

## Paper, Packaging and Populism

### A review of the global economic and political climate and the financial state of the industry

By Joachim Klein and Sarah Rabl

The last two years have been a rollercoaster. Brexit, the new US administration, the situation in the Middle East, populist and nationalistic tendencies across Europe, increasing migration, and political turbulences in South America, the ongoing tensions with Russia and an escalating political situation with North Korea are all drivers of uncertainty about the future.

Have these events influenced or will they impact the economic sentiment and specifically the performance of the pulp and paper industry? The short answer is, so far, they have not. The current political environment has not caused any major turbulences economically. From a global perspective, the economy is steadily growing while unemployment rates are declining. With a 3,1% rise in GDP during Q2 of 2017, the outlook for the year is rosy. Looking at individual regions, China is primarily driving global economic growth with an above expectations growth rate for the second quarter 2017 of 6,9%. This provides a good basis for strategic reforms. The expectations for Canada and the Euro zone were raised, based on positive developments. Especially the long ailing, crisis-ridden economies of southern Europe have started to pick up. Despite Brexit, the economic outlook for the UK remains stable although on a very low level. Economic uncertainty is increasing, as the details of Brexit remain to be defined. Looking at interest rate developments in Europe there are few signs of increases over the next years. According to the European Central Bank (ECB), interest rates will remain low and quantitative easing will stay in place. This expansive monetary policy of the ECB has most recently come under scrutiny from Germany as it can be considered a subsidy for some debt burdened governments such as Italy.

In the US, a different trend can be observed due to continued GDP growth and increasing inflation. The Federal Reserve System (FED) is expected to increase interest rates to 1,5% by the end of 2017. Potential future increases are being discussed as

well Globally, the International Monetary Fund (IMF) forecasts the flattening of inflation spreads (Figure 1).

Inflation (average consumer prices) - % change

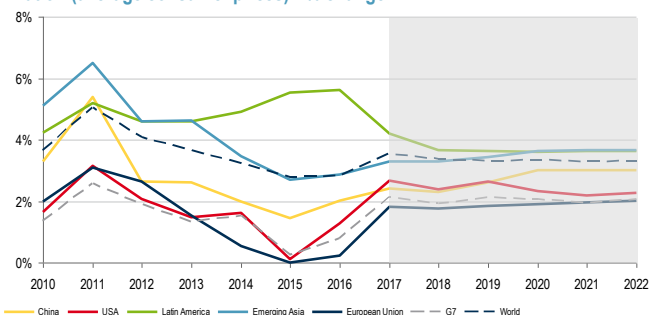


Figure 1: Inflation development and projection until 2022<sup>1</sup>

In summary, the global economic climate is very favorable but many risk factors remain that will be outlined in the following sections.

### Populistic politics – A risk to the economic upswing?

A myriad of political issues has surfaced over the last years, all of which are potentially posing risks to the current economic environment and may impact pulp, paper and packaging.

**BREXIT:** Since June 2016, the European Union is facing one of its largest challenges to date. With the unexpected Brexit vote, analysts remain uncertain about the EU without Britain. It will depend highly on the results of the exit negotiations, whether the UK will remain a close partner or will be alienated or alienate itself. Additionally, the impact on British businesses and the fate of fiscal bodies currently located on the island is undetermined. In the run-up to and immediate aftermath of the Brexit referendum, the Pound Sterling – Euro exchange rate saw a further weakening beyond the decade long decline of the currency (Figure 2).

<sup>1</sup> International Monetary Fund

#### Pound Sterling to Euro exchange rate developments

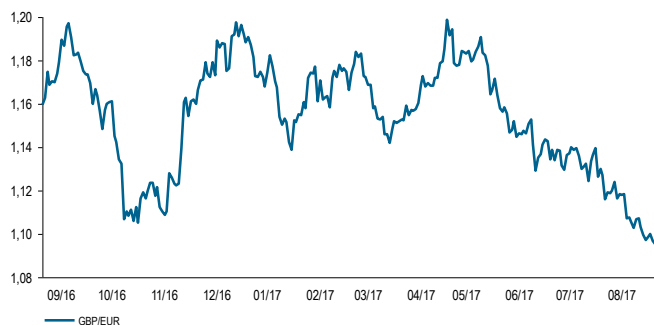


Figure 2: FX developments Pound Sterling to Euro<sup>2</sup>

Analysts expect that the export related parts of UK's pulp and paper industry with its 25.000 jobs is going to suffer particularly hard under the British divorce from the EU if trade will become more difficult with the EU. Additionally, it is unlikely that the pulp and paper industry will receive priority status when it comes to government financing post Brexit. But despite pending uncertainties, the current economic development is solid. UK growth rates have been stable around 1,5% over the last years and are expected to remain at those levels for the next quarters to come.

**Greece and debt levels of member states:** The debt situation was leading the headlines a few years ago. While other news have replaced the discussions about Greece, government debt remains high but the economy is slowly picking up. While further guarantees and loans have been secured, a structural long-term solution still needs to be found. More worrisome for the EU is the debt situation in Italy due its size and the high debt levels accrued without much structural reform taking place. While few member states are fulfilling the Maastricht criteria the situation is slowly improving with Spain's economy growing again.

**The Trump Factor:** The new US administration is impacting the global political landscape. The questioning of established agreements and transatlantic and -pacific relationships has seemingly created an open playing field for new partnerships and alliances. However, it remains to be seen if and how many changes will take place. While some discussions are drawing global attention, there are some changes taking place outside of the public spotlight that are fueling economic growth in the US such as the deregulation of the energy and financial sector.

However, it can be expected that the ongoing quarrels between the administration and different stakeholder groups will lead to a perception of uncertainty regarding the US as a partner which may impact the climate for foreign direct investment (FDI).

Since the US election in 2016 a weakening of the US Dollar can be observed. However, in the second quarter of 2017, the Dollar gained strength against the Euro again (Figure 3). With approximately 900.000 employees, the forest-based industries in the US account for 4% of the total US manufacturing GDP. Looking at the impact of the new administration on the pulp and paper industry, the American Forest and Paper Association has issued a statement welcoming the proposed tax reforms, which is expected to support growth in the manufacturing sector.

