Holmen

Late cyclicals come later

- Q2 EBIT up 8%, plus a 2% share buy-back
- Late-cyclical Holmen - board&paper should see higher prices into '25
- Decent valuation support, SOTP ~SEK 520/sh

Q2 EBIT +8% on better board volumes and higher wood prices

EBIT of SEK 983m was 8% ahead of cons and up 4% q-o-q. EBITDA margins have dropped from +35% at the peak to ~23%, which is not far from ourmid-cycle case and decent at the trough of the cycle. Key in Q2 was that cartonboard volumes rose 3% q-o-q with a better mix and Forest was better on higher wood prices. Q3e should bring slightly higher paper/ cartonboard prices, flat sawn goods prices, higher wood costs, lower electricity prices (SEK -50m) and SEK +75m on labour seasonality. This would point towards EBIT of ~SEK 980m (cons has SEK 985m).

Costs push prices higher - Holmen is late-cyclical

Keep in mind that Holmen is late-cyclical via its board&paper segment, which should see higher prices into '25 (following pulp and utilisation rates). Higher input costs push output prices higher, and there is now a long list of price hikes for most products. Containerboard benefits from capacity postponements, stronger demand and price increases. Cartonboard still has a way to go to reach its former glory. The paper markets are recovering: 15% supply cuts in '24e-'25e and better demand imply a higher utilisation rate and higher prices. Pulp has advanced via better demand and less supply growth, and prices have already risen by 35-75%. It is ripe for a pause though, as some extraordinary events from H1 could be hard to replicate in H2. Chinese demand is lower alongside more supply in H2, and pulp futures are down by 10-15%.

Decent valuation support, SOTP ~SEK 520/sh

Holmen's forest is a nice hedge and the company is a relative winner in the Nordic wood shortage story. Holmen's forest is valued at SEK 56.3bn, or SEK 348/sh. Our SOTP lands at ~SEK 520/sh when we add the industrial assets at SEK 122/sh and energy assets at SEK 75/sh (net debt of SEK -22/sh). We stick with BUY.

Reason: Post-results comment

BUY ● HOLD ○ SELL ○

Pulp & Paper

Estimate changes (%)

	2024e	2025e	2026e
Sales	5.0	4.2	4.2
EBIT	5.2	2.0	1.7
EPS	7.8	5.4	5.1

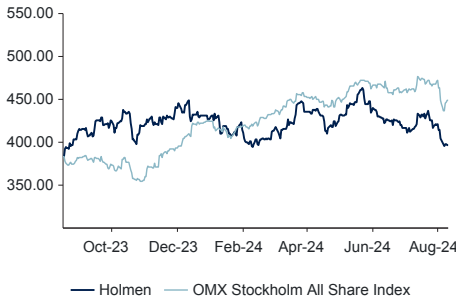
Source: ABG Sundal Collier

HOLM.B-SE/HOLMB SS

Share price (SEK)	14/8/2024	420.00
Target price		470.0
MCap (SEKm)		65,028
MCap (EURm)		5,649
No. of shares (m)		162.5
Free float (%)		73.6
Av. daily volume (k)		86

Next event Q3 Report 24 October 2024

Performance



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SEKm	2022	2023	2024e	2025e	2026e
Sales	23,952	22,798	22,591	22,153	21,584
EBITDA	8,607	6,114	5,040	5,323	5,572
EBITDA margin (%)	35.9	26.8	22.3	24.0	25.8
EBIT adj.	7,263	4,755	3,676	3,979	4,228
EBIT adj. margin (%)	30.3	20.9	16.3	18.0	19.6
Pretax profit	7,442	4,706	3,619	3,919	4,168
EPS	36.29	22.83	18.03	19.60	20.84
EPS adj.	34.64	22.83	18.12	19.60	20.84
Sales growth (%)	23.0	-4.8	-0.9	-1.9	-2.6
EPS growth (%)	95.7	-37.1	-21.0	8.7	6.4

Source: ABG Sundal Collier, Company Data

	2024e	2025e	2026e
P/E (x)	23.3	21.4	20.1
P/E adj. (x)	23.2	21.4	20.1
P/BVPS (x)	1.14	1.08	1.03
EV/EBITDA (x)	13.2	12.1	11.2
EV/EBIT adj. (x)	18.0	16.2	14.7
EV/sales (x)	2.94	2.91	2.89
ROE adj. (%)	4.9	5.2	5.2
Dividend yield (%)	2.1	2.1	2.1
FCF yield (%)	7.7	1.3	1.1
Le. adj. FCF yld. (%)	7.7	1.3	1.1
Net IB debt/EBITDA (x)	0.5	0.1	-0.2
Le. adj. ND/EBITDA (x)	0.5	0.1	-0.3

Company description

Holmen is a forest industry group, which manufactures printing paper, paperboard and sawn timber and runs forestry and energy production operations. It operates through the following business segments: Holmen Paper, Iggesund Paperboard, Holmen Timber, Holmen Skog and Holmen Energi.

Sustainability Information

Risks

Risks include FX-movements (a weaker USD is negative for Holmen). Higher interest rates would be negative for the value of Holmen's forest assets.

Quarterly figures

Quarterly P&L

P&L, SEKm	Q3 22	Q4 22	Q1 23	Q2 23	Q3 23	Q4 23	Q1 24	Q2 24	Q3 24e
Paper	2,156	2,311	2,194	1,992	2,036	1,979	2,003	2,134	2,058
Paperboard	1,824	1,640	1,811	1,748	1,714	1,492	1,652	1,760	1,710
Wood products	937	1,019	1,087	1,124	929	935	989	1,053	1,053
Forest	1,755	1,969	2,105	2,073	1,880	1,939	2,233	2,491	1,880
Renewable energy	290	565	368	231	159	312	302	159	106
Intra-group	-1,177	-1,260	-1,342	-1,413	-1,298	-1,257	-1,459	-1,704	-1,298
Total sales	**5,785**	**6,244**	**6,223**	**5,755**	**5,420**	**5,400**	**5,720**	**5,893**	**5,509**
Depreciation	-336	-343	-343	-332	-339	-345	-356	-336	-336
Paper	832	716	836	659	613	429	278	329	535
Paperboard	400	152	299	-49	111	-169	93	110	-22
Wood products	177	-67	23	55	19	-89	-26	47	45
Forest	346	402	351	390	397	384	452	490	470
Renewable energy	214	463	282	135	68	213	208	59	-1
Adjustments and others	-46	-44	-54	-52	-42	-54	-59	-51	-50
EBIT	**1,923**	**1,622**	**1,737**	**1,138**	**1,166**	**714**	**945**	**983**	**977**
Clean EBIT	1,923	1,622	1,737	1,138	1,166	714	945	983	977
Net financial items	-16	-14	-10	-9	-18	-12	-6	-18	-18
PTP	**1,907**	**1,608**	**1,727**	**1,129**	**1,148**	**702**	**939**	**965**	**959**
Taxes	-424	-340	-356	-239	-250	-164	-194	-221	-211
Net Profit	**1,483**	**1,268**	**1,371**	**890**	**898**	**538**	**745**	**744**	**748**
EPS	9.16	7.83	8.47	5.50	5.55	3.32	4.69	4.77	4.80

Source: ABG Sundal Collier, Company data

Q2 EBIT +8% vs cons

EBIT of SEK 983m was +8% vs. cons at SEK 913m (ABGSCe SEK 892m). The beat came from the key Board and Paper segment, which saw higher cartonboard volumes (+3% q-o-q) and better mix. There were no maintenance costs in Q2 (Holmen will have SEK -250m in Q4e). EPS was SEK 4.7 vs. cons at SEK 4.37 (ABGSCe SEK 4.25). Cash flow was decent. Net debt increased to SEK 3.26bn vs. SEK 2.03bn in Q1, due to dividend payments of SEK 1.8bn.

Holmen will buy-back 3m shares, which is ~2% of the outstanding shares. The balance sheet is very strong, and it could afford to buy-back more.

Board and Paper and Forest above, Energy below

Board and Paper EBIT was 23% better at SEK 438m vs. cons SEK 355m (better volumes/ mix). Forest EBIT was SEK 490m, 5% above cons at SEK 466m (higher wood prices). Note that forest revaluation gains were SEK 168m vs the historical average of ~SEK 140m. Wood products (sawmilling) was weaker at SEK 47m vs cons at SEK 52m. Renewable Energy was weaker at SEK 59m vs. cons at SEK 92m due to lower electricity prices.

Q3 likely flat vs Q2

As usual, Holmen gave no outlook comments. Regarding Q3e, Holmen should see slightly higher paper/cartonboard prices, flat sawn goods prices (SCA comment), higher wood costs, lower electricity prices (SEK -60m) and SEK +75m on labour seasonality. This would point towards EBIT of ~SEK 980m (cons has SEK 985m).

Mid-cycle valuation: ~SEK 510/sh

Our mid-cycle calculations are based on the average data from '18-'23. Sector earnings peaked in '18 before reaching recession levels from '19-'20. Earnings peaked again in '22 and dropped to trough levels in '23. OECD IP growth was positive for nine quarters from Q3'20, after a long recession with seven negative quarters from Q3'18 to Q2'20 (normal recession and COVID). We therefore see this period as a reasonable proxy for a full cycle. We find that Holmen's mid-cycle EBITDA is ~SEK 5.0bn.

Mid-cycle EBITDA = average '18-'23	UPM EURm	Stora EURm	SCA SEKm	Holmen SEKm	Norske S. NOKm	Nordic P. SEKm	Metsä EURm	Billerud SEKm	Huhtamaki EURm	Essity SEKm	Borregaard NOKm	Elopak EURm
EBITDA 2022	**2,619**	**2,527**	**10,194**	**8,607**	**2,931**	**821**	**614**	**8,214**	**615**	**20,077**	**1,706**	**120**
EBITDA 2023	**1,561**	**1,046**	**6,809**	**6,114**	**2,141**	**755**	**215**	**3,612**	**623**	**24,753**	**2,076**	**171**
EBITDA Mid-cycle	**1,882**	**1,728**	**6,667**	**5,016**	**1,529**	**613**	**375**	**5,512**	**584**	**22,317**	**1,850**	**147**
EBITDA Mid-cycle incl. Growth projects	**2,494**		**8,167**		**2,179**		**511**	**7,606**				

	Valuation											
	UPM	Stora	SCA	Holmen	Norske S.	Nordic P.	Metsä	Billerud	Huhtamaki	Essity	Borregaard	Elopak
EV/EBITDA 2022	7.2x	4.8x	10.6x	8.0x	2.2x	5.9x	4.3x	4.1x	8.5x	11.1x	12.3x	10.3x
EV/EBITDA 2023	12.1x	11.6x	15.8x	11.2x	3.0x	6.5x	12.2x	9.2x	8.4x	9.0x	10.1x	7.2x
EV/EBITDA Mid-cycle	10.1x	7.0x	16.2x	13.7x	4.3x	8.0x	7.0x	6.1x	8.9x	10.0x	11.4x	8.4x
EV/EBITDA Mid-cycle incl. Growth projects	7.6x		13.2x		3.6x		5.1x					
Valuation excl. Forest asset												
EV	18,934	12,165	107,734	68,518	6,512	4,880	2,627	33,356	5,212	222,595	20,993	1,234
BV forest assets	2,109	7,909	108,074	56,348								
EV excl. forest	**16,824**	**4,256**	**-340**	**12,169**	**6,512**	**4,880**	**2,627**	**33,356**	**5,212**	**222,595**	**20,993**	**1,234**
EV/EBITDA Mid-cycle	9.4x	2.8x	-0.1x	3.3x	4.3x	8.0x	7.0x	6.1x	8.9x	10.0x	11.4x	8.4x
EV/EBITDA Mid-cycle incl. Growth projects	7.0x		-0.1x									
EV Calculation												
Share price	30.0	10.9	136.55	400.2	38.5	55.05	6.1	106.4	35.94	295.2	187.8	3.4
Net debt & minorities	2,922	3,557	11,829	3,480	3,246	1,197	451	6,798	1,339	34,263	2,213	323
Shares	534	788.6	702.34	162.5	85	66.9	355.5	249.6	107.8	702	100.0	269.2
EV	**18,934**	**12,165**	**107,734**	**68,518**	**6,512**	**4,880**	**2,627**	**33,356**	**5,212**	**222,595**	**20,993**	**1,234**

To arrive at the mid-cycle cash-flow from operations, we first add the cash flow from any growth projects (where the capex is already taken), and take out cash flows from energy assets and forest assets (valued using transaction prices), if there are any. A mid-cycle valuation approach points to ~SEK 510/sh.

Valuation based on normalised free cash-flow	Mid-cycle	2023
Cash-flow from operations (1)	**3,118**	**3,514**
Capex (2)	1,482	1,482
Free cash-flow before financial cost	1,636	2,032
After tax (21%)	1,293	1,606
Fair free cash-flow multiple (3)	13.7	13.7
EV	**17,708**	**21,994**
Net debt (4)	3,480	3,480
Forest (5)	56,348	56,348
Energy (6)	12,183	12,183
Equity value	**82,759**	**87,044**
Per share value	509	536

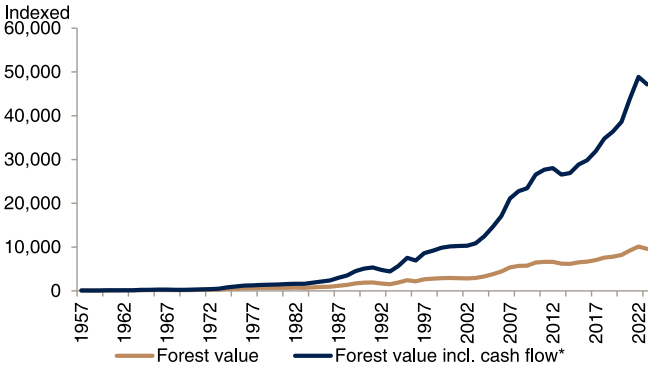
Build-up of mid-cycle cash-flow from operations	Mid-cycle	2023
EBITDA	5,016	6,114
Cash-flow from forest	1,330	1,488
Cash-flow from energy	568	1,112
Mid-cycle cash-flow excl forest/energy	3,118	3,514

(1) Assume cash-flow from operations before capex = EBITDA
(2) Maintenance capex = 6.5% capex/sales
(3) WACC 7.3%, g = 0%
(4) Net debt last reported
(5) Book value last reported
(6) Transaction-based

SOTP of ~SEK 520/sh

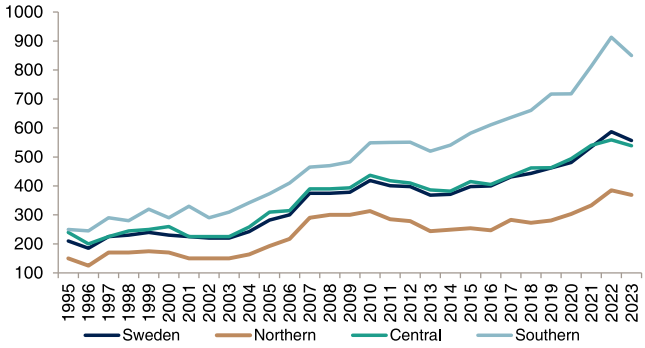
Swedish forest assets have provided impressive historical returns, with an annual return CAGR from 1970-2020 of ~7.6%. This is on par with the performance of the S&P 500 (~7.5%) despite significantly less risk (real estate vs. stocks, long duration and harvest flexibility). Note that this calculation does not include the cash flow from the forest (annual harvesting). The “cash flow” yield has historically been 2-4%, which would put the total return CAGR at ~9.6%.

Historical return on Swedish forest assets



*Source: ABG Sundal Collier, FactSet, LRF, *Assuming reinvestments*

Swedish transaction prices



Source: ABG Sundal Collier, LRF Konsult

Ludvig & Co (a Swedish forest broker) releases transaction statistics every six months. According to these, prices fell 5.1% in 2023 vs. 2022, ending at SEK 557/m3 vs. SEK 587/ m3 in 2022 for Sweden overall. Prices fell in all areas: -6.9% in Southern Sweden, -3.6% in Central Sweden and -4.2% in Northern Sweden. Prices in Southern Sweden have appeared too high while prices in Northern Sweden have appeared too low, and the spread is now tightening, as Southern Sweden fell more than Northern Sweden. The price decreases are negative for SCA, Holmen, and Stora. For SCA and Holmen, the greater part of their forest assets are located in Northern Sweden, while Stora's forest assets are mostly located in Central Sweden (with some Northern exposure).

Note that the H1 '24 transaction statistics are due later in Aug. SCA indicated that forest values were down 5% for this period at their Q2 call. Forest values could rise into '25 as wood prices continue up while interest rates drop.

Our SOTP points to ~SEK 520/share and the forest alone is worth ~SEK 348/sh. Keep in mind that Holmen uses 3y rolling average forest transactions and the 3y rolling average transaction price is likely to peak soon, as prices fell in 2023, and Holmen's forest book value is likely to remain more stable going forward vs last years. We value Holmen's hydro and wind power assets at ~SEK 75/sh using historical transaction prices, but this value will move up/down with power prices. The value of Holmen's "hard assets" (forest and power) would then be worth ~SEK 425/sh. Thus, the market seems to assign limited value to Holmen's industrial operations or a large discount to the forest assets.

Holmen SOTP sensitivity to different forest values

Holmen SOTP	SEKm	SEK/share
EBIT (average '18-'23)	3,801	
EBIT excl. forest and energy	**1,979**	
Industry multiple	10x	
Value of industry	**19,793**	**122**
Forest transaction price (SEK/m3)	447	
Forest volume (mill m3)	126	
Forest value (SEKm)	**56,348**	**348**
Energy assets (SEKm)	**12,183**	**75**
Enterprise value	**88,324**	**545**
NIBD	3,480	21
Equity value	**84,844**	**524**
Share price	**524**	**524**

Holmen SOTP sensitivity

Holmen share price (SEK)	Industry multiple (EV/EBIT)						
	7x	8x	9x	10x	11x	12x	13x
250	334	346	358	371	383	395	407
350	412	424	436	448	461	473	485
Forest 417	464	476	488	500	513	525	537
transaction 447	487	499	512	524	536	548	560 ← Holmen's book value
prices (SEK/m3) 542	561	573	586	598	610	622	634
584	594	606	618	630	642	655	667
650	645	657	670	682	694	706	718

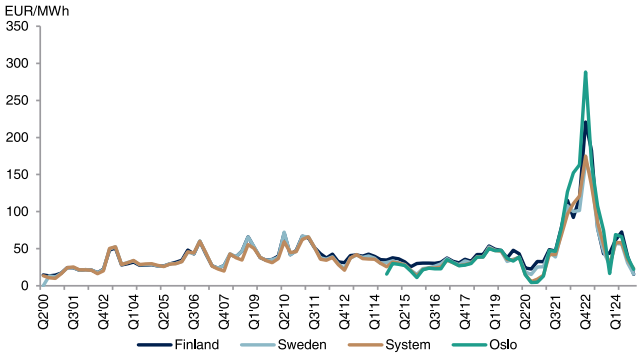
Source: ABG Sundal Collier, Company data

Energy assets and hedges

Energy prices surged to unprecedented levels following the Russian invasion of Ukraine. Electricity and NG prices were up 160% and 320% y-o-y, respectively, in Q3'22. The momentum turned around and energy prices plunged ~50% in Q4'22 as a result of the mild winter in Continental Europe, large industrial subsidies from the German government and weaker demand.

