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Edison Explains

The working capital cycle

The working capital cycle is a primary indicator of a company's cash-generating efficiency. What is the working capital cycle and how can it be analysed?

What is the working capital cycle?

The working capital cycle represents how quickly companies can convert working capital into cash.

Working capital, the main element of the working capital cycle, is calculated as current assets excluding cash minus current liabilities. Current assets are resources that can be converted into cash within a year and current liabilities are obligations to pay somebody else, also due within a year. Analysing working capital helps build an understanding of both a company's operational efficiency and short-term financial health.

Optimising each component of the working capital cycle improves a company's cash position and financial health, which, for example, aids the stability of a company by ensuring it is protected from unexpected cash needs.

What are the components of the working capital cycle?

Calculating the working capital cycle requires analysing three different components: inventory, accounts receivable and accounts payable. Accounts receivable is what is owed to the company by customers and accounts payable is what the company owes its creditors. Cash comes in by reducing inventory or collecting accounts receivable and cash is spent when accounts payables are paid.

Comparing these components individually to items on the income statement by ratio analysis illustrates how many times that a component is depleted then replenished throughout the year.

First we look at inventory. Costs of goods sold, on the income statement, is divided by inventory, showing how many times inventory is sold and replaced during a year. A high ratio means a company is selling and replacing inventory quickly.

Second, we look at accounts receivable. Sales on the income statement are divided by accounts receivable, demonstrating the rate at which customers complete their payments to the company. A high ratio demonstrates that customers are paying the company quickly, therefore cash is coming in faster.

Finally, we look at accounts payable, or what the company owes to its creditors. Purchases, from the income statement, are divided by accounts payable, representing how many times a company settles its debts in a year. Taking longer to pay creditors gives the company more cash in the short term, which is why a low ratio is beneficial here.

That said, these working capital ratios can then be converted into days, which shows how many days resources are held before they convert to cash, providing a more meaningful representation of the working capital cycle.

How are working capital ratios converted into days?

Working capital ratios are converted into days by dividing 365, the number of days in a year, by each of the ratios.

To finalise the working capital cycle calculation, the number of days it takes to pay back creditors (creditor days) is subtracted from the total number of days it takes to convert both inventory (inventory days) and accounts receivable (debtor days) into cash. The calculation represents how long a company cash is tied up in its working capital, rather than being used for other investment purposes.

Most managers aim to optimise the working cycle by shortening it as much as possible. Having a short working capital cycle equates to having more available cash for other investments and is achieved by either generating more cash or by prolonging paying creditors.

Edison Insight

'Shin and Soenen's comparison study between Wal-Mart and Kmart illustrated that Kmart's financing expenses were $198.3m greater than Wal-Mart's because their working capital cycle was 21 days longer, highlighting the importance of effective management of the working capital cycle to improve operational efficiency and increase market share.'

Max Hayes, data analyst

How can the working capital cycle be reduced?

Reducing a working capital cycle requires lowering either a company's inventory or

debtor days, or increasing its creditor days.

Reducing inventory in a period produces more cash and decreases inventory days in the working capital cycle. A bookseller who sells 15 out of 20 books, for example, converts stock into cash faster than the bookseller who can only sell 10 books of 20.

Collecting accounts receivable more quickly improves a company's cash position and lowers debtor days in the working capital cycle.

Managers seeking to reduce their working capital cycle will extend their creditor days, the time it takes to pay their debts. Using the previous example, the second bookseller can afford to have both higher inventory and debtor days by extending their creditor days. Doing this allows for a longer time to access debt, which can then be used instead of inventory and accounts receivable to fund operations.

The working capital cycle is the sum of inventory days and debtor day minus creditor days. Once a total is calculated, each component can be analysed across different time periods to look for trends. Trends may illustrate negative aspects of a company's working capital cycle, where, for example, increasing creditor days is ostensibly good, but may just be a sign of a company's inability to pay its debts.