#### US Dollar to Euro exchange rate developments

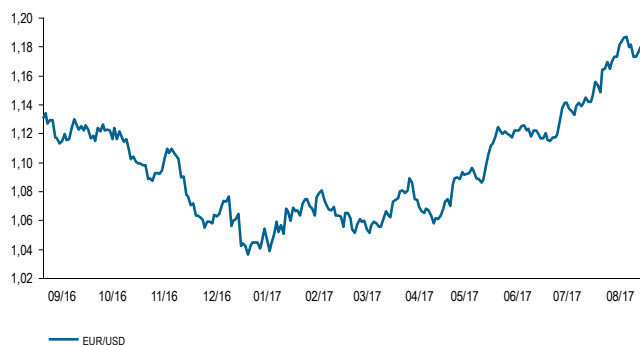


Figure 3: FX developments US Dollar to Euro<sup>3</sup>

**Populism:** 2016-2017 saw an increase in populist movements spreading across Europe and the world. The far-right drift in many European nations has partly been triggered by fear resulting from the refugee crisis and fundamentalist or religiously motivated terrorism spreading across the globe. On the other side, high unemployment rates in some countries and the increasing wealth gaps are fueling populist movements. Pulp, paper and packaging is not impacted by these populist tendencies. Nevertheless, nationalistic shifts and an increase in inward looking policies can lead to protectionism and trade barriers. This has the potential to negatively impact global trade while favoring domestic production. In the long-run, competitiveness is prone to suffer should regional competition be reduced.

<sup>2</sup> European Central Bank

<sup>3</sup> European Central Bank

**Turkey:** In Turkey, political turbulences continue in the aftermath of the failed coup. International relations with western allies are deteriorating jeopardizing Turkey internal domestic strength due to its dependency on the EU and especially Germany. Currently the economic environment remains strong. Despite a high level of inflation and a weakening currency earlier in 2016, the Turkish economy bounced back in Q1-2017. Reaching a GDP growth rate of 5%, meaning an increase of 3,5pp compared to the previous quarter, the economy started to stabilize. This was achieved by increased government spending, leading to a rising budget deficit. For pulp, paper and packaging, the current political and economic environment in Turkey, might have positive implications. With a devaluated currency, the modern Turkish paper mills may find their global competitiveness strengthened.

**Latin America:** Looking at political developments in Latin America, a further rocky road emerges. Venezuela is suffering from an acute economic and political crisis with social unrest. The Latin American corruption scandal triggered by the Brazilian construction conglomerate Odebrecht that was made public in the middle of 2017 has significantly impacted trust on the entire sub-continent. In Brazil, the economy is still weak but is said to be modestly growing over the next year, projecting a 2% growth by 2018, however, far away from former growth rates.

However, despite these economic instabilities, the situation does not look as gloomy for the pulp and paper industry. The Brazilian pulp industry, a key supplier for Eucalyptus pulp globally, is benefiting from the devaluation of the currency in the wake of economic instabilities. Selling pulp for US Dollars with most production costs in local currency has proven to be a very lucrative endeavor.

**Oil prices:** Oil prices have been rather stable over the past 12 months, ranging between \$45-55 per barrel (Figure 4). Despite the affordability and availability of electric cars and the increasing demand, it remains to be seen if it affects oil prices in the next years. Overall, it is expected that the global share of electric cars will have reached 6% (100 million) by 2035. Thus, the impact on oil demand and prices will be limited. According to British Petroleum (BP), it is expected that oil demand will “continue to grow throughout the next 20 years, driven by increasing

transport demand, particularly in the fast-growing Asian economies”.

Oil price development in USD/barrel 2016-2017

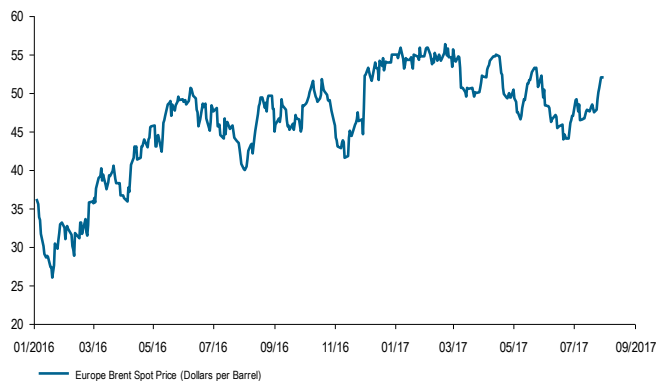


Figure 4: Oil price developments 2016-2017<sup>4</sup>

In summary, it can be stated the world is in turmoil driven by the topics mentioned above and many more. Despite the many problems and unresolved issues there are limited economic impacts. The economy is still growing globally as global supply chains are flexible enough simply to adjust to the changes. However, the number of risks are increasing and it may only be a question of time until the current economic situation is impacted more severely.

### The economic and political impact on the pulp and paper industry

Despite the developments described above, the business environment has remained stable for many companies in the pulp and paper industry. The StepChange Pulp, Paper and Packaging Economic Outlook Study shows that North America remains an attractive industry location for the forest-based industries. The Americas are considered competitive from a global perspective – especially due to the market demand and cost competitiveness particularly with respect to low fiber and energy costs. Although the overall business outlook is still positive, expectations have slightly dropped and are mixed depending on sector and region. The 2016 North American Pulp Paper and Economic Outlook Study revealed that paper and paperboard manufacturing was seeing a negative trend for their business sector. This

<sup>4</sup> Bloomberg

was, however, not confirmed. The 2017 European study uncovered again more positive expectations.

Given this pessimistic view from North American respondents, the following issues were identified as risk factors for a potential decline in North America:

- Increased raw material prices and transportation costs
- Stricter environmental regulations
- Availability of a qualified labor force, labor costs and productivity

Looking at business priorities from both a North American and European perspective, it is interesting that the primary focus for Europe is product development and innovation, while in North America, it is marketing, customer service and retention. In both regions, cost reduction was listed amongst the top 3 priorities.

### Analysis of financial performance

As in previous years, StepChange has analyzed the financial performance of major stock listed companies in the paper and packaging industry to compare the financial development from 2012 to 2016 across North America, Latin America, Europe and Asia in the different sectors of the industry.

**Graphic Paper:** Global demand for newsprint, coated woodfree and coated mechanical grades has continued to decline, while the demand for uncoated woodfree remained stable in 2016. The overall decline of printing and writing papers globally is expected to slow down, reaching 0,5% in 2018, compared to 2,5% in 2015. Despite capacity curtailments, the projected global operating rate is not going to improve remarkably within the next two years. Selling prices of UWF, LWC and newsprint remained stable during H2-2016. Driven by high pulp prices, UWF prices have started to increase again in 2017.

