
Global Forest, Paper & Packaging Industry Survey

2015 edition survey of 2014 results



Forest, Paper & Packaging
www.pwc.com/fpp

Leaders' message

Welcome to the PwC Global Forest, Paper & Packaging Industry Survey – 2015 Edition. The Survey, now in its 18th year, provides insight into the industry's major companies and an overview of the issues and events shaping the industry. This year's Survey summarises the 2014 publicly available year-over-year financial information of the PwC Top 100 – the 100 largest forest, paper and packaging (FPP) companies in the world, ranked by sales revenue.

PwC Top 100 companies (US \$ billions¹)

	2014	2013	2012	2011	2010
Sales revenue	336.7	355.2	352.9	353.8	322.8
Operating profit	28.5	28.1	22.7	23.7	19.1
Net income (loss)	14.3	13.7	10.5	10.7	19.3
Return on sales	8.5%	7.9%	6.4%	6.7%	5.9%
Return on capital employed	4.2%	4.4%	4.6%	4.1%	4.9%
Capital expenditures	21.7	21.3	22.2	21.9	17.3
Depreciation	17.2	19.0	20.6	22.3	20.0
EBITDA margin	13.0%	14.0%	12.3%	13.0%	12.1%

1. Throughout the Survey all currency references are in US dollars unless otherwise noted.

2. Refer to the Methodology section on page 16 for the definition of return on capital employed.

† Inclusive of paper packaging only.

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As this year's Survey results show, most key financial indicators were similar to 2013. Revenues decreased but operating profits remained consistent with 2013 primarily due to the strengthening US dollar.

The PwC Top 100 list remained relatively unchanged in 2014. Notable transactions include Rock-Tenn's acquisition of MeadWestvaco and Georgia Pacific's acquisition of Buckeye Technologies. Notable divestitures include Rayonier's spinoff of its Performance Fibers and Wood Products businesses.

Our 28th Annual Global Forest & Paper Industry Conference took place May 6, 2015 in Vancouver, BC. With the theme, From Innovation to Action, more than 350 CEOs, senior executives, and PwC leaders discussed how companies are capitalizing on new business opportunities and adjusting their business strategy to deal with a tumultuous economic climate.

The 29th Annual Conference will be held on May 4, 2016 in Vancouver as part of the Forest Products Leadership Summit 2016 (www.forestproductssummit.com).

With our thought leadership and depth of industry knowledge, PwC has been able to satisfy our clients' business needs and surpass their expectations by offering proactive solutions to help them identify and capitalise on trends. For more information about the services offered by PwC's Global Forest, Paper & Packaging Industry Practice, please contact one of the professionals in your region listed inside the back cover of this Survey. We hope you enjoy the 2015 edition of the PwC Global Forest, Paper & Packaging Industry Survey.

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2014 in perspective

Economic context

2014 was a year of mixed signals, with a number of trends being difficult to read, as well as being one which provided a number of unexpected shocks. Global growth recovered somewhat from the weak performance noted from mid-2012 onwards, and this led the IMF in a mid-year report to issue the cautious hope that the severe financial crisis of 2008/09 had finally been overcome. In the same report however the IMF went on to caution that financial systems remained at risk from loose financial discipline in many areas with the associated risk of asset bubbles being generated. The Centre for Economic Policy Research issued a similar sentiment in its report on the explosion in borrowings which had taken place since 2008. The concern therefore remained that economic growth was too often being financed by borrowings rather than by equity with the danger of recovery being fragile. The shocks came in the form of the collapse in oil prices in the latter part of the year and high volatility in the foreign currency markets – notably affecting the Brazilian Real, Yen, Euro and Rouble – at the year-end. Political tensions in countries such as Brazil (beset

by weak economic performance and a major financial scandal), Turkey (difficulties in forming a stable government) and Russia (affected by the weak oil prices), the war in Syria and the annexation of the Crimea completed a crisis-ridden year.

Looking at individual economic performance in more detail, the improved overall GDP growth of 3.4% compared to 3.0% in the previous year owed more to the developed economies than to the new ones. China reported growth of 7.4% which marked a slow-down and concerns remained about both the high level of debt (both public and private) in that country together with a lack of clarity as to how much of the reported growth could be ascribed to continuing investment rather than being driven by consumer-led demand. While its domestic performance weakened, China was highly active in foreign investment, with outward investment increasing by some 20% over 2013 levels, leading to the country being a net outward investor for the first time. Mention should be made in this context both of



the announced intention to invest some \$40 billion in the Silk Route as well as the formation of the Asian Infrastructure Investment Bank. Other new economies – notably Turkey, India and Brazil – evidenced sharp slow-downs in GDP growth compared to 2013. As far as other countries were concerned, worries were expressed as to the degree of dependence that many new economies had on a single commodity (oil, soya, gold, copper etc.) and nagging doubts remained about the level of crime and corruption in some territories. The mature economies – notably the US (growth of 2.9%) and Canada (2.5%) – fared better than in the previous year and both the European Union (1.4%) and – within the Union – the Eurozone (0.9%) managed to lift themselves out of stagnation, with Germany once again being the main engine of growth. This news was broadly positive. On the other hand progress on negotiation of the Transatlantic Trade and Investment Partnership (TTIP) between the US and the European Union, which had been ongoing since mid 2013 and in which much hope for an economic impulse has been placed, remained extremely slow. Japan – although recording GDP growth of some 5% – remained highly volatile (as evidenced by the strong negative reaction to an increase in VAT) and the sustainability of Abenomics remained to be proved.

