2011 AFP
Current Trends in Estimating and Applying the Cost of Capital
Report of Survey Results

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Association for Financial Professionals®

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Current Trends in Estimating and Applying the Cost of Capital

Introduction

On December 9, 2010, the Federal Reserve reported that non-financial companies in the U.S. held nearly $2 trillion in cash and short-term liquid assets. That $2 trillion represented the largest percentage of cash held by companies as a share of corporate assets in over a half a century.

Why are these organizations holding on to such a large amount of liquid assets? One likely reason is that they remain deeply concerned about the strength and sustainability of the economic recovery. Both consumer spending and job growth continue to be lackluster, and many companies are unwilling to invest in an expanding workforce or in new or improved plants and equipment. In an environment of slow economic growth, and amid a general perception of elevated levels of business and general risk in the U.S. and around the globe, companies have found it increasingly difficult to find opportunities where they can deploy their cash reserves into long-term productive assets that will generate economic returns for their stakeholders, as well as contribute to overall economic recovery and growth.

As corporate confidence in the domestic and global economies increases and uncertainty over regulatory guidelines stemming from the financial and economic crisis abates, CEOs and Boards of Directors will face increased pressure from shareholders to shift some of that cash into assets and projects that generate higher returns. Companies need to analyze whether or not the present value of the cash flow generated from any investment opportunities—projects, investment in personnel, etc.—are likely to exceed the cost. Such decisions often define the future of a company. Effective project selection can set the stage for long-term advantages including revenue growth, cost savings, productivity enhancements, and product innovations. Conversely, investing in projects that do not generate economic value can quickly and materially erode the competitiveness and profitability of a company.

The processes used to evaluate the profitability of projects and strategic investments are complex and involve many subjective factors that can dramatically affect the outcome of such analysis. Even seemingly small variations in these inputs can lead to pronounced differences in the projects a company undertakes or avoids, and therefore also can affect the company's long-term profitability and even viability. Among the variables companies must estimate are forecasted cash flows and the cost of debt and equity used to fund any project. Further, each of those variables is derived from other estimates, adding yet another layer of complexity to the analysis.

Providing the "right" answer about how to estimate each of these variables is a difficult, if not impossible, task. However, many companies at least want to ensure that their processes are in line with commonly accepted practices. However, given the strategic nature of this data and their use, companies are often hesitant to share their approaches openly with other organizations, and some even guard it closely within their own organizations.

To provide financial planning and analysis professionals with insight into current trends in project and investment valuation and estimating the cost of capital, the Association for Financial Professionals (AFP) conducted a survey in October 2010. More than 300 financial planning and analysis professionals responded to the survey. Their responses, which are reported here, provide current insight into practices currently being used in the profession to deploy corporate capital.

Executive Summary

Evaluating potential uses of corporate assets is one of the most critical and defining activities that an organization undertakes. Making the right choices among the various available investment alternatives can lead to immediate and long-term value creation that benefits the organization, its employees, its investors, and other stakeholders. Conversely, making the wrong decision, or failing to make any decision, can erode the value of a company, harm its competitive position, and even lead to the collapse of the business.

Yet despite the broadly acknowledged importance of cash flow forecasting and estimating the cost of capital when performing project valuation, there is little agreement on what constitutes the "right" approach for this function. While most companies —79 percent, including 91 percent of companieswith annual revenue greater than $1 billion—are currently using discounted cash flow (DCF) techniques, there is less consistency in how organizations estimate cash flows and determine the weighted average cost of capital (WACC) at which those cash flows are discounted.

While five years is the most common period over which organizations explicitly forecast the cash flows associated with a project (cited by 46 percent of survey respondents), over one third of organizations forecast explicit cash flows for the first ten years of a project. There is also great diversity in how organizations determine the value of cash flows for the remaining life of a project (i.e., terminal value). Slightly less than half of organizations (46 percent) use the perpetuity growth model, while 27 percent of organizations develop an explicit cash flow forecast for the entire life of a project. Nearly three in four organizations (72 percent) develop multiple cash flow scenarios (representing the expected outcome), as well as best case and worst case outcomes which are then discounted. However, a significant share of organizations (28 percent) uses only a single cash flow scenario.

