

Midland energy resources, inc. assignment



Midland Energy [pic] Midland Energy Resources, Inc. Cost of Capital Table of Contents I. Executive Summary II. Introduction III. Cost of Capital IV. Risk & Tax Rate V. Capital Structures VI. WACC VII. Conclusion VIII. References I. Executive Summary Midland Energy Resources is a global energy company with operations in oil and gas exploration and production(E&P) providing a broad array of products and services to upstream oil and gas customers worldwide including refining and marketing (R&M), natural gas, and petrochemicals.

Janet Mortensen, the senior vice president of project finance for Midland Energy Resources must determine the weighted average cost of capital (WACC) for the company as a whole and each of its divisions as part of the annual capital budgeting process. Various considerations have to be evaluated as risk factors when calculating the cost-of capital. II. Introduction Midland Energy Resources is a leading global energy developer dedicated to providing advanced power systems and energy services around the world.

Midland Energy Resources has three divisions Exploration & Production, Refining & Marketing, and Petrochemicals. They have been incorporated more than 120 years previously and they have 80, 000 employees in 2007. Exploration & Production business include oil and natural gas exploration and field development and production is there most profitable business with the highest net margin in the industry over the previous 5 years. With continued growth expectations Midland is set to increase capital spending to meet growing demand.

Midland's operations include 40 refineries with distillation capacity of 5.0 million barrels a day. However with Midland marketing a comprehensive range of refined oil products worldwide they rank the largest division and investments will remain steady. Petrochemicals are chemical products made from raw materials of petroleum. Although, petrochemical is a very large growing business Midland's Petrochemical Division was small having revenue of \$23 billion and after tax earnings of \$2 billion.

As reading and reviewing this case we will focus on Janet Mortensen, the Senior Vice President undertaking this assignment of Midlands Cost of Capital. As an analyst in 2002, Mortensen calculated the Cost of Capital for an initial share repurchase and later provided the Cost of Capital for Executive management performance evaluation. Mortensen's calculations have become very significant in everyday business decision within Midland. It is important to evaluate the value added in how the calculation is utilized throughout the company and provide a user guide to ensure the correct use and valuation.

III. Cost of Capital Cost of Capital is the cost of obtaining funds for the required return necessary to meet its cost of financing a capital budgeting project determining how a company can raise money. Cost of capital encompasses two fundamental sources of financing such as cost of debt and cost of equity. Therefore the cost of capital is the weighted average of the financial components within a firm's financial model. It is practical that the cost of capital is included in financial decisions for financial and budgeting performance.

For an investment to be successful the expected return on capital has to be greater than the cost of capital. Cost of debt is the effective rate that a company pays on its current debt before or after tax returns. To calculate Cost of debt the formula is $(R_f + \text{credit risk rate})(1-T)$, where T is the corporate tax rate and R_f is the risk free rate. In this case Mortensen computed the cost of debt for each division by adding a premium, or spread, over U. S. Treasury securities of a similar maturity [1]. Mortensen computed the cost of debt for each division by adding a premium, or spread, over U.

S. Treasury securities of a similar maturity [1]. Midlands E&P division is profitable and has positive prospects for continued growth; however, Midland must consider the risk exposure in the E&P division. The political charged issues such as nationalization or forced renegotiation of rights have an impact on the financial capacity of otherwise healthy reserves [1]. Cost of Equity is the return that stockholders require for a company. A company's cost of equity represents the compensation that the market demands in exchange for owning the assets and bearing the risk of ownership.

Based on capital markets the cost of equity varies in direct relation to the assumed risk in that specific market. The distinctive of the firm is the sensitivity to market risk (?) which depends on everything from management to its business and capital structure. Therefore past performances and present conditions have a direct effect on the overall value. Applying calculations at a divisional level allows specified markets to be analysis based on present market conditions for that service or product.

The formula used to calculate Cost of Equity is: [pic] Midland's projected capital spending in refining and marketing would remain stable, without substantial growth in 2007 and 2008. Petrochemical capital spending was expected to near future and new investments would be undertaken by joint ventures outside the United States. Equity interest with foreign partners generally hovered at 50% for Midland's foreign partners. Mortensen measured performance or business in two ways: (1). Performance was measured against plan over 1-, 3- and 5- years. (2).

Measured based on economic value added (EVA) in which the company defined debt-free cash flows as net operating profit after taxes which is EBIT. (see Exhibit 3). The economic value added was equal to net operating profit after taxes minus cost per capital time's total invested capital. ($EVA = NOPAT - WACC\% * (TC)$). IV. Risk and Tax Rate Midland took risk by exploiting the borrowing capacity inherited in its energy reserves assets. They would manipulate the stock price to correlate with the energy prices. This practice required constant reassessment of optimal borrowing.

This practice allowed Midland to capitalize on the opportunity to shield additional profits from taxes. Midland also had traders in-house who actively managed currency, rate and commodity risks. Midland's desire to take advantage of private information and unique pricing relationships added to the reason why the capital structure sometimes departed, from planned targets. Midland also repurchased its own stock when the stock of the price fell. Long-term expected cash flow and collateral value were affected by political risk. V. Capital Structures

Midland targets were set based on considerations involving each division's annual operating cash flow and collateral value of its identifiable assets. Targets were volatile and sticky. Changes in the market sometimes drove actual debt ratios away from targets. Mortensen's team estimated a debt rating for each division based on its targets, bonds and corporate costs of debt. VI. WACC WACC - (Weighted Average Cost of Capital) is the average discount rate applied by the debt-holders and equity-holders of the company to its future cash flow.

WACC is a proportion of debt and equity on the balance sheet, the stock's volatility measured by its beta, and the market risk premium. Small changes in these inputs can result in big changes in the final WACC calculation. VII.

Conclusion Midland ultimately adopted 5% EMRP after a recent review with bankers and auditors. The Case analysis was interesting and proved educational. VIII. References 1. <http://www.investopedia.com/terms/c/costofdebt.asp>

2. Harvard Business Publishing, Midland Energy Resources, Inc. : Cost of Capital.