growth through prudence



Ponzi schemes



Why its called Ponzi ?



CHARLES PONZI

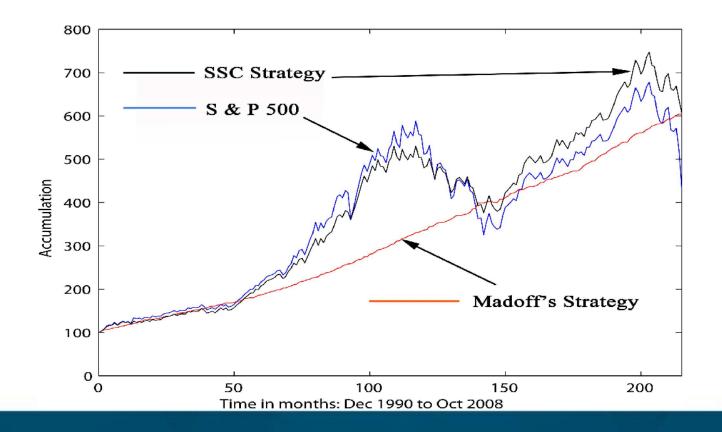
- An Italian became known in the early 1920s as a swindler in North America for his money-making scheme.
- He promised clients a 50% profit within 45 days or 100% profit within 90 days.
- In reality, Ponzi was paying earlier investors using the investments of later investors.
- While this type of fraudulent investment scheme was not originally invented by Ponzi, it became so identified with him that it now is referred to as a "Ponzi scheme". His scheme ran for over a year before it collapsed, costing his "investors" \$20 million. What is the amount worth today?

Characteristics of Ponzi schemes

- High investment returns with little or no risk. Any "guaranteed" investment opportunity with higher than normal returns is often considered suspicious.
- Overly consistent returns. An investment that continues to generate regular positive returns regardless of overall market conditions is considered suspicious.
- Unregistered investments. Ponzi schemes typically involve investments that have not been registered with the regulators. Registration is important because it provides investors with access to key information about the company's management, products, services, and finances.
- Unlicensed sellers. SEBI require that investment professionals and their firms be licensed or registered.
- Secretive or complex strategies. Investments that cannot be understood or do not give complete information.
- Issues with paperwork. Excuses are given regarding why clients cannot review information in writing about an investment. Oral promises.
- Difficulty receiving payments. Clients have failures or have difficulty cashing out their investments. Encourage participants to "roll over" investments at even higher returns.

The Biggest Ponzi Scheme

Bernard Madoff- former chairman of NASDAQ. He created false trading reports by deciding what returns 'he' wants to show to the investors. ~24000 Investors and USD 65 billion.



Indian Versions

- Plantation companies around 1996
- Emu farming
- Sheep Farming
- Potato Purchase scheme



What are the regulations?

Regulation of Collective Investment Schemes (CIS)

- Definition as per section 11AA of SEBI Act- CIS is any scheme or arrangement made or offered by any company under which:
 - The contributions or payments made by the investors by whatever name called are pooled and utilized solely for the purposes of the scheme /arrangement
 - Contributions are made to such scheme by the investors with a view to receive profits, income, produce or property
 - The property, contribution or investment forming part of scheme, whether identifiable or not is managed on behalf of the investors
 - Investors don't have day to day control over the management and operation of the scheme.
- SEBI has been empowered to deal with all kinds of investment schemes involving pooling of funds totalling Rs. 100 Crore or more.



What is status

- Only one Company is registered with SEBI under CIS regulations- Gujarat Gift City
- 669 Companies probed, 552 prosecuted and conviction secured in 124 cases.
- Previous problems
 - Jurisdiction issues between Centre and States
 - CIS regulated by SEBI
 - Chit Funds- Regulated by States
 - Deposits RBI NBFC regulations

How to safeguard yourself?

