

C O R P O R A T E F I N A N C E

D E C E M B E R 2 0 0 8

# Why the crisis hasn't shaken the cost of capital

**The cost of capital hasn't increased so far in the downturn—and didn't in past recessions.**

Richard Dobbs, Bin Jiang, and Timothy M. Koller



The cost of capital for companies reflects the attitudes of investors toward risk—specifically, the reward they expect for taking risks. If they become more averse to risk, companies have difficulty raising capital and may need to cancel or defer some investments or to forgo some mergers and acquisitions. So it's understandable that the current financial crisis has many executives concerned about what the price of risk—the cost of capital—will mean for their strategic decisions in the near term.

Yet our analysis finds no evidence that the long-term price of risk has increased over its historical levels—even though short-term capital is difficult to obtain. Anyone with a longer-term view won't find this surprising. At the peak of the tech bubble of 2000, when the media were awash with suggestions that the cost of capital had permanently declined, a deeper analysis suggested that it was remarkably stable—and has been for the past 40 years.<sup>1</sup>

Obviously, for companies that are concerned about survival and having difficulty raising capital, its cost is clearly irrelevant. We realize some companies just don't have access to new capital, period. Yet for companies that have more of it than they need to survive—either from internally generated funds or the long-term-debt markets—assumptions about its cost can make the difference between snapping up promising opportunities or being overtaken by competitors.

To understand changes in the weighted average cost of capital (WACC), we need to examine, in nominal terms, its component parts: the cost of equity and the cost of debt.

### **Cost of equity**

We infer changes in the cost of equity by examining changes in equity values and in expected future profits and cash flows. Neither of these can be measured straightforwardly.

The S&P 500's climax—1,500, in 2007—reflected extraordinarily high profits in the financial, petroleum, and mining sectors and above-trend profits in many others.<sup>2</sup> To normalize the level of equity prices, we compared the long-term relationship between GDP growth and corporate profits. We estimated that, in mid-2008, the long-term sustainable level of corporate earnings would suggest a price level for the S&P 500 of about 1,100 to 1,200.<sup>3</sup> At the time of writing, the index was fluctuating in the 900-to-950 range, a decline of 15 to 25 percent from this sustainable level.

We can also calibrate this decline with the decline in share prices of those companies that did not experience the same earnings bubble, such as consumer goods companies and retailers. We find that these companies, which have had more stable earnings, are a stronger benchmark for assessing the economy-wide cost of capital. Their share prices at the time of this writing were down by about 15 to 20 percent from peak levels. Admittedly, this calculation isn't exact, and prices change daily.

The second factor in assessing the cost of equity capital is the ongoing level of corporate profits, which typically falls in recessions as GDP trend growth declines. History suggests that a recession involving a 5 to 10 percent decline in the cumulative long-term GDP trend would permanently reduce the corporate-profits trend line also by 5 to 10 percent.

Now let's pull these variables together into a discounted-cash-flow model. A midpoint estimate of the share-price decline—20 percent—and a 7.5 percent decline in the profit trend line translate into a hike in the cost of equity capital of about half of a percentage point. That is within the usual allowances for measurement error and within the range of annual market fluctuations.

Note that this analysis does not make allowance for the expected sharper short-term drop in corporate profits or for the market's tendency to overreact to recessions. Taking all these factors into account, we think there has been no significant change in the long-term cost of equity capital.