The various factors and uncertainties outlined above had their impact on foreign currency movements in the years. A general strengthening of the US dollar against many currencies was notable, and was significant enough to start to cause currency headwinds for US exporters. In the case of the Eurozone the euro again held up unexpectedly well for much of the year, belying the relative underlying weak (although improved) economic performance of the Eurozone, but this trend was reversed sharply at the end of the year, when the euro began a rapid slide in its value, so that the spot rate at the end of 2014 was some 11% below that at the end of previous year. The collapse in the Russian rouble at the end of the year was significant enough to enable Russian lumber traders to sell to China at prices which undercut the competition but were still enough to produce a handsome margin. The difficulties in Brazil were once again reflected in a sharp fall in the Brazilian real against the dollar. The Japanese yen continued to fall. The renminbi showed little overall movement against the dollar (a slight downward trend became noticeable in the year), no doubt in response its continued management by the Chinese government.

Oil prices were affected by a combination of weak growth in many countries, ongoing high levels of production by OPEC countries and the impact of US shale production. In

common with the previous couple of years, oil prices started to rise in the early part of the year, but this time the peak was lower than in 2013, and prices began to slide from the beginning of August to levels around \$50 per barrel – a little over half that which had pertained earlier in the year. The collapse came too late in the year to enable its full impact on the global economy to be felt; in addition to the obvious impact on oil producers and consumers, however, the likely lower level of petrodollars for investment into the global economy should not be forgotten.

All in all, an eventful year characterised by some unexpected and dramatic events which will continue to be felt for a long time yet. Among the questions thrown up by the year's events will be: how long oil prices will remain low (how far further will they fall?) and what the impact will be on the global economy, upon oil-producing states and manufacturers; the effect of political turbulence and armed conflict upon political stability and hence economic stability in the regions affected; and continuing volatility of exchange rates and their impact. A fundamental challenge will be posed by the slowdown in the new economies and its impact upon the health of the global economy, should that slowdown continue. 2015 will have some major challenges to master.

The Forest, Paper and Packaging Industry

In overall terms, the performance of the forest, paper and packaging industry reflected the difficulties of making significant headway in turbulent market conditions. The overall decline of some 5% as shown in the summary table certainly owes something to exchange rates, with the general strengthening of the US dollar against other currencies meaning that reported numbers from non-US territories are depressed when compared to the previous year. That being said, it remains the case that sustained growth was hard to come by, with sales reductions being shown for all territories with the exception of Japan. The general response to the market conditions pertaining in the year was to continue to concentrate on refining business models – driving out remaining inefficiencies divesting non-core activities and seeking to improve the performance of core businesses – and to use the cash flows so generated to look selectively for appropriate acquisitions. Where the latter could not be found, many enterprises – notably in the US – returned capital to their shareholders, either in the form of capital reductions (many companies have share buy-back programmes in place) or by way of increased (or special) dividends. The annual global CEO survey conducted at the end of 2013 indicated that a high proportion of CEOs interviewed had undertaken cost-reduction initiatives during the year and anticipated putting further cost-cutting measures into effect in 2014. Also the active search for M&A targets was reflected in the high number of CEOs, who had either effected a cross-border acquisition in the year or expected to do one in 2014.

The performance of the various sub-segments within the overall forest, paper and packaging industry continued to show wide variations. In sawmilling, US mills generally outperformed Canadian ones, although the slide in the Canadian dollar towards the end of the year might alleviate the Canadian position in 2015, and Russian mills took advantage of the collapse in the rouble (as noted in the previous section). European mills started strongly but suffered from steadily slowing markets in the latter half of the year. The sales of wood products (furniture, doors, panels etc.) to China showed increases of just under 10%, but the recovery in US housing markets – although the upward trend remains clearly visible – is still such that housing starts are a long way below pre-crisis levels. World pulp demand grew slightly (around 1%), with China accounting for much of the increase. Fluff pulp demand, principally for tissue paper use and hygienic products, was strong but commodity dissolving pulp suffered from difficult market conditions caused in the main by reducing polyester prices. Newsprint continued to suffer from reducing advertising revenues, which the industry sought to counteract by revising business models to concentrate more on the end-consumer. Circulation weakened in Europe and North America, but better news was reported from some developing economies, notably India.

The overall weakness in sales performance commented on above fed through into EBITDA, with the overall rate dropping one percentage point from 13.9% to 12.8%. Pressure was felt particularly in the US and in emerging Asia; this was offset by improvement in Europe – where the attention to operating efficiency over the past years has made itself felt – and to a lesser extent in Latin America. Once again, the EBITDA margin in Latin America (24.4%) was way ahead of all other territories; similarly, the performance in Japan was once again the weakest by some way. EBITDA margins in the remaining regions were relatively closely bunched (ranging from 11% to 14.5%). Net income increased over 2013, both in absolute terms as well as when expressed in percentage terms (4.2% compared to 3.8%), with the strongest improvement coming (for the second year running) from Europe.

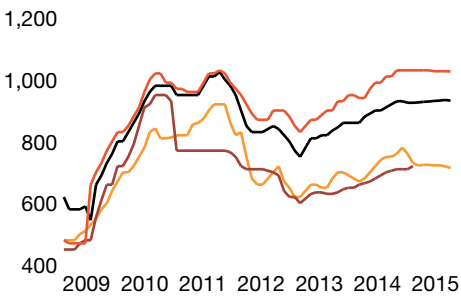
Capital expenditure remained at a very similar level to 2013 (indeed the overall level has hardly changed since 2011), but the level of depreciation fell, leading to the conclusion that assets are getting older and that more fully-depreciated assets would appear to be in use. The reinvestment ratio (ratio of capital expenditure to depreciation) has risen with all territories reporting capital investment ahead of depreciation. However, this is mainly due to the reduced level of depreciation and does not indicate any truly major capital spend. The pattern was similar to 2013, with the most significant capital expenditure occurring in Emerging Asia and Latin America.