> Don't Be Greedy – Greed makes you blind to the risks.

https://www.youtube.com/watch?v=rBEKMoNo2qk

Be doubtful- if you are being offered high or 'too good to be true' returns try to understand risks involved before investing.

https://youtu.be/XTR0x-wDkYY

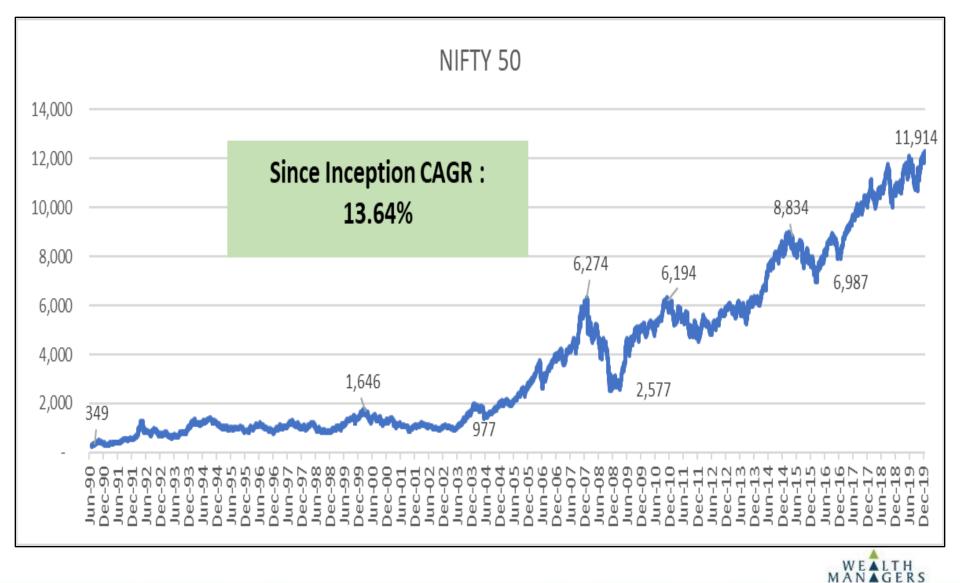
- Regulated investments- invest in a government or otherwise SEBI regulated instruments.
- Paperwork and documentation- always examine the legal and other financial aspects of the investment on offer.
- Take professional advice- Sebi Registered Investment Advisors (RIA) will be definitely helpful. Don't be 'penny wise and pound foolish'. Paying up for professional advice can help you save big trouble.
- In case you are a victim register your grievance through SCORES (Sebi COmplaints REdress System) <u>https://scores.gov.in/scores/Welcome.html</u>
- https://www.youtube.com/watch?v=ERQun80t10A



Indian Stock Market Performance



Nifty Returns Since Inception...

