



Working Capital's Role in Maintaining Corporate Liquidity

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This article explores how investments in working capital establish the liquidity position of the company which is critical to its survival.

When the question "Why does a business exist?" is asked, the most typical answer is "To make a profit."

Corporate finance professionals, however, will add that a business exists to improve the economic position of its owners. When a business continues to improve the wealth of its shareholders, it is able to attract additional resources from lenders and investors more readily than its competition. Thus, the company is not only increasing its chances of survival, but in the long term, is creating the opportunity for continued growth consistent with overall corporate business goals. Therefore, the key responsibility of senior management is to ensure that available resources are deployed in a manner that will yield the greatest economic benefit.

The primary role that corporate finance performs in this process is ensuring that the financial resources necessary to fund the achievement of company business goals are available when they are needed and at the lowest cost of funds. Closely related to this activity is the evaluation of resource deployment (i.e., investment) decisions and the efficient management of these resource investments once they have been made.

Typically, resources are deployed to both capital investments, such as plant and equipment, and working capital, which funds the day-to-day operations of the company. Because of this, investments in working capital establish the liquidity position of the company which is critical to its survival.

Therefore, an understanding of corporate finance concepts that can be applied to the management of working capital is an essential part of the treasury professional's body of knowledge.

Generally, the term "working capital" refers to a company's investment in current assets — cash, short-term securities, accounts receivable and inventories. However, for the purposes of working capital management, the more descriptive term is Net Working Capital, which refers to the current assets minus the current liabilities, which are typically accounts payable and other obligations due within one year. Also, since resource investments in Net Working Capital have a life-span of less than one year, they can be thought of as the capital that circulates through the company concurrent with the company's operating cycle. Therefore, Net Working Capital represents the liquidity margin that is available to meet the cash demands generated by the operating cycle.

Clearly then, maintaining corporate liquidity means effectively managing this circulating capital in a manner that adjusts to changes in the company's level of business activity caused by factors such as rapid growth, economic cycles or random events.

With this in mind, how can the corporate liquidity position be evaluated to determine if the resource investments in working capital are at an optimum level?

The Cash Conversion Cycle

The Cash Conversion Cycle (CCC) is a working capital evaluation technique that recognizes the dynamic nature of the circulating capital and facilitates the

analysis of its individual components. Basically, the CCC, which mirrors the operating cycle, measures the interval between the time cash expenditures are made to purchase inventory for use in the production process and the time that funds are received from the sale of the finished product. This time interval is measured in days and is equal to the net of the average age of the inventory plus the average collection period minus the average age of accounts payable. Using the cash management concept of float, the CCC could be referred to as a company's "Net Liquidity Float" because it measures the float associated with the time that company resources (i.e., cash) are invested in current assets offset by the float associated with the time that the investment is being financed by trade credit.

Since the CCC depicts a company's average liquidity position, it can be used to evaluate changes in working capital and thereby facilitate the monitoring and control of its components. Furthermore, adjustments can be made, if warranted, to the components of working capital so as to achieve a corporate liquidity position that is optimum relative to the overall business goals of the company.

Optimum Liquidity Position

Given that the major goal of senior management is to invest available resources in a manner that yields the greatest economic benefit, it is critical that a proper mix is achieved between the amount of resources deployed to working capital and the amount deployed to capital investments, because the return on working capital investments (e.g., inventory) is usually less than the return on capital investments (e.g., plant and equipment). The challenge is to keep only enough resources invested in working capital necessary to provide the financial flexibility to adjust to changes in the level of business activity. Identifying and monitoring this optimum liquidity position, therefore, is the primary activity of working capital management, and it begins with determining the company's minimum liquidity requirement.

The first step in determining minimum liquidity is to calculate Cash Turnover, which measures the number of times cash cycles during the year. Cash Turnover is

calculated by dividing the number of days in the year by the CCC which is measured in days. Once the Cash Turnover is known, it is divided into the annual cash expenditures to determine the minimum liquidity required. Clearly, there is a direct relationship between the length of the CCC and the minimum liquidity required, such that if the CCC lengthens, the minimum liquidity required increases; conversely, if the CCC shortens, the minimum liquidity required decreases.

Therefore, an optimum liquidity position is that minimum level of liquidity necessary to support a given level of business activity. However, since the key determinant of an optimum liquidity position is the CCC, which itself is a function of the length of time cash is invested in current assets, it is necessary to monitor and manage these asset categories individually because each has its own liquidity/operational issues that must be addressed if you are to derive maximum economic benefit from the resources invested in working capital.

