Rollercoaster rides: What goes up may come down
A review of the global economic climate and the state of the industry

By Joachim Klein & Julia Haydn

The last 24 months have been characterized by post recession growth and record earnings for many companies in the industry. Merger and acquisition activity has increased. Stock values have increased and the average valuation of companies in the industry has more than doubled since the trough early in 2009. The business environment has been good for many companies in the industry. However, the outlook for the future is grim as some structural issues have not been resolved post crisis. In our publication from April 2010[1] we highlighted a few structural issues we predicted would impact global economic stability in 2010. We were wrong as the prediction did not materialize in 2010 but rather in 2011.

The following issues were highlighted in 2010 as risk factors for a potential drop in the economic development:

- Record budget deficits through massive bailout programs
- Decline in global economic growth driven by demand from China originally backed by confident and ever-spending consumers in the US
- Instability of the Euro caused by budget deficits and excessive borrowing in Greece and other EU member states
- Increasing unemployment as a result of the 2009 crisis
- Rising unemployment and uncertainty about the future may impact consumer spending
- Despite government bail outs the financial sector still has to digest the consequences of the housing crisis

Reviewing these issues shows that all of them are critical to the current economic development and how they are mitigated will determine the fate of economic development in the years to come.

The current record level public debt was among others caused by the government bailout and economic stimulus programs during the financial crisis. Governments that were already structurally ailing from increasing debt levels stepped in to save the financial sector and keep the world economy running. It was ignored that the bail outs and stimulus packages had to be financed in the form of new debt. In most cases this debt will be paid back through the regular income of governments – taxes. At the same time the economic development has been very meager. Many economies are still below or just reaching 2007 levels. This is a reason why many governments have reached debt levels > 100% of GDP. Ironically the US is in a peer group with Greece and Italy. In the US the government was nearly unable to pay for its federal workers. Only a last minute (temporary) agreement kept the government financially liquid.

Most countries in Europe have increased their debt levels as % of GDP significantly and the rate of new borrowings is for many countries above the 3% that were defined as the maximum when the European Monetary Union was formed (Maastricht treaty). The issue is that the political pressure to keep the Union together has suspended the enforcement of the Maastricht treaty criteria. The recent political decision to bail out Greece is more based on political reasoning than economics. The fear is that the Euro will fail if Greece is not bailed out. It is not considered that most likely Greece will not be able to repay its debt in the future. The structural issue is that Greece should not have joined the European Monetary Union in the first place as it never met any of the financial criteria needed to join the Union. Saving Greece now is in the eyes of many economists just buying time and not solving the issue. The money that is now made available for Greece may be missing in case a bail out of a much bigger country is needed. In this regard the current plan to save Greece to save the Euro may in a worst case scenario lead to the demise of the Euro.

The argument for saving Greece is justified with the global financial markets and a potential global instability if this is not done. Fear of a financial collapse and chain reaction of bank failures is being spread to create acceptance for these government guarantees. How many, if any, especially system-critical financial institutions would fail in case Greece was not saved is unclear. Fear rules decision making. While balance sheets of financial institutions have become more healthy (most banks in Europe just passed a "stress-test") it is claimed that many banks are still not healthy enough to cope with massive write offs as a consequence from a Greek bankruptcy.

Similarly to 2008, government money is being used to prevent private write-offs or institutional bankruptcies. Ironically the financial sector is profiting and becoming even more powerful (and even more difficult to control). The much discussed regulation of the sector was never implemented to the degree it was discussed. The financial sector has become even bigger and influential than before the crisis.

[1] "StepChange, "2010 – What's next? – Remaining cautions in post crisis Euphoria", published for the 2010 RISI European Pulp and Paper Conference"

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Both big global currencies, the US Dollar and the Euro are suffering structurally. The biggest holder of US debt is China. It is understandable that the developments are being observed with great concern as the value of the trade surpluses diminished with a weaker USD. China shifted some of its portfolio held in USD to European bonds only to find out that the issues are the same. As there is a lack of trusted currency alternatives so much money has poured into the Swiss Franc that a maximum fixed rate for the Swiss Franc vs. the Euro was announced. With supply and demand pushing the value of the Swiss franc up, the Swiss industry became uncompetitive. These developments show how interconnected today's economy is. At the same time it also shows that the dominance of the western political and economic system is disappearing. The crisis since 2009 has narrowed the gap between the western economies and BRIC countries. It is understandable that these countries are demanding more influence and are becoming increasingly vocal.

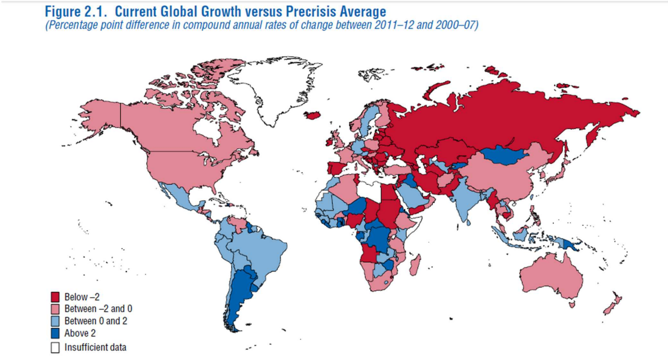

Figure 1: Current global growth versus pre-crisis average[2]

However, there are also signs that growth rates in China are declining. As US consumption has slowed during the crisis China instilled a domestic growth program to compensate. While China will continue to grow, the question will be by how much. Every percent lower growth automatically leads to declining growth rates in western economies, especially in export oriented countries like Germany.

While it is widely believed the crisis was overcome because many companies are announcing record earnings and the growth rates have been acceptable in many countries, *Figure 1* shows that most countries' growth rates are well below pre-crisis levels. South America, parts of Africa, India, Middle & Northern Europe and the Middle East are better off than before the crisis from a GDP perspective. The reality is also that 15 million jobs were permanently lost since the crisis[3]. The US has the highest unemployment since the 70s and so do many countries in Europe. The issue is that the unemployment rates are the highest among youth. In Spain and other countries in Europe the unemployment rate among youth is >40%. It is evident that this situation is a big risk if not mitigated quickly. Apart from the social consequences these nations risk a loss of productivity and international competitiveness. Additionally emigration has started. The higher qualified are leaving.

Economic impacts on the pulp and paper industry

Recent indicators signal a rocky road ahead. In a press release from September 8th 2011, the OECD reports that the economic growth in the major industrialized economies has nearly come to a halt. Whereas satisfactory growth can still be observed in the emerging economies, the G7 countries (excluding Japan) will have to accept growth rates below 1% in the second half of 2011. Germany as an exception has had record growth rates as a result of the recovery from the 2009 crisis.