There is even greater diversity among organizations in the methods they use when estimating the WACC. In estimating the cost of equity, nearly nine of ten organizations use the capital asset pricing model (CAPM). CAPM calculates the cost of equity using a risk-free rate, beta factor, and a market risk premium, each of which introduces significant variability. While nearly half of organizations (46 percent) use the 10-year Treasury note to estimate the risk-free rate, a notable percentage of companies also use the 90-day Treasury bill (16 percent), five-year Treasury note (12 percent), and even the 30-year Treasury bond. Given that the historical spread between 90-day Treasury bills and 30-year Treasury bonds is approximately three percent, this wide variation in choices for the risk-free rate will have dramatic effects on project valuation. Survey results

also reflect no dominant choice in terms of looking to the past, present or future in determining the rate to use for a selected instrument. While nearly half of organizations (47 percent) use the current rate on a selected instrument, more than one out of three (35 percent) use the average historical rate over some period of time. Fourteen percent of organizations take a forward look and use a projected rate on the selected instrument. Adding to this complexity, slightly more than one in ten organizations (11 percent) impose both a floor and a cap on the risk-free rate they use to minimize the impact of historically abnormal high or low rates, with another ten percent imposing only a floor on the risk-free rate.

Nearly three out of five organizations (59 percent) use Bloomberg to determine the beta factor used in CAPM to estimate the cost of equity. While other methods are used, only Ibbotson is used by as many as one in ten organizations. Those organizations that use Bloomberg still need to make decisions about the tenure and frequency of returns over that tenure that will be used in estimating the beta factor. Survey results show great diversity in this, with no combination being used by even a third of organizations. Twenty-seven percent of organizations use monthly returns over a five-year estimation period to calculate beta, with another 23 percent using monthly returns and a one-year tenure. A smaller but still significant share of companies use monthly returns over a three-year period and weekly returns over a five-year period to calculate the beta factor. More than half of organizations (57 percent) then use the adjusted beta, effectively driving the beta closer to one based on a long-term assumption of mean reversion.

As with the determination of the risk-free rate, there is great diversity in the market risk premium used in calculating the cost of equity. While nearly half of organizations (49 percent) uses a five- to six-percent market risk premium, other choices are still quite prevalent. Twenty-three percent of organizations use a market risk premium of between three and four percent, with nearly one in five organizations (17 percent) using a market risk premium of seven percent or more. At the other extreme, more than one out of ten organizations uses a market risk premium below three percent. This wide variation (of more than four percent) in the market risk premium used by organizations will have a dramatic effect on project valuation, especially for firms that rely heavily on equity financing.

Most organizations reevaluate the market risk premium they use with some regularity. Forty percent do so annually, while one in five organizations reviews its market risk premium every time it estimates WACC and 16 percent reevaluates each quarter. However, more than one in five organizations (22 percent) rarely reevaluates its market risk premium.

There is also little consistency among organizations in the methods they use to estimate the cost of debt. More than one third of organizations use either the current rate on their existing debt (37 percent) or the forecasted rate for newly issued debt (34 percent). More than one of five organizations reduces the volatility of the cost of debt by using an average rate on outstanding debt over some period of time. Results from the survey are more consistent for the tax rates that organizations apply to calculate the after-tax cost

of debt. Sixty-four percent of organizations use their effective tax rate, but nearly three in ten organizations (29 percent) use the marginal tax rate, and seven percent use a target tax rate.

After calculating the cost of equity and the after-tax cost of debt, organizations still have to choose the weighting factors to apply to each component of WACC. There is even less consensus among organizations on the best approach to weighting; no single approach is used by even one third of organizations. The most commonly used approach is an organization's current book debt-to-equity ratio (cited by 30 percent of survey respondents), with the targeted debt-to-equity ratio being used almost as widely (28 percent). Nearly a quarter of organizations (23 percent) use the current market debt-to-equity ratio, and 19 percent use the current book debt-to-current market equity ratio.