**Pulp:** Pulp producers were facing some challenges during 2016 caused by significant price drops mainly for hardwood and Eucalyptus grades. In early 2017, a significant price increase has started which is affecting the 2017 results of pulp producers positively. Until 2020, pulp capacities will increase by around 10m tons. The global pulp demand is growing at 3%, significantly below the pace of capacity additions. Supply growth for both BHK and BSK is going to exceed the demand growth already in 2017, which is expected to lead to overcapacity and dropping utilization rates – a paradoxical phenomenon given the most recent

price increases. The increasing global capacity is putting pressure on mills with high operating costs, mainly in Europe and North America. This may in turn lead to closures or attempts to convert assets to dissolving pulp.

**Tissue:** The tissue market currently has a global demand of 35m tons, with North America having the largest market share with 25%. After a stable demand growth between 2010-2014, in 2015 the global tissue growth rate increased and reached 4%, mainly driven by China. For the next four years, similar growth rates are expected. Over the last five years, the net capacity increase per year in the tissue segment has climbed gradually from 0,8m tons in 2012, to a projected 2,9m tons in 2017. At the same time, however, operating rates are expected to decline from 84% in 2013 to 81% in 2017. Since new projects will add additional capacity in the next four years, operating rates are expected to drop further, to a projected 79% by 2018. With increased pulp prices and an increased pricing pressure from private label customers this may impact future profitability.

**Packaging:** The packaging segment is facing pressure from rising raw material costs such as recovered paper – mainly in China and the USA. This is affecting the profitability of the peer group. From a global perspective, an additional capacity of 10m tons is expected, demand growth being primarily driven by China. Conversions from recycled containerboard and paperboard are still taking place and further contributing to the increasing capacity. In the upcoming years, operating rates are likely to decrease, resulting in lower profitability. On the other hand, selling prices have continuously increased in 2017 – a positive impact on company results can, therefore, be expected.

**Flexible packaging:** Paper and plastic both serve the growing packaging demand. Ultimately the desired packaging properties are the drivers to which material is being used. In 2016, the global growth in the flexible packaging sector reached 4%, which was driven by emerging markets. While the growth in Europe and North America showed a moderate level of 1-2% and 3-4%, respectively, the growth in Southeast Asia and India reached 6-8% and 10-12%. The flexible packaging market is very fragmented. The five largest producers have a combined market share of only 20% globally. However, a clear trend can be seen towards market consolidation. Selling prices fell in 2015, got traction during 2016 and showed a steep increase during Q1-2017, followed by a price drop during Q2-2017.

### Peer group comparison

The peer group comparison shows that tissue has surpassed pulp and is leading in terms of profitability with 13,4%, an increase by 3,7pp between 2015 and 2016. While profitability of the graphic paper segment increased by 0,5pp in 2016, this peer group shows the lowest profitability. The pulp peer group has the second highest profit, but with a steep decline of 3,9pp vs. 2015. The packaging peer group shows declining profitability vs. 2015 falling behind the flexible packaging peer group in terms of EBIT (Figure 5).

In some of the peer groups, regional performance differs significantly. As in the previous year, the graphic peers seem to be performing considerably better in Europe (9,2% EBIT in 2016) compared to North America and Asia (-0,4% and 4% respectively). On the other side pulp companies are performing better in Latin America (EBIT 11,1%), despite the significant drop by 10,7pp in 2016.

Peer group comparison - EBIT % by peer group 2015-2016

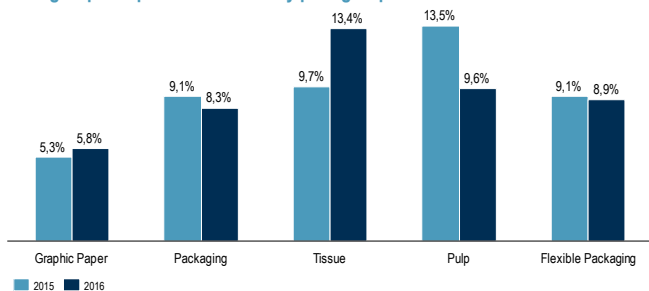


Figure 5: EBIT developments 2015-2016 by peer group

In terms of Return on Capital Employed (ROCE), tissue continues to outperform. Its performance is highly impacted by Kimberly-Clark's ROCE results (38%) as well as Hengan International's results (25%), while the ROCE of other companies remains between 6% and 11% (Figure 6).

Peer group comparison - ROCE % by peer group 2015-2016

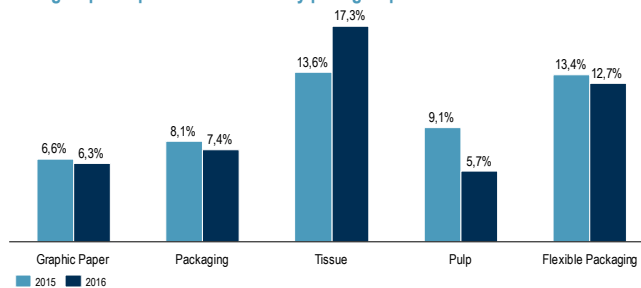


Figure 6: ROCE developments 2015-2016 by peer group

Flexible packaging companies come in second place in terms of ROCE and show a stable performance 2015-2016 despite a small decrease of 0,7pp. Mondi and Sealed Air lead the flexible packaging peer group results. The rest of the peer groups have significantly lower ROCE levels. Within the packaging peer group, Mondi is the clear outperformer followed by Packaging Corporation of America.

Working capital levels decreased across all peer groups in 2016. In both years, the tissue peer group outperformed with the biggest relative improvement of 1,7pp vs. the previous year followed by flexible packaging, and packaging (see Figure 7). The pulp and graphic paper peer group shows the highest working capital levels. The pulp peer group is also influenced by Fibria's sales agreement with Klabin.

Peer group comparison - WC % by peer group 2015-2016

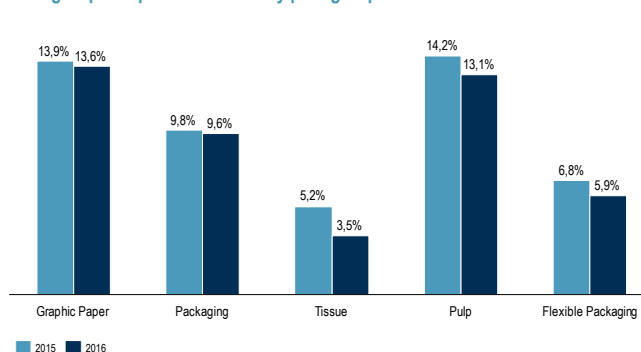


Figure 7: WC developments 2015-2016 by peer group

The operating cash flows (OCF) increased in all peer groups except for the tissue segment in 2016. Despite the decline the tissue peer group ranked first in terms of cash flows (Figure 8). The pulp peer group experienced the biggest cash flow increase, mainly driven by Metsä Group and Fibria.