EXHIBIT 1

**Minimal impact**



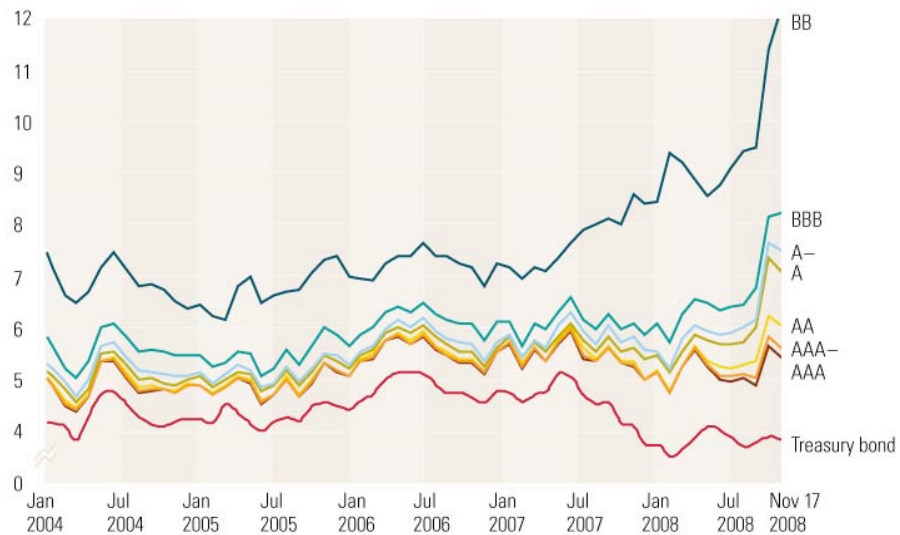
But this is based on our assumptions: Exhibit 1 allows you to construct your own estimate of the change in the cost of equity capital. For it to increase by a full percentage point, share prices would have to decline by 25 percent from their normal levels while profits remained relatively stable. Mathematically, a bigger drop in profits, which some expect, would mean an even smaller increase in the cost of capital.

Some might object that very few public offerings of equity have been floated recently. Our answer is that prices of liquid shares on stock exchanges are the best indicator of what investors will pay for shares. Others might counter that the economy faces extraordinarily high uncertainty right now. That is true, but uncertainty affects industries differently and therefore ought to be built into cash flow projections rather than the cost of equity. A single uncertainty risk premium should not apply to the entire economy.

#### EXHIBIT 2

##### A growing spread

10-year constant maturity bond yields for nonfinancial companies, %



Source: Bloomberg

##### Cost of long-term debt

The cost of debt is the second component of the cost of capital. It's easy to assume the cost of debt has increased, considering the increase in absolute rates on corporate bonds and the spread between Treasury and corporate bonds in recent months (Exhibit 2). As a benchmark, the yield to maturity on

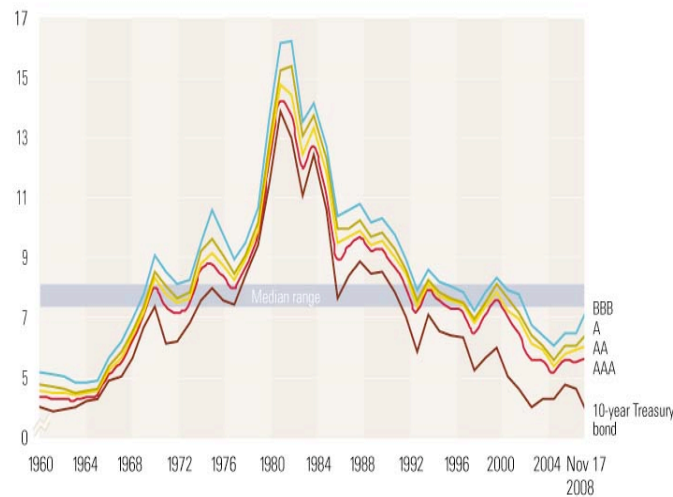
A-rated bonds rose a little more than one percentage point, to about 7 percent, from September to November 2008.

When you take a longer-term perspective, though, 7 percent isn't unusually high. Only during 6 of the past 20 years has the cost of debt for A-rated companies been lower than that (Exhibit 3).