While estimating WACC is a complex undertaking, most organizations recognize its critical importance to their investment decision process and review WACC with some regularity. Thirty-eight percent of organizations review WACC each time it is used in a valuation, and more than one in three organizations review WACC on an annual basis. Smaller but significant percentages of organizations review WACC quarterly (19 percent) or monthly (eight percent).

Inaccurate estimates of the cost of capital can have significant impact on valuations. Despite extensive efforts to accurately estimate the cost of capital, most organizations lack confidence in the accuracy of such estimates. More than half of organizations (55 percent) believe their estimates are off by more than 50-basis points. Conversely, less than one in five organizations (17 percent) believes its estimates are accurate within 25-basis points. Organizations tend to keep their estimates of WACC closely guarded and communicate that information only on a need-to-know basis; only 15 percent of organizations communicate their estimates company-wide.

While the majority of organizations (53 percent) use the calculated WACC to evaluate all projects and investments, in certain circumstances nearly as many (47 percent) use a hurdle rate above the calculated WACC. Sixty-eight percent of organizations that use a hurdle increase it to account for unique project risks, while 43 percent assign a higher hurdle rate for new business projects. Approximately one third of organizations increase the hurdle rate above the calculated WACC for particularly large investments (35 percent) and international investments (31 percent).

The country risk rating model is the most commonly used method when adjusting WACC for international investments, with nearly half of organizations (48 percent) employing that approach. Three out of ten organizations use the sovereign yield spread to adjust the cost of capital.

When valuing a potential acquisition, organizations use a cost of capital other than their own calculated WACC. Slightly more than half of organizations use the cost of capital for a group of companies comparable to the proposed acquisition target, while 37 percent use the acquisition target's own cost of capital to evaluate the proposed acquisition.

Survey Findings

Project and Investment Valuation

Nearly 80 percent of organizations use discounted cash flow (DCF) techniques to evaluate projects and investments. Large organizations (91 percent) and publicly traded organizations (89 percent) show an even stronger preference for DCF techniques.

Technique Used for Project and Investment Valuation
(Percent Distribution)

	All	Under $1 Billion Revenue	Over $1 Billion Revenue	Privately Held	Publicly Traded
Use DCF techniques	79%	63%	91%	72%	89%
Do not use DCF techniques	21	37	9	28	11

Cash Flow Estimation

Organizations that use DCF techniques to evaluate projects and investment opportunities are most likely to discount explicit forecasted cash flows over the first five years of a project (46 percent), after which they discount a calculated terminal or continuing value of the project. A third of organizations use a ten-year explicit cash flow forecast, while six percent use a 15-year explicit forecast. An even smaller percentage—four percent—use a time horizon that is even longer—20 to 30 years. Smaller organizations are slightly more likely than large ones to choose shorter time horizons when discounting explicit forecasted cash flows for project and investment evaluations.

Typical Length of Explicit Cash Flow Forecast Used for Valuations
(Percent Distribution)

	All	Under $1 Billion Revenue	Over $1 Billion Revenue	Privately Held	Publicly Traded
5 years	46%	58%	42%	49%	46%
10 years	34	29	34	32	35
15 years	6	8	5	7	4
Other	14	5	19	12	15

When estimating the terminal or continuing value of a project or investment opportunity for the years following the explicit forecasted cash flows, organizations are most likely to use a perpetuity growth model (46 percent). Just over a quarter of organizations use a long explicit cash flow forecast (27 percent) instead, while 12 percent use the value driver model to estimate the terminal or continuing value of a project or investment opportunity. The preference for a particular method does not vary by either company size or ownership type.

Common Methods Used to Estimate Terminal/Continuing Value of a Project/Investment Opportunity
(Percent Distribution)

	All	Under $1 Billion Revenue	Over $1 Billion Revenue	Privately Held	Publicly Traded
Perpetuity growth model	46%	43%	46%	44%	48%
Long explicit cash flow forecast	27	25	29	27	26
Value driver model	12	15	12	15	11
Other	15	17	13	14	15

Most organizations (72 percent) consider a number of scenarios—such as "best case," "expected case" and "worst case"—when modeling cash flow for a project or investment opportunity. Just 28 percent use a single cash flow scenario when doing so.

