
Introduction to Stock Markets

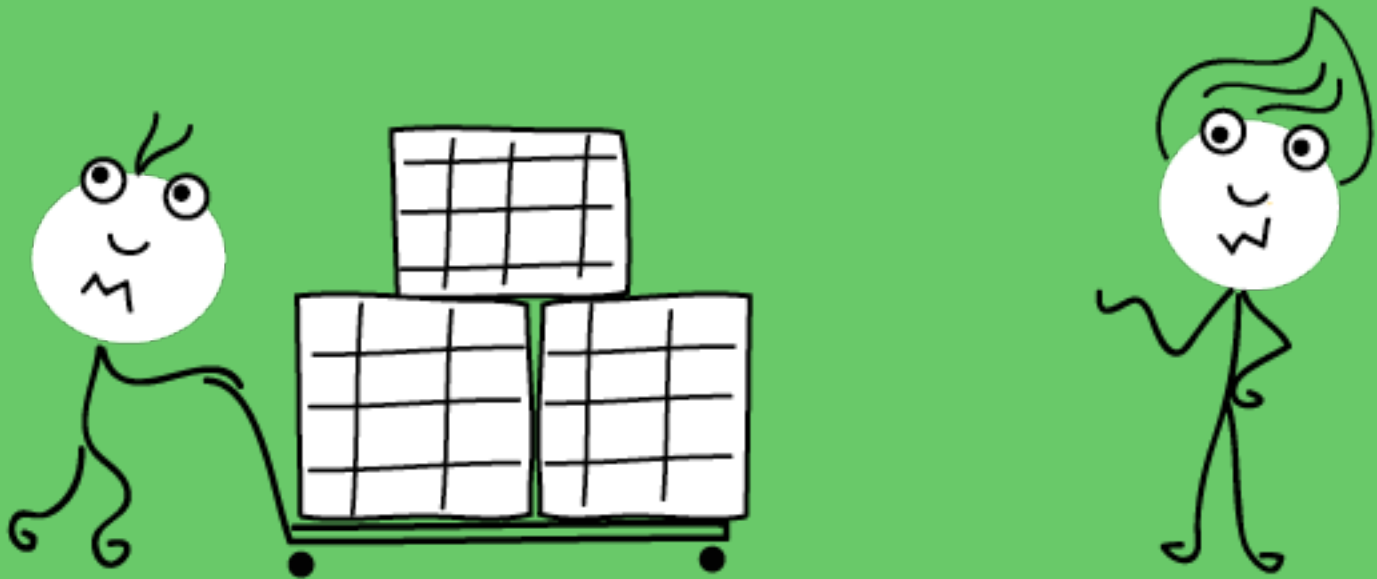


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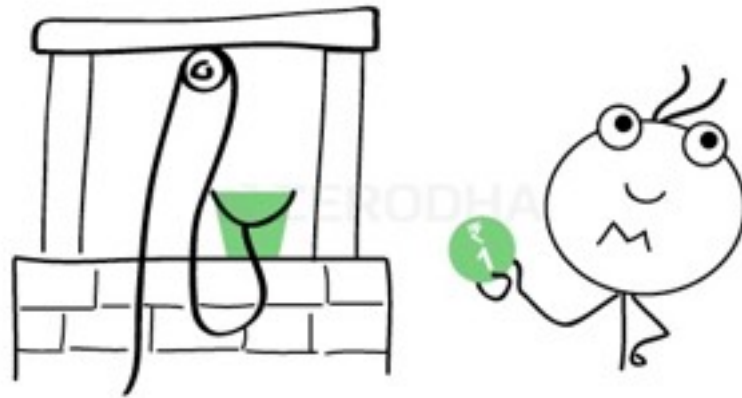
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The Need to Invest



1.1 - Why should one Invest?

Before we address the above question, let us understand what would happen if one choose not to invest. Let us assume you earn Rs.50,000/- per month and you spend Rs.30,000/- towards your cost of living which includes housing, food, transport, shopping, medical etc. The balance of Rs.20,000/- is your monthly surplus. For the sake of simplicity, let us just ignore the effect of personal income tax in this discussion.

1. To drive the point across, let us make few simple assumptions.
2. The employer is kind enough to give you a 10% salary hike every year
3. The cost of living is likely to go up by 8% year on year
4. You are 30 years old and plan to retire at 50. This leaves you with 20 more years to earn
5. You don't intend to work after you retire
6. Your expenses are fixed and don't foresee any other expense
7. The balance cash of Rs.20,000/- per month is retained in the form of hard cash

Going by these assumptions, here is how the cash balance will look like in 20 years as per Table

1.1

Table 1.1 - Total cash balance in twenty years

If one were to analyze these numbers, you would soon realize this is a scary situation to be in.

