

Capital Structure in 30 Minutes

A Guide for Directors and Shareholders

by Travis W. Harms, CFA, CPA/ABV



Executive Summary

Capital structure decisions have long-term consequences for shareholders. Directors evaluate capital structure with an eye toward identifying the financing mix that minimizes the weighted average cost of capital. This decision is complicated by the iterative nature of capital costs: the financing mix influences the cost of the different financing sources. While the nominal cost of debt is always less than the nominal cost of equity, the relevant consideration for directors is the marginal cost of debt and equity, which measures the impact of a given financing decision on the overall cost of capital. The purpose of this whitepaper is to equip directors and shareholders to contribute to capital structure decisions that promote the financial health and sustainability of the company.

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In our previous whitepaper, we identified the three principal corporate finance questions facing boards of directors:

1. **Capital Structure:** What is the appropriate mix of debt and equity financing for the Company?
2. **Capital Budgeting:** What is the appropriate mix of capital projects for the Company to invest in?
3. **Distribution Policy:** What is the appropriate mix of current income and capital appreciation for the Company's shareholders?

This installment in our series will focus on the capital structure question.

The Objective of Capital Structure Decisions

The Company's portfolio of capital projects must be financed with a combination of debt and equity. In making capital structure decisions, the board's objective is to minimize the company's overall cost of capital. The cost of capital is the discount rate used to determine the present value of the expected enterprise cash flows. Since discount rates and present values are inversely related, achieving a lower cost of capital is accretive to value.

The different risk attributes of debt and equity capital lead to different costs. Viewed from the perspective of the corporation, the "cost" of a particular form of capital is equal to the total return expected by the providers of that capital.

- For debt, the required return of the lender is manifest in the interest rate, which is equal to the (pre-tax) cost of debt for the company. Since payment of interest is a deductible expense, the government subsidizes interest payments for profitable taxpayers. As a result, the relevant measure for capital structure analysis is the after-tax cost of debt.

Exhibit 1

A company's portfolio of projects is financed with a mix of debt and equity



- The cost of equity eludes direct observation. The required return for equity investors is the sum of the current distribution yield and expected capital appreciation.
 - » Since return follows risk, the required equity return is commonly estimated with reference to historical realized returns on assets of comparable risk.
 - » Doing so requires identifying assets with comparable risk and estimating how prospective market returns will be related to historical market returns. Despite shortcomings, analysts often use beta to adjust overall market returns for risk.
 - » Analysts often use historical stock market returns as a direct proxy for future returns. Some academic observers have begun to question the validity of using past returns to estimate future returns; in response, analysts are beginning to develop alternative techniques to estimate future market returns.
 - » For privately-held companies, an additional return component is often necessary to compensate investors for the inability to diversify such investments readily.

Regardless of the selected technique, estimating the cost of equity requires judgment.

Exhibit 2 on the next page illustrates the iterative nature of capital costs. For any given mix of capital, the cost of (riskier) equity always exceeds the cost of debt. However, the costs of debt and equity are sensitive to the relative proportions of debt and equity used in the capital structure; adding debt to the capital structure increases the cost of both debt and equity.

Because the costs of both sources of capital increase with increasing leverage, the benefit of adding additional lower cost debt to the capital structure is eventually overwhelmed by the increasing cost of both forms of financing. As a result, the optimal capital structure is that which minimizes the overall cost of capital. Since estimates of the cost of capital are inherently imprecise, the optimal capital structure for a company is likely a range rather than a single point, as depicted in Exhibit 3 on the following page.