Peer group comparison - OCF % by peer group 2015-2016

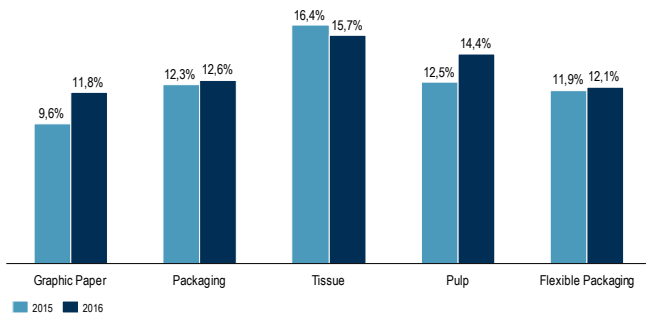


Figure 8: OCF developments 2015-2016 by peer group

Following this overview comparison, the financial performance per segment will be outlined.

### Graphic paper peer group

The regional comparison of EBIT from 2012 to 2016 reveals a positive trend for North American and Asian companies. Despite a slightly negative development for European companies (-0,3pp), they are leading the peer group (see Figure 9). While European companies have been rather stable in terms of profitability during the last 2 years, North American businesses are struggling to remain profitable. Asian companies have doubled their EBIT to 4,0% in 2016.

Graphics - EBIT % by region & peer group 2012-2016

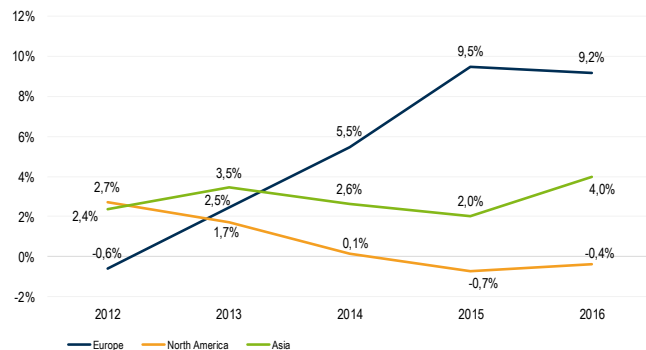


Figure 9: Graphics – EBIT developments by region 2012-2016

On a company level, Holmen, Sappi and Oji made significant improvements. The Navigator Company still outperforms the peer group. Naturally there are different fundamentals underlying the different segments within graphic papers and UWF has generally been very profitable compared to newsprint or mechanical papers in recent years. The common theme is, however, that demand is generally declining and all companies active in this sector need to foremost manage costs and capacities. The average EBITDA for the peer group is 11,8%, 0,4pp lower compared to the previous year. Mondi and the Navigator Company outperform in the peer group (Figure 10).

Graphics - Company-wide EBITDA as % of turnover 2015-2016

W. avg. 2015: 12,2%  
W. avg. 2016: 11,8%

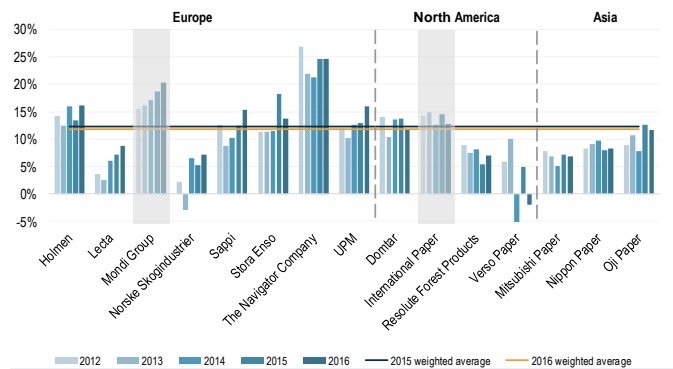


Figure 10: Graphics - EBITDA development 2012-2016<sup>5</sup>

As can be seen in Figure 11, the average EBITDA between 2012-2016 is positive for all companies. However, most members of the peer group are shrinking in terms of revenue. The Navigator Company leads the peer group in terms of average EBITDA earnings for the last four years. Verso's revenue growth is driven by its merger with NewPage in 2015.

<sup>5</sup> Mondi and International Paper results impacted by other segments

Graphics - EBITDA avg. % vs. revenue growth % CAGR 2012-2016

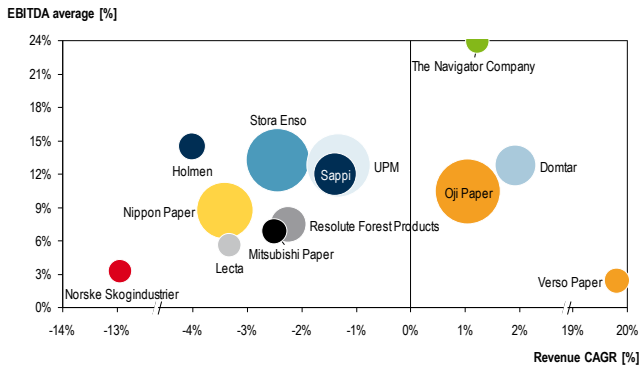


Figure 11: Graphics - EBITDA average vs. revenue CAGR

The development of working capital between 2012 and 2016 (see Figure 12) has been mixed across the regions. North American graphics companies have seen increased working capital levels during the past two years to 16,5%. WC levels of companies in Asia are always the highest in the peer group but improving. European companies show the best results with a steady decline in working capital since 2012, now averaging at 10,2%. North American companies have seen steadily declining working capital levels for 3 years.

Graphics - Working capital % development by region & peer group 2012-2016

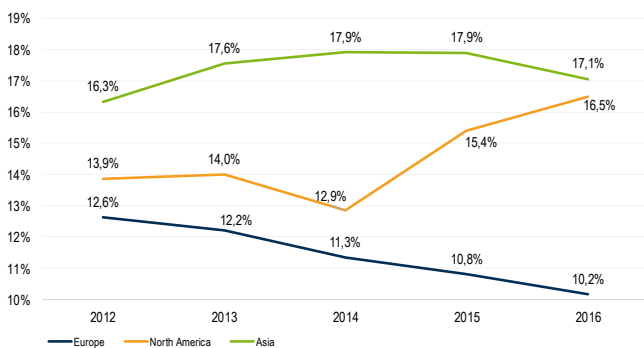


Figure 12: Graphics - WC development by region 2012-2016

On a company level, Lecta and Norske Skog lead the peer group in terms of lowest working capital levels over the past 5 years. Asian companies seem to have less focus on working capital, despite Nippon's improvements vs. 2015. While Mitsubishi has made steady improvements over the last 5 years, it still has by far the highest working capital in the peer group (Figure 13).