M&A activity continued, with more deals being done than in 2013, which was a weaker year than 2012. The sharp reduction in the number of deals done in the last quarter of 2013 (when compared to the corresponding quarter in 2012) appeared to have been halted. On the other hand deals are being done at lower individual values, and the trend was in favour of strategic buyers (as opposed to financial acquirers). This is consistent with the strategy expressed by CEOs of going for appropriate acquisitions where they can be found.

Looking forward to 2015 and beyond, there will be no shortage of challenges to be met – political and economic stability of many markets, exchange rate volatility, and the future direction and impact of oil prices being just a few of them. Performance within the industry remains variable – while many sub-sections are performing well, others continue to struggle. As noted in previous commentaries, innovation and the search for new applications for fibre will continue to be crucial to the Industry’s success. Companies with steady profitability and robust cash flows will be best able to meet the challenges ahead.

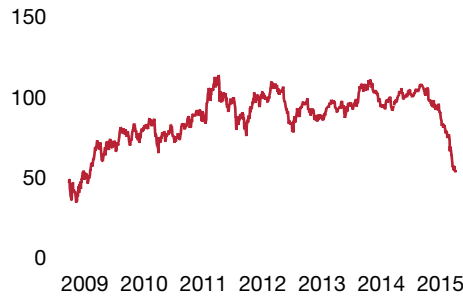
Global NBSK Pulp Prices
(US \$ per tonne)



Canadian – delivered to US East
 Canadian/Nordic – delivered to Northern Europe
 China
 Western Europe

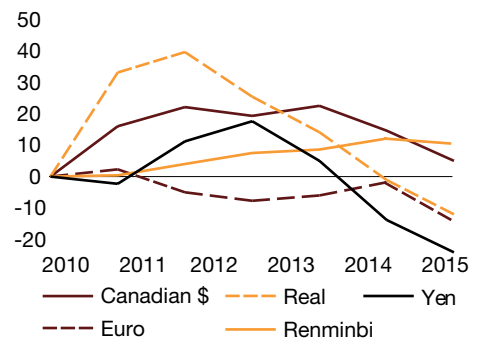
Source: RISI PPI Pulp & Paper Week

Monthly Spot Crude Oil Prices
(US \$ per barrel)



Source: US Energy Information Administration, accessed at <http://www.eia.doe.gov/emeu/international/Crude1.xls>

Appreciation of Major Currencies Against the US Dollar
(Percent)

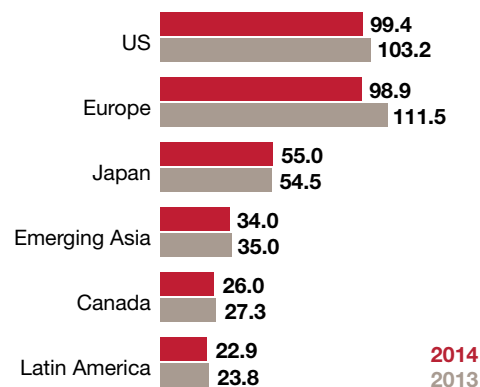


Source: Onada.com

PwC Top 100

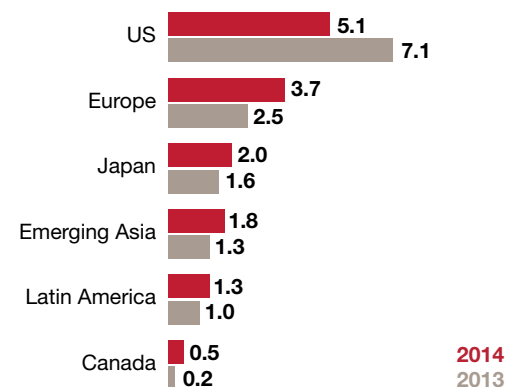
The PwC Top 100 list remained relatively unchanged in 2014.

Sales (US \$ billions)



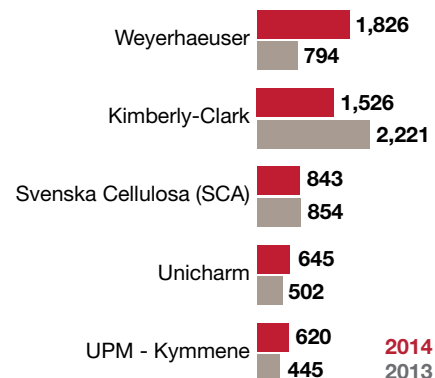
Source: PricewaterhouseCoopers LLP

Net income (Loss) (US \$ billions)



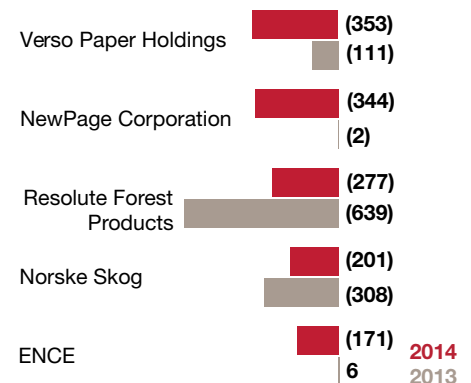
Source: PricewaterhouseCoopers LLP

Highest earnings (US \$ millions)



Source: PricewaterhouseCoopers LLP

Largest losses (US \$ billions)



Source: PricewaterhouseCoopers LLP



Sales and income

The PwC Top 100 reported total sales of \$336 billion in 2014 which is a drop of \$19 billion from 2013. The decrease in sales was primarily a result of most currencies losing ground to the US dollar. EBITDA of \$45 billion also decreased by 3.9% compared with the prior year.