Exhibit 2

The costs of debt and equity capital are positively related to the amount of leverage in the capital structure

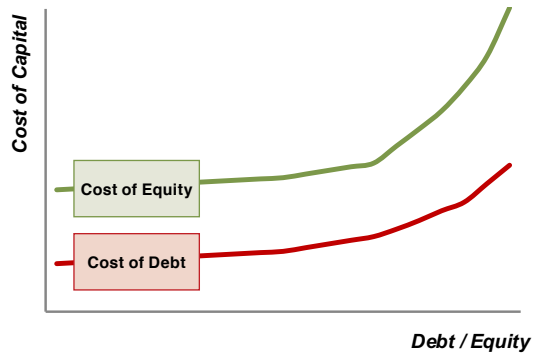
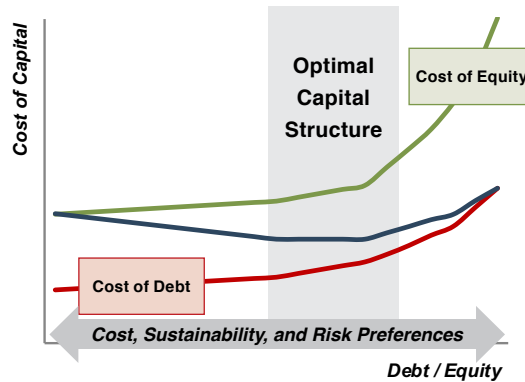


Exhibit 3

The optimal capital structure for a company is best thought of as a range



The more dramatic increases in the cost of capital components at the far right side of the Exhibit 3 reflect what are commonly referred to as the “costs of financial distress.” Beyond the direct impact of increased borrowing costs, these costs include the operational burden of a heavy debt load, including the loss of flexibility that comes with financial covenants and the increased difficulty highly-levered companies have securing trade credit.

There is no formula for identifying the optimal capital structure, and changes to a company’s capital structure are generally incremental rather than wholesale. Managing capital structure is an ongoing process, not a one-time decision. In the remainder of this whitepaper, we will review some of the more specific questions boards will need to deliberate on over time.

What Is the Company’s Current Capital Structure?

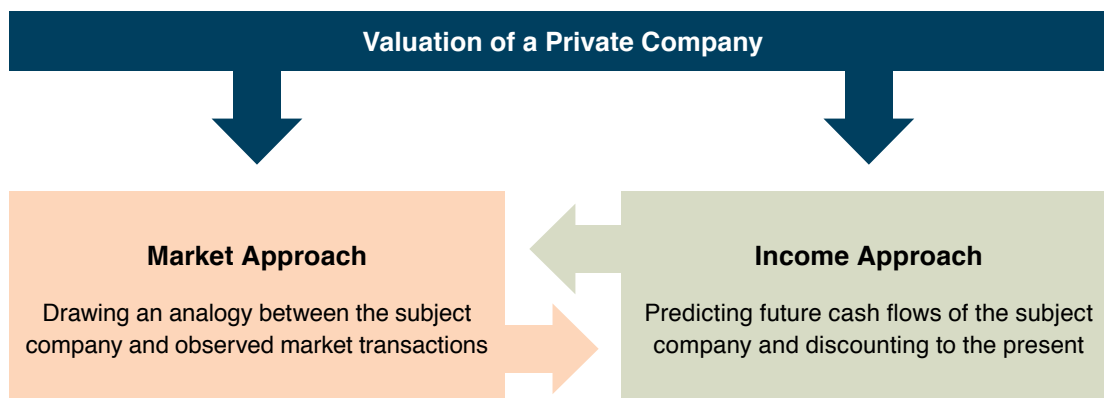
All companies have a capital structure, even if the board has never directly considered what it might be. Capital structure is simply the relative proportion of debt and equity financing used by the company. The amount of debt and equity financing is measured on the basis of market value, not historical cost. For debt, the outstanding balance is generally a sufficient proxy for market value; however, the difference between the book value and market value of equity can be substantial. Therefore, identifying the company’s current capital structure requires thinking about value.

For operating businesses, there are two broad approaches to estimating value. A third approach (the cost, or asset-based, approach) is most applicable to asset-holding entities.

Market Approach

Under the market approach, the goal is to draw an analogy between the subject business and other businesses for which value can be observed. At the broadest level, a rule of thumb, such as “Small private companies are worth between 4x and 5x EBITDA” is an application of the market approach; however, the analogy between the subject company and the generalized market observation is so weak that the resulting

Exhibit 4



conclusion does not constitute meaningful information. In order to develop a more apt analogy, the scope must be narrowed to companies (1) possessing a measure of comparability to the subject, and (2) for which a reasonably contemporaneous transaction can be observed. Unfortunately, the quantity of such transactions is often limited, and the quality of information regarding such companies is often dubious. A rigorous application of the market approach, while intuitively appealing, is often not feasible for smaller private businesses.

