

India's cost of capital: A survey

January 2014



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Foreword

The fundamental goal of management is creating value for shareholders. This is only possible when management is focused on investing shareholders' funds in such a way that it generates returns that are higher than the cost of capital. Value-creation has two aspects – finding attractive investment opportunities in which to invest and measuring the expected returns of a project against an appropriate hurdle rate or the cost of capital. The investment process is either organic, whereby the management constantly evaluates projects in which to invest, or inorganic, where the management makes investments through M&A activities. In either of the cases, the measurement (through the cost of capital) remains a fundamental part of the value-creation process. Therefore, the cost of capital or the discounting rate used for evaluating projects or M&A targets plays an important role in measuring shareholders' value. From our past experience in helping companies in their value-creation activities, we find that a lot of management time and energy is (deservedly) focused on investment-related activity, e.g., forecasting the future investment requirements and profitability of projects. However, emphasis is not placed on "triangulation" of the right cost of capital for discounting future cash flows. This is largely due to lack of sufficient India-specific studies and data on this matter, which can lead to TYPE I (accepting an investment proposal when it should be rejected) and TYPE II (rejecting an investment proposal when it should be accepted) mistakes.

The India cost of capital study conducted by EY is an attempt to bridge the information gap. We hope it will be useful for the industry and practitioners in their analyses and quest to find the right cost of capital while taking decisions, and thereby make their value-creation process more robust. However, it cannot be over-emphasized that these studies can only provide reference and benchmark points – estimating the appropriate cost of capital depends on several case-specific factors.

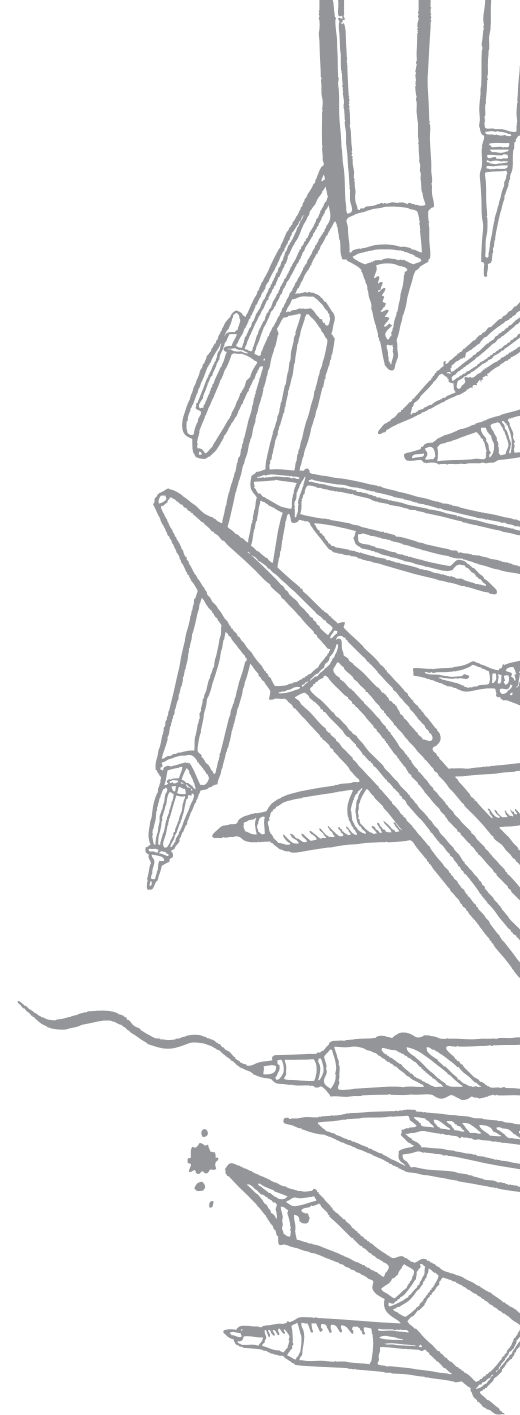
We are grateful to our clients, who took out time to provide us their views on this interesting subject. We are happy to share our findings and hope this report will provide insights on how other entities estimate their cost of capital and take informed decisions.

Estimation of cost of capital is critical to our work in EY's Transaction Advisory Service practice. We hope our study will enable us to further improve the quality of our analyses and valuation offerings and help us deliver exceptional client service.



Navin Vohra

Head – Valuation & Business Modelling Services
Partner, Transaction Advisory Services
Ernst & Young LLP – India





Executive summary

A company's cost of capital generally comprises two distinct components, the debt and equity costs, and the proportion of debt and equity funds in its capital structure (debt equity ratio or leverage). The debt cost of the company is easier to calculate, since it is paid in cash in the form of interest. The equity cost is not so obvious and can only be estimated by taking into consequence the factors encapsulated in a specific approach, e.g., the risk-free rate, the market risk premium, the beta factors in the Capital Asset Pricing Model (CAPM), the expectations of investors in a behavioral finance model, etc. Furthermore, the debt equity ratio (D/E ratio) is also not a straightforward calculation, since ratios can vary at different stages of a project or acquisition and also from company to company and industry to industry.

