

Where is the cash now?

A post crisis review on Working Capital Management

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The last 24 months have been a challenge for the industry. First demand dropped but fortunately raw material costs declined heavily also retaining reasonable margins. Then recovery kicked in but was accompanied with soaring raw material prices which had a negative impact on margins. During both periods companies had to manage their cash restrictively.

The impact varies depending on a company's position within the value chain. Companies from the forestry sector already suffered prior to the crisis, when building activity slowed down towards the end of 2008. Producers within the printing and publishing paper sector were impacted by shrinking advertising spend in addition to the structural changes already underway. Meanwhile demand in the packaging sector driven by continued consumer demand for food and basic goods withstood the longest but was impacted as inventories were being reduced globally.

2010 was a recovery year for the majority of the industry players. Strong revenues and EBIT margins were recorded in the second part of 2010, generating solid improvements compared to the previous year's periods.

Although recent developments from the pulp and paper industry give a more positive outlook compared to the previous year, most volumes have remained below pre-crisis levels¹. Demand in many segments has stabilized – for now.

With price increases for raw materials, wood, pulp and recovered paper margins continue to be under pressure and companies have to monitor their financial situation closely.

Working capital has continued to remain a top agenda item for the major companies within the industry. Working Capital programs established during the crisis seem to have continued to deliver good results also in 2010. Most top players in the pulp and paper industry were able to keep the all-time low levels of working capital levels from 2009

In 2008 and 2009 there was an overall downgrade of the pulp and paper sector by rating agencies. Credit insurance companies in turn were forced to reduce their exposure and reduce the level of coverage. Subsequently, companies had to cover a higher portion of the risk internally which led to the need for managing working capital more tightly. According to Atradius, a major credit insurance provider, the expected default frequency rate (EDF) has been continuously declining since 2009, although still significantly above pre-crisis levels².

¹ Source: Preliminary statistics CEPI 2010

² Source: Atradius Economic Outlook January 2011, The EDF chart is based on publicly listed companies & the likelihood of default

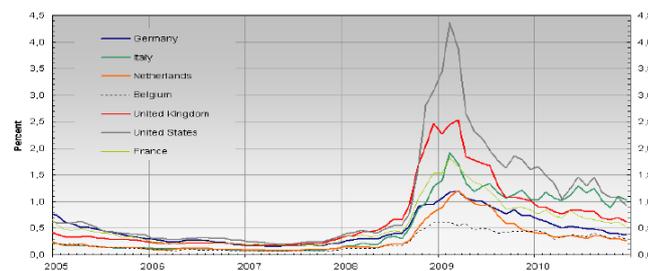


Figure 1: Credit default frequencies by country

According to the Economic Outlook of the OECD in November 2010, an increasing pace of economic expansion was recorded. China, the United States, Japan and France showed an acceleration of the economic activity, with further signs of stabilization shown by Canada, Italy, the United Kingdom and India.

According to the IMF projection from January 2011, world output is expected to rise by 4½ percent in 2011, an increase of approximately ¼ compared to the forecast from October 2010. The European Union area is expected to have a 1.7 percentage increase in 2011 compared to the prior year.

These forecasts do of course not consider the impact of the recent events in Japan. The impacts of this tragedy on the world economy remain open at this point

For a financial study StepChange gathered data on the top stock listed companies covering the paper & packaging sector to compare the financial development of 2010 vs. 2009 and 2008. The research reveals that 2010 revenues have increased by 10 percent compared to 2009. In 2009 revenues were 11 percent below 2008 levels. Comparing the first two quarters of 2010 vs. the last two quarters of 2010 the consolidated revenue increased by 7 percent. In 2010, 3rd and 4th quarter EBIT margins were 4 percent higher than those of the 1st and 2nd quarter.

In 2010 asset consolidation and closure continued within many areas of the industry. Major players sold some of their assets in order to improve their equity ratios and be less dependent on financial borrowings. According to PPI magazine, in 2010 the closures reached > 2 million tons, with more than half in the graphic papers segment. New capacity on the market totaled more than 2 million tons, of which 1.2 million tons came from within the packaging segment. Having learned from the financial crisis, industry managers are well aware about the importance of cash, and a fast cash to cash cycle. The faster a company can get the cash to turn the lower the borrowing rate will be.