For larger private companies, analogizing to public companies may be warranted. In such cases, contemporaneous, high quality financial and market data from which to draw valuation conclusions is widely available.

When evaluating an indication of value under the market approach, board members should understand the source of the multiple (transactions, public companies, rules of thumb) and the basis for any adjustment to the multiple. In other words, does the selected multiple appropriately reflect the risk and growth characteristics of the subject company relative to the benchmark?

Income Approach

The fundamental task under the income approach is prediction. Investors are ultimately concerned with future cash flows, whether interim distributions or proceeds from disposition. Predicting the magnitude and timing of future cash flows is the first step in the income approach. While forecast models can be quite intricate, board members should focus on three primary elements:

- 1. Revenue Growth.** How does the projected growth rate compare to historical performance, industry expectations, and commitment to reinvestment?
- 2. Profitability.** How do projected profit margins compare to historical performance and peers? Do the competitive dynamics of the industry lend themselves to expanding margins, or is it more appropriate to anticipate margin compression?
- 3. Sustainability.** What portion of projected profits will be reinvested in the business to support the level of forecast revenue growth? Earnings can be either distributed to provide immediate

returns, or reinvested to fuel growth, but a given dollar of earnings cannot do both. A forecast that does not provide adequate reinvestment of earnings into capital expenditures and working capital is not sustainable.

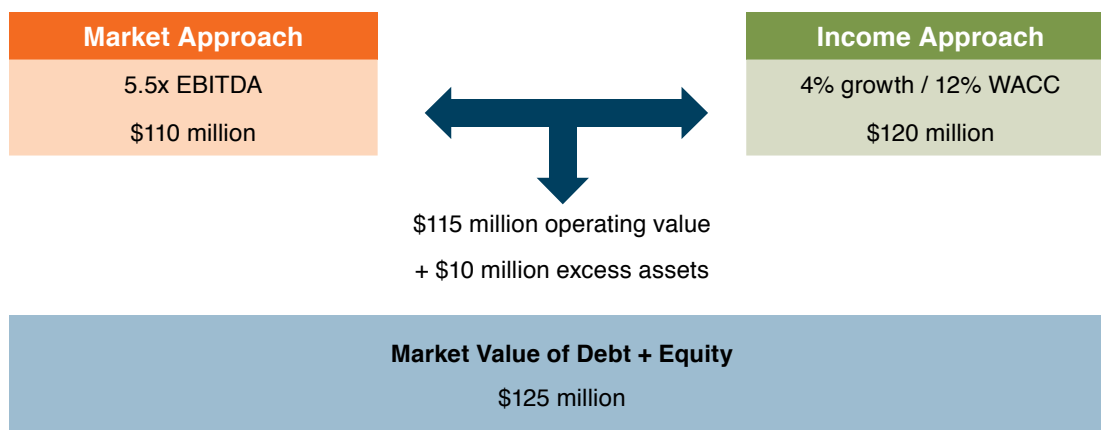
The forecasted cash flows are then reduced to present value using the weighted average cost of capital (WACC) as the discount rate. From one perspective, there is an unavoidable circularity at work here: the WACC is measured with reference to the capital structure, which is measured with reference to the value of the enterprise, which is measured using the WACC. From a more pragmatic perspective, this “circularity” merely reflects the necessary coherence of the various elements of a well-formed valuation.

Reconciliation of Value

Valuations are built upon analogy (the market approach) and prediction (the income approach). Fitting raw material for an apt analogy may be scarce; accurate predictions are, too. Nonetheless, the two approaches should be reconcilable. Market multiples are ultimately distilled expressions of cash flow analysis, and the discounted cash flow analysis is dependent upon returns derived from market transactions. Rather than inducing despair, differences in indicated value should prompt reconsideration of the fittingness of selected market multiples and the reasonableness of projected cash flows.