According to the India Cost of Capital survey of leading corporates carried out by us, the cost of capital has been steadily increasing in India over the last few years. This is due to many factors including a significant rise in inflation and perceived risk in the economy. In

the context of the falling cost of capital in many developed countries (due to reduction of risk-free rates on account of monetary stimuli in developed countries), the trend witnessed in India is the reverse – but this is hardly surprising.

While the average cost of equity capital is just north of 15% in India, there are huge variations across industry lines. Respondents from the real estate and telecom sectors feel their industries have a high equity cost, while those from the IT/ITES and FMCG segments are at the other end of the spectrum. However, almost all respondents agreed that cost of equity is in double digits in India.

The survey confirms that the large majority of respondents prefer to discount enterprise-/project- level cash flows (rather than at the equity level). It is surprising to note that CAPM is not really the first choice for calculating the cost of capital to evaluate projects. Respondents prefer to rely on the organization-specific internal rate of return (IRR) – the pre-determined hurdle rate.

The survey indicates that almost 80% of the respondents include additional risk premium (Alpha adjustment) in their base discount rates and their average Alpha adjustment is more than 2%.

Most respondents do not make any adjustments to their discount rate for tax incentives – perhaps indicating that frequency of changes in tax regulations is disconcerting for decision-makers.

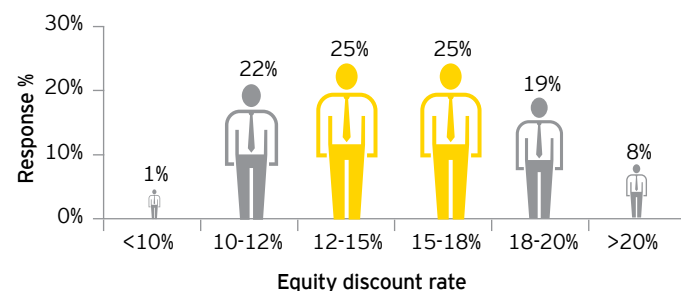
The large majority of the respondents maintain constant cost of capital across the forecast period. This is a clear indication that they prefer to keep their discounted cash flow (DCF) model simple.

Almost half of the respondents are willing to adjust their cost of capital downwards in the case of sustainability parameters including green energy benefits and the impact of pollution. In our view, sustainability will become more and more important for projects conducted by India Inc., and the reduced cost of capital for such projects may be a reflection of a decrease in perceived risks in such investments.

I. Key trends/findings

What is India's cost of equity?

The average cost of equity suggested by the respondents is just over 15%. About one quarter of the respondents indicated that their equity cost was in the range of 12%-15% and another one quarter was in the 15%-18% range. Less than 10% felt that cost of equity was outside the 10%-20% range.

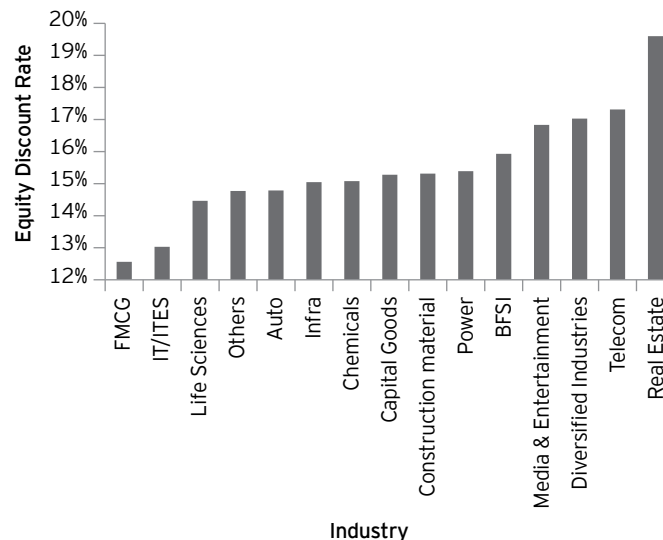


"The finding on average cost of equity is broadly in line with sum total of current risk free rate for India and our understanding of prevailing equity market risk premium in India".



Pradeep Gupta
Executive Director,
Valuations & Business Modelling

While the overall cost of equity indicates a near normal curve, there are wide sectorial variations. The trend in cost of equity across sectors is depicted in the graph below.