EBITDA margins

EBITDA margins decreased to 12.8% in 2014 from 13.9% in the prior year. Latin America continued to lead with an EBITDA margin of 24.4%, compared to the US in second place with a margin of 14.5%.

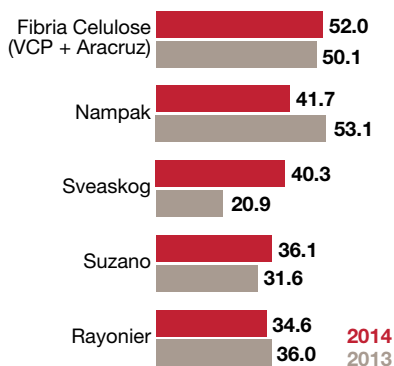
Reinvestment ratio

Reinvestment ratio, calculated as capital investment as a percentage of depreciation, measures the extent that capital investment is replacing aging assets. In broad terms, a ratio in excess of 1.0 indicates an expansion of capacity.

A ratio of less than 1.0 indicates capacity shrinkage and suggests that assets are being depreciated faster than they are being replaced.

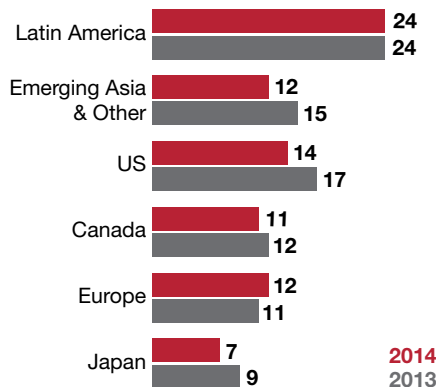
The overall reinvestment ratio averaged 1.26 for 2014 for the industry, compared to 1.12 in 2013 and 1.08 in 2012. Asia continued to have the highest reinvestment ratio at 3.31, down from 3.68 in 2013.

Highest EBITDA margin (%)



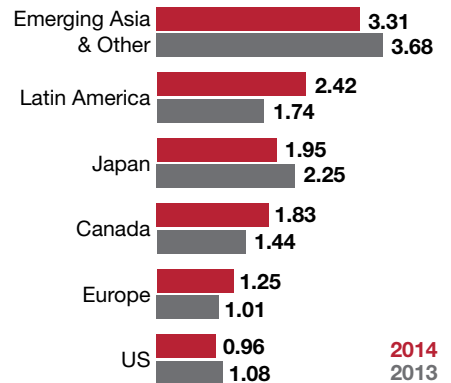
Source: PricewaterhouseCoopers LLP

EBITDA margin by region (%)

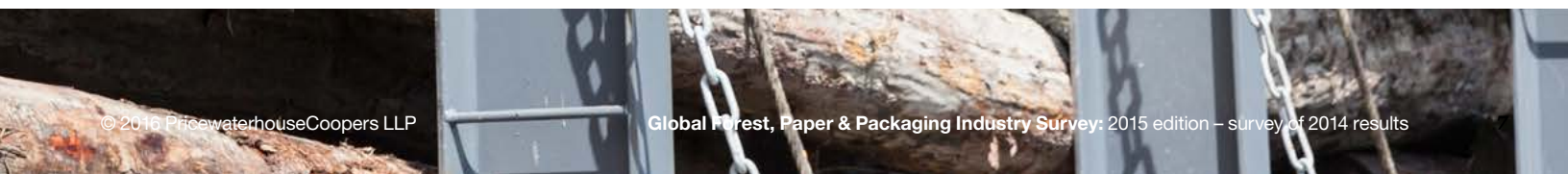


Source: PricewaterhouseCoopers LLP

Reinvestment ratio



Source: PricewaterhouseCoopers LLP



Results by region

In US dollar terms, sales in most regions were down year over year except for Japan which remained flat. The decrease in sales is largely a result of the strength of the US dollar in 2014.

Europe

European sales decreased by 12.8%, which corresponds to the Euro falling 12.2% against the US dollar. Net income improved, however, as a result of increased demand.

United States

The results for the US were down from the previous year for a variety of reasons. A number of companies undertook major restructuring and divestiture activities. Also, as mentioned above, offshore subsidiaries were impacted by the strength of the US dollar.

International Paper and Kimberly-Clark retained their first and second overall sales rankings in 2014.

Japan

Japanese companies had strong results in the local currency, however this was offset by Yen's fall against the US dollar of 12% in 2014.

Emerging Asia and other

The Other category grouped with Emerging Asia comprises Sappi and Nampak from South Africa, and PaperlinX from Australia. Most of the other Asian companies had little or no growth due to the slowing of the Chinese economy.

Canada

Canadian companies, consistent with many other regions, posted lower sales in 2014 compared to 2013 because of currency fluctuations.

Latin America

Due to its low input costs, Latin America again posted the highest regional EBITDA margin at 24.4% in 2014 compared to 24.0% in 2013.