In its most recent publication on world economic outlook from September 2011, the IMF warns about a new dangerous phase in the global economy. According to the paper, the economic recovery has become much more uncertain than just half a year ago. Although a part of the slow down can be explained through exceptional one-time events, such as the Japanese earthquake and tsunami or the political changes in the Middle East, it is also clear that there are structural issues which impact growth.[4]

The IMF has therefore adjusted the forecast on global growth: Whereas the growth outlook in January 2011 was estimated at 4.5%, the growth outlook in September was only 4%. This equates to a decrease of 11%. The developed economies are expected to have a 1.6 percentage increase in 2011 and 1.9 percentage increase in 2012. The projection for the European Union is especially gloomy – a decrease to 1.7% is forecasted in 2011 and 1.4% in 2012.

[2] Source: IMF – World Economic Outlook – Slowing Growth, Rising Risks (WEO), Sept 2011
[3] Source: OECD
[4] Source: IMF – World Economic Outlook – Slowing Growth, Rising Risks (WEO), Sept 2011

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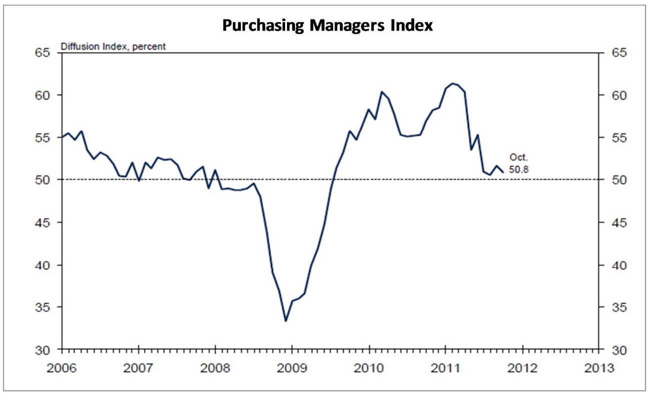

Figure 2: Purchasing Managers Index[5]

The purchasing manager index (PMI) shows that expectations for the future are deteriorating. The index has dropped significantly since the beginning of the year. The PMI is an indicator for the economic health of the manufacturing sector. The PMI index is based on five major indicators: new orders, inventory levels, production, supplier deliveries and the employment environment.

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

Demand has been good but is now slowing down or turning, inventory levels are increasing. Prices remain high with price increases announced in some segments. However as prices in other segments are declining it remains questionable if these increases will go through. Generally the demand trend is downward. Overall, despite a recovery since 2009, demand in many segments is still below pre-crisis levels – especially in printing and publishing grades – a trend that attests to the structural change in these segments.[6]

Wood prices remain on a high level; whereas the hardwood index (HFPI) recently hit the 24-year high in Q3 2011, the softwood index (SFPI) just turned, decreasing for the first time since Q2 2010. In contrast, pulp prices have reached the peak already some time ago, now following a downward trend. Recycled paper prices have also started to decline at a steady pace. Similarly prices for starch and chemical costs remain high but are moving downward. Transportation costs have stabilized after a rebound post-crisis. However, in some regions constraints and increasing prices can be observed due to the adjustment of transport capacity during the crisis. Financing costs have remained (artificially) low throughout the crisis. In light of burdening debt, interest rates for some countries with a bad credit rating have increased. Even the US was downgraded but interest rates have remained low. So far, China has raised interest rates already three times this year. “Safe” European countries (Germany, UK) report declining interest rates while mostly southern European countries report an increase. With the proposed “solidarity” solution for debts from individual member states, it can be expected that interest rates for better-off countries in Europe will increase.

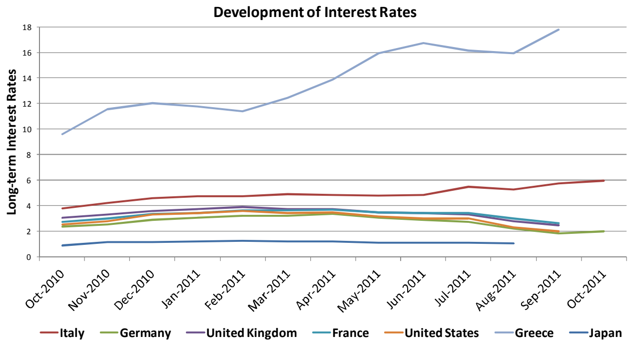

Figure 3: Development of interest rates across selected countries[7]

The low interest rates in the US can only be sustained as long as global creditors continue to maintain a high level of confidence in the strength of the US economy.

It can be expected that with increasing risk levels financing costs will also increase for companies in the pulp and paper sector.

M&A is back

With increasing profitability and improving financial health of the industry there have been a number of important and game changing acquisitions with a total value of more than $10 billion.

- May 2011: Rock Tenn acquires Smurfit Stone for a total acquisition value of $5 billion making Rock Tenn the second largest containerboard producer in the US with $9 billion in revenue
- August 2011: UPM acquires Myllykoski for $1.3 billion helping the much needed consolidation in printing and publishing grades in Europe
- September 2011: International Paper acquires Temple-Inland for a total value of $4.3 billion
- July 2011: European Packaging group Duropack announces it is for sale. Major European companies including Stora Enso, Mondi, Saica and DS Smith are expected to bid
- International Paper acquires the majority in Indian paper company APPM for approx. $300 million

The above examples show that the industry is back on the acquisition trail. However there are large differences between Europe and the US. The industry in the US is a lot more consolidated. For example the

[5] Source: The Federal Reserve Bank of Richmond, Nov 7 2011
[6] Source: Preliminary statistics CEPI 2010 [6]

[7] Source: OECD, Nov 2011. Defined as long-term (in most cases 10 year) government bond yields.

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combined market share of Rock Tenn and International Paper in Containerboard after the acquisitions will be close to 60%. In Europe the top 5 players have 56% of market share. 30% of the market is owned by more than 40 companies with less than 1% of market share. Other segments such as printing & writing in the US are also a lot more consolidated than in Europe. Europe is short of big M&A deals as the bigger players have been focusing on consolidating their internal portfolios, improving profitability and managing capacities. Smaller players have grown regionally through acquisitions or expanded their local market positions. Overall strategic positions have improved. Consolidation is essential and can be afforded by many companies.

Analysis of financial performance

StepChange has gathered data on the top stock listed companies covering the paper & packaging sector to compare the financial development of 2011 (up until Q3) to 2010, 2009 and 2008. The research reveals that 2010 revenues have increased by 12% compared to 2009. In 2009 revenues were 10% below 2008 levels. Comparing the first two quarters of 2010 vs. the last two quarters of 2010 the consolidated revenue increased by 7%.

