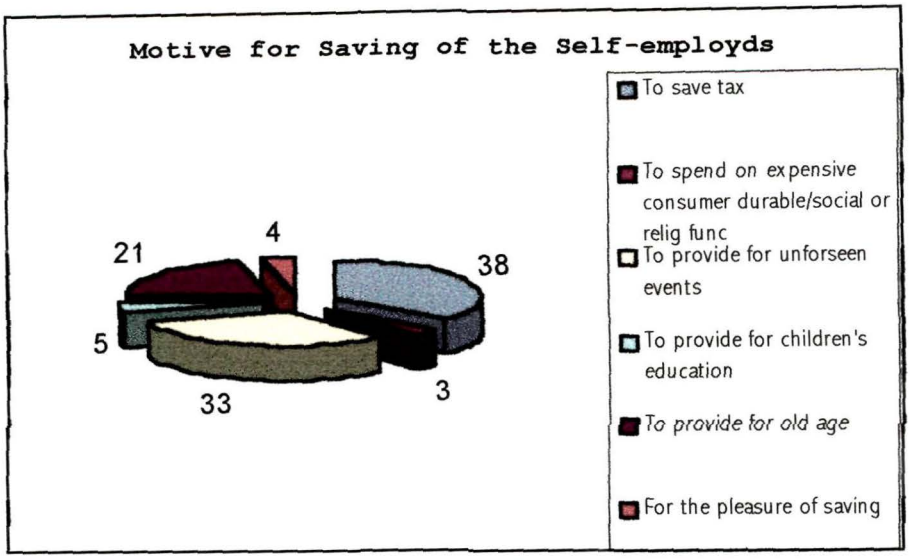


Diagram 6.5

To save tax and to provide for unforeseen events have almost equal importance for the self-employeds. This is followed by the motive to provide for old age. To provide for children's education, pleasure of saving and to spend on expensive consumer durable/social or religious function`, have no importance for this segment of the respondents. The results are shown in diagram 6.5.

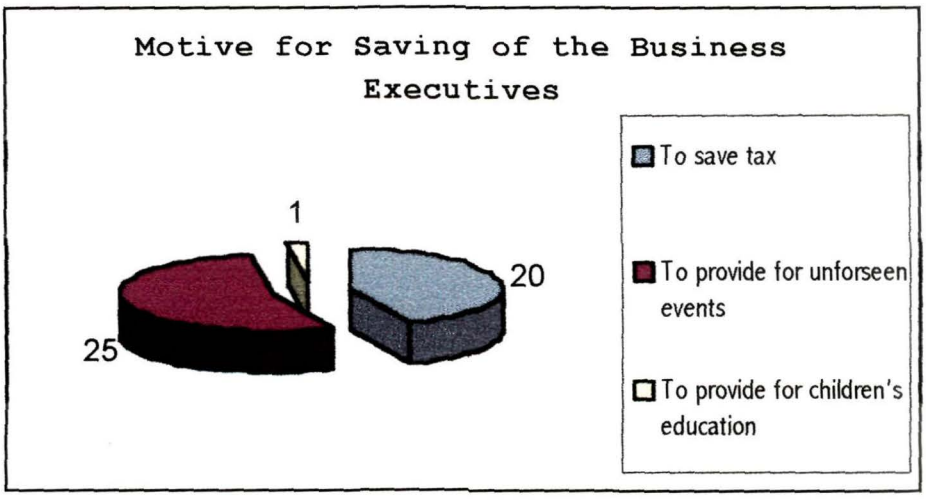


Diagram 6.6

The business executives are very focussed about their motive for saving. Out of 46 respondents from this segment, 25 assigned first priority to provide for unforeseen events and 20 to save tax. The uncertainty in the corporate world is the reason behind almost 55% of the respondents assigning first priority to provide for unforeseen events. (Diagram 6.6).

In the case of the Officials and Employees, again, to provide for unforeseen events is the major motive for saving. This is followed by the motive to save tax and to provide for old age. (Diagram 6.7)

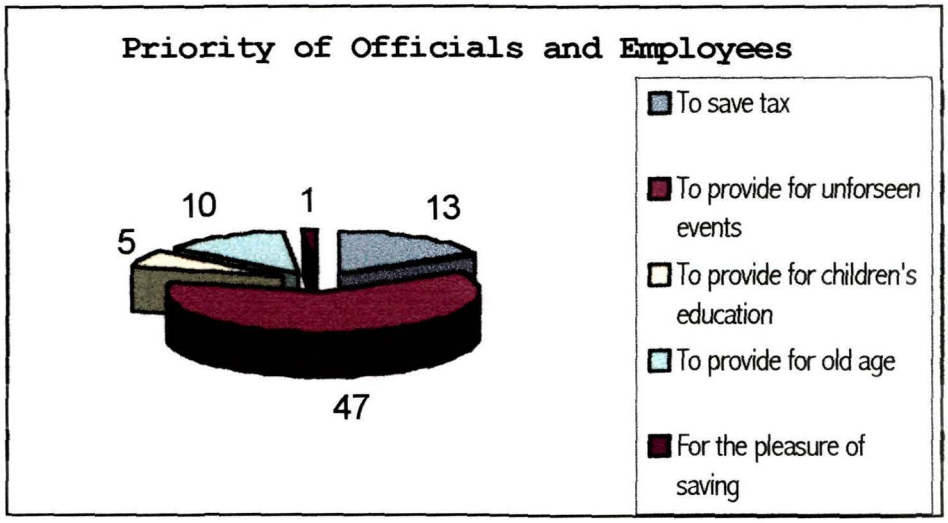


Diagram 6.7

The Service-holders' major priority for saving is to provide for unforeseen events. This is followed by the motives to save tax and to provide for children's education. These two motives have equal importance for the service-holders. To provide for old age also has some

relevance in the motive for saving in case of this segment of population. Diagram 6.8

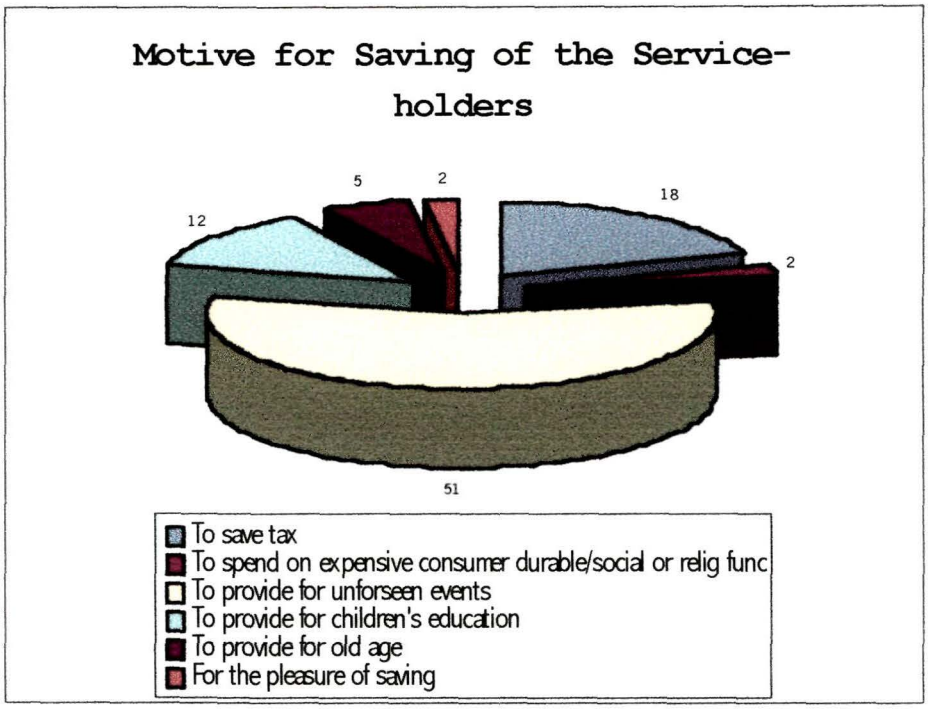


Diagram 6.8

While analyzing the relationship between age and savings and individual income and savings, it is found that there is significant correlation in both the relationships. The Pearson Correlation coefficient between age and savings is 0.360. Correlation between income and savings is 0.597.

To ascertain that these relationships have not resulted by chance, the 't' test was applied.

Test for relationship between age and savings:

Null Hypothesis H_0: There is no relationship between age and savings, i.e., 'r' = 0

The calculated value of 't' for 'r' = 0.360 and N = 451 is 8.1765.

The table value of 't' at 95% confidence levels (two tailed) with degree of freedom assumed to be infinity is 1.645.

Since the calculated value of 't' is larger than the tabulated value, the Null Hypothesis is rejected.

Hence, we can conclude that there is a relationship between age and savings.

Test for relationship between income and savings:

Null Hypothesis H_0: There is no relationship between income and savings, i.e., 'r' = 0.

The calculated value of 't' for 'r' = 0.597 and N = 451 is 19.656.

The table value of 't' at 95% confidence levels (two tailed) with degree of freedom assumed to be infinity is 1.645.

Since the calculated value of 't' is larger than the tabulated value, the Null Hypothesis is rejected.

Hence, we can conclude that there is a relationship between income and savings.

Next, an attempt has been made to have a look at the awareness level of the savers regarding different saving instruments available in the market. This is because the awareness level will effect to a great extent the popularity of the saving instruments. If a saver is not aware about a saving instrument, he/she cannot gauge the attractiveness of the instrument.

Table 6.5: Awareness Level of Different Saving Instruments

Instrument	Frequency	Percentage
Cash	15	3.3
Jewellery	13	2.9
Savings Bank Deposit	294	65.2
Fixed Deposit	326	72.3
Recurring Deposit	300	66.5
NSC	305	67.6
IVP	186	41.2
KVP	205	45.5
LIC (Endowment)	364	80.7
LIC (Money Back)	369	81.8
LIC (Children Policy)	366	81.2
LIC (Pension Policy)	351	77.8
PF	197	43.7
PPF	177	39.2
PLI	139	30.8
Bonds	157	34.8
Shares	179	39.7

Table 6.5 reveals that the awareness level is the highest in case of LIC policies. This phenomenon can be attributed to the aggressive selling technique adopted by the Life Insurance Corporation of India through its vast level of agents throughout the country. Among the LIC Policies, Pension Policy has the lowest level of

awareness. This is because the commission received by the LIC agents from this Policy is the minimum. Rest of the instruments, barring cash and jewellery, has almost same level of awareness.

Apart from the saving instruments listed in Table 6.5, 296 (65.6%) respondents mentioned their awareness regarding some other saving instruments, which are listed in Table 6.6. Analyzing this table, it is found that Unit Trust of India has a very high level of awareness among the respondents. Out of the 296 respondents, 96 respondents (21.3%) were aware of Unit Trust of India. It is followed by awareness regarding Mutual Fund Schemes. 40 (8.9%) respondents were aware of Mutual Fund Schemes.

Table 6.6: Awareness Level of Saving Instruments Other than Mentioned in Table 6.5

	Instrument	Frequency	Percent
Valid		296	65.6
	Mutual Fund	40	8.9
	Peerless	11	2.4
	Real estate	5	1.1
	Term Deposit	3	0.7
	Unit Trust of India	96	21.3
	Total	451	100.0

It can be inferred from the above that the awareness level regarding LIC Policies is the highest, and the rest of the instruments have

more or less equal awareness level among the savers from the household sector.

To find out the popularity of the different instruments, first, it was analyzed on the basis of the level of acceptance of the different instruments by the savers. To find this out, the number of respondents possessing the different saving instruments has been enlisted. It has been found, as can be seen in Table 6.7, that Savings Bank Deposit is the most widely accepted form of savings in the household sector. This is because the liquidity is the highest in this form of savings. It is as good as cash without the threat of loss and burglary. But the present study puts little emphasis on this category of saving (Savings Bank Deposit, including two other categories, viz., Cash and Jewellery). It is because these three categories of saving instruments hardly contribute anything to capital formation. Among the others, NSC is the most popular saving instrument in the household sector. LIC (Money back) Policies and Provident Fund follow it. The case of Provident Fund can be understood, as it is compulsory form of saving for the salaried class of the population.