Financial Summary Information by Country/Region

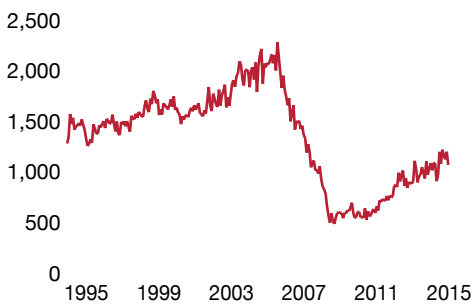
(US \$ millions)

	Sales 2014	Sales 2013	Change %	Net Income 2014	Net Income 2013
Canada	26,015	27,290	-4.9%	530	187
Emerging Asia	33,962	34,964	-3.0%	1,761	1,271
Europe	98,859	111,530	-12.8%	3,708	2,473
Japan	54,980	54,466	0.9%	1,982	1,565
Latin America	22,887	23,797	-4.0%	1,252	1,048
US	99,367	103,202	-3.9%	5,109	7,111
Total	336,069	355,250	-5.7%	14,342	13,655

Note: Other includes South Africa and Australia

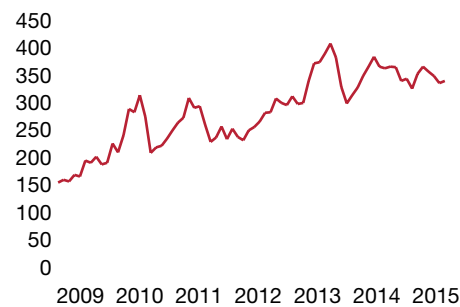


US housing starts – 20 year trend ¹
(Thousands of units)



1. Seasonally adjusted annual rate.
Source: US Census Bureau

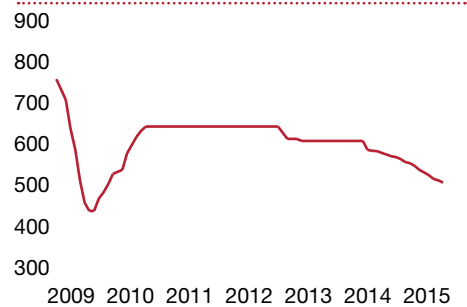
North American building materials
(US \$ per mfbm)



Lumber 2x4 #2&Btr KD Western SPF

Source: Lumber—Random Lengths Yardstick

North American newsprint prices
(Newsprint 30lb delivered to US East,
US \$ per tonne)



Source: Pulp and Newsprint – RISI PPI Pulp & Paper Week

Change %	EBITDA 2014	EBITDA 2013	Change %	EBITDA Margin 2014	EBITDA Margin 2013	ROCE 2014	ROCE 2013
183.7%	3,033	2,987	1.6%	10.5%	11.8%	3.5%	13.5%
38.5%	3,937	4,340	-9.3%	11.8%	15.2%	5.5%	3.8%
50.0%	12,529	12,173	2.9%	12.4%	11.0%	4.8%	-1.5%
26.6%	4,203	4,314	-2.6%	7.1%	8.6%	4.2%	3.5%
19.4%	5,819	5,677	2.5%	24.4%	24.0%	1.4%	5.0%
-28.2%	15,716	17,598	-10.7%	14.5%	17.2%	3.7%	8.7%
5.0%	45,238	47,089	-3.9%	13.0%	14.0%	4.1%	4.4%



PwC Top 100

Top 100 Global Forest, Paper & Packaging Industry Companies (US \$ millions)

