

Risk, Return and Rating - Need for a Fresh Benchmarking

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Abstract

Different financial instruments have different risk – return profiles. Investors are risk averse and higher risks warrant higher rates of return.

Issue of debt securities via public and rights issues requires mandatory rating. Securities issued in domestic and global markets are rated by diverse rating agencies. Domestic CRAs set the sovereign risk associated with the country of origin at zero, while global rating agencies account for sovereign risk as well.

CAPM expresses return from a security as the sum of risk free rate and risk premium, which is proportional to risk. For securities denominated in domestic currency, it has been customary so far to consider gilt edged securities as risk free. However, recent economic turmoil in various economies has necessitated a re-look at this practice. A reformulation of CAPM incorporating impact of sovereign risk seems called for and it may be appropriate to introduce a fresh benchmark rate for this purpose.

Introduction

Many of us invest our hard-earned savings in financial instruments with a view to securing a reasonable rate of return. In particular, those who have been superannuated or do not have any other avenue for income rely solely on such investment income. For investment in Bonds/Debts held till maturity, the income is primarily by way of periodical interest and finally the redemption proceeds, whereas the cash inflow from shares held on a long term basis is primarily in the form of dividend.

The rate of return for any instrument depends on the market scenario as well as the risk associated with it. For instance, the level of interest rate in Japan continues to be quite low. USA and Europe are also currently witnessing an era of low interest rates. The central banks of these regions are maintaining a low interest rate regime deliberately with the aim of reviving the economies from their current weak position. Japan's second quarter GDP for 2014-15 fell 1.6% after falling 7.3% in the first quarter. Thus, Japan slid into recession with the Japanese economy unexpectedly contracting for a second straight quarter during July-September. Mr. David Cameron, the British premier stated that six years from the financial crash that had brought the world to its knees, red warning lights might once again be flashing on the dashboard of the global economy. According to him, the euro zone was teetering on the brink of a possible fresh recession and emerging markets, which were the drivers of growth in the early stages of the recovery, are now

slowing down. Several countries in Europe – such as the PIIGS countries (Portugal, Ireland, Italy, Greece and Spain) and Cyprus – continue to face serious economic crises. In USA, however, the unemployment figure has recorded some optimistic number and analysts think that the adverse financial position in the wake of the Global Financial Crisis might have finally taken a turn for the better. The market is thus agog with expectations for an upward revision in the benchmark US interest rates (The Economic Times, 09 November, 2015). Such an improvement in the risk – return perception about the US economy is widely believed to result in an increased investment in US based assets and consequential decline in foreign capital inflows to emerging economies including India, resulting in declines in the stock indices and exchange value of the domestic currency. The recent devaluation of Yuan, the currency of the largest Asian economy, may also trigger a depreciation of the Indian currency from considerations of export competitiveness.

As for risk, different economies face different levels of sovereign risks, which are captured by the respective country risk ratings. Within a country, different business groups and companies have different risks associated with them. Even for a given company, the risks associated with various instruments issued by it are not identical. For instance, risk associated with the equity share of any company is always higher than that associated with bonds issued by it because the claims of different groups of investors enjoy different levels of priority.

Return, risk and inflation

Every rational investor is risk - averse. That is, the expected return should be higher in order that he would agree to bear a higher risk on investment. Thus, the rate of return for equity share of a company has to be higher than that for its long term bond, which - in turn - has to be higher than that for its short term debt such as commercial paper. Also, for identical instruments, a company or a project with a higher risk (i.e. larger uncertainties of operating cash flows) would have to offer a higher return. For instance, a company's bond having AAA rating (highest credit rating) would sail through in the market with a lower coupon rate than that of another company's bond with a worse rating.

Further, the rate of return normally depends on the level of inflation. Higher the rate of inflation, higher should be the nominal rate of return. This would ensure a near uniform level for the real rate of return $[(1+R_{\text{Nominal}}) = (1+ R_{\text{Real}}) (1+I_{\text{Inflation}})]$ across nations. This real rate of return should be positive so that there is an increase in the purchasing power of the investor over time - as a reward for his forgoing liquidity and also agreeing to accept a certain degree of risk.