To simplify the analysis, all the saving instruments are divided into two divisions - one of those that do not possess risk including "cash" through "Postal Life Insurance", and the other of those that possess risk that includes all other saving instruments in the list (such as

Bonds, Shares, and Mutual Fund Schemes including UTI). It is seen that among these risky instruments, bond is the most popular one. The shares offered by the business organizations can attract the savers of the household sector more than Mutual Fund Schemes and UTI.

Table 6.7: Respondents Possessing Different Saving Instruments

Instrument	Frequency	Percentage
(a) Cash	79	17.5
(b) Jewellery	39	8.6
(c) Savings Bank Deposit	345	76.5
(d) Fixed Deposit	262	58.1
(e) Recurring Deposit	260	57.6
(f) NSC	330	73.2
(g) IVP	92	20.4
(h) KVP	78	17.3
(i) LIC (Endowment)	204	45.2
(j) LIC (Money Back)	303	67.2
(k) LIC (Children Policy)	115	25.5
(l) LIC (Pension Policy)	73	16.2
(m) PF	214	47.5
(n) PPF	70	15.5
(o) PLI	39	8.6
(p) Bonds	114	25.3
(q) Shares	75	16.6
(r) Mutual Fund Schemes	34	7.5
(s) UTI	55	12.2

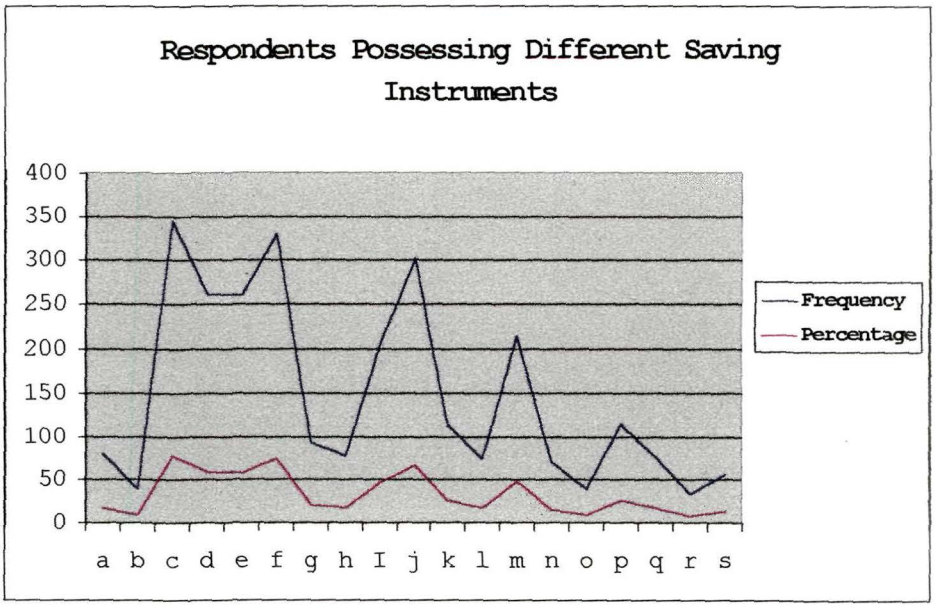


Diagram 6.9

The next step in the analysis is obviously to find out the reason for the popularity of the different saving instruments. As NSC is the most popular instrument, first it is tried to find out the reason behind the popularity of this saving instrument.

Table 6.8: Reasons for Buying NSC

Attribute	No. of respondents
High Return	19
Low Risk	74
Tax Rebate	266
Mortgagibility	34
Liquidity	5
Security	45

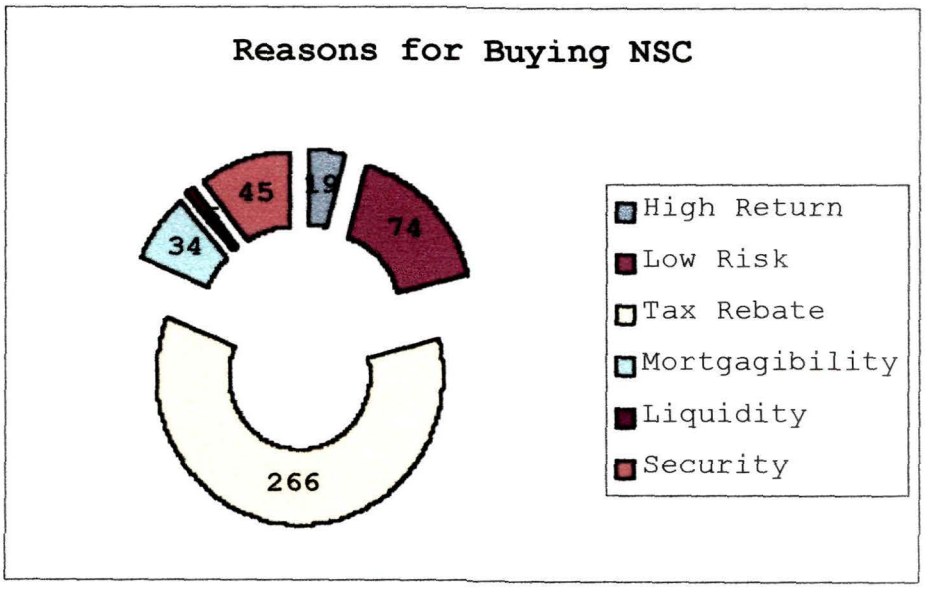


Diagram 6.10

It is evident from Table 6.8 that the tax exemption nature of this saving instrument is the main attraction to the savers from the household

sector. It is to be mentioned here that a few other saving instruments too have this characteristic. But what makes NSC more popular compared to the others is that a saver is eligible for tax exemption on this saving instrument for the life of the instrument on the interest received from it. Low risk and feeling of security the instrument provides to the holders follow this attribute. These two attributes are interrelated. Because the instrument is supposed to have no risk, and the instrument is registered in the name of the holder which reduces the risk of losing, it gives the feeling of security to the holders. That the Banks accept this instrument as mortgage and instant loan is provided up to a limit of 75% of the value of the instrument, is another reason for the popularity of this instrument. This nature of the instrument increases its liquidity. **Hence the perception of the savers regarding NSC is that it helps in reducing the amount of income tax to be paid, risk is low and secured.**

Regarding the second most popular instrument, LIC Policies as a whole, without going into the classification of the policies, it is seen that LIC is preferred by the respondents because of the feeling of security it provides to them. The attribute of covering risk of death is a major incentive for the savers to select this instrument. Another major reason for selecting LIC is income tax exemption, followed by the perception that LIC does not possess risk.

Table 6.9: Reasons for Choosing LIC

Attribute	Number of Respondents
High Return	22
Low Risk	153
Tax Rebate	232
Mortgagibility	36
Liquidity	3
Security	238

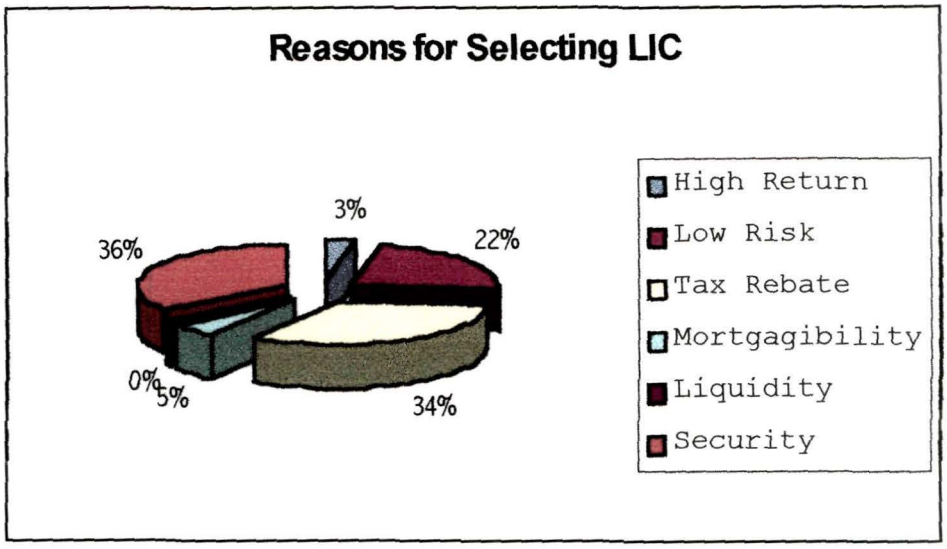


Diagram 6.11

Very few savers perceive the return from and liquidity of LIC Policies to be high. So, the reason for selecting LIC as a saving instrument is mainly for financial security of the family in the case of unforeseen situations, to save income tax, and because of the perception that LIC does not possess risk.

Among the different types of policies offered by LICI, Money-back Policies are the most popular, followed by Endowment Policies, Children Policies and Pension Policies in that order. Though the

Pension Policy fits in to the needs of the savers, the lack of popularity is because of the lack of push provided by the agents regarding this Policy.

Table 6.10: Reasons for Selecting Different Types of LIC Policies

	Number of Responses for:			
Attributes/ Instruments	Money-back	Endowment	C. Policy	P. Policy
High Return	7	7	15	0
Low Risk	87	55	51	47
Tax Rebate	171	95	75	62
Mortgagibility	39	32	4	0
Liquidity	0	3	0	0
Security	157	111	75	52

An analysis of the reasons for selecting different types of LIC Policies reveals that the trend is almost same for all the types of LIC Policies. There is a slight variation in the case of the Pension Policy in the manner that maximum number of respondents has cited the reason for selecting this Policy because of the income tax exemption. This is because of the fact that tax exemption is higher regarding this policy compared to the others.

The main reason for the Provident Fund coming in the third position of the popularity list of different saving instruments is that it is a compulsory form of saving for the salaried class

of the savers. Apart from that, The major reason is financial security after retirement. The income tax exemption and lack of risk follow it.

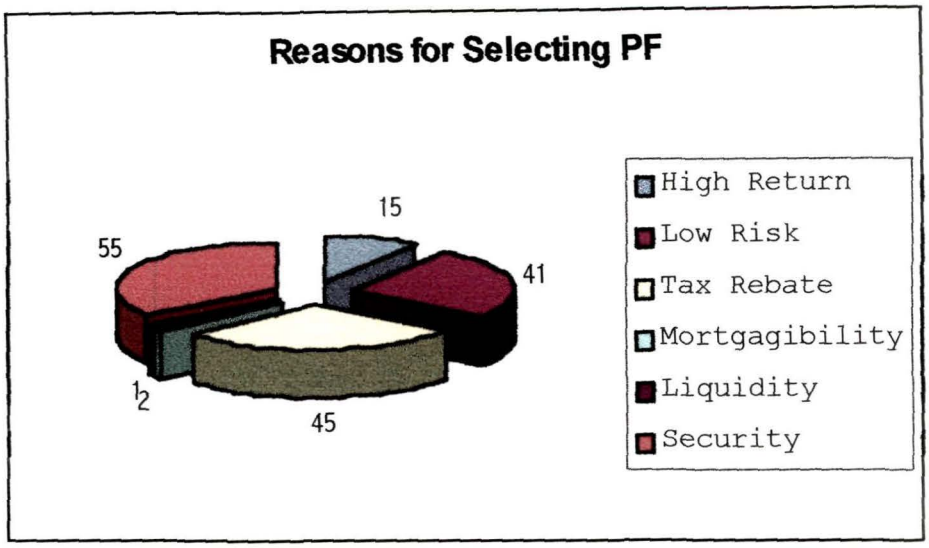


Diagram 6.12

The return from Indira Vikash Patra (IVP) is more compared to that of National Saving Certificate (NSC). Both are government bonds. Even though, the popularity of IVP is much lower than that of NSC. To know the reason for this, a comparative analysis of the attributes of these two instruments has been done. As is evident from the diagram 6.13, IVP is perceived to be better compared to NSC with respect to only one attribute (return), that too marginally. With respect to most of the attributes, NSC is perceived to be better than IVP.