Rank 2014	Rank 2013	Company name	Country	Sales		Net income (Loss)		EBITDA as a % of sales	
				2014 \$	2013 \$	2014 \$	2013 \$	2014 %	2013 %
1	1	International Paper	US	23,617	29,080	555	1,378	16%	19%
2	2	Kimberly-Clark	US	19,724	21,152	1,526	2,221	21%	19%
3	4	Svenska Cellulosa (SCA)	Sweden	13,299	13,664	843	854	17%	16%
4	6	Oji Paper	Japan	12,659	12,741	321	303	9%	5%
5	3	Stora Enso	Finland	12,362	14,001	120	(94)	11%	6%
6	5	UPM - Kymmene	Finland	11,945	13,350	620	445	12%	11%
7	8	Nippon Paper Group	Japan	10,272	10,521	290	109	4%	9%
8	9	Rock-Tenn	US	10,047	9,545	495	733	10%	14%
9	7	Smurfit Kappa	Ireland	9,784	10,566	292	260	13%	12%
10	10	Sumitomo Forestry	Japan	9,243	8,670	329	162	7%	8%
11	11	Mondi Group	UK	7,749	8,599	570	550	17%	16%
12	12	Weyerhaeuser	US	7,403	7,254	1,826	794	23%	20%
13	15	DS Smith	UK	6,277	5,736	265	121	8%	5%
14	14	Sappi	South Africa	5,939	5,925	141	(161)	9%	7%
15	28	Packaging Corp of America	US	5,853	3,665	393	436	19%	19%
16	19	Unicharm	Japan	5,695	5,088	645	502	16%	16%
17	16	Domtar	Canada	5,563	5,391	431	91	14%	10%
18	18	Arauco	Chile	5,328	5,146	437	419	21%	21%
19	21	Sonoco	US	5,015	4,848	239	220	12%	12%
20	17	Rengo	Japan	4,970	5,159	92	133	9%	10%
21	20	CMPC	Chile	4,846	4,974	138	196	19%	17%
22	22	Nine Dragons Paper Holdings	China	4,821	4,641	236	257	17%	17%
23	24	Resolute Forest Products	Canada	4,258	4,461	(277)	(639)	9%	5%
24	23	Graphic Packaging	US	4,241	4,478	90	147	16%	14%
25	26	Daio Paper	Japan	4,086	4,181	63	155	8%	10%
26	25	Sequana Capital	France	4,078	4,416	142	(400)	4%	-6%
27	31	Boise Cascade	US	3,574	3,273	80	117	5%	4%
28	29	West Fraser Timber	Canada	3,330	3,375	224	339	15%	15%
29	34	NewPage Corporation	US	3,225	3,054	(344)	(2)	5%	7%
30	30	Shandong Chenming	China	3,080	3,292	81	111	7%	2%
31	27	Cascades	Canada	3,075	3,740	(127)	14	9%	8%
32	36	Hengan International	Hong Kong	3,073	2,731	505	480	25%	27%
33	33	Canfor	Canada	2,891	3,104	151	243	15%	16%
34	39	Suzano	Brazil	2,733	2,646	(98)	(103)	36%	32%
35	35	Billerud	Sweden	2,669	2,998	163	105	16%	20%
36	32	Fibria Celulose (VCP + Aracruz)	Brazil	2,665	3,218	59	(324)	52%	50%
37	43	Universal Forest Products	US	2,660	2,470	58	46	5%	4%
38	40	Sodra	Sweden	2,542	2,545	190	(82)	15%	4%
39	38	Mayr-Melnhof Karton	Austria	2,527	2,655	158	162	13%	13%
40	13	Metsaliitto	Finland	2,441	6,549	83	251	10%	12%
41	58	KapStone Paper and Packaging	US	2,301	1,748	172	127	19%	23%
42	41	Lenzing	Austria	2,298	2,535	(16)	66	12%	19%
43	46	Lee & Man Paper	China	2,205	2,188	246	251	17%	16%
44	37	PaperlinX	Australia	2,172	2,687	(103)	(87)	0%	-2%
45	48	Hokuetsu Paper	Japan	2,127	2,138	73	86	6%	11%
46	42	Holmen	Sweden	2,094	2,491	116	109	17%	15%
47	54	Siam Pulp & Paper	Thailand	1,984	1,883	504	134	12%	16%
48	49	The Lecta Group	UK	1,981	2,105	(88)	(149)	11%	3%
49	44	Kimberly-Clark Mexico	Mexico	1,972	2,327	240	362	26%	29%
50	51	Mitsubishi Paper	Japan	1,971	2,061	12	19	2%	7%

Rank 2014	Rank 2013	Company name	Country	Sales		Net income (Loss)		EBITDA as a % of sales	
				2014 \$	2013 \$	2014 %	2013 %	2014	2013
51	53	Clearwater Paper	US	1,967	1,890	(2)	107	12%	10%
52	50	Louisiana-Pacific	US	1,935	2,085	(75)	177	1%	14%
53	62	Yuen Foong Yu Paper	Taiwan	1,919	1,701	19	21	7%	5%
54	52	Portucel	Portugal	1,894	2,028	220	279	21%	22%
55	57	Heinzl Holding	Austria	1,869	1,765	70	76	12%	8%
56	47	Klabin	Brazil	1,841	2,139	275	135	20%	-9%
57	60	Glatfelter	US	1,810	1,723	69	67	7%	9%
58	64	Daiken	Japan	1,714	1,552	44	23	5%	6%
59	59	Shan Dong Sun Paper	China	1,686	1,741	76	46	12%	16%
60	45	Norske Skog	Norway	1,624	2,226	(201)	308	7%	12%
61	70	Masisa	Chile	1,545	1,365	11	55	7%	9%
62	72	Plum Creek Timber	US	1,533	1,340	214	214	33%	39%
63	65	Shandong Huatai Paper	China	1,493	1,498	10	10	5%	16%
64	66	Tomoku	Japan	1,429	1,491	51	39	6%	8%
65	68	Cheng Loong	Taiwan	1,414	1,473	24	40	3%	8%
66	73	Moelven	Norway	1,405	1,337	14	(15)	6%	4%
67	69	Verso Paper Holdings	US	1,297	1,389	(353)	(111)	4%	18%
68	76	Interfor	Canada	1,250	1,074	35	41	10%	16%
69	63	Sonae Industria	Portugal	1,239	1,636	(140)	(104)	8%	12%
70	55	Ahlstrom	Finland	1,212	1,808	4	76	7%	9%
71	71	Norbord	Canada	1,198	1,343	26	149	7%	26%
72	75	Mercer International	Canada	1,175	1,088	113	(26)	20%	10%
73	78	Duratex	Brazil	1,124	1,063	147	242	21%	47%
74	67	Tembec	Canada	1,103	1,490	(47)	(33)	6%	7%
75	81	Moorim Group	Korea	1,079	996	(36)	8	6%	17%
76	79	Yueyang Forest & Paper Co.	China	1,061	1,027	2	3	4%	14%
77	77	EUROPAC	Spain	1,003	1,065	33	36	12%	19%
78	80	Catalyst	Canada	958	1,022	(62)	(124)	4%	1%
79	84	Sveaskog	Sweden	910	930	247	226	40%	21%
80	83	Western Forest Products	Canada	895	950	59	122	10%	14%
81	82	Arctic Paper	Poland	875	983	14	(48)	7%	-1%
82	85	Bio Pappel (fr. Grupo Industrial Durango)	Mexico	833	919	44	67	16%	15%
83	74	ENCE	Spain	832	1,133	(171)	6	3%	16%
84	86	The Pack Corporation	Japan	815	865	62	34	7%	9%
85	88	Appvion Inc. (formerly Appleton Papers)	US	810	807	(93)	17	-1%	20%
86	89	Schweitzer-Mauduit	US	794	773	90	76	21%	21%
87	87	Ballarpur Industries	India	794	845	(5)	16	17%	18%
88	56	Hansol Paper	Korea	715	1,807	(35)	8	7%	11%
89	91	Corticeira Amorim	Portugal	678	720	43	41	14%	18%
90	92	Exacompta Clairefontaine	France	667	697	14	6	9%	6%
91	90	Altri	Portugal	657	731	45	73	19%	35%
92	93	Setra Group	Sweden	613	624	19	9	8%	6%
93	95	Potlatch	US	607	570	90	71	26%	24%
94	61	Rayonier	US	604	1,708	99	374	35%	36%
95	94	Reno De Medici	Italy	531	622	7	2	9%	8%
96	97	Nampak	South Africa	526	529	97	134	42%	47%
97	96	Groupe Gascogne	France	497	555	(7)	(74)	1%	-7%
98	99	Wausau-Mosinee Paper	US	352	349	(19)	(97)	12%	23%
99	100	Conifex Timber Inc.	Canada	320	253	4	9	6%	14%
100	98	Pfleiderer	Germany	305	463	38	(9)	28%	10%

