MARKETS

CYCLICAL NATURE OF MARKETS

This sets of essays inform you that not just failures are abundant, but also that the success itself isn't secular. Even the today's successes weren't evident through the past many years or decades. They went through ups and down. The key message from all of these essays is to have you feel and know that nothing compounds forever, that everything is cyclical.

Everything is cyclical

"Markets are irrationally exuberant," said Greenspan in 1996 (S&P doubled in the next 3-4 years).

"Indian equity markets are not in sync with reality..." said the RBI governor in August 2020, when Nifty touched 11k.

Bholu points fingers at people from high offices. Sometimes for their intentions and other times for their capabilities. And you know Bholu. He is everywhere. Cynic. Fatalist.

Ones who know markets see this as the difficulty in seeing the future. Thus they employ techniques to improve it by being probabilistic (seeing the future as a potential future) and iterative (updating the forecasts with new data).

They also don't bother about point estimates of the future like where nifty will be in December 2024. The real question that they speculate about is if the market is too confident or too myopic about the direction of the future. This helps them adjust bet sizing or positioning.

Nothing is certain - always in doubt. Try being a probabilist!

Nothing lasts - think of everything as cyclical.

Key message: Markets often defy predictions. The challenge of foreseeing the future looms, bringing to light the importance of a probabilistic and iterative approach to forecasting. Embrace doubt and uncertainty. Recognize the cyclical nature of markets. Adopt probabilistic thinking. Navigate the everchanging landscape of market conditions.

Bholu's disagreements on cyclicality

Bholu: So you turned again? I thought you were in the inflation camp.

Me: Yeah. From mid-2021 until fairly recently. No more. Inflation is out of firepower now. A full-force disinflation is likely 2024. Thus, it's time to be long on US long bonds.

Bholu: This fickleness of yours—shifting from bull to bear and then back to bull, more inflation to less inflation, higher rates to lower rates—betrays you as nothing more than a common trader. (He was never interested in reasons. Never.)

Me: <u>There is little in our toolkit that allows us to see very far. But we can see short distances. And it</u> would be unwise not to react to the dichotomy between what is priced and what is likely.

Bholu: So you 'basically' have no secular ideas? Nothing permanent to hold on to?

Me: I have some secular views, but those are to be priced only at the edges of the market, in unbridled exuberance and extreme despair.

Bholu: Whatever.

Key Message: The financial markets are cyclical, not secular. It is important to adapt to short-term changes rather than clinging to permanent views, as reacting to the difference between market prices and likely outcomes is crucial for making informed decisions. This and many such conversation I had once – when I used to work with Bholu. He used to have bitter fight with me – when I would change my views on markets. I tried to explain to him many times – that in financial markets there is no absolute truth and we have to incorporate the new data to reassess the view – over and over again.

Nothing compounds forever

Every living organism is built to compound as it's programmed to grow geometrically. The risk of extinction forces the gene machine to over-produce but then its offspring face competition for food, amongst themselves or from fellow species and life threats from germs & predators. Such constraints ensure that nothing grows geometrically. Nothing compounds secularly.

Compounding assumes that our children will have as many resources to graze upon, profits of the firms will have enough opportunities to turn into the capital to earn even more profits and nations will continue to have growing populations and their inventiveness to grow further.

The precondition of compounding is surplus, as it assumes a potential of more exists. Only if there were more people to plough the land & pluck fruits and better ways to till the land and toil, the output of the garden will grow – is how it works across human endeavours too.

But never forget that even decay has a compounding feature. A firm that is unable to compete for decays in every subsequent year- eventually withers. Cancer turns metastatic- the end game is engulfing the whole body. Civilizations decay, as previously vibrant cities and empires for millennia, disappear in a matter of a few hundred years. No wonder golden-bird and middle kingdoms of the first millennia turn into poverty lands by the beginning of the twentieth century.

A firm that loses talent decays, a nation falls into the abyss when its rich and intelligent leave, a family that disunites weakens and a farmer infertile-s his farm when he overgrazes. Decay has its million ways, entropy is a universal truth and growth is a rarity.

One more thing about compounding- when things are decadent- until very last, most people don't seem to notice it. If you start with a drop of water in a stadium and double it every minute, up until 40 minutes it will seem like a thing that you could ignore as water would barely be there on the pitch, and you would be hoping that the match would begin soon. Within 7-8 more minutes, the whole stadium will be drowned, if water continues to pour, doubling every min. The magic of compounding turns into a catastrophe if it works in reverse. The collapse of the Roman Empire was underway for a long, but the collapse became noticeable only in the last few decades. No one knows for sure, but something similar happened with the Mayans, the Harappans and many such great civilizations of the

past.

So?

Be aware that compounding is never secular. Beware of decadent compounding along with growth one. The former is more prevalent across the swaths of history. And finally know not to trust your senses to detect the decay – because you will be too late then. The only reason will help.

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And as for markets, consider them as yield farms. Money that pours into it works as a fertilizer, and bloats its valuation but when it's overgrazed, in anticipation of even more yield that it is capable to produce, the end game is opposite of what is anticipated. Markets turn infertile.

Bholu and Sherlock Holmes on mean reversion

In that bar. Sherlock Holmes and Bholu were together. An unlikely conversation of two such diff folks. But it happened nonetheless.

"When you have eliminated the impossible, whatever remains, however improbable, must be the truth" Sherlock* said to Bholu in context of why he thought the assumed certainty in anything, is a bane for investors.

"Don't give Gyan" Bholu always wanted others to talk to the point. No abstractions.

"The current valuation assume cyclical high margins are the steady state of being" Sherlock explained to Bholu. "It is more likely that corporate margins will mean revert instead of rising or plateauing here"

"If everything is so uncertain as you claim, then why be so certain about mean reversal of margins" Bholu quipped.

"Ah. That's a good retort. It is true that we have no clue of what will happen in next few quarters. But mean reversion is the path of the least resistance in medium to long term" Sherlock continued.... "All margins and valuations always mean revert" he quipped.

"Why so?" Bholu asked!

"Because margins are deep rooted in the functioning of political economy. Any excess begins to hurt one or another constituent. And that forces policy makers to take corrective action" Sherlock said.

Bholu was unconvinced. He was last heard arguing about massive flows in equities.

"Crime is common. Logic is rare. Therefore, it is upon the logic rather than upon the crime that you should dwell" I heard Sherlock* whisper.

"So you are saying it's a crime to invest in equities at these levels" Bholu' question was straight forward.

"Not exactly.... but anyways ready yourself for poor returns over next few years" Sherlock hurriedly ended the conversation and moved on to the table where Watson was waiting for him.

*Arthur' stories

Market is a win-lose game

In high-value 'corporate actions', particularly in distress or winner-take-all situations, those who view them as zero-sum games often fare better. Moralizing about cooperation tends to lead to less favourable outcomes. Most of us who have a romantic notion of 'win-win' and a reflex to cooperate learn this lesson the hard way.

Once, in a typical prisoner's dilemma set up where all lenders were expected to cooperate for maximum recovery, I asked the group of lenders, "How can we ensure that no one cheats, given that it's the optimal strategy for the party convinced of everyone's cooperation?"

This statement got the chief of a fund fuming: "How dare you call us..."

I tried clarifying that I was referring to 'cheating' with Nash equilibrium. But I got the spanking nonetheless.

I was reminded of this incident while reading Hobbes, who argues in his work Leviathan that "human life is characterized by a war of all against all, where individuals pursue their self-interest and life is chaotic and dangerous" and that people are best placed to optimize for themselves in a competitive environment as life is "solitary, poor, nasty, brutish, and short."

His perspective offers an alternative view of life; many of us may find it discomforting. Yet, it's crucial to acknowledge the existence of such "operating systems" in high-stakes games (e.g., power politics).

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In routine life, though, we must play win-win games only. Making cooperation the default strategy.

Watch the beautiful mind's 'ignore the blonde' scene of John Nash explaining why Adam Smith was wrong. A good lesson in game theory there. The opposite of Hobbes'...

Key message: A zero-sum game mind-set often yields better results than idealistic cooperation. While many hold romantic notions of 'win-win' strategies, reality teaches that self-interest can drive optimal outcomes. Cooperative strategies should prevail. The balance lies in understanding when to apply each approach.

A meeting with Buffett, Taleb, Ray Dalio and Soros

Last night, I was at a popular pub, with Buffett, Taleb, Ray Dalio, and Soros. Chit-chatting on how markets work.

Buffett was a quintessential optimist, a believer of secular growth but was dismissive of anyone's capability to predict near-term macro, growth or inflation, policy outlook or price behaviour. Instead, he said, it was possible to identify businesses with good management, low competitive intensity and reasonable capital structure. Buy them at a reasonable price – your money will multiply.

Soros agreed but was quick to add that while predicting a complex system is difficult, the real task at hand was made easier because of the stupidity of men. Oftentimes, policymakers and investors err, and it's not difficult to detect them. Position against them, size them well and one will make extraordinary returns- he said. He seemed rather upset that his ideas of reflexivity hadn't taken centre stage in investing world. I adored him.

An old uncle, likely a prominent ecologist, looked down upon this conversation, and accused everyone of

colossal ignorance- we would soon run out of cheap fuel, minerals and people, our planet would sizzle, soil would erode and the current civilisation would end, as others had ended in distant past- he claimed- we have crossed the tipping point, and there was no technological solution to the issues we faced. Cathy woods tried to intervene but was dismissed by everyone. We needed Elon in the conversation. But he was busy tweeting memes on senile president.

Ray Dalio chimed in, with his well-rehearsed script of how he had studied 500 years of history and realised that there were cycles –the same thing playing repeatedly. He talked of debt's rise and fall, peace & wars, free trade & mercantilism, and liberal & popular politics. Pessimistic about the developed world, his ideas on China didn't seem too cogent.

But while he was at it, a middle-aged man with a strange accent yelled, calling everything bullshit. 'The future Is unknowable and, the only thing that one can know is that bad outcome is more common than what is priced by markets. Buffett giggled and asked- therefore? Own anti-fragile stuff- He meant 'out of money' put options, gold, fertile land, long volatility. Taleb he was.

My old colleague, an able fund manager was perplexed. Wasn't it enough to know how things are changing at margin and position for them? He had done that for years. Did one have to know and bind himself to one or other pole of these greats – he mumbled.

The pub was in the right hemisphere of my brain, where these men party the whole day and at times, the whole night. I meet them often because I want to synthesize them, let both history and science be my lampposts. Hope is to take risks like Buffett, but stay prepared for fat tail events, and at times speculate against excesses and errors, like my hero Soros does. Yet alongside, be ready to cut losses, the way my colleague used to do it so well.

That conversation – that night in the bar– continued.

Shiller joined it, suggesting, "Markets are volatile because investors tend to be irrational. Not always, but this is the chief reason. The gyrating emotions of exuberance and fear."

Taleb, with a hint of nastiness, swiftly retorted, "No. Markets are complex systems. Inherent in them is the occurrence of rare and unexpected events. Read- The Black Swan please!

Attempting to maintain a gullible demeanour, I chimed in, "Yes, I agree. But have you heard of the framework by Tetlock? His idea of how iterative and probabilistic thinking can yield great results in forecasting an unpredictable future. I have used them successfully"

Taleb, with a dismissive tone, responded nastily, "BullS**t. You seem like a lowlife wanting to profit from your supposed iterative mind. Friend, markets are unpredictable. Period. Even God can't do it."

Cochrane, in a calm and reasoned manner, entered the conversation, arguing, "It's true that the first part of Taleb's claim holds, that there are tail risks. But his assumption that all of us model risk based on a normal distribution is an overreach. There are certainly other distributions in statistics, and we can use them successfully."

Shiller, undeterred by Taleb's nastiness, softy interjected, "I guess the only thing that works well is my CAPE ratio. If you are paying high prices for things, you will get low returns. Period."

Taleb, displaying his signature rudeness, retorted, "Oh, come on! Investors who relied on your ratio since 1996 are still waiting to profit from it. I am okay with the lowlifers (he leaned towards me), but this one—relying on statistical methods to predict the future—is as shitty as it can get."

Heavily accented - once a famed CIO of Indian fund, not wearing any gullible facade, likely unaware of all these

theoretical stands, jumped in, "But you can't bet against India, So why bother - just be long India"

Taleb, shrugged and made a little face, ignoring the comment.

Shiller, softly said, "But we can agree on one thing at least. That we both debunk the efficient market hypothesis."

Taleb, in disagreement, responded, "No, my friend. I'm afraid we don't. Markets are not inefficient due to the lack of our trying; they are because there is no option. There is no way we can predict markets."

Graham's soul was stirred, and he pushed the idea of the intrinsic value of securities, asserting that only speculators bother about market volatility. He seemed the most famous there.

Daniel Kahneman responded that our biases influence decision-making in all walks of life, including markets. Sothere should be a mechanism to overcome these influences, Shouldn't it? Taleb – surprisingly was respectful towards DK. He murmured that only Soros could do it - in his knowledge

Fama remained quiet throughout, his once-central thesis of the efficient market hypothesis now debunked and no longer at the centre of any conversation.

STRESS, SELL-OFFS AND VOLATILITY

Why markets sell off as much and as often. Why are they so volatile? What causes stress in the system.

Risk and Regret Framework

"Why should markets fall because of the US recession? That's not the end of the world. I understand that earnings will fall, but they will recover too," said a well-meaning fund supremo.

"<u>They fall because when the future is certain, humans optimize for RISK. And when it's uncertain, we minimize for REGRET. This reaction function of ours, with respect to RISK and REGRET, drives booms and busts. Recession is not about earnings falling. It's about uncertainty, even though it may be only for the near term," I wrote back.</u>

"When I am telling my investors to think of the long term, why should I confuse them with this messaging?" he fired back.

"Oh yes. But that won't change their behaviour regarding how the RISK-REGRET apparatus will be used by them. Knowledge isn't a sufficient antidote to our innate tendencies," I wrote back with a smile.

Key Message: Market behaviour is influenced by how investors respond to risk and regret. During times of certainty, they optimize for risk, but in uncertainty, they minimize regret. This inherent reaction to uncertainty drives market volatility, emphasizing the need to understand both short-term and long-term investor behaviours.

Who panic sells and inelastic markets hypothesis?

Two studies will perhaps help you build an alternate framework of thinking about markets & investing. This framework sees markets as inelastic, inefficient and susceptible to panic attacks on both sides and attempts to benefit from these bugs.

The first study is about the effect of incremental allocation of equities to markets. The 'fundamentalists' believe that markets go up & down due to intrinsic value of underline stocks and has little or no impact of flows. But a recent research dis-proves this thesis with some surprising data.

https://www.nber.org/system/files/working_papers/w28967/w28967.pdf

It says 1% market cap worth of flows= 5% increase in market cap. So, in a 100 cr market cap firm, 1 cr buying leads to 5 cr of increase in market cap.

Why does it happen? It's because most investors are allocating money to equity without bothering about the price of it. Every fund is telling you to continue SIP. All pension funds are allocating money to ETFs, month after month. Don't look at market, just keep buying is the Gospel. All of this results in low price elasticity of demand of equities. This is the reason, markets tend to overshoot in stable times.

In an another study of 300k households, researchers found that households panic-sell in sharp market downturn resulting in 'undershooting' markets. Just the opposite of the previous set up.

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3898940

The ones who panic-sell tend to have following profile: male or 45+ or married. It's called 'freak out' behaviour in which investors panic-sell reducing stock ownership by 90%. How many such people are

there? About 0.3% of total investors. Small but significant enough to cause panic on street. Surprising thing is that the people who sell are more likely to be considering themselves having 'good or excellent investing experience'. The truly innocent ones aren't likely to succumb to this!

Now let's join the dots. The first study tells us that stock prices are price inelastic on upside. Even on downside it must be. Now, when one confronts 'falling markets', it seems about 0.3% of investors freak out and sell in panic! Given that most of this happens within a small time frame, in a set up when bad news is flowing in, the likelihood of having new investors buying into markets becomes low. The usual long only investors are anyways 'long only'. This is the only time passive investors take a pause. Only time when SIPs break. Lack of enthusiastic buyer's increases bid-ask ratio, exaggerating the effect of panic-selling even more. This perhaps is the reason why equities undershoot and become cheap in every crisis.

Two of these studies create a logical set up to time markets. The whole trick is to invest when markets are experiencing meltdown due to freaked out investor behaviour. For that, you will have to create cash even when others are showing inelasticity to expensive markets & bad macro. Try it. This works!

A bug & a feature of financial markets

One Bug in financial markets is that they offer liquidity only to the need of a random investor and never to the system itself. An investor can sell as long as it's not driven by a consensus view of deteriorating market conditions. If there were to be systemic attempt to exit, the liquidity dries up fairly quickly, bid ask widen, Volatility zooms.

Simply put, everyone cannot exit together. During stressful times, the exit door in markets is narrow and its opening is contingent upon policy actions. Unless authorities/Govt provide support, what is often called a policy put, the door has a tendency to get narrower. And narrower.

It's not such a great insight at the face of it but becomes extremely important because many investors enter financial markets with a faulty assumption of its infinite liquidity. That results in the classic problem of ALM, an asset liability mismatch - the evil that produces almost all financial crisis's or meltdowns.

Let's know this bug because most of us want to exit when market doesn't offer one. You always have to exit ahead of 'everyone'!

Now the feature of the market. Sort of a paradox. Large institutions can process information better but are constrained by the sizes of their positions, whereas independent investor is in opposite camp, constrained by assimilation of info though his ability to exit is far superior. Institution is like a big truck on a narrow lane, it needs to be the "only one" driving to cross it.

So the lesson: If you are an independent investor, the market's liquidity constraints don't apply to you as stringently. Only as long as you can assimilate the reversals ahead or 'just in time'.

When and why do risk premiums rise in equities?

Imagine a bet between us on a coin toss: heads, I win and get an umbrella from you; tails, you win and get an umbrella from me. This seems fair. Now, consider if the probability of rain is 50%. Losing the bet under these conditions might make you feel worse, potentially leading you to refuse the bet over just one umbrella. How do I entice you to play this betting game still? If I might offer two umbrellas if

you win, you could agree because the significant gain outweighs the discomfort if it rains. (Adam Iqbal)

Take another scenario: an umbrella costs 100 rupees, and it's sunny with a 0% chance of rain. Suddenly, the probability of rain increases to 10%. For the seller, nothing changes, but for the buyer, the umbrella now offers a safety net, likely leading to a willingness to pay a premium.

Similarly, when it rains heavily, Uber or Ola increase their prices, and on a very cold day, sweaters can be sold at higher prices. Consumers become less discerning under pressing circumstances, less likely to bargain or compare prices, allowing sellers to charge more.

These examples tell you how the perceived value of an asset can change under different probabilities of outcomes and the behavioural aspects of financial decision-making under uncertainty. When the risk rises in the market – the risk premiums rise too. <u>Invariably – after a major downturn in the market, the perceived risk is often significantly more than likely risk, giving rise to excess risk premium. Keep this in mind when you build your market timing strategies. Also, don't ever be in a situation of exiting risk in the midst of major downturn. You will likely be exiting at significant discount to fair value offering the buyer high risk premiums.</u>

Equity risk premium changes and is not constant over time, buying in distress should give you higher risk premium. A cycle investor almost always ends up behaving like a buyer of last resort. In catastrophe, when there is run in the market, he offers much nee ded liquidity.

Volatility is an intrinsic nature of assets

Back in mid 90s. I had recently learnt driving. One night, I impulsively planned a quick trip with friends to a mountainous area. As I drove, the car cabin echoed with loud jokes. Typical of 20- something of all of us.

Suddenly, I found myself on the edge of a cliff, mere mili-moment from disaster. I don't know yet what really happened - but a timely reflex saved our lives. Else.

<u>Reflecting on this as a fund manager, I would liken it to a market plunge. The present value of my life</u> <u>could have plummeted dramatically just in those few mili-seconds, only to recover instantly as I</u> <u>steered away from danger.</u>

This is called volatility.

Stocks aren't volatile without reason. They fluctuate because they occasionally approach points where their present value drops sharply or rises dramatically, though the former is more common.

If you want to 'feel' market volatility, think back to a time when a large truck passed so closely while you were driving that you shivered, realizing how close you were to a life-ending event. In that very moment - the value of life term would have dropped precipitously.

Volatility is not intrinsic to our models. It is intrinsic to securities.

It is not in the way we think of things. It is the way things are.

Volatility is not a quirk of market systems. It is for real.

General ideas on volatility of markets

- 1. If the payoff structure of equity and the expectations of investors were the same, there would be no volatility. However, the significant volatility, and even more so, the volatility of volatility, indicates a considerable difference between the two.
- 2. Market outcomes are diverse, and investors often aren't trained to anticipate this variability. Consequently, they are somewhat unprepared, leading them to sell when confronted with unexpected results.
- 3. Equity valuation is tied to the real economy, where investors are also participants. During economic downturns, investors may lose their jobs simultaneously with equity drawdowns, prompting them to sell.
- 4. Equity prices are influenced by margin buyers or sellers. On days when many investors want to exit, buyers may be scarce, exacerbating volatility.
- 5. There's a disconnect between the expectation of significant long-term risk premiums and the experience of short-term sharp drawdowns, leading to investor confusion and misplaced trades.
- 6. The real economy, inflation, and growth are cyclical too but a lot less volatile than financial markets. Understanding this is crucial to viewing markets as deeply cyclical.
- 7. Markets are influenced by the real economy, risk appetite, and regulatory biases. These factors are interrelated, sometimes supporting rising asset markets and other times causing declines.

Stress Indicators of variety of things

Where will you see the stress building up first in a corporate balance sheet? Working capital cycle. Payables balloon.

And where does the failure of monetary policy express itself first? USDINR and forwards.

Where do we first spot the funding stress for financiers? In Asset-Liability Management (ALM). Shorter maturity as a percentage of the overall borrowing goes up.

The place where the economic stress is most reflected in any economy? Bank share price relative to the index.

The reason that gets most fund managers in stress? Choosing ideology over pragmatism.

The universal stress indicator? Rising USD or rapidly falling CNY. The economic regime that the wealthy are most scared of? Deflation.

India's biggest stress for the foreseeable future? Crude oil prices and China.

