Discipline Deteriorating!

Working Capital up in 2011

A four year review of Working Capital and Liquidity Development

By Stefanie Jungmann and Julia Haydn

The trend from 2010 continued and 2011 was a recovery year for the majority of the industry players. Strong revenues and EBIT margins were recorded in the first part of 2011, easing up in the second part of the year though.

At the beginning of 2012 it seems that new clouds are on the horizon. The recovery in most developed economies was slower than expected. 15 million jobs were permanently lost since the last crisis[1]. Indicators are signaling a rocky road ahead:

- Increasing financial and fiscal uncertainty
- Record budget deficits
- Instability of the Euro caused by budget deficits and default in Greece
- Decreasing trust in both the USD and EUR
- Interest rates maintained at relatively low levels with rising inflationary pressures
- Increasing volatility in stock markets
- Record gold prices
- High levels of unemployment and increasing social unrest
- Declining economic confidence
- Declining growth rates in China

The pulp and paper industry is naturally impacted on both the demand and the supply side.

Demand was good in the first half of 2011, but was slowing down in the second half with increasing payables levels. After the significant drop of prices in H2/ 2011, prices are slowly increasing again in most segments with further increases announced. However, it remains questionable if these increases will be successful given the significant drop in demand. Despite a recovery since 2009, demand in many segments is still below pre-crisis levels. In printing and publishing grades the development remains overall negative – a trend that attests to the structural change in these segments.[2]

Global pulp prices already peaked in 2011. Between July and December 2011, prices fell by about 20 percent. However, according to RISI, new hikes are expected in the near future. Wood costs still remain on a high level; however, as a consequence of the pulp decline, prices for wood fiber are now on a downward trend as well. Costs had steadily increased for five consecutive quarters until Q3/2011. Since then, the hardwood index (HFPI) fell by 3.6 percent from Q3 to Q4/2011. Despite this drop, it was still five percent higher than in Q4/2010 and the third highest level ever recorded. The softwood index (SFPI) had reached its peak in Q2/2011 and fell for the second straight quarter in Q4/2011. Wood fiber costs are likely to continue downward in a number of markets in Q1/2012. After a series of increases, recycled paper prices have reached their peak by the end of September 2011 and followed a downward trend until the end of the year 2011.In January 2012, prices stabilized and are now again on the rise. Similarly prices for starch and chemical costs remain high but are moving downward since the last quarter of 2011. More price cuts are expected in 2012; however, no major cuts are expected. Transportation and logistic costs have stabilized after a strong increase post-crisis. Due to increasing fuel prices and capacity reductions more price hikes are expected.

Overall, the outlook is not very bright. In comparison the current situation is strikingly similar to 2008. Only this time the public sector is ailing as a result of the bailouts from 2009. Current problems are directly linked to unresolved issues from the crisis of 2008/2009. In both cases the financial sector is being bailed out only that governments do not have the money or capacity to cover for all potential risks. Cynically the financial sector has become even bigger since the last crisis. The planned regulation of the sector was not successful so far.

In a press release from February 20th, 2012, the OECD reports that the economic growth in the major industrialized economies has nearly come to a halt. In the Euro area and the European Union, GDP fell, by 0.3%, for the first time since the second quarter of 2009. In the United States, GDP growth accelerated to 0.7% in the fourth quarter of 2011, compared with 0.5% in the third quarter, while in Japan GDP declined by 0.6% following the strong technical rebound (1.7%) in the third quarter.

In its most recent publication on world economic outlook from January 2012, the IMF warns about a new dangerous phase in the global economy. According to the paper, the global recovery is threatened by intensifying strains in the euro area and fragilities elsewhere. Financial conditions have deteriorated, growth prospects have dimmed, and downside risks have escalated.

The IMF has therefore adjusted the forecast on global growth. Global output is projected to expand by 3¼ percent in 2012 - a downward revision of about 0,75% relative to the September 2011 World Economic Outlook (WEO) outlook. This is largely because the Euro area economy is now expected to go into a mild recession in 2012 as a result of the rise in sovereign yields, the effects of bank deleveraging on the real economy, and the impact of additional fiscal consolidation. Growth in emerging and developing economies is also expected to slow because of the worsening external environment and a weakening of internal demand.[3] In the Euro Zone the export oriented German economy recovered quickly after the financial crisis and has held up well along with Finland, Estonia and Austria. Outside of the Euro Zone the Baltics lead the growth charts together with Sweden and

[1] Source: OECD
[2] Source: Preliminary statistics CEPI 2010 [2]
[3] Source: IMF, World Economic Outlook – Update, January 2012

Poland. Southern and Western European countries showed slow or negative growth.

