



# Completely Underestimating (once again) the Cost of Capital?

## The Importance of the Capital Structure and the Cost of Capital for Strategic Corporate Management

von Marcus Middelman und Stefan Heppelmann

A booming economy, gushing cash flows and abundant liquidity are usually cause for investment and growth. It also appears that raising „cheap“ debt is now much easier than before. And finally, return on equity can be driven even higher using special dividends and stock buybacks. But what would be the price of such behavior?

Whether it is the aftermath of the recent crisis or a sober view to the future: In either case, many CEOs and CFOs currently appear to be cautious and are rarely taking advantage of their newly regained financial leeway. Some are even going so far as to drive down their debt further, thereby increasing the percentage of equity in their company balance sheet. The reason for this caution is probably the expectation of many corporate managers that capital could once again be in short supply, making it more than ever a strategically relevant asset. However, according to established theory, an increase in the percentage of equity in a company's capital structure should inevitably lead to an increase in its cost of capital. But is that really true?

The answer to this question is critically important for the financial management of the company, both for its financing as well as for the internal allocation of capital. The following key insights must be taken into account:

1. Capital will soon be scarce and expensive once again
2. The average cost of capital rate is not suitable for optimal management of capital
3. The risk and maturity of assets determine the cost of capital
4. Portfolio management requires the use of a differentiated and dynamic cost of capital
5. The capital structure will be optimized when the largest possible strategic flexibility is considered

CEOs and CFOs should use the current calm phase in the capital markets to acquire a comprehensive view of the individual and risk-adjusted cost of capital of their business activities and individual assets. The benefit of such an effort may not yet be apparent. But those who establish the proper ground work now will surely benefit when the next phase of scarce capital begins.



## 1. Capital will soon be scarce and expensive once again

The perceived distance to the financial and economic crisis is growing noticeably – at least from a German perspective. The German economy, which used to perform sluggishly when compared to its European neighbors, is now seen in the meantime as an engine for economic growth. Nevertheless, the current financial situation and the situation of the real economy remain characterized by both bright and gloomy prospects.

The optimists focus, in particular, on two developments: stabilizing domestic demand and ongoing brisk export activities. But anyone who looks beyond the confines of Germany sees a rather mixed picture.

Rough water is appearing on the radar screens of the German economy and its companies: Tensions in the international currency structure, economic fluctuations and inflation risks, high public and private debt at the global level as well as asset losses from the financial crisis, an ailing U.S. economy, budget austerity policies in the European Economic Area, reforms in the financial market architecture and uncertainty about banking regulation do not paint a very stable and confidence inspiring picture.

An enormous demand for capital by German companies continues to exist in this volatile environment. The main reasons for this demand include historically high capital intensity, current capacity constraints and continuous need for investment to maintain competitive and innovative capabilities. However, there are several limiting factors that will make it difficult to fulfill this need: the enormous demand for capital in emerging markets, ongoing risk aversion by international investors, renewed setbacks in the financial markets, declining savings rates caused by demographic changes in the population, an additional need for write downs in bank balance sheets, higher reference or nominal interest rates, drastic risk premiums for high debt levels, new capital adequacy rules based upon the Basel III accord, and considerably tightened lending standards mean that capital will continue to remain an extremely scarce resource in the future.

Looking forward, these factors must lead to a paradigm shift in corporate financial management. The successful allocation of capital within a company will be a decisive factor in the future, determining who will be successful in the competition for this scarce resource. To achieve that goal, a differentiated and dynamic analysis of the cost of capital for assets is necessary. Furthermore, the right conclusions about the optimal capital structure and the most suitable sources of financing must be made.

## 2. The average cost of capital rate is not suitable for optimal management of capital

The cost of capital is used so that the value contribution of business units, country portfolios or individual assets and investment scenarios can be appropriately determined. The return expectation of investors is oriented towards the specific risk of the assets or the activities and is then reflected in the level of the cost of capital rate. The use of a single cost of capital rate (WACC = Weighted Average Cost of Capital) is not adequate for corporate management purposes. Only a more differentiated analysis of the relevant cost of capital over the asset or investment time frame enables an exact valuation of different business units and activities.