The management or promoter you should be stressed about? Ones who talk of moon shots.

How do we know someone is stressed? Look at their face :)

These ideas are akin to a subtle finger indicating a certain direction. Faint one. But, as is customary, the realm of truth extends beyond the boundaries of some such formulas!

Key Message: Stress in financial systems and economies can be identified through various indicators, ranging from corporate balance sheets and monetary policy impacts to funding stresses for financiers and economic regimes feared by the wealthy. Recognizing these stress points can provide valuable insights into the underlying health and stability of markets and economies.

Identifying stress in the system

Our prior is that a lot of stress in equity markets travel through macro and policy variables. Equity has risk premium and most participants in it, are either wiring money passively or are occupied identifying firms which have superior risk premium vs that of markets. In aggregate, markets don't invest much on understanding the evolving macro risks.

That's not true for other markets. A bond guy, if he gets inflation or Fed's reaction function wrong, will be roasted. A fx guy gets the geo-politics and relative economic performance wrong, will do terribly. Banks and PMs are focused on creditworthiness of firms and will be first to pick up deteriorating conditions of the firms. Not of the entire market but of the firms. Tightening credit standards will slow economy, higher policy rates will squeeze asset prices.

Most of the times, these markets function well. And there is little to pick up from them. At times, there is stress in one or another market, but that doesn't become systemic. Which basically means, the impact of that is quarantined by market reset or regulatory actions. But when the distress in one or more markets begin to persist and for various reasons, macro or moral, policy makers can't act, we see stress travel far and wide, across markets including equity.

For one who want to time market, he is squarely focused on what is breaking and where. If that will become systemic or not. This helps them navigate risk markets better.

Each market tells a story. But here, we are interested in aggregates. Are there markers which tell the story of aggregate stress. OFS, Goldman Sachs FSI, BIS MCI, Fred FSI are some such indicators which will tell you if market stress is becoming systemic. Have a look at them every now and then. Most of the times, there will be nothing much. But when it is – stay alert to act.

KNOW MARKETS AND TIME THEM

Why long-term forecasts?

"What's the point of these elaborate yearlong forecasts? The future, by its very nature, is either unknowable or inevitable. Isn't it?" Red Queen wrote back to me after receiving my 2015 Outlook notes.

"Forecasts offer two values. One is a coherent idea of how one of the many ways the future can unfold. Two, it helps an experienced head calculate if there is too much certainty priced into a rather uncertain event," I wrote back.

"The market is an infinitely complex system with infinite feedback loops. It is almost impossible to forecast anything succinctly, no?" The Red Queen fired back.

"You are right, sir. There is no way to predict the future precisely. But the market is generous enough to compensate for directionally correct forecasts," I said.

"But what gives you confidence that you are getting things directionally right? Isn't every data that is known to you is known to the market already?"

"Well. The market is an aggregate system. It accommodates and thereby prices all – well-informed as well as less-informed. For every me, there are 10 times more passionate folks out there who are responding to a fake narrative." This 10-time number was a made-up one. But you get the point. I was trying to respond to this oft-repeated Chicago school-style idea of an efficient market. It kind of always looks fatalistic to me.

I don't think I convinced him well. Every year since, I only get thumps up emojis from him for my annual outlook like from the since and the s

Key message: The market is complex and inherently unpredictable. Forecasts provide valuable perspectives. While precise predictions are impossible, directionally correct forecasts can still be beneficial. Opportunities lie for those who can discern underlying trends and narratives because a plentiful of less-informed participants create opportunities for even somewhat better prepared ones.

Ideas on Forecasting

For the past 20 years, the average forecasted rise of S&P 500 has tended to be in the range of 5-10%, and for the Nifty, 10-15%. However, the reality often diverges significantly from these predictions. Here is a quick guide to help you navigate forecasts for 2025:

Volatility Awareness: Volatility is inherent in any asset class. If someone predicts a 10% rise in the Nifty, given its 18% standard deviation, they likely mean it could range from -8% to 28% (with a 68%

chance). This broad range isn't very useful for investment decisions. Volatility decreases over three years to about 13%, but it's still not enough to provide comfort. Therefore, equity investments are best made for long horizons, ideally 10 years or more.

Understanding Median Forecasts: Median forecast for an asset, most specifically stock don't predict where markets will end up in the said horizon. Instead, it represents the price at which markets will clear that stock, considering the prices of other assets, especially bonds. So, median market forecasts should be viewed as 'expected returns' rather than guaranteed outcomes.

Professional forecasters framework: Most professional forecasters rely on two main beliefs: that an asset's historical returns will continue, or that risk premiums remain stable over time. These forecasters can't predict extreme market events like a major bull market or a significant collapse because their frameworks don't allow for such views.

The Entertaining Extremes: More entertaining forecasters include uber bulls and bears. They base their views on external factors they believe the market can't fully account for. For example, a climate change analyst might predict a bleak future, while an uber-nationalist or technologist might foresee exceptional positive developments. These forecasts often have a low signal-to-noise ratio.

The Reality of Forecasting: Most professionals know it's impossible to forecast a whole year accurately due to unpredictable changes. However, they create 'priors' or initial assumptions as a map to navigate the year's uncertainties. Never fall for the "set it and forget it" idea. History is ongoing, and our limited money and time need constant attention.

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A few years ago, we were all packed in a room, engaged in a discussion about how various markets would behave over the coming year. Bholu remained silent throughout. His stance was clear—he questioned the value of our efforts, considering the likelihood that our predictions would only be partially accurate in a year's time. I could never convince him.

Key Message

Forecasting is fraught with challenges and uncertainties. While it provides a framework for navigating the financial landscape, it is essential to remain vigilant and adaptable, acknowledging the inherent volatility and unpredictability of the markets. But also- be aware that there is no choice but to make forecasts – for incremental asset allocation decisions.

Market is an emergent phenomenon

The market is the result of millions of individual actors, each operating under numerous assumptions about the future of the security.

The future is only somewhat knowable and largely unknown. Given these characteristics, the market behaves like a complex system.

Thus, it is fair to think of the market as an emergent phenomenon. Emergent phenomena are characterized by the appearance of patterns and properties not evident in the individual components of the system. In the context of markets, this means that collective behaviour and outcomes arise from the interactions of numerous participants, leading to unexpected and unpredictable events. Consequently, surprise is intrinsic to the market's character.

It would be more surprising if the market were not surprising and functioned predictably like clockwork. When investors begin to think that there is no surprise, they will still be surprised! The market's inherent complexity ensures that unforeseen events and outcomes will always occur.

The only good way to price markets is to price recurrent surprises.

Risk premium that market delivers is a premium for actual risk. Not a mythical risk.

PS

"Emergence is a measure of surprise to the observer. When observed does what observers didn't expect" something like this Michael Levin said in a podcast. If you haven't read or listened to him... you have overlooked something truly profound.

Personality of market

- 1. With no goal: The market has no goal for itself. It consists of tens of millions of people trying to interpret the future of an asset relative to others.
- 2. With no agency: Lots of people assign agency to markets in reality it is simply a clearing house.
- 3. With no wisdom: The market has no wisdom either. It keeps no records, has no limitations, and operates without constraints.
- 4. Ghajni: The market is like Ghajini, making the same mistakes not just every century, but in every cycle and every decade.
- 5. Buyers and sellers: Of the infinite volume of buyers and sellers, in reality, the only seller in the market is that ageing man, of age above 60-65 years, whose income has stopped and who has to run down on his savings to pay for the bills. And the buyer is the middle-aged man (40-60) whose income is growing rapidly even as expenses flat line.
- 6. Loss function: Market is a loss function, but not between the predicted value and the 'actual' ground truth. Instead, it is some loss function vis-a-vis the next dominant prediction.

- 7. Relative value algorithm: Yes, the market eventually aligns with reality because most of its participants find relative value in something else. But this happens not because they discover the eternal truth.
- 8. Price is actually a ratio: In the absence of another asset, there is no market of an asset. There is no price of it. The price of an asset is best understood as a ratio between that asset and a competing one.
- 9. Stop loss: Markets tend to get things right in the long run by pushing participants to recognize when an asset's price has reached an extreme, that is not in alignment with other markets. This realization encourages participants to shift their focus to other assets. As a result, the asset experiencing extreme pricing sees reduced investment flows. Even a small amount of selling can then cause significant losses, which further forces investors to exit their positions, unable to bear the mounting losses. This self-correcting mechanism helps bring asset prices stay close to reasonable levels over longer time horizons.

Key Message

The market is an aggregation of countless individual interpretations and actions, operating without inherent wisdom or goals. Its movements are relative, driven by participants' shifting perceptions of relative value rather than absolute truths. Many who claim the market's wizardry, the wisdom of the crowd, that it always gets things right – give too much value to this device to discover price of an asset. Like us, this collective too is full of faults. But unlike us – it doesn't hallucinate till perpetuity. It corrects its biases over long run.

Being rich is a sufficient condition to be richer!

Fact1

Most perplexing economic outcome pretty much across the world is that return on all assets (weighted average of housing, equity, bonds) is twice of the GDP growth.

Across countries, weighted average return on wealth is REAL 6% vs Real GDP growth of 3%. Only in war time –this equation reverses. No one really knows why.

If past were to be a guide, and that we see no extinction level catastrophe- the likely outcome of a decently managed portfolio of housing and equity is that it would be able to buy 25-30x of goods & services in 50 years' vs today.

Implication is that being rich is a sufficient* condition to be richer.

Fact2:

Most amazing thing about inequality is that it rises in distress or in low economic growth conditions. And falls or stagnate in very good growth conditions!

Implication for a policy maker is that he should top bothering about inequality- there isn't much that can be done about it. Bother about good governance - which primarily means good opportunities for all!

Key message: Assets have delivered better than real GDP growth – over long period of time. That means rich will always get richer, which means inequality will rise. The implication for the policy makers is to ensure that there is an opportunity for all instead of tackling inequality.

Feelings, anecdotes, macro and market signals

There is nothing that gives rise to 'feelings' gives any lead to future. Most feelings are the opposite of telling anything leading.

Feelings are the product of the past, companions of the present and are deceptive of future.

There is little value in anecdote - as it is only noticed by you to affirm your own priors. Macro or the aggregate invariably has little or no connection with local or topical.

The anatomy of a macro signal is that it is born of excesses, is cuddled by policy mistakes, and its effect in markets is aggravated by investor herding on both sides.

The belief system for detecting macro signals is the disbelief in secular -one sided views- of any kind.

Macro is made of many micros. A mosaic it is.

Different markets solve different unique things. Rates solve inflation and policy bias, currency - relative growth and real rates, credit - lending standards and investment cycle and equity solves the capital' discipline.

And each market relies on all other markets to process rest of the information. The way to solve <u>A</u> <u>Market</u> is to solve <u>all Markets.</u>

So if you are still asking why Mosaic- it's because we are combining diverse set of credit assets and mixing macro & micro frameworks to deliver better return for each unit of risk.

10- Pillars of market timing framework

- 1. In tracking macro and markets, reason trumps empirical evidence, which in turn surpasses anecdotal tales. Relying on recent 'rural excursions' to shape your market perspective is more likely to mislead you. Oh, the heated debates I've had with this celebrity equity strategist on this matter, particularly regarding his latest trip to his hometown and the inferences thereof!
- 2. Rate of change matters more than absolute levels. The absolute level of inflation or growth provides little actionable information for market decisions. How these metrics are changing, especially relative to expectations, holds far greater significance.
- 3. No macro and market setup is completely similar to the past, yet none is entirely dissimilar either. Therefore, always look for analogues to gain insights into current conditions.
- 4. Surveys yield more valuable insights than hard data (PMI vs IIP, inflation expectations vs inflation). Second derivatives (e.g., VIX vs Nifty, MOVE vs UST, change in bond yield vs current bond yield) are more revealing than spot indicators. Understanding how data trends compare with expectations is even more crucial.
- 5. There are few real economy indicators that effectively signal turns in the economic cycle. It's more effective to observe how markets react to economic or policy data. Bonds reflect RBI's inflation prognosis, the S&P indicates risk appetite, Dr. Copper reflects China's demand, and the USD reflects financial conditions.

- 6. The Currency, Commodities, Credit, Equities, and Rates (CCCER) markets are in perpetual disequilibrium. When one or two of these markets deviate, they often signal broader market shifts. Monitor these straying markets closely for indications of directional changes.
- 7. Market levels hold more value than surveys (of PMs and economists), and curves offer deeper insights than absolute levels. Inverted curves in commodities and currencies indicate stress due to excess demand in the near term, while inverted rate curves signal economic stress in the future.
- 8. Respect all markets as probability distribution curves. They provide multiple signals simultaneously. Any disturbance in their state or direction is reflected in market volatility, curve shapes, and trading volumes.
- 9. No single market possesses all-encompassing knowledge. Market noise is inherent as they reflect a variety of views. During periods of one-sided narratives like panic or euphoria in specific markets, insights from the entire CCCER complex offer a clearer understanding of the true market sentiment.
- 10. Regulators often misread or miscommunicate on market turns. Focus not on what central banks and governments say or guide, but on their actions. While it's prudent not to bet against actions like real interest rates or fiscal plans, significant opportunities arise from betting against their guidance on growth, inflation, recession, or market exuberance.

Key Message: Successfully timing markets requires leveraging reason over anecdote, tracking changes rather than absolute levels, and understanding the interconnectedness of different markets. By focusing on market responses to data and regulatory actions, investors can navigate market volatility and capitalize on opportunities effectively.

Market timing framework

The key to the market timing framework is in the interaction of two factors: first, that the underlying reality is more cyclical than is frequently thought; and second, that the ratio of 'overall exposure to available liquidity' is absurdly high & pro-cyclical. The need for liquidity increases just when it is scarce, therefore another factor—a psychological trap or human folly—also plays a role. Or, to put it another way, markets are narrow lanes and growth happens in cycles. People who comprehend these two will consistently generate remarkable rewards.

Beating the market

Can 'one' beat market?

Yes. Of course yes. So many people do it in so many different ways. Global macro & leverage (Soros), quant/HFT (Simons), Smart leverage (Buffett), stock picking (Lynch, Templeton), litigation and other special situations (KKR), contra (Dreman, Burry) are a few such ways. I try with risk premium dislocations. Most of the Indian greats are "stock picking" cats.

Can 'you' beat market over long period? Since I don't know you. I am going to answer for 99% (or 99.99%?)- No.

But can a large MF beat market? Very difficult - on net basis. Market beating strategies (consistently) are extremely difficult and thus rare to scale

Can any other asset deliver better than listed equity? Sorry to disappoint. No. Yes, you got it right, not even PE or VC out deliver simple public equities- on average.

What should you do?

Unless you are ready to invest all your productive time in building one (and please, just one) of the skills listed above, Invest in index fund or a few diversified/flexi funds systematically (SIP). That will earn you near market returns and earn reasonable risk premium.

Various framework of taking risks & how I do it

Far too often in an investors life- rare events- ones which cause tremendous pain in investor portfolios happen. Why do they happen and how to benefit from them?

One way is to think of what happens is an idea around mass formation psychosis that you would read at different places in my book. Everyone is made to believe in some secular thesis. Sometimes higher for longer and some other times – lower forever. For stocks or bonds.

The other useful way of looking at it is <u>Minskian framework which argues how stability breeds</u> <u>instability</u>. Not just in financial markets but also in real world systems. For instance, supply chain and trade are built basis a false notion that post Berlin wall unipolar moment is permanent one and Thucydides trap is a thing of the past, unfit for a modern world's destiny. As this belief gets questioned, and we witness the decay of that world order, instability in everything becomes inevitable.

Yet another useful framework to think is of Taleb's. A <u>simple yet profound idea that shit happens all</u> the time. More often than what is believed by most of us. Social systems, which work on feedback loops, invariably throw up BlackSwans, unknowable and super-risky things! So 40 years of low and stable inflation, everyone complacent and here arrives a durable, high and nasty inflation. Neither policy makers nor markets seem prepared. What follows is devastation in bond markets in western world!

Now a more useful part, how to deal with and benefit from- this BlackSwan world. My dad's conclusion is to never invest in anything but PSU bank deposits. Taleb plays my dad's strategy but adds a small amount of hyper-risky bets by buying 5-6% of his portfolio in 'out of money' put options. His bet is that small hyper-risky bet will give him outsized returns while 95% of his money will always be safe.

A third strategy, (may i call it mine?), <u>believes in Talebian Black-Swan world but approaches risk taking</u> <u>differently. I take risk only after markets meet with major accidents.</u> So here are the differences with Taleb'-- I take moderate risk instead of extreme one (Nifty/PSU bond not VC/put options), a sizable one instead of small (70-90% in equity after drawdowns, not 5-6% as Taleb does) and do so sporadically- only after major drawdowns, instead of doing it always as he does.

So I too believe that sh*t happens, it happens frequently but I bet to benefit from it after a major risky event has happened instead of betting that it will happen. When unanticipated but major risk arrives, as they often do, markets tend to move to the other extreme- not just pricing durability and more frequent occurrence of such catastrophe but also inertia and incapability of policy makers to undo it. The blind belief that sapiens will soon have infinite solar energy and utopian no-work-good-life give into secular stagnation. Buy risk then because market songs tend to be hyperbolic on both extremes

Key message: The most surprising part of the market is that despite its long history – it continues to surprise many. Far too many rare events happen in the market. The way to benefit it could be either betting on a recurrence of it or only betting when it has just occurred. Both strategies may deliver good pay offs.

The Paradox of Profit: Navigating Capital Markets, ROEs, and Investment Realities

- 1. Corporations in a country can sustain higher ROEs by either blocking free capital flows or by allowing inefficient firms to fail. So cronyism or kill-switches get high ROEs.
- 2. More regulations pave way for more ROEs. Reason- they favour large and incumbents and obstruct new and innovative firms. That leads to less competition and lack of creative destruction.
- 3. Bankruptcy is a feature of capitalism, not a bug. Without bankruptcies all markets will give fixed deposit returns, Or thereabout!
- 4. Next time someone wrote a 'house of Debt' report, don't fear that. It is a hint that cheerful times are ahead. Don't wish for a bankruptcy free world. The process of bankruptcy paves way for the survival of fittest. Those are the ones which get to earn higher ROEs.
- 5. If you are a regular equity investor wishing everyone invests in equities is counterproductive. Too many people in the market will lead to bubbly markets and lower risk premiums.
- 6. For some investors to do very well, very large majority of them must lose. Paretto distribution works for investors as well.
- 7. There is no way a utopia of Sarv Dharam Sukhaye possible in functioning capital markets. Invariably – a significant number of investors will be worse off, and a tiny number will do very well.
- 8. If someone is betting on what succeeded in the past- let him be a historian. Not your money manager. Knowledge of past is an important but not a sufficient condition to be a successful money manager.
- 9. Some people think of life as replicating machines. It is much more for both life and money managers. We are entropy extractors.

Betaal asks Vikram: Momentum and Mean Reversion in Markets and Society

"What will you bet on - a momentum/trend of the last 12 months or 3 years mean reversion?" Betal asked.

"Asking about markets? Then- 12 months momentum" Vikram replied.

"Hmmmm... a 12-month trend versus a 10-year mean reversion?" Betal queried.

"There are no absolute answers but I will bet on 10-year-mean reversion" Vikram stated.

"You're being inconsistent," Betal pointed out.

"Three years reveals little about the behaviour of long run. So I will trust momentum of the recent trend in absence of any other data. But a decade offers reliability. So I will trust in mean reversion" Vikram explained.

"What will the market mean revert to- to 10 years or 100 years mean?" Betal asked.

"Longer time is usually more reliable. So in decent time- it will likely revert to the mean of 100 years"

Vikram responded.

"And....100 years vs a millennium?" Betal was stretching it now.

"For markets, 100 years. For cultural biases, a millennium" Vikram hmmmed.

PS

Knowing long term tells where markets will eventually revert to. Knowing short term tells how markets will trend in short term. Value of the "mean of distribution" have inverted U structure- especially in markets. Very short and very long averages reveal little.

Future isn't a mean of long run. It's just has the least possible error to the potential outcome.

If Vikram is right- India will likely endure pluralism, will not invade any country and revere Buddha, Krishna, Mahavir, Gorakh, Patanjali even a millennium out.

Key message: you will often hear market will mean revert. But mean of what horizon? There is a lot of noise in markets recent moves – but they have a habit to mean revert to their medium to long term averages. Of-course, for a lot of societal or cultural or political issues- there is a lot of signal even in very long horizon averages.

Mass formation in markets

Collective psychosis or mass formation emerges when the subjects, focus on just one part of reality, ignoring all else. The truth, which is otherwise multi-dimensional, is often summed up in one elegantseeming line that generally fits the story that subjects believe in. Beliefs such as "Jews are the reason of all German ills", "our new leader is the messiah we have been waiting for", "Shiv Linga is drinking milk (remember?)" or simply that you just can't get on without the newest iPhone-in-store, are all set ups of mass formation. The reality is different, more nuanced and rarely so elegant. It's not for the lack of knowledge of other possibilities nor the suspension of common sense but the hard obedience to the simple and convenient story that gets subjects to stick to believe in these absurd claims. Most historical blunders have been committed when large population is in such a collective psychosis.

I am not sure, but a collective psychosis may be often present in extended bull markets. In here too, the believers focus on just one thing- namely, that the market is a benevolent place which rewards solely the virtue of patience. One need not bother about anything else. In the interim, all the losses that one suffers is seen as the sacrifice that the market demands for the greater good that it delivers to all.

And as typical of any mass psychosis story, this one too, is distributed in social media, providing the methods to deal with this pain. Believers form cults and give birth to cult leaders.

"Redemption is ahead, more money will be made, we will all get rich. The price is simple – be patient and stay in!"- scream the cult leaders! More absurd are the claims of cult leaders, more they are hailed. Subjects buy into these claims because it leads to new solidarity. One makes many friends claiming how tolerant they have been with the losses. Legends are narrated how this or that did the same and had almost gone bankrupt only to rise again.

Anyone else who argues otherwise is heretic. He isn't just expelled from the club, but his reputation must be lynched. How sacrilegious is it to even think of timing the market or questioning the asset class? Does one ever time God or ask for a proof of his existence?