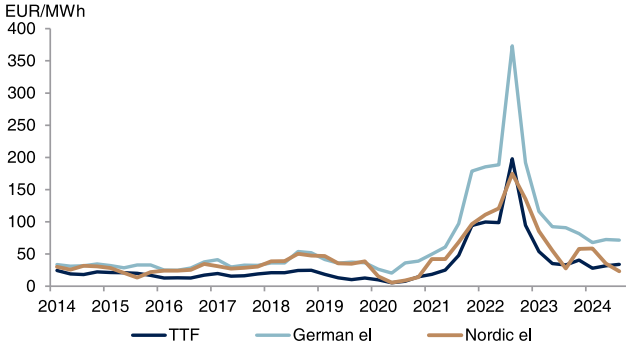
In Q2'24 energy prices in Finland decreased ~45% q-o-q, in Sweden -45% q-o-q, and in Norway -42% q-o-q (note seasonality though, lower prices in Q2). The general decline in energy prices has pointed to a mean-reversion in the stocks based on their energy exposures.

Electricity prices, Nordics



Source: ABG Sundal Collier, Bloomberg

Energy prices: electricity and natural gas



Source: ABG Sundal Collier, Bloomberg

Holmen's gross electricity exposure from production (short) amounts to ~3.2 TWh and most of the exposure is in the SE3 area (Southern Sweden). As of Q2, the fair value of Holmen's derivative contracts (incl. currency hedges and interest swaps) was SEK -226m (down SEK 600m yoy), i.e., the electricity hedges have negative value given current electricity prices.

Holmen's energy assets (~1.7 TWh) mostly have spot exposure and will benefit from higher electricity prices. However, ~1.55 TWh of the capacity is located in Northern Sweden where prices are lower than in the South. The spread originates from a lack of transmission capacity between the regions in Sweden. Hence, being short electricity in Southern Sweden and long in Northern Sweden is structurally unfavourable, as Holmen buys high and sells low. Holmen's net short position of ~1.5 TWh will be more demanding when the hedges roll off towards '25/'26.

Illustrative P&L of Holmen's energy assets at historical prices vs. 2024 futures prices

Varsvik				
Capacity and production			P&L	
Capacity	150	GWh	Revenues	68
Price	40	EUR/MWh	Opex	-31
EURSEK	11.3		**EBITDA**	**37**
Opex	30	EUR/MWh	Depreciations	-20
			EBIT	**17**

Varsvik				
Capacity and production			P&L	
Capacity	150	GWh	Revenues	80
Price	47	EUR/MWh	Opex	-31
EURSEK	11.3		**EBITDA**	**49**
Opex	30	EUR/MWh	Depreciations	-20
			EBIT	**29**

Blåbergsliden				
Capacity and production			P&L	
Capacity	440	GWh	Revenues	174
Price	35	EUR/MWh	Opex	-97
EURSEK	11.3		**EBITDA**	**77**
Opex	30	EUR/MWh	Depreciations	-52
Capex	1300	SEKm	**EBIT**	**25**

Blåbergsliden				
Capacity and production			P&L	
Capacity	440	GWh	Revenues	146
Price	29	EUR/MWh	Opex	-97
EURSEK	11.3		**EBITDA**	**49**
Opex	30	EUR/MWh	Depreciations	-52
Capex	1300	SEKm	**EBIT**	**-3**

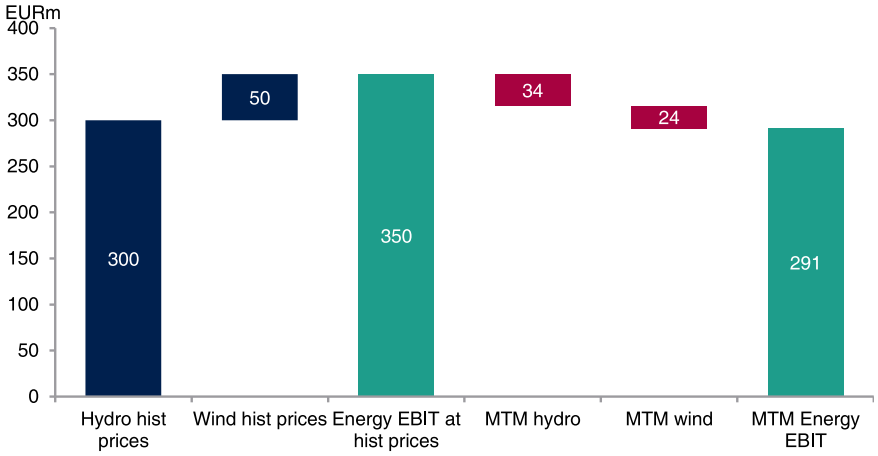
Hydropower				
Capacity and production			P&L	
Capacity	1100	GWh	Revenues	436
Price	35	EUR/MWh	Opex	-72
EURSEK	11.3		**EBITDA**	**364**
Opex	8	EUR/MWh	Depreciations	-28
			EBIT	**336**

Hydropower				
Capacity and production			P&L	
Capacity	1100	GWh	Revenues	365
Price	29	EUR/MWh	Opex	-71
EURSEK	11.3		**EBITDA**	**294**
Opex	8	EUR/MWh	Depreciations	-28
			EBIT	**266**

Source: ABG Sundal Collier, company data, Bloomberg.

We estimate that mark-to-mark Energy EBIT for Holmen using futures prices is ~SEK 300m vs. ~SEK 350m at historical prices.

Illustrative: Energy EBIT at historical vs. 2024 futures prices



Source: ABG Sundal Collier, Company data

Costs push prices higher

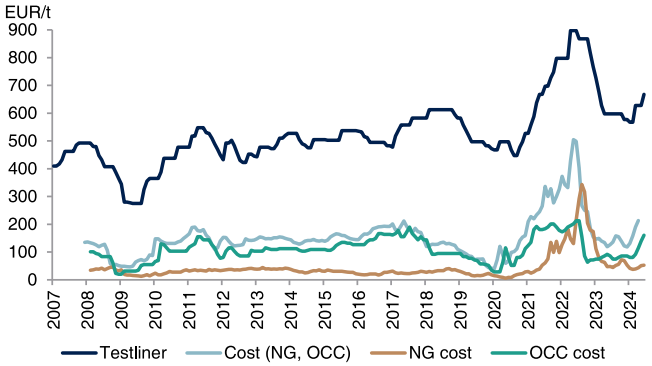
Containerboard and paper prices set by fibre and energy costs

All P&P prices rose to extreme levels in '21-'22, driven by much steeper cash cost curves and very supportive macro growth. Pulp prices rose 80%, paper by 100% and packaging by 30-100%, all of which led to another super-profit cycle for the Nordic companies. Most of the price increases (+2x) in this period were due to very expensive gas (NG, +4-10x) and recovered fibre (RCP, +1-2x) input costs. This effectively doubled the marginal producers' cash cost, which meant that paper/packaging prices doubled. However, what goes up too fast must come down: OECD IP growth fell from +4% to -4% during '22, which lowered both input costs and paper and packaging prices in '23.

Input costs are now on the rise again in H1 '24 with RCP up 50-70% (following pulp/wood) and natural gas up 25%. This points to ~20% higher testliner and newsprint prices.

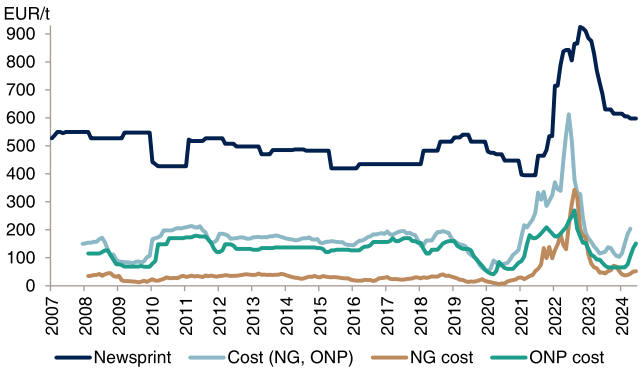
- Testliner prices are up 17% vs the trough in January and have been announced up another 9% by DS Smith. Kraftliner follows testliner. Expect similar announcements from SCA, Stora, Billerud etc on kraftliner.
- Newsprint prices are more late-cyclical and should follow with the normal 3Q lag. Palm has announced prices up +10-13% here.

Testliner prices set by NG and OCC



Source: ABG Sundal Collier, Bloomberg, RISI

Newsprint prices set by NG and ONP

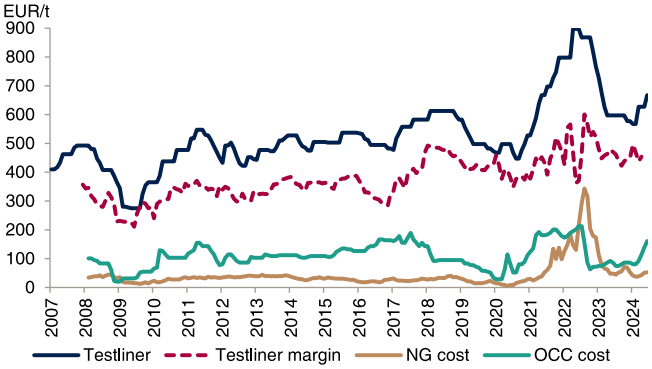


Source: ABG Sundal Collier, Bloomberg, RISI

The graphs below show the implied margin for the marginal producer. Higher testliner prices have kept the margin intact despite higher input costs as both costs and prices have risen by 100 EUR/t ytd. The latest price hike should increase the margin. Newsprint margins have contracted by 100 EUR/t ytd due to the price lag, but should recover into H2 based on the normal lead-lag relationship (utilisation rate improves too).

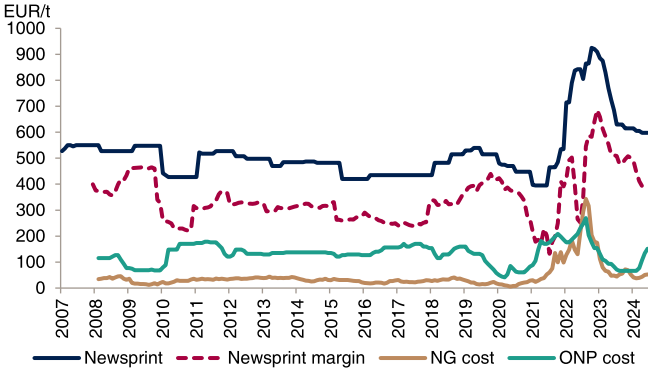
Natural gas and RCP prices fell 60-85% vs the '22 peak though due to weaker macro, and the lower input costs implied that testliner and newsprint prices should drop 35-40% into '24. This input cost-driven drop has already played out now with prices down 36% from peak. Energy costs have not been a big driver for paper and packaging prices historically, but the '22 energy crunch changed the price dynamics.

Testliner prices and margins



Source: ABG Sundal Collier, Bloomberg, RISI

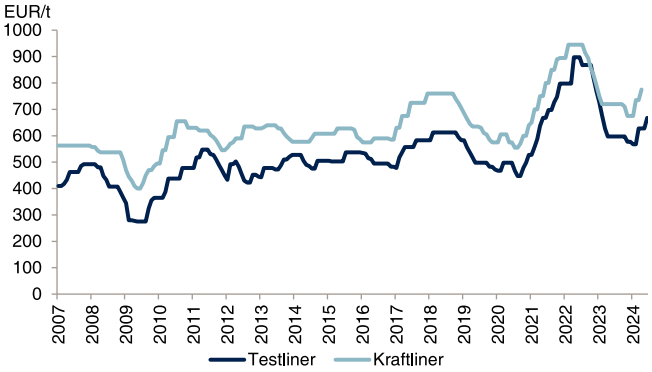
Paper prices and margins (newsprint)



Source: ABG Sundal Collier, Company data

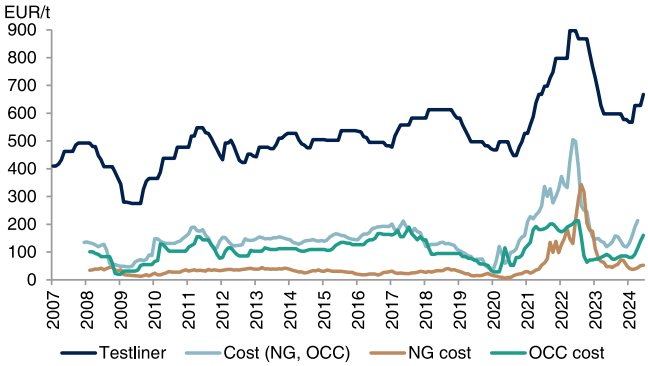
We have established that testliner prices are set by natural gas and RCP (correlation of 85%). Kraftliner prices follow testliner, as it is the virgin fibre substitute, with a correlation of +95%. The Nordic companies typically make kraftliner based on virgin fibre (one could argue that they are semi-long natural gas). SCA, Stora, Billerud, Metsä Board fit the bill here.

Kraftliner prices follow testliner prices



Source: ABG Sundal Collier, Bloomberg, RISI

Testliner prices set by NG and OCC



Source: ABG Sundal Collier, Bloomberg, RISI

The Nordic sweet spot fades

In the '21-'22 period, the marginal producers in continental Europe needed price increases to compensate for more expensive energy and fibre (a steeper cost curve), and they got them. Key prerequisites here are of course a high utilisation rate and that the marginal producers in continental Europe make up a significant part of the installed capacity. This situation benefited the Nordic players due to lower Nordic energy and fibre costs. They got the higher prices set by the marginal producers, but did not experience the same cost increase (Nordic sweet spot).

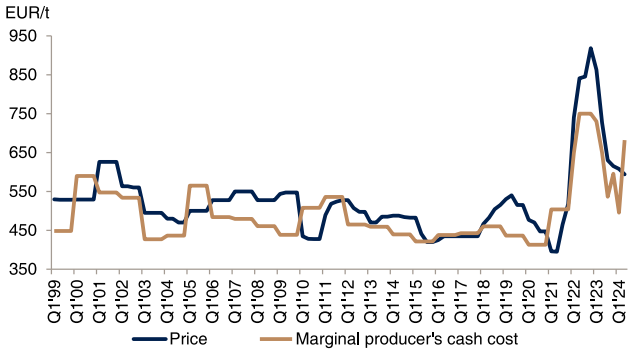
Lower input costs and weaker utilisation rates have been negative for the Nordic players. They get the lower prices, but do not experience the same drop in costs as the marginal producers in continental Europe. Additionally, Nordic wood costs have become very problematic (+60-80% in the last 2y). Hence, the Nordic sweet spot has weakened overall vs the marginal producer.

Costs up 2x for the marginal producer

	% share	2020	% chg	2022
Variable costs				
Fibre	22%	22	200%	67
Energy	12%	12	450%	64
Chemicals	11%	11	40%	15
Distribution	12%	12	40%	17
Other variable costs	7%	7	10%	7
Total variable costs		64	168%	170
Fixed costs				
Personnel	16%	16	3%	16
Other fixed costs	13%	13	2%	13
Depreciation	8%	8	0%	8
Sum	**100%**	**100**	**107%**	**208**

Source: ABG Sundal Collier

Paper price vs the marginal producers cash cost



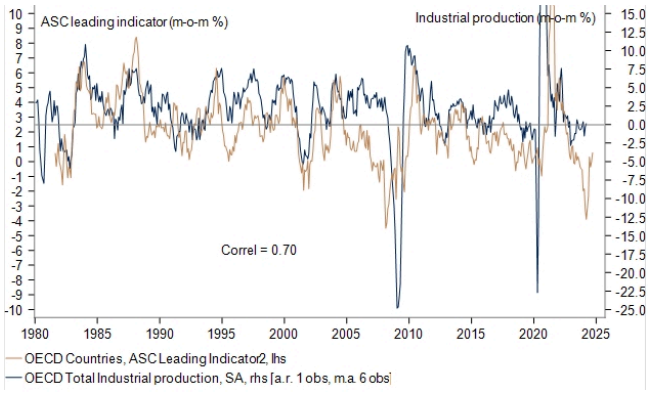
Source: ABG Sundal Collier, RISI

Summary

1) Macro is key - leading indicator up

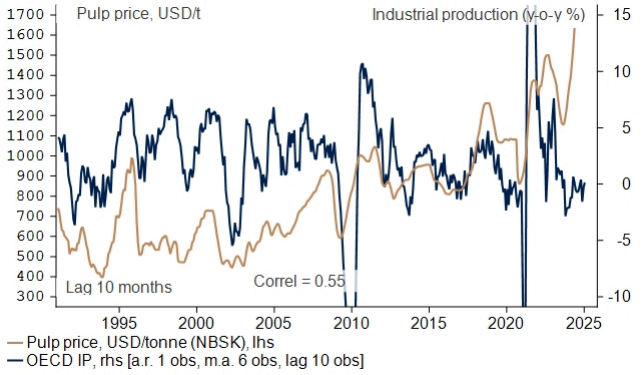
The P&P share prices follow macro growth over time. Our leading indicator for OECD IP growth points up again from a low level, which means that the risk-reward for the cyclical P&P stocks has improved. Actual IP growth fell from +4% to -4% during '22 and has improved slightly since.

ABG leading indicator



Source: ABG Sundal Collier

Pulp vs OECD IP



Source: ABG Sundal Collier

The key driver for the pulp & paper sector is OECD IP growth, as highlighted in the correlation matrix below. The share prices move in tandem with IP growth. Pulp prices lag IP growth by three quarters, and the different paper/packaging grades lag the pulp price by zero to three quarters. A 10% change in the pulp price tends to impact the product prices by 3-4%. Hence, the share prices are 3Q forward-looking (discounting earnings 3Q into the future).

Correlation analysis between P&P grades, macro and product prices

Correlation analysis			Time lag (quarters)				
Product price	vs	variable	0	1	2	3	4
P/BV paper stocks		OECD IP q-o-q	60%				
Pulp (NBSK)		OECD IP q-o-q				65%	
Sawn goods		Pulp (NBSK)	79%				
Containerboard		Pulp (NBSK)	85%				
Coated fine paper		Pulp (NBSK)	80%				
Uncoated fine paper		Pulp (NBSK)	80%				
Kraft paper		Pulp (NBSK)		81%			
Magazine paper (LWC)		Pulp (NBSK)		65%			
Magazine paper (SC)		Pulp (NBSK)			65%		
Cartonboard		Pulp (NBSK)			57%		
Newsprint		Pulp (NBSK)				80%	
Tissue		Pulp (NBSK)				86%	
			Early cyclicals	Late cyclicals			

Source: ABG Sundal Collier

2) A long list of price hikes, continued

The list of price hike announcements has grown longer in Q2, and very much resemble a normal cycle. Almost textbook-style, the early-cyclicals have moved first, and Suzano has led the charge with 13 pulp price hikes since May'23. Pulp prices in China are up 26-59% since the trough, while European prices are up 42-80%.