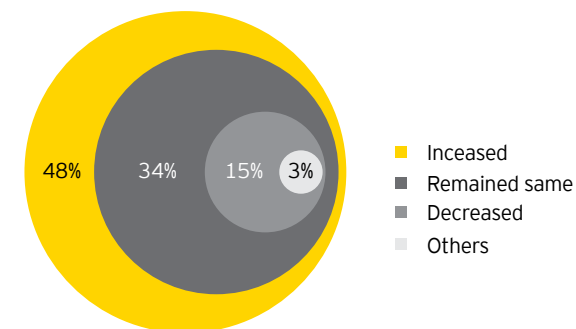


The highest cost of equity is witnessed in the real estate sector. This is not surprising, given anecdotal evidence about the high cost of debt in the sector (with cost of equity being higher than that of debt). However, leading companies in the telecom, and media and entertainment sectors also perceive that their cost of capital is high.

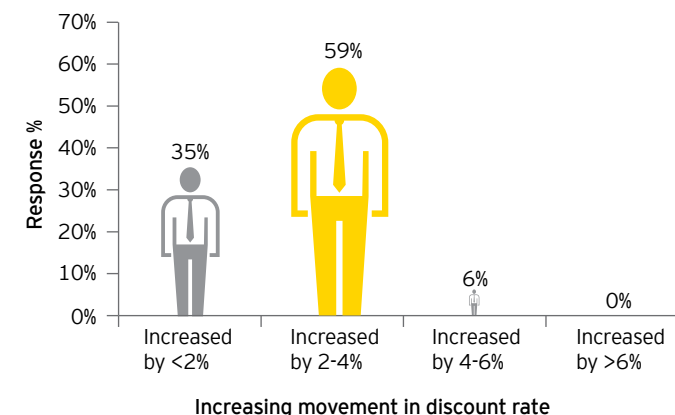
The lowest cost of equity was observed in the FMCG segment, followed by IT/ITES.

How has India's cost of capital changed over last three to four years?

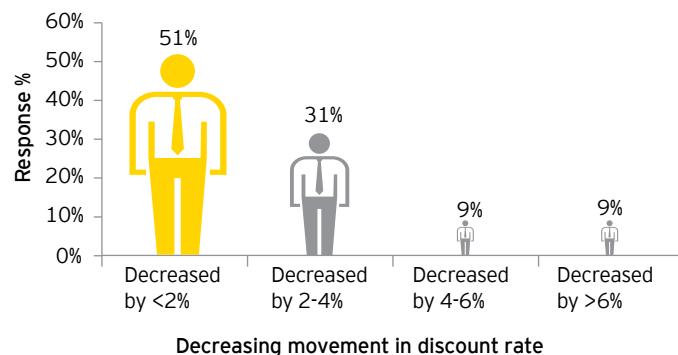
Almost half of the respondents believe that cost of capital has increased in India over the last three to four years. About one-third think it has remained the same, while around 15% feel it has come down.



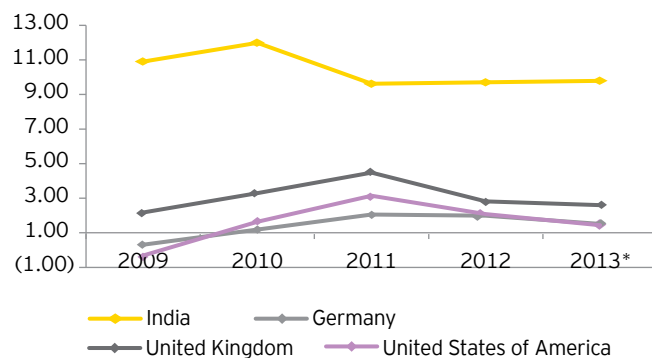
Among those who believed that the cost of capital has risen in India, around 60% felt that it has risen by 2%-4%. About one-third of the respondents in this category were of the opinion that the increase is less than 2%.



Among those who believed that cost of capital has declined in India, around 50% felt that it has decreased by less than 2%. Around one-third in this category believed that the fall is between 2%-4%.



The view that cost of capital has increased in India is largely in line with inflation trends in India. Given below is the 5-year trend seen in year-on-year movements in Consumer Price Index (CPI) in India, Germany, UK and USA. It can be seen that inflation rates in India are higher by 600-1100 basis points as compared to the other developed countries.