According to the recent StepChange analysis, working capital still has a clear priority for almost all companies within the pulp and paper industry. The development of the top industry players shows a steady improvement in working capital from 2007 to 2010, although working capital levels increased slightly in 2010.

within next year. Default is defined as a failure to make payment, or the initiation of bankruptcy proceedings.

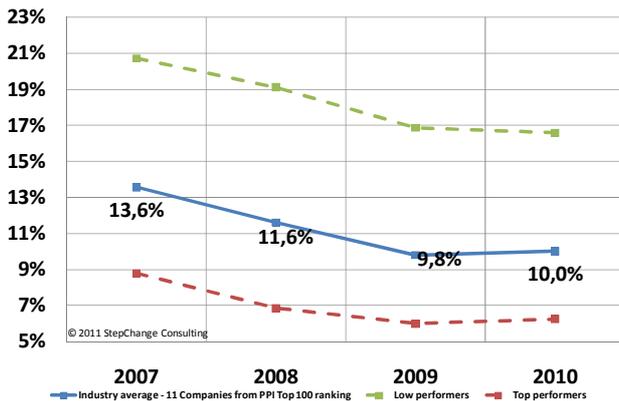


Figure 2: Industry working capital ratio 2007-10

In 2007, the weighted working capital turnover ratio was 13,6%. In 2008, the ratio decreased to 11,6 percent (improvement of 14,6%) and in 2009 an overall improvement to 9,8 percent was achieved (improvement of 15,5%). An increase to 10% was recorded for 2010 (decline of 2%). Overall, top performers are below 10 percent working capital, whereas under-performers show working capital levels above 20 percent of turnover³.

Looking at the working capital composition in more detail the days of receivables outstanding (DSO), the days of inventories outstanding (DIO) and the days of payables outstanding (DPO) will provide further insight. DSO state how fast companies are collecting their money from the customer, DIO show the total inventory levels in days including raw materials and finished goods and the DPO show how many days companies are receiving credit from their suppliers.

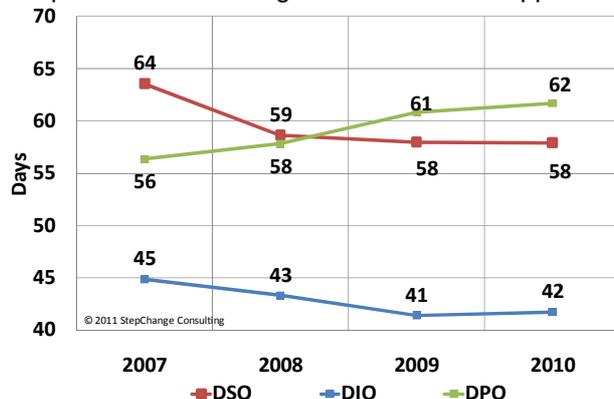


Figure 3: Industry working capital levers 2007-10

Until 2009 improvements were achieved in all three areas of Working Capital Management. Receivables and payables tend to be the areas with highest likelihood to achieve fast results as they can be partially improved through contract and process management.

³ Industry average for 11 companies. 2010 working capital figures weighted based on annual turnover 2010. Company working capital figures are taken from Balance Sheet published in the annual reports 2009 and include total working capital (Trade Receivables and Other Receivables + Inventories – Trade Payables and Other Payables).

Typically inventory management is more complex in most cases. In 2010 inventories increased slightly while increasing DPO and maintaining similar levels of DSO.

It can be assumed that in 2010 the need for additional Working Capital can be explained with the revenue growth highlighted before. As a result DPO and DSO tend to grow almost automatically under such growth scenarios.

As shown in Figure 3, companies focused on sustaining low levels of receivables and inventories. On the supplier side the companies managed to further increase their payment days by 1 day in 2010, with an overall 6 days increase since 2007. Sales were turned into cash 1 day earlier in 2009 compared to 2008 and remained on the same level in 2010. Inventories turned into sales 2 days faster in 2009 compared to the previous year, decreasing by 1 day compared to 2009⁴.

The cash conversion cycle (CCC) for these companies was also compared for the timeframe 2007-2010. The cash conversion cycle measures in days how long it takes from purchase of input materials via inventory storage to receiving payment by the customer (DSO+DIO-DPO). Results of this analysis are shown in Figure 4.

