



INTELLECT

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Financial Markets - Overcoming Challenges

The global markets and the Indian markets have been volatile over the past few days and have arguably caused concern among investors. Let's try and analyze the situation to make some sense out of this experience.



The whole global meltdown can be attributed to what's happening in the US and

some other influential developed economies. It all started with the Subprime crisis resulting in a liquidity and Credit Crunch. The Subprime situation is explained separately in this issue. It has been clear for some time that some of the excesses that we have seen in the retail finance space in some of the developed economies (particularly the US) will have to unwind at some point of time or the other. In many ways this process of unwinding is now well under way.

A slowing US economy is causing concern among consumers around the world. There is a growing sense of concern that losses from sub-prime mortgage will cause the global economy to slow down and this has further spread the negative sentiment to the markets in Europe and some other parts of the world.

In this context, in the short term, given liquidity constraints and need to return to safety, perceived higher risk asset classes like developing economies will bear some part of the pressure of redemptions and consequent sale of equity stock. In the first phase of the financial markets coming down as a

consequence of the unwinding, the emerging market stocks are also likely to show impact of negative sentiment. As markets come down and as valuations come to more terrestrial levels, analysts and fund managers will begin to evaluate where the maximum potential of growth lies in the global economies. Many fund managers now have a much higher level of awareness and familiarity with emerging economies and with India. This will hold them in good stead when stability and sanity returns to global markets and in a relative sense valuations to growth ratios would look more attractive in developing economies like India. The savings of developed economies and local savings in developing economies will continue to get invested in equities as this asset class remains the single most important hedge against long term inflation. In our markets there is also the local situation of liquidity having been sucked out owing to large recent IPO's and margin selling on behalf of retail investors causing a cascading negative impact.

Such opportunities of panic selling provide long term investors with an avenue for deployment of long term savings in quality opportunities. In our view Indian markets will present investors with quality long term opportunities and serious investors will benefit from this situation irrespective of the short term pain which may yet come.



Quality companies in India over a long period of time will deliver high quality earnings growth. In this context long term investors should invest gradually in the market through systematic investment plans to help them create long term value in mutual fund schemes which have a track record and invest in good credit quality companies.



The Federal Reserve cut its benchmark interest rate by 0.75% points on 22nd of January, 2008.

This was the highest single rate cut by the US Fed in over 20 years. In the statement accompanying the rate decision, the FOMC acknowledged that it took action “in view of a weakening of the economic outlook and increasing downside risks to growth.” Within the next 8 days, the Fed further cut rates by 50 basis points on the 30th of January 2008 followed by another cut of 75 basis points on the 18th of March, 2008. Lowering interest rates is one tool available to central banks worldwide to

modulate the impact of an impending slowdown. The magnitude of the rate cut clearly indicates the serious concerns in the US about the impact that the slowdown can have on the economy. In fact, going forward it is widely expected that the Fed will cut interest rates further by 50 basis point before pausing to take stock of the impact of these rate cuts.

It seems now clear that we are in for some interesting times. The unidirectional bull run in the global equity markets is at least pausing for some time. Great attention needs to be paid to events happening worldwide because their impact on our economy and on our markets will be material. On one hand India’s economic growth is unlikely to be seriously affected by a slowdown in other major economies. There could be a limited impact especially in the export oriented sectors. However, global sentiment for equity oriented investing is likely to be affected and we cannot remain insulated from this. Hence, on balance while it is likely that our robust economic growth and growth of individual companies will continue in the future, there will be some impact on sentiment and we can anticipate a period of some volatility in the future.