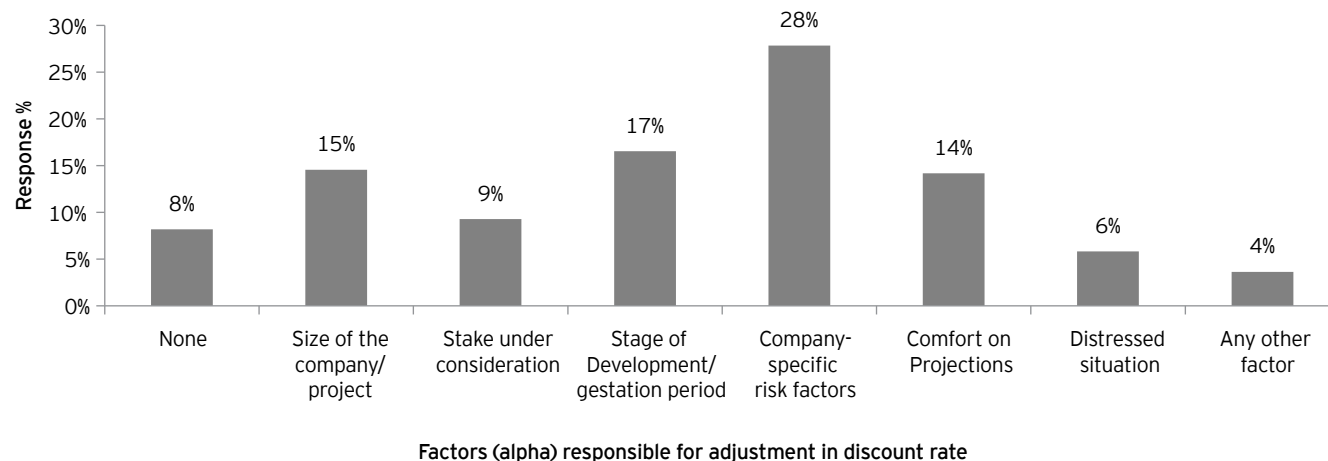
What are the company-specific factors that determine cost of capital?

According to the CAPM theory, there are two types of risks – systematic and non-systematic.

Beta represents systematic risk. The level of systematic risk of an individual security depends on how correlated it is with the overall market. This risk can be diversified if one invests in a portfolio of securities.

Alpha represents unsystematic risk. The level of unsystematic risk of an individual security is dependent on its own unique characteristics. It is independent from market returns and cannot be diversified.

There are several factors that could lead to unsystematic risks and require consequent adjustments to be made in the cost of capital (Alpha adjustment). It was confirmed by the respondents that factors such as size, stage of development, view on projections and other company-/project-specific factors result in Alpha adjustment while arriving at the cost of capital.



Note: Rounding off causing total higher than 1



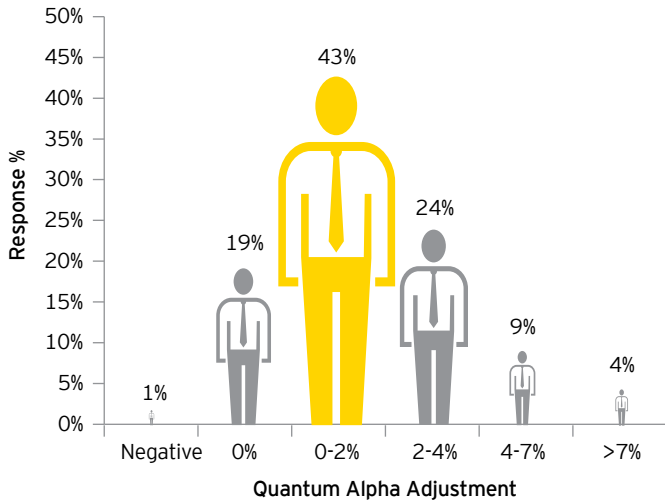
Source: IHS Global Insight (proprietary database subscribed to by EY) - World Overview tables, Detailed Forecast Data, Fourth Quarter 2013

* Inflation percentage for 2013 are IHS Global Insight estimates as at 15 December 2013

Care should be taken that adjustments made in discount rates are not duplicated elsewhere. For example, if Alpha adjustment is required to evaluate a deal involving a minority stake, there should not be a discount for lack of control applied to the final equity value computed by using the DCF method. Similarly, there should not be a discount for lack of marketability because of investment made in an unlisted entity if Alpha adjustment intends to capture increased risk on account of limited exit opportunities in the future. If there is discomfort with aggressive estimates of possible synergies generated by a deal, either the cash flows should be lowered or Alpha adjustment considered, but not both.

How much is this alpha adjustment?

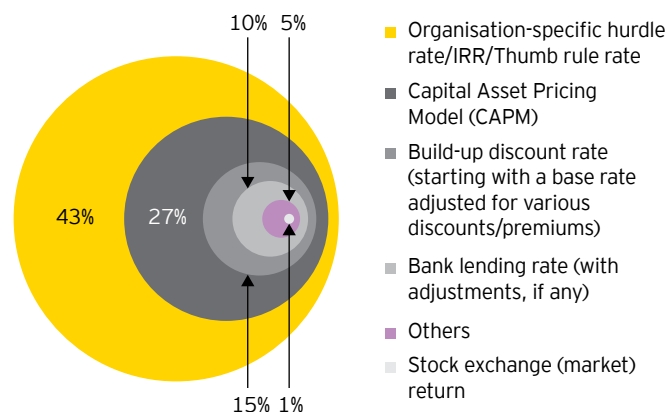
More than 4 out of 10 respondents have made Alpha adjustments between 0%-2%, around a quarter of them of between 2-4% and a fifth have not considered any corrections.