And, to be very clear here, our market isn't a joker, or some psychopath who only means harm. It is Thanos. It means good. Yet, half of us must die for the good he wants to achieve. Are half the subjects ready?

The Market Insiders: Understanding the Economic Signals from Oil, Copper, Currencies, Bonds, and Equities

Oil is an insider of geopolitical risk. Copper is an insider of China's growth. Currency tells us about THEIR view on us. Bonds are insiders of policy bias, both political and monetary. Credit is an insider of corporate solvency and industrial dynamics. NASDAQ (or S&P 500, if you prefer) is an insider of global risk appetite. Equity plays the role of an arbitrator, refereeing the interactions between bonds, credit, international equities, and commodities. Want to be a good macro trader or asset allocator? There's no other option but to know this entire gang.

Key Message: Some of the markets are great economic indicators. Infact they reveal a lot more than many macro-economic data – which is of poorer quality and comes with a lot of delay. To excel as a macro trader or asset allocator, it's essential to understand the insights provided by various asset classes, each offering a unique perspective on different facets of the global economy

How to spot breaks in markets?

Generally, equity market participants don't invest a lot of time and energy in understanding evolving macro risks. Their focus in mostly about forecasting the earning growths of the firms.

This isn't the case for other markets. A bond trader misjudging inflation or the Fed's actions will face significant losses. A currency trader who gets geopolitics or relative economic performance wrong will struggle. Banks and portfolio managers concentrate on firms' creditworthiness and will be the first to notice deteriorating conditions. Tightening credit standards can slow the economy, and higher policy rates can depress real estate prices.

Most of the time, many of these markets function smoothly, and there's little to notice. Occasionally, stress arises in one market but doesn't become systemic, usually contained by market adjustments or regulatory actions. However, when distress persists across multiple markets and policymakers can't act for various reasons, the stress spreads widely, affecting equity markets as well.

For those looking to time the market, it's crucial to identify what is breaking and whether it will <u>become systemic</u>. This approach helps navigate risk markets more effectively. Each market has its own story, but we focus on aggregate indicators of stress. Tools like the Office of Financial Research's (OFS) Financial Stress Index, Goldman Sachs Financial Conditions Index, BIS Monetary Conditions Index, and the Federal Reserve's Financial Stress Index are valuable. Check these indicators periodically. <u>Often, they will show little, but when they do indicate stress, be ready to act.</u>

Entropy

The biggest conundrum in life is that while there exists an auto-correlation in everything good, entropy remains the eternal truth.

Moreover, the universe doesn't retain a long memory.

So, momentum is the truth until decay sets in.

HOW DO WE DETECT CREDIT CYCLES?

Bank NPA Cycle is not a Good Guide

Indian banking's NPA cycle is a late indicator of credit cycles because NPA recognition tends to be very delayed. Many of the NPAs from the 2015-19 cycle, particularly in the infrastructure segment, actually originated in 2006-08 (Acharya).

Even though there seems to be a secular downtrend in NPAs from 1992-2008, there was a fresh cycle of NPAs in 1998-2001. Many industrial firms went down during this period due to excess capacities, the East Asian crisis, sanctions, a mild recession in the US, and a commodities fall in 2001.

Collateral has been a poor guide to NPAs and an even poorer guide to recovery. In the early 90s, nearly 93% of loans were secured (which produced 25% NPAs). This fell to 80% in 2008 (Mohan), and it's likely lower today.

Credit Spread - A Better Marker of the Credit Cycle

We had four distinct peaks in credit spreads over the last 25 years: 2001 (commodity bust), 2008 (Lehman), 2015-18 (started after the commodities collapse in 2015 and ended with the 2018 non-bank/capital market financing vehicles/MF collapse), and 2020 (Covid, MF). All these credit busts lasted for 12 months or more, indicating the durability of this marker.

I like the CP market as a good gauge of credit spreads. In 2008, 2015, and 2018, CPs led the spread rout because most AA/As begin to dry up leading up to a deteriorating credit cycle. Insiders in bond markets know it. Equity investors can focus on non-bank private CP spreads to gauge it.

Macro Markers for the Credit Cycle

The best macro markers of the credit cycle turn out to be credit growth, CAD (crude), and commodity prices (China TSF).

The rule is: If credit growth has been too buoyant (as a percentage of GDP, adding 20%+), or if commodities have plunged (2001, 2014-16), or if CAD/BOP have suddenly worsened (1992, 2013, 2018), we will see spreads worsen, which will lead to a default cycle.

Micro Markers for the Credit Cycle

Lending standards, leverage, and coverage ratios (3k odd firms) are good micro markers of credit stress. Rating agencies' upgrade/downgrade cycles generally piggyback on the default cycle, so they are not great leads but give a sense of where we are. More on this later.

PS

India's banks' ROTA has averaged 0.7% over the past 20-30 years. US banks' ROTA is 1.1%, and Europe's is 0.5%. So, unlike the rest of India's firms, which have relatively higher ROE/ROA complexes, the same doesn't apply to banks. Why do they trade at such a mark-up? I have asked this question from many. Have never got a satisfactory answer.

Why don't models work?

Studies suggest that when academic research highlights excess risk premiums, these premiums tend to diminish afterward. This reduction can be attributed to herding behaviour and data mining biases. Intentional data mining, which is dedicated to achieving a specific outcome for a given variable, has repeatedly proven ineffective in real-world scenarios. This is because the future often introduces new variables that disrupt the relationships established with past data. Therefore, approach any model claiming to outperform Nifty with a healthy dose of scepticism.

Does it mean nothing works? Nope. Frameworks work. Models don't. We must be able to reason well, and apply weights to different variables dynamically.

EQUITY MARKETS

Lessons from the past

Equities deliver better than bonds

Equities generally outperform bonds because they are riskier in short term. Equity' claim on firms' assets come after employees, vendors, bond holders and governments. Its effectively a put option on firm's assets sold by bond holders. There is no consensus of how much should be ERP (equity risk premium), observing across countries over past 50-70 years, it appears a 4-5% range as the most frequent one.

That extra return comes for the risk equity is embedded with

This is a risk premium that humans ask from equities because the duration and volatility of this asset are incompatible with human life. We haven't evolved to make such significant sacrifices whose returns will come to us, only if we wait for long enough. And its volatility is far too high for our appetite as well. Nothing in our life moves as much, whose value wobble so much. Once we get bad grocery from a store, we change the place we buy from. Once a friend cheat, we don't want to talk to him ever again. An organisation only has to be unfair, for its people to leave for greener pastures. Compare it to equities. Every now and then, its value falls by 35-40%. Every third year, on an average, they fall by 20%. It has to entice with significant risk premium to get people to invest in them.

Equities like low and stable inflation, and hate deflation

Inflation is not rejoiced by equities. Equities like low and stable inflation and fear deflation much more than inflation. The reason why 1700s and 1800s, equities didn't do too well in any part of the world was because of the recurrent bouts of deflation. The same played out in Japan for many decades. If you are a passive investor and you are likely to face inflation, I will advise you to be in equities. If you are an active investor, I will advise you that you stay in cash until markets price high inflation.

Bonds hate inflation

When US investors faced major inflation after 1940, bond holders suffered major losses until 1980. Thereafter, for next 40 years, from 1980 to 2020, they had bull market. Only to face significant losses in last 3 years yet again.

Inflation can be local or global

Most of the times, inflation tend to be a local phenomenon. India experienced inflation post GFC when inflation raged higher for nearly 4 years. A combination of high MSP, very high fiscal deficit and elevated commodities resulted in high inflation in our country. But many parts of the world didn't experience the same. Infact – then- a lot of investors were actually worried of outright deflation in western world. Bernanke QE salvos were to defend the economy from deflation.

But at times, inflation turns global. 1910s were the worst years as world experienced global inflation and pretty much all the markets delivered negative real returns. 1940s and 70s too delivered poor returns during inflationary times across the world. We have recently experienced global inflation in 2021-22. Though Asian inflation has outcome hasn't been as bad as western ones, yet it is easy to observe that inflation has spiked across the world post pandemic. Global inflation was last experienced in 70s and early 80s, mostly due to high energy and food prices then. Almost all previous episodes of inflation have been results of major wars or pandemics or higher energy prices.

Cost of energy is the bigger determinant of cyclical inflation

Our economy is mostly energy transformed. Since our energy demand is so inelastic that every time energy cost rises sharply, it results in high inflation, high rates and eventually recession. Since inflation's net outcome is recession, equities fear it.

War is great for winner and a curse for the loser

Speaking of wars, countries which lose wars lose markets. 1923' Germany faced inflation, Japan ravaged by nuclear bomb experienced hyperinflation in 1946 wiping out investors. Market of winning teams do well. When US attacks Iraq, its seen as stimulus. But that's not so when there is a war between US and China. Losers in big wars pay by lots of inflation and terribly under-performing markets

Policies matter

Investors in countries which adopted socialistic policies lost every bit. In countries such as Russia, China, some of the east Europeans it happened over past century.

Even in developed countries – data shows that when political or war risks materialise, markets deliver poor returns. As it happened across the global equity markets during 1910-1950. Though US did reasonably well in this period too – most global markets delivered

Government policies tend to have global trends. The political parties turn left or right together. They turn pro- international trade and then against, the prevalent view on taxes change too. People think that Indian top tier tax rates were very high in India, but if you survey across the world, you will realise that tax rates were high in 70s and 80s across including in the US. The consensus that lower taxes are good for growth and investments is a recent one.

Ditto happens to trade and tariffs as well. Since the arrival of Trump, world has generally turned more inward, each country turning protectionist at margin and giving extra weight to self-reliance. In 1950s, the consensus was the same, no wonder why both China and India chose to stay closed. Only when Asian tiger economies demonstrated that there was value in getting integrated with the west, many others started to open up.

Investors don't absorb the policy changes very fast. That means – subsequent to changes in policies, significant surprises ensue in markets. 1929, 1949, 1979, 1999 and 2007 were turning points for all major markets – where expensive markets meet, not very supportive policies. In such times, market deliver very poor performance. This is true for other markets too. Excessively volatile currencies in 1930s lead to pegged currencies, and then they return to floating ones in 1970s again. Most countries run large budget deficits in 80s, face the wrath of inflation, only to reverse these policies in 1990s.

Markets go through booms and busts

The US experience one bear market every decade – on average. Over past 100 years, US has experienced 12 such 20%+ drawdown. Most of the bear markets in US coincide with recession. Recession leads to bear market due to two important ways – earnings decline and valuation reset. The only bear markets which happened outside of US recession were in 1962, 1966, 1987 and 2022.

India, south Korea, Brazil and China experience a lot many bear markets – almost 3 every decade. This means cost of staying out is relatively low in emerging markets as you get frequent opportunities to enter the markets. On average bear market lasts for a year. In general, bear markets tend to be deeper for emerging markets.

Sometimes bear markets tend to be very deep. HK went up by 900% in 1971-73 and in the ensuing year, collapse by 90%. Poland, Russia went through bubbles in after Berlin wall fell and the 'Warsaw pact' countries integrated with the rest of the world, a major boom arrived only to be given into a massive bust.

India valuations

Nifty PE averages at 18. If its higher than that – despite earnings having fully recovered (past years' earnings more than 10%), then markets are expensive. Lower than that – markets are cheap. We will like to buy when earnings are in bottom quartile. We trade at about 40-50% premium to emerging market, and at some discount to US markets.

Indian has recently become very expensive

India saw a perceptible change in valuations since 2014. Our markets traded at 10-15x forward earnings in 95-2005, in good times of 2006-8, it was 15-20times. For Most of the times it traded around 15x until Modi came. Since then it has traded in 15-20x. After 2020, its mostly traded around 20x line.

What should you track to gauge markets?

- 1. Dollar: Dollar tightens for variety of reasons, almost all of them suggest a risk off for EMs. Tight dollar is a signal of higher growth in US relative to rest of the world, it means both equity and fixed income flows towards it. Since most corporate in EMs deliver earnings from local markets, a tight dollar results in lower earnings growth, making them less attractive for offshore investors. Finally, tight dollar coincides with tight global financial conditions. Since EMs are considered as risky asset classes.
- 2. Conference board leading economic index: When it rebounds to neutral, gives a good buy signal in a bear market. Generally, in most of such indicators a good idea is to keep track of momentum. Once you see them turning for 5-6 months, you should ready to buy into risk.
- 3. Citi group economic surprise index: This is defined as weighted historical standard deviations of data surprises (actual releases vs Bloomberg survey median). A positive reading of the Economic Surprise Index suggests that economic releases have on balance been beating consensus. The indices are calculated daily in a rolling three-month window. Once it turns and goes back to above zero, is generally a good signal of buying into risk. The only constraint of this signal is that it has been available only since 2003. The good of it is that it has done remarkably well over past 20 years.
- 4. ISM Manufacturing: It is good indicator to give a signal to buy markets. One safe way is to wait for ISM to turn above 50, but the better way is to dial up risk when 6m change in ISM manufacturing index is positive.
- 5. PMI manufacturing & US imports from China: Both are great signals of cyclical recovery or bust. Invariably when these two up-trend, there is a decent chance that whole of the economy is recovering. Within PMI, new order index does even better job in signalling the turn of the cycle. Typically, US PMI has a short boom bust cycle falling for 18m and rising for 18m. Asian exports, global manufacturing, Swedish market's (given its heft in industrial complex) also give signals of the direction of the market.
- 6. Yield curve: The yield curve (YC) inverts before a recession and begins to steepen at the start of the recession. There is typically an 8-10-month lead from when the curve turns positive again to when the bear market bottoms out. This analysis is based on the 2-10 year spread, but it can also be applied to the 3-month to 10-year spread. The 5-10 year spread re-steepens and signals the end of a recession earlier than other indicators. However, this signal is very volatile.
- 7. Fed action: Bear market bottoms long after the Federal Reserve starts cutting rates. So rate cut should be seen as a precondition for the bear market bottom. Even when bond markets start pricing in significant policy responses, earnings estimates continue to weigh on equity prices until there's clarity on the recession's extent.

- 8. Credit spreads: When spreads tighten and go below 200 days moving average you get a decent signal of economic recovery and bear market bottom.
- 9. 10-Year bond: Neither the absolute level of it, nor the change in certain time period is suggestive of any bottoming of bear market. This is a coincident indicator vis a vis US equity markets.
- 10. Move index: Tells a story of expected volatility of US treasury bonds. This is akin to VIX. It usually peaks a couple of months before the market bottom. The logic being that uncertain bond market in US typically coincide with risk off set up and only once this volatility comes off and range of outcomes with respect to US bonds settle, we begin to see money flowing back to EMs.
- 11. EMBI spreads: Sovereign bond spreads for EMs are good indicators. Once they bottom, the equities rally.
- 12. Crude and commodities: Commodities are also unreliable indicators. Crude oil, in particular, tends to be a lagging indicator. For instance, in April 2020, crude oil prices turned negative, and in 2008, oil prices were soaring even as the U.S. economy was in a recession. Similarly, in 2011-2012, during the European recession, Oil prices remained extraordinarily high. Oil price's sudden fall is a decent indicator of recession. Which in turn is a good signal of impending liquidation in the market. Copper is generally considered a better indicator within commodity complex.
- 13. S&P price movement: If it is 5% above 200 days moving average we are very likely in a new bull market.
- 14. Volatility: Vix and other indicators related to volatility, though quite famous give too many false signals and thus can't be relied upon in calling the bear market bottom.
- 15. Price indicator: Net future short position in e- mini S&P 500, when it bottoms should be sign of bottoming in US. 90-day RSI too can be indicator of extreme positioning both in India as well as US.
- 16. Intra month movements: Move from lows to high. Significant delta in monthly low and high suggest that market may have gotten over the fear. This also can be figured basis intraday move, especially on days when markets see significant correction but up-correct again. Most of the liquidation happen on days when margin selling happen or retail panic sell.
- 17. Flows: are reversal indicators. Both local as well as global flows. If EPFR data shows significant outflows, it should coincide with bottom formation.
- 18. Internal dynamic of market: Many famous investors vouch for the internals of the market as great signal of calling the end or beginning of the bear market. Data doesn't bear it. Cyclical stocks typically bottom ahead of defensives, but lead time isn't quite great. Similarly relative behaviour of small vs large cap don't reveal much. Dispersion in earnings too don't do too well in guiding us on market.
- 19. Kospi is a good indicator as well because its market has a lot of cyclical stocks such as auto, semi, industrial goods, ship builders. This leads the global economic slowdown and up-turn by a few months. EM Index, equal weight index, US micro-cap index etc also give signals for the broader market's direction.
- 20. Analyst estimates: Usually tracked as upgrade to downgrade is considered as contra indicator. Analysts, towards the end of the cycle, revise their forecasts on downside for macro reasons (and not what corporate are telling them). This usually is seen as a sign of bottom formation. But this indicator's fidelity is low.
- 21. Valuation: PB, PCF, PE, EV/EBITDA, P/S are typical markers to see where markets are, relative to previous troughs. Bottom quartile valuations relative to past decade could be a decent indicator of market becoming value buy. But valuation is never a good indicator to time the market. Neither in exit nor in entering the market.

Timing matters: "When you buy" in equity markets is more important than "how long you keep it?

How much return one will make from equities? Depends on 'so many factors'. But one way to speculate on it is to ask, where are we right now relative to the past macro or valuations?

The surprising part of the story is that even for a very long horizon- the answer depends on when you invested. It could be just 8% or a whopping 15% (see table). The range of 'real' returns is 0-9% (Index over CPI). And the range of 'excess' return over bonds is -1% to 8%. The range is so huge, getting it right is so improbable and work so daunting that unless you are the passionate guy ready to pour all your life' ticking moments into timing it – it's best you SIP.

If you invested in 1981 or 2002, you compounded your money at 15% to date. Near 5-8% over bonds. That's a lot of return- if you get that during your investing life – you will be your kid's pride and neighbours' envy. Invested in 1992 or 2007 – you got a measly 8-9%. Call it ugly, actually. Not even as much as bonds! Invested in routine times- when no great 'new' narrative had gripped the market – such as in 1996, or 2005, markets would have delivered 2-3% over bonds.

So where are we? We don't seem to be in 1981 – both the Indian economy & market were backwaters then and now are fairly big and very well-discovered. Nor are we in the 90s –when markets were almost always very-very expensive relative to bonds. There is no euphoria like 1992. It feels so on Twitter but is not present in fragile fingers pressings buttons to buy risky assets. Nor do we seem to be 2007 readying for GFC. Recession in developed countries– if at all – is likely to be of the garden variety.

We don't seem to be in the early 2000s as well. Firstly, the structural rally in interest rates that characterized the late 1990s and early 2000s is not anticipated. Bonds' 10-14% range of then is 6-8% for the past two decades. Settled. Second - the world is headed toward slower growth. Opposite vs then.

We aren't certainly in 2009. World was very pessimistic then and valuations were too cheap. Even the 2020 Covid crash didn't get us close to 2009. Are we in 2012? Inflation in the teens, CAD at 5%, currency nose-diving and rates at 9% - our macro today is far better. But financial assets offered better valuations then.

So where are we then? I think- we're not on the brink of exceptional times with a risk premium of 5-8%, nor are we poised for major disappointments with a risk premium of 0-2%. We are in a kind of routine time. Listless times. Pessimists would likely expect a 2% premium over bonds. Conversely, an optimist would anticipate a 4% premium.

So are we in for 2% or 4% over bonds? May be 3%!

	Point to poin	Point to point return										10 year CAGR			
	Since 81	Peak 92	Bottom 93	Bottom 96	Peak 99	Bottom 02	Since June05	Peak 07	Bottom 09	Peak 2010	Bottom 12	Median 42 yr	Median 25 yr	Median 20 years	Median 18 years
sensex*	15%	8.98%	11.69%	11.49%	11.26%	15.69%	10.90%	7.68%	14.10%	9.40%	13.10%	14.88%	13.32%	10.91%	10.15%
bond***	9.25%	9.96%	9.80%	9.26%	8.42%	6.89%	7.51%	7.58%	7.44%	8.00%	9.00%	9.26%	7.75%	7.64%	7.76%
real sensex (over CPI)	6.98%	2.02%	4.65%	5.11%	4.77%	8.68%	3.71%	0.38%	6.59%	3.00%	6.20%	7.44%	6.31%	3.17%	2.40%
real bond (over CPI)	1.65%	2.94%	2.86%	3.00%	2.10%	0.40%	0.37%	0.29%	0.37%	1.75%	2.35%	1.81%	0.3%	0.0%	0.40%
sensex over bond**	5.26%	-0.90%	1.72%	2.04%	2.62%	8.22%	3.15%	0.09%	6.20%	1.27%	3.75%	4.25%	3.97%	3.76%	1.88%
*Total return will yield 1-1.5% m	ore														
** this is risk premum															
*** investing in 10 year govt bor	d index fund														

Core returns in India

The myth of India's unique market performance must confront the reality depicted in the chart.

So, what exactly were the "core returns*" in India over the last 25 years when its GDP soared from nearly \$400 billion to almost \$3.5 trillion? The answer is 10% in local currency terms and 7% in USD terms.

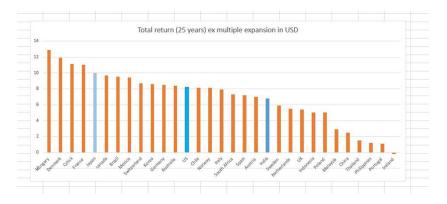
*Core return = returns - valuation re-pricing. = Repeatable returns

Total returns were, of course, higher at about 13%. In local currency terms, over approximately 25 years, about 22% (~3% annualized) of the returns came from PE expansion. This shift has taken the Indian market from being relatively undervalued compared to the global average to becoming one of the world's priciest markets.

So, the next time someone asks you to "Imagine India" and its "market returns" when its GDP hits 5 or 10 trillion USD over the next few years, you might pretend to think for a few seconds, scratch your head, tap your fingers on your lips, and say somewhat tentatively, "hmmmm... mmm... maybe around 10%?"