Years	Yearly income	Yearly expense	Cash retained
1	600,000	360,000	240,000
2	6,60,000	3,88,800	2,71,200
3	7,26,000	4,19,904	3,06,096
4	7,98,600	4,53,496	3,45,104
5	8,78,460	4,89,776	3,88,684
6	9,66,306	5,28,958	4,37,348
7	10,62,937	5,71,275	4,91,662
8	11,69,230	6,16,977	5,52,254
9	12,86,153	6,66,335	6,19,818
10	14,14,769	7,19,642	6,95,127
11	15,56,245	7,77,213	7,79,032
12	17,11,870	8,39,390	8,72,480
13	18,83,057	9,06,541	9,76,516
14	20,71,363	9,79,065	10,92,298
15	22,78,499	10,57,390	12,21,109
16	25,06,349	11,41,981	13,64,368
17	27,56,984	12,33,339	15,23,644
18	30,32,682	13,32,006	17,00,676
19	33,35,950	14,38,567	18,97,383
20	36,69,545	15,53,652	21,15,893
		Total Income	17,890,693

Few things are quite startling from the above calculations:

1. After 20 years of hard work you have accumulated Rs.1.7 Crs.
2. Since your expenses are fixed, your lifestyle has not changed over the years, you probably even suppressed your lifelong aspirations – better home, better car, vacations etc
3. After you retire, assuming the expenses will continue to grow at 8%, Rs.1.7 Crs is good enough to sail you through roughly for about 8 years of post retirement life. 8th year onwards you will be in a very tight spot with literally no savings left to back you up.

What would you do after you run out of all the money in 8 years time? How do you fund your life? Is there a way to ensure that you collect a larger sum at the end of 20 years?

Let's consider another scenario as per Table 1.2 in the following page where instead of keeping the cash idle, you choose to invest the cash in an investment option that grows at let's say 12% per annum. For example – in the first year you retained Rs.240,000/- which when invested at 12% per annum for 20 years yields Rs.2,067,063/- at the end of 20th year.

With the decision to invest the surplus cash, your cash balance has increased significantly. The cash balance has grown to Rs.4.26 Crs from Rs.1.7 Crs. This is a staggering 2.4x times the regular amount. This translates to you being in a much better situation to deal with your post retirement life.

Now, going back to the initial question of why invest? There are few compelling reasons for one to invest..

1. Fight Inflation – By investing one can deal better with the inevitable – growing cost of living – **generally referred to as Inflation**
2. Create Wealth – By investing one can aim to have a better corpus **by the end of the defined time period**. In the above example the time period was upto retirement but it can be anything – children's education, marriage, house purchase, retirement holidays etc
3. To meet life's financial aspiration

1.2 - Where to invest?

Having figured out the reasons to invest, the next obvious question would be – Where would one invest, and what are the returns one could expect by investing.

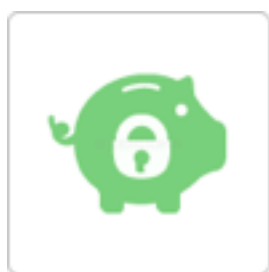
When it comes to investing one has to choose an **asset class** that suits the individual's risk and return temperament.

Table 1.2 - Cash invested at 12% per annum

Years	Yearly income	Yearly expense	Cash retained	Retained Cash Invested @12%
1	600,000	360,000	240,000	20,67,063
2	6,60,000	3,88,800	2,71,200	20,85,519
3	7,26,000	4,19,904	3,06,096	21,01,668
4	7,98,600	4,53,496	3,45,104	21,15,621
5	8,78,460	4,89,776	3,88,684	21,27,487
6	9,66,306	5,28,958	4,37,348	21,37,368
7	10,62,937	5,71,275	4,91,662	21,45,363
8	11,69,230	6,16,977	5,52,254	21,51,566
9	12,86,153	6,66,335	6,19,818	21,56,069
10	14,14,769	7,19,642	6,95,127	21,58,959
11	15,56,245	7,77,213	7,79,032	21,60,318
12	17,11,870	8,39,390	8,72,480	21,60,228
13	18,83,057	9,06,541	9,76,516	21,58,765
14	20,71,363	9,79,065	10,92,298	21,56,003
15	22,78,499	10,57,390	12,21,109	21,52,012
16	25,06,349	11,41,981	13,64,368	21,46,859
17	27,56,984	12,33,339	15,23,644	21,40,611
18	30,32,682	13,32,006	17,00,676	21,33,328
19	33,35,950	14,38,567	18,97,383	21,25,069
20	36,69,545	15,53,652	21,15,893	21,15,893
TOTAL CASH AFTER 20 YEARS				4,26,95,771

An asset class is a category of investment with particular risk and return characteristics. The following are some of the popular assets class...