Exhibit 5

The market and income approaches are used to value operating businesses



A regular, disciplined valuation process is important for the board, and has benefits beyond simply enabling capital structure measurement, prompting discussions about opportunities to build value and factors that threaten to erode value.

Calculating the WACC

Exhibit 5 illustrates the measurement of a company’s current capital structure and weighted average cost of capital.

Exhibit 6

The Weighted Average Cost of Capital is measured with reference to the market value of debt and equity

Market Value of Debt + Equity	
\$125 million	
Interest-Bearing Debt	Shareholders' Equity
\$40 million	\$85 million
32% of total	68% of total
4.0% after-tax cost	15% after-tax cost

Weighted Average Cost of Capital = 11.5%

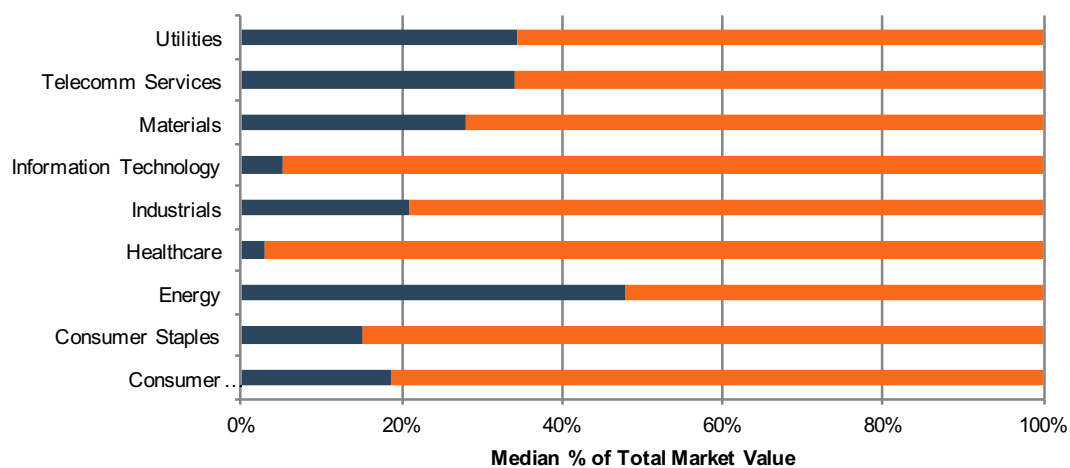
How Does the Company's Capital Structure Compare to Peers?

Like many other business metrics, analyzing capital structure in isolation provides limited insights. It is more instructive to compare the company's capital structure to that of industry peers. Because capital structure decisions are often related to sensitivity to economic cycles, asset intensity, and similar factors, the capital structures of firms in a given industry often coalesce within a fairly narrow range.

Exhibit 7 summarizes market-weighted capital structure data for non-financial companies in the Russell 2000 index as of August 2016.

Exhibit 7

Excluding financials, the median capital structure among the Russell 2000 companies is 14% debt / 86% equity; however, structure varies by industry



Source: Capital IQ, Mercer Capital analysis

■ % Debt ■ % Equity

The data reveals significant financing differences among firms in different industries.

- Reliance on debt is highest among firms in the energy, utilities, and telecommunication services industries. These are the most capital intensive sectors of the economy, with median annual capital expenditures around 25% of revenue, compared to medians of less than 5% for the other sectors.
- The two industries with the least amount of debt in their capital structures are information technology and healthcare. These sectors are the fastest-growing, with median annualized revenue growth over the past three years of approximately 10% and 15%, respectively. In contrast, the industries with greater reliance on debt are more mature, with median annualized growth rates between 2.5% and 5.0%.
- Size is a significant factor in the observed capital structures. Within each industry, the larger firms use more debt financing than the smaller firms. Sorted by size, debt ratios for the firms in the top half of each industry exceeded those for the firms in the bottom half by approximately 12%. For example, within the consumer discretionary group, the median debt proportion for the larger firms was 25%, while that for the smaller firms was 13%.