Suzano: Hardwood (BEK) price hikes

Month	Increase, China	Increase, Europe	Price, China	Price, Europe
May	30		471	935
June	30		491	845
July	20		503	800
Aug	20	50	525	800
Sept	30	80	546	850
Oct	50	80	585	900
Nov	20	80	635	980
Dec	10	80	650	1,060
Jan		80	650	1,140
Feb	30	80	650	1,220
Mar	30	80	655	1,300
April	30	60	720	1,380
May	30	60	750	1,440
Sum	**330**	**730**	**279**	**640**
Increase in %	70%	91%	59%	80%

Source: ABG Sundal Collier, RISI

Containerboard follows pulp, and N American players introduced the first price hikes in Nov '23. Since then, price hikes have followed every month, with the most recent coming from IP (+10%) and DS Smith (+8-9%). European testliner rose +10% in Mar, another +6% in June and kraftliner follows testliner. Fine paper price hikes followed with several hikes in '24 (newest from IP, uncoated fine +5%). Price hikes have mainly been for uncoated fine, but Billerud's coated fine/magazine paper tends to follow uncoated fine.

There seems to be price hikes on everything. The "late-cyclicals" are set to follow with some lag, and have started to see hikes as well. Stora, MM Board&Paper, Holmen, and Billerud have all announced cartonboard price hikes of +6-10%. Newsprint saw its first price hike of +10-13% by Palm, and Navigator has announced a 10% price hike on tissue (Sofidel and Metsa Tissue have also raised tissue prices). This bodes well for Essity, who needs to increase tissue prices to combat increased pulp costs.

Packaging and paper price hikes

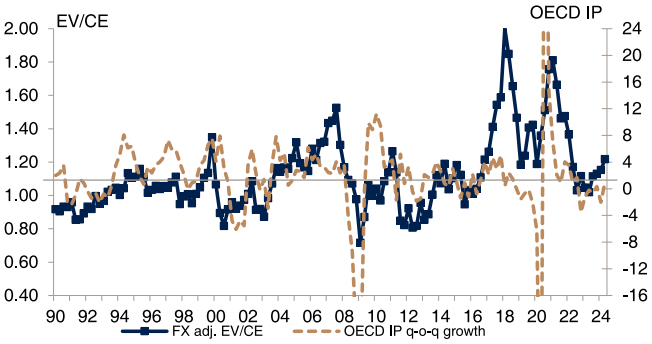
Announced	Effective from	Company	Grade	Market	Price hike, %
Packaging					
Nov	Jan	Pack. Corp of Am.	Kraftliner	US	8%
Dec	Jan	WestRock	Kraftliner	US	8%
Jan	Mar	Billerud	Sack kraft paper	Europe	8%
Jan	Mar	Billerud	Liquid pack. board	Europe	9%
Feb	Apr	Billerud	Containerboard	Europe	10%
Feb	Apr	MEL	Cartonboard	Europe	4%
Feb	Apr	SCA	Kraftliner	Europe	12%
Mar	Apr	Hamburger	Corrugated	Europe	9%
Apr	May	Cartiera dell'Adda	Cartonboard	Europe	4%
Apr	Jun	SCA	Kraftliner	Europe	8%
Apr	Jun	WestRock	Kraft paper	US	3%
May	Jun	Cascades	Linerboard	US	9%
May	Jul	Heinzel	Kraft paper	Global	10%
May	Jul	Stora Enso	Cartonboard	Global	6%
May	Jul	MM Board & Paper	Cartonboard	Europe	9%
Jun	Jun	International Paper	Containerboard	US	10%
Jun	Jul	Holmen	Cartonboard	Europe	6%
Jun	Jul	Billerud	Cartonboard	Europe	6%
Jun	Jun	DS Smith	Containerboard	Europe	8%
Paper					
Nov	Dec	Burgo Group	UWF	Europe	7%
Nov	Jan	Lecta	CWF & UWF	Europe	8%
Jan	Jan	Appvion	Specialty paper	Europe	8%
Feb	Apr	Lecta	Specialty paper	Europe	9%
Feb	Mar	The Nav. Comp.	UWF	Europe	5%
Mar	Apr	Burgo Group	UWF	Europe	7%
Mar	Apr	Domtar	UWF	US/Canada	6%
Apr	May	Lecta	CWF	Global	5%
Apr	Apr	APRIL	UWF	Global	3%
Apr	May	Burgo Group	UWF	Global	6%
May	Jun	APRIL	UWF	Global	5%
May	Jul	Palm	Newsprint	Global	12%
May	May	Asia P&P	Fine paper	Global	8%
Jun	Jul	The Nav. Comp.	UWF	Europe	5%
Tissue					
May	May	The Nav. Comp.	Tissue	Global	9%

Source: ABG Sundal Collier, RISI

3) Valuation has already dropped

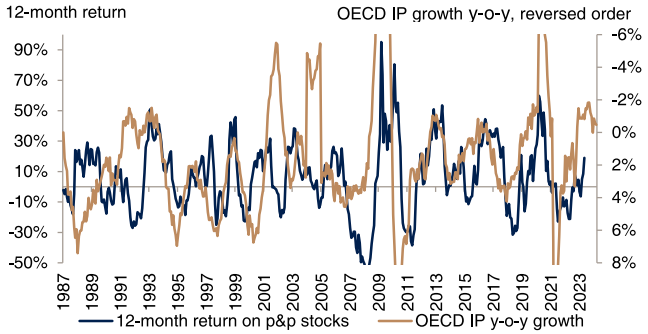
The stocks have already dropped on weaker macro: EV/CE is down from 1.84x to ~1.2x. A strategy to buy when IP growth is negative has historically been smart. The latest data point was an OECD IP growth of -0.5% in March (which should give 12m returns of 17-40% based).

EV/CE vs. OECD industrial production growth



Source: ABG Sundal Collier, Macrobond

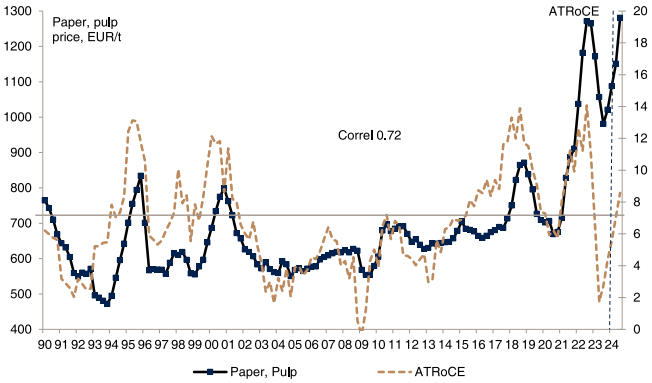
P&P stocks 12-month return vs. OECD IP growth



Source: Source: ABG Sundal Collier

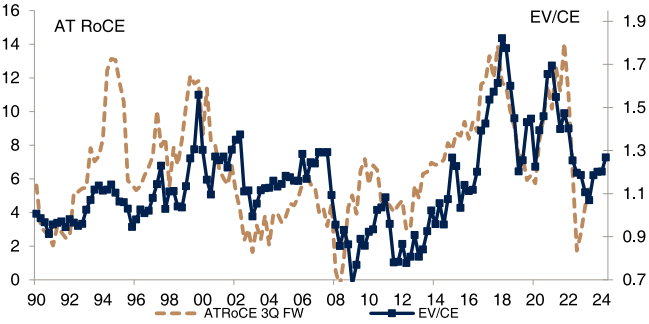
The key driver for margins and return on capital employed (ATRoCE) is of course pulp and paper prices. There has historically been a strong link here, with a correlation of 72% since '90. The graph below highlights four strong cycles: '95, '00, '18 and '22, when ATRoCE was 12-14% due to very high prices.

ATRoCE vs. P&P prices



Source: ABG Sundal Collier, RISI

ATRoCE vs. EV/CE



Source: ABG Sundal Collier, Company data

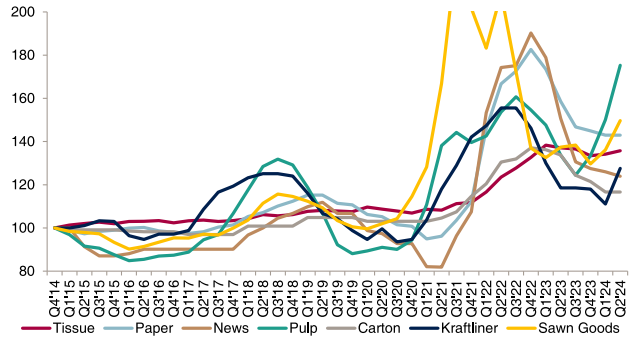
Pulp and paper prices jumped 85% in '21-'22 and found their peak at the end of '22. The sector's ATRoCE rose to +14% by Q3'22, but fell to only ~2% in Q2'23 as both prices and volumes fell significantly. The drop has abated via pulp's recovery, and P&P prices rose 6% in Q1 and 7% in Q2 (and are set to rise further in H2). Prices are now +65% above the historical average and volumes have partly recovered (end to destocking, easier to cover fixed costs). Consequently, ATRoCE recuperated to 5.5% in Q1'24. Our models indicate 15-20% higher prices due to higher input costs and better market balances, which would imply 8-9% ATRoCE. Note that ATRoCE has been better at 8.6% in the last 10y than the 6.6% average since 1990.

4) Early vs. late-cyclical and defensive companies

Early-cyclical prices, such as pulp, sawn goods and containerboard, have already dropped the normal 35-45% in '23, and are rebounding sharply in '24. Pulp is up 40-80%, and containerboard/ sawn goods have followed +10-15% sofar. Late-cyclical prices (cartonboard, paper, tissue) usually follow with a lag in this approach.

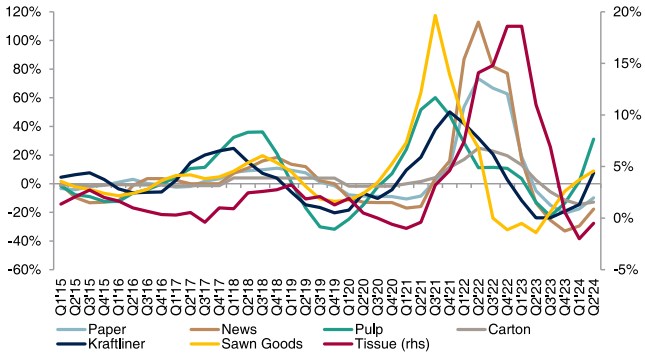
The current setup supports the early-cyclical companies due to price momentum (more for Q3 than Q2, though). The defensive companies have done well due to stable prices/volumes and lower input costs. The late-cyclical companies are likely to perform better in H2 as EBIT improves on higher prices. Higher wood prices and lower interest rates should help the forest owners, but keep in mind that '23 transaction prices fell 5% (the companies use 3y rolling transaction prices).

Prices: early-cyclical vs. late-cyclical grades



Source: ABG Sundal Collier, RISI, Company data

Early-cyclical vs. late-cyclical grades, y-o-y



Source: ABG Sundal Collier, RISI, Company data

SCA, UPM, Metsä and Stora have the largest exposure to early-cyclical products, and SCA only has early-cyclical products. The +70-80% rise in the Nordic pulpwood cost in the last 2 years has hurt the P&P companies. Billerud has the highest exposure, being short 10.8 mill m3 p.a. SCA/Holmen feel this impact less than the others given their natural forest hedge, but they have smaller exposure to industrail EBIT vs. peers, too. Essity, Huhtamaki and Elopak are defensives.

The key exposures per company: cyclicality, energy, forest

	Early cyclicals	Late cyclicals	Forest	Energy position	Defensive position
	Pulp, sawmill, container	Paper, carton, tissue			
UPM	✓	✓	✓	●	●
Holmen	✓	✓	✓	●	●
Stora	✓	✓	✓	●	●
Metsä	✓	✓		●	●
SCA	✓		✓	●	●
Billerud	✓	✓		●	●
Borregaard				●	●
Essity		✓		●	●
Norske Skog		✓		●	●
Huhtamäki		✓		●	●
Nordic Paper		✓		●	●
Elopak		✓		●	●

Source: ABG Sundal Collier, Company data

EBIT effect of a 10% price change in key output/input prices

	EBIT effect of 10% price change									Early
Company	Pulp	Sawmill	Containerb.	Cartonb.	Kraft Paper	Publ. Paper	Fine paper	Wood cost	RCP cost	cyclicals
UPM	16%	1%				17%	13%	-8%	-1%	30%
Holmen	0%	3%		21%		17%		-8%		3%
Stora	13%	3%	9%	42%		3%	2%	-15%	-1%	27%
Metsä	16%	1%	16%	65%				-13%		33%
SCA	19%	3%	13%					-4%	0%	35%
Billerud	5%		26%	70%	43%	23%	9%	-20%		40%
BRG								-4%		
Essity	-9%								-1%	-9%
Norske Skog	-2%		55%			104%		-11%	-5%	
Huhtamaki				-37%					-1%	
Nordic Paper	-13%				157%			-10%		-13%
Elopak				-8%						

Source: ABG Sundal Collier, Company data

Net pulp exposure and sales split by product type

Segments' share of Sales	UPM	Stora	Holmen	Huhtamaki	Metsä	SCA	Billerud	BRG	Essity	Norske S.	Nordic P.	Elopak
Paper	47%	10%	23%				30%			100%		
Packaging		35%	28%	100%	86%	23%	70%				100%	100%
Pulp	26%	12%			14%	22%						
Forestry		20%	28%			28%						
Wood products	4%	15%	19%			27%						
Energy	5%		2%									
Biochemicals								100%				
Health & hygiene									100%			
Other	18%	8%										
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Net pulp exp.	UPM	Stora	Holmen	Huhtamaki	Metsä	SCA	Billerud	BRG	Essity	Norske S.	Nordic P.	Elopak
kt	3,200	2,100			620	1,200	150		-1,800	-21	-80	

Source: ABG Sundal Collier, Company data

Pulp prices increased 15% in Q2 q-o-q. Containerboard rose 10% and sack kraft +4% while cartonboard was flat. Paper prices fell 0.5% as magazine and newsprint fell -2%, but coated fine rose 2%. Sawn goods increased 10% and tissue was likely flat qoq. Fibre costs rose with wood +10% and RCP +35-40%. The higher pulp, sawn goods and containerboard prices are mainly beneficial for SCA, Metsa, Stora, Billerud, UPM.

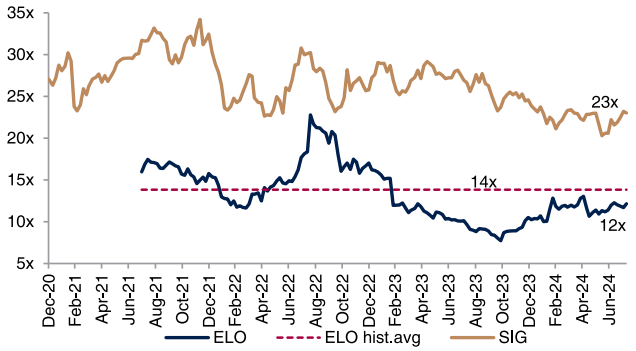
Essity is a counter-cyclical company with short positions on pulp and energy. It was previously the largest buyer of pulp in the world, with a net short position of 3.3mt, but it halved its position to 1.6mt with the sale of Vinda. Higher pulp prices is negative and Essity needs tissue price increases (likely as peers have announced +10%). Lower gas prices help, though, and Essity appears underpriced vs. its tissue peers.

5) We prefer Elopak, UPM and SCA

Elopak: Step-change in earnings, low multiples

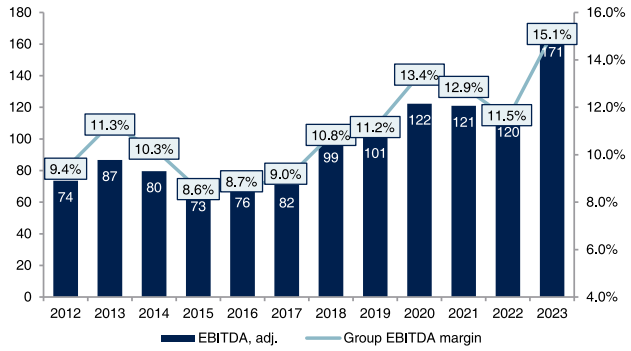
Elopak saw its margin expand from 11.5% in '22 to 15.1% in '23 (ATH), driven by its successful growth journey in Americas. The company has gained market share from its competitor, Pactiv Evergreen, and it will add more capacity in the US, which could boost EBITDA by ~EUR 18m p.a. (EV/EBITDA 2.5x). Elopak is trading at a NTM P/E of ~11x vs. the historical average of ~14x (and the spread to SIG is still large).

NTM P/E: Elopak is historically cheap



Source: ABG Sundal Collier, FactSet consensus

Adj. EBITDA (EURm) and margin



Source: ABG Sundal Collier, Company data

Valuation: EV/EBITDA sensitivity incl. growth projects

EV/EBITDA	5.5x	6.5x	7.5x	8.5x
EBITDA FY'24 estimates	175	175	175	175
N-Am	18	18	18	18
New EBITDA	**193**	**193**	**193**	**193**
EV	**1,062**	**1,255**	**1,448**	**1,641**
Net debt Q1'24	-313	-313	-313	-313
N-Am capex incl. leases	-70	-70	-70	-70
Equity	**678**	**871**	**1,064**	**1,257**
In NOK	7,936	10,194	12,452	14,710
Per share	**29**	**38**	**46**	**55**

Source: ABG Sundal Collier, Company data

The company will hold a CMD in September, and given that it has already delivered on its EBITDA margin target (14-15%), it is likely that the target will be revised up. Higher targets could imply a share price of ~NOK 55-65/sh.

Fair value sensitivity: EBITDA margin vs. volume growth

		EBITDA-margin %									
		9.0%	10.0%	10.7%	12.0%	13.0%	14.0%	15.0%	16.0%	17.0%	18.0%
Volume growth %	0.0%	6	11	15	21	27	32	37	42	47	52
	0.5%	7	13	17	24	29	35	40	46	51	56
	1.0%	8	14	18	26	32	38	44	50	56	62
	1.5%	10	16	21	29	35	42	48	55	61	67
	2.0%	12	19	23	33	39	46	53	60	67	74
	2.5%	14	21	27	37	44	52	60	67	75	83
	3.0%	16	25	31	42	50	59	67	76	84	93
	3.5%	19	29	36	48	58	67	77	86	96	106

Hist. performance Targets

Source: ABG Sundal Collier, Company data

UPM - interesting line-up

UPM has an interesting line-up of events for H2, including a CMD in Sept and a pulp site visit to Urugay in Nov. UPM has invested ~USD 3.5bn in the new Paso de los Toros pulp mill in Uruguay, which will add ~EUR 600m to mid-cycle EBITDA at full capacity (33% of UPM's mid-cycle EBITDA). It is among the most cost-efficient pulp mills in the world, with a cash cost of ~USD 280/t. There are limited wood cost issues like we see in the Nordics here: UPM has +500,000 ha plantation land in Uruguay (owned and leased).

Hardwood pulp prices have risen to USD 750/t now, which is higher than our USD 600/t mid-cycle assumption in the table below. The EBITDA contribution would rise by 50% and the value per share by more. UPM's existing Frey Bentos mill will also move down to a cash cost of ~USD 280/t when the two Uruguay pulp mills operate in combination.