And if a foreigner asks what will be his returns in India? Note the following:

- Over last 25 years, USD MSCI India returns= core INR return 10% currency depreciation 3% + multiple expansion 3% = 10%
- You will notice in the chart that core USD returns of India are below median. US did better. But also likes of Japan, Germany and France. Many of them which are otherwise considered as laggards.



PS

I am not questioning India's premium valuation relative to 1998 or to the rest of the world. Our exceptional ROEs deserve exceptionally premium valuation. Maybe they are a little too high for my comfort, but that's nit-picking. I am only stating that this repricing has helped investors only thus far, but it won't anymore! So remember the answer = 10%!

Earnings Growth in India

How to calculate the future earnings of India over next decade? it could be forecasted based on historical evidence, micro (corporate ROEs), or big macro (growth and inflation).

<u>Historical logic:</u> Nifty ex-lenders earnings growth during pessimistic times from FY12-19 was 6%, since the FY09 bust it was 11%, from FY12-24 it was 10.5%, in the last two years FY22-24 it was 9%, and during the COVID boom from FY19-24 it was 17%. Given all of this and our likely macro setup, I think we will be in the 10-11% range over the next decade.

<u>Macro logic</u>: Nominal GDP growth -1% = 11% (FY12-24 nominal GDP) -1% = 110%. Most likely the Nominal GDP growth will be close to 10%- not because our growth will be lower but because our inflation would be somewhat lower than FY12-24. The idea

<u>Micro logic:</u> Corporate uses its earnings to re-deploy and grow. A firm which is earning 15% on its net worth will grow at ROE multiplied by retained earnings (which is earnings after the distribution). ROE of Indian top corporate have been different for different times. Its 5-year average is 13%, current run rate is 16%, and median ROE since FY12 is 13%. Pre-COVID median ROE during FY17-19 was 15%. It's likely that ROEs get back to an average of 15% (median of last 12 years) over next few years.

At 30% dividend distribution, a 16% ROE firm will grow its earnings by ROE * (1 - Dividend distribution) = 16% * (1 - 30%) = 11% today. It is likely that ROEs will drop to 15% over next decade or two, and dividend distribution rising to 35%. That means a decade out growth will drop to near 10%.

Downside risk due to mean reversion in Profit to GDP:

Nifty profit as a percentage of GDP is likely at 2.9% for FY24 (vs. 2.5% average of the past 14 years, as given in the table). Nifty ex-lenders profit is at 1.9% of GDP, which is close to the average of the last 14 years.

About 50bp excess Nifty profit (2.9% vs. 2.5%) is due to elevated lenders' profit as a percentage of GDP (due to unusually high NIM/low slippages). If mean reversion plays out in the next decade, bringing down profit to GDP back to the long-term average (FY09-24), it will dampen profit growth by 1.5% annually. In that case, profit growth will be a lot less than 10% in the next decade. I have taken ex-lender profit to project the earnings growth and looked at median estimates of earnings growth and GDP growth for FY24.

Upside risk from higher investment/GDP:

If both investment and consumption rise together, nominal growth tangos with earnings growth. For earnings to rise above nominal growth, the investment as a percentage of GDP must rise, thus savings must rise.

I am quite constructive on investment recovery in India in the next 2-3 years but don't think it's material enough to change the needle for next decade's earnings. In fact, it's likely that investments/GDP fall in the next decade as part of the natural course of evolution of our economy. Savings rise when there is a productivity surge or demographic changes. Both don't happen suddenly. This is unlikely that we are in the midst of productivity surge right now.

Why exclude finance? That's a third of the market capitalisation.

Well, because of two reasons: finance's earnings and losses come in different periods. The ongoing slippage of 50bps is not a mark of 'through the cycle' losses. Second, finance can only extract earnings to the extent of the rest of the economy's growth. Also, finance earnings are extremely dilutive. So, it is better to look at core earnings.

But finance's earnings have grown much faster.

Yes. But the key drivers of the lending business' earnings are NIM, credit cost, and credit growth – all have peaked. NIMs will dry up due to a flat curve or tight liquidity. Credit cost will rise as the cycle normalizes

(the upgrade cycle has paused, and the downgrade cycle is starting to mean revert). Credit growth will likely be at 10-12%, aligning with nominal growth.

	al	numbers in	cr		
Year	GDP Nominal	nifty profit	% of GDP	nifty ex lenders	% of GDP
2008-09	5514152	1,51,542	2.75%	127792	2.3%
2009-10	6366407	1,76,738	2.78%	149763	2.4%
2010-11	7634472	2,03,602	2.67%	167549	2.2%
2011-12	8736329	2,21,869	2.54%	177694	2.0%
2012-13	9944013	2,53,216	2.55%	207742	2.1%
2013-14	11233522	2,59,199	2.31%	205417	1.8%
2014-15	12467959	2,78,074	2.23%	226717	1.8%
2015-16	13771874	2,89,002	2.10%	248824	1.8%
2016-17	15391669	3,03,148	1.97%	268231	1.7%
2017-18	17090042	3,47,422	2.03%	298285	1.7%
2018-19	18899668	3,44,611	1.82%	267384	1.4%
2019-20	20074856	4,10,051	2.04%	311937	1.6%
2020-21	19800914	5,65,092	2.85%	428282	2.2%
2021-22	23664637	6,23,089	2.63%	429048	1.8%
2022-23	27500000	7,76,778	2.82%	530477	1.9%
2023-24	30250000	8,77,759	2.90%	588830	1.9%
	GDP Nominal	nifty profit		nifty ex lenders	
CAGR 09-24	12.02%	12.42%		10.72%	
CAGR 12-19	11.65%	6.49%		6.01%	
CAGR 12-24	10.90%	12.14%		10.50%	
CAGR 19-24	9.86%	20.56%		17.10%	ļ.

OVERESTIMATING EARNINGS



Indian analysts consistently overestimate NIFTY earnings except in the reflation cycles (2010, 2020). On average, the overestimation over the past decade is 9% (median o/e @8%).

They overestimate three-fourths of the time – on average by 13%. The rest of the time – they underestimate by 9%. Observe the right chart which depicts 1 year forward EPS estimate of analysts (Bloomberg) and realised EPS. That's why pricing markets on forward earnings is error-prone.

An interesting observation is while the point-to-point earnings growth has been near 12% over the past decade, the median 3-year CAGR is just 6%. Wonder why?

Why Indian sales grew so slow in past decade?

The 'Sales to GDP' ratio of approximately 3,500 non-financial private firms has fallen from 30% to 20% over the past decade. Until two years ago, profits also tracked anaemic sales growth.

While profits have mean-reverted (as a percentage of GDP) to 2011-12 levels, it's perplexing that this did not occur because firms sold more, but rather due to significantly higher margins during the COVID years.

Three questions arise:

- 1. Why on earth have the sales of firms grown at only 6% over the past decade when credit, nominal GDP, corporate wage bills, and M3 grew at 10.5-11%?
- 2. Doesn't this contrast with the oft-repeated claims of formalization? More GDP is outside of the top 3,500 firms today than a decade ago!
- 3. Given the odd relationship between profits and sales, isn't there a high probability that profits will disappoint?

No one knows for sure. I have a hypothesis.

Corporate Tax Cut:

This explains only a 17bp increase (from 1.34% to 1.51% of GDP) in the year of the corporate tax cut. The subsequent rise from 1.51% to 1.92% of GDP (a 40bp jump) is attributed to the COVID boon of higher margins.

Formalization:

The decade from 2000 to 2010 was marked by formalization. Particularly after 2002-03, money supply (M3), credit, and corporate markers (sales and profits) grew much faster than GDP, representing a larger percentage of the economy.

Nuances:

- Both sales and profits fell relative to GDP from FY12-17, but not relative to each other.
- Deleveraging began after FY18, with earnest efforts post-COVID.
- The agricultural sector's share remained unchanged at near 16.5% from FY12-17.
- Government spending didn't change much during that period either.

Higher margins post-COVID initially resulted from depressed commodities and more durably from reduced administrative and SG&A expenses, leading to greater productivity. Unlike 2010-13, inflation remained tamed despite a similar WPI trajectory.

(all in bn INR)	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	CAGR since 2011
Sales	25,897	29,760	29,496	31191	29898	31316	33973	39098	37460	34944	47773	6%
Expenditure, of which	22,684	26,184	25,771	27101	25269	2662	2886	3363	31779	28771	40368	6%
Staff Cost	1,809	2,157	2,228	2,595	2,905	3300	3556	3908	4254	4230	4950	11%
Net Profits	1,645	1,748	1,706	1,825	1,966	2050	2290	2860	1150	2504	4539	11%
Nominal GDP	87360	99513	112727	124882	137718.7	153916.7	170900.42	188996.7	200748.6	198009.1	236646.4	10.48%
Sales/GDP	30%	30%	26%	25%	22%	20%	20%	21%	19%	18%	20%	
Exp to GDP	26%	26%	23%	22%	18%	2%	2%	2%	16%	15%	17%	
Staff/gdp	2.07%	2.17%	1.98%	2.08%	2.11%	2.14%	2.08%	2.07%	2.12%	2.14%	2.09%	
Net profit/GDP	1.88%	1.76%	1.51%	1.46%	1.43%	1.33%	1.34%	1.51%	0.57%	1.26%	1.92%	

Understanding the Discrepancy Between Nominal GDP Growth and Corporate Earnings: The Role of Dilution and Equity Returns

A fellow panellist remarked, "If India's nominal GDP is going to grow at 10%, as is being claimed here, then corporate earnings will certainly grow faster than that."

"But that doesn't happen. Much of a country's growth occurs outside of corporations," was my retort.

"I don't agree."

"But that's an empirical truth. Historically, corporate earnings grow at around 2% less than the nominal growth of countries."

The argument didn't progress further due to time constraints. I should have posited the idea of dilution as the fresh share sale of the firms, instead of using abstractions.

A common fallacy among investors is the belief that:

"Equity returns = nominal GDP growth (that's a good proxy of earnings growth) + dividend/buyback yield"

In reality:

Equity returns = nominal GDP growth + dividend/buyback yield - dilution.

PS1:

Because India is a low-yield (dividend/buyback) market, nominal GDP growth alone can be a good proxy for earning growth. Since dilution and yield cancel each other out, nominal growth becomes a good proxy for equity returns.

Flows in India: MF & FIIs

India's aggregate equity flows (FII + MF) have averaged 1.7% over the past decade.

MF flows have averaged 0.6% of the market cap over the past two decades. At the moment - it's nearly 1% of it (past two years). But that has not compensated for the loss of flows from FIIs over the past few years.

Since structurally, equity flows are mostly demographic variables - FII flows will stay muted for entirety of the decade and local fund flows will remain buoyant.

But cyclically local flows are dependent upon trailing excess returns (Nifty over FD rates) - you will see them dwindle over the next 6-12m.

If equity flow was the input variable for valuation in your valuation model, it should be downgraded. And also beware of the fact that small/midcap valuations are extremely elastic to flows.

343417 70000 24000 213000 37000 110200 15391009	2.25%	0.75%	1.08%	0.60%		58320	0.38%	0.54%
FII/MF flows as % market cap	C or fill	a caarl	o onerl		market ca	a ve Nift	roturn	0 0F8/
.00%	100%		ii eq nov	v5 d5 70 l	market ca	p vs raircj	yretum	2.50%
00%	80%	٨	• 1	٨		٨	٨	2.00%
.00%	40%		Λ	Λ			Λ	1.50%
.00%	20%		YG	\mathbb{N}	1	TA	()	1.00%
00%	-20%	5 5 5 5	6868	22=	Yns	Y G S	a de s	0.00%
00%	-40%	-War	C-Mar C-Mar C-Mar	1-Mar	11-Mar Mar Mar Mar		01-Mar 01-Mar 01-Mar	-0.50
900 940 940 940 940 940 940 940	-60%	0000	0000	000	0000	0000	0000	-1.009
01-01-01-01-01-01-01-01-01-01-01-01-01-0	4		Nifty	return	Net MFe	q flows as % f	Vicap	

The reason why cycles play out is that each time, investors feel that "this time is different"! It's instinctive for us to think this way—about ourselves, our generation, and our experiences.

Local money flow into mutual funds was much stronger in 2005-08 (see table).

The total equity flows in mutual funds from 2017-24 (as % of GDP) equal those of just the four years from 2005-08, more or less.

Flows, like everything else, are cyclical.

*2023-24 (trailing 4q) This I need to check again

Year	MF/ETF Flows	IF/ETF Flows to Market ca	MF Flows to GDP		
2004-05	34000	2.0%	1.1%		
2005-06	52000	1.7%	1.4%		
2006-07	69000	1.9%	1.6%		
2007-08	84000	1.6%	1.6%		
2017-18	284800	2.00%	1.7%		
2018-19	162100	1.07%	0.9%		
2019-20	141500	1.25%	0.7%		
2020-21	-23200	-0.11%	-0.1%		
2021-22	353400	1.34%	1.5%		
2022-23	271000	1.05%	1.0%		
2023-24	237000	0.74%	0.8%		

Impact of leverage: ROEs fell due to that?

Indian enterprises' ROEs (Return on equity) have fallen in the recent decade. Decreasing from 17% to 15% (the 3-year moving average of Nifty ROEs). I'm not including the wonder years from 2003 to 2012 when ROEs averaged 21% or higher.

What caused this to occur? High salaries were blamed in 2011-14 (every CFO I met then - complained about NREGA's impact on wages), followed by stories of weak demand and commodities (China slowdown, Demon, GST) in 2015-17, and then came the NPA crisis (2018-19). ROEs have increased over the previous three years (see chart), owing to higher pricing and fewer administrative expenses.

Here's what I believe may have happened, along with several other factors that explain the drop in ROEs: The reduction in leverage. For a typical major corporation in India, debt/equity has been cut in half. For the same level of profitability - lower leverage will mean 2% lower ROEs (see the table on left - which derives ROE of a median corporate basis lower leverage)

Therefore,

Leverage is not unabashedly good at its fullest but it is bad in its absence. Too much will pose a threat to the firm's survival and too less will make it less fertile. Consider low leverage in comparison to the past as a possible explanation for lower ROEs.

	Debt/Eq	RUE	ř															
Mar-13	0.65	16.663		3 yr mov avg nifty ROE														
Mar-14	0.64	16.610					9	yı ı.	10 4	uvb		y i						
Mar-15	0.55	16.138		27.00 25.00	~													
Mar-16	0.52	15.980		23.00														
Mar-17	0.47	15.718		21.00			1											
Mar-18	0.42	15.455		19.00				1										
Mar-19	0.39	15.298			17.00													
Mar-20	0.36	15.140		13.00											/			
Mar-21	0.31	14.878		11.00	~ ~	00		-	0.0		et.	10	0 0			-	-	~
Mar-22	0.29	14.773			200	200	-2010	201	201	201	201	201	201	201	2013	-2020	202	202
				5	01-01-2008	01-11-2008	5 6	01-05-201.	01-03-2012	01-11-2013	01-09-2014	01-07-201	01-05-2016	01-01-2018	01-09-2019	-02-	01-05-2021	01-03-2022
				2	01	01	010	01	01	010	01	10	5 5	01	10	01	01	10
*Assumed ROCE at 13.2	5% and ne	t cost of debt at 8% for	a median firm															
** Derived ROE due to	fall in leve	rage																
	1	~	12	-						-			-				-	

Indian corporate performance vs rest of the world

Indian corporate sector delivers robust performance. Its ROEs are best in class, not because its earnings grow exceptionally well but because they invest wisely. India's major listed firms have earned nearly 15% ROE over the past decade. This number used to be significantly higher before 2007.

The strength of Indian corporations lies in the fact that an earnings growth of 13.7% has resulted in an 8.2% EPS growth over the past 30 years. In comparison, China's earnings growth is nearly double, but its EPS has shrunk by 1.6% during this period. Asia ex-Japan has had earnings growth closer to India's level but only half of India's EPS growth.

Ditto for profit margins – US large firms deliver 12-13% margin, India's at 11- 12% and China's 4-5%. Consequently, ROEs in the US have been 16%, in India 15%, and for Asia ex-Japan, only 11%. Europe corporate ROEs haven't been bad but their equities delivered bad returns as their PEs nosedived to 11 times.

As you would note – that equities performance has to do a lot more to margins and ROEs, along with earning growth which moves along with nominal GDP growth. Asian Ex-Japan nominal GDP grew at twice the rate of the US (9.5% vs 4.5%), with firms growing revenues at 15% compared to 6.5% in the US. Even earnings grew at 12.5%, but EPS grew only at 4.5%. So, while Asia Ex-Japan grew GDP, revenues, and profits faster, it didn't grow EPS as fast due to firm dilution. The US's 10% earnings growth converts into 8% EPS growth, while the same figure for India is 14% and 8%.

India trades like the US because its firms deliver. Its economy doesn't grow as rapidly as China, but its corporations respect equity and its allocation, thus delivering good EPS growth. That's why India trades at an average of 18 times earnings and is currently trading at 22 times forward earnings. Asia Ex-Japan trades at 12 times, China less than 11 times, South Africa at 4 times, and Brazil at 14 times (all MSCI numbers).

India vs US markets, earnings and ROEs

The S&P 500 represents roughly half of global equity markets and often leads trends worldwide. The correlation between the S&P 500 (SPX) and India's Nifty index is very strong, especially over medium-term periods. Daily movements can differ due to various factors, but over longer periods, the convergence is significant. (85%+ correlation for 3m rolling return).

Two important points to consider are that due to the significant influence of equity markets on our currency and our central bank's inclination to accumulate reserves, India tends to exhibit a stronger correlation with the S&P 500 when measured in local currency terms. This implies that during periods of economic downturns locally, the value of our currency often decreases, while equity markets continue to move in sync with the S&P 500.

However, there have been periods of divergence, like post-2010 when India underperformed while the US markets did reasonably well. During 2014-15, the correlation between two markets dipped as India outperformed for political reasons.

In India, policy decisions are closely influenced by market performance, unlike in China where the relationship is less direct. Indian authorities frequently respond to market underperformance with significant policy measures, such as the corporate tax cuts implemented in 2019 aimed at bolstering the markets during economic downturns.

Do our ROEs and earnings growth also tag along with US markets? Sometimes yes – often times no, Indian corporations delivered significantly higher ROE than the SPX during the early 2000s and only marginally higher in first half of the 2010s, but later lagged behind by 1-2% until Covid. Unlike the US, where the tech sector has driven higher ROEs over past decade, India ROEs have mostly oscillated basis banking stress & the investment cycle.

Historically, during the 2003-08 boom, Indian corporate earnings grew at an impressive rate with ROEs hitting 25%, compared to 14% in the US. This highlights that while Nifty and SPX are correlated, earnings trends differ significantly.

CAPE ratio in India markets

The CAPE (Cyclically Adjusted Price-to-Earnings) ratio is a measure that evaluates the price-toearnings ratio using average inflation-adjusted earnings from the previous 5 to 10 years, divided by the current market capitalization. This approach aims to capture 'through the cycle' earnings, providing a normalized view of earnings over different business cycles to assess market valuations more accurately.

Returns Based on Quintiles: Investments made when the CAPE ratio is in the highest quintile tend to yield lower returns, less than 10%. Conversely, investing when the CAPE is in the lowest quintile can yield returns near 30% over the next 12 months. The forward return distribution shows that high CAPE ratios not only result in poor returns but also a wider left-tail risk, indicating a higher probability of significant losses.

Cyclical Nature of Estimates: Analysts' earnings per share (EPS) estimates are typically 5% higher when CAPE is in top quintiles vs times when it's in bottom quintile. This suggests that not just investors, but analysts too, get caught up in market euphoria, often overestimating growth during high CAPE periods.

Counter-Cyclical Actions: Management tends to act counter-cyclically. During high CAPE periods, companies increase the supply of IPOs. Conversely, they buy back shares when CAPE valuations are low. Firms also tend to borrow more when CAPE is low, repay debt and accumulate cash when CAPE is high.

Distribution of Returns: Historical data shows a scattered distribution of future returns for the same CAPE ratio, with some periods yielding very low and others very high returns. However, a clear trend indicates that investing in high CAPE markets is likely to underperform over a 5-10-year horizon compared to investing in low CAPE markets.

Analyst are forgetful

Banking and finance analysts may have forgotten that good capital is necessary but not sufficient for banks to thrive, after enduring a prolonged crisis from 2011-2020.

A new generation of equity strategists and PMs may have little to no memory of the period from 2003-2007, leading to a lack of idea of what booming growth 'feels' like beyond mere statistics.

Seasoned credit analysts have faced pervasive toil in recent years during 2015-20, leading to perceptions of credit stress even in situations, such as today, where none may exist.

Having been disappointed for 15-20 years or maybe more, tech enthusiasts may dismiss AI as just another fad or hype cycle. This time - the lion may have arrived. Not just GPT4, MJ V5 or Co-pilot. The entire bouquet.

The human mind possesses the ability to store memories but is limited in its scope. Recent memories often hold more weight in our thoughts, and our own experiences shape our reflexes irrespective of history. We are built to be surprised. Thus, there are cycles. For the same reasons. Again and again.

On credit growth

Me: Chief, what is the likely bank credit growth over the next 12-24m? Banking analyst: 15-16%

Me: On what basis? Banking analyst: Pointing at the Red and Blue lines of the attached chart = look at 1-2 year credit growth.

Me: But that's the un-doing of the Covid19 slowdown in credit. And I point at the PINK line. the Four-year credit growth remains at 10%. That's the peak of credit growth in the last decade. Banking analyst: Why? 2018 was strong.

Me: 2018 YOY was strong because of NBFC replacement. Overall credit was the same. Again look at 4 years CAGR of 2018 (that's a look through of Demon/GST then)

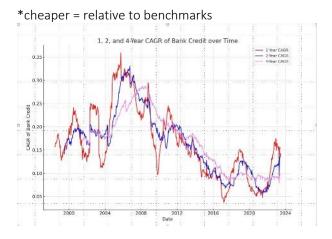
Banking Analyst: Banking b/s are strong sirji. So credit will be faster. The 2010s were supply-side issues due to NPAs.

Me: India never had many supply-side issues on credit in the 2010s. It's a big misconception. In fact, the 2010s were boom years as financiers figured a way to lend to retail. That thing un-existed before. Banking Analyst: Sir, ab toh aap kuch alag hi cheeez bole rahe ho!