In 2010 asset consolidation and closure continued within many areas of the industry. Many companies have continued to consolidate and sell some of their assets in order to improve their balance sheets.

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 the packaging segment.

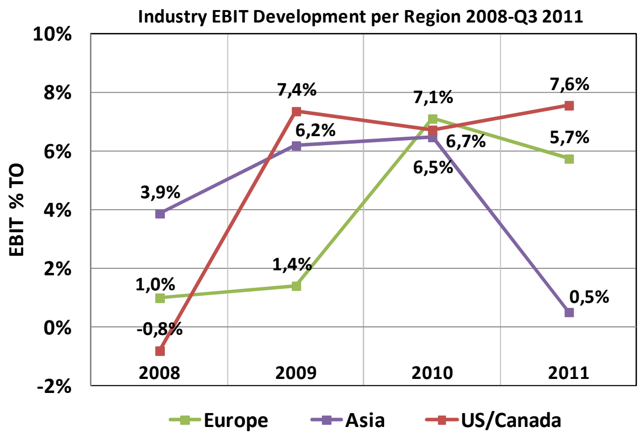

Figure 4: EBIT Development Pulp and Paper US, Europe & Asia

The regional comparison of the EBIT development in *Figure 4* shows that the average profitability in 2010 was on a similar level for all regions but that US companies were faster to rebound from the negative profitability in 2008. However, the US industry profitability in 2009 was significantly impacted by green energy subsidies for burning black liquor. By Q3 2011 the profitability of the US companies shows a positive trend for the current year (increase from 6,7% in 2010 to 7,6% by Q3 2011), whereas EBIT of the European and Asian peers has decreased significantly. After a consistently good development in Asia from 2008 to 2010, the EBIT has decreased by 92% from 6.5% in 2010 to 0.5% by Q3 2011 – especially due to weak performance in Q3.

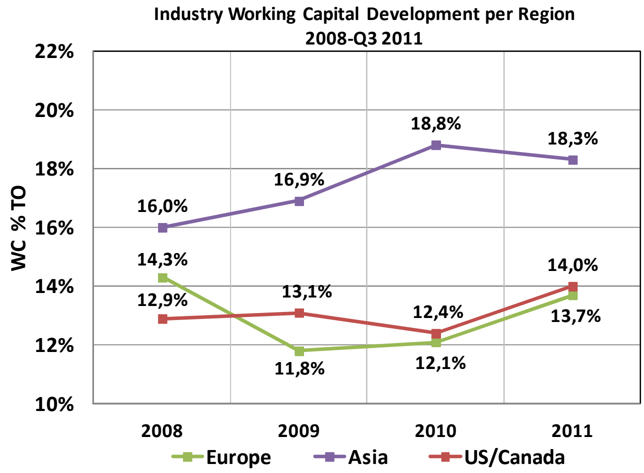

Figure 5: Working Capital Development Pulp and Paper US, Europe & Asia

As can be seen in *Figure 5*, the development of Working Capital from 2010 to Q3 2011 is quite similar in all three regions. After decreasing Working Capital in the crisis year of 2009, the European companies have not been able to maintain the low level; from 11,8 % in 2009, the Working Capital has increased to 13,7% by Q3 2011 (deterioration of 16%). Also the US companies have failed to maintain the low level of 12,4% they had reached in 2010, as Working Capital now has increased to 14% (deterioration of 13%).

A reason for this development could be a shifting focus of companies away from post crisis liquidity management towards growth or supply chain strategies. Working Capital of Asian companies remains high and has increased by 14% since 2008 to 18,3% in Q3 2011. We will look further into the profitability of companies competing in different peer groups.

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Graphic papers peer group

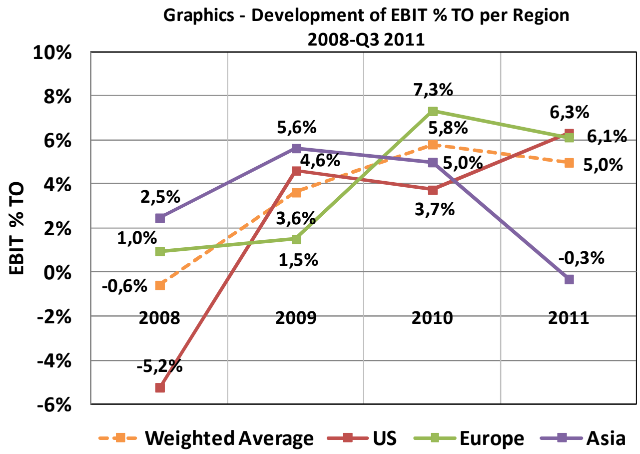

Figure 6: Graphic Papers – EBIT Development

As can be seen from *Figure 6* average industry profitability of companies in graphic papers has increased significantly since the ~-1% EBIT level of 2008 to 5% on average by Q3 2011. While Europe was clearly leading in 2010 (7,3% compared to 5% in Asia and 3,7% in the US), in 2011 the US companies have by now managed to improve their profitability beyond the levels of the European peers (6,3% and 6,1% respectively). Asia saw a slight decrease of EBIT from 5.6% in 2009 to 5% in 2010, followed by a steep drop to -0,3% by Q3 2011.

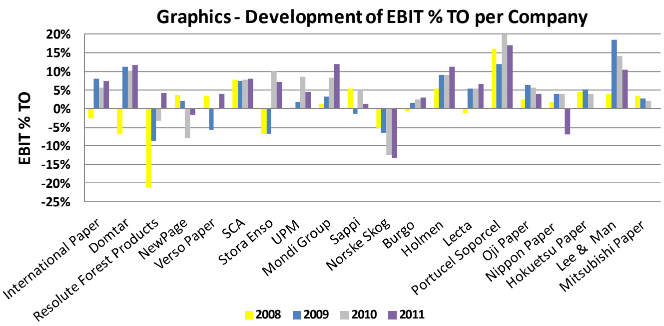

Figure 7: Graphic Papers– EBIT Development per Company

The overview of this peer group shows the development by company and highlights the significant spread. Some of the companies, like Portucel, Mondi, Holmen or SCA have consistently delivered positive results over the last 4 years. International Paper, Domtar and Stora Enso have turned around profitability. By contrast, companies like Resolute Forest Products (former AbitibiBowater), Norske Skog and Verso show a volatile development in profitability. New Page, Norske Skog and Nippon Paper are the only companies reporting negative EBIT in Q3 2011. The portfolio of some of these companies is more exposed to the declining publishing segments which may explain performance. Other companies however with a very high level of exposure to these markets manage to maintain a higher level of profitability (Lecta/Sappi/UPM vs. Verso or Resolute Forest Products).