UPM: Uruguay pulp mill economics

Uruguay pulp mill			Indicative P&L	USDm	UPM share (EURm)		Mid-cycle DCF	EURm
Capacity	2,100	kt	**Revenues**	**1,260**	**Revenues**	**1,052**	**EBITDA**	**561**
Capex	3,470	USDm	Cash cost	588	Cash cost	491	Maintenance capex	53
Capex/t	1,652	USD/t	**EBITDA**	**672**	**EBITDA**	**561**	**After-tax CF**	**503**
Pulp price	600	USD/t	Depreciation	174	Depreciation	145	Multiple	12.5
Cash cost	280	USD/t	**EBIT**	**499**	**EBIT**	**416**	**EV**	**6,282**
USD/EUR	1.09		Interest	104	Interest	87	Net debt*	3,064
Dep. time	20	years	**PTP**	**394**	**PTP**	**329**	**Equity value**	**3,218**
Ownership	91%		Tax	7	Tax	6	Shares	534
LTV, interest	60%		**Net income**	**387**	**Net income**	**323**	**Value per share**	**6.0**
Interest rate	5%		**ROCE**	**14%**				
WACC	8%		**ATROCE**	**14%**				

*Source: ABG Sundal Collier, company data. *Net debt = total capex + IFRS16 lease liabilities of USD 200m.*

EBITDA sensitivity

Cash cost, USD/t	Pulp price, USD/t				
	400	500	600	700	800
220	316	491	666	842	1,017
250	263	438	614	789	964
280	210	386	561	736	912
310	158	333	508	684	859
340	105	281	456	631	806

Source: ABG Sundal Collier, UPM

Value per share sensitivity

Cash cost, USD/t	Pulp price, USD/t				
	400	500	600	700	800
220	0.7	4.6	8.5	12.4	16.3
250	-0.5	3.4	7.3	11.2	15.1
280	-1.8	2.1	6.0	9.9	13.8
310	-3.0	0.9	4.8	8.7	12.6
340	-4.2	-0.3	3.6	7.5	11.4

Source: ABG Sundal Collier, UPM

The Uruguayan pulp project will make UPM the third-largest producer of market pulp in the world after Suzano and Arauco (vs. ninth-largest before). Its net long pulp position rises by 2.1 mill to 3.2 mill t. Further, our SOTP points to ~EUR 45/sh for UPM, of which forest and energy assets account for ~EUR 17/sh.

The new mill will make UPM the 3rd largest producer

Old

Rank	Owner	Tonnes (000s)	Market share
1	Suzano	11,565	15.0%
2	CMPC	4,105	5.3%
3	Paper Excellence	4,095	5.3%
4	Arauco	3,870	5.0%
5	International Paper	3,380	4.4%
6	Metsäliitto	3,315	4.3%
7	APP	2,955	3.8%
8	Bracell	2,850	3.7%
9	UPM	2,765	3.6%
10	Koch Industries	2,605	3.4%
11	Oji Paper	2,580	3.3%
12	Mercer	2,130	2.8%
13	Ilim	2,040	2.6%
14	Klabin	1,990	2.6%
15	APRIL	1,815	2.3%
16	Eldorado	1,755	2.3%
17	Sodra	1,750	2.3%
18	Stora Enso	1,650	2.1%
19	West Fraser	1,395	1.8%
20	Ence	1,200	1.6%

New

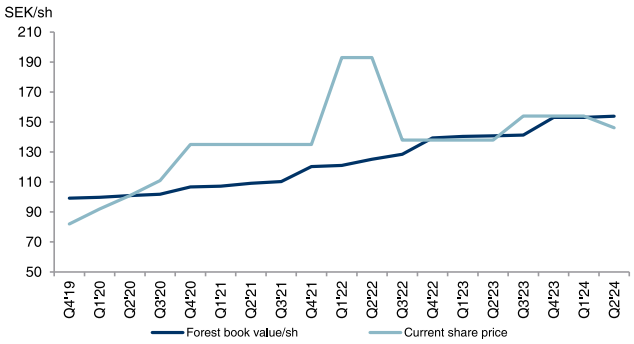
Rank	Owner	Tonnes (000s)	Market share
1	Suzano	14,115	16.4%
2	Arauco	6,370	7.4%
3	UPM	4,865	5.6%
4	CMPC	4,105	4.8%
5	Paper Excellence	4,095	4.7%
6	International Paper	3,380	3.9%
7	Metsäliitto	3,315	3.8%
8	APP	2,955	3.4%
9	Bracell	2,850	3.3%
10	Koch Industries	2,605	3.0%
11	Oji Paper	2,580	3.0%
12	Mercer	2,130	2.5%
13	Ilim	2,040	2.4%
14	Klabin	1,990	2.3%
15	APRIL	1,815	2.1%
16	Paracel	1,800	2.1%
17	Eldorado	1,755	2.0%
18	Sodra	1,750	2.0%
19	Stora Enso	1,650	1.9%
20	West Fraser	1,395	1.6%

Source: ABG Sundal Collier, RISI, UPM

SCA - back down to the forest value

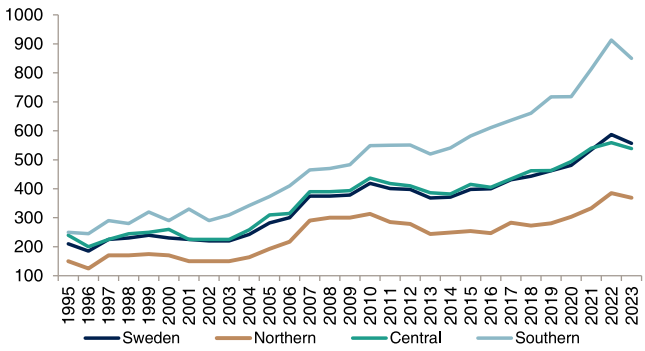
SCA has invested ~SEK 9.6bn in three growth projects (Obbola, Ortviken and St1 Biofuel) where the first earnings impact will be seen in '24/'25. At full capacity, the projects will add ~SEK 1.5bn to EBITDA (~23% of mid-cycle EBITDA). Our SOTP points to SEK 180/share. The forest alone is worth ~SEK 154/sh, which equals the current share price. The chart below shows that the market seems to be assigning limited value to SCA's industrial operations. If we also include the growth projects, the SOTP rises to ~SEK 200/share.

SCA: SP on par with forest BV/sh



Source: ABG Sundal Collier, SCA

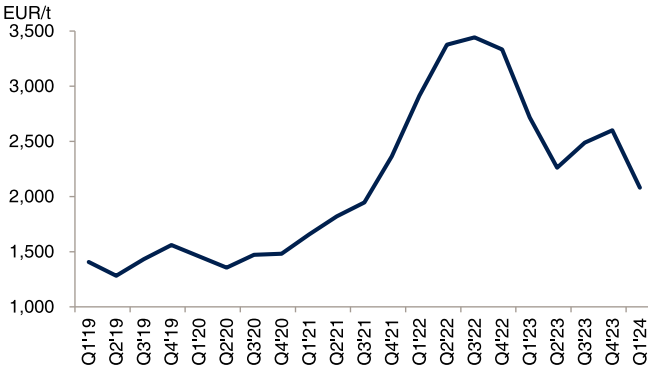
Swedish transaction prices



Source: ABG Sundal Collier, LRF Konsult

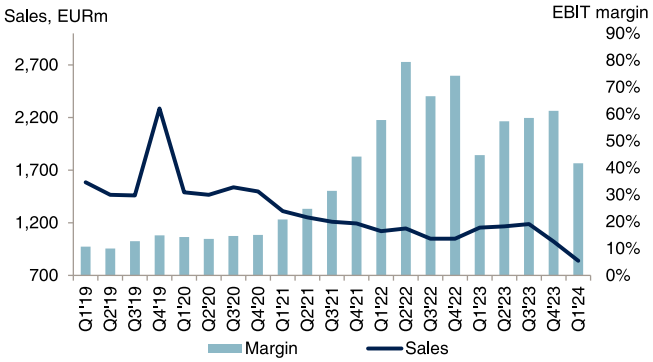
Both UPM and SCA have invested in biofuel/chemicals. Neste's realised sales price within its renewable energy segment fell -20% in Q1'24 vs. Q4'23. In May, the company released a PW where it lowered its sales margin guidance for '24 (partly due to lower diesel market price). Tall oil prices have dropped ~50%, which does not bode well for UPM and SCA's renewable efforts (Leuna for UPM, St1 JV for SCA).

Neste renewable: Realised prices



Source: ABG Sundal Collier, Neste

Neste renewable: Sales and EBIT margin



Source: ABG Sundal Collier, Company data

6) Mid-cycle earnings and implied valuations

Sector earnings have reached trough levels and started to improve. Several names are attractively valued on normalised earnings. Our mid-cycle calculations are based on the average data from 2018-2023, which we see as a reasonable proxy for a full cycle. Names such as SCA, Holmen, Norske, Stora and Billerud appear attractive on mid-cycle EBITDA.

Mid-cycle analysis

Mid-cycle EBITDA = average '18-'23	UPM	Stora	SCA	Holmen	Norske S.	Nordic P.	Metsä	Billerud	Huhtamaki	Essity	Borregaard	Elopak
	EURm	EURm	SEKm	SEKm	NOKm	SEKm	EURm	SEKm	EURm	SEKm	NOKm	EURm
EBITDA 2022	**2,619**	**2,527**	**10,194**	**8,607**	**2,931**	**821**	**614**	**8,214**	**615**	**20,077**	**1,706**	**120**
EBITDA 2023	**1,561**	**1,046**	**6,809**	**6,114**	**2,141**	**755**	**215**	**3,612**	**623**	**24,753**	**2,076**	**171**
EBITDA Mid-cycle	**1,882**	**1,728**	**6,667**	**5,016**	**1,529**	**613**	**375**	**5,512**	**584**	**22,317**	**1,850**	**147**
EBITDA Mid-cycle incl. Growth projects	**2,494**		**8,167**		**2,179**		**511**	**7,606**				
						Valuation						
	UPM	Stora	SCA	Holmen	Norske S.	Nordic P.	Metsä	Billerud	Huhtamaki	Essity	Borregaard	Elopak
EV/EBITDA 2022	7.2x	4.8x	10.6x	7.9x	2.2x	5.9x	4.3x	4.0x	8.5x	11.2x	12.3x	10.6x
EV/EBITDA 2023	12.1x	11.6x	15.8x	11.2x	3.0x	6.4x	12.2x	9.2x	8.4x	9.0x	10.1x	7.5x
EV/EBITDA Mid-cycle	10.0x	7.0x	16.2x	13.6x	4.3x	7.9x	7.0x	6.0x	8.9x	10.0x	11.4x	8.6x
EV/EBITDA Mid-cycle incl. Growth projects	7.5x		13.2x		3.6x		5.1x					
Valuation excl. Forest asset												
EV	18,816	12,117	107,874	68,420	6,519	4,810	2,618	33,132	5,217	223,929	21,053	1,274
BV forest assets	2,109	7,909	108,074	56,348								
EV excl. forest	**16,707**	**4,209**	**-200**	**12,072**	6,519	4,810	2,618	33,132	5,217	223,929	21,053	1,274
EV/EBITDA Mid-cycle	9.4x	2.8x	0.0x	3.3x	4.3x	7.9x	7.0x	6.0x	8.9x	10.0x	11.4x	8.6x
EV/EBITDA Mid-cycle incl. Growth projects	7.0x		0.0x									
EV Calculation												
Share price	29.8	10.9	136.75	399.6	38.6	54	6.1	105.5	35.98	297.1	188.4	3.4
Net debt & minorities	2,922	3,557	11,829	3,480	3,246	1,197	451	6,798	1,339	34,263	2,213	349
Shares	534	788.6	702.34	162.5	85	66.9	355.5	249.6	107.8	702	100.0	269.2
EV	**18,816**	**12,117**	**107,874**	**68,420**	**6,519**	**4,810**	**2,618**	**33,132**	**5,217**	**223,929**	**21,053**	**1,274**

Source: ABG Sundal Collier, Companies, Factset

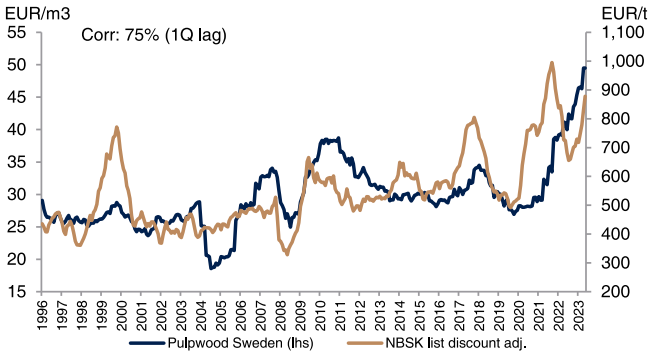
7) Fibre costs push prices higher

Nordic forest and Lat-Am pulp assets are the likely winners

Pulpwood can make up 60% of the variable costs for a pulp producer, and there is a natural correlation of 75% between the pulpwood price (input) and the pulp price (output). There was a large discrepancy between the prices in '23 as pulp prices fell rapidly while pulpwood prices increased, which put significant pressure on pulp producers' margins. The pulp margin has recovered in '24 as softwood pulp prices (+42% yoy) have risen more than pulpwood (+18% yoy).

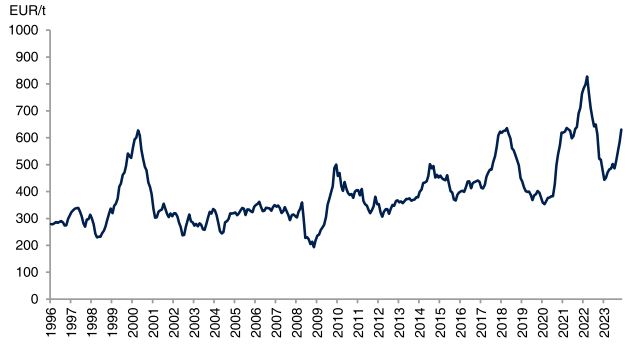
The graphs below illustrate that the higher wood cost is gradually being moved through the value chain, starting with pulp. Our work shows that paper and packaging prices follow pulp with a correlation of 70-80%, a lag of 0-3 quarters and 10% higher pulp prices usually lift the other prices by 3-4%. We would trust the normal lead-lag relationships here and pulp is already up 42%, which indicates ~15% higher prices across the board into H1 '25.

Pulpwood vs. pulp - mind the gap



Source: ABG Sundal Collier, RISI, Skogstyrelsen

Pulp minus 5x pulpwood (margin)

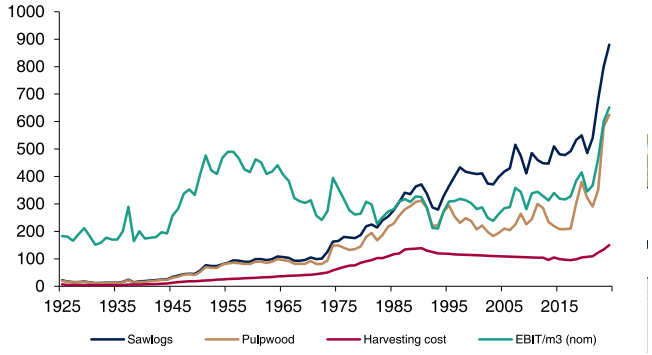


Source: ABG Sundal Collier, RISI, Skogstyrelsen

At the end of the day, the higher wood costs will likely have moved up all product prices and most P&P players will be compensated for the higher cost level. Some players have relative strongholds via vertical integration into Nordic forest assets and pulp operations in Latin America (with owned/leased plantation assets), and can produce wood cheaper than the market price. These assets are the likely winners, and we see SCA, Holmen, Stora (large Nordic forest assets) and UPM (60% of its pulp in Lat-Am) as the key benefiters here long-term.

The forest owner's EBIT has risen to +650 SEK/m3, which is up ~200 SEK/m3 in the last 2 years and a doubling vs the historical average. If we apply this increase to the companies' annual harvesting, the EBIT potential can be significant as the table shows. If the forest transaction market was to incorporate the same increase, the SOTP calculations would rise by +40% for SCA, 30% for Holmen and +25% for Stora.

Long-term wood prices



Source: ABG

EBIT effect of wood price increase

Company*	Harvest (mill/m3)	Potential EBIT effect**	In % of mid-cycle EBIT
SCA	5.0	990	**19%**
Holmen	2.8	560	**15%**
UPM (Latam)	4.9	90	**6%**
UPM (Nordics)	2.1	37	**3%**
Stora (Latam)	3.6	65	**6%**
Stora (Nordics)	5.6	102	**9%**

** SEKm for SCA and Holmen, EURm for UPM and Stora*
*** Calculated as 200 SEK/m3 * harvest in m3*

Source: ABG Sundal Collier, Companies

Billerud has the largest short position on wood in the short-term. Most end-customers can easily afford to pay more for wood via packaging products. Newsprint can be more difficult longer-term as the online alternative is tempting if prices rise too much to pay for fibre.

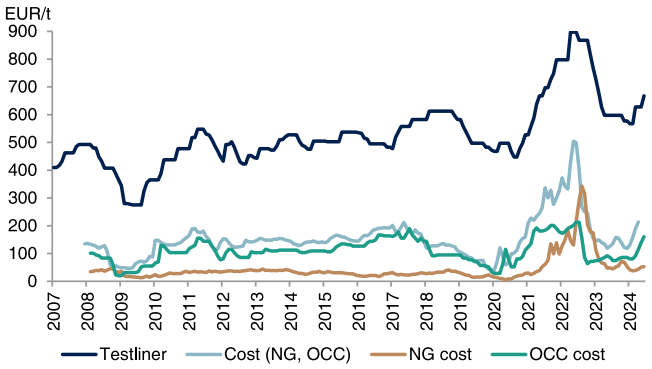
Containerboard and paper prices set by fibre and energy costs

All P&P prices rose to extreme levels in '21-'22, driven by much steeper cash cost curves and very supportive macro growth. Pulp prices rose 80%, paper by 100% and packaging by 30-100%, all of which led to another super-profit cycle for the Nordic companies. Most of the price increases (+2x) in this period were due to very expensive gas (NG, +4-10x) and recovered fibre (RCP, +1-2x) input costs. This effectively doubled the marginal producers' cash cost, which meant that paper/packaging prices doubled. However, what goes up too fast must come down: OECD IP growth fell from +4% to -4% during '22, which lowered both input costs and paper and packaging prices in '23.

Input costs are now on the rise again in H1 '24 with RCP up 50-70% (following pulp/wood) and natural gas up 25%. This points to ~20% higher testliner and newsprint prices.

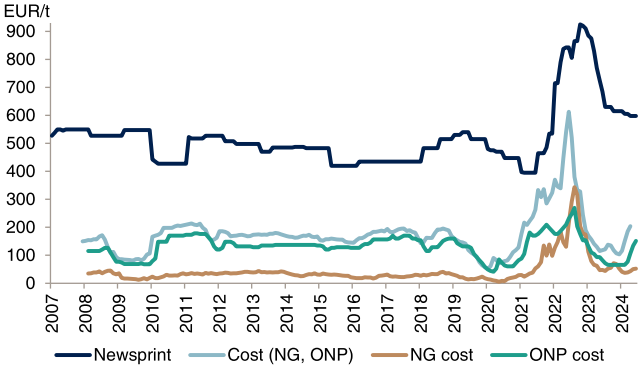
- Testliner prices are up 17% vs the trough in January and have been announced up another 9% by DS Smith. Kraftliner follows testliner. Expect similar announcements from SCA, Stora, Billerud etc on kraftliner.
- Newsprint prices are more late-cyclical and should follow with the normal 3Q lag. Palm has announced prices up +10-13% here.