Me: The majority of credits were cheaper* in the 2010s than in the 2000s (on average). Home loans, personal loans as well as industrial loans.

Banking Analyst: What do you think the next 1-2 year credit growth will be at?

Me: 10% or thereabouts.



Key message: I want you to know what will be our credit growth – if that's an important assumption in your assessment of banking stocks or general markets, consider 10% is the answer. Of course- there will be times when it will be higher or lower. But for long term – its best to assume that credit growth will be close to nominal GDP growth.

Beyond the Charm: The Complex Truths Behind CEO Success and Failure

Stories of 6 multibillion-dollar businesses through a glance at the men who bossed them.

А

He spoke so well. Knew the economy & finance and how they functioned. Suave, educated and so-wellgroomed. His seniors were enthralled by his poetic sermons. He could distil complex matters better than most that I had known. Whenever I met him - I felt less. His firms flopped.

В

He was so charming and transparent. Knew everyone, everywhere- so it seemed. Even his watchmen yearned for him because of his demeanour. You could rely on him since he was renowned to uphold his commitments. He believed in his people and gave them authority. He had a big vision for the country and his enterprises. Regardless, his companies went bankrupt.

С

He was polite & calculative. People around him felt at home, but even his closest associates had no idea what he would do next. He was skilled at dispersing authority around his kingdom while ensuring that no one had total power. He would make every new capital allocation after hundreds of hours of deliberation. Nonetheless, he saw his boats burn one after the other. I wondered why!

D

He was kind and endearing. Was so good at capital allocation. Every now and then – when I would get a chance to meet him, he had a favourite chart of how his businesses delivered more value than almost all. His language seemed to be of a portfolio manager, though his work ethic was of a promoter. It appeared to be a fatal combo until...

Е

How could an owner know the 10th line of a P&L statement to the second digit, how could he know the latest transaction worth 1 crore in his firm - I wondered. Attention to detail, and amazing articulation of

what his firm stood for. Despite being surrounded by brilliant colleagues, he seemed smarter. Everything he had planned and imagined came true. But his company failed!

Such is life. Diamonds turn into dust; greats find it difficult to even stay good. Success is hard. It's harder at the top. Be wary of those who attribute future achievements to either their continuity of them or to the character of the individuals in charge. They only sell tales. Reality is cruel.

PS1

I was shocked to see him dial his junior staff to take a position in USD. He was a multi-billionaire after all. Munching his homemade food, he outlined his strategy to get out of the then mess. Unimpressive – I thought. His ideas didn't seem cogent. His people didn't seem content. He took too much risk – his own people told me. He succeeded like hell!

Key message: Some will guess who these men are. But that's not the point. The real point that some of the extremely talented and charming people turn out to be bad CEOs. Our usual framework to assess a firm should look beyond how smart the CEOs is. Many smart CEOs end up delivering failed firms.

Equity duration, effect of real rates

Concept of duration= Duration of an asset equals the percentage fall of its value, when yields rise by 1%. For instance, expose a 3-year bond to a 1% rise in yield = bond price will fall by 3%. Every asset has a duration. Indian Nifty is a ~20/22-year duration asset. Assumptions are current dividend yield of nearly 1.7%, dividend distribution steadily rising to US's level of ~45% in a decade and stabilising there.

Concept of Real rate: it is the difference between bond yield and expected inflation. We don't trade real rates in India. But the US does. In there, real rates averaged at 50bps post-GFC.

On current set up= US real rates have risen by 1% vs the post-GFC average. The reason is well known. To fight inflation that misbehaved in the US and most other countries in the world.

Therefore,

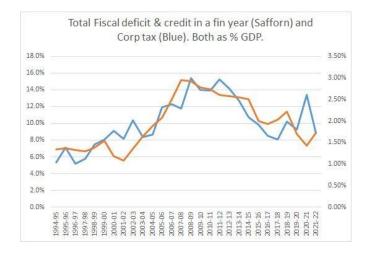
You may have to plug in the 'new' real rates and lower the multiples by 20% vs whatever earnings multiples you were comfortable at, until a year ago. Why? Because a 20yr duration asset has to reprice higher real rates. Never forget that bonds and equities aren't even cousins. They are twins.

Key message: Always remember that Real rates matter for equities. Not nominal. Because inflation is a pass through for it. That's also why equity is called real asset. And bond is considered Nominal asset. What do you think real estate is?

Impact of fiscal and credit on profits

If you know the direction of new money impulse (total fiscal deficit and credit, as % of GDP) - you know the direction of corporate profits. The saffron line is new money impulse in India. The blue line is the corporate tax as % of GDP. That can be assumed as a proxy of profit cycle. When new money impulse rises as % of GDP rise - you should think of overweigh equity because it leads corporate profit growth as % of GDP.

Covid19 break down of correlation is due to many things: but primarily due to supply shutdowns + transfers (FD was used to recap the banks and other PSU enterprises)



Farther you go, you get a better sense of shape of a thing but lose resolution of it. And only when you see things from different sides and varying distances, true nature of theirs emerges.

The architect will often see things from far but the carpenter will feel the furniture from near. A builder is obsessed with the exteriors of a site but an engineer on how the steel is laid and cement is mixed there. Don't ask a builder on the strength of the foundation, an engineer on site will have a better view of it. Ask a gardener, which mango you must pluck, the owner will know little of it. Some such rules apply to us as well- the analysts.

So when we go for a management meeting, our question to a CEO or promoter should be of boundary conditions, of what her firm will never do and of change that her firm will charter over long term. We must know that her knowledge of routine matters is sparse. Don't grill her for that.

Hear her story- not for the factuality of it but passion it evokes, not for what is on the ground, but something she imagines, dreams, with lucidity and enchantment. Of course- that is not to be taken -as is. It's a hint, her troops will follow that, her firm will get there- hopefully, often late, but perhaps eventually. What good are CEOs or owner who seem too measured, too plain and too factual!

But when you meet CFOs. Ask nuts and bolts questions, preferably of past and of imminent future. Of why in balance sheet, the remark of an auditor, the sudden increase in the admin expense or fall in inventory, of cash flow conversions, the last month's market-share and evolving cost-price dynamic. He is a custodian of data, excel is his language and charts are his sketches. Don't seek stories from them. Seek data to validate them, instead.

Try your luck to ask from competition to find the worst part of the firm as they will be the most articulate on it, vendors to understand it's competitive positioning because only they have their windows open to all other firms and customers for the absolute good of the product. That's how we must build a panoramic view of the firm.

Ditto in a war. Ask a soldier of the extent of pain and devastation, generals the strategy and politicians the motive of wars- as soldiers are often misinformed of the strategy in which some of them must be sacrificed, generals are too unaware of the motive, since the fight is invariably not to win the enemy of outside but of within. Head to Lok-Sabha or white house or Kremlin for its motive, but don't ask them of the body counts.

A Quick Framework to Understand Equities Through Bond Curves' Lenses

There is no evidence that higher bond yields lead to lower equity multiples. This is because nominal bond yields include an inflation component, which is also reflected in earnings. Typically, higher yields coincide with higher growth. Sharply falling yields, however, paradoxically signal bad news for equities.

What matters to assets (property or equities) is the real yield, which is the difference between bond yields and expected inflation? Remember, past inflation doesn't matter.

Indian real yields can only be inferred from policy bias. Each government comes with different frameworks. Typically, India runs on financial repression, although the Modi regime has changed this a bit. In the US and some other countries, there is a decent market for real yields.

Another way to assess the real rate is to look at the shape of the curve. Inverted or flatter yield curves mean it's likely that expected real rates are higher.

This dynamic works very well in the US but not so much in other countries. For example, China currently has a steep curve (relative to the US) even though it's experiencing deflation. India's flattening yield curve has some information, but the US Treasury (UST) curve shape provides better insight into market dynamics.

If you expect a steepening yield curve in markets, it's likely good news for equities and a good setup to buy real economy stocks.

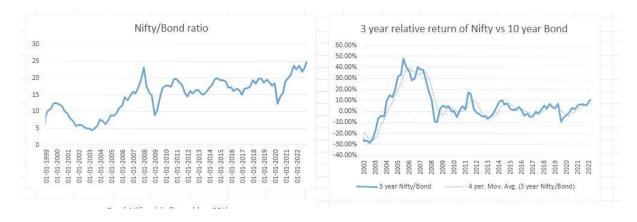
Flattening or inversion of the curve is generally bad for equities. It indicates that real rates are likely moving higher or that growth is likely declining.

Always look for inflation in terms of its rate of change rather than the absolute level. How the curve has moved provides more insight than its current position? Also, look for adjacent indicators. An inverting curve with higher volatility (VIX) or a higher USD has better signal value.

Curve steepening in late rate cycles isn't long-lasting. Fiscal dynamics dominate curve shape in emerging markets (EMs) but not as much in the US.

Key message: Bond markets have a lot of information on equities. Infact- most big turns in equities can be picked up by watching bonds. The shape and movement of the bond yield curve provide crucial insights into equity market dynamics. Understanding real yields, curve steepness, and adjacent indicators like volatility and currency strength can help predict equity market behaviour.

Nifty and Bonds



Investors use various valuation indicators to determine the overweight or underweight positions in equity markets. Forward PEs, PCF, and PB are used for aggregate markets. EV/EBITDA for certain sectors. The less reliable one is market cap/GDP. Difficult to measure is ERP (Equity risk premium). Unusually a late to act is the CAPE ratio (Which made Shiller popular but his trade is still out of money after a quarter of a century!)

One reliable marker of positioning is to assess bonds and equities relative to each other. Bonds and equities are not two distinct species. They are both from the same land. <u>They represent claims on the country's nominal growth and some additional risk premium</u>. There is almost no way to look at any equity market without contextualising it vis a vis bonds.

One way to bind them is to construct an index of Nifty total return index and a 10-year government bond price index. This ratio, depicted in the left chart, was lowly in the 90s, rose briefly but remarkably during 2004-07 and has now settled in 15-20 range.

The right chart is the 3-year relative return chart. Owning Nifty instead of a 10-year Govt bond would have earned you near 12% 'excess return' over the past 3 years. This is amongst the best excess return in the past decade. For context, Nifty delivered 5% excess over bonds since 2012. And only 2% since 1992. But mighty 9% since 2002.

Create this series and a framework to go overweight or underweight risk. It works well. Don't overoptimize it, even if doing so would yield tantalizing results.

Here is a homework for you,

q1: Many strategists look at the yield gap instead. Can you think of why this is a better way of tracking the relative performance?

q2: On 3 year rolling basis- the 'excess returns' averaged 2.5% over the past decade. Can you think of why such a big difference between point-to-point excess return and rolling excess return?

What if all money goes to equity - will we grow faster? Will returns be higher?

"Had all the money in fixed deposits been in equity markets – our country and its people would have been much richer" Soft-spoken, heavily accented and extremely intelligent CEO of a mutual fund spoke in a monotone from the podium in one of the investor functions organised by a fund rating firm.

"Had all the money in fixed deposits been in equity markets – the total riches of people would have been the same. <u>So asset allocation can help one achieve a personal good but in aggregate it doesn't</u> <u>alter the social good</u>" The moderator had asked me a separate question, about some mundane aspects of RBI policy, yet I nevertheless made this remark.

Later, on the side-lines of the function, while he was still surrounded by his fan club – he pointed his gaze at me "...bhai, I can't imagine how asset allocation wouldn't make a difference to an investor's outcome"

"It will impact an individual investor, sir. But not the entire group of investors. The total return of all assets is a function of output growth. And the division of the total return is a function of risk premiums that investors demand from different asset classes"

"But more money in equity will promote more growth" seemed obvious to him.

"There is no evidence of higher equity prices or lower risk premium delivering higher output growth of a country." I rebutted.

"you mean – more money in equities will do nothing to markets. Imagine MFs size double in 3 years?" He said politely.

"If so much money enters stock markets, what is likely is a sharp surge in valuation for a brief period and a sharply lower return for a long period. Since risk premiums for equities have stayed somewhat stable for very long periods, it's fair to assume that equities are as risky as they are perceived. That's why an expensive market can't remain expensive for long" I responded.

A restless IFA interrupted, seeing that the dialogue was moving in a direction that provided little insight into what his investor should do next. Our chat came to an abrupt end. It has been seven years since.

Key message: This idea that a lot of money going to equities will not alter the returns of investors appears counter-intuitive. Most people think equities deliver excess return as surplus. In reality – the excess equity returns over bonds is risk premium- a compensation for the extra risk that you take.

INDIAN LONG TERM STORIES

1. Most overrated story in India, is the Indian routine consumption story. You will likely be surprised that most of the FMCG firm's volume will only double in 25 years. Even two wheelers, low end Electricals and low end durables will see lacklustre volume growth.

2. Most underrated story is the rise of Indian luxury goods demand. People look at lacklustre demand for Indian luxury goods relative to China and get disappointed. We are entering in 'Amrit kaal' of luxury goods demand. Thanks to Indian ownership structure that paves way for extreme wealth concentration with a few tens of thousands of families. Even though Indian economy may be only 4x in 25 years, luxury goods demand will be 10-40x.

3. Well known but still a forceful story to be reminded of is- India' wealth. Yet again- that which drives luxury goods drives wealth too. What lies ahead is an unprecedented boom in PE, PC, VC, VD businesses of India origin! Of course AMCs AUM will continue to grow faster than nominal GDP growth. FIIs dominance in Indian equity will continue to recede and on bonds- it will rise over next many years.

4. Nothing drives Indian geopolitical heft as much as Indian diaspora & tech talent (both here & offshore). We will likely add Indian students in foreign universities and Indian tourists everywhere in next 2 decades to this 'power bank'. Indians will eclipse Chinese Hegemony over next 25 years in both these areas.

5. Story that markets are most enthused about but will likely be disappointed is Indian manufacturingparticularly exports. Our gains in manufacturing may help us in not letting our macro deteriorate significantly (CAD) but not as much to help us become a major goods exporter.

6. And a story that will continue to flourish is the export of 'Indian people' in terms of service exports and remittances. Together it's 7% of GDP. Will likely sustain here even when we are significantly larger economy in next decade.

Decoding India's Economic Future: From Currency Trends to Wealth Convergence and Market Predictions

The most unanticipated trend in India economy: Even though our growth differential vis a vis US may narrow – catch up with the US may accelerate in the size of the economy in USD terms. That's because a steady depreciation of our currency (3% pa over 25 years) stops or slows (to just 1% run rate). This means our national heft in the world will continue to march up over next 25 years.

The most overrated fear amongst our regulators: The reason why our fiscal response to Covid19 was somewhat muted and that RBI continues to mop up reserves without allowing the currency to appreciate vis a vis our counterparts in Asia – is born of our fear of a re-run of 2013 like currency crisis. This means our currency will remain undervalued for longer –driving significant flows to bond markets.

The most underrated micro theme in India: Indian wealth will likely converge to that of China in next 25 years – rising from USD 15 trillion to USD 85 trillion. This will drive boom in luxury goods markets. Much like what has happened in China over past 15-20 years. Luxury goods such as Mercedes sells less than 1% of its fleet in India and near 40% in China. India will likely converge to China numbers in 25 years – and that means 40x unit volume growth.

The consensus view which is most likely wrong: is that China is collapsing. It's doing too well for its size. And still has capacity to eclipse the US in every possible way! In almost all domain of technology-China is starting to appear either superior or competitive vis a vis west.

The biggest show of the global markets over next decade: Since USD has rallied significantly since GFC and is more than 25% expensive vis a vis most important currencies on PPP basis, it is likely that there will an end of 15-year-old bull market over next decade. We will likely have a longest ever stable or strong INR regime over next many years, yet another reason why so much FII money will flock to India bonds and credit assets.

View on Tech

The AI industry's ongoing war can be likened to a battle between mighty warriors, with many US tech behemoths facing struggle while only a few rise to glory. Not competent enough to forecast who will win this. In any case, our IT firm stands steadfast, poised for success no matter the outcome. The first-order effect of generative AI is likely to be more margins for our folks. Also, more business.

Smart investors may find greater riches by steering their ships towards India's thriving IT services instead of the tumultuous waters of tech manufacturing. The latter requires a supportive ecosystem, a well-honed crew, and the benefits of economies of scale... a lot more difficult complex to construct. On the other hand, tech services are a plug-and-play of cognitive labour, easily constructed and scaled, with proven success in India. Not saying mfg won't succeed here. Just that probability of IT to scale remains higher even today as has been the case for the past 2 decades.

Add to this, the fact that most of my friends in Investing community don't like this sector given its recent underperformance. That secures you from the risk of buying into another hype cycle.

PS

This one is a preliminary, low-resolution forecast. A high-resolution forecast is the performance of NASDAQ, as outlined in my December asset allocation strategy published on Substack. I stay constructive there. Though a nearly 20% price jump (most of it is a valuation jump) means it's not as attractive as in Dec.

Key message: I wrote this in April 2023. Idea was to convey that India's panacea is software exports. I think India should do low end manufacturing and high end services. The idea of us entering in high end manufacturing is risky. I also talk about avoiding AI war. The same is applicable to all new age industries. No one knows who will be winner there. Its best to bet on India IT services for productivity growth through AI and such other new wins.

How to invest in new-tech businesses?

The assumptions of valuing new tech businesses are, vast size of markets to breed on & 'winner takes it all' characteristics. Both of these make them excessively expensive.

But if history were to repeat and winners truly take it all, median return of new tech stocks is likely to be deeply negative. Yet because of the extraordinary positive skewness, the portfolio (weighted average) return of new tech stocks may still end up being market beating.

NASDAQ is 4 times since 2000 despite 11 of the top 15 NASDAQer having already died. The beauty of extreme right side skew is that the ones which survive deliver gigantic returns compensating for the dead majority.

In this set up, Selection may be insurmountably hard and risk of doing it intolerably high. I see each of the new tech stock as out of money option, collectively offering substantial risk premium.

To promoters of conglomerates

Picture the big boss of a conglomerate. Ever busy. A couple of board meetings done so far. A few more to go. Tens of his companies' CEOs are pinging him with mostly irrelevant details and lobbying for more capital, more men, more physical presence and if nothing else, more of his time. Rarely a ray of light crosses the thick wood of his bureaucracy.

Unable to find time to think. Or think through. Last he wrote elaborate prose on his own – a decade ago. Read a good book or policy document or a good essay even before. Those days were good – he fondly remembers. Those ideas made him rich. These days are different – he quibbles. There is a lot of hustle in his life now. Time passes in a jiffy.

And not that he doesn't like it. His stadium office makes him feel like a monarch. He enjoys being a queen bee, surrounded by suit-clad people eager to gratify his every whim and roll over for his erratic behaviour. He only hears his good. And it's not easy to resist the sycophant's scheme, to make him feel good for what many gentlemen in their 50s are portraying him, as the lion king- the righteous one who would say no wrong and do no wrong.

All of this orchestra may be a cheap delight, but it comes at a high price. This is known as an opportunity cost. If you are a promoter who was amongst the top 50 in India 20-30 years ago, the chances are stacked against you doing better than the Index.

But that's not a pretty thought. I know you made it this far. I realise the magnificence that was necessary to get you where you are. You once made a large wager on something. Against all the odds you built it big. But keep in mind that you just focused on one or two of those businesses then. This notion that you may also operate the tenth business as efficiently, is... please!

So let's just get one thing done. Sell your fifth, tenth, or hundredth enterprises. Concentrate on no more than one or two. Or max 3, deal? Make them first-rate. And the cash that is freed up - invest in low-cost index funds in India and the United States.

PS1

So if you moneyed man and asking yourself should you start 'yet another' good business. Well- the answer is likely no. Just focus!

PS2

While much is made of RIL's clout in India. The fact is that RIL's market cap as a percentage of the Sensex initially hit 15% in the mid-1990s, was there in the early 2000s, and continues to be there. The distinctiveness of this group arises from the fact that no other member of the then-big boys' club could even keep up with the Sensex.

Key message: In large conglomerates, minority shareholders might not be pleased with what happens in the boardroom. It's better to invest in firms where the promoters focus on one or two businesses, rather than those busy building empires.

50-year-old vs 20-year-old business plan

50-year-old someone building a business: "Our vision & mission, where will we be 25 years out, our people, our moat, our competition..."

20-year-old - his boy- building his business: "let's solve the problem at hand. Rest, okay. Will see"

The Profit Equation of a Macro Investor: An alternate way to project profits of firms

The idea of this essay germinated from a fierce and rather enriching debate I was recently engaged in over the subject of assessing equities vis-à-vis quarterly earnings. The argument put forward by the other side was that the concept of 'profit pool' (profit of all the firms) is an abstract and is ex-post understanding of affairs. Which means a stock market can't be assessed without bothering about profits of individual firms. My counter to that was, 'profit pool' can rather be assessed basis macro variables and that macro setting of an economy gives a good sense of what lies ahead for profit pool of all the firms. As writing has always helped structure thoughts better, I ended up laying out my core argument and a macro framework to corporate profit growth over an email to this person. I am reproducing the main tenets of my arguments in this blog.

Where do profits come from?

Given that I am a macro investor I look at cues to explain aggregate profits of all firms of the market. Individual firm's profit is a produce of how well it runs its operations and how it is able to outcompete others in creating good products at low cost with good sales and distribution strategies. Assessing all these parameters is the job of my friends in bottom up investing world. **Edifice of my macro-investing is built on their hard-work because it's important that they do the drudgery of relative valuation of the firms in markets, basis how the 'total profit pool' will be distributed amongst the firms.**

However, I am more interested in total profit pool because only that determines direction of the broad market. It may surprise some to know that aggregate profits of all firms has little to do with individual firms themselves. Fiscal policies and household savings behaviour are key determinants of firms' profits in short term and investment decisions of household and firms, for long term.

Now whenever I say 'firms', it's about 'all the firms' of the country. Household is you & me. Foreigner is another country' firms and consumers.