The Sub Prime Pain - The story as of now

1. Banks in the US provided loans to people for purchasing homes.

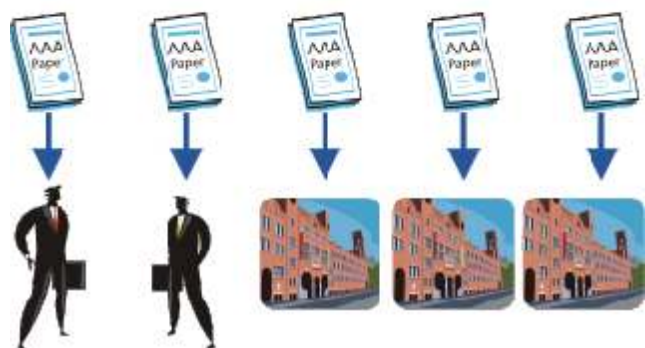
2. Between 1980 and 2000 the US economy witnessed a prolonged bull market which saw an appreciation of housing assets. Hence in this kind of a situation the banks were not too worried about the loans handed out as the appreciation of the mortgaged property was good enough to hedge them against any default

3. As the loans increased, the banks bundled them as securities in order to spread the loans and mitigate their risks. (see box on sub prime mortgage which clearly explains the mode of this bundling)

4. The banks managed to get AAA certification from rating agencies for these securities. Rating agencies based on the growth potential of the underlying assets went along with the banks without a thorough credit check of the constituents of the securities. (The securities after all were a bundled set of housing loans doled out to different borrowers)

5. Thus these high rated papers got distributed to various investors in the market.

6. Investment banks themselves were one set of active investors in these papers.



7. Since the underlying assets were appreciating year on year, they were lured into making more investments in these papers



8. They even borrowed to fund these investments since it was looking very hunky dory all the way. After all inflation was under check, interest rates were attractive and hence loans were cheap. Leveraging made immense sense to the participants.

9. The sub-prime securities were used as collateral for the funds borrowed.



10. The price of the securities soared on the back of increasing demand aided by the liquidity glut.

11. The appreciating securities attracted more buyers causing further price appreciation.

12. Every thing looked fine till the growth in housing started to slow down and the sub prime nature of the loans got exposed. Once borrowers saw the house prices declining defaults on these loans started.



13. By the time sanity dawned, it was too late. The mess stared at the lenders of housing loan. A large number of borrowers were of sub-prime nature incapable of paying back their loans. This coupled with falling asset value spelt problems for the financial system

14. The securities which essentially mirrored these assets likewise lost value.

15. The highly leveraged Investment banks holding on to large quantities of sub prime securities tried to redeem themselves by liquidating them in order settle their debt outstanding.
16. This unwinding triggered a further price collapse of the securities making it difficult for the investment banks to realize enough from their sale of securities to enable them to meet their debt obligations.
17. This led to problems for firms like Bear Sterns, the 5th largest investment banker in the world.



Implications

US Economy

1. The financial problem arising out of sub-prime mortgage has left investors panic stricken. Sentiments are at an all time low. Investors would rather hoard their money than invest it anywhere.
2. Hence lending to financial institutions is slowing down.
3. In turn the financial institutions hurt by this experience coupled by inadequacies of deposits reduce their lending.
4. This is causing a credit squeeze or credit crunch.
5. Due to such sentiments investors are likely to reduce their spending and this is likely to slow down the US economy considerably. In all likelihood the US economy will be facing a recession in the near future.
6. Under such circumstances the US dollar is likely to get even weaker with respect to other currencies.
7. A stronger Japanese Yen will trigger further disaster for Yen carry trade investors (See **Article Yen Carry Trade Page 8**) leading to further meltdown of financial markets across the globe.

Financial markets

1. Although some economies are showing signs of decoupling, financial markets are strongly coupled with each other.
2. The companies affected by the financial disaster are pulling all stops to prevent complete collapse. Hence they are withdrawing their investments from various other asset classes including emerging markets to square up their leveraged positions.
3. Markets across the world are adversely getting affected due to this money flowing out.
4. The fall in markets is affecting investor sentiment leading to further sell offs and causing markets to fall even further.
5. To add to above woes the Yen carry trade unwinding further accentuates the money outflow from financial markets causing more pain.

What happened at Bear Stearns?

Bear Stearns, Wall Street's fifth-largest investment bank, has become the most spectacular corporate casualty so far of the credit crisis. But what really went wrong?