II. Basis of estimating cost of capital

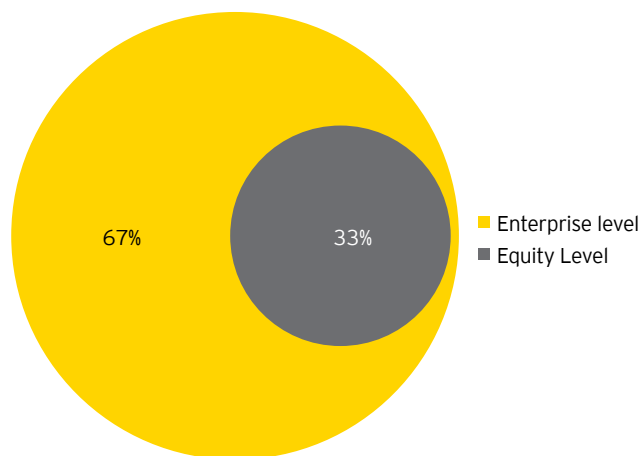
How does India Inc. decide on cost of capital?

Almost 70% of the respondents prefer to use CAPM and the organization-specific hurdle rate or IRR. Among the two, organization-specific IRR seems to be preferred rate. The majority of the respondents prefer to use organization-specific IRR while evaluating projects and CAPM to assess inorganic growth opportunities to estimate discount rates.



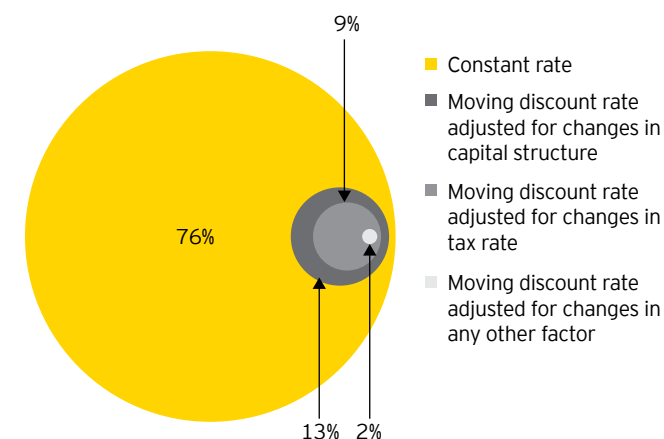
Enterprise vs equity level discounting

It was observed that there was a clear preference for considering cash flows at the enterprise value level. This indicates that respondents want to first evaluate business/project opportunities, irrespective of how these were or are expected to be funded.



Constant discount rate v moving discount rate

Some practitioners use different discount rates (moving discount rate) for each year's forecasts, e.g., consider varying D/E ratios or expected effective tax rates to arrive at the cost of capital for each year. However, almost three-fourth of the respondents prefer to use the constant cost of capital for the entire forecast period.



"It is pertinent to note that while evaluating a possible target for acquisition, apart from assessing risk specific to the target, the acquirer's cost of capital and possible returns on alternate investment opportunities will also become relevant".



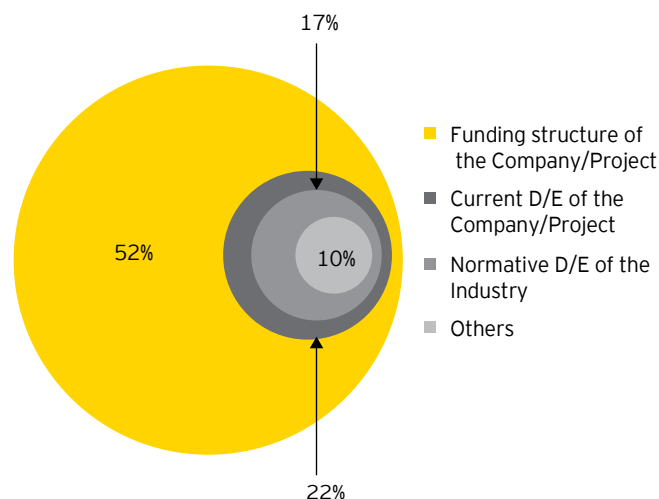
Parag Mehta
Partner,
Valuations & Business Modelling

III. Leverage and tax aspects

How is leverage factored in cost of capital?

The D/E ratio is a key input in computing the weighted average cost of capital (WACC). However, the D/E ratio may differ from situation to situation. In a project, the ratio is high in the initial years, but an increase in a company's cash flow leads to its debt being repaid and the consequent drop in its ratio. Leverage levels can vary at different points of time, even in a situation when a company makes an acquisition. Therefore, the moot question relates to how corporate organizations factor in the D/E ratio for their calculation of cost of capital.