Graphic Papers – Working Capital Development

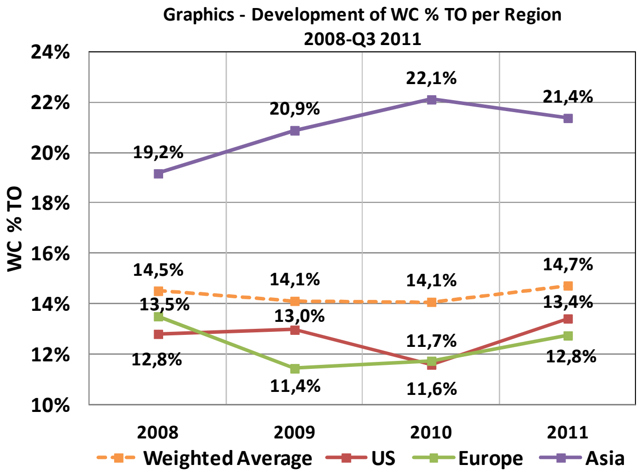

Figure 8: Graphic Papers – Working Capital Development

After a moderate but steady decrease from 14,5% in 2008 to 14,1% in 2010, the average weighted Working Capital ratio has increased again to 14,7% by Q3 2011 (deterioration of 4%), thus reaching the 4-year high. This significant increase in Working Capital occurred largely in Q3 2011.

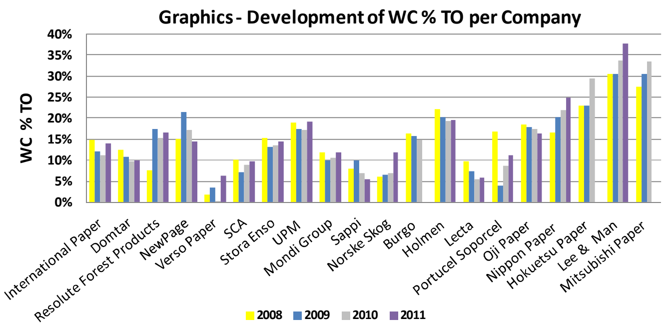

Figure 9: Graphic Papers - Working Capital Development per Company

The detailed picture shows that only three companies have managed to reduce their Working Capital in 2011 by Q3: New Page, Sappi and Oji Paper. Domtar and Holmen report a continuously positive development, despite the slight increase in Working Capital in 2011.

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Graphic Papers – Inventories, Receivables and Payables

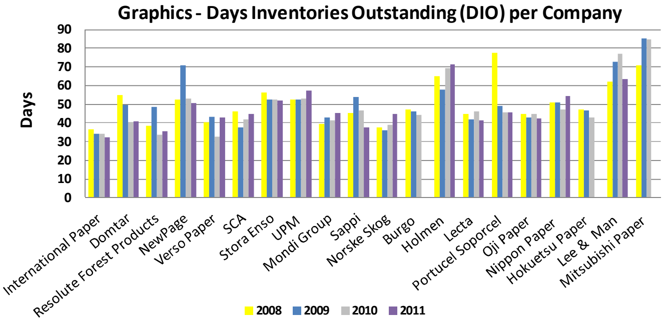

Figure 10: Graphic Papers – Inventory Development per Company

Inventories remain constant for most companies in this peer group. A few companies have significantly reduced their inventories – Resolute Forest Products, New Page, Sappi and Portucel. Verso, Norske Skog and Nippon actually increased inventory levels by more than 5 days in the current year 2011.

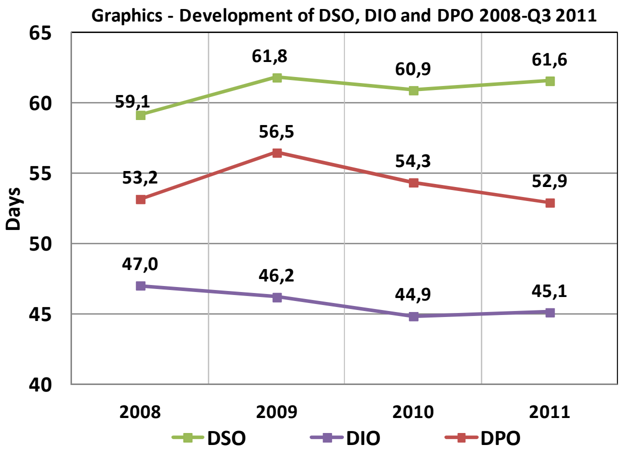

Figure 11: Graphic Papers - Working Capital Levers

The analysis of Working Capital by receivables, payables and inventories provides more insights. As *Figure 11* shows, DSO (Days Sales Outstanding) have slowly but constantly increased since 2008. Whereas in 2008 companies needed on average 59,1 days to collect their money from the customer, in 2011 61,6 days were required (increase of 4% or 2,5 days). DIO on the contrary, has had quite a positive development from 2008 to Q3 2011 – despite a marginal increase from 2010 to 2011, overall DIO has decreased by 4% from 47 days in 2008 to 45,1 days by Q3 2011. On the other hand, DPO (Days Payables Outstanding) have steadily decreased from 2009 to Q3 2011. In 2009 companies received 56,~~.~~5 days of credit from their suppliers – in 2011 only 52,9 days (decline of 6% or 3,6 days). Overall, all three working capital levers have developed negatively since 2010, the most significant decline~~s~~ being 1~~.~~,4 days less of DPO .

Graphic Papers – Gearing

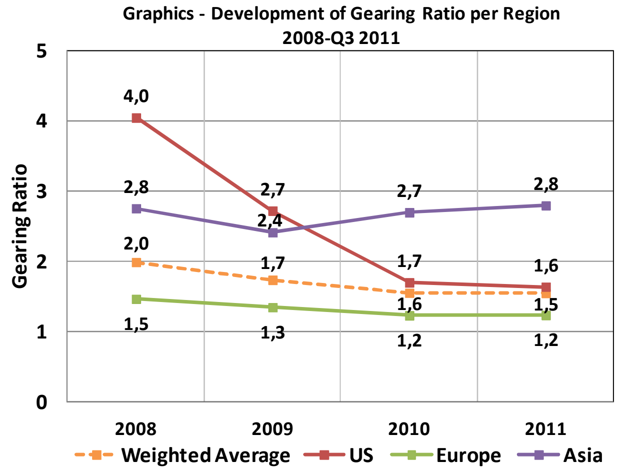

Figure 12: Graphic Papers – Gearing Ratio Development

Overall gearing has been reduced by most companies since 2008 with some exceptions. Companies with negative ratios have not been included. All major companies made it a priority to reduce gearing in the last years. This has made balance sheets healthier and allowed for financing of recent acquisitions. It can be expected that with increased M&A activity gearing may increase in the years to come. Overall it can be seen that there is a big difference between the continents. Asia is leveraged the most and Europe the least. US companies have dramatically reduced their financial leverage (reduction of 60%). European balance sheets are healthy enough to allow for the much needed further consolidation.