With the massive debt problems and shrinking confidence of the bond markets in some EU member states the European central bank has had to step in buying up bonds from some of its member states. Additionally the ECB provides almost unlimited financing to financial institutions to restore confidence and availability of liquidity between banks as the inter-banking lending was drying up in 2011. The provision of this cash at record low interest rates is pushing significant risks into the future - a ticking time bomb. The current practice is once again a subsidy of the private (financial) sector with public funds.

With another economic slowdown on the horizon it is worthwhile to revisit the actions taken by many companies in the industry since 2008. As financing became short, companies had to look more closely at their Working Capital in order to improve cash flows from internal operations.

In this article we review the development of Working Capital across regions and different segments of the industry across four years. The analysis is based on publicly available information of companies in the pulp and paper sector. The results are based on the 48 largest public companies in the sector excluding pure pulp producers.

In 2011 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 become less dependent on financial borrowings.

According to PPI magazine, in 2011 the closures in Europe reached > 2,3 million tons, with more than half in the graphic papers segment. New capacity totaled > 0,3 million tons, of which almost half of the capacity came from the tissue sector. Having learned from the financial crisis, industry managers are well aware about the importance of cash, and a short cash to cash cycle. The faster a company can get the cash to turn the lower the borrowing rate will be.

Working Capital Development

Working Capital has continued to remain an important agenda item for the majority of companies within the industry. Up until 2010, especially in Europe, Working Capital programs established during the crisis seem to have continued to deliver good results. Working Capital discipline has mostly been maintained. However, in 2011, most companies have again increased Working Capital levels. On average the Working Capital ratio has increased by 0,6 base points since 2008. In 2008, the weighted average Working Capital turnover ratio was 14%. After increasing to 14,3% in 2009 (decline of 2%), a decrease to 13,6 (improvement of 5%) percent was achieved in 2010. Unfortunately, in 2011, levels increased again to 14,6%.

It can be observed that the spread between the lowest and highest Working Capital levels has widened again in 2011[4].

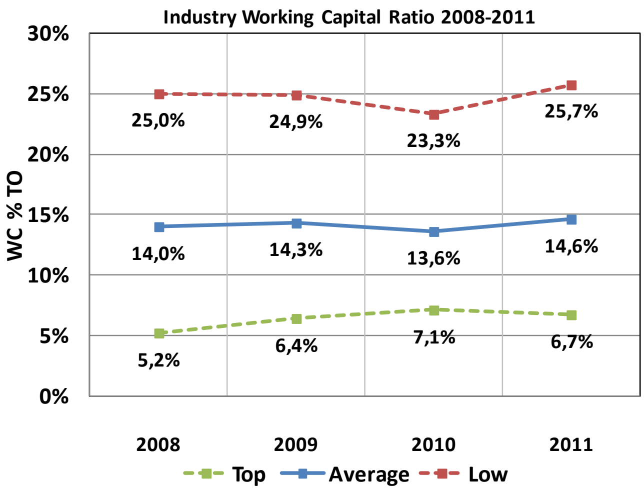

Figure 1: Development of Working Capital 2008-11

It seems that until 2010, companies set a priority on Working Capital. Low performers of the industry worked on their Working Capital levels and managed to decrease Working Capital by 1,7 percentage points to 23,3%. In 2011 however, levels of low performers increased again to 25,7%. An explanation could be increasing pressure from suppliers and customers. Only the top performers of the industry succeeded in decreasing their Working Capital level from 7,1% in 2010 to 6,7% in 2011. Due to an increase from 2008-2010, this was a necessary step back into the right direction.

Looking at the Working Capital levels a bit more in detail reveals significant regional differences: European companies reduced Working Capital significantly during the crisis year of 2009 and kept low levels in 2010, increasing again significantly from 12,2% in 2010 to 13,8% in 2011. North American companies increased Working Capital in 2009 and have reduced it to European levels since. Working Capital levels in Asia have remained high and actually increased since 2008 (from 16,3% to 19,2%). The overall share of Asian companies within this group of companies is 22%. European companies represent 47% and US companies 31%.