Over the last decade, the big banks and brokerage firms created a dizzying array of innovative complex derivative instruments, such as collateralized debt obligations and credit default swaps. These products are virtually hidden from investors, analysts and regulators. They don't trade openly on public exchanges, and financial services firms disclose few details about them.

With increased defaults in subprime mortgages, dealers were having trouble moving securities linked to subprime mortgages. Within days, the once-booming and actively traded C.D.O. Market which in three short years had seen issues triple in size, to \$486 billion ground to a halt.

Analysts say Bear Stearns held credit default swap contracts carrying an outstanding value of \$2.5 trillion. While many of its peers, including Merrill, Morgan Stanley and Citigroup, announced far more in devaluations, Bear Stearns draws far more of its profit from its trading operations. That was reflected in its fixed income unit, which reported a net loss of \$1.5 billion, down sharply from the \$1.1 billion in profit the bank reported for the same time last year.

It was the problems in June at two internal Bear Stearns hedge funds that had been heavily

invested in mortgage securities that started the full-fledged market panic that peaked in August. Bear Stearns lost so much capital that it formed a partnership with China's Citic Securities, in which the two firms swapped shares. It was a reflection of how weak Bear Stearns had become.

In December 2007, Bear Stearns had announced the first loss in its eight-decade history, saying it lost about \$854 million, or \$6.90 a share, for the fourth quarter, compared to a profit of \$563 million, or \$4 a share, for the same time last year. The firm also said it had written down \$1.9 billion of its holdings in mortgages and mortgage-based securities, up from the \$1.2 billion it had anticipated the month before.



Then in March, after a weekend of intense negotiations, the Federal Reserve approved a \$30 billion credit line to help JPMorgan Chase acquire Bear Stearns. JPMorgan agreed to pay a mere \$2 a share to

buy all of Bear less than one-tenth the firm's market price two days before. Reflecting Bear's dire straits, JPMorgan agreed to pay only about \$270 million in stock for the firm, which had run up big losses on investments linked to mortgages. On March 24, after a weekend of intense negotiations, JPMorgan agreed to up the bid to \$10 a share in stock and to purchase 95 million new shares of Bear Stearns, giving JPMorgan an immediate 39 percent stake in the brokerage firm and paving the way to a likely deal closing on April 8.

Why did Fed come to the rescue?



On March 16th America's Federal Reserve, by nature hardly impetuous, rewrote its rule-book by rescuing Bear Stearns, the country's fifth-largest investment bank, and agreeing to lend directly to other brokers. A couple of

days later the Fed cut short-term interest rates again to 2.25%, marking the fastest loosening of monetary policy in a generation.

It was a Herculean effort, and it staved off the outright catastrophe of a bank failure that had threatened to split Wall Street as under.

Rescuing Bear Stearns and its kind from their own folly may strike many people as overly charitable. So why did it intervene?

The Fed put \$30 billion of public money at risk for the best reason of all: the public interest.

Bear is counterparty to some \$10 trillion of over-the-counter swaps. With the broker's collapse, the fear that these and other contracts would no longer be honored would have infected the world's derivatives markets.

Imagine those doubts raging in all the securities Bear traded and from there spreading across the financial system; then imagine what would happen to the economy in the financial nuclear winter that would follow. Bear Stearns may not have been too big to fail, but it was too entangled.

Hence to save the entire financial system from collapsing, the Fed stepped in and provided the support.

Yen Carry Trade Unwinding



Those of you watching recent events in the financial markets might have seen the terms 'carry trade', 'Yen carry trade' crop up a few times. This is often explained in the press as the process of borrowing money in a low-interest currency and investing it in high-interest one. Which is true, but there's rather more to it than that and we have to step back a few years to find the full explanation.

About 20 years ago Japan went through a period of property price inflation, a speculative bubble of investment driven by people who assumed that property prices only went up, particularly on a crowded island where there was little scope to build new homes. Inevitably, as always happens when prices exceed underlying fundamentals for a length of time, the Japanese property market crashed hard.