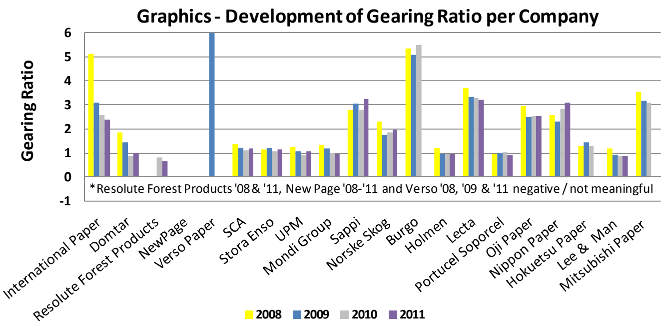

*Figure 13: Graphic Papers – Gearing Ratio per Company**

Graphic Papers – Cash Flows

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The analysis of cash flows reveals the financial health of companies and the ability to finance investments internally. The higher the operating cash flow the stronger a company's growth potential is whether from organic growth through investments or through acquisition. On the other side a company with a strong cash flow and a low market valuation becomes a potential takeover target as "repayment" of the acquisition through cash flow is possible. In a normal operating environment the operating cash flow (OCF) will be higher than the free cash flow (FCF), the difference being investments. If OCF is significantly bigger than FCF this signals a time of bigger investments such as assets being built whereas a smaller difference signals minor investments or potentially just stay-in-business investments. If FCF is bigger than OCF this typically shows that a company is divesting. In 2010 and 2011 most companies have had a rather small difference between OCF and FCF. Companies with bigger differences due to investments are Holmen, Oji and UPM in 2011. Some companies have divested and generated positive free cash flows only through this approach. Examples are Norske Skog and Resolute Forest Products – both companies heavily exposed to Newsprint.

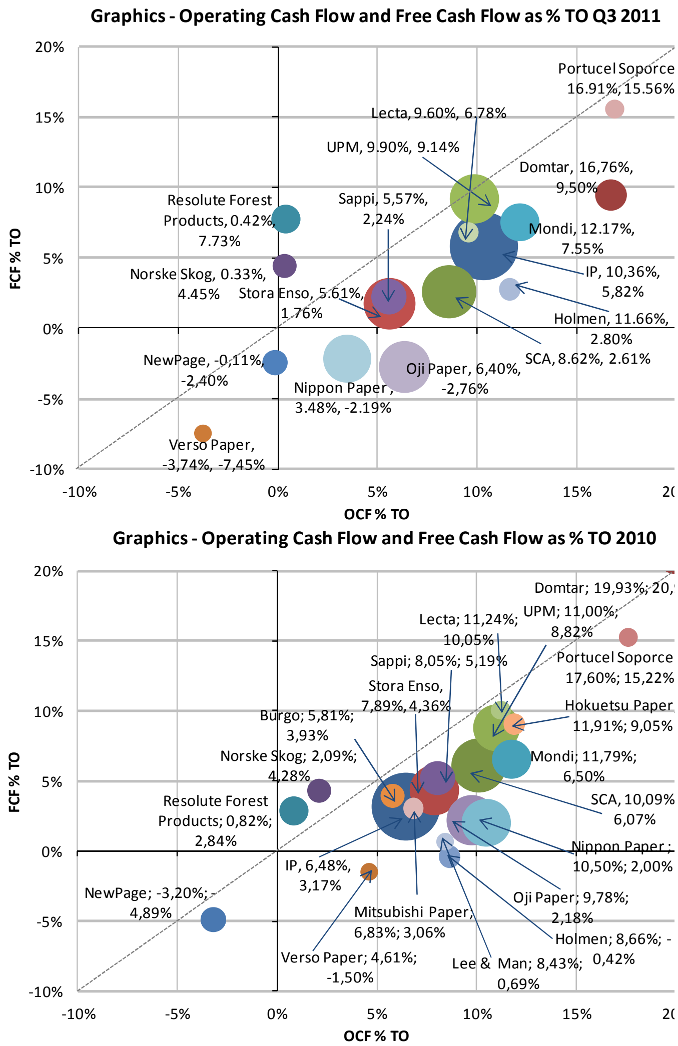

Figure 14: Graphic Papers – Operating and Free Cash Flows 2010 & 2011

Packaging peer group

Packaging papers are a growing segment despite the pressure to reduce packaging. The market is growing as the economy continues to grow globally. Most of recent investments have been made in this segment with an emphasis on recycled capacity. Whereas virgin-based packaging materials accounted for 60% of the global containerboard capacity in 1990, today they only cover 30%[8]. However, the need for virgin-based packaging material remains, as the recycled grades cannot offer equivalent strength and durability. Also virgin based paper is needed as a raw material base for the recycled grades.

Regionally, Europe and Asia have seen significant expansion projects in recycled capacity whereas there have been no significant investments in the US which has an asset base consisting of mostly virgin-based containerboard. The US is the biggest exporter of waste paper with most of it feeding the huge demand in China which has invested in recycled based packaging capacity. Recycled based paper producers in the US have had a cost advantage compared to traditional kraft producers with the limited availability of waste paper based packaging papers. On the other side the US continues to supply many regions of the world with kraft papers. The low US dollar has helped maintain competitiveness of US kraftliner globally. In Europe the situation is the opposite from the US. There have been no significant investments in kraft papers so that local producers have been well off supplying the local markets although many mills are on the lower tier of the cost curve. China has a tremendous demand for Containerboard in line with the growth of the economy. Significant investment plans are being carried out. For example Nine Dragons is expanding at a rate of 3-4 machines per year.

In anticipation of future demand for recycled containerboard, there were significant investments in Europe in 2008 and 2009. New capacities in 2012 will be introduced in the UK and potentially in Poland in 2013. In the US it can be expected that after years of capacity consolidation and with the increasing machine age there will be new capacity growth in recycled segments. Despite temporary imbalances between supply and demand it can be expected that this segment will continue to grow. On the one hand there are limiting growth factors such as the trend towards lower grammages, the pressure to use less packaging and in some cases substitution of paper based packaging with reusable plastic containers.