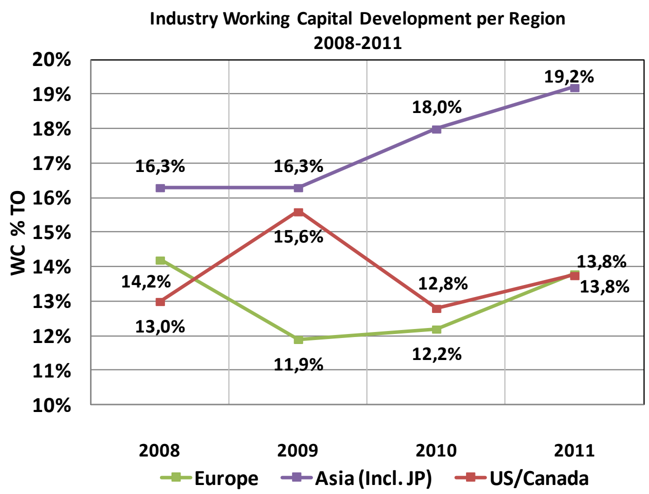

Figure 2: Industry Working Capital ratio per Region 2008-11

[4] A company with a Working Capital turnover ratio below 10% is considered as a top-performer where as low-performers report a ratio above 20%

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. Further downgrading has occurred in 2010 und 2011. 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 levels.[5] In light of the current economic turbulences it is likely that the default rate may soon increase again.

In light of these predictions it becomes natural to refocus on liquidity management.

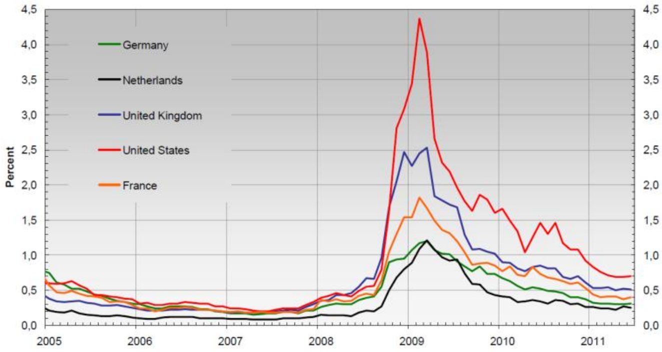

Figure 3: Credit default frequencies by country

The analysis of the Working Capital by receivables, payables and inventories provides more insight. DSO (days sales outstanding) indicate how fast companies are collecting their money from the customer, DIO show the total inventory levels in days including raw materials and finished goods. DPO show how many days companies are receiving credit from their suppliers. In short it can be said that the increase of WC levels come mostly from worse results in receivables and payables. Suppliers and customers seem to have put a good amount of pressure on the industry.

Customer credits actually have deteriorated since 2008. In 2011 sales were turned into cash 7 days later (62 days) and inventories turned into sales 1 day earlier (43) than in 2010. On the supplier side the payment days were decreased by 3 to 51 days.

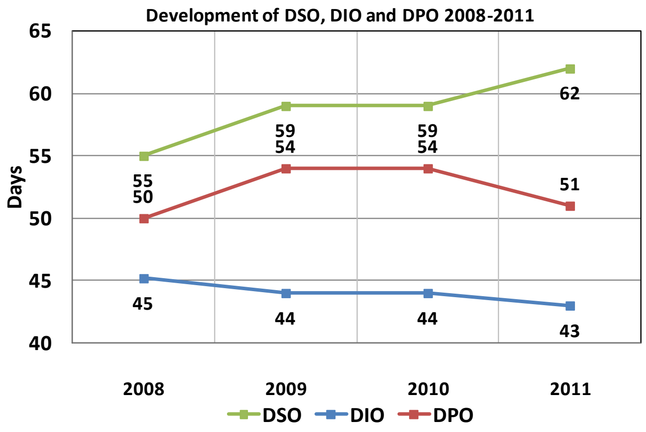

Figure 4: Working Capital levers 2008-2011

As *Figure 5* shows, DSO development has been quite different across the regions. North America has the lowest DSO values but levels have increased by 12 days since 2008 (30%). In Europe receivable values have remained stable at around 63 days from 2008-2011 and in Asia they increased by 11 days since 2008 (16%) to 78 days. It has to be stated that especially in Europe the average is influenced by a wide range of very short (Germany, Austria, Switzerland) and very long (Italy, Greece, Spain) payment terms.