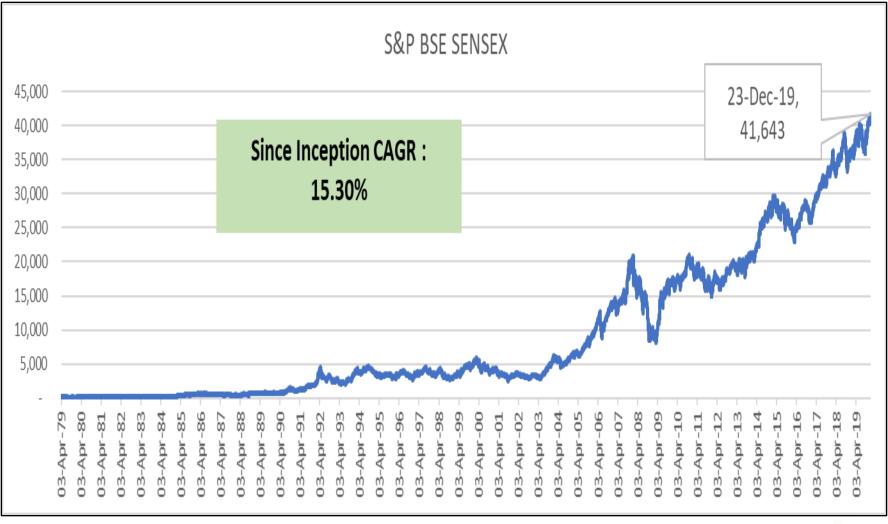


What happened in between

			Index Level	Index Level	
Period	Start Date	End Date	Start	End	Absolute Returns
Tech Bubble peak	01-04-1996	11-02-2000	995	1,756	76.52%
Tech crash and 9/11	11-02-2000	21-09-2001	1,756	854	-51.36%
Recovery post 9/11	21-09-2001	14-01-2004	854	1,982	132.05%
India Re-rating	14-01-2004	08-01-2008	1,982	6,288	217.22%
Global crisis lows	08-01-2008	09-03-2009	6,288	2,573	-59.08%
Post crisis peak	09-03-2009	09-11-2010	2,573	6,302	144.90%
High inflation, slow growth	09-11-2010	30-01-2012	6,302	5,087	-19.27%
Rebound in US & QE3 buoying global rally	30-01-2012	28-06-2013	5,087	5,842	14.84%
Post european crisis	28-06-2013	27-02-2015	5,842	8,845	51.39%
Chinese economic slowdown	27-02-2015	29-02-2016	8,845	6,987	-21.00%
Global liquidity and domestic reforms	29-02-2016	08-11-2016	6,987	8,544	22.28%
Post Demonetisation and GST	08-11-2016	23-05-2019	8,544	11,657	36.44%
Post General Election 2019	23-05-2019	04-07-2019	11,657	11,947	2.49%
Post Budget 2019	04-07-2019	26-12-2019	11,947	12,127	1.51%
Since Inception CAGR	03-07-1990	26-12-2019	279.02	12126.55	13.64%