Graphics - Working capital as % of turnover

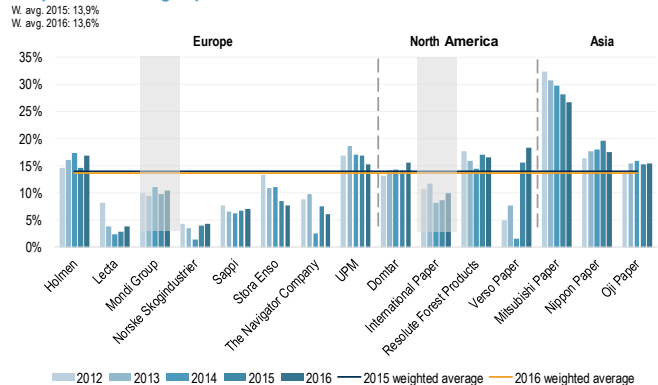


Figure 13: Graphics - WC by company 2012-2016<sup>6</sup>

The analysis of cash flows offers an indication of the financial health of companies and their ability to finance investments internally. Additionally, the higher the operating cash flow, the stronger the company's growth potential, whether from organic growth 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 higher than FCF, this can be due to big investments, whereas a small difference signals minor investments. If FCF is bigger than OCF, this is typically due to divestments or a consolidation of activities.

As can be seen in Figure 14, most of the companies in the graphics peer group invested less than they generated during 2012-2016. Verso Paper is the only company in the peer group with a negative average operating cash flow while the Navigator Company has the strongest cash flow. Overall, the operating cash flow of the peer group increased by 2,9pp in 2016, compared to an average of 8,2% in 2015. On the company level, Norske Skog and Verso have managed to turn their OCF positive in 2016, after years of very low or negative cash flows.

<sup>6</sup> Mondi and International Paper results impacted by results from other segments

Graphics - OCF avg. % vs. FCF (excl. M&A) average % 2012-2016

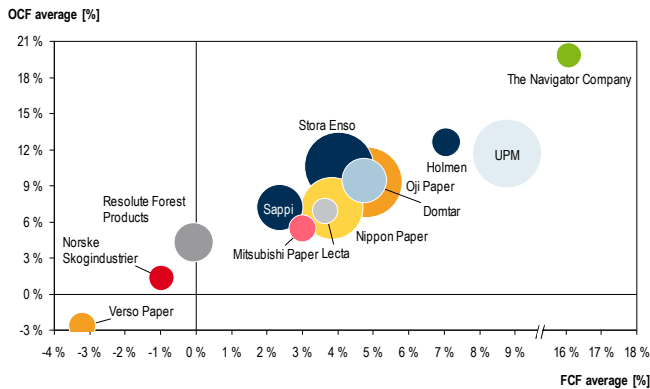


Figure 14: Graphics - OCF average vs. FCF average

### Packaging peer group

After outperforming Europe in 2013, the North American packaging companies lost their lead to their European peers in 2015 (see Figure 15).

Packaging - EBIT % by region & peer group 2012-2016

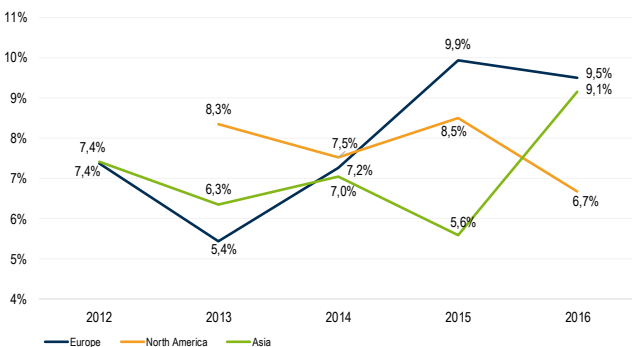


Figure 15: Packaging - EBIT by region development 2012-2016

While the European companies experienced a significant profitability growth from 2014 to 2015 (7.2% and 9.9% respectively), and only dropped by 0.4pp in 2016, the North American peer group dropped steeply in 2016, widening the gap between the two regions. Asia, on the contrary, has seen a strong profitability increase in 2015-2016, increasing by 3.6pp to 9.1% in 2016. EBITDA levels slightly decreased vs. 2015. Klabin, Mondi, PCA and Nine Dragons are leading the peer group in 2016 (see Figure 16).

Packaging - Company-wide EBITDA as % of turnover 2012-2016

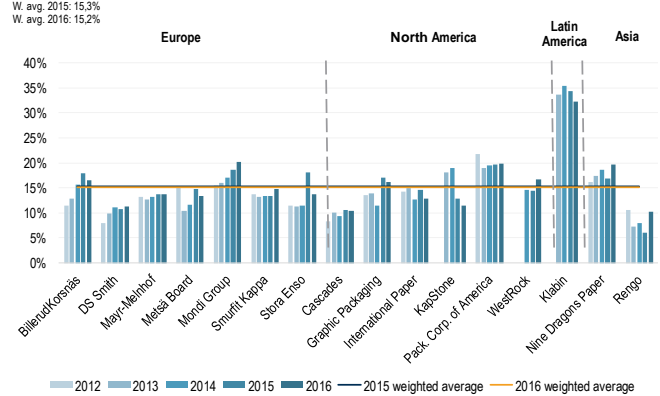


Figure 16: Packaging - EBITDA development 2012-2016

Most packaging companies had a positive revenue growth between 2012 and 2016 (see Figure 17). Unlike the graphic paper peer group, only four companies have seen a decline in revenues. Packaging Corporation of America outperforms, both in terms of EBITDA and revenue development. Mondi and Nine Dragons show a very high EBITDA average for 2012-2016. BillerudKorsnäs has seen the second highest growth rate over the past 4 years.

Packaging - EBITDA average % vs. revenue growth % CAGR 2012-2016

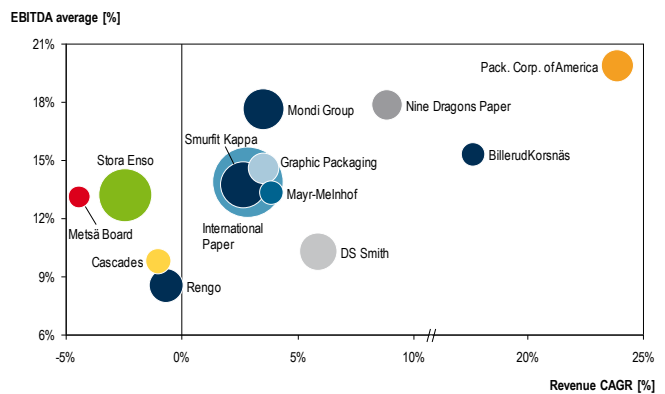


Figure 17: Packaging - EBITDA average vs. revenue CAGR

Working capital development has been volatile (see Figure 18). In 2016, European peers managed to keep their WC levels down. Asia made significant improvements, dropping from 16.6% in 2014 to 10.6% in 2016. North America currently shows the highest WC levels, at 10.9%. Overall, working capital discipline is higher than in other sectors.