Within peer groups, the impact of leverage on the cost of debt can be discerned. Exhibit 7 summarizes the median effective interest rate for companies in the Industrials sector, divided into cohorts based on leverage. When evaluating capital structures, lenders often measure capital structure as the ratio of total debt to EBITDA. This measure has the merit of taking equity valuation out of the equation. As shown on Exhibit 8, median effective interest rates range from 3.6% for the cohort with the least leverage to 5.2% for the cohort with the most leverage.

Exhibit 8

The cost of debt is positively related to the amount of leverage



The data in Exhibit 7 illustrates the iterative nature of capital structure decisions. Changing the relative proportion of capital structure components influences the cost of those components. Higher leverage ratios increase the cost of both debt and equity.

What Is the Company’s Target Capital Structure?

Once the board has measured the company’s existing capital structure and compared it to that of a peer group, the next task is to identify the company’s target capital structure. When identifying the target capital structure, directors should carefully evaluate the factors that influence the proportion of debt in the capital structure: capital intensity, stage of life cycle, size, and operating risk. The industry or peer group median is not necessarily the right structure for every company in the industry.

In addition to the factors described in Exhibit 9, private company boards should consider the risk preferences and tolerances of the company’s shareholders. After all, the board’s fiduciary duty is not to a group of generic shareholders, but to the specific shareholders of the company. In our experience, private companies are sometimes more reluctant to borrow money than a peer comparison or assessment of the factors noted above would suggest. This tendency can often be traced to the risk tolerance of the company’s shareholders. The desire for less debt may be an economically rational strategy for hedging the risk associated with the illiquidity of private company shares. Or, it may reflect personality traits or past business experiences. In any event, it is important for directors to understand those preferences, identify their source, and determine whether they are appropriate guides for capital structure decisions, or if efforts should be undertaken to educate shareholders and begin a dialogue regarding the prudent use of debt in the company’s capital structure.

As depicted in Exhibit 3, the objective of capital structure analysis is to identify the range of structures over which the company’s weighted average cost of capital is minimized. Whether the current capital structure approximates or differs from the target structure, the board’s next task will be evaluating the company’s prospective sources and uses of funds, and assessing how future marginal financing decisions will keep the company within – or move the company toward – the target capital structure.

Exhibit 9

Qualitative considerations influencing the target capital structure

Factor	Considerations
Capital Intensity	To what extent is the value of the enterprise attributable to assets that have value outside the operations of the business? Or, is value primarily attributable to company-specific intangible assets that are difficult to use as collateral?
Life Cycle	Has the company reached a point of maturity at which cash flows are predictable and sufficient for debt service? Or, is the company in a rapid growth phase in which reinvestment needs are high?
Size	Does the company have sufficient scale to borrow funds at attractive rates and on desirable terms? Or, is the company too small to generate competition among multiple lenders?
Operating Risk	Is the company’s operating expense base primarily variable, such that operating margins can be preserved during a period of soft revenues? Or, are the company’s operating expenses primarily fixed, leading to more dramatic swings in period-to-period earnings?

What Is the Availability and Cost of Marginal Sources of Capital?

Capital structure changes often occur over time rather than through a single transaction. Capital structure management is much more akin to steering an oil tanker than a Sea-Doo. Changes require considerable advance planning and are often incremental rather than abrupt.

The Marginal Cost of Capital

In contrast to the weighted average cost of capital, which measures the blended cost of the company's existing capital sources, the marginal cost of capital is the cost to the company of the next increment of capital financing from a particular source. The marginal cost of capital is not simply the nominal cost of debt or equity capital, but rather is a measure of the impact of the marginal financing decision on the overall cost of capital. In light of the iterative relationship between the cost of debt and equity capital and financial leverage, assessing the marginal cost of capital involves evaluating how the change to the capital structure implied by a given financing decision will influence the cost of the company's debt and equity capital. Otherwise, additional leverage would always seem to be optimal since, for a given financing mix, debt is always less expensive than equity.

These concepts are not immediately intuitive, so Exhibit 10 presents an illustrative example.