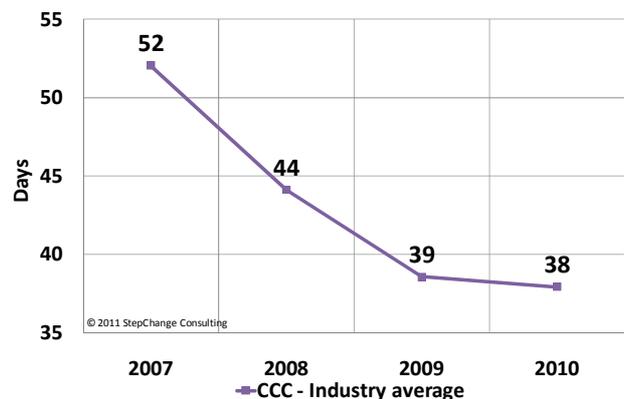


Figure 4: Average industry cash conversion cycle 2007-10

This graph shows the reduction in the cash to cash cycle (or increased speed of cash turns). In 2007, companies needed 52 days on average until purchasing and production was turned back into cash. In 2008, an improvement of 8 days was achieved, and in 2009, companies were able to further reduce their cash to cash cycle by 5 more days. In 2010, the companies managed to reduce the cycle by 0,6 days compared to 2009, reaching a cash to cash cycle of 38 days. This number is lower than the Working Capital figure because in a CCC calculation all levers are just added

⁴ Industry average for 10 companies. 2010 DSO, DIO and DPO are weighted based on 2010 annual turnover. The companies' working capital figures are taken from their Balance Sheet published in the annual reports 2010 and include Trade Receivables and Other Receivables, Inventories, Trade Payables and Other Payables. This research can be obtained by contacting StepChange directly.

independently of their weight which means that $1 \text{ DPO} = 1 \text{ DIO} = 1 \text{ DSO}$. Overall this reveals an improvement of the cash conversion cycle of 27 percent between 2007 and 2010⁵.

Finding the money

As illustrated above the key influencers of working capital are inventories, receivables and payables. Payables and receivables management are related to financial processes whereas inventories are depending on physical processes and are tied directly to operating practices and supply chain processes.

Typically the financial levers influence a bigger share of working capital. Reducing working capital by managing the collection and payment processes almost seems too obvious to discuss. However, tight working capital management requires a breakdown of the processes that drive working capital levels. Additional value can be captured through managing the details.

Payment terms often have a historical background and are typically not revisited frequently after initial contract closure. Prices, service levels and volumes change whereas payment terms often remain static. Therefore, it is even more important to put emphasis on negotiating favorable payment terms both with suppliers and customers periodically.

Customer payment term harmonization goes hand in hand with customer segmentation. In other words, what is the relation of the customer value to current payment terms? Sometimes less profitable and low-margin customers receive better payment terms regarding net payment days than customers that are more profitable. Suppliers can also be segmented for payment term re-negotiations. Sometimes suppliers with lower spend offer better payment terms when compared to larger suppliers in the same spend category. However, with respect to spend it is important to focus on main spend items and volumes to achieve an improvement in working capital. Although it is important to have standardized minimum payment terms the benefit of switching hundreds of C-suppliers by a few days is often limited compared to tough negotiations on payment terms with big suppliers.

The categorization of payment terms of customers according to margin, and of suppliers according to spend category provides greater visibility and control in the negotiation process. Payment terms need to be standardized. Only a limited number of payment terms should be allowed for each customer and supplier segment. Some companies even manage 80% of spend with only one payment term and limit customer payment terms to only a few depending on their power

position. Although not fully comparable, best practices concerning payables management can be identified in other industry segments such as consumer goods or global retail. These industries standardize their payment terms and payment processes and force them upon their supply chain partners. Some of these processes and practices may also be applicable for companies in pulp and paper.

Enforcement of guidelines for keeping working capital under control is also crucial for the handling of credit limit overruns. If a customer order exceeds the insured amount of receivables a delivery stop should be placed onto the order and sales should not be able to override it.

Potentials can also be found in the internal process set-up and the responsibilities in the process chain. The frequency and intervals of the dunning runs play an important role in pursuing overdue customers early in the process. Experience shows that some customers trigger payments only after receiving the first or second dunning letter.