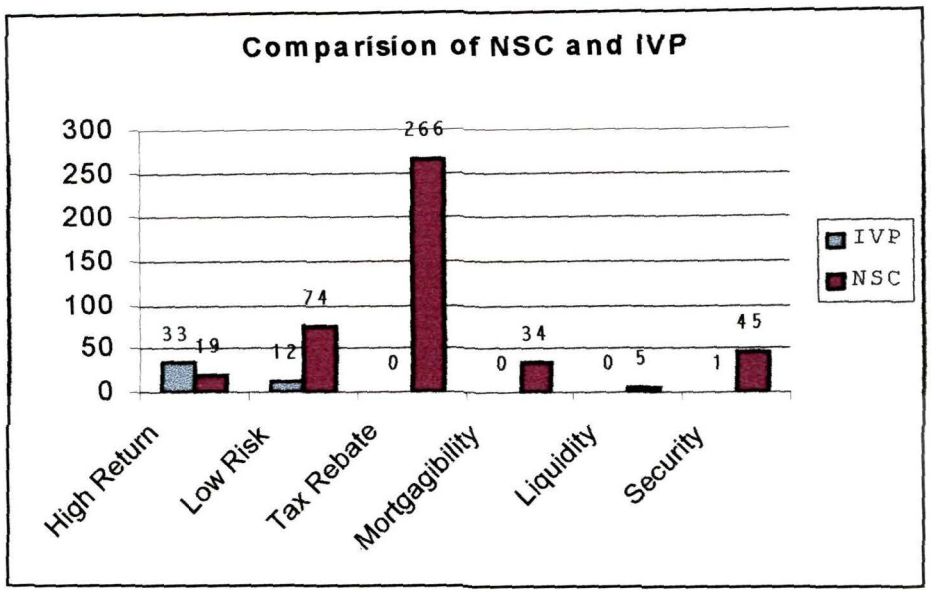


Diagram 6.13

It has already been mentioned that among the instruments possessing risk, bond is the most popular. While analyzing the reason for the popularity of bond, it has been found that majority of the savers, i.e., 84 (73.68%) out of 114 respondents possessing bond have cited the reason to be the high return.

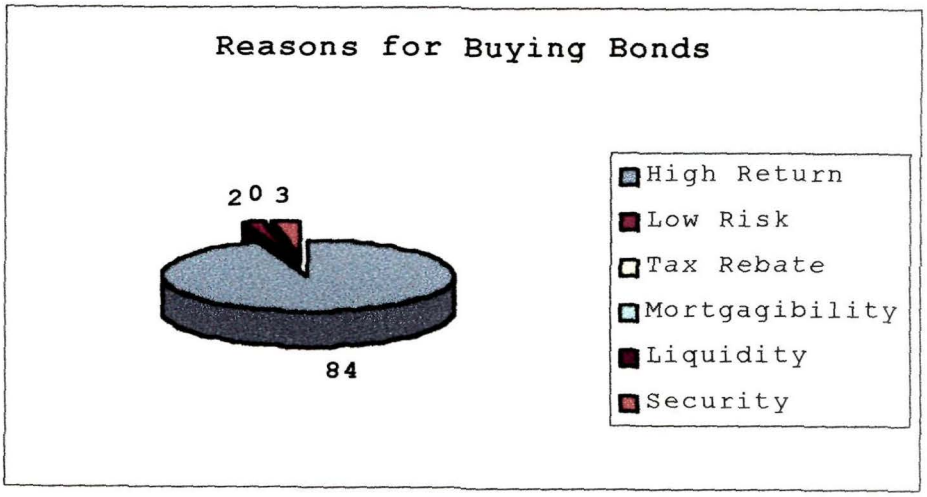


Diagram 6.14

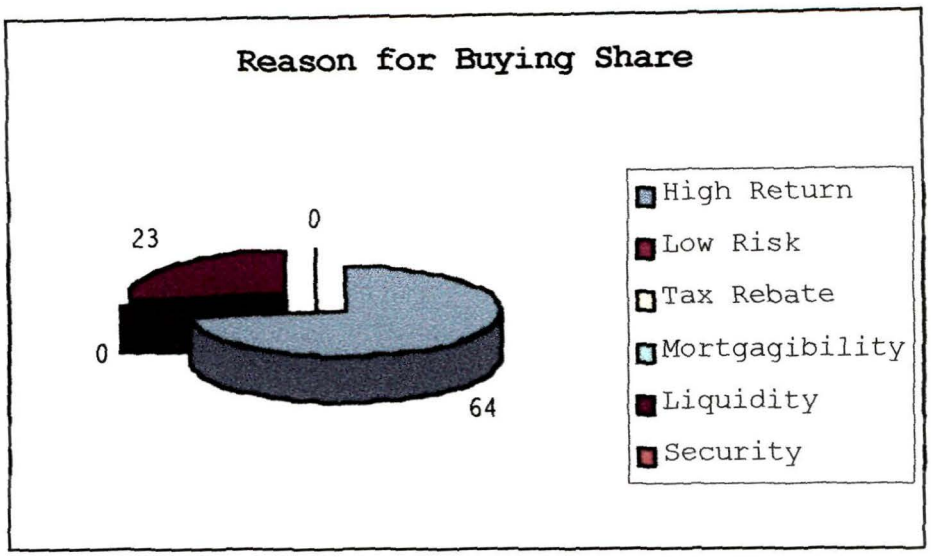


Diagram 6.15.

Respondents possessing shares have also cited the reason for buying shares to be high return. Another attribute that makes shares attractive is that it is liquid. In case of emergency, shares can be sold for cash.

Both bonds and shares are perceived to fetch high return. In fact, depending on the market situation, return from shares may be higher than that from bonds. Even though the popularity of bonds is higher than shares. The reason for this is that shares are perceived by the savers to possess risk of market fluctuation. Out of the 75 shareowners, 62 (82.67%) responded that shares have the risk of the market fluctuating. Moreover, 40 (53.33%) of the shareowners take professional help for choosing the form of saving. This establishes the fact that people not only like return, they dislike risk.

An analysis has been made regarding individual savers' awareness of the return and risk associated with each and every saving instrument. Regarding return, it has been seen that savers are well aware of the nature of return associated with the saving instruments. Different types of monetary, non-monetary, and indirect return provided incentives to the savers to select a particular saving instrument.

Regarding risk, the awareness level is low compared to that of return. 207 (47.9%) respondents have admitted their awareness regarding risk involved in all types of saving instruments. But, when asked specifically the nature of risk involved in the saving instruments included in their portfolio, only 199 (44.1%) responded in positive.

The types of risks that have been presented to the respondents to identify which risk is associated to which saving instrument, were:

a) Interest rate risk (IRR)
b) Market fluctuation risk (MFR)
c) Difficult to calculate yield to maturity (DCYTM)
d) Default risk (DR)
e) Change in government policy (GP)

Though NSC is the most popular instrument among the household savers, 96 (21.3%) respondents perceive that it has Interest Rate Risk and 36

(8%) respondents perceive that it has the risk of change in government policies. But indirect monetary return in the form of tax exemption offsets the risk perceived.

Even in the case of LIC, 157 (34.81%) respondents perceived IRR. Here the non-monetary return of the feeling of financial security offsets the risk perceived.

So far the popularity of different saving instruments, types of return and risk involved with them have been analyzed regarding the whole population. In the next section, the segment wise popularity of the different instruments and reasons for popularity will be analyzed.

Table 6.11: Segment-wise Popularity of Different Saving Instruments

Inst\Segment	BE	O&E	Professional	SE	SH	Teacher	Total
NSC	44	56	53	61	67	49	33
IVP	22	5	6	31	18	11	93
KVP	0	9	10	41	12	6	78
LIC (End)	17	30	13	40	69	35	204
LIC (MB)	45	41	51	68	59	39	303
LIC (CP)	10	15	43	10	16	21	115
LIC (PP)	10	12	37	4	4	6	73
PF	39	45	7	14	65	44	175
PPF	5	6	6	3	30	20	65
PLI	4	5	4	12	11	3	35
Bonds	26	5	39	25	12	7	88
Share	21	5	10	25	8	6	54
MF	14	5	8	6	0	1	20
UTI	19	6	11	6	4	9	55
Peerless	0	0	0	1	1	0	2

It is evident from Table 6.11 that NSC and LIC (Money-back) have almost equal popularity among all the segments of population. The rest of the

instruments have different levels of popularity among different segments of the population.

Analyzing the business executives, it is seen that LIC (Money-back) is the most popular instrument among this segment. Closely following is the NSC. So, the most popular instruments are the LIC (Money-back) and the NSC. Provident fund comes third with 39 (84%) respondents responding in favour of it. Bonds are also popular among the business executives with 26 (56.52%) respondents responding in favour of it. IVP and share too can attract this segment of the population.

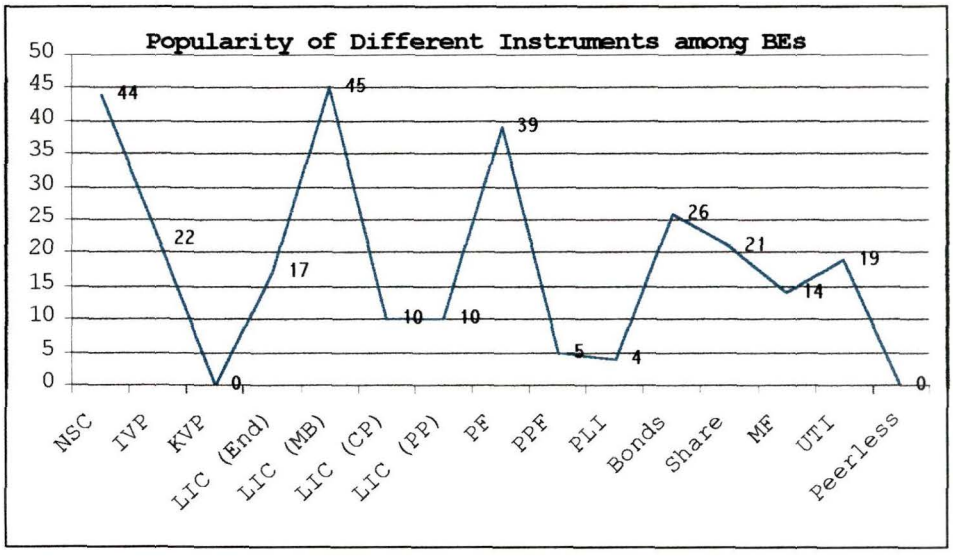


Diagram 6.16

The business executives prefer LIC (Money-back) because of two reasons. 80.4 percent (37 respondents) of the respondents have selected it for the tax exemption and 78.26 (36 respondents) have selected it for the financial security it provides. The reason for the popularity of NSC is

very clear. 93.5 percent (43 respondents) of the respondents from this segment have cited the reason of tax exemption for the selection of NSC for holding their saving. Provident fund was the third in the popularity list of the business executives. For this saving instrument, the reason for selection by the business executives is equally distributed. 43.5 percent (20 respondents) of the respondents gave the reason for selection of PF for holding their saving as low risk, tax rebate and financial security. Bond, another popular saving instrument among the business executives, is selected because of its high return (54.3%). It is the case with shares too. 45.7 percent (21 respondents) of the respondents responded as selecting it for high return.

Hence the major incentives for choosing any saving instrument by the business executives are:

a) High return,
b) Tax exemption, and
c) Financial security.