As is the standard reaction to such an event, the Bank of Japan dropped their interest rates. And dropped them. And dropped them again. Doing so was intended to encourage people to borrow money to stimulate economic growth. But the Japanese had their fingers burned once through borrowing.

However, with globalization, economies opened up allowing more free movement of capital

between countries and currencies, the Yen had quite a few takers outside of Japan. Foreign investment bankers and fund managers saw opportunities in borrowing large quantities of Yen at low interest rates and ploughing them into countries where the currency yield was much greater. For example, even today you can borrow Yen at 0.5% interest per year and invest it in the UK at 5.75% interest or in India at 7.43%. Also, the borrowed Yen can be used to invest in riskier, but, potentially higher-return foreign investments such as shares, commodities and property.

The Yen wasn't the only currency to be used in a carry trade. Any currency pair was fair game where a lower yield could be borrowed and then lent for a higher yield. These included the Swiss Franc against the Euro or the Pound, the Euro against the Turkish Lira and many others. The greater the difference in yield, the greater the interest earned, but the greater the perceived risk.

At some point, of course, the loans would have to be repaid in Yen. But the great thing about the carry trade was that the more people who got involved, the weaker the Yen became against other currencies. So when you eventually repaid your loan in Yen, you could do so at a cheaper exchange rate than when you had borrowed it. Fantastic! You borrow money to earn interest on that money, then pay back less in real terms than what you had borrowed in the first place.

Soon even individual investors were getting in on the carry trade, through online currency trading accounts. Apparently it has been particularly popular amongst Japanese housewives. But, as is usually the case when someone tells you that an investment can only go up in value, this situation couldn't last forever.

It's important to bear in mind that most of this borrowing was leveraged, which means that any movements in exchange rates were multiplied. For example, with a leveraged account at 100-to-1, you might use £10,000 to borrow £1,000,000-worth of Yen. So you get the interest on £1,000,000 even though you've only invested £10,000. However, a 1% negative move in the exchange rate would wipe out your entire £10,000 stake and you'd have to repay your loan. This is known as a margin call, another phrase you might have heard recently, perhaps in a sentence such as “Hedge fund forced to liquidate assets at a loss due to margin calls”, though the hedge funds were dealing with stakes of hundreds of millions or even billions of dollars.

Anyway, the only danger, as these investors saw it, was that the Japanese economy could suddenly get stronger, resulting in the Bank of Japan pushing up interest rates to counter inflation and the value of the Yen rising against other currencies. But Japan has been hovering around the low growth / zero growth / negative growth point for years and the Bank has been pretty good at signalling its intentions well in advance, arguably helped by political will to keep the Yen artificially cheap to assist its export industry.

Of course, there are two sides to any currency trade. You may borrow in Yen, but in doing so you are also investing in US dollars, or Pounds Sterling, or Icelandic Krona, or Turkish Lira, or whatever other high-yielding (i.e. high interest) currency you may choose. The Yen doesn't have to get stronger on its own for you to be in trouble: the other currency could get weaker, making the Yen stronger by comparison. But in the Western countries with their good old stable economies, that didn't seem likely.

In the end, in summer 2007, what happened was much much bigger than most people had anticipated and not directly related to the value of the Yen, at least not initially. Some of the borrowed money ended up in rather complex investment instruments based on residential mortgages. Many of those were in the USA. Some of the people who took out mortgages turned out to be... well, less than 100% likely to be able to afford them. Suddenly a lot of investment banks and funds were losing money.

Margin calls were hit. Loans had to be repaid, some of them in Yen. Which meant that the Yen suddenly gained in price against other currencies. Which in turn made it more expensive for other banks and funds to repay their loans in Yen. Which led to more margin calls, more fast liquidations and so on, in a vicious cycle, a disorderly unwinding of the carry trade.