Testliner prices set by NG and OCC



Source: ABG Sundal Collier, Bloomberg, RISI

Newsprint prices set by NG and ONP



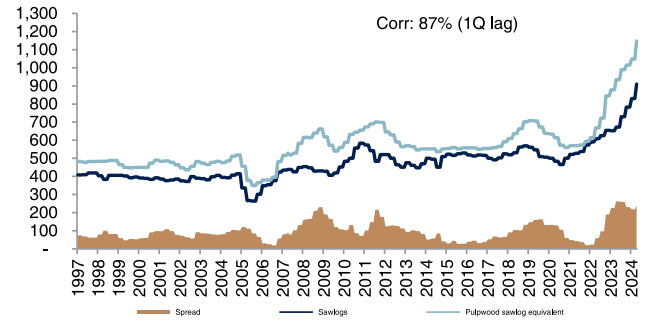
Source: ABG Sundal Collier, Bloomberg, RISI

8) Nordic wood problems: prices climb higher

Nordic pulpwood prices have seen steep increases: prices are up 70-80% in the last 2 years. In Sweden, Södra announced pulpwood prices up 50% in '22, +15% from H2 '23, and it added another SEK 50/m3 (+8%) in April. Norwegian pulpwood prices rose NOK 60/m3 (+10%) in H1 '24, and will rise another NOK 60/m3 in H2 '24. The market seems sold out and lacks 10-15 mill m3 (10-20% of a normal harvest) after the loss of Russian wood/Kemi expansion etc.

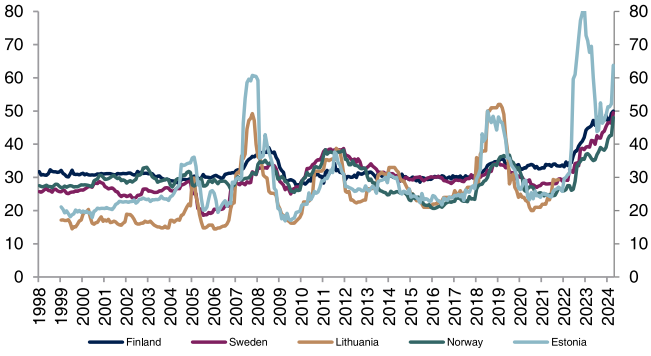
Pulpwood prices are closely related to sawlog prices, as two units of sawlog yield one unit of sawn timber and one unit of wood chips (pulpwood). This relationship suggests that two units of pulpwood should be worth roughly the same as one unit of sawlog (+ a processing premium), assuming efficient markets with no arbitrage. This relationship holds up quite well in the Swedish market, and the avg. spread between 2x pulpwood and sawlogs is ~SEK 100/m3. At current market prices, the spread is ~SEK 240/m3, i.e. sawlogs appear undervalued vs. pulpwood.

2x pulpwood vs. sawlog price



Source: ABG Sundal Collier, Skogsstyrelsen

Pulpwood prices



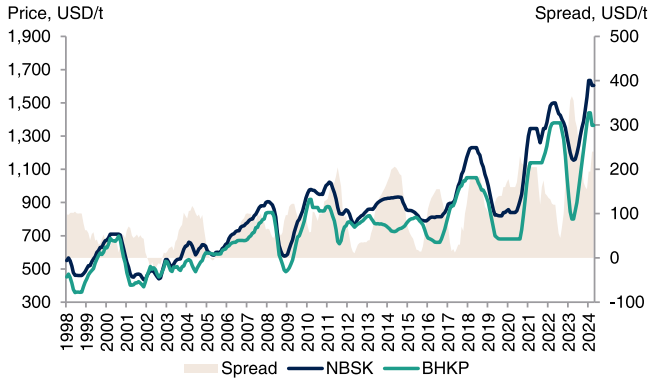
Source: ABG Sundal Collier, Company data

Historical cycles show that sawn goods prices are pulp-correlated (3Q lag to IP), while sawlog prices lag sawn goods prices by 1-2Q and pulpwood prices lag sawlog prices by 0-1Q. This lead-lag relationship means that the pulpwood-sawlog spread should be at the highest at the end of the cycle, when early-cyclical sawn goods prices plunge and sawlog prices are turning. The relationship has held up well during this cycle.

9) Pulp: Prices at all-time-high

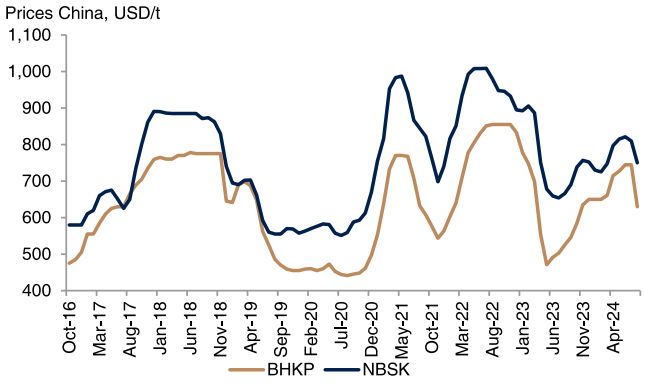
The Chinese hardwood pulp price dropped 46% from its peak to its nadir in May '23, but it fell too much too fast as it landed below cash cost. Prices rebounded and rose ~60% (European hardwood +80%), before falling back in July. European softwood list pulp prices moved up to an ATH in Q2, at USD 1,635/t (+42% from trough), after having dropped only 23% from the peak (good news for the Nordic players). The momentum seen in Q1 has continued into Q2, driven by better demand, less supply growth, and price hikes. However, note that prices may have peaked short-term due to recent triggers (reduced Chinese demand, restart of Finnish mills, more supply from Suzano, lower futures). In July, prices came down to USD 1,605/t (-2%).

European pulp prices (USD/t)



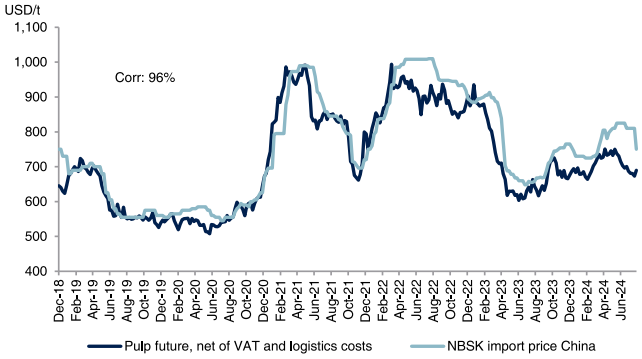
Source: ABG Sundal Collier, RISI

Chinese pulp prices (USD/t)



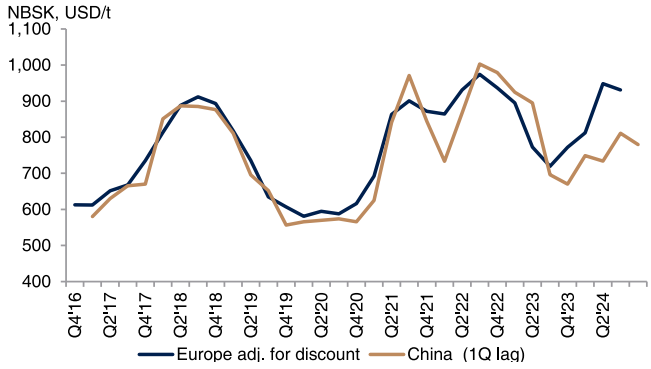
Source: ABG Sundal Collier, RISI

Shanghai pulp future



Source: ABG Sundal Collier, Bloomberg

Net NBSK price Europe and China

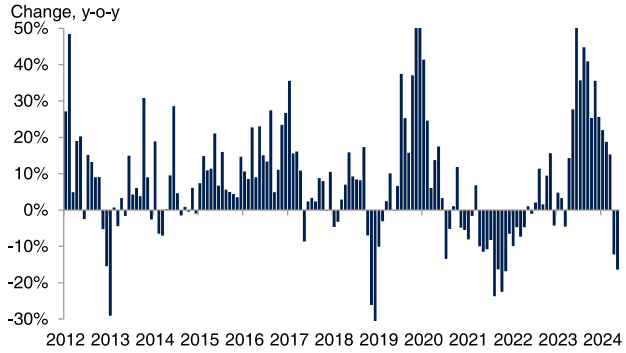


Source: ABG Sundal Collier, RISI

The Shanghai pulp future bottomed in June '23 (-35% vs. the peak). Since then, it is up ~15%, but note the recent ~10-15% drop. The pulp future net of VAT/transport typically leads the NBSK import price to China. Chinese prices tend to lead the European markets. The Chinese buyers are often good traders: buying at the trough, selling at the peak.

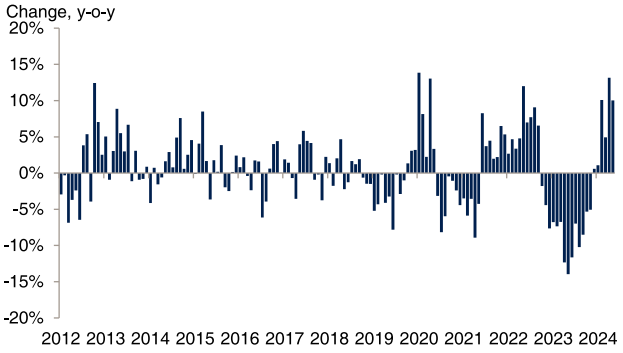
Pulp shipments were strong in Q1 (+10% y-o-y), but has shifted into a more negative territory in Q2, +2% in Apr-May. The strong Chinese demand has also seen a negative shift as shipments to China is down -14% so far in Q2, after having risen by 15-50% y-o-y every month since Apr'23. Global shipments excl. China (ROW) have improved though, up 12% y-o-y so far in Q2 (vs. +5% in Q1) and +8% YTD. The strong ROW demand has helped mitigate the reduced Chinese demand.

Monthly pulp shipments to China



Source: ABG Sundal Collier, PPPC

Monthly pulp shipments RoW

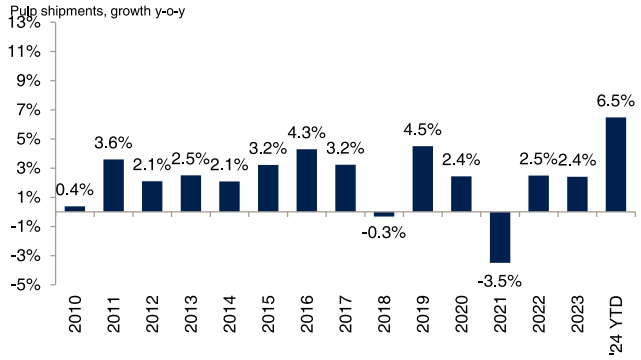


Source: ABG Sundal Collier, PPPC

We have updated our detailed pulp market data in this report using fresh data from RISI, and while '24 should still see a net supply growth of ~2%, we now expect a gross supply growth of +3.7% in '25 vs. +4.7% in our previous report (postponements). However, note that the normal market exit rate is ~1.7mt per year (or ~2%), meaning that net supply growth could be closer to ~2% in '25.

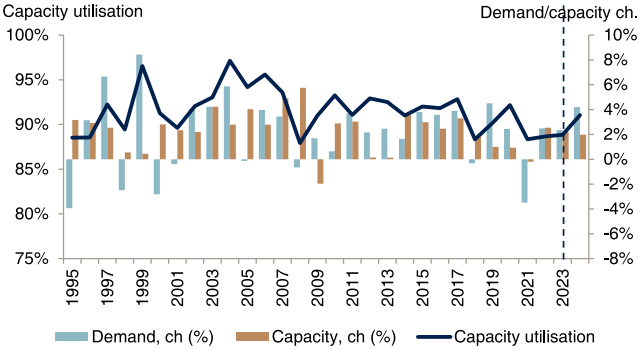
In '24, the pulp utilisation rate could reach +91% vs. ~89% in '23 (historical average 91.5%). The improvement is mainly driven by higher pulp demand (~4%) and ~2% supply growth. Note that actual supply growth in '24 could be lower if we factor in unplanned, temporary capacity disruptions like the Finnish strike and Metsä Fibre's 1.5mt Kemi mill (12 weeks out due to accident). Kemi represents ~2% of the global market pulp capacity and ~5% of the global softwood capacity. Demand could also surprise on the upside (the +6.5% YTD is strong).

Global shipments of market pulp, chg. y-o-y



Source: ABG Sundal Collier, PPPC

Capacity utilisation versus supply/demand



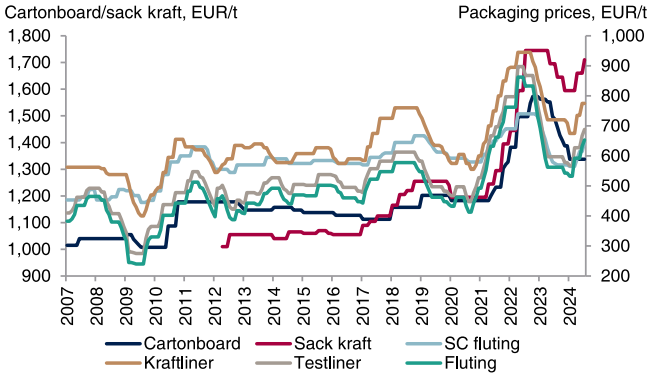
Source: ABG Sundal Collier, PPPC, RISI

10) Packaging: On the right path, but still more to go

The tide seems to be turning for packaging prices, which initially turned south from ATHs in Q3'22 driven by falling input costs and weaker demand. As of June, testliner and kraftliner prices are up ~15% from trough. Prices have been pushed by higher input costs and better demand, and DS Smith has announced another 9% hike.

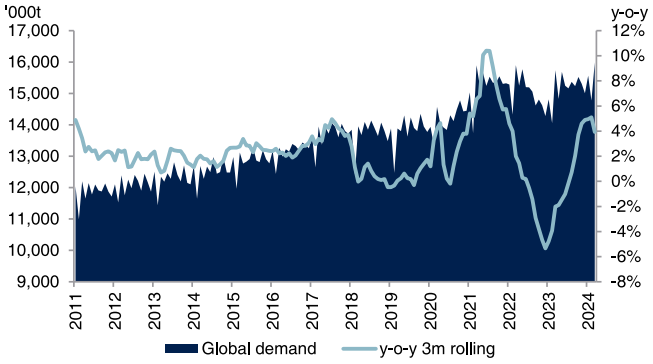
Cartonboard prices, which are late-cyclical and less volatile, have remained flat since Nov'23, but several price hikes have been announced (6-10% from Stora, Holmen, MM Board etc).

Prices are moving up



Source: ABG Sundal Collier, RISI

Global containerboard demand



Source: ABG Sundal Collier, Bloomberg

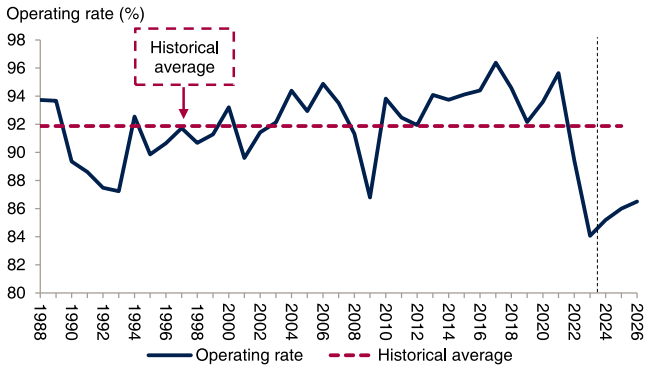
Global containerboard demand has improved into '24, +4% in Q1 y-o-y, following the momentum seen in Q4'23 (+4% y-o-y). Western Europe has seen material improvements as demand is up +5% y-o-y (vs. -0.3% in Q4'23). The improvement is likely partly due to restocking as buyers anticipate higher prices and a gradual increase in end-use demand.

Previously, we expected containerboard capacity to grow by +2.9% in '24e. However, we have updated our detailed capacity data, and we now expect a capacity growth of ~2% (postponements/closures). The '23 utilisation rate of 84% was weak vs. the historical average of 92%. However, we see demand outpacing supply in '24e/'25e, with operating rates in Western Europe reaching 85-86% in '24, rising to 86-87% in '25e/'26e

The pressure on the cartonboard market is easing as demand soared ~20% q-o-q in Q1'24 (restocking). Additionally, less supply than previously expected will enter the market in '24e, down from ~3% to ~2%. As such, we see operating rates reaching ~78% in '24 vs. ~75% previously (~75% in '23). However, a more normalised demand situation could take operating rates to 80-85% in the next 24 months — better, but still quite challenged vs. the '16-'20 average of ~92%.

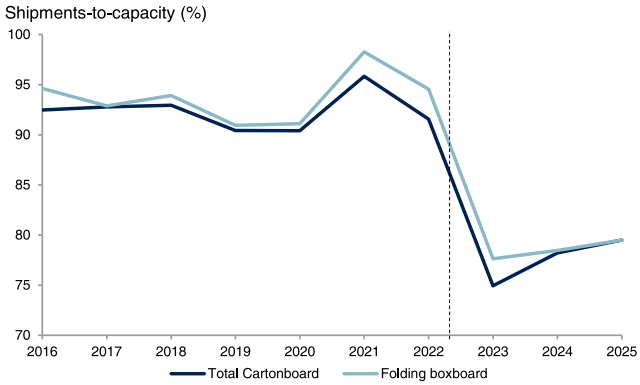
Note that in March Metsä Board decided that it will not invest in the +800kt Kaskinen FBB mill ('27/'28). The mill would have resulted in a 7-8% capacity increase for European cartonboard, or +25% of the FBB capacity, and would have dragged down WE operating rates by 7-8pp, all else equal (i.e the market did not need new capacity).

Containerboard WE: operating rate



Source: ABG Sundal Collier, RISI

Cartonboard WE: shipments to capacity



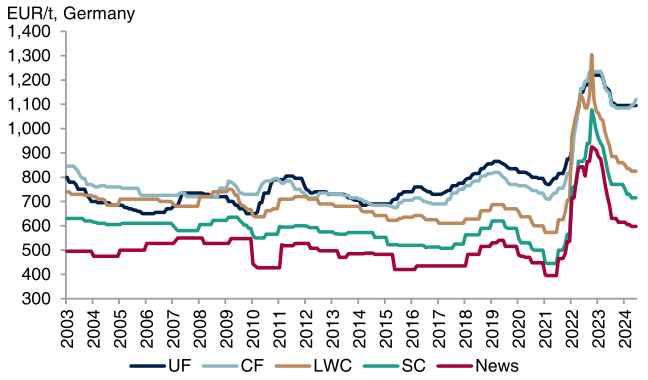
Source: ABG Sundal Collier, RISI

11) Paper: Better demand, more supply cuts, higher prices

Paper prices have been under pressure: down +20% in '23, after doubling from the trough in Q1'21 to the peak in Q1'23 (higher input costs/tighter market balance). We saw the first price increases in Q2'24 (following pulp) with coated fine prices +3%. On average, paper prices fell "only" -0.5% q-o-q vs. -1.4% in Q1'24. US paper prices fell -0.1% in Q2'24 (Apr-May) vs. -2% in Q1'24. Higher European paper prices are positive for Norske, UPM and Holmen, while higher US prices helps Billerud's Verso operations.