Source: PricewaterhouseCoopers LLP

28th annual PwC Global Forest & Paper Industry Conference

The 28th annual PwC Global Forest & Paper Industry Conference, with a focus on From innovation to action brought together 350 CEOs, senior executives, customers, suppliers, financial analysts, government representatives and other stakeholders in Vancouver, Canada on May 6, 2015. Conference speakers and panellists looked at a number of important factors affecting the forest and paper industry, providing insight on everything from global megatrends and the role that forestry can play in a changing world, to discussions on product innovation and opportunities for the forestry sector engage with stakeholders in new ways online.

The conference opened with a presentation on global megatrends by Malcolm Preston, PwC's Global Sustainability Leader from London, UK. Malcolm presented the impact of environmental issues such as water shortages and climate change and the growing recognition of the need for businesses to respond to this.

The forestry sector has an important role to play in combating these problems, specifically problems associated with accelerated rate of deforestation in parts of the world, restoration of degraded forests and sustainable forest development.

The first discussion panel of the day discussed financial performance of the forest and paper industry as well as national, regional and global macroeconomic factors expected to influence the industry. Wells Fargo Economist Tim Quinlan focused on global macroeconomic trends, ERA Forest Products Research analyst Kevin Mason reviewed the effects of the consolidation that has occurred in three segments of the forest products industry and Hawkins Wright's Roger Wright focused on pulp and paper markets, with an emphasis on China. The panel covered a wide range of topics from the outlook for the US economy and its impact on the Canadian forestry sector, consolidation in forest industry, and changes brought by innovations and new products were discussed. The panel provided insight into global pulp and paper demand and production commenting that future demand will be difficult to predict on past trends. The world is changing fast; with demand in Europe falling, and demand in China difficult to estimate, the panel concluded that global demographic changes and new technologies will continue to play an important role in paper and board consumption worldwide.

Delegates were treated to a fascinating discussion about innovation in forestry products by three prominent leaders in the field who offered their vision of impacts of innovation on markets and society as a whole. Dr. Guido Wimmers from the University of Northern British Columbia discussed the latest trends in building large wood structures; Thomas Riegler, CFO of Lenzing Group spoke about the versatility of products that can be produced from viscose cellulose fibres; and René Goguen of CelluForce Inc highlighted the innovation path, achievements, challenges and learnings from the development of a nanocrystalline cellulose manufacturing facility. The panel message was clear: there is a broad range of new exciting products being made from forest fibre although widespread adoption remains the major goal.

A panel comprised Kathy Abusow, CEO of the Sustainable Forest Initiative, François Dufresne, CEO of the Forest Stewardship Council Canada and Tom Martin, CEO of the American Forest Foundation presented insights into the significance of forest certification, future challenges, opportunities and development of their organizations. The panel discussed the positive impact of forest certifications on conservation research, aboriginal rights, biodiversity and natural resources.

SAVE THE DATE for the 29th Annual PwC Global Forest, Paper & Packaging Industry Conference taking place in Vancouver, British Columbia, Canada on May 4, 2016.

The Anatomy of a Deal panel speakers presented their unique perspective on the three different phases related to mergers and acquisitions in the forest and paper industry. PwC's Jason Boyer provided an overview of global forest and paper M&A in 2014 and how global megatrends will shape future M&A activity. Carter Holt Harvey Pulp and Paper CEO Dr. Jon Ryder presented a case study of the first phase, "thinking of a deal" using an example of a New Zealand softwood pulpwood from the perspective of a potential buyer. West Fraser CFO Larry Hughes discussed "doing the deal" and stressed the importance of fairness. KapStone President Randy Nebel focussed his presentation on factors important to "delivering the deal" as well as challenges facing future integration and the need for careful attention and compromise in combining the two cultures.

Closing the 2015 conference was a panel of CEOs that included Duncan Davies, President and CEO of Interfor, Kevin Edgson, President and CEO of EACOM Timber Corporation, Clemens Willée, CEO of Mondi Europe and International, and Tom Lindquist President and COO of Plum Creek Timber Company. The CEOs offered unique insight into their organizations and markets for their products, touched on current hot topics such as USA Canada Softwood Lumber Agreement, fibre security, replacement of an aging workforce, as well as discussing the strategies available to the forestry industry to rebrand its image as a leading sustainable sector.



