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Bridging the gap between interest rates and investments

Understanding the weak links between interest rates, cost of capital, hurdle rates and capital allocation

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1. Bridging the gap between interest rates and investments

The contrast between interest rates and corporate hurdle rates is staggering:
- Current yield on the World Government Bond Index: **1.2%**
- Median reported hurdle rate of S&P 100 companies: **18%**

Over the past five years, S&P 500 firms have allocated $8.5 trillion of capital: 44% ($3.7 trillion) to capex and R&D, 20% ($1.7 trillion) to cash M&A, 21% ($1.8 trillion) to buybacks and 15% ($1.3 trillion) to dividends. More capital has traditionally been allocated to capex than has been returned to shareholders. Today, however, the balance between capex and shareholder distributions is roughly even.[1] **Several commentators have suggested that this rise in shareholder distributions at the expense of corporate investments has been detrimental to economic growth.**[2]

This shift toward more distributions and less investment is both surprising and frustrating for policy makers, especially in the light of years of Fed-induced record-low cost of debt. Year after year, U.S. and European firms have been raising financing at staggeringly low rates. Why then do they not invest more? Firms set hurdle rates based on their risk-adjusted cost of capital. Projects that generate returns higher than the hurdle rate should, in principle, be pursued. Ultimately then, excess capital is returned to shareholders in the form of dividends and buybacks. **With lower interest rates, policy makers rightfully expected lower costs of capital, lower hurdle rates and greater investment.** The link between the record-low cost of debt financing and corporate investment has, however, been weaker than expected for the following reasons:

(a) **Low cost of debt ≠ low cost of capital:** While the cost of debt dropped to record lows in the post-crisis period, the cost of equity has remained relatively stable. As most large U.S. firms are primarily capitalized with equity, their weighted average cost of capital has not dropped commensurately with interest rates. In addition, with the recent equity market run-up, market leverage (i.e., debt relative to market capitalization) has declined

(b) **Low cost of capital ≠ low hurdle rates:** Most firms maintain hurdle rates that are materially higher than their estimated cost of capital. Even firms that rely significantly on debt financing, and hence, benefit from a reduced cost of capital in today's environment, have been reluctant to lower their hurdle rates. This is due to a belief that interest rates are artificially low and likely to soon rebound

EXECUTIVE TAKEAWAY

Interest rates have been at record lows for years now. The weak link between low interest rates and firms' hurdle rates can perhaps explain, in part, why capex and M&A have not responded as vigorously as expected to the low-rate environment. Nevertheless, our analysis suggests that many firms use hurdle rates that are much higher than their cost of capital would be even if Treasury yields were to return to their historical averages. Firms have significant room to lower their hurdle rates and may create value by doing so.

[1] For further details, please see our March 2014 report "2014 Distribution Policy: Challenging conventional wisdom about dividends and buybacks" located at: http://www.jpmorgan.com/directdoc/JPMorgan_CorporateFinanceAdvisory_2014DistributionPolicy.pdf

[2] For instance, BlackRock Chairman and Chief Executive Officer Laurence Fink has stated, "Too many companies have cut capital expenditure and even increased debt to boost dividends and increase share buybacks. We certainly believe that returning cash to shareholders should be part of a balanced capital strategy; however, when done for the wrong reasons and at the expense of capital investment, it can jeopardize a company's ability to generate sustainable long-term returns." [Mr. Fink's letter to S&P 500 Chief Executive Officers in March 2014]

2. Rates, cost of capital, hurdle rates and project returns

The typical investment decision-making process consists of three return components: the project's Internal Rate of Return (IRR) or Return on Invested Capital (ROIC), the risk-adjusted cost of capital and the risk-adjusted hurdle rate (Figure 1).