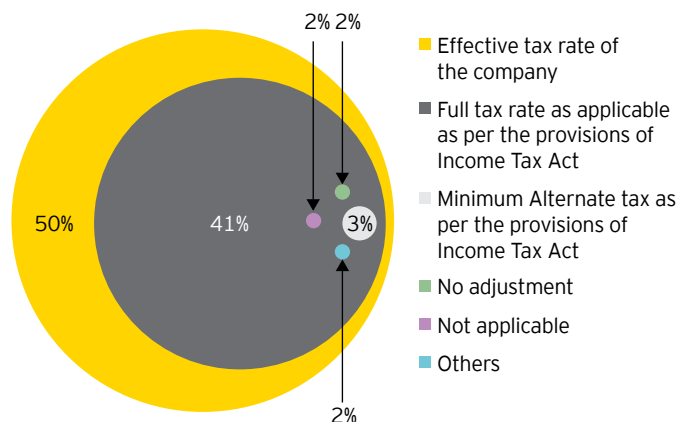
The respondents were asked about the basis used by them to determine the D/E ratio. The majority of them indicated that they consider the long-term funding structure of their companies or projects. Their current leverage levels and normative industry leverage forms their other basis for considering their D/E ratio to calculate their cost of capital.



Tax rate used for post-tax cost of debt

Most respondents prefer to discount enterprise-level cash flows, which implies that they consider the cash flows of a business or project before looking at payment of interest and debt. Interest cost is generally a tax-deductible expenditure, whereby companies pay tax on profits after deducting interest. This benefit is captured by adjusting the cost-of-debt downwards while applying it to compute WACC. i.e., by using the post-tax cost of debt.

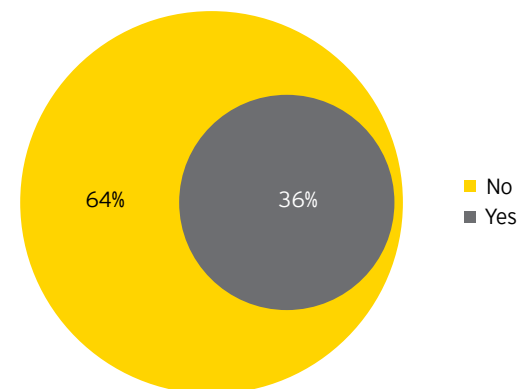
Around half of the respondents use the effective tax rate, while 41% consider the full tax rate to compute post-tax cost of debt. It is understandable that the difference between the full tax rate and the effective tax rate in a particular year due to temporary/timing differences may not be considered, since it will be reversed in later years.



Are tax incentives important from the cost of capital perspective?

The majority of the respondents do not make any adjustments to their cost of capital while investing in companies or projects benefiting from tax incentives. Presumably, direct tax incentives are appropriately only considered in their cash flows rather than their cost of capital.

Furthermore, some respondents indicated that they prefer to undertake evaluations without considering tax benefits, since they consider these as add-ons or "sweeteners".



"Estimation of risk is also a matter of perception - decision makers would also get impacted by the overall view on prevailing regulatory & tax environment in India".

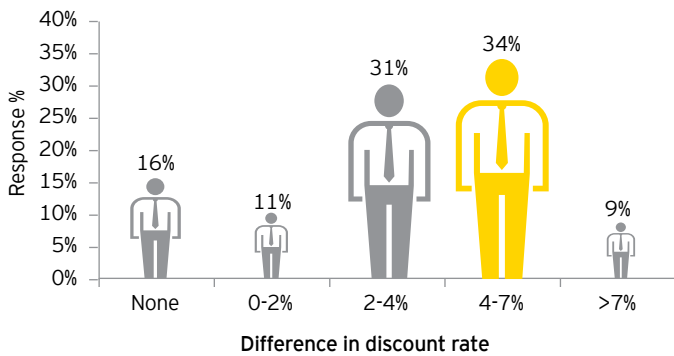


Amrish Shah
Partner & National Leader
Transaction Tax

IV. Cost of capital in the international context

How does cost of capital in India compare with that in developed countries?

India Inc. is now increasingly exposed to international capital flows. These could either be in the form of debt or equity raised outside India, or financing for international acquisitions. The respondents were asked about the difference they perceived in the cost of capital in India vis-à-vis developed countries. 84% of the respondents perceived India's cost of capital to be higher than in the developed countries. Among these, more than three-fourths believed that the difference was in the range of 2%-7%. On an overall basis, the average difference in cost of capital for investment in India v developed countries is around 3.6%.