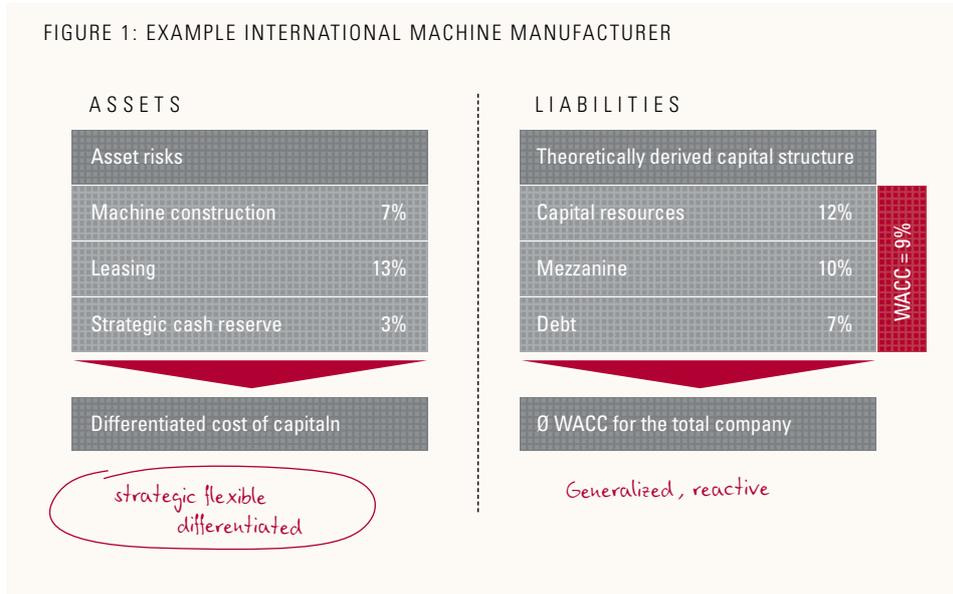
Such a differentiated analysis requires a look at the asset side of the balance sheet. In other words, since the object being financed is always the total corporation – with the exception of, for example, financing for projects or individual assets – the analysis of the cost of capital from the financing perspective leads to an undifferentiated and reactive WACC that does not consider the specific and dynamic risks of the business portfolio.

A single cost of capital rate also does not adequately address the use of strategic liquidity reserves. In principle, higher reserves of liquid funds also mean more flexibility for the corporation regarding financing. However, the WACC creates disincentives in this regard, forcing managers to dispose of the cash as soon as possible or to invest it, because a return equivalent to the WACC will never be possible from cash assets.

As a result, the use of a single WACC leads in practice to suboptimal capital allocation decisions. Furthermore, excessive pressure to make investments leads to a return of capital to stockholders through dividend payments or stock buybacks, resulting, in turn, in a reduction of strategic flexibility. Studies of non-banks in the S&P 500 have shown that a reinvestment of capital in the business can increase the value of the company disproportionately compared to stock buybacks. Accordingly, distributions may therefore not necessarily be in the best interest of the long term investor.

This requires a completely different way of thinking regarding portfolio and corporate management. Companies must understand the risks and cost of capital of their business portfolios and ensure that these are covered effectively from a financing perspective. This is necessary because it is not the existing capital structure which determines the cost of capital. Instead, it is just the opposite: The risk of the assets determines the cost of capital and, accordingly, the (optimal) capital structure.

FIGURE 1: EXAMPLE INTERNATIONAL MACHINE MANUFACTURER



Thus, sound company and portfolio management is made possible using an asset-based determination of the cost of capital at the level of individual business units and asset classes. The appropriate specific cost of capital rate is used to manage existing operating business activities within these business units. Based upon this approach, bad decisions caused by an inefficient internal capital market are prevented, without necessarily leading to increased complexity in the management of the operating business.

In principle, three fundamental mechanisms change regarding the allocation of internal funds: (a) value destroying cross-subsidies are avoided because all business activities receive the risk adjusted cost of capital, (b) scarce capital is prioritized dynamically in portfolio and investment decisions and (c) the financing structure is optimized regarding maturities and flexibility based upon the use of an asset-based analysis of risks and in consideration of rating requirements and sources of financing.