The popular instruments among the officials and employees are NSC, Provident fund, LIC (Money-back), and LIC (Endowment) in that order. 73.68 percent of the respondents prefer NSC, 59.21, Provident fund, 53.95, LIC (Money-back), and 39.47, LIC (Endowment).

Responses for the preference for the different instruments among the officials and employees are very few. It can only inferred that NSC is selected for tax exemption by 40.8 percent (31 respondents) of the respondents. 21.1 percent (16 respondents) of the respondents because of tax exemption and 13.2 percent (10 respondents) of the respondents because of mortgagibility prefer LIC (Money-back).

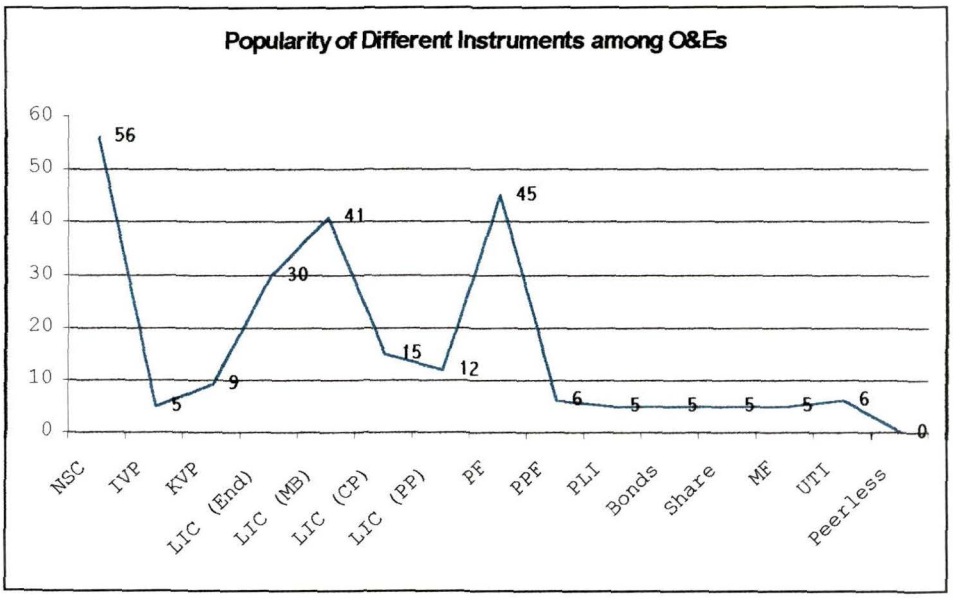


Diagram 6.17

So, the major incentives for choosing any saving instrument by the officials and employees are:

a) Tax exemption, and
b) Mortgagibility.

Among the professionals again NSC is the most popular instrument for holding one's saving. 88.33% (53 respondents) of the sample possess this instrument. It is followed by LIC (Money-

back), which is possessed by 85% (51 respondents) of the respondents from this segment. LIC (Endowment) is also popular among this segment as 71.67% (43 respondents) of the respondents from this segment possess this instrument. Bond is another instrument that is popular among this segment. This instrument is possessed by 65% (39 respondents) of the respondents. 61.67% (37 respondents) of the respondents possess LIC (Pension Policy).

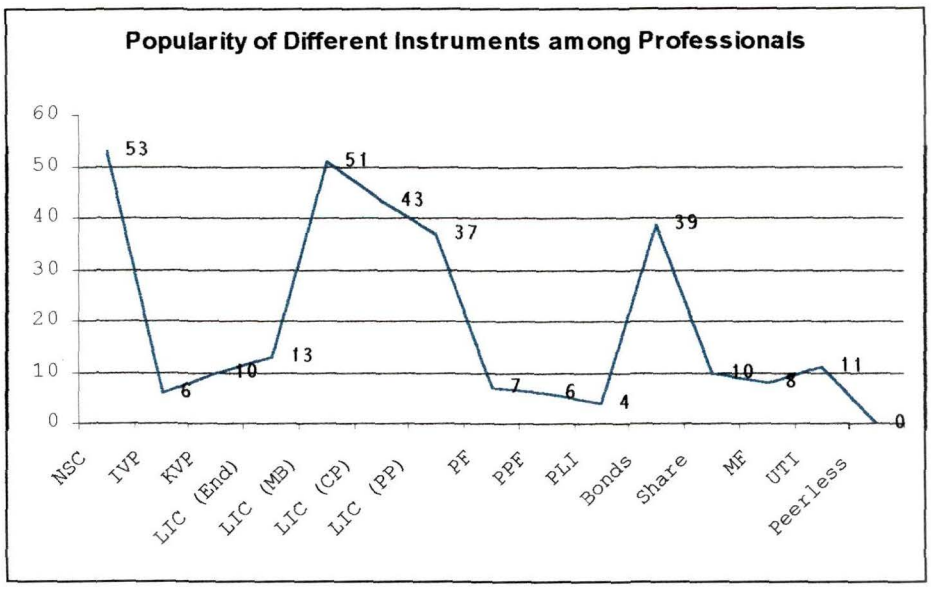


Diagram 6.18

The professionals choose NSC, the most popular instrument among this segment, because of low risk and tax rebate. 47 (78.3%) respondents have cited tax rebate and 36 (60%) respondents, low risk as the reason for buying NSC. LIC (Money-back) is preferred by the professionals because of tax rebate, financial security and low risk in that order. 39 (65%) respondents choose it because of tax rebate, 37 (61.7%), because of

financial security, and 36 (60%) respondents, because of low risk.

So, the major incentives for the professionals for choosing any saving instrument are:

a) Low risk,
b) Tax exemption, and
c) Feeling of financial security.

For the self-employeds, the most popular instrument is the LIC (Money-back). 68 (64.76%) respondents possess this instrument. NSC, LIC (Endowment), IVP, Shares, and bonds follow it. 61 (58.1%) respondents possess NSC, LIC (Endowment) by 40 (38.1%) respondents, IVP by 31 (29.52%) respondents, and shares and bonds by 25 (23.81%) respondents each.

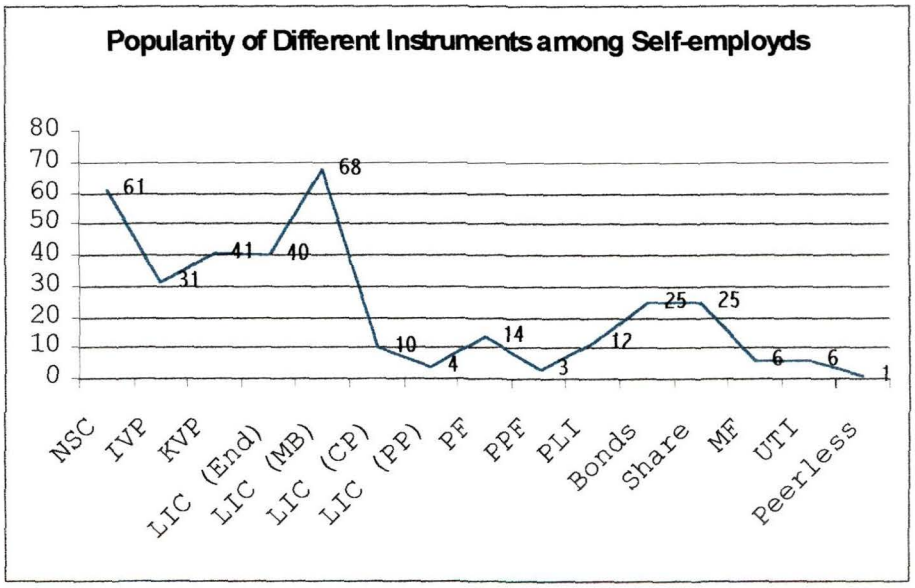


Diagram 6.19

It is inferred from the analysis that the self-employeds prefer LIC (Money-back) mainly for the feeling of security it provides. 33.3% (35 respondents) of the respondents have cited this reason for selecting this particular instrument. NSC is selected mainly for tax rebate. 45.7% (48 respondents) have selected NSC for this reason. Another reason for selecting NSC is low risk associated with this instrument. 24.8% (26 respondents) of the respondents have selected this instrument for this reason. One reason that is cited by 14.3% (15 respondents) of the respondents for selecting NSC is mortgagibility. These respondents have cited the advantage of NSC that, apart from availing tax exemption, the instrument can also be used to increase the overdraft limit in the banks. This seems to be a major incentive for the self-employeds.

So, the major incentives for the self-employeds for choosing any saving instrument are:

d) Tax exemption,
e) Feeling of financial security,
f) High return, and
g) Mortgagibility.

For the service-holders LIC (Endowment) is the most popular instrument. 75.82% (69 respondents) of the respondents possess it. NSC, PF, and LIC (Money-back) follow it. 73.63% (67 respondents) of the respondents possess NSC, 71.43% (65 respondents) of the respondents, PF, and 64.84%

(59 respondents) of the respondents possess LIC (Money-back). It is also to be noted that 32.97% (30 respondents) possess PPF.

It is found that 47.3% (43 respondents) of the respondents have selected LIC (Endowment) because of tax exemption. The non-monetary return in the form of feeling of security it provides is another reason for selecting this instrument. 30.8% (28 respondents) of the respondents have endorsed to this. The service-holders buy NSC mainly because of tax exemption. 54.9% (50 respondents) of the respondents have cited this reason for buying NSC. 42.9% (39 respondents) of the respondents have given the reason for selecting LIC (Money-back).

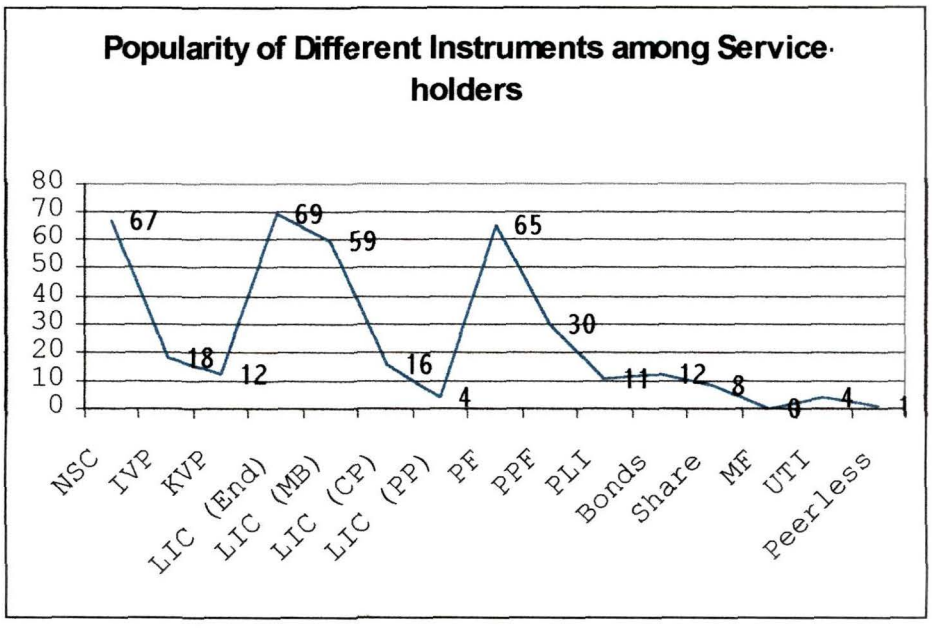


Diagram 6.20

Hence, the major incentive for the service-holders to choose any saving instrument is tax exemption.

The saving instrument that is possessed by the highest percentage of the teachers surveyed, is NSC. 67.12% (49 respondents) of the respondents possess it. The next popular instrument is the PF. 60.27% (44 respondents) of the respondents possess PF. LIC (Money-back) is possessed by 53.42% (39 respondents) of the respondents. LIC (Endowment) is yet another popular instrument among the teachers, which is possessed by 47.95% (35 respondents) of the respondents.