On the other side it can be expected that paper demand will grow as paper is a renewable raw material source compared to plastics and there is an increasing

[8] Pöyry at ICCA/WCO Global summit, May 22nd-25th 2011

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awareness of the advantages of using paper as a raw material base. Additionally there is a trend towards higher quality paper based packaging for certain consumer products using the packaging material as a differentiator to promote products. Most importantly, the globalized economy with increasing movement of goods will lead to higher packaging demand. Demand is expected to rise as much as 27% by 2015[9].

As the demand in emerging markets (focused on recycled grades) is increasing, raw material prices for waste paper have soared. The demand in China is influencing the cost curve of any producer globally. The challenge for many producers in Europe has not just been the price of waste paper but even just securing the supply. Therefore many recycled producers are investing in securing their supply in order to get some control over the raw material base.

The other side of the picture is the supply side. The degree of market consolidation and capacity discipline strongly influences profitability. There is a big difference between the US and Europe. In the US, the containerboard markets are much more consolidated with only 2 players (after recent acquisitions) controlling nearly 60% of the market; in Europe the top 5 have only 56% of the market share and >40 players have a market share of 30%. With the current strong balance sheets consolidation will most likely happen also in Europe. So far only mid-sized consolidation is taking place.

Packaging – EBIT Development

The EBIT development has been very positive since 2008.

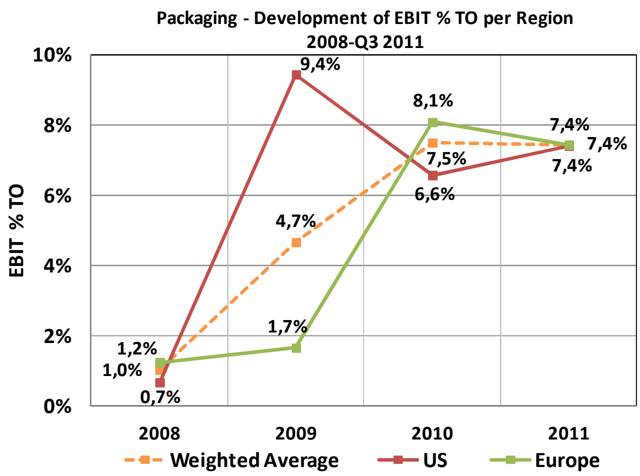

Figure 15: Packaging – EBIT Development

As the peer group overview above shows, US companies seem to have been less hit by the economic crisis in 2009. In part this is due to green energy subsidies but may also be explained by the higher share of kraftliner which maintained a higher price throughout the recession.

In 2010, however, the weighted average EBIT of the US companies dropped by 2,8 pp to 6,6% - thus clearly below the European level of 8,1%. By Q3 2011 the US companies have manage to improve their EBIT by 0,8 pp, whereas it has decreased in Europe by 0,7 pp – both regions now reaching EBIT levels of 7,4%.

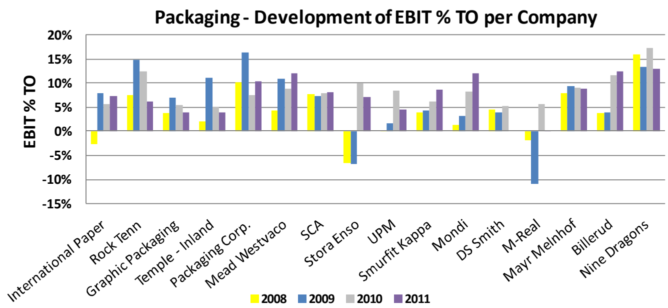

Figure 16: Packaging – EBIT Development per Company

Even throughout the economic crisis in 2009, most companies managed to improve their EBIT. By 2010 all of the peer group companies had achieved a positive EBIT, wherein the weighted average of 7,5% was greatly affected by the strong results of Stora Enso and SCA. However, the development from 2010 (7,5%) to Q3 2011 (7,4%) indicates a stagnation of profitability which is also impacted by record high prices for raw materials while demand may be slowing down. With the current economic development it can be expected that profitability will drop in Q4 2011.

Packaging – Working Capital

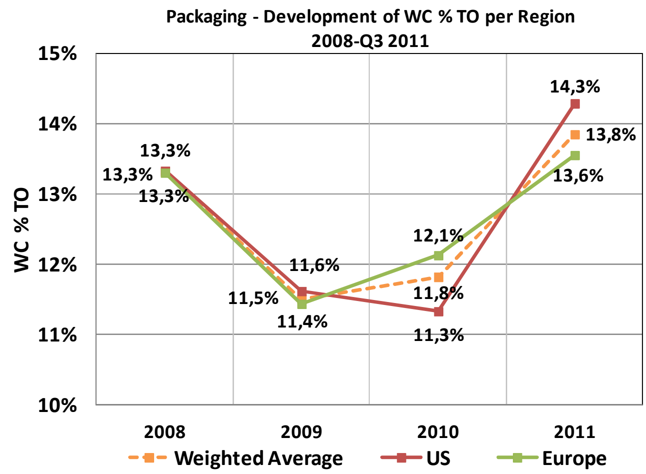

Figure 17: Packaging - Working Capital Development

After plummeting in 2009, the companies have in general not been able to maintain the low level of Working Capital, except for the US, where the companies could further decrease the Working Capital from 11,6% in 2009 to 11,3% in 2010 (2,5% improvement). Since then, the trend has been dramatic in both regions: the

9 Latin American Containerboard Outlook – AICC Mexico, May 19 2011

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Working Capital level has increased by 17% from 11,8% in 2010 to 13,8% by Q3 2011.

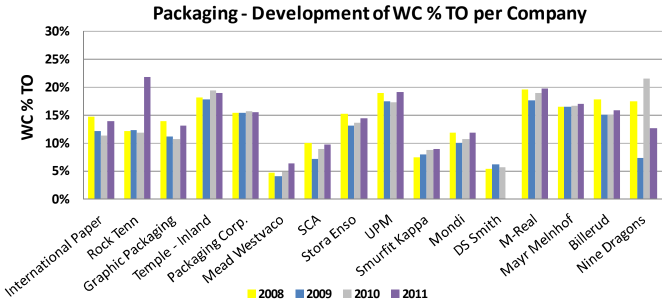

Figure 18: Packaging - Working Capital Development per Company

By Q3 2011, the weighted average Working Capital ratio has reached 13,8%. However, analyzing the Working Capital in more detail by company shows a high volatility. DS Smith, Smurfit Kappa outperform while Temple-Inland, UPM, M-real and Mayr Melnhof are above average. Against the common trend, two companies, Temple-Inland and Nine Dragons managed to improve their ratios from 2010 to 2011. Rock Tenn's recent number is strongly affected by the acquisition of Smurfit-Stone. It remains to be seen if this high value will be maintained.