Framework of understanding the aggregate profits or profit pool of all the firms:

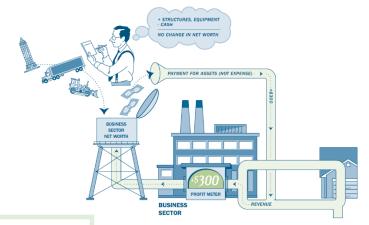
In a close system, for every-profit, there has to be a loss. I know I know, I am being mercantilist, yes, I have read Adam Smith's The Wealth of Nations, yet, this is the way it works in accounting which balances all things on both sides. We are going to get to 'the profit equation' through accounting/flow framework.

The Kalecki-Levy profits equation gives us a good sense of how profits are generated (Levy's paper is a brilliant read: <u>https://www.levyforecast.com/core/wp-content/uploads/2016/05/levy-forecasting-where-profits-come-from.pdf?834430</u>). I also recommend a book by him to gain better insight in this process. <u>Profits and the Future of American Society: Levy, Jay: 9780451622907: Amazon.com: Books</u>

Now the key objective of this exercise is to get to profits of all the firms. The method is simple. We will look at all the inflow and outflow of the firms. The difference between them is retained by the firms and is called: Profit!

Let's understand how:

Investments & inventory: When a firm buys INR 300 machine, it's basically an inflow (or income) for another firm which sells it. But for the buying firm, it's not a cost. It's an investment. It becomes a cost very slowly as machine depreciates. So for the two firms together, decision of a firm to buy a machine from another firm becomes profit. Magic, isn't it? This is the reason we all hail investments. If we have lots of investments in our country, there will be lots of profit.

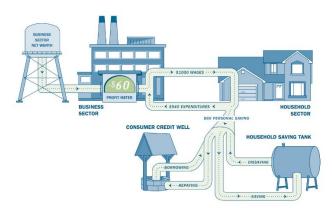


How to read the above graphic? A firm bought \$300 worth of machine from another firm. Payment for it isn't an expense as it's an investment whereas the one who sells considers this a revenue. Same mechanism for inventory.

Household (HH) savings: Households earn income from firms as salaries or earn profit from their own shops. They spend some of this income and save the rest. Their spending is an income to firms. So bear this in mind. Household saving isn't a good thing for firms. More they save, worse is the income for firms. So as a stock market investor, I want you to spend everything that you earn. As a friend, I will advise you to save lots!

Now some paradoxical results of this mechanism. Cutting employee salaries doesn't increase the total profit of the firms. Why? Because salary and spending are related. You cut my salary, my spending will come down. So next time you hear salary cuts by firms, don't celebrate it as stock market investor. Similarly, interest rates don't matter because firm's interest payment is an earning for household.

These days you hear a lot about HH savings. Developed countries HHs are sitting on 5 trillion-dollar extra savings (vs Pre-Covid). Why didn't it hurt profit of firms? That's because, this excess savings came from govt transfers. A Median guy in western countries earned more during lockdown due to govt handouts, so he happily saved some of it. Good news is that most of these savings will be spent eventually and will become profits of the firms. That's why I am not too worried about fiscal contraction in US and Europe. But for India and many other emerging markets, it was different. Govt wasn't as generous. So savings did not go up much.

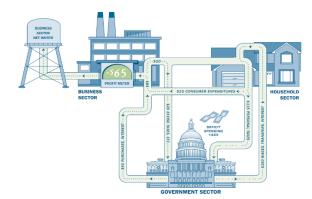


How to read the above graphic? A firm paid \$1000 worth of salary to its employees (Household). Of that, HH spent \$940. Therefore, profit to firm is -\$60.

Government: Some of the Government expense may go to Households (HH) and some other may go to firms. Most of HH money is also spent in the manner we discussed above. So lots of Govt spending leads to increase in profit of the firm. The reason why profits soared in past 12 months, was because Government spending increased dramatically across major countries. But during 18m, tax income of the Govt came down sharply but spending still went up! The difference between govt spending and income is called Fiscal deficit. More the fiscal deficit, more the profit of the firms! Remember this. Govt spending doesn't matter for profit, if it's coming from higher taxes. What matters is how 'imprudent' govt is in spending more than its income.

Keep this framework in mind now. Next time you hear big spending plan in our economy or US or Europe or China, without increasing the taxes- Go buy equities!

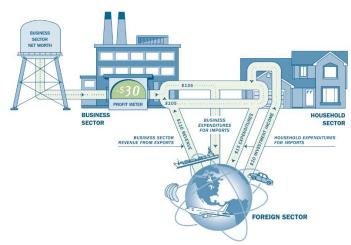
An interesting question is whether cut in corporate tax is a boon for corporate profits. This one seems obvious but not so. The taxes paid by the firms don't matter for profit because they all circle back to them as revenues (routed through household). What matters is whether the tax cut leads to more fiscal deficit or not?



How to read the above graphic? Government receives \$20 from a firm and \$115 from HH as taxes. It pays \$150 as salaries to govt employees and buys \$50 worth of stuff from a firm. So net flow is \$65 for the firm. Remember that almost all the fiscal deficit ends up being profit to firms.

Foreigners: This is the last leg and an important one to understand. Current account surplus (Total Exports – Import) is a net income of the country. If imports are higher than exports, we call it current account deficit. That's a transfer of income to rest of the world. Think of it like this: if household savings rates, corporate investments and government fiscal deficit remain same while current

account deficit goes up, it means that the local profit pool will shrink to that extent. Where will it go? It will go to foreign firms. Keep this framework in mind while you analyze the profit growth of 2011-14 in India, as CAD went up, profit to GDP went down. Hypothetically, our firms profit ended up with Chinese firms because our import from China shot up during that time.



(Infographic Source: https://www.levyforecast.com/)

By now, you may be tempted to think that lots of spending by Govt may be a panacea for firm's profit. Not always. If our govt suddenly increases fiscal deficit by transferring to us lots of money, and we might rush to buy Chinese mobiles, resulting in Chinese firms profit. Not ours. So the way to use this framework is to first understand how firms interact with each of the other stakeholders individually (Firms, govt, HH and foreigners) and then build a mental model in which we assess how the cumulative effect will work out. Let's build the profit equation to get a full picture:

Finally, The Profit Equation:

Now we know that in our macro set up, firms pay taxes to Govt, buys machines & inventories from other firms, gives wages & dividends to households and earn income from selling goods to households and Govt. The net of all these flows is profit to the firm. Remember, we got here through accounting of all inflows and outflows. This isn't a theoretical exercise. It truly works. This exercise gives you pretty much 'total profits' that 'all firms in the economy' report year after year. So here is our final profit equation:

Profits before taxes = Investment - Household Savings + Fiscal deficit – Current Account Deficit

You can derive similar conclusion by doing something simpler as long as you are ready to start with this simple equation in any economy:

Savings = Investment

Since 'Savings' is made up of four components (Household Savings + Corporate Savings + Government Savings + Foreigners Savings)

And Corporate Savings = Corporate Profit – Dividends

Therefore, Corporate Profit = Investment + Dividends – Household Savings – Government Savings – Foreigners Savings. Same conclusion!

Please remember that Investment here is made up of both household and corporate investments. Most of the of the household investment is in houses. Also, just for simplicity I didn't add inventory and dividend in the profit equation. But you get the idea. Inventory behaves like investment and Dividend like household income.

Let's keep this framework in mind in assessing how Indian profit cycle will evolve in medium term.

A little bit of history of corporate profit in India: Overall corporate profits are in 8-10% of GDP over last 15 years' vs 4-5% in the previous 15 years. Though overall profit to GDP hasn't moved much over past 5-7 years but listed firms profit has fallen as % of GDP. Therefore, unlisted firms gained at the cost of listed ones.

Even within listed universe there are divergent trends. Top 500's share rose at the cost of rest of the listed firms but fell as a % of GDP. So what's playing out in India? One, the belief that India has had 'profit less' growth isn't true. It's just that lots of profit is going to unlisted firms. Two, there isn't much of formalization story playing out, as is often told to us. A simple 'oligopolistic trend' is what I see in some industries. Small number of metals, cements, infra, banks, telecom, auto firms are gaining profit share at the cost of other listed firms. But in aggregate, to repeat the same point, all the listed firms are losing 'profit share' to unlisted firms. Three, its not that mom & pop stores are making lots of money when we say that un-listed firms are gaining. They too seem to be losing. That's what most national surveys tell us. Then who is gaining? I have some ideas of it. We will speculate on it some other time!

Using the profit equation to understand the profit drought of 2012-18: During this period fiscal deficit fell from 7% (12m trailing, in Dec-11) to less than 3.5% (12m trailing, in April-18). This became a drag for profits. Typically, after slowdowns, investment picks up again. But that never happened in India. Since 2013, Investment has been on a downhill. Firms investments have languished though we have seen some intermittent growth there. But household investments have slowed almost secularly.

Remember that in our profit equation, both HH investment and Firms investment matter for profit. Firms investments may have suffered from overcapacity in the beginning of the decade and then came the NPA mess. Don't solve NPA mess fast, you will always have investment slowdown, is a time tested thesis, across countries. This has been understood by us in both 1999-03 and 2015-19 slowdown.

But what has puzzled everyone is the slowdown in household investment. Why did Indians suddenly go-slow on building houses or setting up small firms to cater to local markets? It could have been to do with real estate bubble that made houses too expensive or job-less growth. Or was it Demon and GST combined that took away the comparative advantage of low/no taxes that small firms enjoyed. Whatever it was, this remains the number one policy-priority for the govt & RBI to get household build houses again and get the cheap-enough credit flowing again to compensate for 'tax loss'. Without that, its difficult to imagine good growth in near term. For the limited purpose of this note, the conclusion is simple: we cant have profit growth without lots of investments by both household and firms!

This is the framework I was using in expecting muted single digit earnings growth back in 2015-16 when popular view was of 15% profit growth. Refer: <u>Corporate earnings reset in line with nominal growth rate: Maneesh Dangi (livemint.com)</u>.

The profit boom of 2021-22 and a cliff after this: Our listed firms cut expenses sharply resulting in higher profit, while their sales declined more than nominal GDP decline (-6% vs -3%). If you use the profit equation, it shows that the rise of fiscal deficit from 5% to 9% and current account movement

from deficit of 1% to surplus of +1%. Together, this seems to explain the profit boom of firms. But once we look beneath the surface, something more sinister happened. Aggregate profit of all the firms fell from near 10% to 8.5% of GDP, whereas listed firms witnessed a sharp rise from 2% to 3%. Unlike in the west, where profit boom can be explained by income transfer from Government to firms, in India's case it became zero sum income transfer from unlisted to listed corporate entities.

Now, it's important to recognize that what happened last year isn't a repeatable sequence. Let's do a small iteration of 'The Profit Equation' to assess the future. Given that dividend is an outcome of profit, let's ignore it. Our fiscal deficit will reduce by 2-3% over next 3 years. Our current account deficit (CAD) is too depressed and is likely to go up by 1-1.5% over next 2-3 years, reverting to prepandemic levels. So both Fiscal deficit and CAD will be drags on our firms' profits pool. Profit growth in this environment can only happen if corporate and household investments rise. We need to sight investment intentions of corporate to expand capacities and household' confidence in building houses and local businesses. These two are the important markers of firm's profit. Unfortunately, both are not looking very good at the moment. But I am hoping that it will change soon.

Key take away for you is that current profits are produce of past macro-economic set up. Things that have little to do with firms, matter more for their profits. We are well fed by the bottom up investing world on how most future profits are bootstrapped from current profit and near term guidance by the management. I think macro investing framework can help us understand the firms 'profit pool' better. Doing that can also help us catch both major and mini-profit cycles. Let's begin this journey of understanding the macro signals which will tell you probable EPS of NIFTY50 in FY24-25. We have a framework now. On exact macro signals, next time then!

Corporate Rigidity vs. Market Agility: Navigating the Dichotomy in Investing

Work with a typical corporate? Rarely does this entity, yours or his, diverge from its predetermined course, scarcely iterating or embracing reform. Only upon encountering a significant failure, yet not one catastrophic enough to render it insolvent, does it amend its trajectory. Until then - Chale Chalo!

Contrary to popular belief, the corporate realm is often characterized by rigidity, lack of inspiration, bureaucratic entanglements, slow understanding of changes and even slower responses. Its operations resemble the Darwinian struggle for survival, where species survive not because they amended to do so, but only because they were accidentally blessed to be so. Not telling that corporate don't succeed but they do so coz the blueprint turned out to be the one that the environment favoured.

Yet, observe the market, that other great force, which operates on the principle of gradient descent an algorithm devised to minimize loss through countless iterations, unashamed of failure and perpetually prepared to recalibrate its expectations to achieve the optimal result. Result of? The mythical risk premium.

The crux of the matter lies in the contrasting scales, wrt to both time and space at which these two entities operate. Mr market - is agile, intelligent, and ever-adaptive, while the corporate, as I have described, is quite the antithesis. It is for this reason that one must exercise caution before placing faith in any revival for any of them, for often the memo arrives too late. In that world, the ones who decay often die.

And oh dear, if you are PM, don't you indulge in giving fitness certificates to any blueprint? Your job is only to gauge the environment in which one succeeds -where the other fails. Few successes are innate.

Just one of those #rules in investing. Likely you will have to learn yourself. Nonetheless, it's fun to tell!

Risk in equity vs fixed duration

This is well known that equity is a long duration asset. That means – it's extremely sensitive to change in yield specifically or macro conditions generally.

What's less known is that equity is also a floating long-duration asset. This is because its dividend yield is so low that its duration doesn't change much even after holding it for a few years. The risk remains nearly constant, like taking the same train every day and always facing the potential of encountering a hostile passenger.

In contrast, the risk in a fixed-duration asset, like credit, decreases over time. Each year a firm or asset stays stable, its risk goes down. This reduction in risk over time can be likened to the diminishing danger of repeatedly encountering the same passenger, where familiarity reduces risk.

From CEOs to CFOs: The Art of Asking the Right Questions

Farther you go, you get a better sense of shape of a thing but lose resolution of it. And only when you see things from different sides and varying distances, true nature of theirs emerges.

The architect will often see things from far but the carpenter will feel the furniture from near. A builder is obsessed with the exteriors of a site but an engineer on how the steel is laid and cement is mixed there. Don't ask a builder on the strength of the foundation, an engineer on site will have a better view of it. Ask a gardener, which mango you must pluck, the owner will know little of it. Some such rules apply to us as well- the analysts.

So when we go for a management meeting, our question to a CEO or promoter should be of boundary conditions, of what her firm will never do and of change that her firm will charter over long term. We must know that her knowledge of routine matters is sparse. Don't grill her for that.

Hear her story- not for the factuality of it but passion it evokes, not for what is on the ground, but something she imagines, dreams, with lucidity and enchantment. Ofcourse- that is not to be taken -as is. It's a hint, her troops will follow that, her firm will get there- hopefully, often late, but perhaps eventually. What good are CEOs or owner who seem too measured, too plain and too factual!

But when you meet CFOs. Ask nuts and bolts questions, preferably of past and of imminent future. Of why in balance sheet, the remark of an auditor, the sudden increase in the admin expense or fall in inventory, of cash flow conversions, the last month's market-share and evolving cost-price dynamic. He is a custodian of data, excel is his language and charts are his sketches. Don't seek stories from them. Seek data to validate them, instead.

Try your luck to ask from competition to find the worst part of the firm as they will be the most articulate on it, vendors to understand it's competitive positioning because only they have their windows open to all other firms and customers for the absolute good of the product. That's how we must build a panoramic view of the firm.

Ditto in a war. Ask a soldier of the extent of pain and devastation, generals the strategy and politicians the motive of wars- as soldiers are often misinformed of the strategy in which some of them must be sacrificed, generals are too unaware of the motive, since the fight is invariably not to win the enemy of outside but of within. Head to Lok-Sabha or white house or Kremlin for its motive, but don't ask them of the body counts.

BOND, GOLD, AND OTHER MARKETS

A misconception on money debasement that makes a case for Gold investing

There are so many gold and crypto fans arguing forever about why these are the best asset classes and why the world would be better off with their money systems. Everyone who talks against these assets is trolled!

Part of this assertion is generally driven by the idea of currency debasement. The story goes like this: Your dad bought a Maruti 800 car in 1995 for 1.1 lakhs, and now it costs more than 3.3 lakhs. That means each rupee is worth less than 30 paisa now, so our evil government has "stolen" 70 paisa from your dad.

This is a common conversation at family parties, right?

Seems like a simple idea but it is WRONG. It overlooks the fact that money has a duration. The currency note in your pocket is of zero duration. It should only be there for the day you want to transact. If my dad had 26-year money (when he actually bought the Maruti 800 in 1995), he should have invested in bonds or FDs instead of keeping notes. Even if he had deposited those notes in a 1-year recurring fixed deposit, his 1.1 lakh would have become 6 lakhs. That's worth two cars. His money didn't debase; it grew! Go tell this to your dad too \bigcirc .

The offer that your fiat money makes to you is that you could keep it in cash to consume or deploy it in bonds/FDs to save. For the most part, most countries have delivered positive real returns on investing in government bonds. You will be surprised to know that gold has done a much poorer job compared to bonds, even when you look at its return over 100-200 years. Its short-term returns are much worse.

One may still keep 5-10% of their portfolio in gold, especially if you live in an underdeveloped country whose economy is prone to bouts of hyperinflation. It could be used as a speculative asset (for hedging new risk) since it has a positive correlation with the Equity Risk Premium (ERP). Bitcoins don't even do that as they are risk-on assets!

So for super-rich folks—go ahead with a small allocation to gold but don't expect too much from it! It's going to give you the volatility of equity and the returns of medium-term government bonds. Think of it as insurance for a catastrophe, as it works well to defend against a rare but massive policy error at the global level! For most of us, land could be a better place.

By the way, some folks daydream that the world will revert to a gold standard again. I dread it. My chief argument against a "crypto or gold standard" of money is that both promote a feudal system and inequality. Empirically, almost all gold standard times have been periods of low growth. Because of scarcity, the original owners of the gold get to preserve their "stake in the world output" without working for it. That system inhibits economic mobility. A Bitcoin monetary system is even worse, The world would be a terrible place (unequal and stagnant) if that system was to prevail. Let's resist it!

Key message: Fiat money, when properly invested, grows over time rather than debasing. Gold and crypto, while having their uses, are not superior to fiat currency and can promote inequality and economic stagnation if adopted as standard monetary systems.

Why Does India Hoard Gold? Unpacking the Historical and Cultural Drivers

About 2000 year ago.

Pliny cribbed in his book about Rome burning a hole in its pocket, importing lavish goodies from places like India. He wrote "We're spending more on luxurious goods from India ...for our Roman ladies than we collect taxes from some of our provinces!" He thought it would rob Rome of its prosperity.

Prof Martin Daunton points out "India was absorbing near 20% of global silver production between 1600-1800, as it dominated the world exports"

So India was a great exporter for nearly 2000 years. Running large trade surpluses.

But the question I am trying to solve is about Indian' obsession of Gold. Most will tell you that it's coz gold is a hedge against inflation. It is. But why is this obsession unique to India?

I think, it's a historical FOMO!

For nearly 2000 years, India dominated the global trade, raking in gold and silver like a champ. Thus, our national pastime of gold hoarding was born amongst our merchants and Richie rich. And while we no longer net-export to the world, but old habits, especially glittery ones, die hard.

PS

Am listening to this 'nationalist' arguing that our riche rich' extravagant habits are the reasons we run current account deficit. His problem is with Indians travelling the world, buying gold and sending kids to US universities. He seems to have picked it up from Xi Jinping' thought or Pliny. No mention of women fetish for luxury good though

Key message: I have always wondered why there is such a fetish for Gold in India. Many people say that because we are poor. I argue here that this reflex of buying Gold was born when we were very rich and ran current account surplus. Then – the only global currency was Gold. That habit has stayed!

Golden rules of Gold investing

Gold appreciates not due to inflation, but rather because central banks turn a blind eye to it. It's not inflation that drives the precious metal higher; its value goes up when central bankers tacitly approve of high inflation resulting in negative REAL yields!

Gold has been remarkable in maintaining its purchasing power for more than 2,000 years. The cost of a finely tailored suit—or a toga in ancient Rome—has remained the same (The New Case of Gold, Rickards). An ounce of gold could buy a good suit then, and an ounce can buy a good suit now.

So yes, if you save money in gold, it will likely buy as many luxury suits many decades out. Happy?

But if you think that investing in gold will give you more purchasing power, well, it hasn't given that to 'you' over the past 2,000 years. It will likely not give it over the next...

Golden Rules of Gold Investing:

Rule #1: In the short term, if you want an effective hedge against geopolitical risks or volatile energy costs, given that gold and energy prices often move in sync, gold may be worth it. Also, because of its (somewhat) uncorrelated exposure, if you are uncertain about the near future, well then, buy it.

Rule #2: Over the medium term, gold's price largely hinges on REAL yields. And rates have rarely been as high in the US in the last 20 years! But if you believe that markets are wrong and there will be YCC, you are welcome to buy gold.

Rule #3: In the long term, gold is excellent for preserving the value of money (so better than currency notes stashed in pillows)—but don't expect it to grow your wealth.

If you invest in equities, you can expect to afford 4-6 quality suits in three to four decades from the money that can buy one suit today. Fixed income will help you buy two of them. And gold will get you one only, even after 40 years!

BITCOINS: Why it's not the solution that we need

Why I believe bitcoins are perilous despite their perceived benefits is as follows: Bitcoin's truly unique feature lies in its 'monetary policy' rooted in the Austrian school. It's hard-coded limit of 21 million coins makes it the 'hardest currency' globally, surpassing even gold, which increases its supply by approximately 1% annually. This distinguishes Bitcoin from over 9,000 other cryptocurrencies.

However, this policy also renders it dangerous. Comparing it to the historical gold standard reveals why this setup is flawed in its purest form. Imagine a hypothetical scenario where you possess all the gold on day one, and all production in this world is your doing. Let's say there are 100 ounces of gold and 1 unit of product on day one. Your wealth at the end of the day is 100 ounces of gold. Now, my child produces an additional unit of product. They attempt to sell it in the market, increasing the total to 2 units (yours and theirs). Given your monopoly on gold, you set the price of the unit at 1/100th of a gold ounce (a predatory move), forcing my child to sell at a similar price. Despite the increased output in this economy, wealth in gold terms remains at 100 ounces; you own 99 ounces while my child owns only 1 ounce. Shouldn't my child own more, considering they produced half of the output?