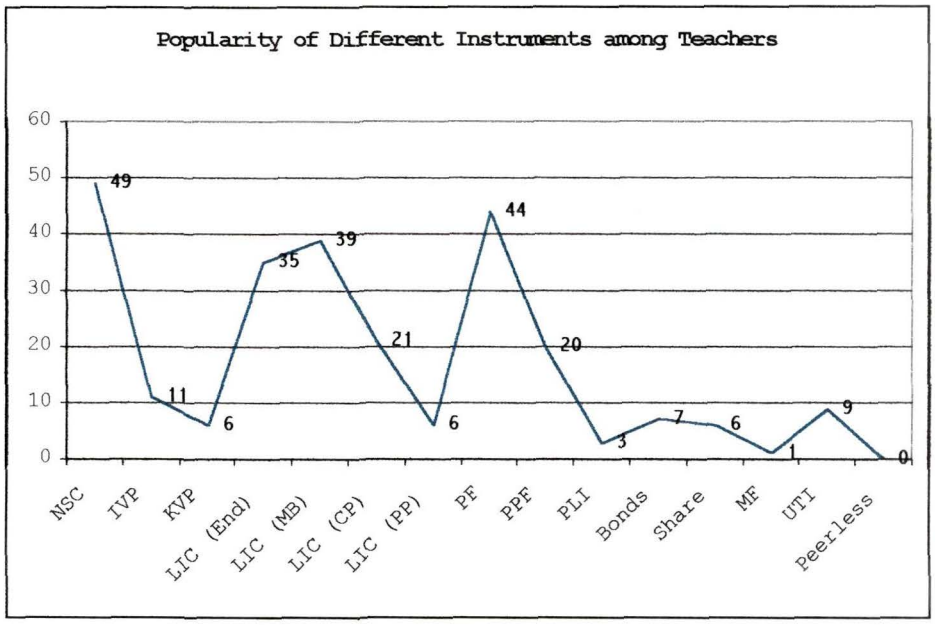


Diagram 6.21

The main reason for choosing NSC by the teachers is tax exemption. 64.4% (47 respondents) of the respondents choose NSC for this reason. Provident

fund is so popular among this segment because it is a compulsory form of saving. 35.6% (26 respondents) of the respondents have selected LIC (Money back) for tax exemption. Another 34.2% (25 respondents) of the respondents have selected it for the feeling of security it provides. LIC (Endowment) is mainly selected for the feeling of security. 28.8% (21 respondents) of the respondents have endorsed this.

So, the major incentives for the teachers for choosing any saving instrument are:

a) Tax rebate, and
b) Feeling of security.

MAJOR FINDINGS

(A): For all samples:

Major motives for saving as ranked by the respondents:

a) Provide for unforeseen events,
b) To save tax,
c) Provide for old age, and
d) Provide for children's education.

Age and individual income of the savers have positive correlation with savings.

Awareness level is the highest regarding LIC Policies and the rest of the instruments have more or less equal awareness level.

Three most popular saving instruments are NSC, LIC (Money-back), and PF.

NSC is preferred because of the attributes:

a) Tax rebate,
b) Low risk, and
c) Feeling of security.

LIC is preferred because of the attributes:

a) Feeling of security,
b) Tax rebate, and
c) Low risk.

PF is preferred because of the attributes:

a) Feeling of security, and
b) Low risk.

Share and bonds are preferred because of high return.

(B): <u>For different segments:</u>

Major motives for saving:

(1) Teachers: to save tax.
(2) Professionals: provide for old age.

(3) Self-employeds: to provide for unforeseen events, to save tax.

(4) Business executives: to provide for unforeseen events, to save tax.

(5) Officials and employees: to provide for unforeseen events.

(6) Service-holders: to provide for unforeseen events.

Popularity level of different instruments among different segments:

(1) Teachers: NSC, PF, LIC (MB), because of tax rebate, and financial security.
(2) Professionals: NSC, LIC (MB), because of low risk, tax rebate and financial security.
(3) Self-employeds: LIC (MB), NSC, because of tax rebate, financial security, high return, and mortgagibility.
(4) Business executives: LIC (MB), NSC, because of high return, tax rebate, and financial security.
(5) Officials and employees: NSC, PF, LIC (MB), because of tax rebate, and mortgagibility.
(6) Service-holders: LIC (MB), PF, NSC, because of tax rebate.

CHAPTER SEVEN

ADDITONAL ATTRIBUTES NEEDED TO BE INCORPORATED IN EXISTING SAVING INSTRUMENTS

CHAPTER SEVEN: ADDITIONAL ATTRTIBUTES NEEDED TO BE INCORPORATED IN EXISTING SAVING INSTRUMENTS

This chapter is based on the views of the respondents on their level of satisfaction regarding the different saving instruments existing in the market and the modification needed in these instruments to make them more popular among the savers from the household sector.

While collecting information from the respondents, a question has been posed regarding their level of satisfaction with the attributes present in the existing saving instruments. Out of the 451 sample surveyed, 70 abstained from replying to this question. Among the remaining 381 responses, 313 (69.40% of the total sample) respondents have replied in the positive. Only 68 (15.08% of the total sample) respondents have replied in the negative.

To find out whether the savers from the household sector are satisfied with the attributes present in the existing saving instruments or not, the following hypothesis has been tested.

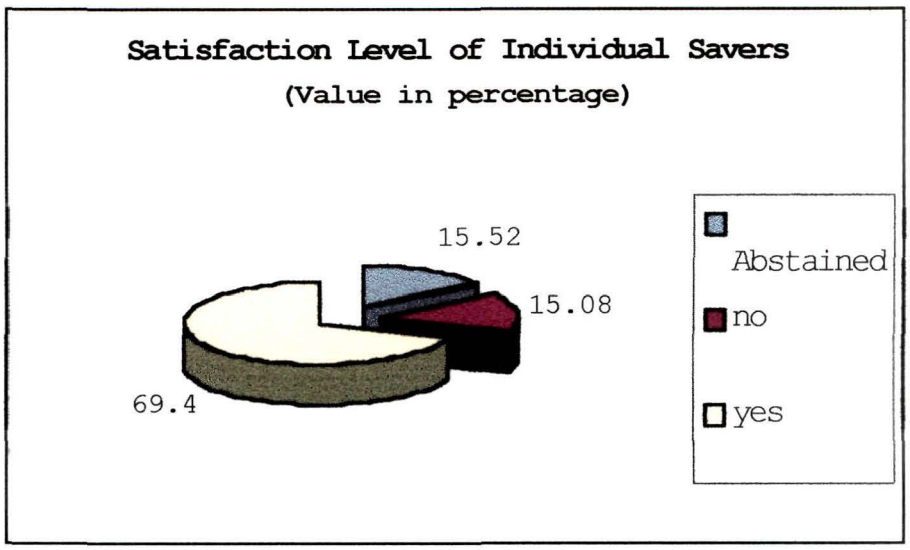


Diagram 7.1

Let the null hypothesis be:

H_0: The savers from the household sector are indifferent about the attributes present in the existing saving instruments. $H_0p = 0.5$.

The alternate hypothesis is:

H_a: The savers from the household sector are not indifferent, but satisfied with the attributes present in the existing saving instruments. $H_ap > 0.5$.

Yes = 313 No = 68 N = 381

The calculated value of 'z' is 12.5586.

The tabulated value of 'z' at 2.5% significance level (one tail) is 1.96.

Since the calculated value is larger than the tabulated value, the Null Hypothesis is rejected. This means that the savers from the household sector are satisfied with the attributes present in the existing saving instruments.

Though majority of the savers from the household sector are satisfied with the attributes present in the existing saving instruments, the unsatisfied savers are to be taken into consideration and measures are to be taken to increase their level of satisfaction by incorporating the attributes they find lacking in the existing saving instruments.

To do this, the modifications needed in the existing saving instruments are discussed one by one below. But before doing that it is worth mentioning that the respondents seem not to be satisfied with the return brought in by the existing saving instruments. This is because most of the respondents have suggested regarding most of the instruments that the rate of return is to be increased.

NSC:

It has been discussed earlier that the popularity of this saving instrument is high. Even then, some of the respondents feel that some minor

modifications are needed. Among the modifications suggested, majority of the respondents who want modification mentioned about increasing the rate of return. Reduction in the lock-in-period is another suggestion put forward by some of the respondents. Some of the respondents also suggested inclusion of nomination facility to increase the attractiveness of this particular saving instrument.

LIC (Endowment):

The major modification received regarding this saving instrument is to increase the upper age limit for opening a policy. Inclusion of medical coverage is another suggestion received from the respondents regarding this saving instrument.

LIC (Money-back):

Regarding this instrument, the respondents want short-term policies to be introduced.

Bonds:

Regarding bonds, respondents want nomination facilities to be available.

Shares:

The suggestion put forward by the respondents regarding shares is introduction of buy-back schemes with shares issued by all the organizations. Respondents suggest that the companies should come forward to buy-back the shares at the face value if a shareholder wants to get rid of a share whose market price has gone below the face value at any point of time.

This was regarding specific saving instruments. The respondents were also asked about their preference for different natures of attributes to be present in the saving instrument of their preference. The attributes of a saving instrument were segregated and the respondents were presented with varieties of the attributes. Then they were asked to point out their preferred type of attribute. The analysis of their responses brought out the following inferences.

Risk:

Regarding risk, as high as 34.6% (156 respondents) of the respondents were of the view that risk perception of any saving instrument can be reduced substantially if the savers are assured of sufficient net worth of the organization/firm issuing such saving instruments.

Direct Monetary Return:

Four different types of direct monetary return (DMR) were presented to the respondents. They were high DMR over a short period, high DMR over a long period, moderate DMR over a long period, and low DMR over a short period. The analysis of the information showed that majority of the respondents preferred high DMR over a long period. 36.1% (163 respondents) of the respondents were in favour of this type of direct monetary return. 23.3% (105 respondents) of the respondents were in favour of high DMR over a short period, whereas 10.6% (48 respondents) of the respondents were in favour of moderate DMR over a long period. This shows that high direct monetary return is a major incentive for the savers to choose a saving instrument.

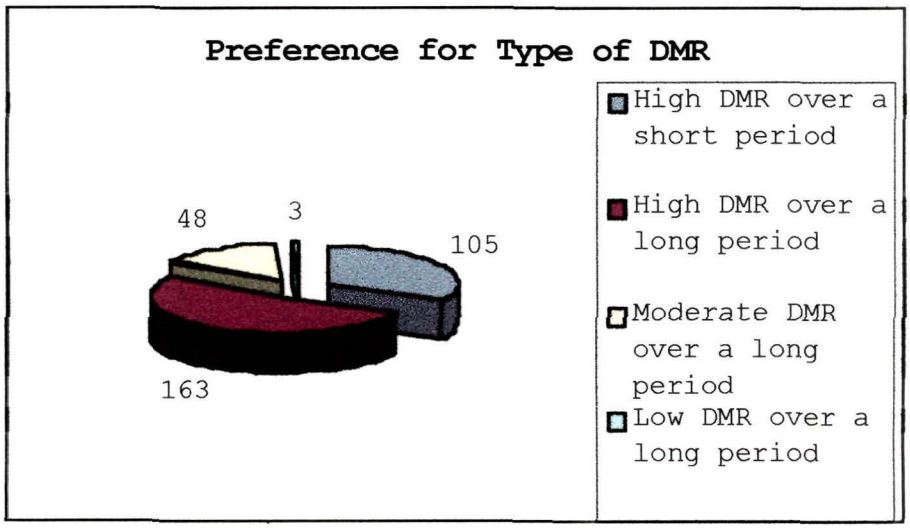


Diagram 7.2

Indirect Monetary Return:

Regarding indirect monetary return (IMR), 57% (257 respondents) of the respondents preferred tax benefit.

Non-monetary Return:

Regarding non-monetary return (NMR), financial security is the most sought after form. 43% (194 respondents) of the respondents were in favour of this form of NMR. Next comes, risk coverage. 36.6% (165 respondents) of the respondents voted for risk coverage as their preferred form of NMR. Mortgagibility is another form of NMR that is preferred by the savers. 31.5% (142 respondents) of the respondents were in favour of it.