Sentiment changed. People began liquidating their Yen positions even if they were nowhere near a margin call, because they believed that the Yen would continue to appreciate and that they might end up losing their initial stake (after all, it's better to quit now than run the risk of greater losses in the near future). This became a self-fulfilling prophecy, and all the carry trades suffered, some by more than ten percent in the space of a few weeks (equating to a 1,000-fold movement at a leverage of 100-to-1, remember).

The carry trade isn't dead yet. Interest rates in the various currencies are pretty much the same as they were before all the unwinding started and some investors are still involved. But the fear of risk is so great that few large funds and banks are willing to play it, even if they have the funds to do so, at least until they know how the next few months will play out.

CASE STUDY

Mr. Moneymaker borrows 11200 Yen from Japan at rate of Interest 0.5% p.a.

At the end of 1-year Mr. Moneymaker will have to pay Amount: 11256 Yen (Principal +Interest).

Lets say this transaction was done when \$1 = 112 Yen (Exchange rate)

Hence at the end of 1 year Mr. Moneymaker should pay \$100.5 in dollar terms, if the currency rates between dollar and yen remains same.

Mr. Moneymaker is a smart investor he borrows money and invests the same in a high-yielding economy.

Mr. Moneymaker invests or lends money at a yield 7.5% p.a., a whopping 7% profit (7.5%-0.5%).

After investing \$100 or 11200 yen he gets a yield of 7.5% so after 1-year he gets \$107.5 or 12040 yen.

Mr. Moneymaker then goes back, pays off his debt i.e. Principal and Interest amount of 11256 Yen and the remaining 784 yen or \$7 is his profit.

This is called Yen carry trade. A simple logical manner of making money where there exists a differential between the interest rates between 2 economies. A smart way to create wealth in a world which allows free capital movement.

However creating wealth has never been bereft of risks. And there is a serious risk involved in this

trade. And that is the potential currency exchange rate fluctuation.

The 7% profit based on borrowed money can be adversely affected in the event of the Yen getting dearer during the investment period.

Lets say in this period the value of yen appreciated vis-à-vis the dollar.

Say then 1\$ = 100 Yen

The whole calculation would look completely different:

Mr. Moneymaker will need to pay \$112.56 instead of \$100.5 to buy Yens and to make his payback.

This situation will cost Mr Moneymaker dear because he will be coughing up 12.56 dollars extra to cover up the exchange rate fluctuation for the 7 dollar earned through the carry trade.

Hence after all kinds of reconciliation, he would have lost 5.56 dollars for every 100 dollar participation.

Just imagine if the figure were not 100 dollars but a 100 billion dollars. In such a scenario the losses would send the entire market spiraling because the majority of the carry traders would start unwinding their positions out of sheer panic. This would further increase the demand for Yen making it more expensive vis-à-vis the dollar thereby accelerating the losses.

Winners across product categories



Tata Balanced Fund
Balanced Fund Category

Tata Infrastructure Fund
Diversified Equity Fund Category

Tata Liquid Fund
Liquid Fund - Institutional Category



CNBC-TV18 - CRISIL MUTUAL FUND AWARDS

Past Performance is no guarantee of future results

Ranking Methodology: Tata Infrastructure Fund - Growth was among the only two schemes that won the CNBC-TV18 - CRISIL Mutual Fund of the Year Award in the Diversified Equity Funds Category. In total 47 schemes were eligible for the award universe. Tata Balanced Fund was the only schemes that won the CNBC-TV18 - CRISIL Mutual Fund of the Year Award in the Balanced Funds Category. In total 15 schemes were eligible for the award universe. Tata Liquid Fund - Super High Investment Plan (SHIP) was the only schemes that won the CNBC-TV18 - CRISIL Mutual Fund of the Year Award in the Liquid Funds - Institutional Plans Category. In total 12 schemes were eligible for the award universe. Schemes present in all four quarter CRISIL CPRs (Composite Performance Rankings) were considered for the award. The award is based on consistency of scheme's performance in the four quarterly CRISIL CPR rankings released during the calendar year 2007. The individual CRISIL CPR parameter scores averaged for the four quarters were further multiplied by the parameter weight as per the CRISIL CPR methodology to arrive at the final scores. The scores of individual parameters for each of the four quarterly CRISIL~CPRs in 2007 are considered individually for the schemes eligible in each of the categories. The eligible schemes are scaled with the best score for each quarter. The average scaled scores constitute the parametric scores. The final weighted average score for each scheme is arrived by applying an assigned weightage, as in the CRISIL~CPR, to each of the parametric scores. The analytical framework looks at NAV movement for the analysis of risk adjusted returns.