Compared to the European peers, US companies have had lower Working Capital figures in the recent years. However, from a weighted average of 11,3% in 2010 the US companies increased to 14,3% by Q3 2011, thus surpassing the level of weighted average Working Capital of the European peers. Overall, some companies still have big potentials in Working Capital reduction especially considering that the low operating cash flows correlate to high working capital levels of some of these companies.

Packaging – Inventories, Receivables and Payables

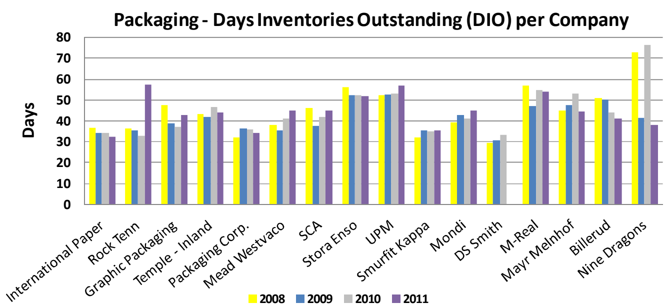

Figure 19: Packaging – Inventory Development per Company

Analyzing inventories in the packaging peer group shows a similar picture compared to the graphic papers peer group. While inventories have dropped marginally for most companies since 2008 there are few step-change improvements in this area of Working Capital. Billerud is the only exception to have achieved significant changes.

However, it is interesting to note that inventory levels differ significantly within the peer group.

The lowest figure in the last 4 years was 29 days (2008; DS Smith), the highest 77 days (2010; Nine dragons). In 7 out of 11 companies the DIO has decreased from 2010 to 2011, the lowest value is 32 days (Packaging Corp.), the highest 53 days (Stora Enso). Rock Tenn's DIO of 57 by Q3 2011 should be considered separately since it is most likely influenced by the company's acquisition of Smurfit-Stone.

In general, US companies have a lower DIO than their European peers.

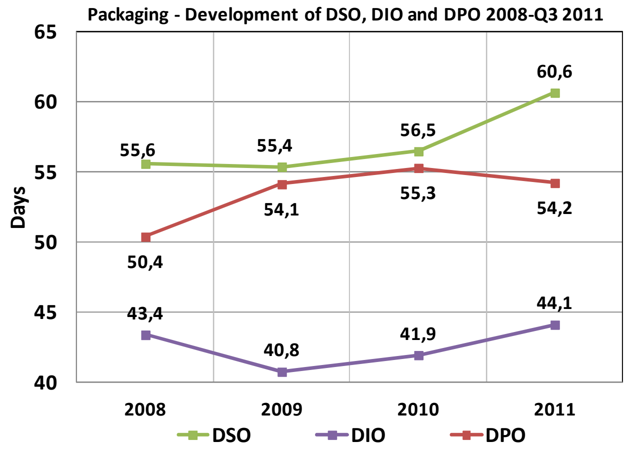

Figure 20: Packaging - Working Capital levers

The development of the Working Capital levers DSO, DIO and DPO in the packaging peer group follows a similar pattern to that of the graphic papers. As

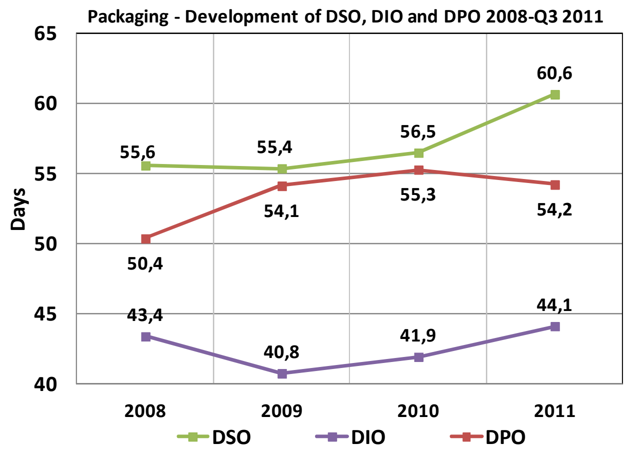

*Figure **20*** shows, there is a clear upwards trend since 2009 in DSO and DIO. DSO has increased from 55,6 to 60,6 days (+5 days) from 2008 to Q3 2011. Although DIO now is above the levels of 2008 (43,4 and 44,1 respectively), it actually fell by 2,6 days in 2009, but has been increasing ever since. DPO has increased from 50,4 days in 2008 to 54,2 days in Q3 2011.

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Packaging – Gearing

The weighted average gearing ratio has decreased by 20% since 2008, now reaching a ratio of 1,6 Q3 2011. However, step-change improvements cannot be expected. Average gearing levels are influenced by individually high levels of big companies like International Paper, Temple-Inland and Smurfit Kappa.