The scenario in India in recent times, however, failed to ensure a fair rate of return for the investors. Investors have received, over a long stretch of time, negative real rates of return. As reported in newspapers (The Times of India, 10 July 2013), a study conducted by a professor of IIT Mumbai's Department of Mathematics showed that for most of the

five years since 2008-09 real returns on bank fixed deposits have been negative. This position was also amply highlighted by the EPFO report that Rs. 100 contributed by an investor in 2005, when marked to inflation, was worth only Rs. 97 after a period of eight years (live mint, 09 November 2015), although the nominal value without factoring the impact of inflation was Rs 193. So, there was a 3% erosion of purchasing power for an investor over an 8 year period. It is thus not surprising that the IMF working paper suggested in October, 2015 that RBI may need to raise interest rates in order to deal with the persistently high inflation rates. Surprisingly, this viewpoint is just opposite of what the Indian business houses and government have repeatedly pitched for. A retired Indian citizen relying on bank's fixed deposits might have earned interest at rates lower than the consumer inflation rate. On top of it, such interest income was subject to usual rates of taxation. Very recently, however, inflation in India has shown welcome signs of abatement and RBI has come up with an additional fifty basis point reduction of the benchmark REPO rate.

The rate of return on investment that an investor can reasonably look forward to can normally be split up into two parts – the risk-free rate and the premium over and above the risk-free rate on account of risk undertaken (termed as the risk premium). The risk-free rate, i.e. the rate of return on a risk free asset (like the treasury bill/bond denominated in home currency), can be viewed as the reward for the investor on account of forgoing liquidity. In addition, the investor would expect another component of return as risk premium, which should be proportional to the risk associated with the investment (CAPM).

The idea behind accepting the treasury bills/bonds as avenues for risk free investments is the belief that that a sovereign government can never default in meeting its home currency denominated obligations. It is presumed that the government would be able to repay even in an extreme situation by simply printing currency notes. However, this perception has faced many serious challenges in recent times. For instance, in order to avert the projected fiscal cliff and save USA from possible default, the government of USA had to shut down, in late 2013, many routine services (The Guardian, 16 October 2013) pending necessary approval from the US Congress to push up the government's debt ceiling. Standard & Poor's had already lowered the long-term sovereign credit rating on the United States of America to 'AA+' (excellent) from 'AAA' (outstanding) on August 5, 2011.

Risk and rating

A credit rating is issued by a credit rating agency (CRA). A credit rating assigned to U.S. sovereign debt is an expression by the assigning CRA of how likely it is that the U.S. will pay back its debts as per schedule.

As we have already seen, treasury bills/bonds are treated as risk-free investments due to the belief that a sovereign government can never default in meeting its home currency

obligations. However, this line of thinking has received a severe jolt in recent times. Although Germany, Australia, Canada, Switzerland and UK have the AAA rating, USA and France no longer enjoy this highest credit rating. While Greece and Cyprus enjoy ratings of B and B+ respectively, India's rating is BBB-. Japan and China have both credit rating of AA-.

The happenings in USA during the financial cliff have demonstrated that it may not be feasible for a government to print currency notes at will to meet its requirements from time to time. The governments in Greece and Cyprus are clearly bankrupt in as much as they are not in a position to meet their committed financial obligations.

Successive governments in Greece borrowed much more than what they were capable of servicing. After the first package to bail out Greece failed to yield the desired result, there are efforts to stitch together another package (World Public Library; Greek Government – Debt Crisis) that warrants a reduction of 53% (Euro 107 billion or \$ 142 billion) in the face value of Greek government bonds. A 53% write-off can hardly be the feature of a risk free security. The current country rating of Greece also captures this distressed economic condition.

