RAROC EVA :The New Drivers of Business Growth in Indian Banks

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12 October 2007

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"Through RAROC and EVA tools, Banks can establish a good risk management culture that can create competitive advantage and improve shareholder value"

Risk Adjusted Return on Capital (RAROC) is a powerful risk measurement tool that assists banks and financial institutions both in measuring solvency and evaluating performance of different business activities. The increased interest in measuring risk is partly a response to the greater regulatory emphasis on capital adequacy that has come with the implementation of the Basel II risk-based capital requirements. Though RBI is expecting banks to move towards standardized approach, a capital conscious bank would move towards advanced Internal Rating Based approach (IRB). There have been fundamental changes in the business of banking which has awaken the interest in risk measurement tools. The real innovation in these new performance evaluation tools lies in their ability to allocate banks' scarce capital among their expanding array of activities. While regulatory capital focuses on satisfying the objectives of the regulator, economic capital looks at internal management of the business to maximize the shareholder return. RAROC and EVA are credible tools and key drivers for conscious decision making.

As different businesses have different risk profile, comparing long run performance of banking business using traditional measures like return on assets (ROA) or return on equity (ROE) can be complicated and misleading. RAROC attempts to address the issue of capital allocation from the perspective of improving performance - measured from both inside as well as from the outside the bank.

What we generally call profits, is usually not profits at all. Until a business generates a profit figure that is greater than the cost of equity capital (the hurdle rate), it crushes shareholders' value. In order to meaningfully compare RAROC in various businesses, economic profit should be based on 'required economic capital allocations' consistent with the bank's core solvency level target. The allocation of capital according to economic profit would actually enhance shareholders value.

By definition, RAROC is the ratio of risk adjusted net income divided by level of risk the asset or portfolio has. This can also be estimated at regions/branch level to assess profitability of a bank on a granular basis. Similarly, the RAROC tool can also be used to assess the profitability of a loan portfolio (for example, Retail Assets Portfolio, Corporate Assets Portfolio, SME Portfolio etc.). Once RAROC is computed, the bank' top management then can compare this RAROC with a benchmark hurdle rate which is the opportunity cost of taking the risk in the business. The hurdle rate has to be benchmarked to market rate which is based on the shareholder's expectation about the bank's stock

return on a risk adjusted basis. Hurdle rate vary from bank to bank depending upon its stock volatility vis-à-vis the volatility in the market index (beta). It is worthwhile to mention that the five year annual average return in the stock market (S&PCNXNIFTY) is 30.73% on a pre-tax basis. Since equity income is taxable, the post tax annual average return comes around 20.59%. If risk free rate is 7.75% (364 T bills rate in Indian in 2007) and beta of a bank is 1; then using CAPM, hurdle rate for the bank would be=7.75%+1×(20.59%-7.75%)=20.59%. Hence, banks should necessarily know whether it is really making profit from its business/ business segments. To evaluate the risk adjusted profit position, the banks should compare their post tax risk adjusted return of risk capital (RAROC) with their individual cost of capital. This difference (i.e., the difference between RAROC and Hurdle Rate) is called the "Economic Profit" (EVA).

At NIBM, we have developed a RAROC and EVA methodology which can compute the overall bank performance on risk adjusted basis. The analyses can be further extended in evaluating risk adjusted performances of zones/regions and finally at the individual branch level. In addition, a bank can also evaluate the performance of its various business segments and ultimately can trace the contribution of each portfolio on the RAROC-EVA axis.

Figure 1 illustrates how in reality a relatively medium sized public sector bank with twelve regional offices in our country can use the RAROC-EVA tools. The analysis reveals that the Bank is making economic profits from Mumbai, Ahmedabad and Delhi regions on a risk adjusted basis. However, Bangalore, Pune, Bhuj, Koklata, Bhopal, Thane and Meerut regions of the said Bank studied by us are making low returns which are far below its hurdle rate (22.44%) on a post tax basis. The bank can use this analysis to target the performance of individual regions and bring them above the hurdle. The calculator also facilitates setting return targets, deposit mix, rates and volumes, advance, mix, rates and volumes, other income, recovery targets etc. It also prods the bank to move away from traditional 'Transfer Pricing Mechanism (TPM)' to 'Fund Transfer Pricing Mechanism (FTP) to generate desired business profile to augment its performance.

[Insert Figure 1 Here]

Table 1 shows the comparison of the loan portfolio performances of various Indian banks on Risk Adjusted Return on Capital (RAROC) and Economic Value Addition (EVA) basis. One can clearly see that these banks differ greatly in terms of their RAROC and EVA.

[Insert Table 1 Here]

The bank's risk managers should understand that in the emerging realities of the market, if the bank's equities are not on the efficient frontier, rational investors would sell their security interests in the bank and switch over to more risk efficient securities. The future debt holders would also demand higher yields in order to offset the riskiness in financing

the bank. As a result, bank management will be forced to generate higher returns to compensate its investors.

RAROC and EVA framework is a top down integrated approach to wealth maximization, would help the top management to formulate growth plans to maximize return from business through appropriate pricing and return strategies across branches and regions.

Benefits of RAROC and EVA System for Banks:

As banks become 'capital hungry' to meet their growth expectations and simultaneously meeting the regulatory requirements in the Basel-II era, they would have to remain responsive to the expectations of the market on a risk adjusted basis to ensure continued supply of financial capital from the shareholders and human capital from the ultimate stakeholders.

One of the fundamental limitations in the existing business growth strategies of Indian banks, especially public sector banks, is its virtual, if not complete, disconnect with riskiness. 'Profit rich but Risk poor' strategies are doomed for failure in the long-run**!**

Finalization of business targets should no longer remain a mundane 'volume-mix' targeting exercise but should built-in inherent risk-return dimensions. business strategies that ensures 'Risk & Return by Choice and not by Chance' are key to ensure continuing success of banks in the emerging market.