Number of Scenarios Organizations Used When Modeling Cash Flows for a Project/Investment Opportunity
(Percent Distribution)

	All	Under $1 Billion Revenue	Over $1 Billion Revenue	Privately Held	Publicly Traded
Uses a single cash flow scenario	28%	26%	28%	26%	27%
Uses multiple cash flow scenarios	72	74	72	74	73

Determining the Risk-Free Rate

The selection of the instrument to be used for determining the rate on a risk-free instrument is critical in calculating the cost of equity using the capital asset pricing model (CAPM). The 10-year Treasury note (or other sovereign instrument) is the most commonly used instrument (46 percent). One out of six organizations uses a longer maturity financial instrument (e.g., 20-year and 30-year Treasury bond). Another one in six organizations turn to either a one-year or five-year Treasury, while 16 percent use a far shorter maturity Treasury bill. Large organizations and those that are privately held are more likely than smaller and publicly traded ones to use shorter term treasuries or sovereigns when estimating the risk-free rate.

Financial Instrument Used to Estimate Risk-Free Rates
(Percent Distribution)

	All	Under $1 Billion Revenue	Over $1 Billion Revenue	Privately Held	Publicly Traded
90 day Treasury /other sovereign	16%	22%	13%	22%	9%
52 week Treasury /other sovereign	5	5	3	5	2
5 year Treasury /other sovereign	12	16	10	18	5
10 year Treasury /other sovereign	46	37	50	39	55
20 year Treasury /other sovereign	4	3	6	3	7
30 year Treasury /other sovereign	11	11	12	7	16
Other	6	6	6	6	6

Nearly half of organizations use the current interest rate on their preferred benchmark financial instrument to determine the risk-free rate. Just over a third of organizations remove some of the volatility from the interest rate by using the average rate of the selected instrument over some period of time instead of the current rate. Fourteen percent of organizations, however, use forward curves to forecast the rate on the preferred financial instrument. Large organizations are more likely than smaller ones to use the current rate on the preferred financial instrument when estimating the risk-free rate.

Interest Rate Used to Estimate the Risk-Free Rate
(Percent Distribution)

	All	Under $1 Billion Revenue	Over $1 Billion Revenue	Privately Held	Publicly Traded
The current rate on the selected instrument	47%	43%	54%	51%	48%
The average rate on the selected instrument over some period of time	35	39	30	32	34
The forecasted rate on the selected instrument based on forward curves	14	15	12	16	11
Other	4	3	4	1	7

Most organizations—more than three-quarters—do not impose either a cap or floor on the risk-free rate used to evaluate projects and investments. Twenty-one percent of organizations impose a floor (i.e., minimum rate) while 13 percent impose a cap (i.e., maximum rate) on the risk-free rate used to evaluate projects and investments. Smaller organizations and those that are privately held are more likely than large or public organizations to impose caps/floors on the risk-free rate used to evaluate projects and investments.

Organizations' Use of Risk-Free Rate Floors and Caps
(Percent Distribution)

	All	Under $1 Billion Revenue	Over $1 Billion Revenue	Privately Held	Publicly Traded
No floor or cap	77%	68%	84%	70%	85%
Both a floor and cap	11	22	2	14	5
Floor, but no cap	10	7	13	14	9
Cap, but no floor	2	3	1	2	1

Estimating the Cost of Debt

Organizations can choose from among a number of methods to determine the cost of debt component of their weighted average cost of capital (WACC). Thirty-seven percent of organizations simply use the current rate on the debt that they have outstanding, while a third forecast the rate for new debt issuance. Twenty-two percent use the average rate on outstanding debt over a defined period of time, and seven percent consider the historical rate on outstanding debt. A plurality of smaller organizations use the current rate on outstanding debt while the most widely cited method for large organizations and publicly traded organizations is the forecasted rate for newly issued debt.