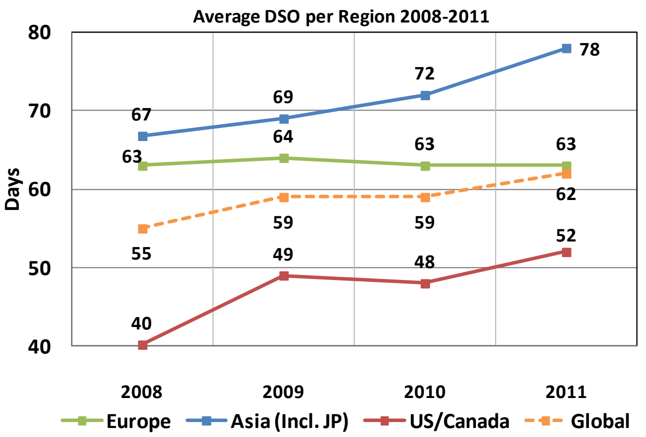

Figure 5: DSO per Region 2008-10

The inventory comparison in Figure 6 shows a more heterogenic picture. North American companies have the lowest average inventory levels. Asia and Europe show similar (higher) levels which can traditionally be explained with higher transfer times in some cases because of country or natural borders. All regions have kept inventory levels fairly stable over years. Europe and North America have been improving inventory levels since 2008. The Asian DIO has increased from 44 days in 2008 to 47 days in 2010 (decline of 7%).

[5] Source: Atradius Economic Outlook September 2011, The EDF chart is based on publicly listed companies and the likelihood of default within next year. Default is defined as a failure to make payment, or the initiation of bankruptcy proceedings.

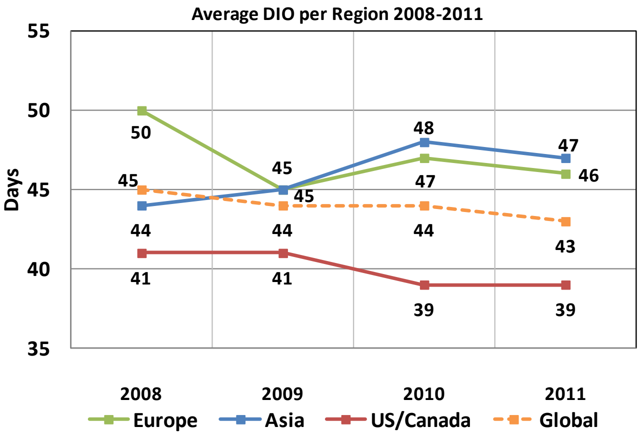

Figure 6: DIO per Region 2008-10

Payables have consistently increased in all regions between 2008 and 2010. In 2011 however, there was a large drop of DPO in Europe. European levels have decreased from 66 days in 2010 to 59 days in 2011. One possible option could be that suppliers were facing cash problems and had to put more pressure on the industry.

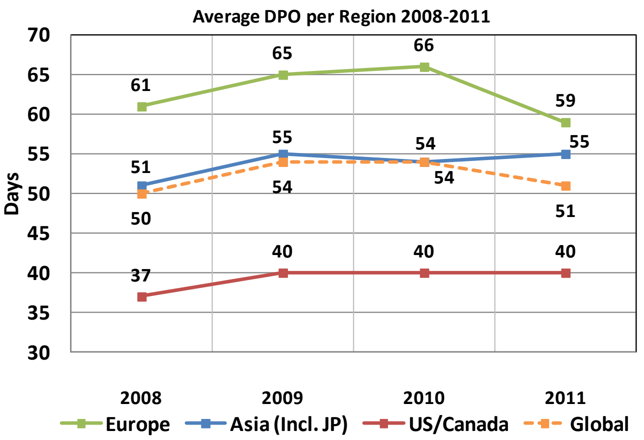

Figure 7: DPO per Region 2008-10

Improving Working Capital through payables by pressuring suppliers is the fastest (and potentially easiest) measure to implement. Results can be achieved through negotiations instead of structural improvement of internal processes.

However this approach to reducing Working Capital typically leads to a higher Working Capital long term as payables on one side are receivables on the other. And compensating high receivables with high payables may lead to market chain reactions, which is why some countries (e.g. France) have passed legislation to reduce payment terms in order to improve liquidity.

CCC

The development of the cash conversion cycle (CCC)[6] was also analyzed for the timeframe 2008-2011. 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 8.

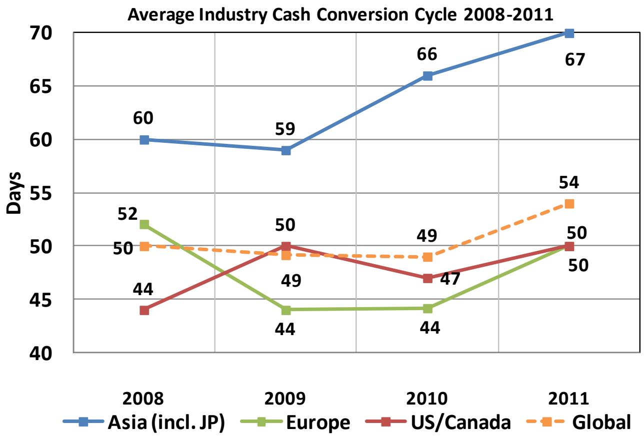

Figure 8: Average industry cash conversion cycle 2008-10

The regional comparison of CCC normalizes the outperformance of North America in terms of receivables and inventories somewhat because of lower payables. In 2011, North America and Europe both show a CCC of 50 days, which is still below the global average of 54 days. However, the development shows a negative trend since 2010.