In order to align the performance of individual zones/regions/branches to the overall corporate expectations in terms of RAROC & EVA, the vocabulary of risk management has to percolate down the hierarchy of banks to the individual unit level.

New performance benchmarks in the form of RAROC & EVA should naturally form the unifying cord/link in every bank.

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Figure1:

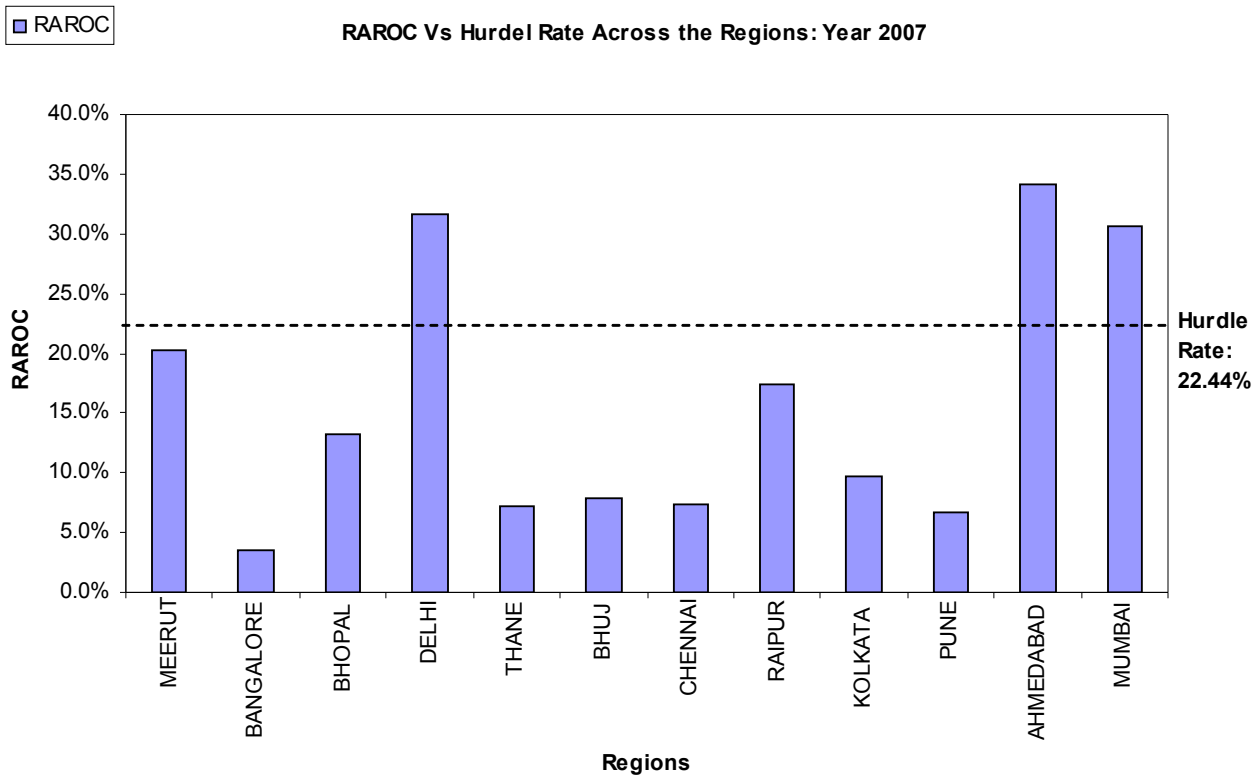
RAROC
RAROC Vs Hurdel Rate Across the Regions: Year 2007
40.0%
35.0%
30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
RAROC
Hurdle Rate: 22.44%
MEERUT
BANGALORE
BHOPAL
DELHI
THANE
BHUJ
CHENNAI
RAIPUR
KOLKATA
PUNE
AHMEDABAD
MUMBAI
Regions

Table 1:

Comparative RAROC & EVA Profile of Indian Banks

(All Figures in %)

	2004	2005	2006	2007
Large PSB-Bank 1				
RAROC	17.22	14.70	10.87	20.71
EVA	-8.60	-10.86	-14.51	-4.46
Tier I CAR	8.47	8.21	10.98	8.74
ROA	1.14	0.71	0.73	0.72
Large PSB-Bank 2				
RAROC	12.21	6.53	7.58	4.69
EVA	-13.03	-18.48	-17.27	-19.96
Tier I CAR	7.81	7.29	7.81	7.17
ROA	1.1	1.10	1.10	1.00
Smaller PSB-Bank 3				
RAROC	-8.37	-11.83	-2.24	10.59
EVA	-31.08	-34.42	-24.76	-11.85
Tier I CAR	5.19	6.63	5.96	6.06
ROA	1.11	0.26	0.29	0.71
Smaller PSB-Bank 4				
RAROC	26.63	26.97	20.67	22.69
EVA	3.93	4.38	-1.85	0.26
Tier I CAR	8.17	8.03	12.20	9.98
ROA	1.72	1.59	1.38	1.31
Medium Sized PSB-Bank 5				
RAROC	41.42	36.42	32.80	38.59
EVA	15.81	11.06	7.62	13.61
Tier I CAR	6.75	6.10	7.40	6.24
ROA	1.67	0.82	0.91	0.91
Large New Generation Bank-Bank 6				
RAROC	50.15	56.31	77.80	73.30
EVA	33.01	39.00	60.38	55.73
Tier I CAR	8.03	9.60	8.55	8.57
ROA	1.40	1.40	1.40	1.40