The position in Cyprus is no better. The bail-out package mooted by the EU-IMF to revive the economy of Cyprus requires that every depositor of the Bank of Cyprus having a balance of more than Euro 100,000 forgoes as much as 60% of his deposit (JCB Capital Performance – Wealth, March, 2013). 37.5% of holdings over Euro 100000 would be converted into shares of Bank of Cyprus and the remaining 22.5% would be transferred to a fund with zero interest which may be subject to further write-offs. Even the balance 40%, which would attract interest, would be paid only if the bank performs well. If this is risk free investment, what is not! The country rating of Cyprus is also indicative of such an overall weakness of the economy.

The Indian scenario

In view of the foregoing, it may not be out of context to have a look at the overall scenario close at home.

Although Indian economy has grown steadily over the years, the persistent fiscal and current account deficits have been the cause for considerable stress and anxiety from time to time. The strength of the Indian currency as well as the stock market continues to be highly dependent on the volume of foreign capital inflows, which are influenced by various external parameters beyond our control. The crash of the Indian currency and stock prices during the global financial meltdown has amply demonstrated this.

The outstanding internal and external debt and other liabilities of the Government of India (Budget Analysis, 2015) at the end of 2015-2016 is estimated to amount to Rs 68,94,690.99, as against Rs 62,78,553.97 crore at the end of 2014-2015. In the budget for

2015-16, the targeted borrowing by the government (Budget Analysis, 2015) has been set at Rs 6 lakh crore. It has also been pointed out by certain analysts that, with inflation adjustment, the public debt might have overtaken the country's GDP. Recent reports about the extremely high levels of Gross NPA (including restructured debts) for several banks in the wake of a perceptible economic slowdown reveals the overall stress for the financial system. Persistent high inflation, uneven distribution of wealth and never ending growth of population, together with possible corruption at high places, has only compounded the position.

The rating of India is a moderate BBB- (the outlook on India's Sovereign rating was raised to stable from negative in September, 2014) and any slippage in fiscal and/or current account deficits is apt to push it down further with all attendant consequences. The Rating accorded by Moody's Investor Service to India continues to be Baa3, meaning Investment Grade, which is a notch above the Junk Bond status. However, in view of the steps initiated by the policymakers in India in the recent past to boost the country's economic growth and financial resilience, on 09/04/2015, Moody's has raised India's rating outlook to positive from stable.

Of course, we do come across ratings like AAA and AA for bonds issued by financially strong companies in the Indian market. For instance, the latest INR denominated Tax Free Bonds issued by PSUs have all this kind of coveted ratings. The point is that such ratings accorded to the instruments by India based Credit Rating Agencies (CRAs) do not consider the sovereign rating of India. The sovereign rating comes into play only while rating instruments, such as foreign currency bonds, meant for issue in the global market, and such ratings are accorded by the global rating agencies. Thus, no global issue by any Indian entity can enjoy a rating higher than India's sovereign rating (although, in a rare exception, an MTN issue by SBI was rated Baa2 by Moody's (The Economic Times, 07 December 2004), which bettered India's sovereign rating of Baa3). Similar practice is followed in other countries as well. In other words, every domestic rating agency sets the sovereign risk at zero for issues denominated in the local currency. This practice may no longer be acceptable to investors for reasons discussed above and may require a reformulation.

Rating mechanism and nomenclature

In India, no issuer is allowed to issue debt securities for providing loan to or for acquisition of shares of any person who is part of the same group or who is under the same management.

Every Debt Instrument, whether long term or short term, to be offered to the public in India must be rated. Debt Instruments issued by the union government and commercial banks are of course exempted from rating.

The ratings accorded to a Corporate Bond, a long term instrument issued by companies, can be as follows:

AAA - Instruments with this rating are considered to have the highest degree of safety regarding timely servicing of financial obligations. Such instruments carry lowest credit risk.

AA - Instruments with this rating are considered to have high degree of safety regarding timely servicing of financial obligations. Such instruments carry very low credit risk.