After increasing by 6 days to 50 days in 2009, the CCC in North America has decreased to 47 days in 2010, and is back to 50 days in 2011.

Asian companies have increased their CCC by 12% since 2008 with the highest increases from 2009 to 2010. In 2011, the CCC for Asia only increased by 1 day to 67 days, which was mainly due to pressure on payment terms by their customers.

In general, this graph shows an increase in the cash to cash cycle. In 2008, companies needed 50 days on average until purchasing and production was turned back into cash. In 2009, an improvement of 1 day was achieved, and after a stable 2010, in 2011 companies increased their cash to cash cycle by 5 more days.

Gearing Ratios

The debt-to-equity ratios provide an insight into the exposure and leverage levels of companies in the industry.

Overall, the weighted average gearing ratio has decreased by 12% since 2008, now reaching a ratio of 2,2 in 2011. The development has been steady and all regions have reduced debt levels until 2010. In 2011, the ratios slightly increased again for all regions. The gap between the continents has decreased significantly. However, there are signs of stagna-

[6] Industry average for 48 companies.CCC = DSO+DIO-DPO 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 where DPO are subtracted from DIO and DSO despite different denominators (DIO and DPO are calculated through division by costs of goods sold)

tion: Whereas the overall improvement from 2008 to 2010 was 0,3 points, and 0,2 points, there was a slight increase of 0,2 points for 2011. This is a natural development as excessive equity ratios are not useful with respect to maximizing ROE. Many companies had to clean up their balance sheets and improve financial health over the last years. With improved financial health the companies have been able to afford new acquisitions. This has lead to an increase in gearing for some companies as some of the biggest acquisitions have taken place in 2010 & 2011 (Rock Tenn / Smurfit Stone, UPM / Myllykoski, IP / Temple Inland)

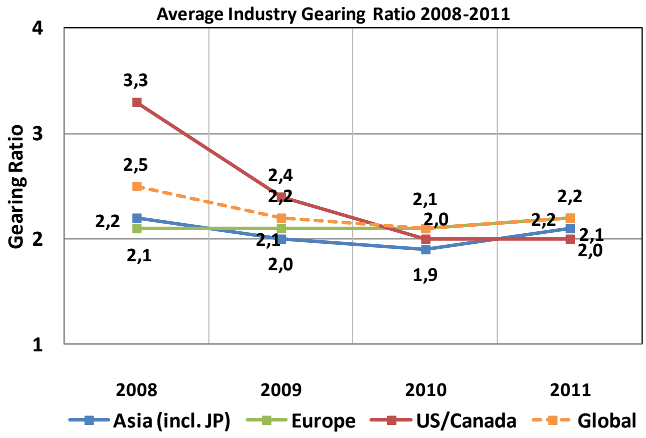

Figure 9: Average industry gearing ratio 2008-11

Companies in Asia and Europe have reduced their gearing more gradually than their US peers because they have had less pressure and an overall lower risk level with respect to debt. From the three observed regions, North America has by far improved the most and has been moving steadily towards the weighted average. Whereas in 2008 the gap was +0,8 points (3,3 to 2,5), in 2011 the US companies succeeded in staying below the weighted average for the second year in a row.

Active Working Capital Management has been an important part in reducing financial leverage. Tapping the internal bank to repay loans or co-finance acquisitions in order to reduce premiums for external credit lines has been a key priority of many companies in the last years.

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 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 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" (fifo). 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" (lifo) 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 companies have retained a Working Capital focus from 2008-2010, trying to maintain the achieved levels from 2009 rather than improving further. In 2011, levels have again increased. This can potentially be explained as Working Capital management was critical for many companies during the crisis. The recent emphasis of many companies has been on strategic growth (M&A), and transformational sales and supply chain projects. Therefore it is understandable that Working Capital has not decreased further. However, it seems that control measures implemented during the crisis help to stabilize Working Capital levels, especially as many prices have increased during the period from 2008-2011 leading to naturally higher Working Capital requirements.

As comparison shows though, the majority of companies have not improved their Working Capital levels during the last year. To improve Working Capital ratios further it will become increasingly important to continue increasing the payables levels while at 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. Many 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.

To improve Working Capital levels sustainably further companies will have to focus even more on improving their internal processes and linking them to external partners. Long term successful and world class Working Capital management cannot be achieved in isolation. 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.

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*