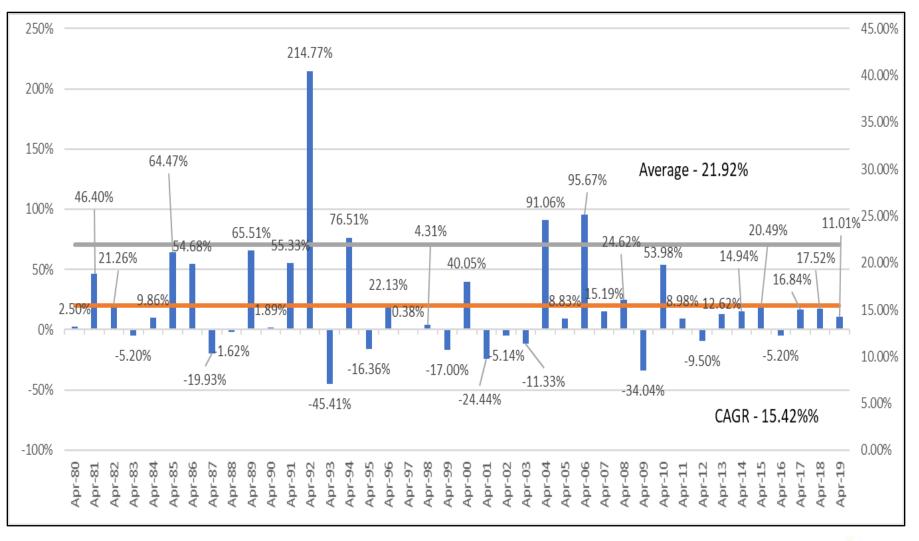


Sensex Returns from Inception till data



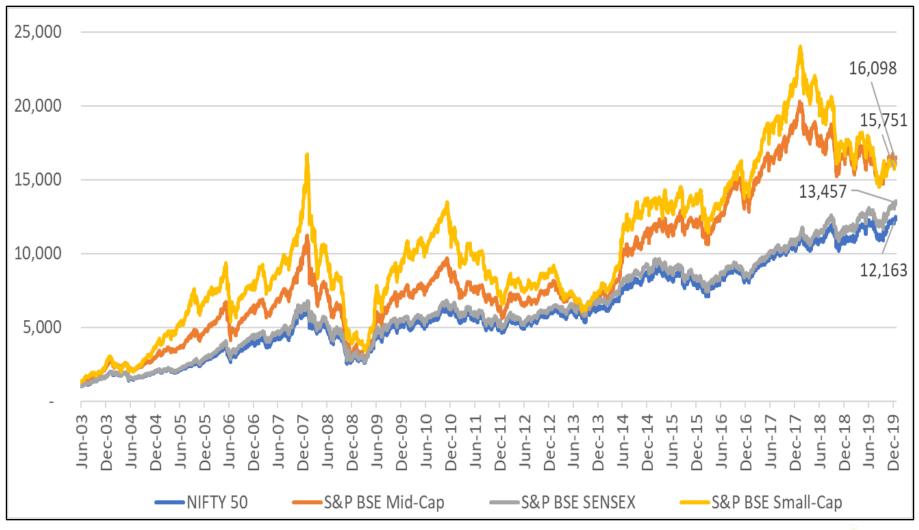


Sensex Returns year on year



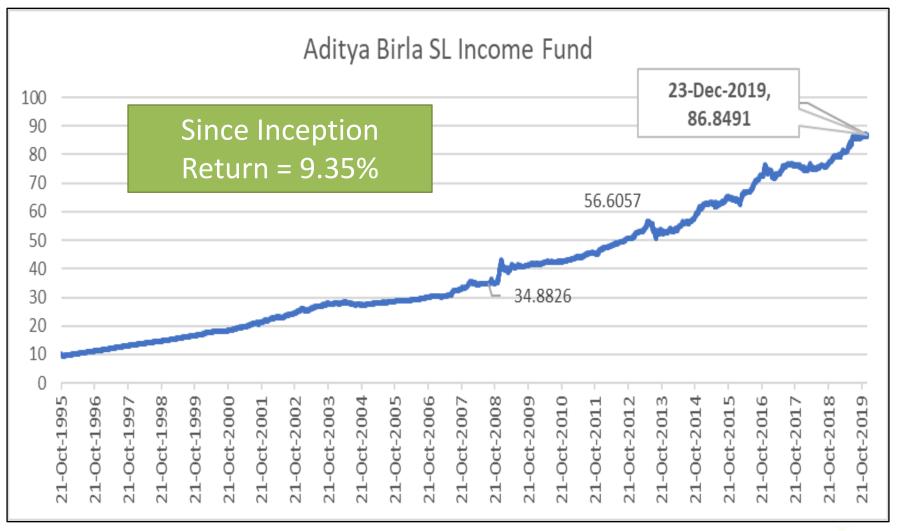


Rs. 1,000 invested in April 2003





Debt Fund Returns



What about other categories?

5 Year Return (CAGR) Daily Rolling

	Average	Standard
Category	Return	Deviation
Ultra Short Term Fund	8.26	0.79
Short Duration	8.17	0.41
Medium to Long Duration	6.83	1.99
Conservative Hybrid Fund	10.66	1.51
Aggressive Hybrid Fund	13.44	4.11
NIFTY 50	11.15	5.46

3 Year Return (CAGR) Daily Rolling

	Average	Standard
Category	Return	Deviation
Ultra Short Term Fund	8.39	0.91
Short Duration	8.24	0.95
Medium to Long Duration	7.25	2.14
Conservative Hybrid Fund	10.27	3.00
Aggressive Hybrid Fund	12.00	6.32
NIFTY 50	9.38	5.76

1 Year Return Daily Rolling

	Average	Standard
Category	Return	Deviation
Ultra Short Term Fund	8.36	1.44
Short Duration	8.18	2.42
Medium to Long Duration	7.57	3.90
Conservative Hybrid Fund	10.46	9.18
Aggressive Hybrid Fund	12.92	17.46
NIFTY 50	11.59	21.72