Additionally, the defined grace period determines when a customer is considered overdue. Reducing grace periods may incur additional work as most customers tend to pay within the defined boundaries but also demonstrates that agreed terms are enforced strictly.

In addition to payment terms defined, overdues have a significant impact on the working capital performance. Although varying by country, weighted overdues as percentage of receivables of >7 days can be considered poor performance whereas average weighted overdues <3 days of receivables can be considered top tier. A company's ERP system can be customized to support these processes.

With respect to overdue collection responsibilities much is often left to the sales force resulting in settlements in favor of the customer. To help sales maintain good customer relationships a "bad cop / good cop" approach can be applied to segregate duties. Much of the process responsibility for follow-up, dunning and collection can be assigned to the finance and sales support functions. In combination with strictly standardized payment terms outside the responsibility of the sales force these processes can be very effective in reducing overdues.

With respect to creditors (payables), potentials can be found in the process details of the payment process.

Often supplier payments are made before the due date. This can be the case if for example ERP systems are set up to make payments once a week. Payments are often programmed to be made on the last possible payment run date before the due date in order to avoid late payments. In case of a weekly payment run this would mean that the ERP system set-up would generate 3.5 days of early payments on average.

⁵ Industry average for 10 companies. 2010. In this case the CCC was calculated by mathematically normalizing the denominator for inventories, receivables and payables using a turnover-based calculation to make the CCC for different companies comparable. This is contrary to the typical CCC calculations for the DIO and DPO components that are divided by costs of goods sold.

Alternatively it can be communicated to suppliers that payments will be made on the first payment run after the due date. In case of weekly payment runs this would statistically lead to a working capital improvement of 7 days on average compared to the situation prior to the change. To avoid conflicts with suppliers, payment run frequency can also be extended to two runs a week improving working capital by 5,25 on average with the same logic.

Money in storage

The second lever to improve working capital is inventory. Inventory seems to be the easiest working capital lever to control, as the assumption is that inventory can solely be controlled internally. However, the objective of inventory management is to balance customer service level requirements against inventory holding costs and production changeover cost. Finding the optimum stock levels is a skillful art of forecasting demand and managing against volatilities in the supply chain which includes many external influencers.

Many companies tend to apply a rather simplistic approach with respect to managing stock. A simple but misleading formula is to apply “lead time plus a little surplus” to define the amount of inventory per stock keeping unit (SKU). However, managing same service levels with less stock requires definition of cycle stock and safety stock. The cycle stock required is calculated based on average demand considering lead time or production cycle time and by taking order frequency into consideration. The safety stock needs to cover against future volatility in demand, transportation time or volatility in production. Models with any given level of sophistication can be build to define optimum stock levels. Most ERP systems technically support calculation and determination of optimum stock levels improving decision making in many cases dramatically.

As can be identified above, the key influencer of stock keeping decisions is based on future demand volatility. This can be tackled by improving transparency of demand, taking historical data into consideration and applying forecasting processes.

Many companies already use statistical methods to analyze demand patterns and trends of historical data. This approach is the first step towards demand based inventory management as it allows recognizing past order behavior and seasonality patterns. Leading practice is the application of a forecast which enables timely adjustments of inventory levels and positions. To avoid an over-complication of business processes and to achieve quick results forecasts should focus the biggest inventory drivers. To maximize the benefits for top inventory items, a sales forecast on SKU - or article level is advisable. More sophisticated methods considering the profitability of an inventory item such as “turn-and-earn” concepts can be applied to identify which items to forecast.

To handle the vast amount of data a forecasting application can not only automate the process but also provide a statistical forecast as a base for manual review. Very often the forecast engine of such applications produces excellent results in recognizing historical patterns and seasonality. The manual interface provides customer insights and serves as a decision basis for marketing activities, customer promotions and capacity management.

Equipped with such information inventory levels and positions can be determined more accurately and synchronized with the expected demand changes.

A focus on the high volume and high value items can yield significant savings quickly. Nevertheless, overstocking can still occur if demand unexpectedly drops. Therefore, processes to monitor and address the symptoms of inefficient inventory management, high stocks, need to be in place for all inventory items.