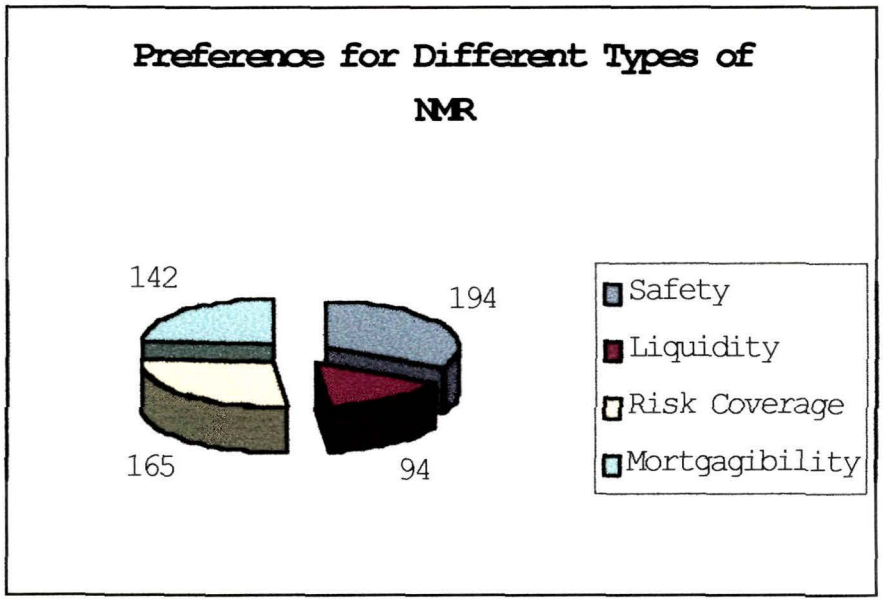


Diagram 7.3

From the above analysis, we can conclude that an individual saver prefers a saving instrument

a) risk of which is covered by sufficient net worth,
b) that has high rate of return over a long period,
c) that has tax exemption facility,
d) that provides financial security,
e) that covers risk, and
f) that is mortgagable.

CHAPTER EIGHT

NEW SAVING INSTRUMENT:

THE DEFENCE BOND

CHAPTER EIGHT

NEW SAVING INSTRUMENT: THE DEFENCE BOND

One of the objectives of the study was to suggest the characteristic features to be incorporated in a new saving instrument. Moreover, the study revealed that a portion of the savers is not satisfied with the existing saving instruments. Almost 15% of the savers responded in the negative as to whether they are satisfied with the existing saving instruments or not. The savers expect higher returns (both monetary and non-monetary). Keeping these in mind, a new saving instrument has been developed. The Delphi Technique was used to give a shape to the new saving instrument. This chapter deals with the different aspects of the new saving instrument. Along with the characteristics of the new saving instrument, promotional ideas for the same are also suggested in this chapter.

THE DEFENCE BOND:

It is suggested that the Government of India bring out a bond to help itself financing the defence sector. It was seen that during the war-like situation in Kargil, the Government was hard-pressed for funds. The bond will help the Government during such situations. Under normal circumstances, the money is to be utilized for

R&D and production of materials needed for defence purposes.

Attributes of the Bond:

i) Long term - say 12 to 15 years.

ii) Low lock-in period - say 3 years.

iii) Pays annuity.

iv) The rate of interest paid will be slightly over the highest rate available in any government bond at present.

v) Amount invested has special tax rebate apart from the recent limit of Rs. 12,000/-.

vi) Annuity is non-taxable.

vii) Matured value under a certain maximum value, say Rs. 20,000/-, in a year is non-taxable.

viii) Money raised through this bond will be used for defence R&D and production, which will reduce pressure on the budget.

ix) Government can stop payment of annuity, as well as principal in case of war. Under such circumstances money to be canalized to war

expenditure including welfare for the families of the war victims.

x) The payment stopped in such cases will be eligible for tax exemption under section 80(g) of the Income Tax Act, 1961.

The target market for this particular bond is the salaried class, specifically the higher end of the salaried class who have to pay large amounts of income tax even after saving the standard Rs. 60,000/-. This market segment is provided the incentive of reducing the tax burden by possessing this particular bond.

In the initial proposal of the bond, i.e., in the first round of questionnaire, the lock-in period for the bond was proposed to be high, say 10 years. But majority of the panel experts suggested that the lock-in period should be low on the ground that high lock-in-period makes a saving instrument hostile. Moreover, during data collection for the main study, it was found that the individuals prefer saving instruments with high liquidity. Hence, the lock-in period has been reduced to attract the majority of the savers.

Another modification that has been brought into after the first round of questionnaire administration among the experts is the inclusion

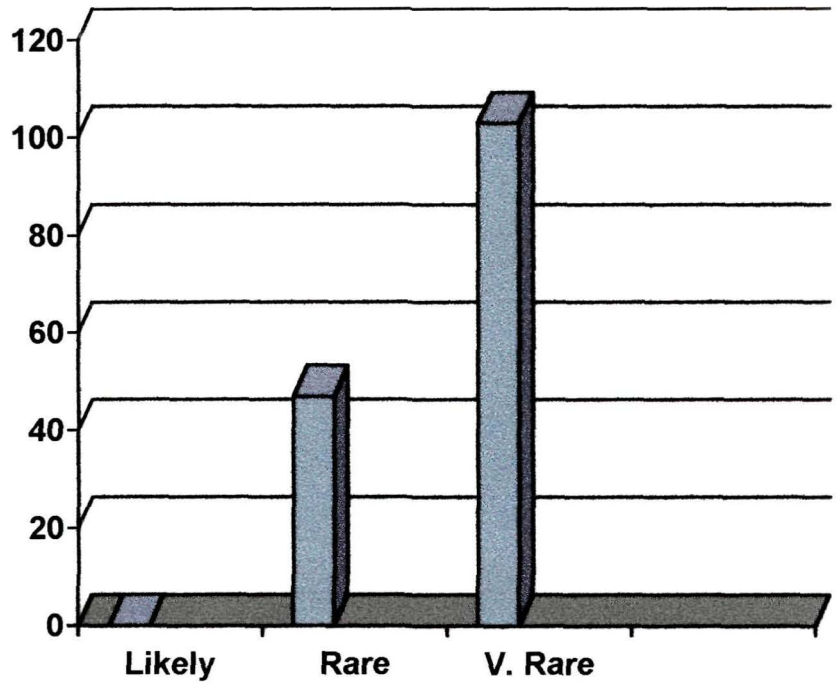
of attribute number (vii). It has been pointed by some of the experts that the matured value of the bond will invite a large amount tax payment. To make the bond more attractive, this particular attribute of a maximum slab up to which a saver does not have to pay tax was incorporated into the bond.

Another objection raised by some of the experts is that the term of the bond is very long, which makes the bond less attractive to the savers. But, we have to keep in mind that the gestation period for defence projects is high and it may erect new financial problems for the Government if the term of the bond is kept low. Moreover, the extra benefits present in the bond over the other saving instruments are expected to offset this negative point of the bond.

A major point raised by some of the experts is that as saving is not elastic, the proposed bond will not increase the rate of savings, but will only result in the reallocation of savings in a different form. But it has already been mentioned that this instrument of saving is for that market segment which has already crossed the saving limit of Rs. 60,000/- and still has to pay a large amount of money on paying tax. So, the problem of reallocation of saving will not be high. The problem of reallocation of saving will be there in the case of the savers who are yet to

achieve the Rs. 60,000/- level of saving. But this will not reduce the level of saving in the economy. Moreover, because of the motive to save tax in the case of the savers who have crossed the standard level of saving of Rs. 60,000/-, the saving rate in the economy will increase.

Diagram 8.1: Perception Regarding Likelihood of a War



An apprehension shown by some of the experts was that the bond is hostile, as during the emergency of war the Government has the right to stop payment of annuity as well as principal. Most of the savers save money for a fixed period because of a particular cause like daughter's marriage and/or some similar occasions. The possibility of

non-payment may discourage the savers to save in this particular bond.

A study had been conducted in a small scale regarding the feasibility of the suggested bond and type of promotional measures to be taken up for the bond. The study and the results are discussed later in this chapter itself. The point that the author wants to make here is that out of the 150 respondents surveyed in the study, 103 perceive a war to be very rare, 47, as rare and none to be likely. The sample was selected in such a manner that it represents the whole target market of the bond. If the target population regards the likelihood of a war as a remote possibility, it is obvious that the perception regarding risk will also be very low.

One shortcoming of the bond is that it is not inflation linked. Depending on the feasibility and economic viability, it can be made inflation linked.

It has to be kept in mind that the proceeds of this bond is to be used in high-tech Research and Development, i.e., in areas in which we are presently paying huge amounts of foreign exchange to foreign countries. Spending the money on routine defence activities will lead to financial mismanagement.

Target Market:

The target market for this bond is the part of the salaried class that comes under the tax bracket. More specifically, that part of the taxpayers whose saving has crossed the standard Rs. 60,000/- level and still has to pay a large amount of tax is the target market for this bond. The attribute of making a saver eligible for tax exemption above the Rs. 60,000/- level is expected to increase their level of saving and motivate them to save in this particular bond.

Positioning:

Before deciding on the positioning of the bond, the attributes of the bond where it enjoys comparative advantage have been identified. The major attributes of the bond that can be used for the positioning of the instrument are:

a) Highest rate of return

b) Tax exemption over Rs. 60,000/-

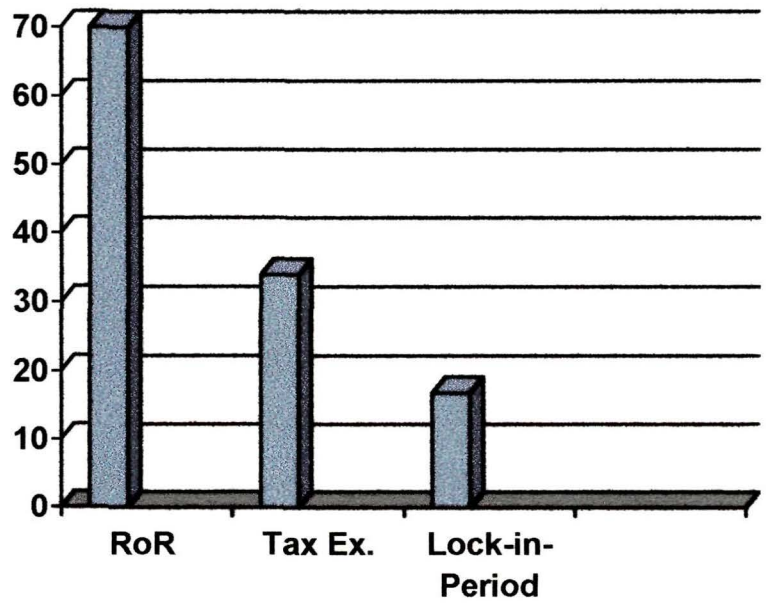
c) Low lock-in period, implying high liquidity of the bond

d) Use of the proceeds from the bond in defence purposes

e) Patriotic nature of the bond

To position the bond through advertisement, it is necessary to find out which attribute among the above five will be most appealing to the target segment. To do this a study was conducted in Tezpur. One hundred and fifty samples were selected randomly from the salaried class, which is the target market for the bond. A questionnaire was prepared for administration to collect the required information. The questionnaire included questions regarding the importance put on different attributes of a saving instrument by the savers from the segment in question and attitude of the savers towards different attributes.

Diagram 8.2: Attitude of Savers towards Different Attributes



From the study it has been concluded that rate of return is the attribute where the savers put maximum importance. Next to rate of return, tax saving is the attribute that appeals the savers. Liquidity is the factor that takes the third position in the minds of the savers while considering a saving instrument.