Liquidity Vs. Operational Issues

Frequently, the process of establishing and maintaining an optimum liquidity position is a trade-off between financial decisions to shorten the CCC, which decreases minimum liquidity, and operational decisions, which can lengthen the CCC, thereby increasing minimum liquidity. The following example illustrates a possible optimum liquidity trade-off situation.

One of the key measures used for monitoring and controlling the investment in accounts receivable is the Average Collection Period (ACP). Basically, the ACP should be kept at or near the industry average because at this benchmark, credit extension is competitive and therefore, it is at an optimum level relative to the market. However, let us assume that Company XYZ is going to introduce a new product into the market. In order for the product to gain quick acceptance, the company is considering extending credit terms beyond the competitive benchmark. From an operational perspective, this appears to be a valid approach for launching the new product, but from a working capital management perspective, this action will increase the ACP, which will increase minimum liquidity.

The first step in determining minimum liquidity is to calculate Cash Turnover

Simply stated, EVA is a method of measuring the real profitability of such decisions to determine if they create economic value for the company

Clearly, more analysis is required before a decision can be made.

Basically, the relationship between the marginal cost of credit and the anticipated marginal profit from the extended credit terms must be determined. Then, assuming a net marginal profit results from the extended credit terms, the new product can be launched with extended credit terms, and minimum liquidity will increase, thus establishing a new optimum liquidity position for Company XYZ that incorporates the new marketing business objective.

Therefore, the liquidity/operational issues can be resolved by the use of this analytical approach.

However, the analysis does not give a clear answer to whether or not the extended credit terms will enhance economic value for the company, which, after all, is the primary goal of resource investment decisions.

To answer this question, the cost of the additional capital invested in accounts receivable must be incorporated into the analysis so as to determine the economic profit of this decision. Economic profit is not a new concept, but it has been experiencing a rebirth as economic value added (EVA), an economic measure popularized by Stern Steward & Co. of New York City. What then is EVA and how can it be applied to working capital management?

Managing Working Capital With EVA

Essentially, EVA recognizes that if true economic value is to be realized from business activity, resource investment decisions must earn enough to cover the cost of capital related to the investment. Simply stated, EVA is a method of measuring the real profitability of such decisions to determine if they create economic value for the company. EVA can accomplish this because it incorporates a company's total cost of capital, that is, the total weighted average cost of both debt and equity financing.

By comparison, a strict accounting approach to analyzing a resource investment proposal does not measure economic profitability because Generally Accepted Accounting Principles direct that interest on debt be deducted from profits, but not the cost of equity capital. Whereas, the EVA

for a resource investment proposal is computed as follows:

$$EVA = (\text{After Tax Profit}) - (\text{Investment}) \times (\text{Cost of Capital})$$

If the EVA is positive, the cost of capital has been covered; therefore, the resource investment will be economically profitable and will create economic value for the company.

Revisiting the XYZ Company's extended credit terms proposal will serve as an illustration of how EVA can be applied to working capital management. It is assumed in this example that the extended credit terms will generate incremental sales, which will result in a profit. The question is, however, will the proposal add value to the company? The EVA is calculated as follows:

XYZ Company Extended Credit Terms Proposal		
Profit	\$ M	\$ M
Marginal Profit	\$250	
Less: Tax @ 50%	125	
		\$125
Cost of Capital		
Add'l Investment in Accts. Receivable @ 10% Wt. Avg.	\$1,500	
Cost of Capital		(150)
	EVA	\$(25)

Since the EVA is negative, the credit term extension proposal will not add economic value to the company. However, in any company, a proposal such as this is only one of many, and optimally, the aggregate of all resources invested will yield a positive EVA. But at this juncture in the evaluation, the management of XYZ Company is now aware that the credit extension proposal on a stand-alone basis and as currently configured will not add economic value to the company. Given this, the company might decide not to implement the proposal, or at the very least, rethink it. Therefore, EVA is a valuable measure that can support the effective management of working capital by indicating if decisions to either increase or decrease the optimum liquidity position will add economic value to the company.

In the final analysis, working capital management is about establishing an optimum liquidity position by effectively managing the resources invested in the day-to-day operations of the business. This requires that the CCC be kept as short as possible but maintained at a length that is both consistent with the current level of business activity and flexible enough to allow for the achievement of overall corporate business goals as they adjust to changes in the marketplace. ■

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