Exhibit 10

Evaluating the marginal cost of capital

Existing Capital Structure					
	Weights	Cost			
Debt	50%	5.0%			
Equity	50%	15.0%			
WACC		10.0%			

Pro Forma :: Additional Debt			Pro Forma :: Additional Equity		
	Weights	Cost		Weights	Cost
Debt	60%	6.0%	Debt	40%	4.5%
Equity	40%	17.5%	Equity	60%	13.5%
WACC		10.6%	WACC		9.9%
Nominal Cost of Debt		6.0%	Nominal Cost of Equity		13.5%
Marginal Cost of Debt		13.0%	Marginal Cost of Equity		9.5%

In evaluating how to obtain the next increment of capital needed to finance the company, the board faces what, on the surface, appears to be an easy question: Issue debt at a cost of 6.0% or equity at a cost of 13.5%? However, focusing on the nominal cost advantage of debt would, in this example, cause the board to make a poor decision. The more relevant consideration is the impact each financing decision would have on the company's overall weighted average cost of capital. On a pro forma basis, issuing debt will increase the cost of both debt and equity capital, causing the weighted average cost of capital to increase. The issuance of higher nominal cost equity, on the other hand, will reduce the cost of both debt and equity for the firm, causing the weighted average cost of capital to decrease. As a result, the marginal cost of equity is less than the marginal cost of debt, despite equity's nominal cost disadvantage.

The point of this illustration is not the mechanical computations underlying the marginal cost of capital assumptions, but rather the conceptual framework within which marginal financing decisions are to be made. To repeat, the cost of capital is iterative: changing the capital structure changes the costs of the individual capital structure components. Therefore, capital structure decisions must be evaluated with respect to the impact on the overall cost of capital, not just the incremental nominal cost of a given financing source. Thinking in terms of the marginal cost of capital is consistent with this reality.

The Impact of Terms on the Cost of Debt

Common equity is permanent capital. Other than interim dividends, payable at the discretion of the board, common equity holders have no scheduled claim on the company's cash flows or assets. Debt, in contrast, expires. Debtholders also have very specific claims on the company's cash flows and assets, as agreed to by the borrower and lender.

- **Maturity.** Debt must be repaid at maturity. At the maturity date, the company is exposed to refinancing risk. In other words, unless the company has reserved sufficient cash and liquid assets on the balance sheet to repay the debt at maturity, the company will need to borrow replacement debt at that date, or sell equity to raise proceeds to pay off the debt. If the company's ability to borrow money or sell equity on favorable terms at maturity of existing debt is constrained, the results can be disastrous for the equity holders. Debt with shorter maturities carries a lower interest rate than debt with longer maturities. The tradeoff for the lower interest rate is greater refinancing risk. In order to be comparable to the cost of permanent equity capital, the cost of debt used in measuring the weighted average cost of capital should reflect a long maturity.
- **Amortization.** Different debt arrangements may have different amortization provisions. Corporate bonds typically provide for interest-only payments with all principal repaid at maturity. Mortgage financing almost always provides for scheduled amortization over the life of the loan, either reducing the balance to zero at maturity or leaving a balloon payment to be made or refinanced. While amortizing loans reduce or eliminate refinancing risk, the scheduled debt service payments reduce the annual cash flows available for reinvestment or distribution.
- **Interest Rate.** The rate of interest on debt will either be fixed for the life of the loan, or be subject to adjustment periodically based on a pre-defined formula. Whether interest is fixed or

floating determines the type of interest rate risk borne by the borrower. Fixed-rate borrowers benefit in the event that market rates rise during the life of the loan since they continue to pay what becomes a below-market interest rate. Floating-rate borrowers benefit in the event that market rates fall during the life of the loan since the interest paid will reset to match the new, lower market rates of interest.

At origination, floating interest rates are almost always lower than fixed rates for the same maturity. Such low floating rates of interest understate the true cost of debt capital. For purposes of calculating the company's weighted average cost of capital, the cost of debt should be expressed on a long-term fixed-equivalent basis. Lenders will occasionally present borrowers with a financing package that includes floating rate debt with a matching pay-fixed, receive-floating interest rate swap. Assuming there are legitimate benefits to such an arrangement beyond fee generation for the lender, boards should carefully evaluate these arrangements as a package, developing a complete understanding of the outcomes to the company under different interest rate environments. We have had a number of clients over the years for which swap arrangements turned into substantial unexpected liabilities due to changes in market interest rates.