Rate Used to Determine the Cost of Debt
(Percent Distribution)

	All	Under $1 Billion Revenue	Over $1 Billion Revenue	Privately Held	Publicly Traded
Current rate on outstanding debt	37%	45%	32%	38%	36%
Forecasted rate for new debt issuance	34	21	44	28	43
Average rate on outstanding debt over a defined period of time	22	26	17	28	13
Historical rate on outstanding debt	7	8	7	6	8

When determining their after-tax cost of debt, nearly two-thirds of organizations use the effective tax rate for the calculation. Twenty-nine percent of organizations, including a third of large organizations, use the marginal tax rate instead.

Tax Rate Applied in Calculating the After-Tax Cost of Debt
(Percent Distribution)

	All	Under $1 Billion Revenue	Over $1 Billion Revenue	Privately Held	Publicly Traded
Effective tax rate	64%	67%	60%	73%	63%
Marginal tax rate	29	25	33	27	26
Target tax rate	7	8	7	*	11

Estimating the Cost of Equity

An overwhelming majority of organizations (87 percent) use the Capital Asset Pricing Model (CAPM) when estimating their cost of equity. CAPM is the preferred method for estimating the cost of equity regardless of organization size and ownership type.

Models/Techniques Used to Cost of Equity
(Percent Distribution)

	All	Under $1 Billion Revenue	Over $1 Billion Revenue	Privately Held	Publicly Traded
Capital Asset Pricing Model (CAPM)	87%	85%	87%	82%	91%
Dividend Discount Model (DDM)	3	3	3	4	2
Arbitrage Pricing Model	1	1	1	1	1
Other	9	11	9	13	6

Three out of five organizations use Bloomberg as their source for determining their beta factor. If not Bloomberg, other sources for beta are:

- Ibbotson (ten percent)
- Barra (six percent)
- Value Line (five percent)
- Capital IQ (three percent)
- Thompson ONE (two percent).

Sources for Organizations' Beta Factor
(Percent Distribution)

	All	Under $1 Billion Revenue	Over $1 Billion Revenue	Privately Held	Publicly Traded
Bloomberg	59%	57%	58%	61%	53%
Other	15	14	17	11	21
Ibbotson	10	14	7	15	5
Barra	6	2	8	1	11
Value Line	5	5	6	6	5
Capital IQ	3	4	2	2	4
Thompson ONE	2	4	2	4	1

Those organizations using Bloomberg consider differing tenures for their estimations of the beta factor. Forty-one percent use a five-year tenure for their beta factor estimations. Twenty-nine percent use a one-year estimation period, while twenty-eight percent use either a two or three-year estimation period.

Tenure Used to Estimate the Beta Factor
(Percent Distribution)

	All	Under $1 Billion Revenue	Over $1 Billion Revenue	Privately Held	Publicly Traded
One-year estimation period	29%	38%	25%	34%	24%
Two-year estimation period	13	13	15	14	15
Three-year estimation period	15	9	16	14	16
Five-year estimation period	41	40	41	36	43
Other	2	*	3	2	2

In addition to selecting a period over which to calculate the beta factor, organizations must also decide whether to use weekly, biweekly, or monthly returns during the selected period. With the exception of the two-year estimation tenure, monthly returns are the most widely used in calculating the beta factor for each estimation tenure used by organizations. The most commonly used beta calculation is a five-year estimation period with monthly returns (27 percent), followed closely by a one-year estimation period with monthly returns (23 percent). All other approaches are far less prevalent, with a five-year estimation period with weekly returns (14 percent) being the third most common approach when estimating beta.

Tenure and Periodic Returns Used in Estimating the Beta Factor
(Overall Percentage Distribution)

	Weekly Returns	Biweekly Returns	Monthly Returns
One-year estimation period	5%	1%	23%
Two-year estimation period	7	2	5
Three-year estimation period	5	*	11
Five-year estimation period	14	*	27

Nearly three out of five organizations use an adjusted, rather than a raw, beta factor. Large organizations and those that are publicly traded are more likely than are smaller and privately held ones to use an adjusted beta.