Packaging - Working capital % development by region and peer group 2012-2016

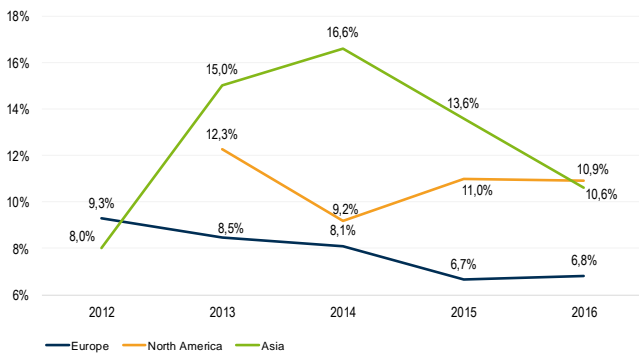


Figure 18: Packaging - WC development by region 2012-2016

From a company perspective (see Figure 19), working capital levels of Klabin remain extremely high but so are their profitability levels. DS Smith continues to outperform in the peer group with continuously negative WC levels. Interest rates are low and company ratings have improved since the last crisis. The cost of capital remains low. However, managing working capital safeguards capital costs for times when interest rates increase and overall reduces the cost (of capital) of any investment or acquisition.

Packaging - Working capital as % of turnover

W. avg. 2015: 9,8%  
W. avg. 2016: 9,6%

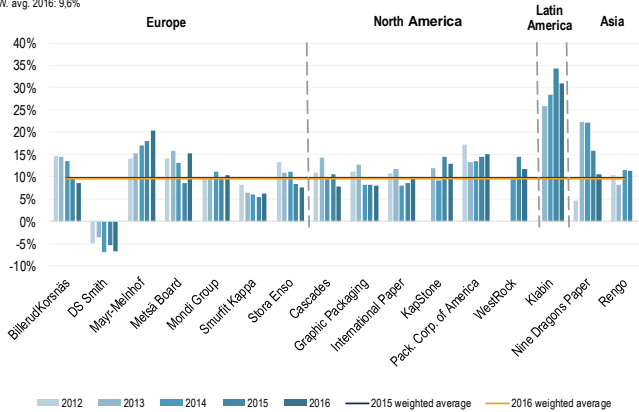


Figure 19: Packaging - Working capital by company 2012-2016

Tissue peer group

The average EBIT margin of the tissue peer group increased considerably in 2016, heavily influenced by the strong results of Kimberly-Clark (see Figure 20). Apart from that, Cascades and Kruger Products showed improved earnings in 2016. Overall, Kimberly-Clark and Hengan outperform in the peer group regarding their EBIT margin.

Tissue - Company-wide EBIT as % of turnover 2013-2016

W. avg. 2015: 9,7%  
W. avg. 2016: 13,4%

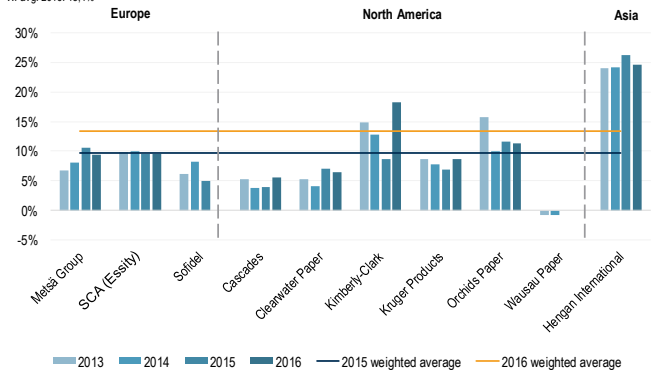


Figure 20: Tissue - EBIT comparison by company 2013-2016

The average EBITDA also increased by 3,2pp vs. 2015 mainly driven by Kimberly-Clark (see Figure 21).

Tissue - Company-wide EBITDA as % of turnover 2013-2016

W. avg. 2015: 15,0%  
W. avg. 2016: 18,2%

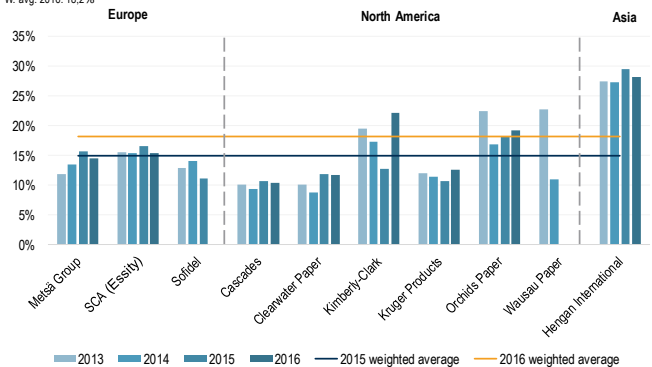


Figure 21: Tissue - EBITDA development 2013-2016

Working capital levels decreased by 1,7pp in 2016 in the tissue peer group (Figure 22). Hengan, Orchids and Clearwater have the highest working capital levels of the peer group, KC, Kruger, SCA (Essity) have the lowest levels. Most companies improved their working capital levels 2015-2016 driving the overall reduction of the peer group by 2,0pp.

Tissue - Working capital as % of turnover

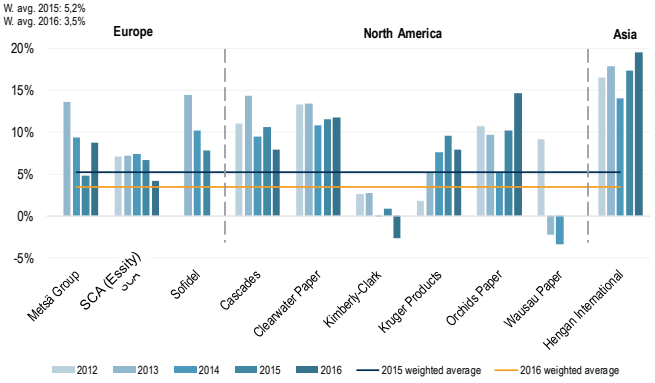


Figure 22: Tissue - Working capital by company 2012-2016

The comparison of longer term growth rates and profitability (see Figure 23) shows that all tissue companies had a positive average EBITDA in the timeframe 2012-2016. All companies, except for Cascades and Metsä, also show a positive revenue development. SCA (Essity), Hengan International and Orchids Paper outperform the peer group in terms of both EBITDA and revenue growth during the last five years.