1. Fixed income instruments
2. Equity
3. Real estate
4. Commodities (precious metals)



Fixed Income Instruments

These are investable instruments with very limited risk to the principle and the return is paid as an interest to the investor based on the particular fixed income instrument. The interest paid, could be quarterly, semi-annual or annual intervals. At the end of the term of deposit, (also known as maturity period) the capital is returned to the investor.

Typical fixed income investment includes:

1. Fixed deposits offered by banks
2. Bonds issued by the Government of India
3. Bonds issued by Government related agencies such as HUDCO, NHAI etc
4. Bonds issued by corporates

As of June 2014, the typical return from a fixed income instrument varies between 8% and 11%.



Equity

Investment in Equities involves buying shares of publicly listed companies. The shares are traded both on the Bombay Stock Exchange (BSE), and the National Stock Exchange (NSE).

When an investor invests in equity, unlike a fixed income instrument there is no capital guarantee. However as a trade off, the returns from equity investment can be extremely attractive. Indian Equities have generated returns close to 14% – 15% CAGR (compound annual growth rate) over the past 15 years.

Investing in some of the best and well run Indian companies has yielded over 20% CAGR in the long term. Identifying such investments opportunities requires skill, hard work and patience.

You may also be interested to know that the returns generated over a long term period (above 365 days, also called long term capital gain) are completely exempted from personal income tax. This is an added attraction to investing in equities.



Real Estate

Real Estate investment involves transacting (buying and selling) commercial and non commercial land. Typical examples would include transacting in sites, apartments and commercial buildings. There are two sources of income from real estate investments namely – Rental income, and Capital appreciation of the investment amount.

The transaction procedure can be quite complex involving legal verification of documents. The cash outlay in real estate investment is usually quite large. There is no official metric to measure the returns generated by real estate, hence it would be hard to comment on this.



Commodity – Bullion

Investments in gold and silver are considered one of the most popular investment avenues. Gold and silver over a long-term period has appreciated in value. Investments in these metals have yielded a CAGR return of approximately 8% over the last 20 years. There are several ways to invest in gold and silver. One can choose to invest in the form of jewelry or Exchange Traded Funds (ETF).

Going back to our initial example of investing the surplus cash it would be interesting to see how much one would have saved by the end of 20 years considering he has the option of investing in any one – fixed income, equity or bullion. By investing in fixed income at an average rate of 9% per annum, the corpus would have grown to Rs.3.3 Crs

1. By investing in fixed income at an average rate of 9% per annum, the corpus would have grown to Rs.3.3 Crs

2. Investing in equities at an average rate of 15% per annum, the corpus would have grown to Rs.5.4 Crs

3. Investing in bullion at an average rate of 8% per annum, the corpus would have grown to Rs. 3.09 Crs

Clearly, equities tend to give you the best returns especially when you have a multi – year investment perspective.

A note on investments

Investments optimally should have a strong mix of all asset classes. It is smart to diversify your investment among the various asset classes. The technique of allocating money across assets classes is termed as 'Asset Allocation'.

For instance, a young professional may be able take a higher amount of risk given his age and years of investment available to him. Typically investor should allocate around 70% of his investable amount in Equity, 20% in Precious metals, and the rest in Fixed income investments.

Alongside the same rationale, a retired person could invest 80 percent of his saving in fixed income, 10 percent in equity markets and a 10 percent in precious metals. The ratio in which one allocates investments across asset classes is dependent on the risk appetite of the investor.

1.3 - What are the things to know before investing

Investing is a great option, but before you venture into investments it is good to be aware of the following...

1. Risk and Return go hand in hand. Higher the risk, higher the return. Lower the risk, lower is the return.
2. Investment in fixed income is a good option if you want to protect your principal amount. It is relatively less risky. However you have the risk of losing money when you adjust the return for inflation. Example – A fixed deposit which gives you 9% when the inflation is 10% means you are net net losing 1% per annum. Fixed income investment is best suited for ultra risk averse investors
3. Investment in Equities is a great option. It is known to beat the inflation over long period of times. Historically equity investment has generated returns close to 14-15%. However, equity investments can be risky
4. Real Estate investment requires a large outlay of cash and cannot be done with smaller amounts. Liquidity is another issue with real estate investment – you cannot buy or sell whenever you want. You always have to wait for the right time and the right buyer or seller to transact with you.
5. Gold and silver are known to be a relatively safer but the historical return on such investment has not been very encouraging.

Key takeaways from this chapter

1. Invest to secure your future
2. The corpus that you intend to build at the end of the defined period is sensitive to the rate of return the investment generates. A small variation to rate can have a big impact on the corpus
3. Choose an instrument that best suits your risk and return appetite
4. Equity should be a part of your investment if you want to beat the inflation in the long run