- **Call Provisions.** Call provisions define the ability of the borrower to repay the debt prior to the scheduled maturity. The ability to repay debt prior to maturity hedges the risk of unfavorable changes in interest rates to the borrower. Corporate debt is typically callable only after a period of years and may involve penalties or yield-maintenance provisions to make the lender whole. The inability to call debt can limit a company's financial flexibility to adjust capital structure in response to changes in the company's business or market interest rates.
- **Restrictive Covenants.** Debt covenants restrict the borrower's operating flexibility and substitute more onerous repayment terms and interest rates in the event the borrower's financial performance is impaired. While it is likely impossible to benchmark to a "normal" set of restrictive covenants, an especially burdensome set of covenants may suggest that the interest rate understates the true cost of debt.
- **Personal Guarantees.** Smaller private companies are often denied access to bank credit apart from the personal guarantee of one or more shareholders. The personal guarantee is effectively a subsidy to the company that raises the true cost of debt above the interest rate on the guaranteed loan.

The principal theme of this discussion is recognizing that the stated interest rate on the company's debt may not be a true reflection of the long-term cost of debt financing for the company. Board members should evaluate whether adjustments to the stated interest rate are appropriate to reflect the terms of the company's existing or prospective debt, as summarized on Exhibit 11.

The considerations above do not suggest that particular debt terms are not appropriate. Rather, they underscore the need to contemplate the total cost of debt, and not just the stated interest rate, when weighing financing alternatives.

Exhibit 11

Impact of terms on the cost of debt

Factor	Considerations
Maturity / Amortization	Short-term debt may have a lower stated interest rate, but exposes the company to more refinancing risk. With reference to the prevailing yield curve, the rate on short-term debt should be adjusted upward to reflect the market rate on corresponding long-term debt. Amortization reduces the effective maturity of debt.
Fixed vs. floating rate	Floating rate debt will almost always have a lower interest rate at origination than comparable fixed rate debt. Using the prevailing swap rate curve, the interest on floating rate debt should be converted to a fixed-equivalent basis.
Other features	Prepayment limitations/penalties, restrictive covenants, and personal guarantees can also cause the true cost of debt to exceed the stated interest rate.

Sources of Marginal Financing

Companies have three basic sources of financing at the margin: (1) internally-generated cash flow from operations, (2) incremental net borrowing, and (3) net common share issuance. Exhibit 11 summarizes aggregate historical cash flow data for the non-financial companies in the Russell 2000 index.

Over the three years culminating in 2015, the aggregate reinvestment for the Russell 2000 component companies was approximately \$436 billion, which exceeded internally-generated cash from operations by nearly \$111 billion. Deducting common dividends resulted in a shortfall of \$158 billion to be financed from external sources. At the margin, these companies elected to finance this amount primarily with debt (84% of total external financing). This marginal financing mix pushed the companies to a more leveraged capital structure (aggregate debt-to-EBITDA increased from 3.2x to 4.1x over the period). This preference for marginal debt financing over the period is entirely consistent with the environment of low interest rates and favorable financing terms.

The panel to the right splits the universe into two groups. The first, “Cash Generators” consists of companies for which cumulative operating cash flow exceeded reinvestment, while companies in the second group, “Cash Users,” invested more cash than their operations generated. Although the first group generated “excess” cash flow (after dividend payments) of \$74 billion, they elected not to use those funds to repay debt, choosing instead to return capital to equity holders. The second group, needing \$232 billion of external financing, accessed debt markets for 64% of the total amount raised. For both groups, financial leverage increased over the period.