Tissue - EBITDA avg. % vs. revenue growth % CAGR 2013-2016

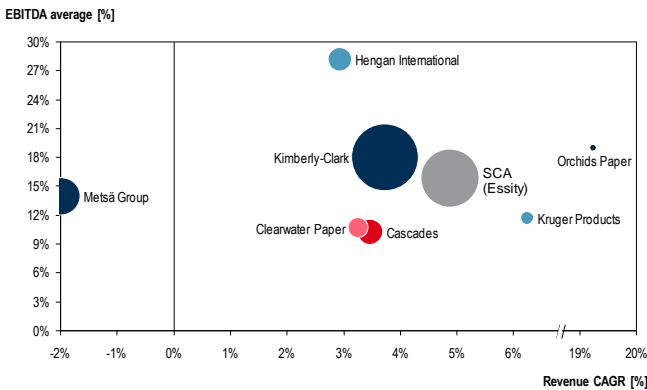


Figure 23: Tissue - EBITDA average vs. revenue CAGR

Pulp peer group

In the pulp peer group, all regions are showing declining profitability in 2015-2016 (see Figure 24). The regional comparison of the EBIT development for the pulp peer group highlights a significant decline in the dominance of the Latin American companies, with a steep EBIT drop in 2016 to 11,1%. The profitability of the North American pulp industry has been deteriorating since

2014, dropping to 8,2%. Europe has similarly experienced a decline by 1,9pp to 9,6%. A key reason for the drop being the decline in pulp prices 2016 – a trend that was reversed in 2017.

Pulp - EBIT % by region & peer group 2013-2016

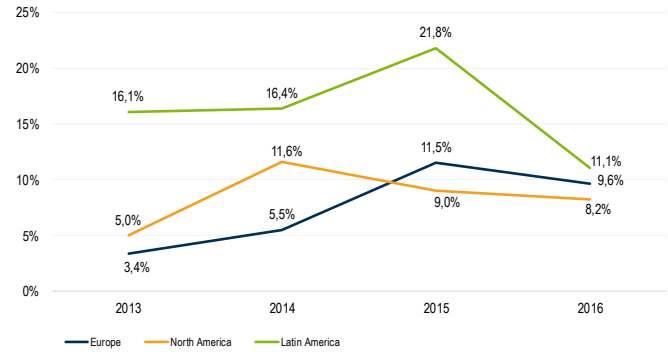


Figure 24: Pulp - EBIT by region development 2013-2016

The majority of companies has also seen their EBITDA decreasing in 2016 (see Figure 25). The Latin American players outperform in the peer group. In terms of EBITDA, Altri remains the strongest player in Europe despite the decline.

Pulp - Company-wide EBITDA as % of turnover 2013-2016

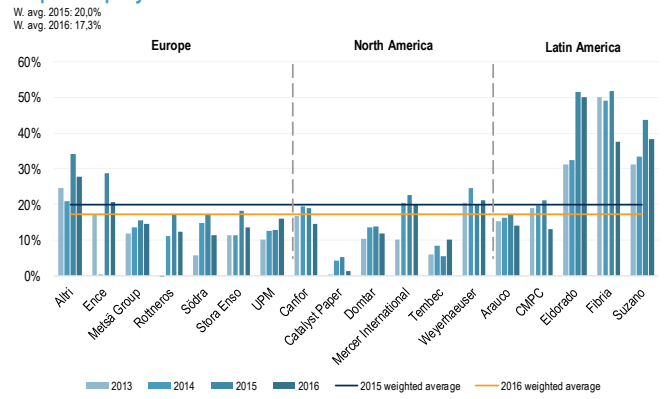


Figure 25: Pulp - EBITDA development by company 2013-2016

Regarding profitability and growth, pulp companies have been able to significantly grow their EBITDA over the last years while the revenue growth rate has been rather heterogeneous (see Figure 26). While UPM and Weyerhaeuser stagnated in revenue growth, Suzano and Eldorado outperform in terms of both revenue and EBITDA. The revenue growth of Catalyst is merger-driven.

Pulp - EBITDA average % vs. revenue growth % CAGR 2013-2016

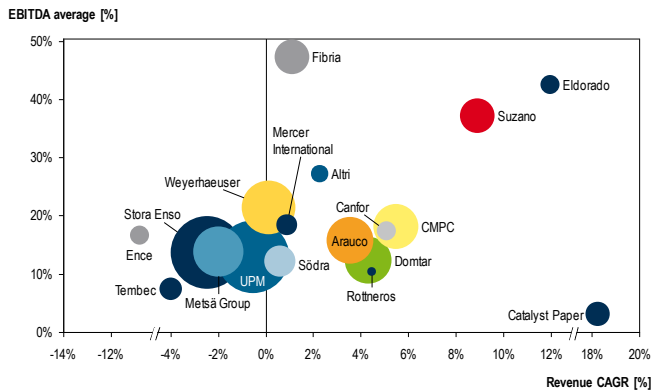


Figure 26: Pulp - EBITDA average vs. revenue CAGR

The development of working capital from 2012 to 2016 has been rather stable in North America and Europe with slight improvements in 2016 (see Figure 27). The Latin American companies still show the highest levels of working capital, however, improving by 3,3pp in 2016 to 20,4%. This drop was highly influenced by Fibria's pulp sales partnership with Klabin in 2015 and 2016.

Pulp - Working capital % development by region 2013-2016

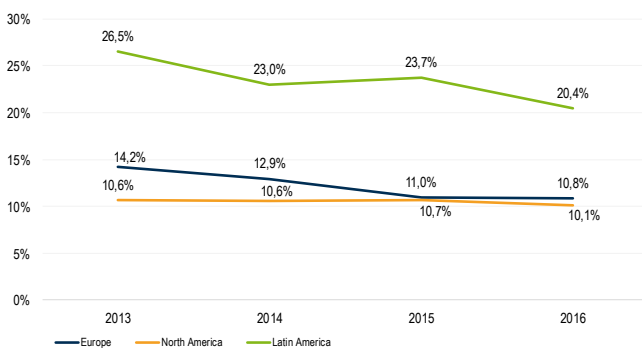


Figure 27: Pulp - WC development by region 2013-2016

### Flexibles peer group

The comparison of the EBIT development for the flexibles peer group shows that the profitability for both Europe and North America has been positive overall in the timeframe 2012-2016 (see Figure 28). However, in 2016 average profitability in Europe declined by 1,4pp while it increased for North American companies to almost the same level as Europe.