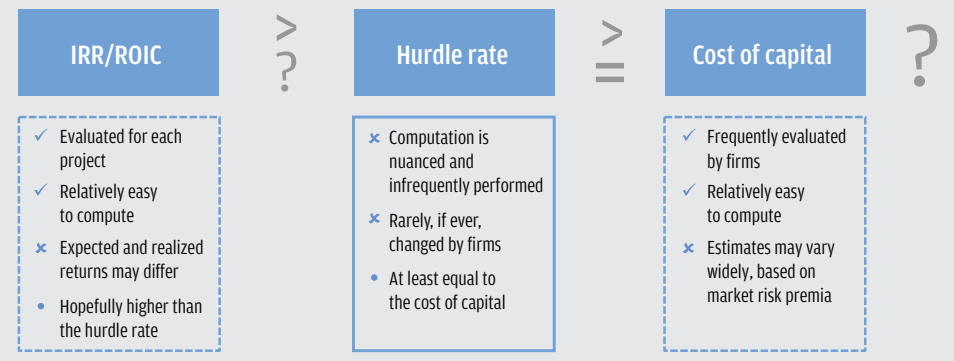
(a) **The expected returns** of potential projects are widely acknowledged to vary with economic cycles. In some industries or for some projects, realized returns tend to be close to expected returns. In sectors that are innovation or commodity driven, for example, realized returns may vary materially from expected returns

(b) **The cost of capital** is the weighted average of the cost of equity and the after-tax cost of debt. As a result, it depends on market dynamics. Most firms regularly re-estimate their cost of capital

(c) Firms typically **use a risk-adjusted hurdle rate, not the project's cost of capital, to make capital allocation decisions.** The hurdle rate is the rate that decision makers feel a project's return should be expected to surpass to be approved

Figure 1

Investment decision-making process



Source: J.P. Morgan

While most practitioners agree that the hurdle rate should be greater than or equal to the cost of capital, there is little agreement as to the size, if any, of the delta between the two. Many firms tend to rarely, if ever, think about revising hurdle rates. Data discussed later suggest that firms may be employing hurdle rates that are significantly, and perhaps unjustifiably, in excess of their current and long-term cost of capital.

EXECUTIVE TAKEAWAY

Hurdle rates are critical to the corporate capital allocation process. Most corporations, however, pay very limited attention to hurdle rates despite dedicating significant resources to project returns and cost of capital. Even with today's unique market conditions, many firms are still using hurdle rates set years ago. Is this practice driving the weak link between interest rates and corporate investment?

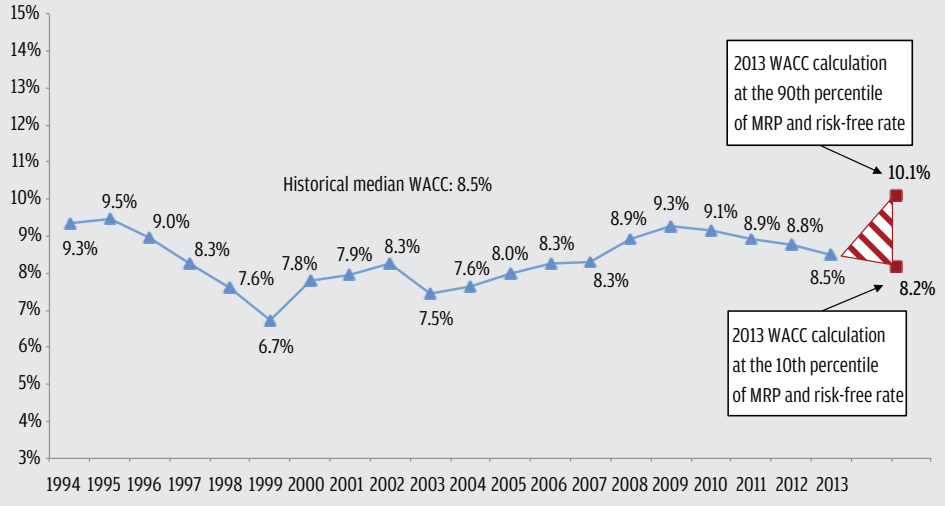
3. Recent cost of capital variations through the cycle have been small, but hurdle rates remain high

We estimate that the current median weighted average cost of capital (WACC) for S&P 500 firms is about 8.5%, not far from the historical median of 8.3% (Figure 2). Despite today's record-low borrowing costs, firms have not witnessed a material decline in their overall cost of capital. Low borrowing rates have been offset by a relatively flat cost of equity and decreased market-based leverage. The cost of equity has remained quite flat because a persistently high market risk premium has continued to offset lower Treasury ("risk-free") rates. The market leverage has declined as equity values have rebounded from their 2008-2009 lows. Interestingly, **this dynamic suggests that firms may not face a material rise in the cost of capital when rates resume their expected upward trajectory.**

To evaluate this idea, we simulated the future market risk premium and risk-free rate based on their historical joint probability distributions. We computed the 2013 WACC bookends based on the 10th and 90th percentiles of our simulated WACCs. The 90th percentile was 10.1%, suggesting that there is only a 10% probability that the S&P 500 WACC will be higher than 10.1%.