What about recent performance? Equity Mutual Fund Category average returns

	CAGR				
	1 Year	3 Years	5 Years	10 Years	
Multicap	9.92	12.91	8.41	11.81	
Large Cap	12.88	13.84	8.47	10.21	
Large & Mid Cap	9.25	12.59	9.13	10.96	
Mid Cap	4.07	10.08	8.06	13.40	
Small Cap	-0.30	7.81	7.66	12.19	
Dividend Yield	3.24	9.60	5.81	9.52	
Value Fund	2.04	9.38	7.45	10.75	
Contra Fund	5.46	12.75	8.16	9.90	
Focused Fund	12.27	13.90	9.24	10.84	
ELSS	9.13	12.76	8.50	10.84	
Sectoral/Thematic Fund IT	11.11	16.26	9.16	12.73	
Sectoral/Thematic Fund Other	4.02	7.89	6.82	9.99	
Sectoral/Thematic Fund International	26.42	13.12	7.59	8.11	
Sectoral/Thematic Fund Pharma	3.97	1.71	1.64	12.14	
Sectoral/Thematic Fund Infrastructure	2.18	7.82	4.91	5.54	
Index Funds/ETF Other than Nifty Sensex	14.88	16.70	8.97	9.41	
Index Funds/ETF nifty Sensex	7.68	13.09	6.60	6.92	
Banking & Finacial Services	19.70	19.35	11.24	13.85	

Private & Confidential

As of 24 December 2019



Hybrid Mutual Fund Category average returns

	CAGR				
	1 Year	3 Years	5 Years	10 Years	
Aggressive Hybrid Fund	8.74	10.01	7.70	10.13	
Dynamic Asset Allocation/Balanced Advantage	7.90	9.61	7.08	10.46	
Multi Asset Allocation	9.83	8.94	7.04	9.03	
Arbitrage Fund	5.96	5.72	6.38	7.13	
Equity Savings	6.84	7.12	6.64	7.22	
Concervative Hybrid Fund	6.50	6.35	6.73	7.91	
Children's Fund	9.85	10.01	8.12	10.25	
Retirement Fund	6.22	9.45	8.93	8.54	

Risk Management

PORTFOLIO RISK MANAGEMENT



What is Portfolio Risk Management?

- The identification, analysis, assessment, control, avoidance, minimization, or elimination of unacceptable risks is called Risk Management.
 Some Examples:-
 - A fund manager hedging with use of Futures and Option
 - Investors use financial instruments like options and futures.
 - Money managers using strategies like portfolio and investment diversification to mitigate or effectively manage risk.

"Risk comes from not knowing what you're doing." - Warren Buffet

Importance of Portfolio Risk Management

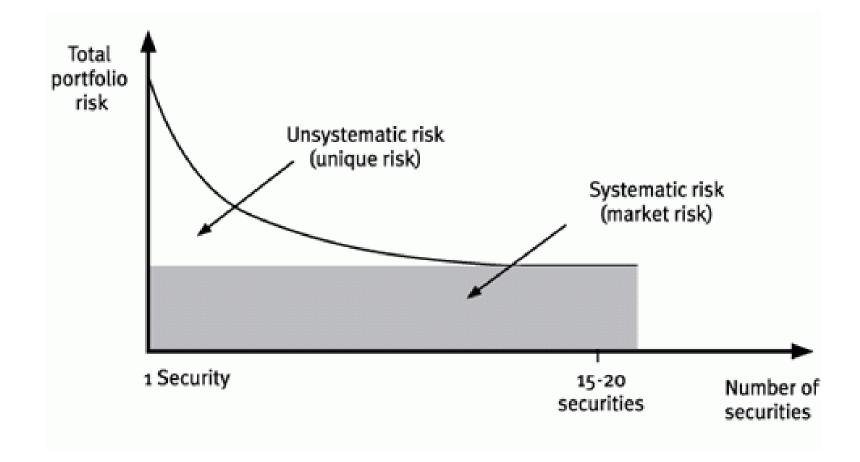
• The following chart shows how much of a gain you would require to make back a given loss:

Loss Incurred	GAIN Required to Break Even
10%	11.1%
15%	17.7%
20%	25%
25%	33.3%
30%	42.9%
35%	53.9%
40%	66.7%
45%	81.8%
50%	100%
60%	150%
70%	233.3%

• You can see that even a relatively small loss can require a pretty big offensive push to recover – especially with brokerage and investment fees involved.



Systematic vs. Unsystematic Risk



Types of Risks

Common Types of Risks for Debt as well as Equity

Concentration risk

The risk of loss because your money is concentrated in 1 investment or type of investment. When you diversify your investments, you spread the risk over different types of investments, industries and geographic locations.