In reality, the gold standard wasn't as 'pure and hard' because new gold was discovered every year. Gold accumulation has been slow but steady over the past 5 millennia or more, distributing assets over extended periods. With new growth came new gold discoveries, allowing future generations to receive a relatively fairer share of wealth.

In the case of Bitcoin, all wealth is distributed among a few individuals within a generation, as 90% of the 21 million cap has already been generated. By compressing the distribution period, Bitcoin impedes the fair participation of future generations in wealth creation. Hence, allowing Bitcoin to become the hard currency of the digital world may not be prudent for equitable wealth distribution.

Another point of concern is the criticism levelled against the current fiat currency system for generating inflation, which devalues the currency over time. Critics argue that inflation facilitates wealth redistribution from old to new. For instance, if you possess \$100, gold enthusiasts and crypto advocates would prefer it to hold the same value even after 20 years. However, under the current system, its value may decrease by 50% due to inflation. Nevertheless, this devaluation isn't inherently negative. It encourages individuals to invest in productive activities to preserve and grow their wealth.

In conclusion, while Bitcoin offers unique advantages, its fixed supply mechanism risks concentrating wealth among a few, hindering fair wealth distribution across generations. The current fiat currency system, despite criticisms of inflation, supports economic mobility and equitable wealth distribution over time.

Key Message: Bitcoin's hard cap on supply, while ensuring scarcity, risks concentrating wealth and inhibiting fair wealth distribution over generations, contrasting with the more adaptable nature of fiat currencies that support economic mobility and investment.

On CBDCs

- Once CBDCs are launched, each person will have a ledger account with RBI. A ledger is a book of accounts that records all transactions. Currently, you have a ledger account with your bank, and each bank has one with the RBI. With CBDCs, you will have your ledger directly with the RBI.
- All transactions will be netted out every day in that ledger (and eventually in real-time). For example, if you pay me 100 bucks, and I pay 90 to someone else, my ledger will reflect a +10 buck balance.
- Just for basic understanding: when you keep your 'money' in a bank, the bank 'promises' to give currency on demand. Currently, only INR notes in your pocket are a direct claim on the RBI. All your bank money is simply a promise by your bank to deliver hard currency notes on demand, which has counterparty risk (the bank must remain solvent).
- Again, for clarity for those comparing CBDCs with the current system: they are basically 'time-stamped' digital notes.
- The current physical notes are effectively time-stamped (the current holder owns them because no one else can have them right now). CBDCs will also be effectively time-stamped, solving the duplication problem through block chain technology.
- Just as a reference, banking represents about 5-9% of GDP worldwide, varying across countries. This constitutes a plain intermediation cost. CBDCs have the potential to dramatically reduce this cost, thereby reducing the role (and rents) of banks.
- It's highly likely that in the future, the only role of banks will be 'credit underwriting'. Upon deeper reflection, banks will essentially become sellers of credit default swaps. Consequently, many current banking functions (such as payments, cash dispensing, deposit reception, ledger-keeping for account holders, daylight/intraday credit, etc.) will be displaced by digital INRs.
- Finally, Demonetization 2.0 is imminent. Once CBDCs are launched, not too far in the future, a successful Demonetization 2.0 will likely be implemented before 2030. Cash hoarders, beware!

- The West may struggle to sell CBDCs to its people due to privacy concerns. In contrast, for us Indians, the privacy threshold was crossed during the Aadhar rollout. I don't believe most Indians are overly concerned about it. Therefore, the probability of favourable public opinion for CBDCs is high. Additionally, there are ways to address privacy concerns through solutions like India stack.
- Markets aren't currently pricing in this eventuality. One way to hedge against this is to invest in solid 'credit-only' franchises, compared to banks which are 'credit + everything else' franchises.

Key message: Central Bank Digital Currencies (CBDCs) promise to revolutionize financial transactions by providing time-stamped digital notes that could reduce banking intermediation costs and redefine the role of banks to primarily credit underwriting. While privacy concerns may pose challenges in the West, India's readiness from Andhra suggests a favourable environment for CBDC adoption, potentially reshaping financial landscapes globally.

Changes in tax structure in debt mutual funds and effects on effects on deposits

"Banks did it. Now that all the mf debt money will go to banks - the problem is solved. Deposit growth is likely to be more robust now and the stress on lending will go down" She screamed. With some amazing graphics - red and blue - and with a tape on who's-who commenting on the latest move.

"Do you realise that all the MF money anyways goes to banks - either they deposit directly or they lend to corporate who in turn deposit money in banks" I pinged her.

"What are you talking about? Do you see no impact and if so why did banks even lobby for it? Confident her - fired back.

'Banks lobbied to get a level playing field. Tax advantage to MFs meant they had to keep rates higher' I wrote.

"I am confused. This move is about bringing down the deposit rates and not getting more deposits?' She must have thought a lot as the next ping arrived an hour later.

"Yes. Even though most banks don't realise it. But that's what they want" I wanted to explain but it was late. And the fun of being cryptic with the omniscient is quite a thing in any case! :)

PS

A day later. Reading pink papers. Even the marquee fund managers are opining with grin - the very same. "Banks did it because they want more deposits + now they will get more deposits!" hmmm... wonder if they asked their analysts or assumed it to be so evident that it wasn't even worth it.

Key message: This I wrote when debt mutual fund taxation changed. The favour to MFs earlier was that their gains were considered as capital gains – after 3 years. Now they are on equal footing. Lots of bankers thought that debt mutual funds were the reason why their deposit hadn't been growing for long. They are wrong.

Changes in tax structure in debt mutual funds- how will it impact curves

The changes in debt MF taxation means that 2/3 year bonds which used to be anchored to 1-year rates will get unhinged, 1/3 spread will widen and 3/10 will shrink. To a certain extent - we go back to

the old regime when LTCG for fixed income funds used to be for one year. Those days 3s used to hug 10s. Now they are dear to 1s. All of this will take a year to take full effect. But that's where we are headed.

From a policy standpoint, we have been moving towards a 'no tax management' regime. Matter of time before the axe falls on equity & everything else. As I have written many times - the world's appetite for lower taxes for the rich and mighty has run its course and reversal is underway.

Key message: The tax harmonisation between bank deposit and mutual funds will mean the curves become steeper in India. As such, I think its just a matter of time- where the special favour to equities as asset class (From tax standpoint) will also go.

Credit, Collateral, and Liquidity: A Dive into Banking and Mutual Fund Operations

'Give money to funds and there is no loss in translation. All the money will end up with the needy' she pinged back & along with it- sent an article from a celebrity fund manager.

'But give money to banks - all & more money will be available for all needy ones. What's the difference?' I wrote back.

'Yea! But banks have to set aside money for CRR and SLR. MFs are pure play. All the money that comes in leaves as it is' was the response in an instant.

'Well. That's not the way it works. If there is any credit-worthy person, the bank can lend to him. As much as they want. CRR has stopped being a constraint for banks a long time ago. In India or abroad. And as for SLR. That's lending only to the 'needy' I said.

'How? You mean - can banks lend even though there is no deposit to begin with' she asked.

'Yes. The only condition is - bankers should continue to think that their depositors think of it as a viable entity. So it's a second-order confidence issue. Also, the deposit will always come to them - directly or intermediated by someone like funds' I wrote. I should have added capital as another constraint. But that doesn't matter too - most of the time.

PS1

And to be sure. I don't buy the thesis that credit creates deposits (another name of money) from thin air. That seems too simplistic. Though – conceptually it's closer than deposits creating credit. The phenomenon of banking is predicated upon a process to seek out collateral, which may be derived from either past income (already in there) or the future (out there). This collateral is then used to generate liquidity. "Your crop is worth 1 lakh, so take 1 lakh or your crop is likely to be worth 1 lakh – so take 75k right away". Get the difference- of already in there' or 'out there'?

Unlike other money brokers, banks are licensed ones. The very notion of this license 'to create liquidity against collateral' presupposes an underlying mechanism designed to prevent a "run" on the bank, thereby affording banks greater discretion in their money (or say liq) creation.

PS2

It is worth noting that debt mutual funds are also capable of creating liquidity against such collaterals; however, their liability is often volatile and prone to flight at the slightest hint of trouble as they aren't 'licensed' + unlike banks, MFs can't create new credit (therefore new money) unless banks dance

along. They can only transform money. From less risk-taking to more risk-taking. From low duration to more duration. Ever wondered why debt funds tend to grow in pessimistic times?

PS3

Equity mutual funds, on the other hand, possess a trick to perform some kind of magic, perhaps even more powerful than that of banks. It transforms hard collateral money into 'out there' uncertain collateral. All of it without policy put and by simply riding on the greed of men. Red fort loves it for this reason.

Key message: How does debt mutual fund work? How is it different from a bank? How is money created?

The Shift in Economic Policy: Bracing for Higher Taxes and Greater Equity Amid Rising Populism

Give a few more billions to a mega-billionaire and he will likely buy an island in pacific or acquire a firm that only proposes to earn its first dime a decade out. Give more, and he may launch space expedition to relocate humanity to Mars- for just in case! And if nothing else, his family office will bid up equities of other firms.

That's what money does when rich earns more. It reprices assets higher, invest in things that many may find useless and buys stuff of grandeur at outrageous prices. The virtue signal for a rich is to buy things of scarcity, for vanity not of utility.

Give more money to my driver and a million dreams will be fulfilled, a bike will arrive, a good meal and a decent clothing will spread joy in his family and his rooftop, that has been leaking for months would soon get a repair. It's too obvious that all of it improves us, a lot more than an extra yacht or space travel or shiny Maybach.

If you want low inflation - pay my driver lower, give a larger share of earning to Richie rich. The result will be - Magically buoyant stock markets & crazy start-up valuations coinciding with folks in Davos & Brussels, making up esoteric arguments for disinflation & how more of QE alone can help undo that menace.

But if the ask is more investments (and therefore more growth)- pay him more and let him have a larger share of total national income. His demand will drive more inflation first and then more Investments eventually.

The grand illusion that cutting taxes and giving sops to rich will result in more investment hasn't been borne by empirical studies. It's time we shut that project.

I ain't a lefty. But it's not too difficult to recognise that something went wrong in past half a century, where median incomes have languished for most of the countries, inequality rose to stratospheric levels resulting in rise of internal conflicts and nationalistic fervour in local politics.

All the policies of past many decades, of globalisation (WTO), consumer repression (East Asia) and low real rates (post GFC~ global) have meant elites earned more and labour across the world earned less.

This is a system that has an expiry date, no one has an answer of- when, but soon is what I will bet on. Rising populism across the world, min tax imposition on corp and increasing popularity of ideas of UBI, wealth or billionaire taxes mean that the end game of this elitist system is close.

Elites will resist. Propaganda will be launched. Editorials will profess catastrophes. Billionaires and bankers will tweet against it. But tide has turned. New political choices are emerging. The disgust for the current unfair system and backlash the club of Davos, modern illuminati suggest that, the revenge of proletariat is underway.

Key message: No one likes inequality. But rich don't like the solution of it. Frankly there is no solution to it – for certain. For now, a consensus is developing in a direction that markets must brace for, more capital gain taxes, more high income taxes and restrictions to move money around (LRS). There is no way to hide from it.

The Global Obsession with US Treasuries: Insights from a Village Economy Analogy

In a small village, there resided a mighty king. All neighbouring villages' chieftains paid him fees to safeguard their borders. They also sold their goods to his village against IOUs given by the king—year after year. Everyone had accumulated a lot of IOUs from the king. So much that...

... one day, a newspaper published an article stating that the king's village had been too spendthrift. That the IOUs issued by his kingdom were good but not as good as previously thought. There was uproar across neighbouring villages.

"Wrong. His people must not overspend," one of the neighbouring chiefs shouted. "Else?" the king asked calmly.

"We will stop buying your IOUs. Who will fund your people's purchases then?" "Okay, really?"

... they reconsidered and sheepishly withdrew. From the next day onwards, they resumed buying IOUs with as much zeal, perhaps even more.

PS

- People sell goods to the US in order to accumulate US Treasuries (USTs). Sounds weird, I know.
- People buy USTs because that's the best insurance—not necessarily the one they desire, but the best one they can get.
- A rating change will likely make zero difference to USTs. Or perhaps, as Lacan would write, "If it's so bad out there, then it must be even more expensive."

Key Message: The US dollar's status as a global reserve currency is upheld not just by economic fundamentals but by the perception of stability and reliability, akin to the IOUs in the story. Despite criticisms or concerns, the demand for US Treasuries remains robust, illustrating their role as a preferred safe haven in uncertain times.

IGB vs UST are different trades

Investors should be careful in replicating the rallying UST trade in Indian bonds (IGB). While UST is a long Volatility trade and therefore can appreciate in current volatile macro setting (Sustained high

VIX), the IGBs are in opposite camp, they are short Vol trade. If there were to be a major risk off in near future, it's likely that USTs & USD rally but IGBs & INR sell off.

Indian Bond Market – Basic Rules

Indian bond bear-trades are constrained by growth slowdown, regardless of inflation. Conversely, bull-trades are limited by growth acceleration, irrespective of inflation.

The Reserve Bank of India (RBI) maintains a highly pragmatic policy stance, avoiding adherence to any prevailing secular narratives. It holds no predisposed bias or retrospective regret regarding specific real interest rate levels, regardless of governmental statements to the press or public.

Key Message: The Indian bond market operates under clear rules where growth dynamics, rather than inflation alone, dictate trends. The RBI's pragmatic approach ensures policy decisions are independent of academic narratives or political pressures, focusing instead on economic fundamentals.

How to trade Indian bonds

Dear new bond trader,

You are likely reporting to this 50-year-old someone, a wise middle-aged man, CIO or head of treasury who obsesses over one thing the most, i.e. who will buy this or next auction' bonds. "Why don't you draw a table for me based on RBI data – how demand and supply will match for the coming year" will likely be the task given to you and then "Did you see CCIL data for last night?" is the ongoing inquiry – every day in the dealing room. The dogma of demand and supply. Bond folks love it. Local bond moves for today – they will tell you - is a function of (delta UST, CCIL data, when is the auction?). Give or take. Looking at it, you, the wide-eyed new bond trader, might think demand-supply is the magic key to local bonds.

Now, hear me out. The fiscal deficit over the past three years was 4%+ wider (vs. the previous 3 years). Inflation was 2% wider. And RBI is an inflation-targeting central bank. ICDs (incremental credit to deposit ratio) were very high over 18m. Bond yields did a polite U-turn and rose, but only for macro-economic reasons – enough to make RBI toss out the old 'bonds are public utilities and won't rise above 6%' rulebook. Yours truly penned about this plot twist aplenty in 2022. But the bonds were no rogue actors; they didn't throw a tantrum or overcompensate for the substantial supply.

So maybe. Just maybe, bond yield is simply a function of expected inflation and policy bias (to deliver real yield). Maybe, just maybe, the supply doesn't matter as much as that old gossip mill has led you to believe. And maybe, central bankers are hands in gloves with Governments, ever ready to reset the paths and targets to accommodate fiscal over/undershoots as part of their working designs. Sometimes sounds as if 4% is set in stone. Sometimes- only in sand. Sometimes the real rate is must have- must know thing. Other times – not even worth discussing. Sometimes "you guys don't know how to price Sov risk at such high levels of public debt" and yet some other times "You must cooperate since bonds are public utilities"

So? You will be better off thinking of bonds as a function of Delta (UST, USD, Crude), Fiscal surprise (happens after the crisis or political change), inflation surprises (mostly in WPI, not as much in CPI) and Absolute level (bearish bias at 6 handle, bullish at 8 handle, trading bias at 7 handle). And if the boss insists – go ahead and incorporate CCIL data and budget announcement effect. But not because it matters much :)

Regards, Your friend Key message: I want new bond traders to know that bonds are a lot more about macro-rules than demand/supply. Unlike equities, bond market veterans are too focused on demand/supply. I have realised that this factor matters a lot less than what most seniors in our industry think of.

To the new bond trader

You are likely reporting to this 50-year-old someone, a wise middle-aged man, CIO or head of treasury who obsesses over one thing the most, i.e. who will buy this or next auction' bonds. "Why don't you draw a table for me based on RBI data – how demand and supply will match for the coming year" will likely be the task given to you and then "Did you see CCIL data for last night?" is the ongoing inquiry – every day in the dealing room. The dogma of demand and supply. Bond folks love it. Local bond moves for today – they will tell you - is a function of (delta UST, CCIL data, when is the auction?). Give or take. Looking at it, you, the wide-eyed new bond trader, might think demand-supply is the magic key to local bonds.

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Regards, Your friend

On Bond Index Inclusion: Why, Effects, and Strategic Considerations

Why was it done?

India's decision to pursue bond index inclusion comes amidst declining foreign direct investment (FDI) flows, dropping from \$59 billion in FY23 to \$46 billion recently. Macroeconomic anxieties arose in 2022 due to high current account deficits (CAD), substantial foreign institutional investor (FII) outflows, and depletion of reserves, exacerbated by soaring crude oil prices. Bond index inclusion is viewed as a strategic move to bolster currency stability over the next two years, where bonds serve primarily as a tool for hedging currency risks.

What's the net effect of it?

Regarding the supply-demand dynamics of bonds, little change is anticipated. Previous open market operations (OMO) by the central bank, driven by India's currency outflow dynamics, may now be supplanted by increased FII inflows. Despite this, foreign investor participation in Indian bond markets has been minimal over the past six years. Consequently, any potential positive impact on bond prices is likely capped, with markets already having priced in a modest 5-10 basis point adjustment initially.

Global macro trade implications?

From a global macro perspective, investing in Indian bonds represents a long volatility and currency position. Current factors such as elevated crude oil prices, sluggish growth projections, sustained inflation above targets, and a significant 5.5%-dollar carry, suggest a challenging environment for this trade. The prevailing conditions appear supportive of a long USD strategy. Local investors and traders are advised to navigate cautiously through this period, given potential market volatility and unpredictable price swings.

Key Message:

Bond index inclusion in India reflects a strategic manoeuvre aimed at enhancing currency stability amid global economic uncertainties.

Fundamental reasons of why bonds will be lower

There are three and half fundamental reasons why Indian bonds will find lower lows over next two years

1. Supply-side-wallahas dominate the fiscal policy in India now. This is very- very different from how India has operated its fiscal policy in the past many decades. Very China like. Very diff from west. That has huge implications on inflation's prognosis.

2. Even though the Fiscal deficit is 5.1% of GDP for the coming year - for bond market it will 'feel' like 3%. Reason? A significant cut on PSU borrowing (IEBR led) and small saving funding (so a smaller % of fiscal deficit is now funded by govt bonds as almost 2% worth of GDP comes from small savings)

3. Demographics and incomes have entered in lane that give substantial long term savings (Insurance/Pension/PFs)- who have to buy near 2.5% of GDP worth of Sov bonds. That number will continue to rise over next two decades.

3.5. As India banking system moved from SLR based to LCR one - over past decade - we had a systematic headwind on bonds. In all rallies - banks were sellers because they had the room to empty excess SLR. That began to change in the run up to Covid. And now - we have a set up in which banks have to buy 2% of GDP worth of bonds every year simply to meet their LCR requirement.

Net demand = banks 2% + investors 2.5% + FII 0.5% + some others .5% (% of GDP) Net supply = 5.25% of GDP (State and Central bonds)

Once you account for sharply lower IEBR borrowing - the duration demand/supply mismatch start to look more acute.

Bond math will have a supply side looking like fy19, macro like FY15-18 (disinflation) and durable demand like never before.

With valuation of 3% real yield on long bonds.

We will see bonds lower than Covid lows in the next 2 years.

India long bond thesis in short

1. Indian personal consumption growth has slowed remarkably. Much of the good growth today is a result of govt (infra) and corporate spending (investments). There is a case to be made to support private consumption in India.

2. Indian monetary policy has tightened considerably. Narrow money growing less than 7%. Outside of demon its tightest. Again - too tight for the current level of consumption growth.

3. Regulatory policies in India have begun to tighten too. Though its impact is not evident. But remember such things work with lag. RBI shouldn't tighten too aggressively. We are in safe hands there -i think.

4. Even though India's total fiscal deficit is 3% wider vs pre-Covid levels (9% of GDP vs 6% earlier), there is decent disinflation - suggestive of the fact that core economy is not as strong and it would not be wise to cut fiscal deficit.

5. Yet, given the commitment to FRBM, Govt will still go ahead with lower FD in this budget. About 50bps cut in fiscal deficit next year. It should Of course ignore the recommendations of cutting FD more sharply.

6. That will mean India's government expenditure will be growing at barely 6-7% next year. So Govt will aid to the already advancing disinflation in our economy. It's very likely that our inflation re-enters the pre-Covid/post demon regime.

7. Unlike GFC, when our public debt never rose (inflation did the magic), Covid's has left scars and our debt has settled higher by 13% as % of GDP (73% to 86%). The Delhi consensus is against any major fiscal boost even if there were to be slowdown. So the risk of major surprise on bond supply/FD expansion is not there.

8. Global rate set up is conducive for bonds. Fed futures are pricing 5 cuts (~7 a few weeks ago). But our focus should be at terminal Fed Fund rate in 2-3 years. Don't think we aren't headed back to at least 2% on UST at some point in next 2-3 years.

9. Given the global growth set up, the risk of major upside to crude seems limited. (ignoring geopolitics here). Also, our current account dynamic has reverted to pre-Covid time.

10. Our currency is cheap, and save for the US recession led back-up (risk off), its poised for a decent run for medium term. I am baking in 1% run rate of depreciation over 5 years there.

So,

Time to buy long bond is here.

Best way to buy long bonds in India is Mutual Funds.

Typical equity risk premium in India should be 4.5% (over bonds). Risk premium available at the moment is significantly less and is very likely that there will be return parity between bonds and equities over 2-3 years.

Real estate returns are more than what most tell you.

Most overlooked fact is that housing return over very long period is same as equities across the world. About 7% REAL. A simply wow fact is that housing' historic volatility is half of equities!