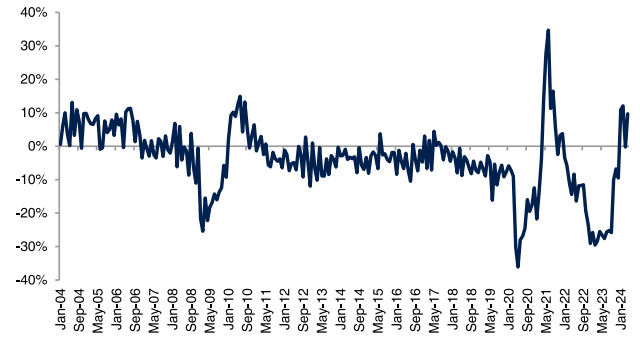
The European paper demand situation has improved in '24, increasing +8% y-o-y in Q1'24 (and +10% in Apr), after having dropped 25-30% every month from Jan'23-Sep'23 (and -9% in Q4'23). Q1'24 marked the first quarter with a positive y-o-y increase since Q4'21 (easy comps though). The improvement was driven by +18% increase in fine paper (-4% in Q4'23) and a -1% fall in publication paper (-12% in Q4'23). Note that newsprint shipments fell "only" -1% in Q1'24 vs. -11% in Q4'23 (but +4% in Apr).

European paper prices



Source: ABG Sundal Collier, RISI

Total paper shipments (all grades), y-o-y



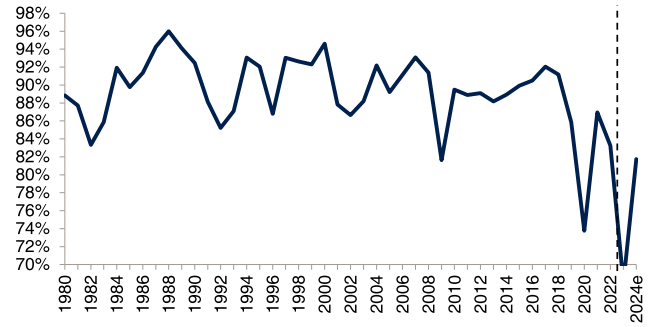
Source: ABG Sundal Collier, Euro-graph

Capacity cuts were plentiful in '20-'22, which also led to a tighter market balance for most paper grades, but too small for '23 at 3%. For '24, we previously expected capacity cuts of ~10%. However, more cuts have been announced: UPM will permanently close its Hürth newsprint mill (330kt or 9% of W-European supply) and shut one uncoated fine paper machine at Nordland Papier (280kt or 5% of W-European supply) and Sappi has ceased coated fine paper production at its Lanaken mill (265kt). As a result, we now expect ~15% capacity cuts for '24 and '25. UPM's cut improve the newsprint and uncoated fine paper market balances significantly: The newsprint utilisation rate would rise to ~93% vs 85% earlier and the uncoated fine paper utilisation rate would rise to ~85% vs. 80% earlier.

A total of ~4.6m tonnes of paper capacity cuts have been announced for ’23-’25. Combined with the +4-5% better demand for '24e suggested by our demand model (due to lower prices), the utilisation rate looks set to increase. We previously expected the overall paper utilisation rate to reach 79-80% in '24e vs. 68% in '23, but with the fresh cuts we now see

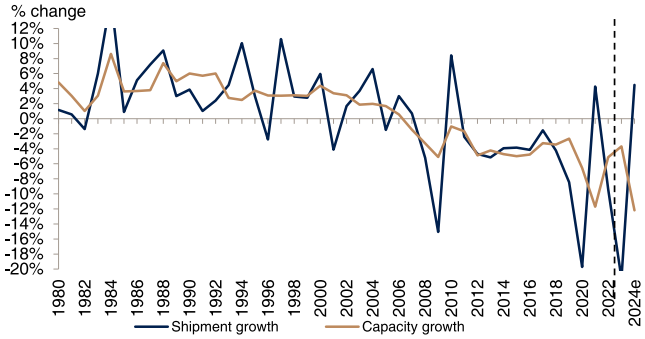
it reaching 81-82%. However, if the demand increase of ~8% seen so far in '24 persist throughout the year, the utilisation rate could reach +85%.

Paper: capacity utilisation



Source: ABG Sundal Collier, RISI

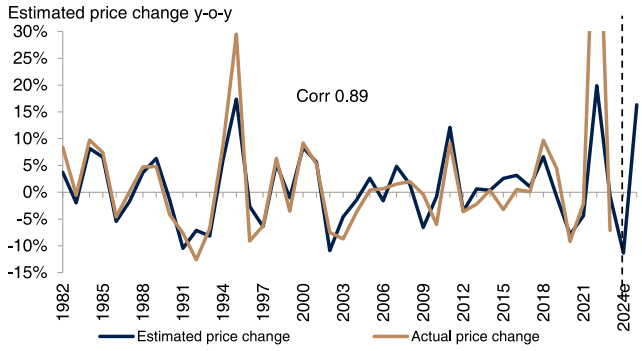
Paper: capacity cuts vs. shipment growth



Source: ABG Sundal Collier, RISI

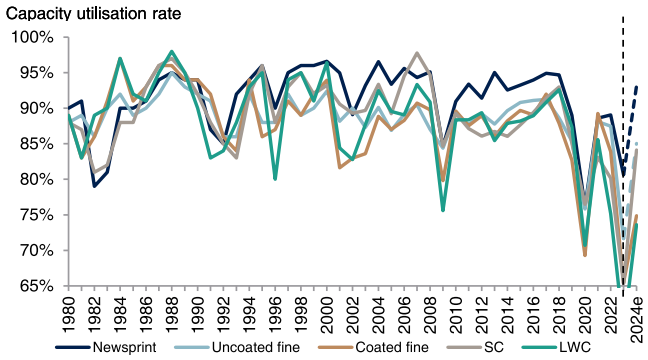
Our paper price model, which is a function of the capacity utilisation rate, the pulp price, and USD/EUR (all with a 1Y lag), points to prices up +15-20% in '25, driven by higher pulp prices and improved capacity utilisation in '24.

ABGSC paper price model



Source: ABG Sundal Collier, RISI

Capacity utilisation rate per grade



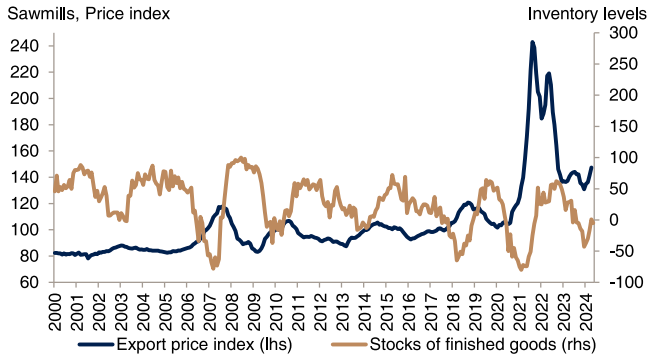
Source: ABG Sundal Collier, RISI

12) Sawn goods: price trend could be down into H2

Swedish sawn goods prices dropped ~45% from the peak due to higher interest rates weighing on housing starts and the construction market in general. Prices started to move up again in Q1 (+5% vs. Q4'23) and continued up 10% in Q2. However, the price trend could be turning negative going into H2, as the outlook for new export orders in Sweden has deteriorated and stocks of finished goods are contracting at a lower pace compared to Q4'23/Q1'24.

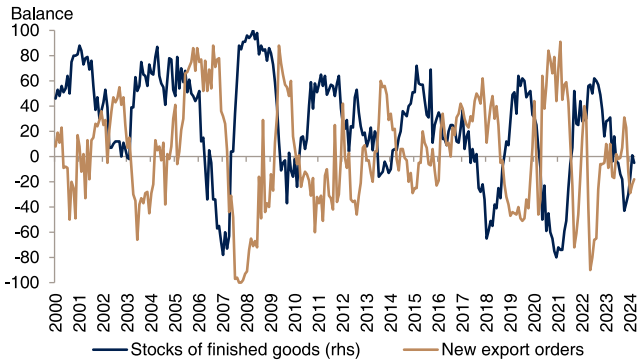
The NAHB Housing Market Index (HMI), which takes the pulse of the US housing market, spiked ~20% y-o-y in Q1, but the newest data (May) show a decline of -10% y-o-y, indicating a negative shift in the market. Note that the index reached positive territory for the first time in July'23, after having reached its lowest level since the aftermath of the financial crisis in Q4/Q1 (ex. April '20). The US market leads the European markets and the NAHB HMI has a strong correlation with lumber futures, which again lead realised sawn prices in the Nordics. The lumber prices and futures in the US are now trending down.

Sweden: export prices vs. stock level



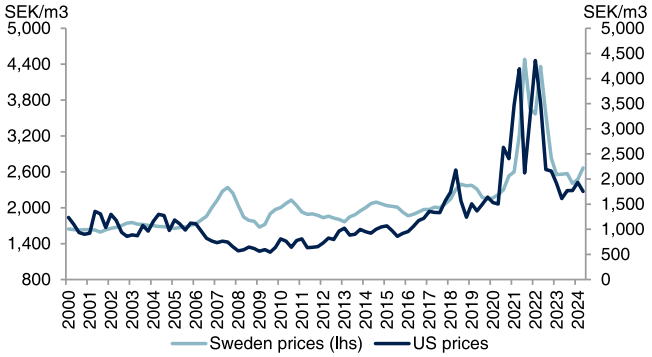
Source: ABG Sundal Collier, Konjunkturinstitutet

Sweden: stock level vs. new export orders



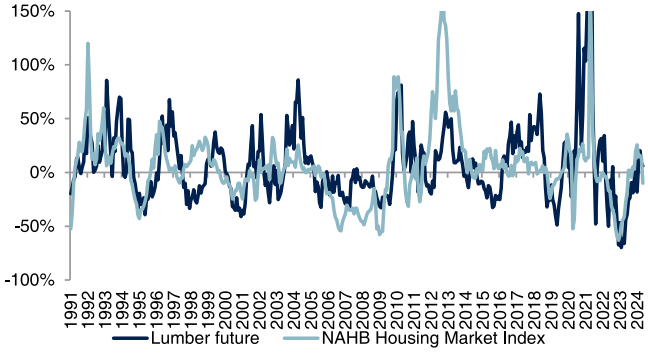
Source: ABG Sundal Collier, Konjunkturinstitutet

US lumber prices vs. Swedish prices



Source: ABG Sundal Collier, Factset

Lumber futures vs. NAHB HMI, % change y-o-y

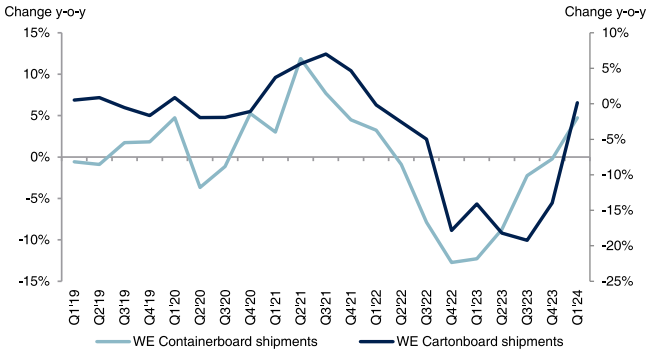


Source: ABG Sundal Collier, NAHB, Bloomberg

13) Destocking over — signs of restocking now

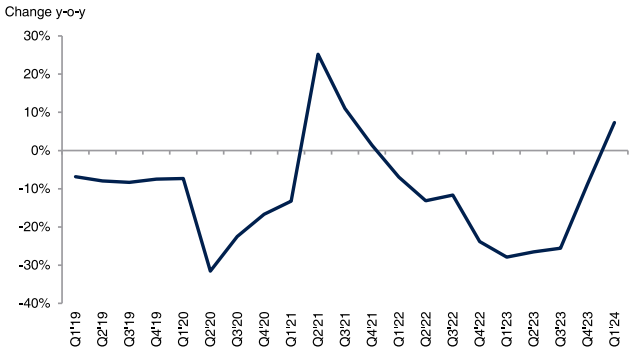
Destocking was a key topic in the P&P sector throughout 2023 (as customers had plenty of stock post the pandemic), hurting most companies in our coverage universe. As an example, the destocking effect took 8-25pp off Western European capacity utilisation for cartonboard and containerboard in 2023. However, destocking has now faded, and we may have started to see signs of restocking, as can be seen in the charts below (improved demand).

WE Cart.board and cont.board shipments



Source: ABG Sundal Collier, RISI, Bloomberg

Total WE paper shipments (all grades)



Source: ABG Sundal Collier, Euro-graph

The table below shows the effects on EBIT of a 10% and 20% sales volume increase (assuming 25% fixed costs). This mechanism works both ways and lower volumes will give lower EBIT.

Illustration: Accounting effect of 10-20% volume increase

Accounting illustrations	Volume increase sensitivities 0%	10%	20%
Production capacity per year (units)	100	100	100
Price / unit	100	100	100
Variable cost / unit	68	68	68
Fixed / unit (100% capacity utilsation)	23	23	23
Margin (100% capacity utilsation)	10	10	10
Fixed costs per year	2,250	2,250	2,250
Deliveries / capacity	**80%**	**90%**	**100%**
Production / capacity	**80%**	**90%**	**100%**
Units sold	80	90	100
Units produced	80	90	100
Inventory change	0	0	0
Revenues	8,000	9,000	10,000
Variable costs to sold units	5,400	6,075	6,750
Fixed costs to sold units	1,800	2,025	2,250
Fixed costs to P&L directly	450	225	0
Profit	**350**	**675**	**1,000**
Margin	**4.4%**	**7.5%**	**10.0%**

Source: ABG Sundal Collier

14) The Finnish strike tightened the markets

There was a one-month political strike from 11 March to 8 Apr, as a response to new regulations. Finland accounts for ~7% of the global market pulp capacity, ~14% of the European graphic paper capacity, ~24% of the WE cartonboard capacity, and ~5% of the WE containerboard capacity. The strikes tightened the market balance (especially on pulp), and benefited the Swedish companies (SCA, Holmen, Billerud) in particular. The strikes came at a good time for the Finns too as the loss was limited due to low prices/margins (more to gain from a better market balance/getting prices up again).

As a result, the Finnish companies had to shut down production in many of their mills:

- Stora ramped down graphic paper production at its Anjala mill and pulp and containerboard production at its Oulu mill.
- UPM halted graphic paper production at its Jämsänkoski, Kymi, Kaukas, and Rauma mills, and later declared force majeure at the Kymi and Kaukas mills.
- Metsä Board shut down BCTMP production at Kaskinen and Joutseno, paperboard production at Simpele, Kyro, Tako, and Äänekoski, as well as kraftliner production at its Kemi mill. Further, on 21 March, an explosion occurred at the Kemi mill, and both containerboard and pulp production was halted. Kemi is ~2% of the European containerboard supply (~14% of the kraftliner market), and ~2% and ~5% of the global market pulp and softwood capacity, respectively. Kemi will graduallly restart from end of June.

Finland vs. installed capacity

Capacity	2018	2019	2020	2021	2022	2023	2024
Global Market Pulp	75,265	76,010	76,715	76,560	78,508	80,240	82,190
Finland in %	**6.7%**	**6.8%**	**6.7%**	**6.5%**	**7.2%**	**7.1%**	**7.2%**
European Graphic Paper	39,587	38,642	36,382	32,418	30,620	29,052	23,666
Finland in %	**15.9%**	**16.1%**	**15.1%**	**12.0%**	**11.3%**	**11.9%**	**13.6%**
WE European Cartonboard	10,167	10,355	10,417	10,341	10,163	10,372	10,612
Finland in %	**24.6%**	**24.1%**	**24.0%**	**24.2%**	**24.6%**	**24.1%**	**23.6%**
WE European Containerboard	28,113	29,383	30,191	31,853	32,375	32,922	33,544
Finland in %	**6.4%**	**6.1%**	**6.0%**	**5.7%**	**5.6%**	**5.5%**	**5.4%**

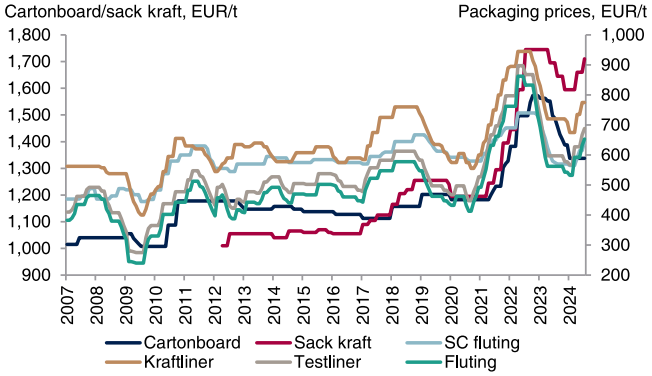
Source: ABG Sundal Collier, RISI

Packaging: On the right path, but still more to go

The tide seems to be turning for packaging prices, which initially turned south from ATHs in Q3'22 driven by lower pulp prices, falling input costs (energy/RCP) and weaker demand. As of June, testliner and kraftliner prices are up ~18% and ~15% from trough, respectively (after having dropped 37% and 29% from peak). Prices have been pushed by higher input costs and better demand, and DS Smith has announced another 9% hike.Cartonboard prices, which are late-cyclical and less volatile, have remained flat since Nov'23, but several price hikes have been announced, including ~10% from MM Board and ~6% from Stora Enso (both for July).

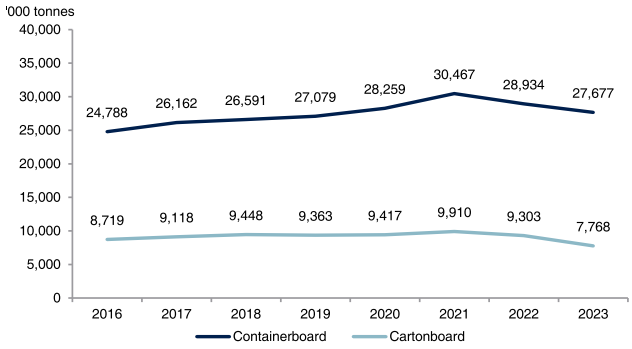
The deteriorating packaging demand from Q3'22 was driven by weak consumer demand (weak OECD IP) and destocking in the value chain. However, the Russia-Ukraine war also played a role for cartonboard, as exports to Russia disappeared (Russia made up ~10% the European demand).