### 3. Risk and the maturity of assets determine the cost of capital

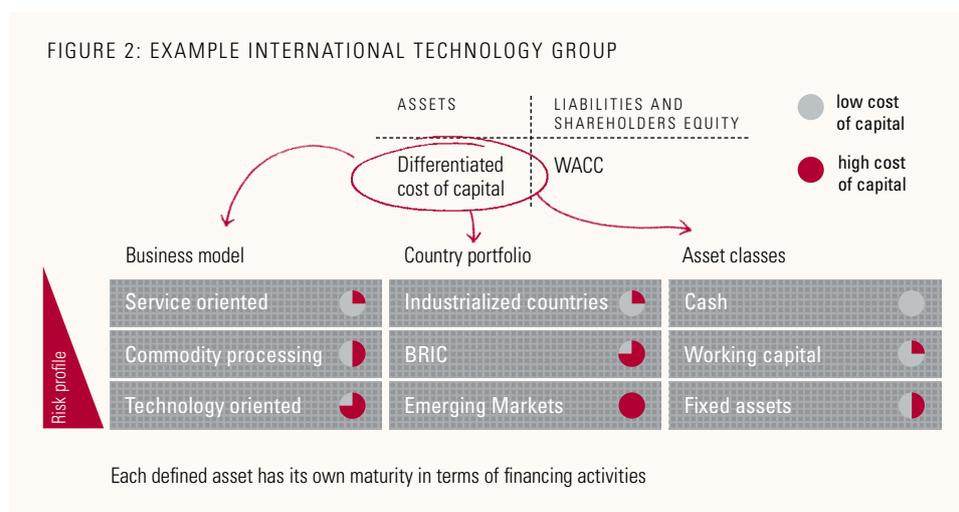
Corporate and portfolio management strives to optimize the risk-return profile. In this, both the risks and the returns from the various assets of a company must be equally transparent. The majority of companies are able to calculate return metrics in more or less good quality. However, it is a different story when it comes to a systematic determination of the specific risk capital cost: It is either not viewed in a differentiated manner or sometimes even ignored completely.

In fact, the degree of diversity between different assets requires a differentiated analysis of the risk capital cost to the same extent. This is especially true for operating assets (including equity holdings) for which – in contrast to financial assets – the risk capital cost cannot be determined directly. However, there are many distinguishing features.

At first glance, it is obvious that the specific risk capital cost for different business models, from technology-oriented businesses to commodity processing through all the way to service businesses, are significantly different. Technology-oriented means: R&D intensive, exposed to technological change, high profit volatility – in summary, a high risk business model. Investment intensive models such as in commodities are capital draining, cyclical and have long payback periods. Thanks to its stable cash flows, the service business, however, is often largely independent of the economic cycle, resistant to crisis and, therefore, relatively risk free.

The country portfolio also plays a role. The total economic situation, and thus country specific risks, varies significantly between industrialized and BRIC countries as well as other emerging markets. Diversification effects in the portfolio should not be neglected, particularly when considering engagements in emerging markets, so that investments are not prevented. The need for an individualized analysis of the WACC is therefore obvious.

Even the analysis of fixed assets, working capital and liquid assets is important. Investments in fixed assets, e.g. aircraft engines, have a useful life of 20 years and more, cost up to a billion and therefore involve enormous business risks. Working capital is, for example, comparable to a BBB+ credit risk of 60-90 days on average. In contrast, liquid funds are essentially risk-free. Total risk is only increased when there is a problem related to the funds or if an excess amount is penalized by investors.



Risk-return profiles enable a prioritization of assets for the allocation of funds; in addition, they can also be included as an additional benchmark in corporate and portfolio management. Furthermore, conclusions about the capital structure can be reached, in order to optimize the structure in terms of financing sources, leverage and maturities, thereby ensuring strategic flexibility and agility for the company. The relevance of this dynamic and differentiated approach is illustrated in the next sections of this report. The impact on the decision making process for CEOs and CFOs is fundamental.

