

## Money collected!

An industry perspective on working capital management and value capture

By Stefanie Jungmann & Mario Resch

The last 18 months have been very difficult. Commodity markets amongst them the pulp, paper and packaging industry were impacted significantly by dropping demand.

However, the impact varies depending on a company's position within the value chain. Companies from the forestry sector already suffered prior to the actual economic 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.

Margins were largely maintained as input costs retracted concurrently, but cash flow and liquidity became a problem with the lack of overall demand. As the manufacturing sector was slow to react to the sudden drop in sales, higher inventories together with a decreasing capacity utilization generated even fewer liquidity reserves. With 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. This in turn led to higher internal risks that had to be covered by companies in the sector and the need to manage working capital tightly.

According to Atradius, a major credit insurance provider, the expected default frequency rate (EDF) for key markets increased significantly during the last quarter of 2008 and the first half year of 2009, and started to recover since then<sup>1</sup>.

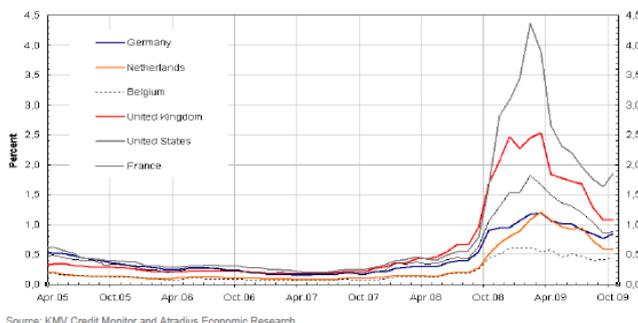


Figure 1: Credit default frequencies by country

<sup>1</sup> Source: Atradius Economic Outlook December 2009

The EDF chart is based on publicly listed companies and the likelihood of default within the next year. In this context, default is defined as a failure to make a scheduled payment, or the initiation of bankruptcy proceedings.

It has been a tough year for the majority of the industry players; however, there are significant signs of recovery on the horizon. The assumption can be made that Q2 2009 was the trough for the industry. Q4 reports for the majority of the industry players showed improved sales as companies were able to recover some of the losses made earlier during the year.

According to the economic November 2009 Outlook of the OECD, economic growth resumed across OECD countries in the third quarter of 2009. Gradual growth is expected for the next two years with improving financial conditions. In the US, stimulus policies will support growth, although it will be weaker than in previous recoveries. The sharp contraction in the Euro zone appears to have ended sooner than anticipated but the recovery is expected to be slow. In Japan, annual growth is projected to pick up to around 2 % in 2011.

According to the IMF projection from January 2010, world output is expected to rise by 4 percent compared to an output of -0,8 percent in 2009. The euro area with an output of -3,9 percent in 2009 is supposed to reach an output of 1 percent in 2010.

All signs point to recovery; however, according to an industry survey conducted by StepChange recently, the majority of respondents is of the opinion that "pre-crisis" levels will not be reached within the next 12 months.

In a financial study StepChange gathered data for the top stock listed companies in the industry covering the paper & packaging sector to compare the financial development of 2009 vs. 2008. The research revealed that 2009 consolidated revenue figures are 11 percent below 2008 levels. However, the EBIT margin of these companies increased by 1 percent in 2009 compared to 2008 figures. Comparing the first two quarters of 2009 vs. the last two quarters of 2009, consolidated revenue increased by 2 percent. In 2009, 3rd and 4th quarter EBIT margins were 1 percent higher than 1st and 2nd quarter margins.

In 2009 asset consolidation and closure continued within 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 one of the latest issues of the PPI magazine, more than 30 pulp, paper and packaging machines within Europe were permanently shut. This

was a combined annual capacity of > 4.4 mln tons. For 2010 more machines are on the list for permanent closure. On the other side significant new capacity especially in packaging grades is already online or scheduled to go online shortly.

In times of crisis, every company depends on a fast cash to cash cycle and a tight working capital management in order to maintain liquidity. The faster one can get the money to turn, the more cash will be generated and the lower the borrowing rate will be. According to the recent analysis, working capital 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 for the past 2 years.

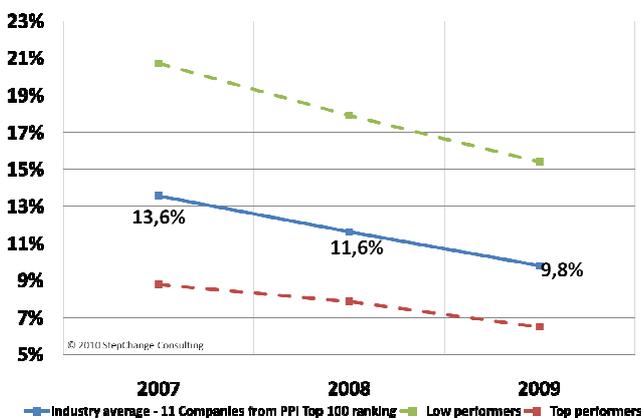


Figure 2: Industry working capital 2007-09

In 2007, the weighted working capital turnover ratio was 13,6 %. In 2008, the ratio decreased by 2base points to 11,6 percent (improvement of 14,6%) and in 2009 an overall improvement of 1,8base points to 9,8 percent was achieved (improvement of 15,5%). Overall, top performers are below 10 percent working capital, whereas under-performers show working capital levels above 20 percent of turnover<sup>2</sup>.