Prices are moving up



Source: ABG Sundal Collier, RISI

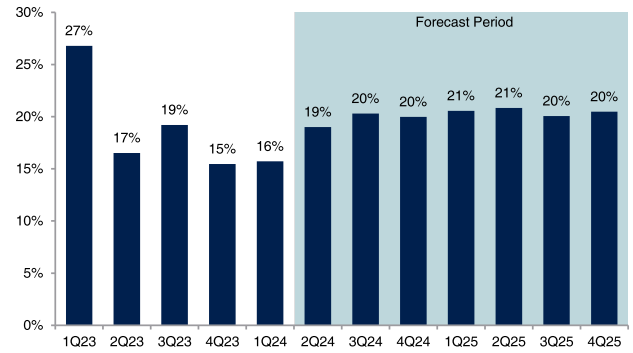
Carton- and containerboard demand development



Source: ABG Sundal Collier, RISI

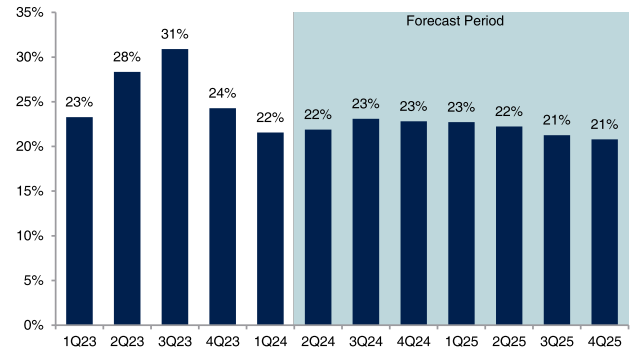
Sector average cash margins have declined in both the containerboard and cartonboard markets, but momentum has shifted as margins are expected to improve throughout '24 (RISI).

Cont.board sector avg. cash margin



Source: ABG Sundal Collier, RISI

Cartonboard sector avg. cash margin

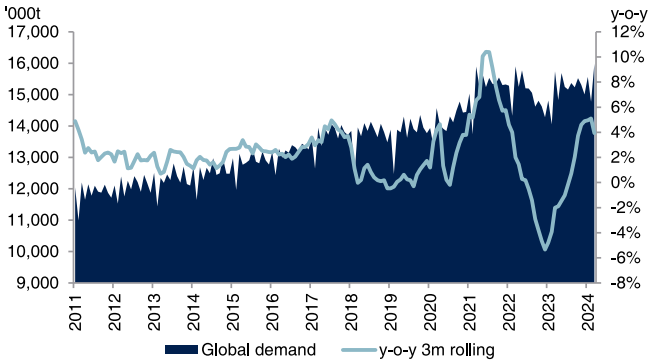


Source: ABG Sundal Collier, RISI

Containerboard: Demand improves further, supply growth down

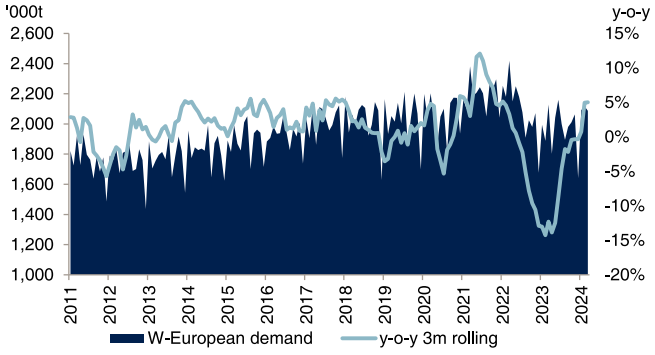
Containerboard demand has historically grown by 2-3% p.a. globally, and 2021 was the peak year with +8%. In 2023, demand fell 2% vs. 2021, driven by weak Western European demand and destocking. However, the market improved towards H2'23 as destocking faded (global demand +4% y-o-y in Q4), and momentum has continued into '24. Global demand is up +4% in Q1 while Western European demand is up +5% (vs. -0.3% in Q4'23).

Global containerboard demand



Source: ABG Sundal Collier, Bloomberg

WE containerboard demand



Source: ABG Sundal Collier, Bloomberg

Further reduction in new supply

Previously, we expected containerboard capacity to grow by +2.9% in '24e. However, we have updated our detailed capacity data, and we now expect a capacity growth of ~2% (due to postponements/closures). We also previously expected that demand would match supply in '24e and outpace in '25e, but we now see demand outpacing supply in both '24e and '25e.

Norske Skog (Golbey and Bruck), Vpk (Alizay), and SCA (Obbola) expect full capacity to be reached in '26 vs. '24/'25 previously. Heinzel has postponed the ~300kt conversion at its Laarkirchen mill (SC to RCCM) to '25, citing unfavourable market conditions. Additionally, the closures from Stora (De Hoop and Ostrołęka, 500kt) and postponement of the Langerbrugge conversion (700 kt) improves the capacity utilisation by ~1.0pp, all else equal. The utilisation rate is still weak though, at 85% vs. the historical average of 92%.

Note that ~4mt of new capacity (+12%) has been announced but delayed indefinitely, and this could come in '26/'27.

Capacity: New projects containerboard

Major capacity changes ('000t/y)									Planned	
Company	Country	Grade	2021	2022	2023	2024	2025	2026	capacity	Status
Pro-Gest	Italy	recycled containerboard	250	150					400	Production
Hamburger	Germany	recycled containerboard	300	160					500	Production
Burgo	Italy	recycled containerboard	150	150	100				600	Production
Progroup	Germany	recycled containerboard	420	150					750	Production
Stora Enso	Finland	kraftliner	300	150					450	Production
Vpk Packaging	France	recycled containerboard	40						40	Production
Mondi	Slovakia	white kraft top testliner	200	100					300	Production
Palm	Germany	testliner	135	135					270	Production
Papresa	Spain	testliner		150	50				200	Production
Norske Skog	Austria	testliner/recycled fluting			70	70	50	20	210	Construction
Cartiere del Polesine	Italy	recycled containerboard			230	85			315	Production
Stora Enso	Finland	kraftliner				40			40	Production
Bukoza Invest	Slovakia	recycled containerboard			60	40	25	20	145	Production
Delkeskamp	Germany	recycled containerboard			-130					
SCA	Sweden	kraftliner			150	75	25	25	275	Production
Norske Skog	France	testliner/recycled fluting				200	350		550	Construction
Smurfit Kappa	Germany	recycled containerboard			70				70	Planned
Schumacher Packaging	Poland	recycled containerboard			150				150	Construction
Mondi	Finland	fluting				35	20		55	Planned
Metsä Board	Finland	white-top kraftliner			40				40	Construction
Vpk Packaging	France	recycled containerboard			200	150	50	50	450	Production
Stora Enso	Netherland	recycled containerboard				-380				
Stora Enso	Poland	recycled containerboard				-120				
Burgo	Italy	recycled containerboard			20				20	Production
DS Smith	Portugal	kraftliner					28		28	Production
Smurfit Kappa	France	Testliner				-75				
Heinzel	Austria	recycled containerboard					300	200	500	Planned
Model Group	Germany	recycled containerboard				400	220		620	Planned
Eren Paper	UK	recycled containerboard				325	325		650	Planned
Veolia and Fibre E.C.	France	recycled containerboard							400	Planned
Stora Enso	Belgium	recycled containerboard							700	Planned
DS Smith	Italy	recycled containerboard							450	Planned
Mondi	Italy	recycled containerboard							420	Planned
MEPCO	n.a.	recycled containerboard							400	Planned
Unipakhellas	Greece	recycled containerboard			30	50	10	10	100	Planned
Announced capacity changes			**1,815**	**1,145**	**1,040**	**895**	**1,403**	**325**		
Other projects			-153	-623	-493	-274	-448	0		
Total announced capacity changes			**1662**	**522**	**547**	**621**	**955**	**325**		
Total capacity change y-o-y			*5.5%*	*1.6%*	*1.7%*	*1.9%*	*2.8%*	*0.9%*		

Source: ABG Sundal Collier, RISI

On top of the new projects that have been announced in Europe, new capacity is set to come on-stream in Russia and Turkey over the next few years. We expect that the majority of these volumes will go to domestic consumption, China or other Asian markets. Still, a small share of the volumes could enter European markets and affect the market balance.

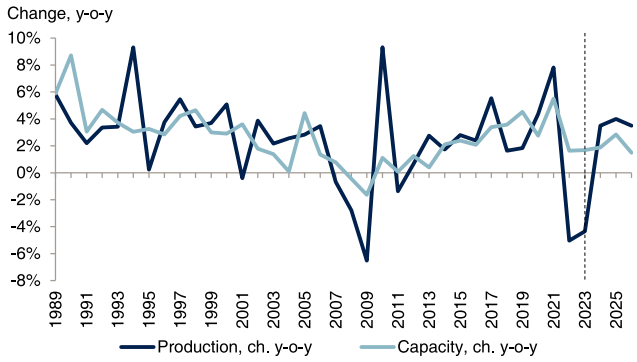
Announced new capacity in Russia and Turkey

Announced capacity changes in Eastern Europe and Turkey						
Company	Mill/Location	Country	Type	Cap. ch. (kt)	Year	Grade
Ilim	Ust-Ilimsk	Russia	new PM	600	2023	kraftliner
Kipas Paper	Söke	Turkey	new PM	650	2023	testliner/kraftliner
Hamburger	Kutahya	Turkey	new PM	480	2023	testliner/fluting
Okulovka		Russia	upgrade	25	2023	containerboard
Modern Karton (Eren Group)	Corlu	Turkey	new PM	640	2023	recycled containerboard
Ankutsan	Adana	Turkey	new PM	240	2023	recycled containerboard
SFT	Adygea region	Russia	new PM	280	2025	testliner
Proletariy	Surazh	Russia	new PM	180	2025	containerboard
APPM		Russia	new PM	700	2027	kraftliner/fluting
Total '23-				**3,795**		

Source: ABG Sundal Collier, RISI

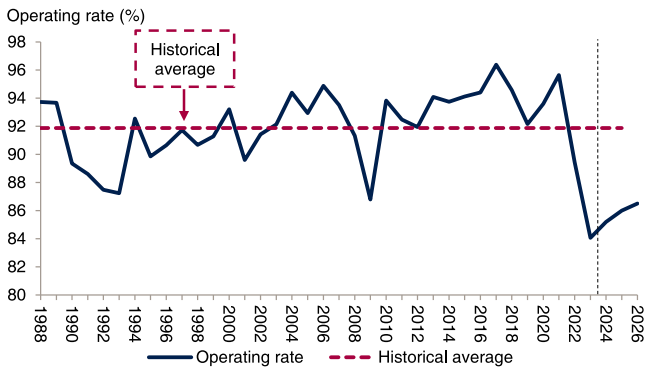
Due to postponements/delays and improving demand, we expect the containerboard market balance in '24e-26e to be better than previously anticipated, although it is still weak historically. Demand could surprise on the upside as prices fell 30% in '23 – we have already seen improving demand lately. We forecast a demand growth of 3.5-4.0% in the period (~2.4% p.a. historically, ~2.8% excluding '22-'23). We see the operating rate in Western Europe reaching 85-86% in '24, rising to 86-87% in '25e/'26e.

Containerboard WE: supply and demand



Source: ABG Sundal Collier, RISI

Containerboard WE: operating rate



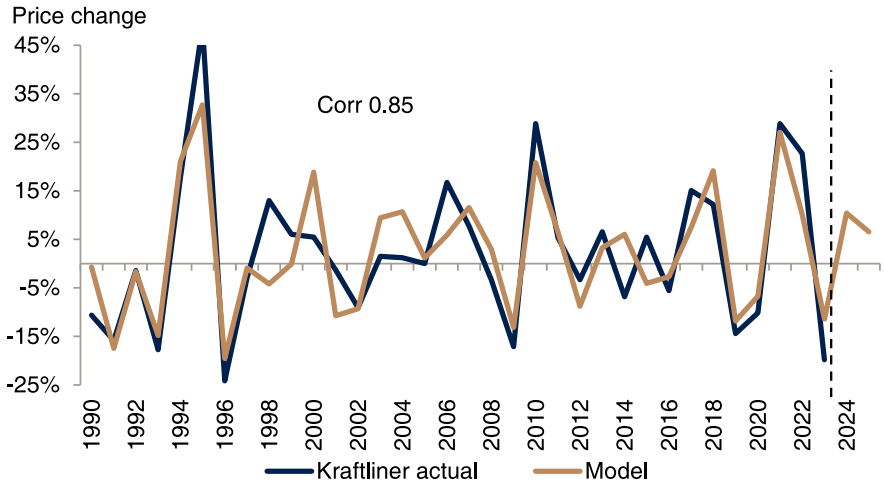
Source: ABG Sundal Collier, RISI

ABGSC containerboard model points up into '24/25

Our containerboard price model forecast lower prices in '23 due to a weaker utilisation rate (more capacity, weaker macro). This played out in the market with kraftliner/testliner prices down 25-36%. The model now points up into '24/25. Our model is based on changes in the Western European containerboard operating rate and the pulp price, and has historically been quite accurate, with an 85% correlation between estimated and actual price changes.

1. Containerboard prices follow the pulp price and a 10% change in the pulp price impacts containerboard prices by 5-6%.
2. Containerboard demand is driven by the utilisation rate: A 10% change in the utilisation rate has a 5-6% effect on containerboard prices.

ABGSC containerboard price model

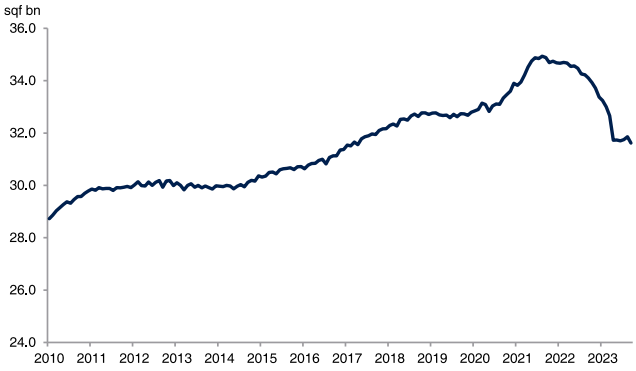


Source: ABG Sundal Collier, RISI

US corrugated S/I ratio improves

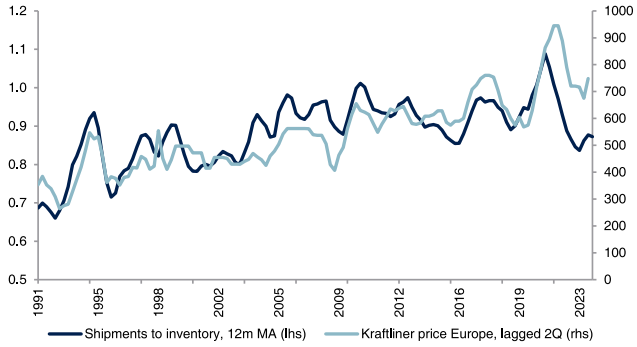
Shipments of corrugated products from the U.S. have broadly followed the European trends of strong growth amidst COVID. US inventories rose to a peak of 4.2 weeks of supply in mid-'22 vs. the COVID trough of 2.5 weeks in late '20, but they are now at more normal levels, 3.6 weeks. This means that the shipments-to-inventory ratio is inching up again from a low level. There is a decent correlation with the kraftliner price in Europe (with a lag).

U.S. shipments of corrugated products, 12m MA



Source: ABG Sundal Collier, Bloomberg, FBA

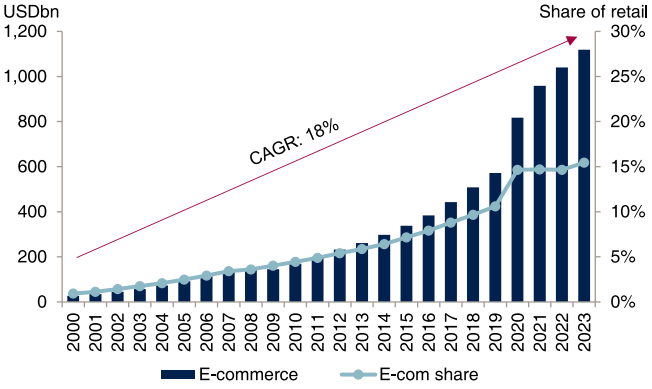
U.S. shipments to inventory vs. European kraftliner prices



Source: ABG Sundal Collier, company data, FBA

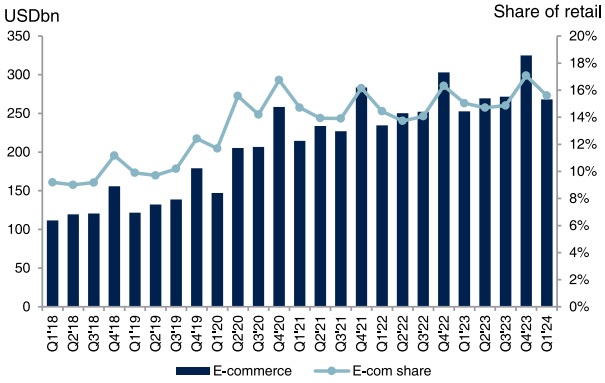
One of the key megatrends driving global packaging demand is the high growth in e-commerce sales. In the US, total e-commerce sales are growing at a CAGR of 18% p.a. E-commerce sales accounted for 15% of all US retail sales in 2023 (and 16% in Q1'24), which were up from 11% in 2019. COVID had a positive impact in 2020-2021, but US e-commerce sales continued their strong growth at 8% y-o-y in 2023 (and 6% Q1'24 y-o-y).

US: E-commerce sales and share of retail sales (annual)



Source: ABG Sundal Collier, US Census Bureau

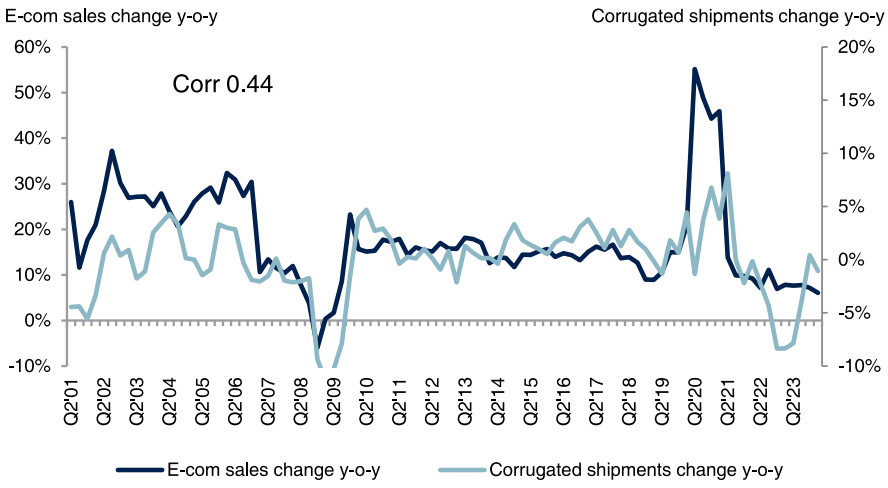
US E-commerce sales and shares of retail sales (quarterly)



Source: ABG Sundal Collier, US Census Bureau

Corrugated demand displayed a negative shift in Q1'24, decreasing by -1% y-o-y vs. +0.45% in Q4'23. Note that the decrease is not as large as the 2-8% y-o-y declines seen every quarter from Q4'21 to Q3'23 (destocking).