Liquidity Risk

The risk of being unable to sell your investment at a fair price and get your money out when you want to. To sell the investment, you may need to accept a lower price.



Risks in Fixed Income

Default Risk

The risk that the company that issued the bond will run into financial difficulties and won't be able to pay the interest or repay the principal at maturity. You can evaluate credit risk by looking at the credit rating of the bond.

Downgrade Risk

The risk that the credit rating of the security is downgraded resulting in mark to market losses.

Reinvestment risk

- Reinvestment risk is the probability that an investor will be unable to reinvest cash flows (e.g., coupon payments) at a rate comparable to the current investment's rate of return.
- Interest rate risk It is the risk of losing money because of a change in the interest rate. For example, if the interest rate goes up, the market value of bonds will drop.



Risks for Investor

Longevity Risk

The risk of outliving your savings. This risk is particularly relevant for people who are retired or are nearing retirement.

Horizon Risk

The risk that your investment horizon may be shortened because of an unforeseen event, for example, the loss of your job. This may force you to sell investments that you were expecting to hold for the long term. If you must sell at a time when the markets are down, you may lose money.

Leverage Risk

Leverage (investing using borrowed capital) extrapolates Positive as well as Negative Outcome.

Inflation Risk

- The risk of a loss in your purchasing power. Inflation risk is particularly relevant if you own cash or debt investments like bonds.
- Shares offer some protection against inflation because most companies can increase the prices they charge to their customers. Share prices should therefore rise in line with inflation.
- Real estate also offers some protection because landlords can increase rents over time.
- Gold is considered as hedge against inflation.

How to measure Risk?

Standard Deviation

A statistical measure that defines expected volatility/risk associated with a portfolio. This explains the variation/deviation from the average returns delivered by the portfolio. A higher standard deviation means higher volatility (risk) and a lower standard deviation means lower volatility.

Sharpe Ratio

Sharpe Ratio is a risk to reward ratio, it measures portfolio returns generated in excess to the investment in risk-free asset, for per unit of total risk taken. While, positive Sharpe ratio indicates, portfolio compensating investors with excess returns (over risk-free rate) for the commensurate risk taken; negative Sharpe ratio indicates, investors are better off investing in risk-free assets.



Standard Deviation of a Portfolio

• For 2 Assets in a Portfolio

$$\sigma_{portfolio} = \sqrt{w_1^2 \sigma_1^2 + w_2^2 \sigma_2^2 + 2w_1 w_2 \rho_{1,2} \sigma_1 \sigma_2}$$

Where:

- W₁ = Proportion of the portfolio invested in Asset 1
- W₂ = Proportion of the portfolio invested in Asset 2
- σ₁ = Asset 1 standard deviation of returns
- σ₂ = Asset 2 standard deviation of returns
- ρ_{1,2} = Correlation coefficient between the returns of Asset 1 and Asset 2



Standard Deviation of a Portfolio

• For 3 Assets in a Portfolio

$$\begin{split} \sigma_{P}^{2} &= w_{1}^{2}\sigma_{1}^{2} + w_{2}^{2}\sigma_{2}^{2} + \left[w_{3}^{2}\sigma_{3}^{2}\right] + 2w_{1}w_{2}\cos v_{1,2} + \left[2w_{1}w_{3}\cos v_{1,3} + 2w_{2}w_{3}\cos v_{2,3}\right] \\ \sigma_{P}^{2} &= w_{1}^{2}\sigma_{1}^{2} + w_{2}^{2}\sigma_{2}^{2} + w_{3}^{2}\sigma_{3}^{2} + 2w_{1}w_{2}\rho_{1,2}\sigma_{1}\sigma_{2} + 2w_{1}w_{3}\rho_{1,3}\sigma_{1}\sigma_{3} + 2w_{2}w_{3}\rho_{2,3}\sigma_{2}\sigma_{3} \\ \sigma_{P} &= \sqrt{\sigma_{P}^{2}} \end{split}$$