Publisher of ranking data: CRISIL FundServices, CRISIL Ltd.

Nature & Investment Objective : **Tata Liquid Fund (TLF)** : An open ended high liquidity income scheme . The investment objective of the scheme will be to create a highly liquid portfolio of good quality debt as well as money market instruments so as to provide reasonable returns and high liquidity to the Unitholders. **Applicable loads :** Entry Load : Nil, Exit Load : Nil. The schemes are open for ongoing resale / repurchase / switch offered at NAV based process with applicable loads. **Tata Infrastructure Fund (TISF)**: An open ended equity scheme. The investment objective is to provide income distribution and / or medium to long term capital gains by investing predominantly in equity / equity related instrument of companies in infrastructure sector. **Tata Balanced Fund (TBF)**: An open ended balanced fund. To provide income distribution and/or medium to long term capital gains while at all times emphasising the importance of capital appreciation. • **Applicable Loads for TISF and TBF:** Entry Load (other than SIP): For each investment amount less than Rs 2 cr: 2.25%; For each investment amount greater than or equal to Rs 2 cr: Nil. No entry load shall be charged for direct purchase/switch-in applications accepted by the AMC. Exit Load (other than SIP): For investment amount less than Rs. 2 crs: 1% if redeemed on or before expiry of six months from the date of allotment. For investment amount greater than or equal to Rs. 2 crs: NIL. Entry load for SIP*: 1%. Exit Load for SIP*: If redeemed on or before expiry of 24 months from the date of allotment: 1.25%. If redeemed after 24 months Nil. *The above SIP load structure would be applicable for SIP amount upto Rs 10 lakhs per installment. For SIP installment above Rs 10 Lakhs, the prevailing load structure for investment other than SIP will be applicable. No entry load shall be charged for direct purchase/switch in applications accepted by the AMC. **Statutory Details: Constitution:** Tata Mutual Fund has been set up as a trust under the Indian Trust Act, 1882. **Sponsors & Settlers:** Tata Sons Ltd., Tata Investment Corporation Ltd. **Investment Manager:** Tata Asset Management Ltd. **Trustee:** Tata Trustee Co. Pvt. Ltd. **Risk Factors:** • Mutual Fund and securities investments are subject to market risks and there can be no assurance and no guarantee that the scheme will achieve its objectives. • As with any investment in stocks, shares and securities the NAV of the units issued under the scheme can go up or down, depending upon the factors and forces affecting the capital market. • Past performance of the previous Schemes, the Sponsors or its Group affiliates is not indicative of and does not guarantee the future performance of the Scheme. • Tata Infrastructure Fund, Tata Liquid Fund and Tata Balanced Fund are only the name of the schemes and does not in any manner indicate either the quality of the scheme, its future prospects or the returns. • The sponsors are not responsible or liable for any loss resulting from the operations of the scheme beyond the initial contribution of Rs.1 lac made by them towards setting up the Mutual Fund. • Investment in fixed income securities are subject to interest rate risk, credit risk and liquidity risk. • The scheme being sector specific will be affected by risks associated with the Infrastructure Sector. Derivatives require the maintenance of adequate controls to monitor the transactions entered into, the ability to assess the risk that a derivative adds to the portfolio. Risks in using derivatives include the risk of default of counter party, mis-pricing and the inability of derivatives to correlate perfectly with underlying assets, rates and indices. For scheme specific risk factors and other details please read the offer document of the scheme carefully before investing. For offer document and application form, please contact your nearest AMC Offices.