A - Instruments with this rating are considered to have adequate degree of safety regarding timely servicing of financial obligations. Such instruments carry low credit risk.

BBB - Instruments with this rating are considered to have moderate degree of safety regarding timely servicing of financial obligations. Such instruments carry moderate credit risk.

BB - Instruments with this rating are considered to have moderate risk of default regarding timely servicing of financial obligations.

B - Instruments with this rating are considered to have high risk of default regarding timely servicing of financial obligations.

C - Instruments with this rating are considered to have very high risk of default regarding timely servicing of financial obligations.

D - Instruments with this rating are in default or are expected to be in default soon.

Modifiers {"+" (plus) / "-"(minus)} can be used with the rating symbols for the categories AA to C. The modifiers reflect the comparative standing within the category.

Rating symbols should have the Credit Rating Agency's (CRA) first name as prefix (SEBI Circular of 15/06/11). For instance, the rating may be CRISIL AAA or ICRA A or CARE BBB+.

For a Bond with 5 year maturity, the concerned CRA has to maintain surveillance and review the rating regularly over the entire period.

Commercial Papers (CPs) are Short Term Debt Instruments with original maturity of up to one year. CPs can be issued by companies satisfying certain requirements and can have the following ratings:

A1 – Instruments with this rating are considered to have very strong degree of safety regarding timely payment of financial obligations. Such instruments carry lowest credit risk.

A2 - Instruments with this rating are considered to have strong degree of safety regarding timely payment of financial obligations. Such instruments carry low credit risk.

A3 - Instruments with this rating are considered to have moderate degree of safety regarding timely payment of financial obligations. Such instruments carry higher credit risk as compared to instruments rated in the two higher categories.

A4- Instruments with this rating are considered to have minimal degree of safety regarding timely payment of financial obligations. Such instruments carry very high credit risk and are susceptible to default.

D - Instruments with this rating are in default or expected to be in default on maturity.

Modifier {"+" (plus)} can be used with the rating symbols for the categories A1 to A4. The modifier reflects the comparative standing within the category.

For Short Term Ratings too, Rating Symbols should have CRA's first name as prefix. According to the latest guidelines issued by RBI, the regulator for the Money Market, eligible participants/issuers shall have to obtain credit rating for issuance of CP from any one of the SEBI registered Credit Rating Agencies (CRAs). The minimum credit rating has to be 'A3' as per rating symbol and definition prescribed by SEBI in order that the company may go ahead with the issue of CPs (RBI Master Circular, 01/07/2015). The issuer has to ensure at the time of issuance of the CP that the rating so obtained is current and has not fallen due for review.

However, in a bid to facilitate development of a vibrant primary market for corporate bonds in India, the Securities and Exchange Board of India (SEBI) has allowed (SEBI Circular, 03/12/2007) corporates to issue even bonds that are rated below the investment grade, popularly termed as junk bonds, to the public to suit the risk/return appetite of investors. "In a disclosure-based regime, it should be left to the investor to decide whether or not to invest in a non-investment grade debt instrument," SEBI felt and implemented. Earlier, SEBI Guidelines required that the debt instruments proposed to be issued through a public/rights issue should be at least of investment grade, i.e. BBB. Moreover, SEBI also required earlier that at least 2 ratings be obtained by an issuer company for issue sizes above a threshold. At present, rating from any one SEBI registered rating agency would suffice. However, where credit ratings are obtained from more than one credit rating agency, all the ratings, including the unaccepted ones, need to be disclosed in the offer document. At the same time, SEBI has tweaked the regulation so that every public or rights issue of debt instruments now requires to be compulsorily rated by a SEBI registered Credit Rating Agency irrespective of the maturity/conversion period of the instruments, as against 18 months or more earlier.