Correlation of Assets classes in Indian Context

Correlation Matrix 11-30-2009 to 11-30-2019

Report Currency

INR

Investment Key

2

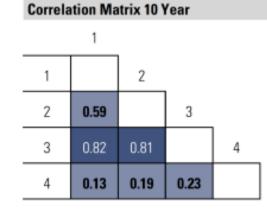
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4

Aditya BSL Savings Gr (INR) SBI Magnum Income Reg Gr (INR)

Kotak Bond S/T Reg Gr (INR)

SBI Nifty Index Reg Gr (INR)



Degree of Correlation

High	Moderate	None	Moderately Negative	Highly Negative
0.70 to 1.00	0.11 to 0.69	0.10 to -0.10	-0.11 to -0.69	-0.70 to -1.00



How to measure Risk?

> Beta

Beta measures the volatility or systemic risk of a fund in comparison to the market or the selected benchmark index. A beta of one indicates the fund is expected to move in conjunction with the benchmark.

Value at Risk (VaR)

Value at risk (VaR) is a statistical measure used to assess the level of risk associated with a portfolio or company. The VaR measures the maximum potential loss with a degree of confidence for a specified period. For example, suppose a portfolio of investments has a one-year 10 percent VaR of Rs. 50 Lakhs. Therefore, the portfolio has a 10 percent chance of losing more than Rs. 5 Lakhs over a oneyear period.



Ways to Manage Portfolio Risk



Diversification

- Eliminating unsystematic risk.
- Combining assets with low correlation with each other leads to true diversification benefit.
- Example
 - In recession- Equity Prices are down on growth concerns but bond prices go up as interest rates come down.
 - If Steel Prices go up, Steel Companies will see increase in profit but Automobile companies will see increase in costs.



Some numbers on Diversification!

	NIFTY 50 Weight - Return						
	40%	50%	60%	70%	80%	90%	100%
60%	10.50%						
50%		11.11%					
40%			11.62%				
30%				12.03%			
20%					12.33%		
10%						12.50%	
0%							12.53%

	NIFTY 50 Weight - Risk						
	40%	50%	60%	70%	80%	90%	100%
60%	12.73%						
50%		15.78%					
40%			18.87%				
30%				21.97%			
20%					25.08%		
10%						28.21%	
0%							31.34%

- In last 15 years, if you would have invested 100% of your money in Nifty then you would have earned 12.53% returns.
- But, Risk, measured by standard deviation would have been highest in this case.
- If you would have invested in any combination of Nifty and Liquid fund with annual rebalancing, then you would have earned better risk adjusted returns.



Past <u>Performance</u>

Investing Consistently (Cost Averaging)

Month	Investment	Price Per Share	Number of Shares
Month 1	30	30	1
Month 2	30	15	2
Month 3	30	10	3
Month 4	30	30	1
Month 5	30	15	2
Month 6	30	30	1

Average Price Per Share = (30+15+10+30+15+30)/6 = 21.66

Average Cost Per Share = 180/10 = 18

Position Sizing

- Position sizing is basically a Pre Trade Risk Management Strategy.
- It involves limiting your exposure to different securities.
- If a given investment is riskier than others, you can choose not to invest in it or to invest only a small amount of your capital.
- Many investors use this type of approach to limit exposure to riskier sectors or riskier stocks.
- A 50% loss on a Rs. 2,000 investment hurts a lot less than it would on a Rs. 20,000 investment.

Stop Loss Order

- You can place a stop loss order with your broker that will automatically sell out all or part of your position in a given stock if it falls below a preset price point.
- Of course, the trick is to set the price low enough that you won't get stopped out on a routine pullback, but high enough that you will limit your capital loss.
- Placing a stop loss order is one way to limit the damage to your portfolio and force yourself to follow a strict defensive discipline.
- Moving or ignoring stop loss levels almost always results in greater losses in the end. The first exit is the best exit.

Using Futures and Options Strategies

- The Main Purpose of Futures and Options is to mitigate or hedge risk.
- A Simple Strategy can be to buy Put Options to protect your Portfolio Downside.
- E.g. Lets say right now the Nifty is at 12,000 and your portfolio is sitting on sizeable gains but you are worried that Nifty may fall to 11,000 levels. So you may hedge this risk by buying an Nifty Put Option at a Strike Price of 12,000. This is like buying an insurance cover so you will need to pay a premium for the same.
- Lets say Nifty drops to 11,500 then your Portfolio will loose 500 Points but the Put Option will gain 500 Points and your Portfolio will be hedged.