The study revealed that 70 respondents (46.67%) ranked 'rate of return', 34 (26.67%), 'tax exemption', and 17 (11.33%), 'lock-in-period' as number one criterion for selecting a saving instrument for saving his/her money.

The study also revealed that the attitude of the savers for different causes. It showed that defence is the third priority in the attitude list of the savers.

So, it is clear that 'rate of return' and 'tax saving' natures of the bond have to be made the Unique Selling Proposition (USP) of the bond, and the patriotic nature of the bond is to be used as a supportive attribute to position the bond.

The Campaign:

The bond is to be advertised both in the print and the electronic media. News papers like Times of India, Economic Times, Business Times; magazines like Business India, Business Standard,

India Today; and TV Channels like Star Plus, Star News, Zee News, D.D. News are to be used as the vehicles for communicating the bond to the target market.

Advertisements for the bond are to start two to three months prior to launching of the bond. These advertisements should not give much information regarding the bond - they should only inform the audience that this is coming to the market and make them familiar with the name of the bond. Attributes that are to be used for positioning the bond should be highlighted without being specific. This should be done so that by the time the bond is launched in the market there is enough curiosity in the minds of the population of the target market to generate inquiries.

This is to be followed by informative advertisements starting from one week prior to launching the bond. These advertisements must be informative from all aspects. After a saver is exposed to these advertisements, he/she should not have any doubt regarding any of the attributes of the bond.

All the advertisements should stress on the facts that the rate of return is the highest and tax exemption can be availed above Rs. 12,000/- level. The background or the whole composition of

the advertisements should portray the patriotic or nationalistic image of the bond.

Distribution:

The bond can be made available like other government bonds through post offices and banks.

CHAPTER NINE

SUMMARY AND CONCLUSION

CHAPTER NINE: SUMMARY AND CONCLUSION

This chapter describes in brief the study that has been carried out to find out the relative attractiveness of different financial instruments, the segmental variations in the popularity level of these instruments, the areas of dissatisfaction among the savers from the household sector, and measures to increase the level of attractiveness of the instruments by bringing in modifications in them so that the level of savings in the economy increases.

The chapter "**Introduction**" describes the rationale behind carrying out this particular study. The Indian Economy needs capital formation for growth. Capital formation can never take place if the whole income of an economy is spent on consumption. Moreover, if savings remain in the form of money, again capital formation cannot take place. So, the money savings are to be canalized into productive channels. For this, the rate of savings in the economy is to be increased.

To increase savings in the Indian Economy, the household sector is the best bet as the business sector has to keep on investing their surplus earning and the Government sector do not have surplus earning. The rate of savings in the household sector is dependent on the level of

income and its growth rate, and the incentive provided to the savers to abstain themselves from immediate consumption and/or the reward offered for sacrificing liquidity. Since it is extremely difficult to maintain an increasing rate of growth of income over a longish period, more attention has to be paid to inducing the members of the household sector to step up the savings rate even at the same level of income.

This chapter also describes the objectives of the study, which are:

a) To gauge the degree of popularity of different financial instruments in the urban centers of Assam;

b) To find out the variations in the popularity of various financial instruments among different segments of savers;

c) To suggest additional attributes needed for increasing attractiveness of existing financial instruments; and

d) To suggest the characteristic features to be incorporated in the new financial instruments.

The hypothesis considered for testing in the study is that like the financial institutions, members of the household sector also distribute savings over different assets by following the principles of portfolio management.

The chapter **"Portfolio Management and the Household Sector"**, describes the theoretical aspects of portfolio management.

The ultimate saving related decisions to be made by a saver are: (a) the selection of financial assets to be held, and (b) the amount of savings to be allocated to each asset. These decisions are generally made in two steps. First an estimate is made of the likely return and/or risk of the available financial assets. Then based on these return-risk estimates, an individual saver decides the composition of the portfolio. The selection process is a continuous one subject to various considerations including emergence of new financial assets.

The selection process includes the analysis of return and risk. Return from a financial asset is broadly categorized into monetary and non-monetary returns. Monetary return again is divided into direct and indirect monetary returns.

The degree of risk involved with all types of financial assets is not equal. It depends on the credibility of the issuer and the nature of return of the asset. Moreover, certain financial assets are assumed to be without risk, like bonds issued by the Central Government, bank deposits, etc. Hence all the financial assets can be divided into financial assets without risk and financial assets with risk. The selection procedure for these two categories is different.

The direct monetary return generally consists of two components. One component is the periodic cash inflows, either in the form of interest or dividend and the other component is the change in the price of the asset over the period of holding the asset. The indirect monetary return is tax exemption in various forms, etc.

Valuation of an asset, the risk of which is assumed to be zero is done by using the discounted cash flow method. The conventional basic view of valuation of assets is that their price is the discounted value of the income stream. Hence it is called the present value of the income stream. The formula for funding out the present value of an income stream is

$$PV = R_1/(1+r) + R_2/(1+r)^2 + \text{-------} + R_n/(1+r)^n$$

Where 'PV' is present value, R_j (j = 1,2,3,...,n) is the return at the j^{th} period, 'n' is the number of periods and 'r' is the discount rate.

But for financial assets with risk, the calculation is more complex. Here risk is to be quantified. Risk is nothing but the possibility that realized returns will be less than the returns that were expected. Depending on the causes of risk, their controllability, and source, risks have been divided into Systematic and Unsystematic risks. Systematic risks refer to that portion of total risk caused by factors affecting the return and price of all financial assets. This type of risk includes market risk, interest rate risk, and purchasing power risk.

Unsystematic risk, on the other hand, is unique to a firm or industry. This includes business risk and financial risk.

To evaluate a risky asset, first expected return is to be calculated and then the standard deviation is calculated, which gives the measurement of risk.

After analyzing the return and risk of individual financial assets, it has to be decided how to distribute a fixed amount at a point of time among different financial assets. For this the

combined return of the assets in the portfolio and combined risk are to be calculated.

The expected return of a portfolio (E_{rp}) is $\Sigma X_i E(r_i)$, where X_i (i = 1 2 3 .. n) respective proportions of 'n' assets in the portfolio and $E(r_i)$ is the expected return from the i^{th} asset.

But calculating risk is not as simple. Portfolio risk depends not only on the riskiness of the assets constituting the portfolio, but also on the relationship among those assets. The portfolio risk will be more if yields on each asset vary together than if the yields varied in opposite direction.

Hence to measure the risk of the portfolio, the degree of relationship among the assets is to be calculated, which can be done by finding out either covariance or correlation.

The analysis of asset selection under uncertainty when extended the entire portfolio provides a range of useful implications. As the portfolio of an individual saver generally consists of a risk-free asset, one such asset is included in the portfolio.

To find out the relationship between each risky asset's yield and risk, the Security Market Line is used. The SML equilibrium yield can be

transformed into an equivalent equilibrium price. The development of this price is called the Capital Asset Pricing Model.

Between the systematic and unsystematic risks, unsystematic risks can be diversified away. But there is no way doing this with systematic risks. The efficient market portfolio exhibits this risk. If efficient portfolios diversify away unsystematic risk, their yields will move together with general economic activity. The rates of return of all efficient combination of assets will, therefore, be perfectly correlated. The systematic risk of the combination of the risky assets is measured by the Beta coefficient. The larger the beta coefficient, the greater the return in a rising market and the greater the loss in a falling market.

The valuation of bond, though similar to what has been discussed above, has minor differences. It is a general misconception that bonds do not yield a good return and at the same time, risk associated with it is also low. Actually, the risk and return characteristics of bonds range from very safe to very speculative.

In the context of portfolio, the role of bond is generally to provide steady periodic income. A bond has a face value/par value that implies the money value of the loan certificate. Interest is

payable on each bond at a specified rate, called the coupon rate, on the face value. Capital gain is also possible if the bond was bought at a discount. Hence the cash flow of bond could be predicted with high degree of accuracy. Bonds can be of different types depending on the nature of cash inflow, like, annuity, zero coupon bonds, variable rate bonds and consols.

The return from a bond can be calculated by coupon rate, or current yield, or yield to maturity.

Bond risk includes default risk, interest risk, inflation risk, and illiquidity risk. The 'put option' reduces to some extent, both the illiquidity risk and the interest rate risk. But the 'call option' introduces the call risk.

This chapter also includes the credit ratings followed by ICRA and CRISIL.

The chapter **'Methodology'** describes the methodology adopted for carrying out the project.

Three towns have been selected as the study locale, viz., Guwahati, Tezpur, and Tinsukia. In order to capture a true profile of buyers of saving instruments, the population has been divided into five segments and samples have been drawn from each segment. A questionnaire has been

administered to collect the information required to fulfil the objectives listed. For the objective of designing a new saving instrument, the Delphi Technique was adopted.

The collected information was tabulated and analyzed using the SPSS Package. To test the hypotheses, Proportion Test, specifically the 'Z' Test was used. To test the relationship between variables when correlation was used, the 'T' test was used. For the exploratory part of the project, Cross Tabulation was mainly used.

The chapter **"Existing Saving Instruments and their Attributes"** describes in brief the saving instruments that have been taken for analysis in the project and the risk and return associated with these instruments.

The chapter **"Hypothesis Testing"** deals with the testing of the hypothesis.

The central hypothesis of the study was that like the financial institutions, the individual savers also distribute savings over a number of financial assets following the principles of portfolio management.

To test this hypothesis, it has been broken into three null hypotheses. They were:

a) Individual savers are indifferent about having a pre-set rate of return, with the alternate hypothesis that individual savers do not have a pre-set rate of return,

b) The individual savers are indifferent about indirect return of a saving instrument, with the alternate hypothesis that individual savers consider indirect return while calculating return of a saving instrument,

c) The individual savers are indifferent about balancing risk and return while selecting a saving portfolio, with the alternate hypothesis that the individual savers do not try to strike a balance between risk and return while selecting a saving portfolio.

While testing it has been found that the first null hypothesis has been accepted and the second and the third null hypotheses have been rejected. This means that though the individual savers consider indirect return while selecting a saving instrument, they are indifferent about a pre-set rate of return and striking a balance between return and risk. So, the central hypothesis can be rejected.

The chapter **"Popularity of Different Financial Instruments"** deals with the analysis of the collected information regarding the popularity of the different saving instruments that exist in the market and the segmental variation in the popularity level.

The major findings of this analysis are:

(A): <u>For all samples:</u>

Major motives for saving as ranked by the respondents:

a) Provide for unforeseen events,
b) To save tax,
c) Provide for old age, and
d) Provide for children's education.

Age and individual income of the savers have positive correlation with savings.

Awareness level is highest regarding LIC Policies and the rest of the instruments have more or less equal awareness level.

Three most popular saving instruments are NSC, LIC (Money-back), and PF.

NSC is preferred because of the attributes:

a) Tax rebate,
b) Low risk, and
c) Feeling of security.

LIC is preferred because of the attributes:

a) Feeling of security,
b) Tax rebate, and
c) Low risk.

PF is preferred because of the attributes:

a) Feeling of security, and
b) Low risk.

Share and bonds are preferred because of high return.

(B): <u>For different segments:</u>

Major motives for saving:

(1) Teachers: to save tax.
(2) Professionals: provide for old age.
(3) Self-employds: to provide for unforeseen events, to save tax.
(4) Business executives: to provide for unforeseen events, to save tax.
(5) Officials and employees: to provide for unforeseen events.

(6) Service-holders: to provide for unforeseen events.

Popularity level of different instruments among different segments:

(1) Teachers: NSC, PF, LIC (MB), because of tax rebate, and financial security.
(2) Professionals: NSC, LIC (MB), because of low risk, tax rebate and financial security.
(3) Self-employds: LIC (MB), NSC, because of tax rebate, financial security, high return, and mortgagibility.
(4) Business executives: LIC (MB), NSC, because of high return, tax rebate, and financial security.
(5) Officials and employees: NSC, PF, LIC (MB), because of tax rebate, and mortgagibility.
(6) Service-holders: LIC (MB), PF, NSC, because of tax rebate.