An important variable to assess is whether the respondents were measuring the differential cost of capital in a common currency (say dollar) or in the respective domestic currencies. If the differences are being measured in a common currency the results are largely in line with cost of equity differentials suggested by corporate finance academics. For instance, the equity market risk premium estimated

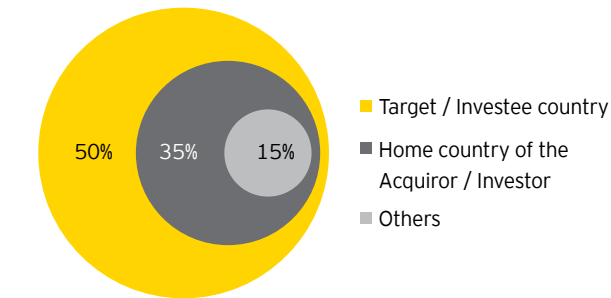
by Professor Aswath Damodaran for India and some developed countries is tabulated below:

Region	Market risk premium
India	8.30%
Germany	5.00%
United Kingdom	5.60%
USA	5.00%

Source: www.stern.nyu.edu/~adamodar/pc/datasets/ctrypremJune13.xls-Aswath Damodaran risk premiums - January 2014

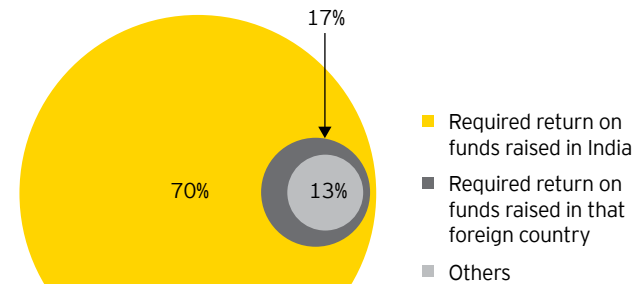
Country parameters used when investing outside India

Around half of the respondents consider their target countries' risk free rates and market risk premiums while investing outside India. However 35% prefer to use parameters that are applicable to the home country of the acquirer. Some of the others use a mix of the parameters of both the countries – that of the acquirer and the target. One wonders if potential acquirers from developing countries such as India are at a relative disadvantage if they use the parameters of home countries while evaluating opportunities in developed ones, since they may also be competing with acquirers from developed countries with lower cost of capital.



Responding to a follow-up question on expected returns from overseas acquisitions or expansion if projects are funded in India, the majority of the respondents (70%) indicated that they expected returns, based on Indian parameters. This seems justifiable, since they would naturally want to meet the return requirements of investors funding opportunities.

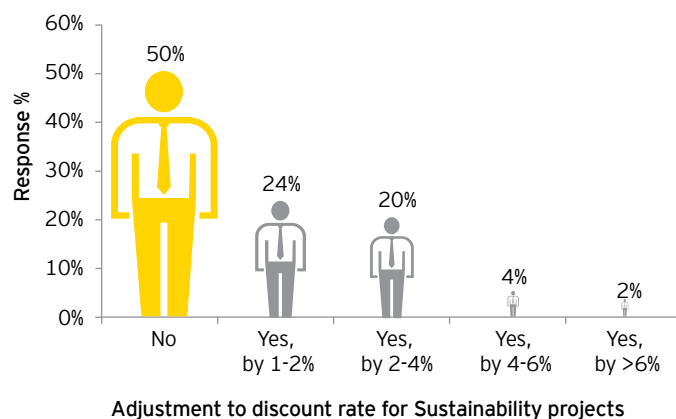
However, given increased cost of capital in India, this could also make Indian acquirers less competitive in some situations.



V. Cash flows and sustainability

Is India Inc. accepting reduced returns for sustainability projects?

There has been an increasing focus on the sustainability-related performance of businesses in recent years. Furthermore, recent policy changes seem to be designed to influence choices made by businesses in favor of sustainable projects. Therefore, the pressing question for decision-makers is whether they should lower their cost of capital when investing in projects, considering sustainability parameters such as pollution control and/or green energy. As seen below, opinions are split. Around half of the respondents prefer to follow the conventional method of evaluating opportunities and not reducing discount rates. For those that do lower their cost of capital, this reduction is around 2.6% on a weighted average basis.



"It is encouraging to see large number of Indian CFO's consciously considering sustainability while making financial decisions. However, It seems businesses are taking a conservative approach when it comes to accepting a lower return from Sustainability projects. This needs a shift by deploying robust methodologies to evaluate and establish the tangible benefits of Sustainability projects".



Chaitanya Kalra
Partner - Advisory Services
Climate Change & Sustainability

Cost of capital is dynamic. Changes in the macro-economic environment and stock market conditions can lead to a difference in views. Therefore, the results of the study only apply to the specific time period of the report.

Every company or project has its own cost of capital, which is dependent on specific factors. Overall country- and industry-specific factors can only provide general guidance.