#### **4. Portfolio management requires the use of a differentiated and dynamic cost of capital**

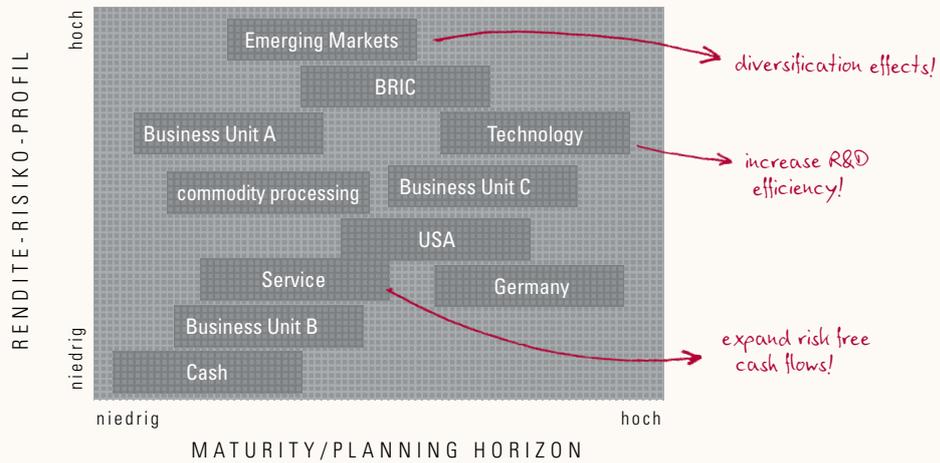
Since capital in a company is always scarce, it is management's responsibility to ensure that it is used where it will generate the largest possible added value in the long term. This can only be achieved using a top down management approach. The bigger the company, the more the following statement is true: Executive management must act like a strategic investor and guardian over the precious resource capital. All portfolio and investment possibilities must be recorded and evaluated based upon their risk-return profile. Using this value, it becomes possible to calculate a target portfolio that will maximize the value of the company given the available resources. The allocation of capital resources must always be directed towards optimizing this target portfolio.

In principle, assets are judged on the basis of whether the return they generate is adequate to cover the average cost of capital necessary to finance them. A differentiated approach must be taken regarding portfolio management: Instead of a single, standard WACC, a specific individual cost of capital rate for different types of assets should be used, thereby comparing the return potential of the asset class against its specific risk profile. In addition, the maturity, in other words the term of the investment, must be considered. The optimal capital structure from short and long term forms of financing will finally result based upon the risk-return profile, the term of the investments and the desired financial flexibility.

The target portfolio that maximizes the value of the company is calculated taking into account all of the characteristics and restrictions of each defined portfolio element. The potential value of the individual portfolio activities then decides how exactly the investment funds will be allocated. The usual investment traps, namely allocating the most resources automatically to the largest business unit or giving preferential treatment to the ones which generate the most cash flow, will thus be avoided.

FIGURE 3:

BUSINESS PORTFOLIO



OPTIMIZATION PROBLEMS

- Scenario 1: Realization of an optimal risk-return profile versus higher flexibility from shorter maturities
- Scenario 2: Realization of higher growth rates in BRIC countries versus planning security in established markets
- Scenario 3: Optimal risk-balanced mix of product and service offerings

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TARGET INVESTMENT PORTFOLIO



Each business unit must have a long term investment strategy. Capital allocation to the individual business units is then oriented towards these plans and is performed on a top-down basis. At the same time, the capital allocation process is accompanied by top-down target setting. This means: The higher the allocated capital resources, the higher the corresponding performance target.

Once the portfolio and investment decisions, capital allocation and medium term financial targets are defined, the next step is to calculate the relevant value added and cash flow effects for these targets and to classify these outcomes by fiscal year. That way, a bridge is established between annual and medium term planning. Based upon this planning, the optimization of the capital and financing structure occurs.