Figure 2

Historical S&P 500 cost of capital (WACC) analysis

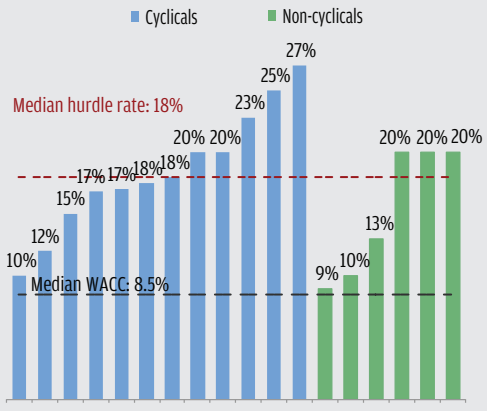


Source: J.P. Morgan, FactSet, Bloomberg
Note: S&P 500 cost of capital calculated as the median of non-finance firms that have been trading for at least five years; based on five-year historical betas calculated versus the S&P 500; risk-free rate based on yearly average; J.P. Morgan estimate of U.S. equity risk premium based on dividend discount model; credit spreads are estimated using the Bloomberg FMCI; low and high range WACC determined as the 10th and 90th of WACCs obtained from joint simulations of the market risk premium and risk-free rate based on their joint distribution over the last 20 years

Many large firms rely on hurdle rates that are significantly higher than their cost of capital. The median hurdle rate for a sample of S&P 500 firms reporting their target hurdle rates was 18% (Figure 3). This target hurdle rate is significantly higher than both the current median S&P 500 WACC of 8.5%, as well as the simulated upper bound of 10.1%. Only two of these 18 firms reported a hurdle rate close to its specific cost of capital. The median difference between the reported hurdle rate and our WACC estimate for this sample is approximately 10%. Some firms may view the high hurdle rates as a sign of caution. As we describe in the next section, we believe that an unreasonably high bar may actually be counterproductive to value creation, and, in some cases, increase risk.

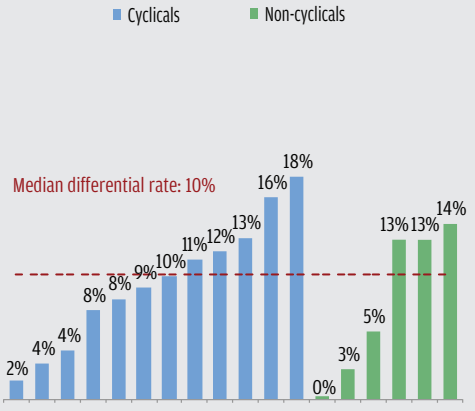
Figure 3

Sample reported hurdle rates within the S&P 500



Source: J.P. Morgan, company filings, investor presentations

Differentials between reported hurdle rates and costs of capital within the S&P 500



Source: J.P. Morgan, company filings, investor presentations

EXECUTIVE TAKEAWAY

A common refrain of firms looking to lower hurdle rates is that they may have to increase them in the near future once interest rates are back to historical levels. This argument seems fallacious since the cost of capital has been roughly flat through the recent cycle. Going forward, rising rates are likely to be accompanied by a decrease in the market risk premium, limiting the increase in firms' WACCs. This provides firms with space to lower their hurdle rates to levels sustainable through economic cycles.

4. The perils of high hurdle rates

Conventional wisdom asserts that a higher ROIC leads to greater value creation, but this principle does not always apply in practice. For instance, a firm may turn down a project with an IRR that is greater than its cost of capital, but less than its hurdle rate. Further, too high a hurdle rate can also lead to the pursuit of only higher risk projects and the gradual migration to a higher overall risk profile. Potential consequences for ROIC of too high a hurdle rate include:

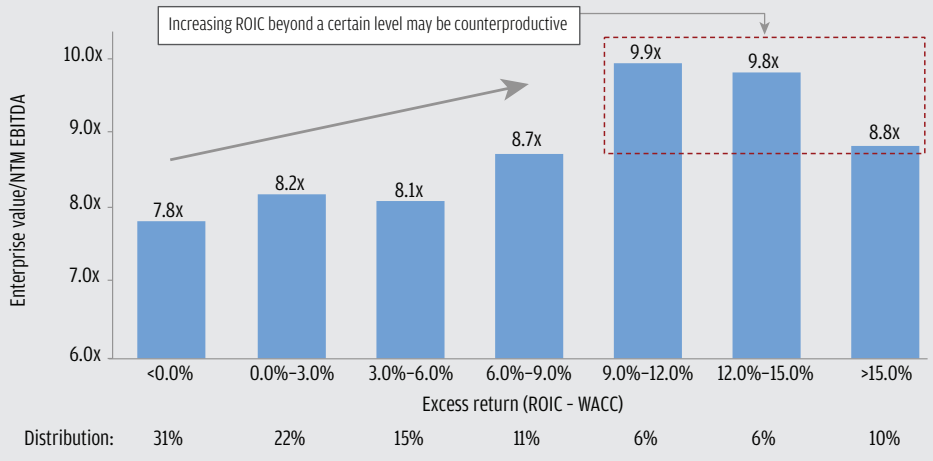
(a) A higher average ROIC, but value-creation potential may be lost. Over time the firm could lack growth and either become subscale relative to peers or subject to takeover risk

(b) A lower average ROIC if unused capital is not returned to shareholders and the firm has excess underutilized capital

Evidence suggests that equity market investors look beyond ROIC. In Figure 4, we show that valuation generally increases with excess return (defined as ROIC – WACC). Beyond a certain point, however, an increase in ROIC – WACC does not seem to lead to higher valuation multiples. If anything, **the highest ROICs seem to be associated with lower multiples.** Firms with the highest ROICs may not be able to find enough projects to generate the growth profile that leads to the highest multiples. These firms may therefore be able to boost valuation through lower hurdle rates. In contrast, about one-third of the firms do not generate ROICs that exceed their WACC. In our view, this contrasting trend is not coming from too low a hurdle rate; rather, it likely results from project returns that turn out to be lower than expected returns.

Figure 4

Valuation versus excess return for S&P 500 companies



Source: J.P. Morgan, FactSet, Bloomberg
Note: S&P 500 non-financial firms; average NTM EBITDA over 1/1/2013-12/31/2013; average enterprise value over 1/1/2013-12/31/2013; WACC and ROIC as of 2013 YE

EXECUTIVE TAKEAWAY

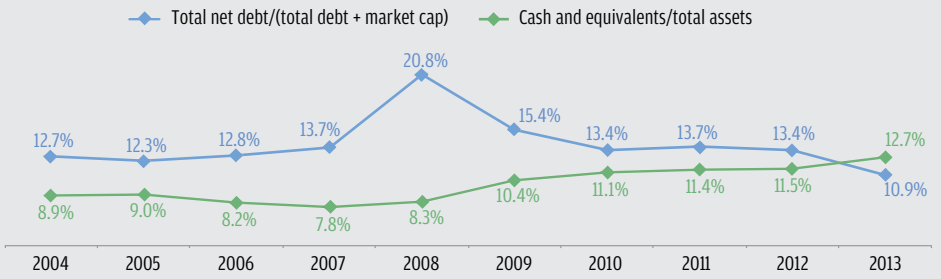
The notion that higher ROICs, achieved through higher hurdle rates, are uniformly beneficial is misplaced. In today's environment, excessively high hurdle rates can be counterproductive by leading to less growth and/or a riskier profile. Firms with the highest excess returns do not necessarily have the highest valuation multiples.

5. Capital constraints are not needed! Firms have financial flexibility for both investments and shareholder distributions

A common argument for high hurdle rates is that firms are capital constrained, i.e., that they lack capital to undertake all of their positive NPV projects. An artificially high hurdle rate therefore helps management select only the very best projects. While this may be a valid argument for some firms and in some situations, we do not believe that capital constraints are an issue for most midsize or larger firms today. Indeed, as a result of post-crisis conservatism, the low cost of debt and trapped cash, many **firms have ample financial flexibility for transformative transactions.** Figure 5 shows that cash levels are at record highs and net leverage at record lows for S&P 500 firms. In particular, the largest firms can undertake once-in-a-lifetime acquisitions and debt-financed distributions with minimal impact on their ratings.[3] Investors welcome both types of strategies in today's growth-starved equity markets.[4]

Figure 5

Historical S&P 500 leverage and liquidity



Source: J.P. Morgan, FactSet
Note: Data includes highly liquid, cash-like assets held on balance sheet; excludes financial and insurance companies; 2013 or latest available

EXECUTIVE TAKEAWAY

Record-low net leverage means that investments and shareholder distributions are not mutually exclusive for most companies today. Firms should consider both to unlock shareholder value. In today's low interest rate and growth-starved environment, both debt-financed shareholder distributions and acquisitions are being rewarded.