This publication includes information in summary form and is therefore only intended to provide general guidance. It is not a substitute for detailed research or exercise of professional judgment. We have not analyzed the reasons for differences in input provided by companies. Neither EY LLP nor any other member of the global Ernst & Young organization can accept any responsibility for loss occasioned to any person acting or refraining from action as a result of any material in this publication. On any specific matter, reference should be made to the appropriate advisor.





Background to the survey

Objective/Purpose:

There are several theories and extensive write-ups on how cost of capital is generally computed to arrive at value based on the DCF method. However, at EY, we were curious to find out if these theories are actually applied in the real world or do they simply see "lip service." More important, we were keen to see how estimation of cost of capital is affected by India-specific factors.

We therefore decided to undertake an exhaustive study on prevailing industry practices of estimating cost of capital to value companies and/or projects when taking crucial business decisions such as on acquisitions or divestments, internal restructuring exercises, launching of new projects and assessing the progress of projects. Our purpose was to identify the practical aspects or considerations that determine cost of capital in India and quantify some of these.

Profile of respondents:

The principal respondents were engaged in functions including finance, business planning and corporate strategy, mergers and acquisitions, among others. They represented a mix of Indian and multinational companies, including listed and private ones.

Questionnaire:

We prepared our questions with a choice of answers in the multiple choice format.

The respondents had the option of providing responses to the following:

1. "Company evaluation (for mergers/acquisitions /divestiture)"
2. "Project evaluation (for funding, setting up new projects, etc.)"
3. "Company and project evaluation"

If a respondent opted for 3 above, he or she could respond differently to the same question on evaluation of companies and projects.

Mode of survey:

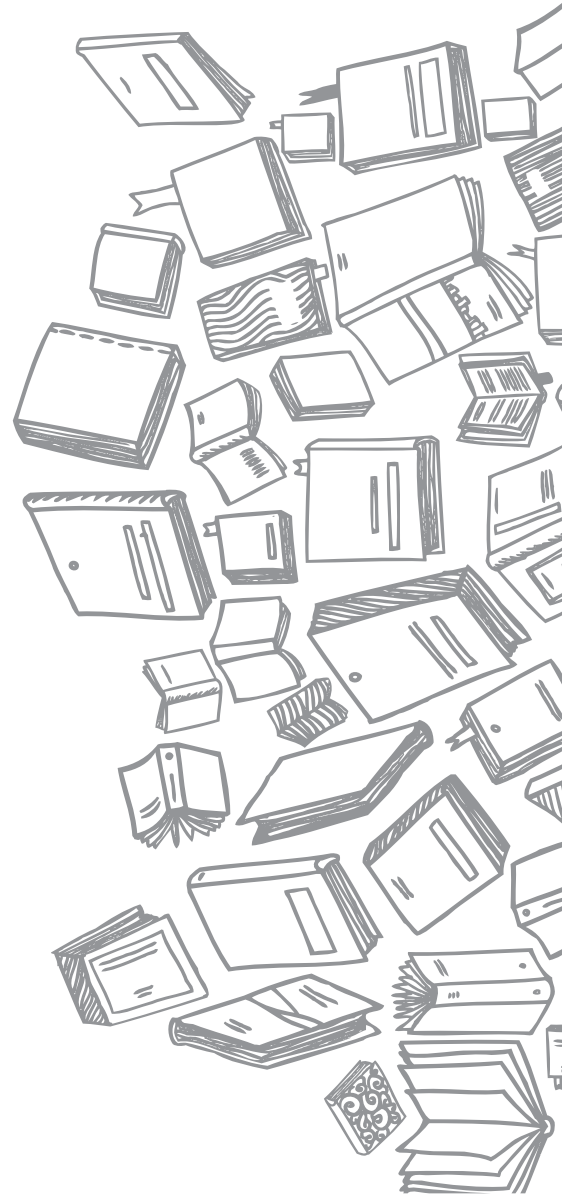
The questionnaire was sent out to the respondents in either hard copies or electronic format.

In the electronic format, we could automate selections from drop-down boxes so that only one answer was selected (unless multiple choices were allowed) and no question was skipped. However, this was not possible for responses collected in hard copies. Therefore, all the percentage figures represented responses to a particular question and not the proportion of respondents in all. Errors and omissions were expected, e.g., when some responses gathered on hard copies of the questionnaire had illegible comments.

Coverage:

As part of EY's Valuation & Business Modelling (V&BM) team, we reached out to various companies across industries for this survey between August 2013 and October 2013. We collected input from around 140 CFOs and/or senior members of CFOs' teams, and met some of them personally – the balance we collected via feedback through emails. We sought to draw out differences between how they evaluated companies vis-à-vis projects. Most of them indicated that they estimated cost of capital for both the situations, but with slight differences. Therefore, our analysis is based on 250+ response sets across sectors including automotive, chemicals, diversified industrial products, banking & financial services, FMCG, infra, IT/ITES, media and entertainment, life sciences, power and utilities, real estate, retail, telecom and others.

Notes:



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