Use of Raw Versus Adjusted Beta
(Percent Distribution)

	All	Under $1 Billion Revenue	Over $1 Billion Revenue	Privately Held	Publicly Traded
Raw beta	43%	49%	39%	46%	37%
Adjusted beta	57	51	61	54	63

Nearly half of organizations (49 percent) use a market risk premium of between five and six percent. Thirty-four percent of organizations use a smaller market risk premium while 17 percent use a market risk premium of at least seven percent. Large organizations are more likely than smaller ones to use a market risk premium of seven percent or greater.

Market Risk Premium Range Used by Organizations
(Percent Distribution)

	All	Under $1 Billion Revenue	Over $1 Billion Revenue	Privately Held	Publicly Traded
Less than 3% market risk premium	11%	7%	13%	9%	15%
3-4% market risk premium	23	34	16	29	15
5-6% market risk premium	49	48	51	46	55
7% or greater market risk premium	17	1	20	16	15

Most organizations review their market risk premium estimate on a regular basis. Forty-percent of organizations re-evaluate on an annual basis while 16 percent do so quarterly. Twenty percent review their market risk premium estimate each time that they estimate their cost of capital. More than one of five companies rarely reviews their estimation of the market risk premium.

Frequency of Organizations' Re-evaluation of Market Risk Premium
(Percent Distribution)

	All	Under $1 Billion Revenue	Over $1 Billion Revenue	Privately Held	Publicly Traded
Once a quarter	16%	15%	16%	14%	18%
Once a year	40	36	44	38	44
Every time the organization estimates its cost of equity	20	24	17	22	18
Rarely	22	25	20	25	18
Other	2	*	3	1	2

Weighting Debt and Equity in Calculation of WACC

The selection of weighting factors for the debt and equity components of WACC varies widely among organizations, with no single approach being used by even a third of organizations. Thirty percent of organizations use the current book debt-to-equity ratio to determine the weighting factors for debt to equity in their cost of capital estimations. Twenty-eight percent of organizations use the target debt-to-equity ratio while 23 percent use the current market debt-to-equity ratio. Smaller organizations and those that are privately held are more likely to use the current book debt-to-equity ratio, while larger organizations and publicly traded organizations show a preference for the current market debt-to-equity ratio.

Weighting Factors Used for Debt and Equity in Calculation of WACC
(Percent Distribution)

	All	Under $1 Billion Revenue	Over $1 Billion Revenue	Privately Held	Publicly Traded
Current book debt/equity ratio	30%	35%	27%	38%	18%
Targeted debt/equity ratio	28	28	27	27	31
Current market debt/equity ratio	23	17	27	18	30
Current book debt/ current market equity ratio	19	20	19	17	21

Review of Calculated Cost of Capital

Three out of five organizations review—and update if needed—their estimates of the WACC on a regular basis. Thirty-one percent review the WACC on an annual basis while 22 percent do so two to four times a year. Eight percent of organizations conduct their review on a monthly basis. Thirty-eight percent of organizations review their estimates of their WACC only as needed, with smaller organizations and those that are privately held more apt to do so than large ones and those that are publicly traded.

Frequency Organizations Review and/or Update its Estimates of Weighted Average Cost of Capital
(Percent Distribution)

	All	Under $1 Billion Revenue	Over $1 Billion Revenue	Privately Held	Publicly Traded
As needed	38%	51%	31%	45%	31%
Monthly	8	8	8	5	10
Quarterly	19	12	22	12	25
Semi-annually	3	3	3	3	3
Annually	31	26	35	33	31
Other	1	*	1	2	*

Variations in Cost of Capital Used

A small majority of organizations use their calculated cost of capital as the standard hurdle rate for evaluating a project or investment (53 percent). However, large organizations and those that are publicly traded are more apt to use a rate above the calculated cost of capital as their standard hurdle rate than are small organizations and private ones.

Method for Determining the Hurdle Rate in Evaluating a Project or Investment
(Percent Distribution)

	All	Under $1 Billion Revenue	Over $1 Billion Revenue	Privately Held	Publicly Traded
Organization uses the calculated cost of capital as the standard hurdle rate	53%	70%	45%	60%	48%
Organization uses a standard hurdle rate above the calculated cost of capital	47	30	55	40	52

Organizations adjust the hurdle rate for project/investment evaluation based on a number of factors. Among the most widely cited are:

- Unique project risk (68 percent)
- New business (43 percent)
- Large investment (35 percent)
- International investment (31 percent)
- Changes in market conditions (27 percent).