## **5. The capital structure will be optimized when the largest possible strategic flexibility is considered**

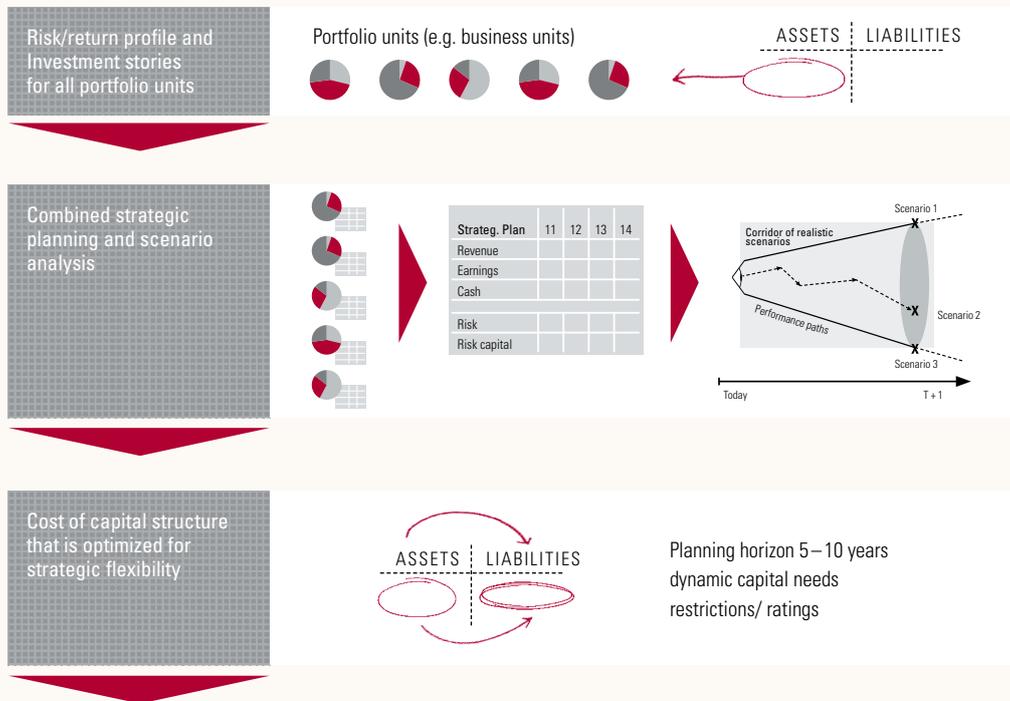
The management of capital resources is becoming increasingly important. Strategic flexibility regarding the financing of both current business activities as well as profitable growth is becoming a critical success factor in the current and future market and competitive environment. The management of the capital structure is transitioning away from a reactive approach to a proactive, forward looking approach that is directed specifically towards this strategic flexibility.

Modigliani-Miller have explained already that the level of indebtedness has no influence on the cost of capital because debt is not per se a cheaper source of financing than equity; instead, it is the assets that determine the risk, and thus the cost of capital, of a company. The optimization of the capital structure can therefore not result from the financing perspective. Nor will an increase in the debt portion automatically lead to a lower cost of capital.

Instead, asset-based portfolio management enables decisions to be made, regarding both financing and the use of funding, which focus on maximizing the company's value. The decision whether liquid assets are used to pay down debt, make dividend payments or remain in the business and are reinvested, is determined as part of the strategic planning process using the value increase targets included in it. Strategic liquidity reserves will also no longer be valued using the (prohibitively high) average cost of capital rate; instead, they will be valued with a lower rate that corresponds to the level of risk associated with such assets.

The target capital structure is therefore the result of a differentiated and dynamic analysis of the business portfolio and the investment scenarios within portfolio management; it is not a theoretically determined optimum level of debt and equity. CEOs and CFOs who think strategically will analyze their business portfolio and orient their capital structure accordingly. That way, the necessary freedom of action and strategic flexibility can be ensured for their company already now. The benefit of such freedom and flexibility will be apparent no later than the next financial crisis.

FIGURE 4:



## 6. Conclusion

Capital is a scarce resource and it will remain so in the future. This fact represents new challenges for companies and portfolio managers. The companies that will be successful in the long term are those that a) understand their specific risk capital cost and integrate it into their management, b) implement a top-down portfolio strategy that maximizes company value and c) rigorously seek to achieve an optimal capital structure that is derived from their business portfolio.

The main fields of action for these goals are:

- Determining the risk capital cost for economically defined assets
- Integrating the risk-return profile into portfolio and corporate management
- Developing portfolio planning that will maximize company value
- Creating long term business unit strategies and the corresponding allocation of capital
- Integrating the results into strategic planning and scenario analysis
- Determining the dynamic target capital structure to maintain strategic flexibility

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