Looking at the days of receivables outstanding (DSO), the days of inventories (DIO) and the days of payables outstanding (DPO) will provide further insight. DSO states 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.

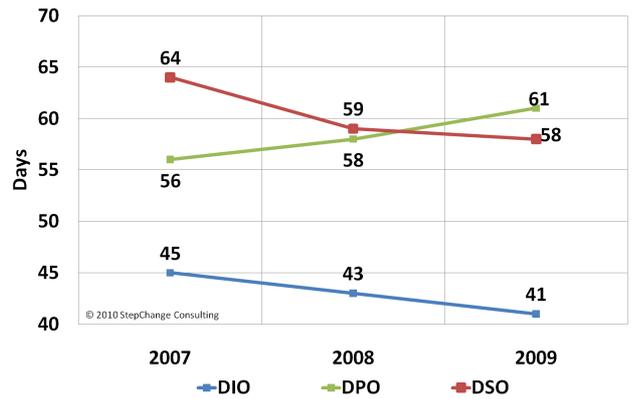


Figure 3: Industry working capital levers 2007-09

In terms of DSO, DIO and DPO, the industry was focusing on improving its performance in all three areas, however, most remarkably in receivables (DSO) despite the challenging environment. Receivables and payables tend to be the areas with highest likelihood to achieve fast results as they can be improved partially through contract changes whereas inventory management is more complex in most cases. Even though the value of inventories in the balance sheets improved compared to 2008, one has to bear in mind the sharp decrease of price levels in 2009. Therefore, the price drop might indicate an improvement that may disappear once prices increase.

While it is a necessity for companies to improve their cash to cash cycle during economic downturns working capital and the liquidity requirements often increase in times of an economic recovery. As prices and demand increase, the value of working capital also increases along with the need to pre-finance the recovering upturn.

In summary, companies are focusing on collecting their money faster and keeping stock levels down. On the supplier side, the industry was able to increase payment days by 3 days in 2009, compared to 2008. Sales were turned into cash 1 day earlier in 2009 than in the preceding year, and inventories turned into sales 2 days faster<sup>3</sup>.

The cash conversion cycle (CCC) for these companies was also compared for the timeframe 2007-2009. 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).

<sup>2</sup> Industry average for 11 companies. 2009 working capital figures weighted based on annual turnover 2009. 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).

<sup>3</sup> Industry average for 10 companies. 2009 DSO, DIO and DPO are weighted based on 2009 annual turnover. The companies' working capital figures are taken from their Balance Sheet published in the annual reports 2009 and include Trade Receivables and Other Receivables, Inventories, Trade Payables and Other Payables. This research can be obtained by contacting StepChange directly.

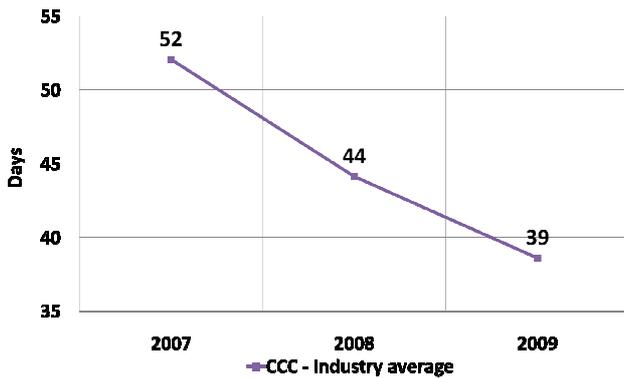


Figure 4: Average industry cash conversion cycle 2007-09

This figure 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. Overall this reveals an improvement of the cash conversion cycle of 25 percent between 2007 and 2009<sup>4</sup>.

### 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 they received 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.

<sup>4</sup> Industry average for 10 companies. 2009. 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.

In addition to payment terms defined, overdues have a significant impact on the working capital performance. 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.

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 built 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” (fif). 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” (lif) 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. Often it can be found that it is expected from sales managers to reduce working capital but their personal bonuses are only dependent on sales volumes. In this case initiatives may fail when a sales manager has to trade between achieving his own bonus or achieving the company targets. Therefore, performance sys-

tems need to encompass both growth, profit and working capital targets to balance scorecard achievements.

### **Continuously more money - Sustainability**

In 2009, working capital clearly was a key concern for most of the companies in the industry. As comparisons show, companies have mainly improved their receivables and payables situation during the last year. To improve working capital ratios further it will become increasingly important to sustainably reduce inventory levels as a next step.

Considering all recent data about price levels, one can assume that prices will continue to increase. As soon as the industry reaches a turning point and production and demand increase further, an additional need for working capital will be the consequence. During periods of price increases, the same amount of units held on stock rises in value and ties up more capital than previously.

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 an holistic working capital approach. 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.

*Stefanie Jungmann is a consultant at StepChange Consulting and specializes on working capital improvement and liquidity management.*

*Mario Resch is a senior project manager at StepChange Consulting and specializes on supply chain excellence and business performance improvement.*

#### *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.*

*For further inquiries and comments regarding this Point of View please contact us at [leapfrog@stepchange.com](mailto:leapfrog@stepchange.com)*