[3] For further reading on trends in corporate credit ratings, please see our December 2013 report "The great migration: Evolving market conditions transform the credit rating landscape" found at: http://www.jpmorgan.com/directdoc/JPMorgan_CorporateFinanceAdvisory_GreatMigration.pdf

[4] For further reading on positive market reactions to shareholder distributions and acquisitions, please see our March 2014 report "2014 Distribution Policy: Challenging conventional wisdom about dividends and buybacks" found at: http://www.jpmorgan.com/directdoc/JPMorgan_CorporateFinanceAdvisory_2014DistributionPolicy.pdf and May 2014 report "2014 M&A Horoscope: The stars are aligned to bridge the $2 trillion M&A deficit" located at: http://www.jpmorgan.com/directdoc/JPMorgan_CorporateFinanceAdvisory_2014MAHoroscope.pdf

6. A framework for hurdle rates

Too high a hurdle rate might prevent a firm from undertaking value-creating investments. This approach may lead to lower growth, lower multiples, higher risk and, more importantly, foregone value-creation potential. **It is critical for firms to optimize their hurdle rates given the abundant availability of capital and equity investors' support for corporate proactivity.** We outline a three-step framework for firms to develop and fine-tune their hurdle rates:

(a) **Securing correct hurdle rate building blocks:** Hurdle rates are often determined as the risk-adjusted cost of capital plus a risk premium or buffer. It is paramount to understand what the buffer captures and verify that the **hurdle rate buffer** is neither excessive nor misguided. This buffer should capture the following:

i. The fact that new projects are riskier than the firm's assets in place today

ii. The need to generate some return over the cost of capital to create value

iii. The desire to compensate for "cash flow projection inflation"; that is, the fact that cash flow forecasts are often too high

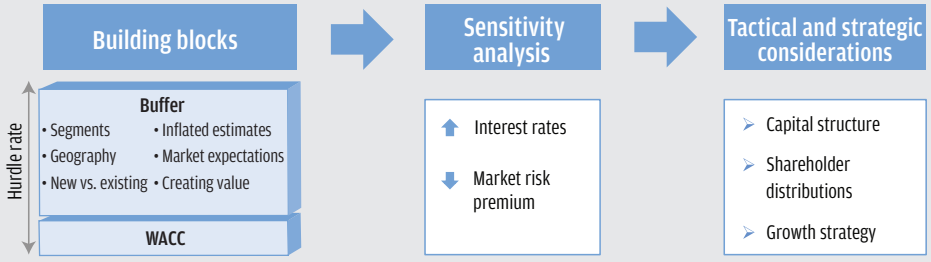
The foregoing objectives should also ensure that a project's ROIC does not drop below a specific level assessed to be critical to the market

(b) **Sensitizing the hurdle rate:** A through-cycle approach can help firms refine hurdle rates. As indicated in Figure 2, the cost of capital of a typical firm will likely not rise significantly even if markets revert to historical interest rate conditions. As discussed, this is true because an increase in interest rates will likely be offset by a decrease in the market risk premium in the absence of an increase in the firm's market risk (beta). This calculus should provide room for firms to lower their hurdle rates and still be above their cost of capital in a "normalized" environment

(c) **Understanding firmwide tactical and strategic implications arising from hurdle rates:** Given their centrality in long-term planning, hurdle rates influence corporate strategy. For example, a lower hurdle rate may allow firms to adopt a broader range of investments. Lowering the hurdle rate, however, will also require a firm to revisit a host of objectives, including its current and forecasted capital structure, preferred modes of growth, shareholder distribution policies and risk management

Figure 6

Hurdle rate framework



Source: J.P. Morgan

EXECUTIVE TAKEAWAY

We provide a framework for a through-cycle approach to hurdle rates. This framework should guide firms that would like to re-assess their hurdle rates in this low-rate environment.

Notes

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