Conditions that Result in an Adjustment to the Standard Hurdle Rate Used in Valuating a Project or Investment
(Percent of Organizations)

	All	Under $1 Billion Revenue	Over $1 Billion Revenue	Privately Held	Publicly Traded
Unique project risk	68%	62%	71%	66%	69%
New business	43	46	38	45	38
Large investment	35	43	29	33	36
International investment	31	26	33	26	38
Changes in market conditions	27	29	25	32	20
Small investment	18	12	19	16	19
Other	8	5	11	5	12

When evaluating an international project or investment, many organizations adjust their estimates of the cost of capital. Nearly half of organizations use the country risk rating model, 30 percent use the sovereign yield spread model and 12 percent use the country spread model. More than three out of five smaller organizations and privately held organizations use a country risk rating model to adjust their cost of capital estimates for international investments, well above the percentages reported for large and publicly traded organizations. Large and publicly traded organizations are more likely than other organizations to use a sovereign yield spread.

Method Used to Adjust Cost of Capital Estimates for International Investments
(Percent Distribution)

	All	Under $1 Billion Revenue	Over $1 Billion Revenue	Privately Held	Publicly Traded
Country risk rating model	48%	63%	42%	62%	34%
Sovereign yield spread	30	25	33	21	38
Country spread model	12	6	12	13	13
Ibbotson model	5	*	8	*	9
Other	5	6	5	4	6

Valuing Acquisitions

Just over half of organizations use a cost of capital derived from a group of comparable companies when valuing a proposed acquisition target. Thirty-seven percent, however, use the target company's own cost of capital in their valuation calculations.

Cost of Capital Used When Valuing a Proposed Acquisition Target
(Percent Distribution)

	All	Under $1 Billion Revenue	Over $1 Billion Revenue	Privately Held	Publicly Traded
Cost of capital of a group of comparable companies	51%	54%	50%	58%	42%
Target company's own cost of capital	37	43	33	35	39
Other	12	3	17	7	19

Accuracy of Cost of Capital Estimates

Accurate estimation of the cost of capital is critical to evaluating projects. Over- or underestimating the cost of capital will lead organizations to pursue unprofitable initiatives, or fail to pursue projects that could add value to the organization. However, few organizations believe that their cost of capital estimates accurately reflect the actual cost of capital or that the estimate is within 25 basis points of the actual cost of capital. Indeed, two in five organizations believe their estimates are only accurate within 100 basis points of the actual cost of capital, with one in ten organizations believing their cost of capital estimate is off by more than a full percentage point. Smaller organizations have more faith in their cost of capital estimates than do large ones: more than half of small organizations feel that their cost of capital estimates are within 50-basis points of their actual values.

1: Perceived Accuracy of Cost of Capital Estimates
(Percent Distribution)

	All	Under $1 Billion Revenue	Over $1 Billion Revenue	Privately Held	Publicly Traded
0 bps—Estimate accurately reflect actual cost of capital	2%	2%	2%	2%	1%
Within +/- 25 bps	15	20	12	17	14
Within +/- 50 bps	28	33	27	27	31
Within +/- 75 bps	7	9	7	10	5
Within +/- 100 bps	38	30	41	37	39
Greater than +/- 100 bps	10	6	11	7	10

Visibility of Cost of Capital Estimates

Most organizations keep their cost of capital estimates close to the vest. Only 15 percent of organizations communicate the cost of capital companywide.

2: Internal Visibility of Organizations' Cost of Capital Estimate
(Percent Distribution)

	All	Under $1 Billion Revenue	Over $1 Billion Revenue	Privately Held	Publicly Traded
The cost of capital is communicated companywide	15%	11%	18%	15%	16%
The cost of capital is communicated on a need-to-know basis	85	89	82	85	84

Conclusion

Profile of Typical Project Valuation Process

The typical organization uses discounted cash flow (DCF) analysis to evaluate the uses of its capital when considering competing projects and long-term investments. When estimating the cash flows to be discounted, the organization develops an explicit cash flow forecast for the first five years of the project or investment, and applies an estimated terminal value to all cash flows thereafter. The company uses the perpetuity growth model to estimate that terminal value. Recognizing the unpredictability of forecasted cash flows, the typical company uses multiple cash flow scenarios, including best case, expected case, and worst case forecasts.