Moreover, the much maligned (due to huge losses of AIG during the Global Financial Crisis) Credit Default Swap (CDS) was put to use in India in 2012, with two deals covering 100 million rupees (\$1.9 million) worth of bonds. The deals, both 1-year trades, were between ICICI Bank and IDBI Bank (underwriter), at 90 basis points and covered 50 million rupees each of 10-year bonds issued by Rural Electrification Corp (REC) and India Railway Finance Corp. RBI has since then allowed banks to begin hedging their banking and trading books using CDS, signaling that the infrastructure is finally in place for the launch of the instruments in Asia's fourth biggest bond market. However, in recent times, there have not been many such deals.

It should be clearly understood that rating in India is of the instruments to be issued and not of the issuer company. A Debt Instrument like a Bond is supposed to fetch for the investor, over the life of the instrument, periodical coupon payments (unless a zero coupon instrument) and redemption pay-outs (unless fully convertible). The rating is

supposed to reflect the chances of such payments taking place on the respective due dates. This is arrived at basically by looking at the estimated overall annual cash flows of the issuer company over the life of the instrument and its total annual payment/repayment obligations during the same period. This is reflected by what is known as the Debt Service Coverage Ratio (DSCR). DSCR basically estimates the number of times the annual payment obligations of the issuer is covered by its annual cash accrual and is worked out by dividing the Annual Cash Accrual of the issuer by its Annual Payment Obligations. Higher this ratio, higher is the chance for the scheduled payments by the issuer and better is the rating of the instrument. Thus, by ensuring an escrow mechanism or any special arrangement, the rating of a particular instrument may be enhanced. A few such mechanisms for Credit Enhancement are enumerated below.

- Guarantee including Sovereign Guarantee (Guarantor may, in turn, require underlying Escrow Mechanism for his protection)
- Letter of Comfort
- Escrow Mechanism (e.g. Power Purchase Agreement (PPA), Escrow Mechanism along with matching agreements for Fuel (Coal) Supply and Railway Rake Allocation etc.)
- Tranching – Senior and Subordinated Debts with different Return and Risk Profiles

The ratings of the debt instruments in such cases carry the additional mark (SO). For instance a Bond issued with such structuring may have a rating of say ICRA – A (SO), where SO stands for Structured Obligations.

In terms of its circular dated 06/01/2010, SEBI requires an internal audit to be conducted on a half yearly basis by practicing professionals who do not have any conflict of interest with the CRA. The audit is supposed to cover all aspects of CRA's operations and procedures, including investor grievance redressal mechanism, adherence to the guidelines issued by SEBI from time to time and also to comment on the adequacy of systems adopted by the CRA for compliance with various requirements.

The report has to cover the methodology adopted, deficiencies observed, and consideration of response of the management on the deficiencies. It should include, inter alia, the number of instances where violations / deviations were observed while making observations on the compliance of any regulatory requirement. In effect, the primary responsibility for keeping a check on the credibility of the rating exercise has been passed on to the auditor.

Need for a fresh benchmarking

As we have already seen, it has been customary so far to treat the return on government securities as the risk free rate and add to it a suitable risk premium in order to work out the expected return on any given instrument. But, it would be impossible to convince any investor or analyst to accept the Greek or Cyprus government securities as risk free

today. In the situation, it would be necessary to rewrite the equation for return (as per Capital Asset Pricing Model - CAPM) by attaching a suitable risk to the government securities. Then, the rate of return for any financial instrument would be the rate for the corresponding government security plus a premium commensurate with the additional risk (over and above the risk of the government security) associated with the instrument. The return for the corresponding government security in turn would reflect the influence of the sovereign rating.

Alternatively, the return on the government security can be expressed as an “absolute” risk free rate (say, that for the country with the best sovereign rating) plus the sovereign risk premium. This will introduce a new benchmark rate and also an explicit dependence of the rate of return on the sovereign rating. This approach may turn out to be more useful in view of a recent study by Fernandez et al (SSRN-id2684740) showing that there is huge dispersion of both the Risk-Free Rate and Market Risk Premium used by analysts in USA and Europe in 2015.

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