Publications

PwC's Forest, Paper & Packaging practice publications are available for download from www.pwc.com/fpp



Sustainable growth: PwC Canada Forest, Paper and Packaging Practice Capability Statement 2015

The forest, paper and packaging industry will play a key role in a sustainable future.

The forest products sector is going through a period of structural change. New trends shaping the industry by way of increased global competition have made it a challenge for companies to generate sustained revenue growth. Innovation will play a key role in helping the sector to transform its current business model. Increasing efforts to communicate the industry's environmental footprint through a strong commitment to corporate sustainability reporting, will play an integral role in engaging a wide range of stakeholders for continued support.

We at PwC are active participants in the forest and paper industry, contributing knowledge and experience gained from our long association with many of the industry's leading companies. Facing new challenges is part of the process.

This document will provide you with some examples of how companies can benefit from strategies for sustainable success.



Global Forest and Paper Industry: Net Earnings Summary — Three months ended September 30, 2015 (a quarterly publication)

This Net Earnings Summary has been prepared by PwC based on financial statements and other sources issued by the selected companies. Earnings are reported in regional currencies, as noted.

Third quarter 2015 net earnings reported by the major Canadian forest products companies were mixed. Western Canadian based companies reporting overall higher net earnings compared to the second quarter of 2015, but lower than the third quarter of 2014. Eastern Canadian based companies overall third quarter net losses were slightly greater than the second quarter of 2015, but a significant improvement compared to the third quarter of 2014.



Building for the Future: Global strategies for sustainable success

In May 2014, senior executives from the Americas, Europe and China came together in a roundtable to discuss the priorities facing the world’s forest, paper and packaging sectors.

Participants agreed: companies are recognizing the bottom line benefits of sustainability. These include money saved on energy costs, which is viewed positively by investors, as well as increased goodwill among consumers that are actively seeking out environmentally friendly products.

But, improving sustainability performance requires constant measurement and benchmarking against peers within and between industries. It’s through this ongoing process that sustainability performance will become synonymous with business performance.



Forest, Paper & Packaging Deals Insights Quarterly Q4 2015

Global M&A activity in the FPP sector in Q4 2015 saw an increase in deal volume and total deal value relative to the third quarter (Q3) of 2015. A total of 39 M&A deals were announced during Q4 2015 with a total value of US\$14.8 billion and an average (median) deal size of approximately US\$22.2 million. This compares to 26 deals in Q3 with a total value of US\$1.4 billion and an average (median) deal size of approximately US\$11.3 million.

Over the full calendar year, there were 143 deals announced in 2015 worth nearly US\$31.9 billion, which is higher than 2014 in terms of deal volume and deal value (125 deals worth approximately US\$9.4 billion) as well as average (median) deal size.

Survey methodology

The PwC Global Forest, Paper & Packaging Industry Survey examines the 100 largest forest, paper and packaging products companies in the world — whether state, private, publicly owned, or a division of a larger entity — ranked by sales, provided there is sufficient public disclosure to allow meaningful analysis.

The data reported is drawn from a number of sources including annual reports, websites, press releases and the companies. Information may be unaudited. Several companies, mainly privately owned entities, of sufficient size to warrant inclusion in the PwC Top 100 have been excluded due to no, or limited, financial information being available. These companies include but are not limited to:

North America

Georgia-Pacific (part of Koch Industries), Kruger, Tolko and Menasha.

Europe

Tetrapak (Sweden), SAICA (Spain), Fritz Egger and Prinzhorn Holding (both Austria), Elopak (Norway), Papierfabrik Palm (Germany), Fedrigoni Group (Italy) and Ilim Pulp (Russia).

Asia Pacific

Asia Pulp and Paper (APP) (Indonesia and China), AsiaPacific Resources International (APRIL) (Singapore/Indonesia), and Visy Industries (Australia).

The PwC Top 100 results include only companies whose forest, paper and fibre packaging products business comprises more than 50% of total sales. Companies are grouped based on the location of their head offices. The 2013 comparative corporate data included in this Survey depends upon the data reported in the companies' 2014 annual reports. PwC takes no responsibility for the correctness of the extrapolated figures. The 2014 Japanese data is for the fiscal year ended March 31, 2014.

Return on Capital Employed (ROCE) is calculated as net income before unusual items, minority interest and interest expense, on an after-tax basis, divided by average total assets less average non-interest bearing current liabilities.

Unusual items have a significant bearing on the net income figure used for the purpose of calculating ROCE. As an example, in some cases, when reported earnings are negative, the effect of adding back unusual items results in a positive adjusted net income, and therefore a positive ROCE.

Restructuring charges, discontinued operations, exceptional tax credits, impairment charges, gain on the sale of fixed assets, and accounting changes are among the items commonly treated as unusual items and therefore excluded from the ROCE calculation.

Earnings before Interest, Taxes, Depreciation and Amortisation (EBITDA) is calculated as operating earnings plus depreciation and amortisation.

Foreign exchange fluctuations can have a significant impact on the data presented. This Survey has directly adopted the results of companies that report in US dollars; otherwise, we have translated income statement and balance sheet items at the spot rates as of December 31, 2014 and 2013 respectively.

PwC's Global Forest, Paper & Packaging practice comprises a network of industry professionals located in over 35 countries around the world.

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