In addition to the management of stock levels against defined inventory targets there is often a lack of operational stock management guidelines and principles. Although total stock levels may be in line with overall targets, the inventory age and detailed churn analysis may show a different picture. Often the age analysis of inventory reveals that operational potentials exist in reducing aged stock. Aged stock is often caused by insufficient focus on physical inventory management. This is sometimes related to physical storage principles without application of “first-in-first-out” (fiffo). The root cause is sometimes warehouse management practices and warehouse layouts. In case goods are stored against a wall, forklift drivers try to minimize the number of handling maneuvers which leads to a “last-in-first-out” (liffo) principle.

Potentially aged stock becomes dead stock not only with an impact on working capital but in this case directly on profit. The remedy is to continuously monitor aged stock lists and to have guidelines about which actions to take. With respect to short term working capital improvements, aged stock should be assessed against opportunities to sell it, use it in the production processes, potentially charge it to customers or if no alternatives exist, to devalue and dispose of it. Overall processes need to be established that enable monitoring and enforcement of processes that lead to avoidance of aged stock.

Making sure the money rolls in

According to the principle “you get what you measure” and “you cannot control what you don’t measure” it is essential to have performance metrics, targets and responsibilities to empower the organization. The performance metrics and the related reporting system will help to align inventory levels and positions to the actual demand situation. A performance management framework measuring the key working capital parameters in all three working capital areas is a pre-requisite for a flexible and adaptive organization which adjusts

itself to important business events. Additionally, the performance measurement system needs to be in line with personal performance targets. An example is a target-conflict between working capital and sales targets. It is common that sales managers are expected to reduce working capital, but at the same time their personal bonuses are only dependent on sales volumes. In this case initiatives may fail when a sales manager has to trade between either achieving his own bonus or achieving the company targets. Therefore, performance systems need to encompass growth, profit and working capital targets to balance scorecard achievements.

Sustainability – Keep the money flowing

It can clearly be seen that working capital focus remained on the agendas in 2010 even though more maintaining achieved working capital levels rather than improving further. As comparison shows, companies have mainly improved their payables situation during the last year. To improve working capital ratios further it will become increasingly important to continue increasing the payables levels while in the same time reducing receivables and inventories. A key to further and step-change reduction will be an improvement of overall supply chain management capabilities. Inventory level can only be reduced so much through operational measures. Further improvements require a sophisticated transformation of supply chain processes which tend to be rather traditional in the pulp and paper sector. It can already be seen that companies have started to focus on overall supply chain improvements - not just for the sake of reducing working capital but for the sake of overall service improvements and capturing competitive advantages.

Considering all recent data about price levels, one can assume that prices will continue to increase.

Where can companies get the additional financing if customer and supplier payment terms have already been squeezed?

Companies will now have to focus even more on improving their internal processes within the supply chain. With increasing prices, it will become more difficult for companies to keep stock values down. Therefore, a comprehensive supply chain approach is needed in order to improve inventory levels effectively and sustainably. This can be applied in multiple ways. One aspect is to take a holistic view on all relevant processes and interfaces related to inventory management – re-order definitions, replenishment processes, inventory management responsibilities, order processes, material intake and handling processes. Significant improvement potentials are hidden in the interfaces between all these processes. A different aspect is to synchronize all processes with external parties – standardizing data, information and process flows across supply chain partners need to target management with significantly lower inventories. Increased transparency and shared objectives fosters

the reduction of redundancies and duplications across the supply chain for mutual benefits of all involved partners. Another aspect is to expand the definition and span of control within the entire supply chain. This means actively managing the inbound & outbound supply chain. This will support visibility and control of externally held and controlled stock, mode of transport selected, time and condition of deliveries and support management of total supply chain costs.

In summary, it can be seen that there are different levels of sophistication with respect to working capital management. Taking an operational approach is only a start. Trying to achieve world class working capital levels sustainably will require a holistic view on the drivers of working capital. In the pulp and paper industry this will most likely only be achieved through an integrated philosophy of working capital management and supply chain excellence.

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About StepChange Consulting

StepChange is an industry focused and independent management consulting company with a proven track record in supporting clients to achieve sustainable value. StepChange provides support to top tier organizations in the industry from strategy development to implementation of operational improvements. With an international team of industry experts StepChange can hit the ground running. StepChange provides innovative and yet pragmatic solutions, placing an emphasis on delivering measurable business results.

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