Key Strategy Considerations for Families

- Safety
- Returns
- Liquidity

Identify Short, Medium & Long Term Needs

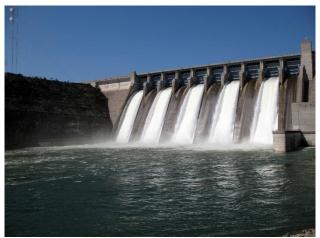
- Long Term Money –> Appreciating Assets
- What is Safe in Short Term may be Very Costly in Long Term



Short, Medium, Long Term Needs





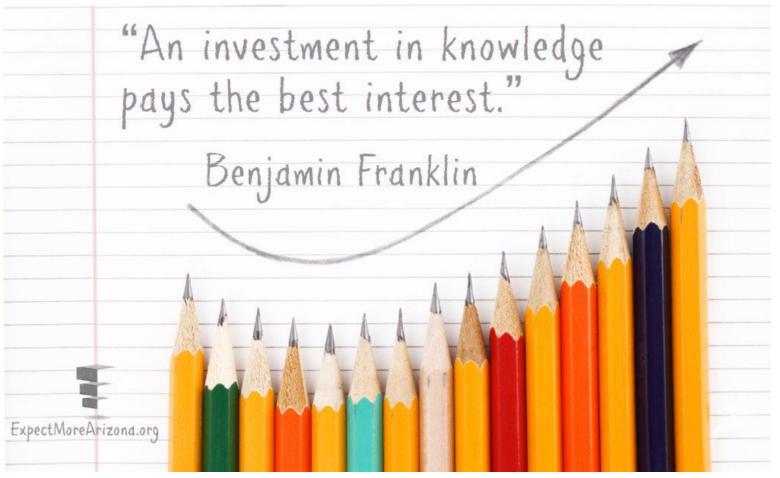




Link to connect "theory to Practice" **BEHAVIOURAL FINANCE**



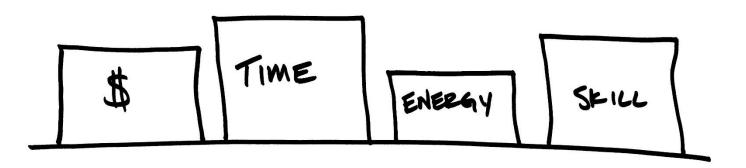
Where You are investing?





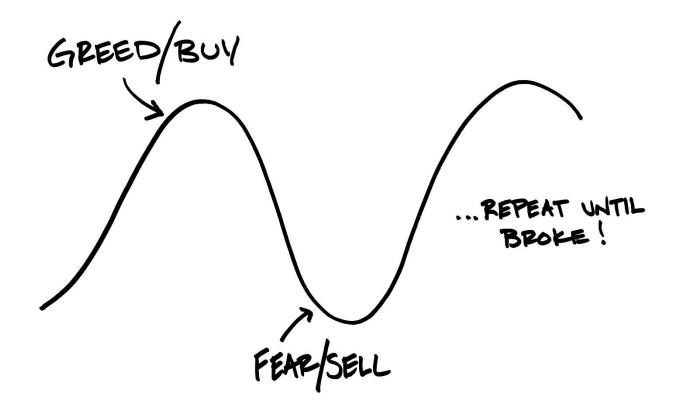
What you are investing?

THINGS YOU HAVE TO INVEST





Avoiding "Big Mistake"



BEHAVIOR GAP



What to do?

- Know yourself Risk Profile and <u>investment</u> <u>objectives.</u>
- Keep <u>reasonable Expectations</u>
- Outperforming Average is difficult and very few can consistently do it.
- Stay diversified across asset classes.
- Invest in Regulated products
- When in doubt seek professional advise from Registered Advisors



Happy to take your Questions

Thank You!

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