Implication is that if you are moderately rich but can't stomach the volatility of stocks. Fine. Buy a few decent* rentable properties. It will work out fine! No one tells you that it's a good way to grow wealth is because there is no incentive for anyone to tell you that!

India Real Estate

India's large and dense cities are expected to remain very expensive. The most comparable real estate market in terms of price trajectory is China. Due to a growth boom, lack of space, rapid urbanization, and vertical growth, Chinese properties have become very expensive over the past 15-20 years.

A thousand-square-foot apartment in Beijing costs 7 crores, about 2.25 times the price in Mumbai (30,000 per square foot vs. approximately 67,000 in Beijing, away from the city centre). If India's per capita income and property prices converge with Beijing's in 25 years, Indian properties will deliver a 3% real return. Adding 4% inflation and a 2.5% rental yield results in a 9.5% annualized return.

If India's per capita income grows at 5% annually and the current price/income ratio holds, it will result in a real return of 5%. Adding inflation and rental yield leads to an 11.5% return.

Real estate in cities like Bangalore and Hyderabad is likely to perform better because their economic prospects are brighter and their current price points are much lower than Mumbai's. For instance, Bangalore's prices are about 35% lower on average outside city centres and about half near the city centres.

To those who are passionately pro-financial assets and hold a grudge against real estate as an asset class, consider this: Yes, equity may deliver better returns, but not so much that you should accuse your friends and clients of being irresponsible. Let them buy a good home!

And don't tease them for their real estate assets' performance in recent years. Real estate, like all assets, is cyclical, typically experiencing 7-8 years of bull and bear markets. It had a bear market from 2014-21 and has likely entered a bull market now. There is no structural reason it can't continue.

Those expecting Indian property markets to align with Western price-to-income ratios will be disappointed. India's unique population structure (low average age) and (high) density suggest a trajectory more akin to China's rather than that of the U.S.

Key Message

Indian real estate, particularly in major cities, is expected to remain expensive, with potential for competitive returns. Comparing it to China's market trajectory rather than Western markets provides a more realistic outlook.

Rules on Currency

Currency Waves: Currencies exhibit significant bull and bear waves. For the dollar, 1968-78, 1985-92, and 2001-08 were bear markets, while 1978-85, 1992-01, and 2008-23 were bull markets. Generally, these cycles last around seven years.

Drivers of Currency Moves: Currency movements are primarily driven by yield differentials and growth differentials. Most of the dollar's strength since 2021 can be explained by real rate differentials. The current wave of the dollar rally is due to growth differentials, particularly the energy and tech boom in the U.S.

Dollar and Stock Performance: The U.S. trade-weighted dollar and the relative performance of U.S. stocks (compared to the rest of the world) move in tandem. Since the Global Financial Crisis, the ratio of ex-U.S. to U.S. market performance has been declining.

Impact of Manufacturing Cycles and Recessions: During manufacturing cycle busts (e.g., Industrial Production or PMI manufacturing) or U.S. recessions, the dollar tends to rally. Since most global external debt is denominated in dollars, these conditions lead investors to de-risk their portfolios, resulting in lower USD supply and increased safe-haven demand. Thus, the dollar serves as a good financial conditions index, leading the global manufacturing cycle. Currencies like AUD, NZD, CAD, and equal-weight EM currencies are good lead indicators for the global trade cycle, which in turn leads the manufacturing cycle.

Dollar and Oil: The dollar tends to rise when oil prices increase because oil is a geopolitical risk proxy rather than a demand proxy. The dollar and the gold/silver ratio also move in tandem (higher = risk off). If tech is driving global profits, the dollar appreciates, and vice versa.

USD's Dominance: The USD's dominance as a reserve currency is due to its geopolitical strength. A simple rule for geopolitical strength is GDP multiplied by per capita GDP. By this measure, the U.S. is still much stronger than China, suggesting that the dollar's reserve status isn't going away anytime soon.

Dollar and EM Markets: The U.S. nominal broad trade-weighted dollar index and EM vs. global stock prices move in tandem. Foreign investors typically avoid EM markets when the USD is rising, as seen in USD FII flows not coming into India during episodes like 2018. EMs performed poorly compared to the U.S. market before pivoting and then outperforming. If you believe the Fed pivoted last week, a 2019-like outperformance might be ahead.

USDINR Dynamics: In the short term, USDINR is influenced by crude prices and FII flows. Over the long term, due to India's goods deficit, the currency steadily depreciates.

Long-term PPP Theory: In the very long term, the PPP theory should hold, making the currency static or mean revert. In other words, the real exchange rate has significant predictive content for FX excess returns, thus driving spot rates. This adjustment has been rapid in the last decade in China but very slow in India. Given India's demographics, it will accelerate. That's the reason – over medium to long term, I am very bullish on our currency. But remember – being bullish on our currency doesn't mean it will appreciate. It simply means – that its depreciation will be less than the inflation differential between US and India. So if the inflation difference between US and India is 2%, my claim is that the depreciation in INR will be lower than 2%. Perhaps 1%?

CNY' impact: Since China is a manufacturing hub, producing almost a quarter of world manufacturing goods, when its currency weakens, it typically exports deflation to the western world, and create a

good set up for UST. But weak CNY also coincide with weak China and global growth impulse – resulting in weak INR and FII selling off local bonds.

A BORING ESSAY ON A BORING ASSET- COMMODITY

Commodities have a mixed track record when it comes to long-term investments. Over the past century in US markets, only a few commodities have shown positive real returns: gold (+1.6% annualized), crude oil (+0.5% annualized), and copper (+0.4% annualized). In stark contrast, equities and bonds have significantly outperformed, with US equities delivering an impressive +7.2% annualized real return and bonds offering +2% annualized real return.

While commodities generally do not fare well as long-term investments, they present notable opportunities for short-term trading. The cyclical nature of commodities means that periods of underinvestment can lead to significant price increases due to scarcity. Conversely, high prices tend to attract new investments, which eventually leads to oversupply and falling prices. This cyclical behaviour creates opportunities for traders who can capitalize on these boom and bust cycles.

The dynamics driving commodity prices are complex and often change over time. For instance, copper prices have historically correlated well with global manufacturing PMI new orders. However, this correlation has recently weakened due to surging demand from green technologies like solar panels, wind turbines, and new electric vehicles (NEVs).

Inventory levels are crucial for understanding commodity price movements. Rising inventories generally indicate oversupply and can lead to lower prices, while falling inventories suggest tightening supply and potential price increases. Tracking inventory changes is essential for predicting price trends.

Crude oil is the most significant commodity in global markets. As many economies are energydependent, higher crude oil prices act as a tax on oil-importing nations such as China and India. Over the past decade, the US has been the primary source of incremental oil supply, but there are indications that the US's role as a swing producer might be diminishing. This shift could signal a return of power to OPEC+.

In summary, while commodities are less favourable for long-term investments compared to equities and bonds, they offer valuable trading opportunities due to their cyclical nature and varying price drivers. Monitoring factors such as inventory levels and shifts in global supply dynamics is crucial for making informed investment decisions in the commodity markets.

ASSET ALLOCATION, PASSIVE VS ACTIVE, TO CHOOSE THE FUND MANAGER ETC

Pareto distribution of investor returns

You may have heard and experienced that 80% of the work in your firm is done by 20% of people (u are one of them, ofcourse!) That is an approximation of Pareto distribution principle which states that about half of the wealth (or income or gains) will go to square root of the population.

It's been proven that this principle works everywhere, in the wealth distribution and therefore inequality in our country, population of cities, the box office collection of Bollywood movies and the pays to senior managements. There is no reason to believe that it does not work for stock markets investors If it does, the results will confound you! Levy & Levy (2003), blinder (1974)

Imagine stock market is supposed to deliver 5% more than bonds, and say there are 100 investors betting same amount, say 100 rupees each on stocks, all in competition with each other to claim the most possible returns. So half of excess returns will go to just 10 investors, let's call them 'winners'. So these 10 folks, the winners, will make 25% excess return over bonds and the remaining investors earn just ~2.5% excess.

If you increase the size of population, skew grows. If there are 10 lakh investors, then square root of them, ~1k people will earn half of the excess returns. In this particular case, the total gains are 50 lakhs (10 lakh investors * 5), and winners will claim half of it, so 25 lakhs. So winners are doing 25x of their capital whereas remaining 99% of people (square root of 10 lakhs = 1k investors) will earn only ~2.5% over bonds.

Wonder why everyone wants to entice you to buy 'that' stock and cheer your entry in stock markets? When an owner of a brokerage house says that 99% of the traders don't make return even as much as FD, he is pretty much confirming a pareto like distribution is in works!

Anyways, if you have been told that market is a ticket to riches, the truth is, that it for some, but not for the most!

Thoughts on asset allocation

If you are 25, Indian equity is a go-to asset for you. It will take care of inflation and compound well. But don't forget to buy a small house before you start the investing journey. Home is likely to give you more returns – when your account for the convenience and the sacred space it provides to grow a million dreams. Once that's done, almost all your savings can go to equities. Ask a friend who can help with a list of 5 good diversified funds or index funds and SIP them. Month after month. Don't forget to review your funds once a year. But no more.

Are you 45? The drawdown of your savings for kid's marriages and college education will rise over the next decade and medical costs, of your own and of parents, will soar a decade after that. You should begin to think of asset allocation on accumulated savings now. It's time to trim equity exposure - systematically. Say if you are at 80% equity allocation at 45, the target is to get to near zero at 65. So about ~4% reduction in equities as % of net worth - every year. Because your income is still growing rapidly (3-5% in real terms) and so are your savings, the reduction in equity allocation can happen by way of investing some of the incremental savings in fixed-income. Choose decent short-term bond funds or debt index funds. There are plentiful choices. Your money needs an advisor now.

If you are a rich 45 and spend less than 1% annually of your net worth, your money will outlast you. You should think of your wealth in dollar terms. Invest about 1/3rd of your wealth in US equity. About a third could be invested in local diversified funds or Index funds, a small amount in gold & property and the remaining in alternate assets. The alternate assets will include private markets or strategies which indulge in beating the markets. This part of the portfolio should be used to go u/w or o/w equities. Your money needs serious time. Funny - isn't it? The more you have, the more it needs your attention.

Crossed 65? You may very well be out of equities. Most money may be invested in short-term funds.

But ensure that you exhaust the investment opportunities available for senior citizens. Banks, Post office and LIC offer some good yield products. Don't bother about markets now.

At any age, young or old, if one is presented with issues such as dementia or Alzheimer's or some form of cancer or significant damage in organs and sees his expected residual life of fewer than 10 years –he must withdraw from equities or give control to his partner. The idea is to get out of risk if we are losing control of ourselves or our expected life is limited.

But here too, these rules don't apply to the rich folks. They must train their kids and partner to ensure that their estate is managed well, well after they are gone.

This is a simple sketch of asset allocation. A small essay can't be enough, as, like a bespoke suit, each man has his unique measurement. But you get the gist.

Key message: This is a tour of an average person's life basis his age and requirements. His risk taking must respond to his age, liabilities, and riches. There is no universal rule – as I have argued in the past that risk is a personal affair – yet there are some general frameworks to look at the risk appetite of an individual.

Two methods to approach markets

There are only two meta ways to extract good returns from markets.

Be counter cyclical or be extraordinarily patient with the risky assets.

Former method requires you to be patient and be liquid when system is in midst of liquidation ... & demands courage and understanding to dial-in risk in such times.

Latter demands patience to stay in and not get liquidated even in the midst of brutal drawdowns. But simultaneously requires understanding that market offers risk premiums on the risky asset class not necessarily on all its components.

Which one is your reflex is likely rooted in your upbringing... don't think it could be a learnt craft.\

Key message: Patience to stay in even in the midst of turmoil, or the courage to enter – just about when everyone is throwing in towel – are the only two ways to make money from stock markets. Knowing yourself will help you what strategy should you go after.

Passive vs active:

There is a law in investing. The sum of passive and active strategies returns, will always equal market returns. Because passive owns the market, it will 'obviously' deliver returns equal to markets. As a result, active investors must compete for an alpha, which is a zero-sum game. So, one might argue, an active fund's outperformance is always at the expense of other active players. Right?

If one is debating Mutual Funds, one must also include other significant active participants, such as promoters, DII/FIIs, and retail. Each might have a different effect.

Excessive holdings of promoters (50%) is a significant drawback because insiders are known to outperform in most markets. Some MF managers including yours truly would argue that FIIs (20%) are a crucial source of alpha. Given that the vast bulk of FII money is placed in indices, this argument is not a very convincing one.

Retail investors and traders (~8%) are mutual funds' real friends. They have a sizable quantity of holdings with them. History suggests that they underperform markets quite substantially. Fund managers are unaware that the finwits are their true allies, as retail investing is critical to their outperformance. In their absence, the subject will be clearer and discussion will be more readily lost.

Key message: Most people don't realise that the sum returns of all strategies in markets equal market returns. Also, the most celebrated investors – the retail ones are the real reasons why active strategies do well.

Against buy and hold

Buy and hold is inherently a faulty idea not just because it has done a poor job throughout but more because it undermines the truth that half-life of a firm is only a decade, a little more or less and that all businesses die isn't an argument of if but when. The truth is that most businesses won't deliver even government bond yield is too difficult to accept but not too difficult to deduce.

Key message: The buy and hold works on markets. Not on individual stocks. The only way to safeguard your portfolio is to keep a vigil on how your stocks are delivering vs your priors. Invariably – most will not. And the best approach is to stop exposures in duds in favour of ones which have better prospects.

what to ask from your portfolio manager? Absolute performance or relative?

"Don't bore me with relative performance—bonds vs equities, or your fund vs the Nifty. What I'm asking for is simple. Give me absolute PERFORMANCE!" an uber-rich investor told me.

"You see, the term absolute performance is misleading. Performance is a RATIO, not an isolated figure, nor a thing" I retorted.

"Ratio?" He wasn't too happy "Don't play word games with me"

"Performance is a measure of how far one travels relative to others. There's no such thing as 'non-relative' performance of anyone and anything" I persisted.

He asserted: "Let's cut to the chase. My demand is 15% return, absolute. Period"

"You see, demanding absolute returns creates skewed incentives for the manager. Here is a reason- a fund manager only risks losing your account if he incurs substantial losses. This isn't a strong enough deterrent to prevent him from taking significant risks."

He said softly "Hmm... so how do you deal with it?"

"If you tie a manager's performance to a benchmark, you discourage risky strategies that deviate significantly from it"

He asked "So tell me what's the catch here? Things can't be so simple"

"The downside of this is that once you fix the incentive structure with respect to an index, many managers may take the path of least resistance—hugging the benchmark...."

He interrupted "So we are neither here nor there?"

"The only viable approach, which you might not like hearing, is to scrutinize the manager's investment framework. Evaluate its cogency and reasonability, and look at past performances – not just how good they were but also if they were the product of the same framework that he champions today"

He said "And future performances?"

"<u>I think it's good to craft an incentive structure for the Portfolio Manager that discourages him from</u> making glaring, immediate and significant errors while simultaneously allowing him to cultivate and grow long-term investment strategies. You never want to settle for significant losses or underperformance even in the hope of major gains in the long run. And make sure that even the PM's firm creates this incentive structure"

He asked curiously, "So a diff yardstick to measure risk and performance?"

"Yes. future is uncertain. You want him to harvest that uncertainty. But not by taking unknown and unmeasurable risks. So your deal with him is -Take a market risk and deliver - if he can - more than market returns"

PS

A few years ago, someone very dear to me asked "After all short-term performances accumulate into long-term performance anyway, so Why This Kolaveri Di?"

To that, I once responded that the 3-year median Nifty performance over the long term is usually 2-3% lower than the cumulative performance of the same.

So? He asked :)

Key message: Ask your fund manager about their investment framework, the incentive structure – so that you know what they are attempting at. You want them to exploit the zig zag of the markets, and mis-priced opportunities but only take measurable risks.

On portfolio manager - who to select?

Betal questioned Vikram, 'Who would you trust with your money —an extraordinarily intelligent author of landmark investment books and captivating storyteller, or a seasoned portfolio manager whose record includes some significant missteps?'

Taking a moment, Vikram responded with a smile, 'Just as you'd trust a boatman to navigate treacherous waters despite a few past accidents, in the ever-uncertain realm of portfolio management, hands-on experience is non-negotiable... thus my money will be with the one who has grappled with the market's unpredictable tides, even if they've made errors along the way.'

Unsurprised by Vikram's discerning reply, Betal chuckled and soared into the sky.

Key message: Part with only ones who have managed risks in the past. Only if they have demonstrable track record. No amount of intelligence is a sufficient condition for investing.

Selecting a good fund manager

"Of two men who achieved similar results, one did so through a journey filled with ups and downs, constantly adjusting his course to correct earlier mistakes. The other, however, appeared to be a genius, reaching the same end with a seemingly flawless path" Betal asked Vikram who he would trust for guidance.

Vikram chose the first as he thought that the man's ability to adjust and navigate challenges indicated a level of skill, less likely attributable to beginner's luck, making him a more reliable guide.

Betal, not usually one to ask follow-up questions, asked why Vikram would discount the possibility that the second person was indeed a genius.

Vikram responded that given limited information it was safer to assume that both had similar aptitudes. Thus, he made the choice based on their demonstrated ability to adjust.

"But what if both had similar outcomes over repeated trials?" Betal questioned. In that case, Vikram said he would certainly opt for the "genius" as multiple instances of success would confirm his exceptional aptitude (statistically). Did Betal approve of his answers?

Now two questions:

If your kid is preparing for some super tough competitive exam, would you like to see him attempt solving questions during practice - through a method that seems formulaic and neat or one with random iterations - with trials & and errors, that fetches results with multiple attempts?

If there were two assets - which delivered 8% return over the past 12m - but one with a 2% std deviation and the other with 18% - which one would you choose? If this is all that you know.

Key message: Markets are complex systems. Risks emerge from no- where. Thus its best to bet on people who have seen and managed risk - adjusting the positions and modulating the portfolios. Investing therefore is not just a cognitive function, it is a psychological function as well. Only experience is a proof of ones' good in this world of investing.

Managing large investing teams

Three things that almost everyone learns managing large investing teams (as I did)

1. No amount of increase in bandwidth or size of team guarantees us insights. Come to think of it, Shankar, Nietzsche, Hume & Hegel, Schumpeter & Marx were all alone. More power can't get us better ontological truth.

2. Investment philosophy is not about virtue signalling. Buffett quotes as decor don't work. It has to be organic. A deep reflex. It's born of doing, editing, rehearsing, reviewing, repenting... then believing.

But how about travelling to Omaha, taking a selfie there- oh, come on! :)

3. A #70-hour work schedule doesn't deliver either. Insights, which are key to investing, are both tangential and incidental, born of speculative minds, not assembly lines. CIOs beware!

How to bet on your fav advisor and PM: in moderation

Give money to an average PM. He will do average bit to it. Never too well and never too badly.

Give money to an already very successful PM- the probability of an 'excess outcome' goes up sharply but so does the one for an excessively deficient one. His outcome distribution is a fat tailed one.

Therefore

<u>Allocate money to the star fund managers but only in moderation. Hear your fav commentator for the</u> advice but act only at margin after consulting your rationale-self!

Most of the money must go to the average fund manager called Mr Index! He will never do too well. But never too badly either.

That's not true for all occupations. Always go to the best doctor. Get the best driver. Always call the best plumber and electrician if you can. But for portfolio manager- be careful. Always bet in moderation. Wonder why?

In any case, onlookers are dramatizing the dispute between active and passive. In truth, the case was settled a long time ago. Some fund organisations must regard passive investing as a new challenge and strive to recreate the wheel. The wheel that moves the active ship will not be able to move the passive one as well. The former is a philosophical problem and the latter is an engineering one.

And advisers should focus far more on asset allocation than picking the choicest fruits. All fruits are seasonal.

Key message: howsoever good your fund manager or fund is, and howmuchsoever convinced you are for him or his strategy – don't bet your house on it. Fund management deals with uncertain future. Nothing is cast in stone – neither risk nor return. Always bet in moderation – on one fund or fund house or fund manager.

To new PMs

Public portfolio management is a craft, to be only slightly away from the herd, namely index or competition, with each deviation seen as if it were akin to crossing a Rubicon, deploying active bets only to the extent one has more intelligence on flows, positioning or the evolution of a business or policy, with strict stop losses to converge, if active bets stray.

So if you are new to this craft, don't conflate your job with the art & the science of forecasting markets, because doing so, at times succeeds gloriously but only rarely and briefly, invariably the end game is a whipsaw and disappointing outcome. <u>That, which pertains to outdoing markets through outsized bets is a boutique business, for the gifted and experienced</u>. The reason for the same isn't that public money managers are any less capable, it's simply the constraints of size and regular

appraisals by investors, that bind them. The skilful in this occupation know that portfolio management is a market-view-neutral craft.

Key message: if you are managing public money – the default option for your position is index. As you will see me harp at many places that only when you are very convinced and can made high resolution forecast – you should deviate from index.

Public money management – different ethics for different sizes

Public money management, as it transitions from managing small money to large and thereafter very large, undergoes a transformation – initially being driven by intelligence, later transitioning to 'position sizing', and ultimately evolving into 'risk management'. To rephrase, initially, the team seeks 'knowledge arbitrage', subsequently creating a framework for 'rejection and scalability', and once the assets swell to a significant magnitude, the focal point shifts to safeguarding portfolios against the unforeseeable yet recurrent and inevitable downturns & liquidity events. Or to state in dealing language – the focus shifts from gain function to loss function, from profit maximisation to loss minimisation, from the want of multi-baggers to what-ifs!

In the early stages, access, speed, and concentration are the cherished virtues. However, as the portfolios grow, assimilation*, patience, and diversification become the guiding principles.

Therefore, as an advisor, tailor your selection framework distinctly for managing large funds versus small ones. If heading an investment firm, nudge your team to transition as portfolio sizes expand. And as an investor, change your portfolio manoeuvres while you transition from an average earner to rich and beyond.

There is no single truth. There is no single answer. As Jains would argue that a statement and its denial- both could be true. Reality is genuinely manifold, not merely complex, it's actually a multiplex.

*assimilation = how portfolio in aggregate behave in different market/macro conditions.