To determine the rate at which to discount cash flows, the typical organization calculates its weighted average cost of capital (WACC) and reviews that calculation only when needed for a valuation. The company uses the calculated cost of capital and does not commonly adjust the WACC to reflect factors unique to the project or investment being considered. The company recognizes that its estimate of WACC is not perfect, but believes it to be accurate within a range of plus or minus 75 basis points. The company does not broadly communicate its cost of capital, but rather shares it on a need-to-know basis. When valuing a potential acquisition, the company uses the estimated cost of capital from a group of companies comparable to the potential acquisition target.

To determine the weights to apply to the cost of debt and the cost of equity in determining WACC, the typical organization uses the current book debt-to-equity ratio. The nominal cost of debt is based on the current interest rate on the company's outstanding debt, with the after-tax cost of debt being calculated using the company's effective tax rate.

The company uses the capital asset pricing model (CAPM) to calculate its cost of equity. To make that calculation, the company uses the current rate on the 10-year Treasury note as its risk-free rate. Regardless of where that rate is, the company does not impose any floor or cap on the risk-free rate. The company uses an adjusted beta as reported by Bloomberg using monthly returns over a five year period. The market risk premium to which this beta is applied is between five and six percent, and that premium is re-evaluated annually.

About the Survey

In October 2010, the Research Department of the Association for Financial Professionals (AFP) sent a 30-question survey to its corporate practitioner members and prospects (along with subscribers to gtnews) with senior-level job titles including CFO, Treasurer, VP of Finance and Assistant Treasurer. When the survey closed, AFP had received 309 responses. The modified response rate from AFP corporate practitioner members only (after adjusting for bad e-mail addresses, etc.) was approximately seven percent. Those responses to this survey are the basis of the report.

Financial professionals who responded to the survey on behalf of their organizations are representative of AFP's membership as a whole. The typical respondent works for an organization with annual revenues of $1.9 billion. The largest percentage of respondents is employed in manufacturing. The following tables provide a demographic summary of the survey respondents

Industry Classification
(Percentage Distribution)

Manufacturing	25%
Energy (including Utilities)	13
Retail (including Wholesale/Distribution)	10
Business Services/Consulting	8
Health Services	8
Software/Technology	8
Banking/Financial Services	6
Telecommunications/Media	5
Transportation	5
Construction	4
Insurance	3
Non-Profit (including Education)	2
Real Estate	2
Hospitality/Travel	1
Government	0

Annual Revenues
(Percentage Distribution)

Under $50 million	12%
$50-99.9 million	5
$100-249.9 million	6
$250-499.9 million	8
$500-999.9 million	12
$1-4.9 billion	29
$5-9.9 billion	14
$10-20 billion	10
Over $20 billion	4
Median	$1.9 billion

Organization's Ownership Type
(Percentage Distribution)

Privately held	57%
Publicly traded	43

AFP Research

AFP Research provides financial professionals with proprietary and timely research that drives business performance. The AFP Research team is led by Managing Director, Research, Kevin A. Roth, PhD, who is joined by four research analysts. AFP Research also draws on the knowledge of the Association's members and its subject matter experts in areas that include bank relationship management, risk management, payments, and financial accounting and reporting. Study reports on a variety of topics, including AFP's annual compensation survey, are available online at www.AFPonline.org/research.

About the Association for Financial Professionals

The Association for Financial Professionals (AFP) headquartered in Bethesda, Maryland, supports more than 16,000 individual members from a wide range of industries throughout all stages of their careers in various aspects of treasury and financial management. AFP is the preferred resource for financial professionals for continuing education, financial tools and publications, career development, certifications, research, representation to legislators and regulators, and the development of industry standards.

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