EXHIBIT 3

**Cheaper debt?**

Moody's average annual bond index yields for nonfinancial companies, %



Source: Moody's; Bloomberg

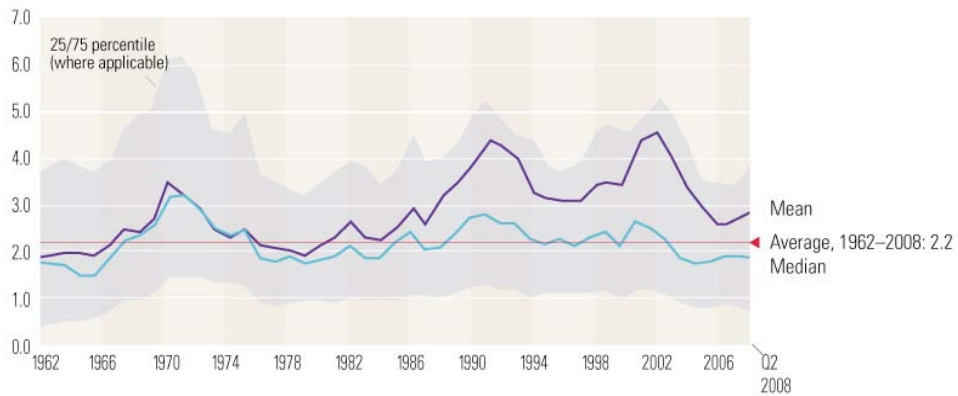
In all likelihood, the spread is increasing as a result of high demand for Treasury bonds—a demand that depresses their yields—not because investment-grade corporate bonds are becoming more risky. The rates and spreads of the past several years were probably unsustainably low and current levels are simply a reversion to normality.

The impact of the increasing cost of debt on a company's WACC is mitigated by the tax deductibility of debt and by the conservatism of the capital structures of most investment-grade companies, which means that the cost of debt is a smaller proportion of the WACC. Indeed, nonfinancial S&P 500 companies have less debt today than they have had for most of the past 40 years (Exhibit 4).

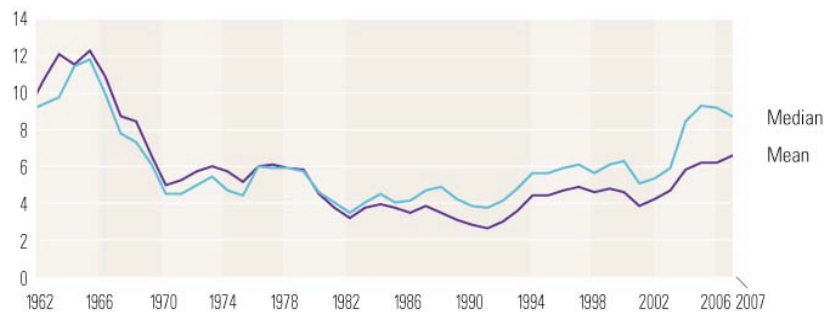
EXHIBIT 4

**From a point of strength**

Ratio of debt to EBITA<sup>1</sup> for nonfinancial S&P 500 companies



Interest coverage ratio for nonfinancial S&P 500 companies




<sup>1</sup>Earnings before interest, taxes, and amortization.

**Implications**

In sum, despite the decline in equity values and the increasing spreads on corporate debt, there is no evidence of a substantial increase in the cost of long-term capital. Of course, we cannot be certain that its cost will not increase over the next several years as the recession develops.

One unknown that demands caution is the outlook for inflation or deflation. The analysis above is on a nominal basis. For real cost of capital not to change, we need to assume that long-term inflation remains stable, at 2 to 3 percent. Some analysts are concerned about deflation, at least in the short term; others about inflation as governments around the world flood their economies with money. Deflation or high levels of inflation for an extended period could change

investors' appetite for risk and the real cost of capital, along with other economic relationships.

Nonetheless, as with all valuations, the uncertainty of cash flows has a much bigger effect on value than changes in the cost of capital. That uncertainty has increased significantly. It is particularly unclear what a normal level of growth and returns on capital will be in the future. The credit bubble has distorted both during the past few years. 

#### About the Authors

**Richard Dobbs** is a director in McKinsey's Seoul office and **Bin Jiang** is a consultant in the New York office, where **Tim Koller** is a principal.

#### Notes

<sup>1</sup> See Marc H. Goedhart, Timothy M. Koller, and Zane D. Williams, "The real cost of equity," mckinseyquarterly.com, October 2002.

<sup>2</sup> See Marc H. Goedhart, Bin Jiang, and Timothy M. Koller, "Market fundamentals: 2000 versus 2007," mckinseyquarterly.com, September 2007.

<sup>3</sup> See Richard Dobbs, Bin Jiang, and Timothy M. Koller, "Preparing for a slump in earnings," mckinseyquarterly.com, March 2008.

#### **Related Articles on mckinseyquarterly.com**

"The real cost of equity"

"Investing when interest rates are low"

Copyright © 2008 McKinsey & Company. All rights reserved.