The chapter **"Additional Attributes Needed to be Incorporated in Existing Saving Instruments"** describes the attributes to be incorporated in the existing financial instruments so that they become more attractive among the individual savers. The attributes suggested are on the basis of the views presented by the respondents.

Whether the individual savers are satisfied with the existing saving instruments or not was determined first in this chapter. A null hypothesis has been taken that the savers are satisfied with the existing saving instruments with the alternate hypothesis that they are not. After testing with the information collected, the null hypothesis has been accepted, which means that the individual savers are satisfied with the existing saving instruments.

The modifications suggested in different saving instruments be:

NSC:
1) Increase in the rate of return,
2) Reduction in the lock-in-period,
3) Introduce nomination facility.

LIC (End)
1) Increase upper age limit,
2) Introduce medical coverage.

LIC (MB)
1) Introduce short-term policies.

Bonds:
1) Introduce nomination facility.

Shares:
1) Introduce buy-back facility by all organizations in the event of market price of share falling below face value.

This chapter also analyzed the nature of different attributes preferred by the individual savers. The analysis has brought out the following:

An individual saver prefers a saving instrument

a) risk of which is covered by security,
b) that has high rate of return over a long period,
c) that has tax exemption facility,
d) that provides financial security,
e) that covers risk, and
f) that is mortgagable.

The chapter **"New Financial Instruments: the Defence Bond"** describes the attributes and positioning and promotional strategies for the new financial instrument that has been suggested.

It has been suggested that the Government of India bring out a bond to help itself financing the defence sector. The attributes of the bond should be:

i) Long term - say 12 to 15 years.

ii) Low lock-in period - say 3 years.

iii) Pays annuity.

iv) The rate of interest paid will be slightly over the highest rate available in any government bond at present.

v) Amount invested has special tax rebate apart from the recent limit of Rs. 12,000/-.

vi) Annuity is non-taxable.

vii) Matured value under a certain maximum value, say Rs. 20,000/-, in a year is non-taxable.

viii) Money raised through this bond will be used for defence R&D and production, which will reduce pressure on the budget.

ix) Government can stop payment of annuity, as well as principal in case of war. Under such circumstances money to be canalized to war expenditure including welfare for the families of the war victims.

x) The payment stopped in such cases will be eligible for tax exemption under section 80(g) of the Income Tax Act, 1961.

The target market for this bond is the part of the salaried class that comes under the tax bracket. More specifically, that part of the taxpayers whose saving has crossed the standard

Rs. 60,000/- limit and still has to pay a large amount of tax is the target market for this bond.

'Rate of return' and 'tax saving' natures of the bond are to be made the USP of the bond, and the patriotic nature of the bond is to be used as a supportive attribute to position the bond.

The bond is to be advertised both in the print and the electronic media. News papers like Times of India, Economic Times, Business Times; magazines like Business India, Business Standard, India Today; and TV Channels like Star Plus, Star News, Zee News, D.D. News are to be used as the vehicles for communicating the bond to the target market.

Advertisements for the bond are to start two to three months prior to launching of the bond. These advertisements should not give much information regarding the bond - they should only inform the audience that this is coming to the market and make them familiar with the name of the bond. Attributes that are to be used for positioning the bond should be highlighted without being specific

This is to be followed by informative advertisements starting from one week prior to launching the bond. These advertisements must be informative from all aspects.

The bond can be made available like other government bonds.

The findings of the study will be beneficial for the organizations that bring out saving instruments for the savers from the household sector. It will also help the organizations like the LIC of India, UTI, etc. who is dealing in individuals' savings, in making their products more attractive to the savers. The most important point is that the findings of this study, if applied, will increase the savings rate of the country, which will ultimately lead to the growth of the Indian Economy.

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APPENDICES

QUESTIONNAIRE

(Used for collecting information from individual savers on saving habits etc.)

1. Different people have different motive for saving. What is your motive?

   a) to save tax

   b) to spend on expensive consumer durable/religious or social function

   c) to provide for unforeseen events

   d) to provide for old age

   e) any other (Please specify)

2. Do you take advice from any professional while taking decision regarding **how much** to save?
Yes/No/Sometimes

3. Do you take advice from any professional while taking decision regarding **forms of saving**?
Yes/No/Sometimes

4. There are numerous ways of savings. Would you kindly name the ways of savings **you know about?**

a)	f)
b)	g)
c)	h)
d)	i)
e)	j)

5. Which one of the following are included in your savings?

a) Cash
b) Jewellery
c) Savings Bank Deposit
d) Fixed Deposit (Pl. specify bank or co.)
e) Recurring deposit
f) National Savings Certificate (NSC)
g) Indira Vikash Patra (IVP)
h) Kishan Vikash Patra (KVP)
i) LIC (Endowment)
j) LIC (Money-back)
k) LIC (Children Policy)
l) LIC (Pension Policy)

m) Provident Fund (PF)
n) Public Provident Fund (PPF)
o) Postal Life Insurance (PLI)
p) Bonds (Please specify name)
q) Shares
r) Any other (Please specify)

6.What is the regularity of buying a financial instrument?

Regularity	**Instruments**
Fortnightly	
Monthly	
Once in six months	
Yearly (Mention month)	
Occasionally	
Convenience based (depending on availability of disposable income)	

If (q) in Question No. 5, Answer Question No. 7

7 (a). Do you frequently buy and sell shares?

Yes/No

7 (b). Do you buy shares for **capital gains** (i.e., to earn profit by selling at a higher price whenever opportunity arises), or to **earn dividend** (i.e., to earn the periodic payment the company makes)?

i) For capital gains
ii) For earning dividend
iii) Both, depending on market condition

7 (c). Can you recall the number of times you operated in the stock market last year?

8. Would you kindly explain why you have selected the set of financial assets?
(Clue: High return, Low risk, Tax rebate, Mortgagibility, Liquidity, Safety, etc)

Financial assets	**Reasons for selection**

9. Can you give the reason for selecting one particular instrument over its competitors?

Asset selected	**Competitors**	**Advantage**

10. Do you know that all saving instruments have some kind of risk involved with them? **Yes/No**

11. Do you know that each instrument of saving you have involves some risk? **Yes/No**

If yes,

12. Please mention the nature of risks involved in the saving instruments you have.

Instrument	**Nature of risk** *(in ascending order)*

13. Do you have a pre-set rate of return that you expect from a saving instrument you select? **Yes/No**

(Preset of rate of return = the rate of return that you, say 10%, which is expected from each saving instrument a buyer buys)

If no, SKIP QUESTION NUMBER 14

14(a). On what basis have you come to the pre-set rate of return?

_____

_____

_____

_____

14(b). Have all the saving instruments you have purchased yielded return equal to or more than your pre-set rate of return? **Yes/No**

15. Do you include indirect return or consider returns from compatible instruments while calculating return of a particular saving instrument? **Yes/No**

(Example of indirect returns - tax benefit of buying NSC)

16. What kind of return you prefer more?

a) Fixed moderate return over a long period
b) Fixed high return over a short period
c) Very high but not pre-determined return within a very short period
d) Having tax rebate

17. What kind of non-monetary return do you prefer? Please rank

a) Safety
b) Liquidity
c) Risk coverage
d) Mortgagibility

18. Have you selected any saving instrument only on the basis of its non-monetary return? **Yes/No**

If yes,

19. Which one and for what kind of return?

_____

20. While selecting your portfolio (i.e., your bunch of saving instruments), did you try to strike a balance between risk and return? **Yes/No**

If yes,

20 (a). How?

_____

_____

21. Are you satisfied with the attributes attached to the instruments you have? **Yes/No**

If no,

22. What modifications do you expect?

Instrument	**Modifications**

18. If you are asked to suggest a new saving instrument, how would you like it to be with respect to the different attributes?

Attributes	**Nature**
Risk	Covered by security, Any other
Direct monetary return	High - over a short period High - over a long period Moderate - over a long period Low - over a long period Any other
Indirect monetary return	Tax benefit , any other
Non-monetary return	Safety, Liquidity, Risk coverage, Mortgagibility, Any other
Any other (Please specify)	

I need your following personal detail for facilitating a fruitful analysis of the collected information. This is likely to help evolve a saving instrument of your choice. So kindly oblige.

1. Name:

2. Address:

3. Sex

4. Profession

5. Age

6. Income (p.a.): Individual: Family:

7. Savings (p.a.):Individual: Family:

8. Amount of income tax paid last year:

9. Family member: Dependent:

10. Level of education:

11. Residential background:

    a) Urban
    b) Rural

DELPHI STUDY ON
NEW SAVING INSTRUMENT

A. Objectives of the study:

The objectives of the Delphi Study are to arrive at consensus of opinions with regard to the following aspects in the context of a New Saving Instrument.

1. To find out if any change is required/possible in the existing saving instruments to increase their popularity.

2. To find out characteristic features to be incorporated in a new saving instrument.

B. Code Number:

To prevent bias while analyzing and to preserve anonymity of the opinions, you are given a code number.

YOUR CODE NUMBER IS: [ ]

C. **General instructions to participants:**

1. Two copies of each questionnaire will be sent to you in each round. You are requested to prepare your responses on both copies of the questionnaire. You kindly send one copy to us and retain the other copy for future reference and duplication (in case the posted copy does not reach us).

2. You may use extra sheet for preparing your response if the space provided is not sufficient.

3. You are requested to kindly return your responses within one week after the date of receipt of each questionnaire or earlier, if possible.

QUESTIONNAIRE NUMBER 1

Your code number is: ☐

1. What type of saving instrument, according to you, is popular with different segments of people as listed below:

Segment	Saving Instruments
Industrialists	
Executives	
Officials and Employees	
Teachers	
Professionals	
Self-employeds	

2. What attributes make these instruments popular within the segments?

Instruments	Attributes

3. Do you think that there are any other attributes, if incorporated with the existing saving instruments, will make them more popular? Yes/No

If yes,

Would you kindly mention them?

a)

b)

c)

d)

e)

4. Recent swindling by organization dealing in small saving and bad reputation of the agro-based investment organizations have increased the apprehensions of the small savers. What, according to you, can be done to reduce the apprehension?

_____

_____

_____

5. Would you kindly suggest a new saving instrument, specific with its attributes, to appeal to all the segments mentioned above?

_____

_____

_____

6. A brief outline of a concept regarding a DEFENCE BOND is given below. Would you kindly comment and give your valuable suggestions to make it feasible?

ATTRIBUTES OF THE DEFENCE BOND:

i) long term - say 12 - 15 years

ii) lock-in-period of, say, 10 years

iii) pays annuity

iv) annuity and amount invested have special tax rebate (apart from the recent limit of Rs. 12,000/-)

v) money will be used for defence R&D and production (which will reduce pressure on the budget)

vi) Government can stop payment of annuity, as well as principal, in case of war - money to

be canalized to war expenditure in such cases including army welfare. The payment stopped in such cases will be eligible for tax rebate under Section 80 (g) of the Income Tax Act.

Your comment and suggestion:

The successive sets of questionnaires were different for different experts based on their responses.

QUESTIONNAIRE

(Used for collecting information needed for proper positioning of the Defence Bond)

1. What is the main purpose for which you save?

   a) to save tax

   b) to provide for unforeseen events

   c) to provide for old age

   d) to provide for children's education

   e) to spend on expensive consumer durable/social or religious functions

2. While selecting a saving instrument, which attribute(s) do you give most importance? (Please rank)

   a) rate of return

   b) tax exemption

   c) liquidity

   d) purpose for which the instrument is floated

3. If different bonds are available the proceeds of which are used for the sectors mentioned below, which one would you select?

   a) Agricultural sector

   b) Defence sector

   c) Industrial sector

   d) Infrastructure

4. How would you rate the likelihood of a war between India and any of its neighbours on the following scale?