Flexibles - EBIT % by region & peer group 2012-2016

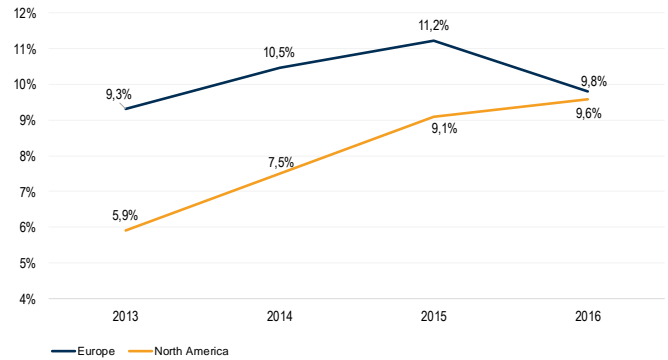


Figure 28: Flexibles - EBIT by region development 2012-2016

Looking at individual company performances (see Figure 29) the majority of companies in the flexibles peer group improved their EBITDA levels in 2016, with the exception of Amcor. Overall, European companies are leading the peer group. In North America, constant profitability improvements over the past 5 years can be observed.

Flexibles - Company-wide EBITDA as % of turnover 2012-2016

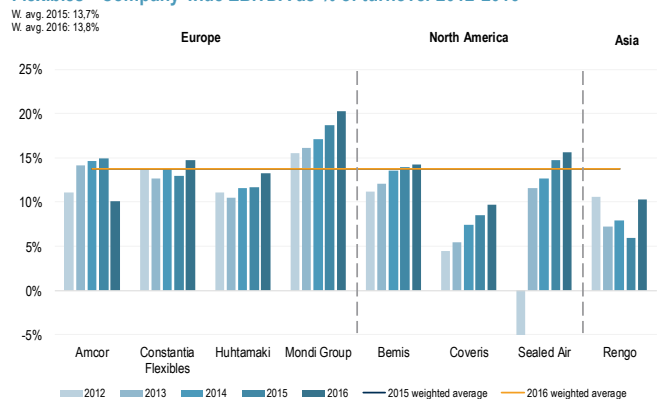


Figure 29: Flexibles - EBITDA development 2012-2016

Looking at longer term developments (see Figure 30), all companies in the flexibles peer group have had a positive average EBITDA during the last 5 years. Most of the companies have also had positive revenue growth. For the period, Amcor and Rengo were the only companies with a shrinking revenue.

Flexibles - EBITDA avg.% vs. revenue growth % CAGR 2012-2016

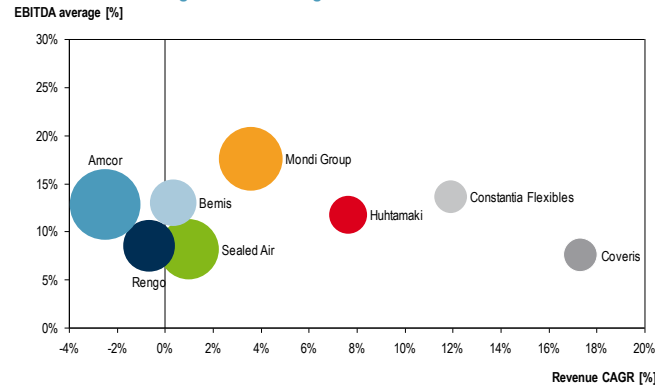


Figure 30: Flexibles - EBITDA average vs. revenue CAGR

Working capital levels for the flexibles peer group have improved considerably for North America (see Figure 31) over the last years. With a continuous decline in WC levels since 2013, North America is almost at par with its European competitors (6,8% and 6,7% respectively). Europe has also continuously reduced working capital reaching the lowest levels since 2012.

Flexibles - Working capital % development by region & peer group 2012-2016

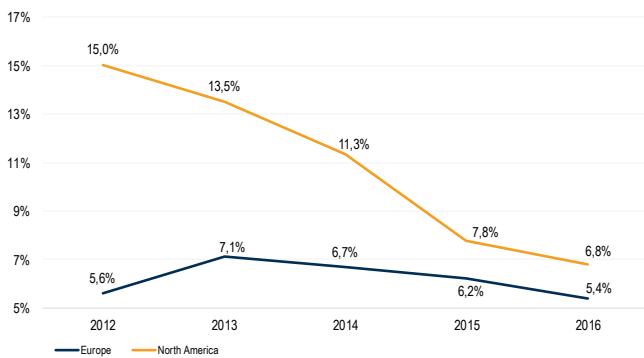


Figure 31: Flexibles - WC development by region 2012-2016

Summary – What goes up, may stay up – but it also might come down

The pulp, paper and packaging industry has continued to deliver solid returns despite the increasing global uncertainties. However, differences exist between the individual segments. Companies in the graphic paper segment (especially printing and publishing) continue to struggle with an ongoing decline in volumes and revenues but they have, to a large part, done their homework and managed to keep profitability up. Nevertheless, the graphic paper segment is the one with the most difficult outlook. In packaging, the challenge is to profit from the continued

growth of the sector and build a sustainable strategy for the future.

Due to the continued increase in demand and a favorable pricing development the capital-intensive pulp segment has seen very profitable years. The demand outlook remains positive but new capacities may impact overall profitability. The same is true for the tissue sector which has most recently been the most profitable sector on average across all segments.

In general, the industry remains fragmented from a global perspective in most regions and segments, the exception being North America. Further consolidation can be expected in graphic papers and more M&A activity can be expected in growth segments. The Asian market still offers plenty of opportunities for the industry.

Overall the industry is healthy and delivering high returns on the capital invested. The outlook for pulp, paper and packaging remains positive despite populism and nationalistic or protectionist tendencies and growing uncertainties. So far, this has not yet led to any significant negative effects. As an industry with a global footprint, the pulp, paper and packaging industry has learned to remain calm even when navigating through rough waters.



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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](mailto:leapfrog@stepchange.com).

**Joachim Klein** is founder and Managing Director of StepChange Consulting. He has more than 20 years of industry experience, advising global players in the paper value chain in strategy development, M&A, and overall profit and performance improvement.

**Sarah Rabl** is a consultant at StepChange Consulting. In addition to her client work, she focuses on M&A and operational & performance benchmarking of companies in the pulp, paper and packaging segments.



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