A hierarchy of preferred financing sources can be discerned from the data:

- Internally-generated capital (cash flow from operating activities) is the primary form of incremental financing during the period, totaling \$278 billion, compared to \$191 billion in net external debt and

Exhibit 11

In the aggregate, public companies increased leverage over the three-year period ended 2015

Aggregate Cash Flow Analysis - Russell 2000 (excl. Financials)

In \$billions

	Annual			Cumulative Total	Cumulative		
	FY2015	FY2014	FY2013		Cash	Cash	Total
					Generators	Users	
Cash Flow -							
Operating Activities	\$115.6	\$104.7	\$104.7	\$325.0	\$222.9	\$102.1	\$325.0
less: Common Dividends Paid	(14.4)	(16.7)	(15.7)	(46.8)	(32.7)	(14.1)	(46.8)
Retained Cash Flow -							
Operating Activities	101.2	88.0	88.9	278.2	190.1	88.0	278.2
less: Cash Flow -							
Investing Activities	(148.1)	(170.6)	(117.0)	(435.7)	(115.8)	(320.0)	(435.7)
Excess / (Deficit) Cash Flow	(46.9)	(82.6)	(28.0)	(157.6)	74.4	(231.9)	(110.8)
Net Debt Financing	40.0	89.0	31.4	160.3	3.5	156.8	160.3
Net Equity Financing	9.2	5.6	16.2	31.0	(59.0)	90.1	31.0
Debt / EBITDA -							
Beginning of Period	3.7x	3.4x	3.2x	3.2x	2.5x	4.5x	3.2x
Debt / EBITDA							
End of Period	4.1x	3.7x	3.4x	4.1x	2.7x	6.2x	4.1x
Revenue Growth	1.2%	8.4%	4.1%	4.5%	1.6%	9.0%	4.5%

Source: Capital IQ, Mercer Capital analysis

equity financing. There are no transaction costs associated with internally-generated capital, and the ability to access this capital does not depend on favorable financing market conditions.

- Among external capital sources, the marginal cost of debt capital was perceived be lower than that of equity capital, reflecting a combination of modestly levered balance sheets at the beginning of the period and historically low interest rates. As leverage ratios rise, it is uncertain whether low interest rates will continue to keep the marginal cost of debt below that of equity.

Conclusion

The focal point of the capital structure decision for directors is determining the appropriate mix of debt and equity financing for the company. The optimal financing mix minimizes the weighted average cost of capital for the business; for a given set of future cash flows, reducing the cost of capital increases the value of the business.

- While the cost of debt is broadly observable, the cost of equity is more difficult to define, as it is the opportunity cost borne by investors foregoing investment alternatives of comparable risk. While, for any given capital structure, the cost of debt is always less than the cost of equity, both

costs increase with increasing financial leverage, resulting in a range of capital structures for which the weighted average cost of capital is minimized.

- Defining the relative proportions of debt and equity capital at market values requires estimating the value of the enterprise. For most operating businesses, enterprise value is estimated using methods under the market approach (drawing analogies to observed transactions) and the income approach (predicting future cash flows and converting them to present value terms).
- Peer capital structure analysis is an important step in establishing a company's target capital structure, as industry factors often contribute to establishing a range of common financing mixes. A private company's target capital structure should be established with reference to capital intensity, stage of the company's life cycle, size, and operating risk in the context of the shareholders' risk preferences and tolerances.
- Migrating from the existing capital structure to a target capital structure is often a gradual process. Incremental financing decisions should be evaluated on the basis of the marginal cost of available financing sources. Rather than focusing solely on the nominal cost of financing (debt is always cheaper), analysis of the marginal cost of capital considers the impact of a given financing source on the overall weighted average cost of capital, taking into account the iterative nature of financing costs.
- The terms of debt can introduce a wedge between the nominal interest rate and the cost of debt applicable for calculating the cost of capital. Short-term and floating-rate debt costs need to be adjusted to a long-term, fixed-equivalent basis. For smaller companies, debt that is personally guaranteed by one or more shareholders may also merit adjustment.
- There is hierarchy of incremental financing sources. Internally-generated capital from operations is generally preferred because of the absence of transaction costs and availability. Whether external debt or equity financing is preferred will depend on the marginal cost of capital considerations, including the interest rate environment and existing capital structure relative to the target.

Capital structure decisions have long-term consequences for stakeholders. The concepts summarized in this whitepaper will help directors and shareholders critically evaluate alternatives and provide meaningful input to the conversation.



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