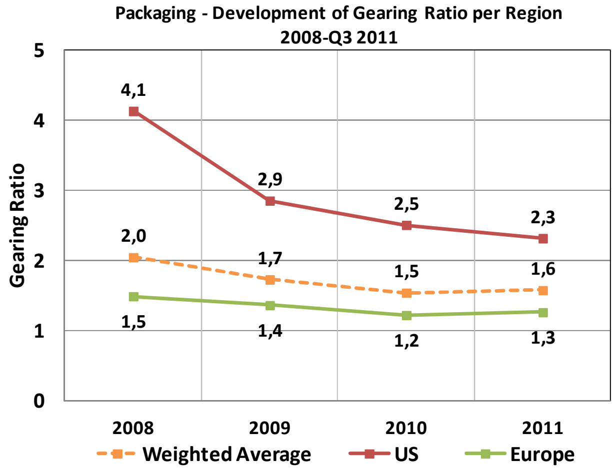

Figure 21: Packaging – Gearing Ratio

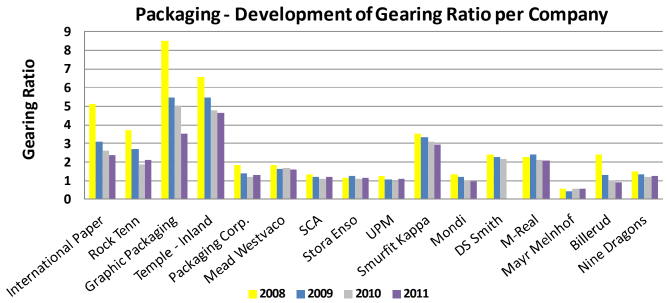

Figure 22: Packaging - Gearing Ratio per Company

As many as 7 players have managed to outperform the weighted average throughout the last 4 years. The lowest gearing ratio in 2011 by now is 0,6 of Austrian mostly privately controlled company Mayr Melnhof, the highest 4,7 of Temple-Inland. Although International Paper's gearing ratio of 2,4 in 2011 is still relatively high, it is worth mentioning that it has decreased by 54% from 5,1 in 2008. Overall, disregarding the few exceptions, the most companies have managed to achieve and sustain a healthy financial leverage. Additionally it needs to be stated that gearing ratios below 1-1.3 may be too "healthy" and represent a potential lost opportunity to grow. Additionally it becomes very difficult to achieve a high return on equity (ROE). The reduction in gearing ratios is also a good preparation for potential acquisitions.

Packaging – Cash Flows

As stated above for graphic papers, the analysis of cash flows reveals the financial health of companies and the ability to finance investments internally. The higher the operating cash flow the stronger a company's growth potential is whether from organic growth through investments or through acquisition. On the other side a company with a strong cash flow and a low market valuation becomes a potential takeover target as "repayment" of the acquisition through cash flow becomes rather fast. In a normal operating environment the operating cash flow (OCF) will be higher than the free cash flow (FCF), the difference typically being investments. If OCF is significantly bigger than FCF this signals a time of bigger investments such as new assets being (re)built whereas a smaller difference signals minor investments or potentially just stay-in-business investments. If FCF is bigger than OCF this typically shows that a company is divesting. In 2010 and 2011 most companies have had a difference of 4-6% between OCF and FCF which signals asset investment behavior. Companies with bigger differences due to investments are Packaging Corp., DS Smith and Billerud. Exceptional is Nine Dragons with an extremely negative FCF due to its aggressive asset investment plan. M-real is the only company in this peer group to increase its cash flow through divestments.

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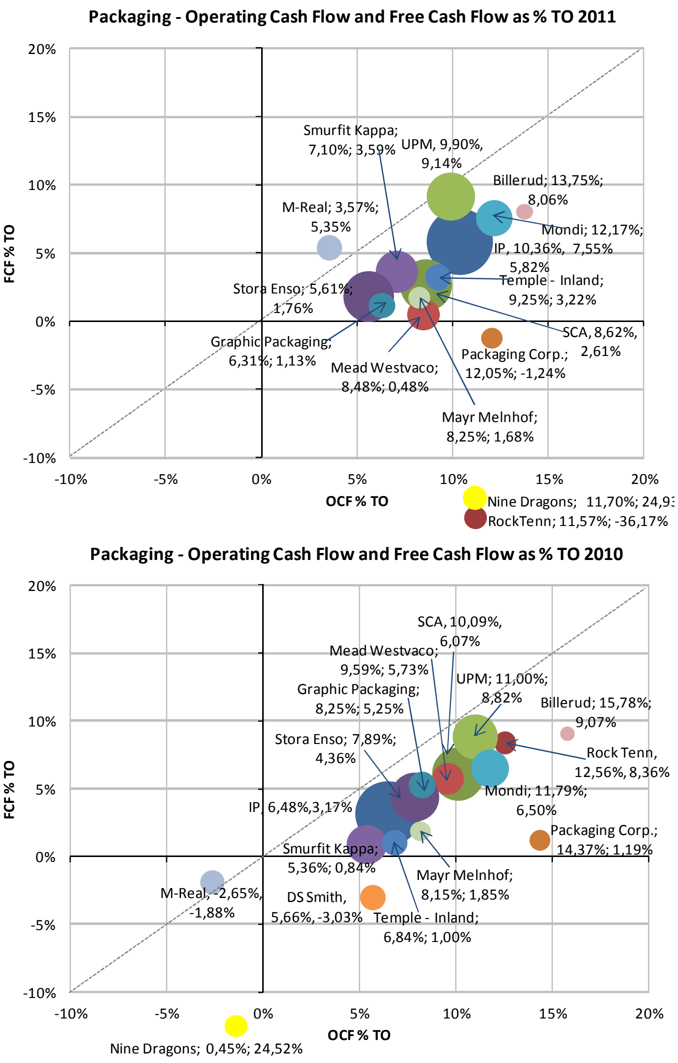

Figure 23: Packaging - OCF / FCF development 2010-2011

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Summary

Profitability and health of companies in the pulp & paper industry has increased significantly. In contrast to the 80s and 90s most companies have streamlined their assets, developed a clear strategy and executed on it. This focus has paid off. The majority of companies have solid balance sheets and a good profitability. However, the transformation of the industry is not completed yet. More consolidation can be expected and some companies can afford acquisitions again. In Europe further consolidation is necessary; in Asia markets are developing and still promise big opportunities. In the US the big consolidation has taken place so that fewer big deals can be expected.

While the packaging markets can be expected to grow there is a question mark about the rate of decline in the printing and publishing segments. In these segments the industry has in many cases been too optimistic and was often lagging behind on capacity management. Office papers have performed well over the last years as they have profited from the digitalization and the need to print information in office or home use environments. However, information printed often represents a manual break in an otherwise digital chain. The increasing usage of mobile devices with a seamless exchange of information may significantly impact the demand for office papers. Additionally a new generation of digital "natives" may not accept paper based work flows. Unsolved issues remain for companies active in these segments.

While the industry itself is truly global it needs to be noted that there is only one company (IP) playing a significant role with assets outside of its core market. Most companies are rather international than global. Comparing the pulp and paper industry to other global natural resources industries (such as metals or mining, not to mention oil) there is still a big gap with respect to the industry structure. Longer term this becomes a real opportunity for companies having completed their homework.

Pulp and paper companies have managed well through the last crisis. Interestingly there were no major bankruptcies despite weak financials of some companies. The crisis forced many companies to make the necessary changes. The economic outlook has weakened in light of the global imbalances and the increasing uncertainty. With the lessons learnt from that crisis the industry should be better prepared to deal with a next potential downturn. Managing against the expectation of continued economic growth may be too easy. "Life belongs to the living, and he who lives must be prepared for changes." (Johann Wolfgang von Goethe).

Joachim Klein is founder and managing director at StepChange Consulting advising global companies within the paper value chain in strategy development, profit improvement and turnaround & integration management.

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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.

For further inquiries and comments regarding this Point of View please contact us at leapfrog@stepchange.com.

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