

Corporate Discount Rates

Based on BFI Working Paper No. 2023-81, “[Corporate Discount Rates](#),” by Niels Joachim Gormsen and Kilian Huber, University of Chicago

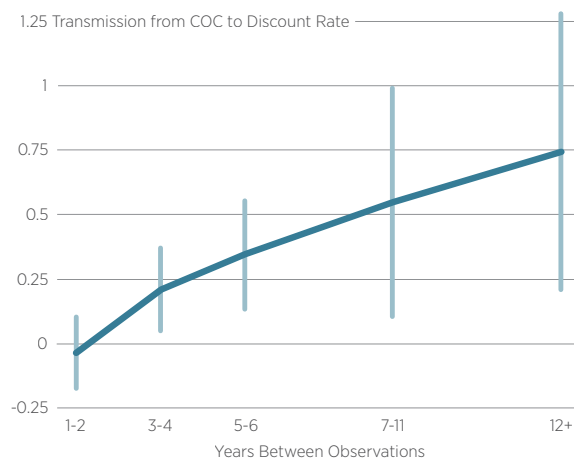
Changes in perceived cost of capital have minimal impact on discount rates in the short- and medium-term; rather, only over the long term (more than 10 years) do discount rates align with the perceived cost of capital.

Do asset prices and interest rates significantly influence investment? They *should*, according to economic theory. Since the early 2000s, asset prices have risen sharply and interest rates have fallen, indicating that financial investors are now willing to provide capital at lower returns, thus reducing firms’ cost of capital. The standard economic view is that such reductions in the cost of capital should lead to increased investment by firms, as they should pursue projects with returns higher than their cost of capital, adjusting their **discount rates** (or hurdle rates) accordingly. This implies that firm investments should have surged as discount rates fell, driven by lower capital costs.

However, it is possible that firms do not necessarily align their discount rates with changes in the financial cost of capital. To do so, firms would need to estimate their perceived cost of capital and adjust their required return on capital accordingly, which—it turns out—does not happen consistently. Likewise, fluctuations in financial costs might have only a limited impact on firm investment, at least over certain periods of time. Why is this so?

To address this question, the authors examine the relationship between corporate discount rates, investment, and the cost of capital by constructing a new firm-level database consisting

Figure 1 • The Transmission from the Cost of Capital to Discount Rates Over Time

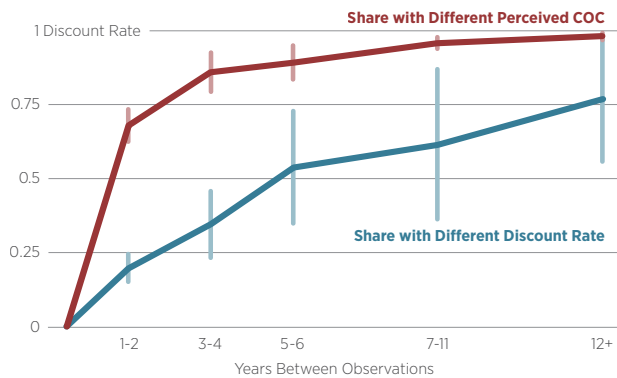


Note: This figure plots the transmission coefficients from the cost of capital to discount rates for different time horizons. The figure shows that the transmission coefficients differ over time. The coefficient for 1-2 years implies that a 1 percentage point annual increase in the cost of capital over a period of at most 2 years is, on average, not associated with a significant change in the discount rate over the same period. Over a 3-4-year period, the coefficient is around 0.2 percentage points and statistically different from 0, 1, and the 1-2-year coefficient. For periods exceeding 12 years, the association is around 0.7 percentage points and statistically different from 0 and the 1-2-year coefficient, but not from 1.

of firms’ discount rates and perceived cost of capital, matched to investment rates. These data were gathered from 74,000 paragraphs in corporate conference calls between 2002 and 2021, where managers discussed discount rates and perceived cost of capital. The authors’

Discount rate: A discount rate for firms is the minimum return a company wants to earn on an investment to make it worthwhile (also known as “hurdle rate”), considering the risk associated with the project and the time value of money. A related term is the weighted average cost of capital (WACC), which is the return expected by financial investors in return for providing capital to the firm. In standard economic models, the discount rate and the cost of capital are equal. In practice, they differ strongly, as this research has shown.

Figure 2 • The Share of Different Discount Rates and Perceived Costs of Capital



Note: The pattern in accompanying Figure 1 arises in part because discount rates change infrequently. In this figure, the authors again consider all within-firm changes in discount rates and regress an indicator for whether the discount rate differs between two observations onto indicators for the number of years between the observations. This figure reveals that less than 20 percent of discount rates observed within 2 years are different from the previous observation. Around one-third of discount rates differ after 3 to 4 years and around three-quarter differ after 12 or more years.

analysis covers approximately 2,500 large firms across 20 countries.

Using their novel database, the authors interrogate the traditional economic view that firms *immediately* integrate cost of capital shocks into their discount rates using newly constructed data. They find the following:

- While firms' perceived cost of capital reflects financial cost variations, significant deviations and heterogeneity exist. Firms often report discount rates higher than their perceived cost of capital.
- In the short and medium term (up to 4 years), changes in perceived cost of capital have minimal impact on discount rates, which rarely change within these periods. This phenomenon results in "discount rate wedges," or the difference between discount rates and the perceived cost of capital, that vary over time

and are negatively related to firm investment.

- Only over the long term (more than 10 years) do discount rates align with the perceived cost of capital, challenging the idea that cost-of-capital shocks directly affect investment.
- Discount rate wedges have increased by approximately 2.5 percentage points between 2002 and 2021, especially after 2010, when perceived costs fell but discount rates did not follow suit.
- These persistent wedges impact investment. For example, a 1 percentage point increase in the wedge correlates with a 0.9 percentage point decrease in investment rates over the following year.
- Firms with higher discount rates also report higher realized returns, supporting the idea that discount rates reflect required returns and influence investment behavior.

Bottom line: The existence of discount rate wedges indicates that changes in the cost of capital do not straightforwardly impact investment in the short and medium term, challenging traditional models of the investment-finance relationship. What, then, explains this behavior? The authors suggest that managers on conference calls may be ensuring prudence in their investment decisions by keeping discount rates stable, especially when the cost of capital is falling. The benefit of conservative financial behavior seems to outweigh the cost of investing less, at least in the eyes of managers. Further, the authors' data indicate that firms with high market power in 2002 were largely responsible for the secular increase in wedges, suggesting that weak competition makes it less costly for firms to introduce high discount rate wedges.

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