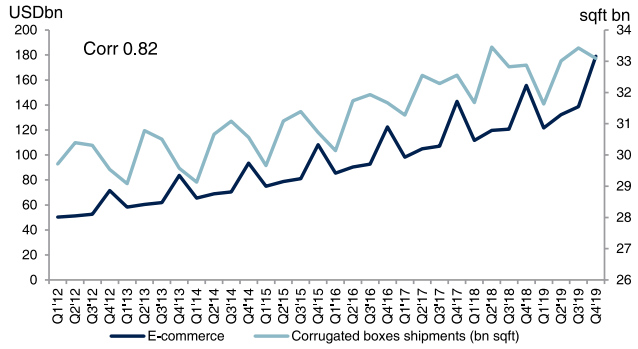
Shipments of corrugated products fall while e-commerce sales increase



Source: ABG Sundal Collier, FBA, US Census Bureau

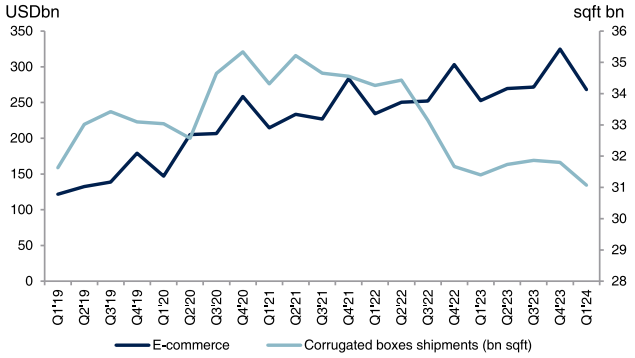
Intuitively, increased e-commerce sales should also increase the demand for corrugated products (due to boxes for shipping). This has been the case historically, but the pattern has changed in recent years. From 2012 to 2019, shipments of corrugated products consistently followed e-commerce sales (correlation of ~82%). However, from 2019-2023 this correlation landed at ~3%, which might indicate a shift in the trend. The break in the pattern may be explained by increased ship-in-own-container packaging (products are not re-packed) and more in-store fulfilments, but it could also just be an indication of destocking.

Shipments of boxes have historically followed e-com sales



Source: ABG Sundal Collier, FBA, US Census Bureau

But there is no discernible trend from 2019-2023



Source: ABG Sundal Collier, FBA, US Census Bureau

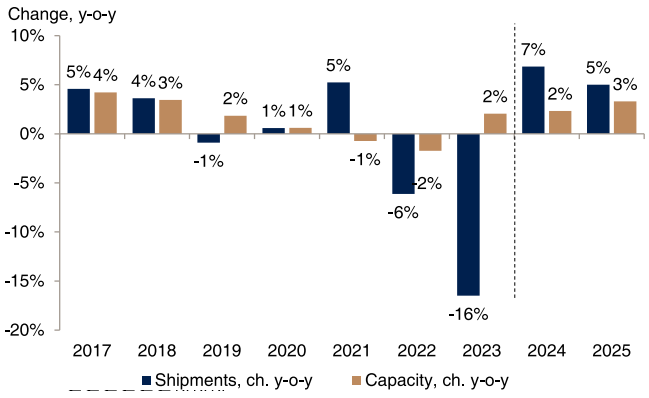
Cartonboard: Improvements, but still a way to go

The Western European utilisation rate for cartonboard improved from 90% in '20 to 96% in 2021, driven by strong demand growth (+5%), while capacity additions were limited. '22 saw weaker demand (-6%) and the operating rate fell to 91%. In '23, destocking was the main topic as customers anticipated lower prices, had high inventories, and delayed orders. Paired with weaker consumer demand and no exports to Russia (Russia was ~10% the European demand), the operating rate landed at ~75% for the year.

However, the cartonboard market has seen a positive shift so far in '24 as demand soared ~20% q-o-q in Q1 (restocking). Additionally, less supply than previously expected will enter the market in '24e, down from ~3% to ~2%. Previously, RISI expected operating rates of ~74% in '24e and ~76% in '25e, and we highlighted that these expectations were too pessimistic as the demand expectations (tonnes) were ~13% below the '17-'20 average. The expected operating rates have now been revised, and RISI sees ~78% (+4pp) in '24e and ~77% (+1pp) in '25e.

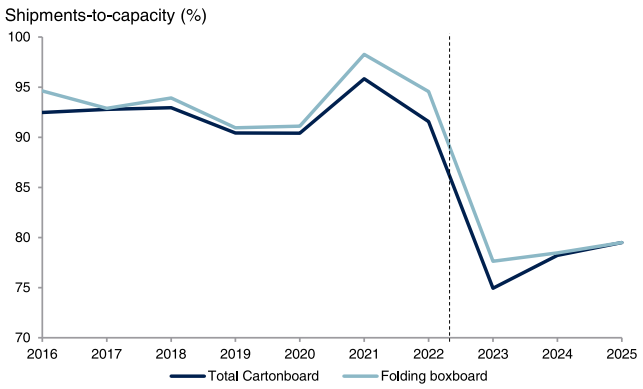
We still argue that these estimates are on the more cautious side — a more normalised demand situation could take operating rates to 80-85%. Although this would imply an improvement vs. '23, it is still quite challenged vs. the '16-'20 average of ~92%, and there is more supply for '26/'25 from Stora.

Cartonboard WE: Supply and demand growth



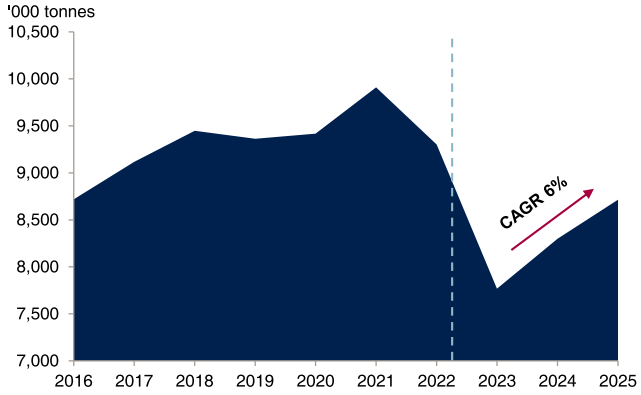
Source: ABG Sundal Collier, RISI

Cartonboard WE: shipments to capacity



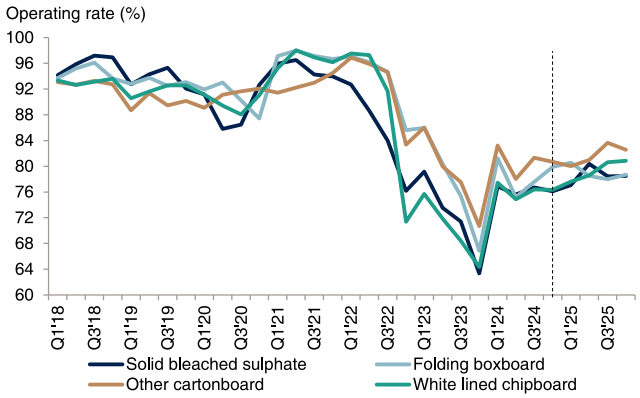
Source: ABG Sundal Collier, RISI

Cartonboard WE: shipment growth



Source: ABG Sundal Collier, RISI

Cartonboard WE: operating rate per grade



Source: ABG Sundal Collier, RISI

Looking further ahead, several large capacity expansions could disrupt the market. Stora will add ~750kt of new FBB and liner capacity via the conversion at its Oulu mill. The 750kt capacity expansion represents 20-25% of Western European FBB shipments (~8% of total WE cartonboard shipments), and first production is expected in 2025 with full capacity in '26. The Oulu mill will be highly cost-efficient and put pressure on high-cost producers.

The market received some good news in March, however, as Metsä Board concluded its pre-engineering process and decided that it will not invest in the +800kt Kaskinen folding boxboard mill. Kaskinen, which would have come on stream in '27/'28, would have been a capacity increase of 7-8% for European cartonboard, or +25% of the folding boxboard capacity. However, now that Kaskinen is out, the situation looks better (although the market is still challenged), and expected added capacity from '24-'27 is now ~1mt vs. ~1.8mt previously (or +10% vs. previously expected +17%). The introduction of Kaskinen would have dragged down Western European operating rates by 7-8pp, all else equal.

In North America, Billerud announced in May that it will not convert its 660kt Escanaba paper mill (US) to a 1.1mt cartonboard mill. Instead, the company will gradually shift its product mix towards packaging materials with a moderate investment level.

Capacity: New projects cartonboard

Major capacity changes ('000t/y)

Company	Country	Grade	2019	2020	2021	2022	2023	2024	2025	2026	Type	Year
BillerudKorsnäs	Sweden	Liquid packaging board, cupstock	550								new PM	2019
UMKA	Serbia	White-lined chipboard	40								upgrade	2019
Carl Macher	Germany	Coreboard		50							upgrade	2020
Holmen	Sweden	Solid bleached board		100							upgrade	2020
Hamburger	Germany	White-lined chipboard		-30							closure	2020
Mayr-Melnhof	Austria	Recycled cartonboard		-80							closure	2020
Kama Pulp and Paper	Russia	FBB			220						new line	2021
UMKA	Serbia				70						upgrade	2021
Buchmann	Germany	FBB			-30						closure	2021
Geroi Truda	Belarus	FBB			150	50					new PM	2021
Baden Board	Germany				-165						closure	2021
Bukóza	Slovakia	White-lined chipboard					85	30	20	10	new PM	2022
Stora Enso	Sweden	Liquid packaging board					50	25	25		upgrade	2023
Metsä Board	Husum	FBB					100	50	50		upgrade	2023
RDM Group	France	White-lined chipboard					200				upgrade	2023
Solidus	Netherlands	Solid board						-150			Closure	2024
Cardboard Packaging	Czech Republic	Finished board						15			Constructic	2024
MM Board and Paper	Slovenia	FBB						35				
MM Board and Paper	Germany	White-lined chipboard						35				
WEIG	Germany	White-lined chipboard						20	20			
MM Board and Paper	Austria	White-lined chipboard					20	10	10			
Stora Enso	Finland	FBB, liner							200	550	Conversior	2025
Holmen	Sweden	Solid bleached board								85	upgrade	2026
Metsä Board	Finland	FBB									new line	2027
Announced capacity changes			**590**	**40**	**245**	**50**	**455**	**70**	**325**	**645**		
Other projects			-402	22	-321	-228	-247	171	25	0		
Total announced capacity changes			**188**	**62**	**-76**	**-178**	**209**	**241**	**350**	**645**		
Total capacity change y-o-y			*1.8%*	*0.6%*	*-0.7%*	*-1.7%*	*2.1%*	*2.3%*	*3.3%*	*5.9%*		

Source: ABG Sundal Collier, RISI

The EU Trilogue has struck an agreement on the Packaging and Packaging Waste Regulation (PPWR) after turbulent discussions. Single-use plastic packaging for fresh fruit and vegetables, and fast food in restaurants, will be banned in the EU from 2030. All packaging on the EU market will have to be recyclable by 2030, and take-away businesses will also have to let their customers bring their own containers. Additionally, they must endeavour to offer 10% in packaging formats suitable for re-use. Cardboard packaging are exempt from the re-use and re-fill obligations.

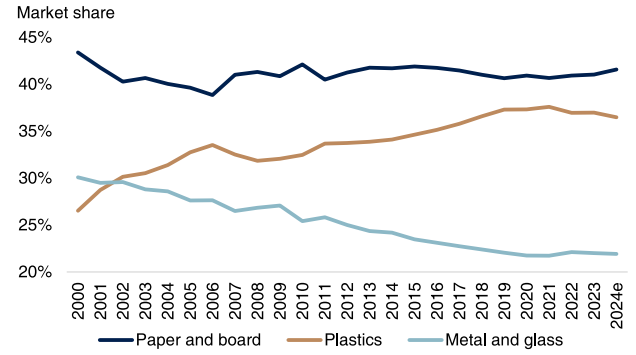
The winners appear to be the paper packaging players (vs. earlier PPWR versions), such as Billerud, Stora, SCA, Metsä Board, and Holmen. Huhtamäki is negatively affected (although

the effects are small), while Elopak is relatively unaffected. The PPWR agreement was approved in the Parliament in April.

Plastic no longer fantastic, but packaging volumes are

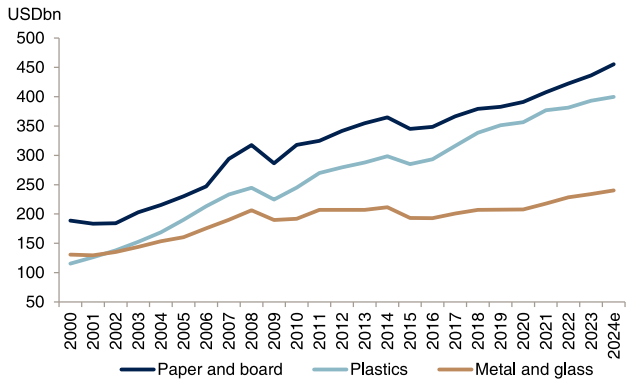
In the last 15-20 years, plastics have gained ~9pp more market share, mainly at the expense of metal and glass. Paper and board's share of the global packaging market is ~41% while the plastics' share is ~37%. The PPWR is likely to reduce the market share of plastic, and a real "war on plastics" would benefit paper-based packaging vs. plastic-based packaging.

Packaging by material, market share



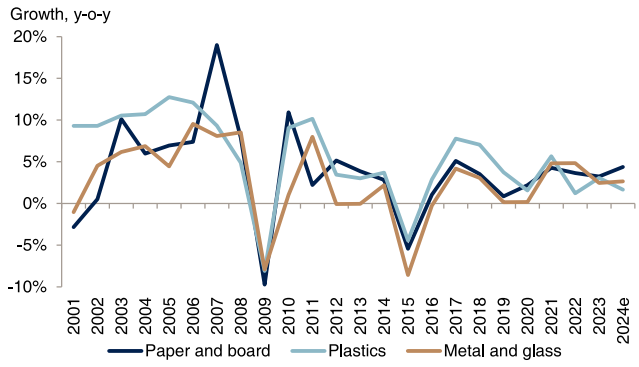
Source: ABG Sundal Collier, Smithers Pira

Packaging by material, market share in USDbn



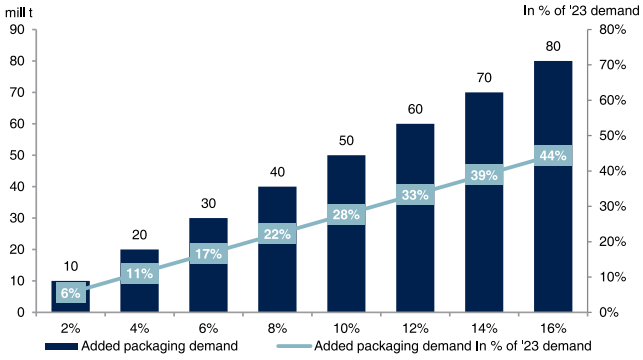
Source: ABG Sundal Collier, Smithers Pira

Packaging by material, growth



Source: ABG Sundal Collier, Smithers Pira

Conversion from plastic to packaging, added demand



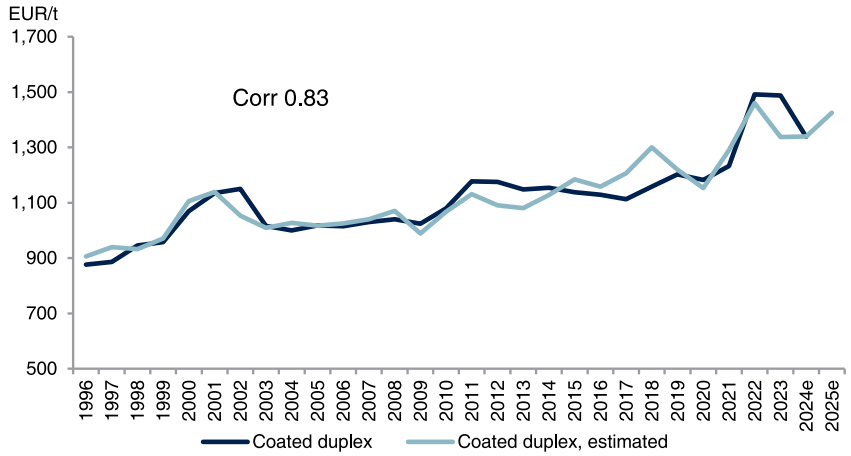
Source: ABG Sundal Collier, Smithers Pira, McKinsey & Company

ABGSC cartonboard price model

Our cartonboard price model is based on the Western European cartonboard operating rate (with a 1Y lag), pulp price, and FX (USD/EUR), and has historically displayed a good fit, with an 83% correlation between estimated and actual prices. Our model points to a lower price in '24. Note, however, that most of this has already played out as the cartonboard price is down 10% so far in '24 vs '23. The model points up for '25 (helped by pulp).

1. The cartonboard price follows the pulp price and a USD 100 increase/decrease in the pulp price impacts the cartonboard price by +/- EUR 40.
2. For each unit increase/decrease in the FX rate (USD/EUR), the cartonboard price will increase/decrease by EUR 552.
3. For each unit increase/decrease in the utilisation rate (with 1-year lag), the price of cartonboard is expected to increase/decrease by EUR 845.

ABGSC cartonboard price model



Source: ABG Sundal Collier, RISI

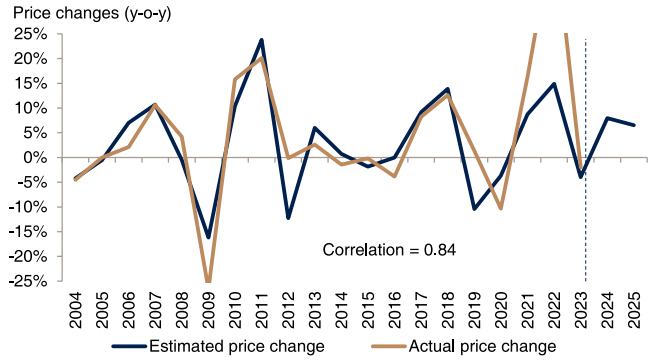
ABGSC sack kraft paper price model

Sack kraft paper (paper bags) prices rose +45% from '20 to '22, but dropped 9% in '23. Note that Russia had 26% of Europe's capacity and 60% of its imports, and the sanctions on Russia have tightened the market balance. This could make the market be "sold out" for several years. We have not yet included this in our market balance/price model, shown below.

Our kraft paper price model points up for '24/'25. The model is based on changes in the operating rate, pulp price and USD/EUR. The model has been decent historically with an 84% correlation between estimated and actual price changes.

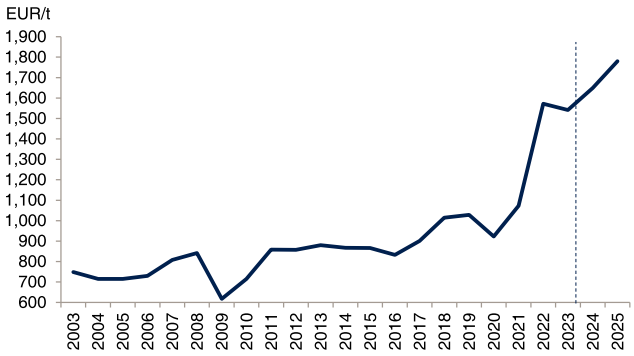
1. A 10% improvement in the operating rate increases kraft paper prices by 14%.
2. A 10% higher pulp price increases kraft paper prices by 3-4%.
3. A 10% stronger USD vs. the EUR increases kraft paper prices by 2-3%.

ABGSC kraft paper model vs. actual prices



Source: ABG Sundal Collier, RISI, Factset

Kraft paper price, historical and ABGSCe



Source: ABG Sundal Collier, RISI

Limited supply coming on stream in the EU

All the announced upcoming capacity changes in the European kraft paper market are listed below. A total of ~285kt are likely to come on-stream in Europe in the '24/'25. The total European capacity for wrapping papers was ~7 mill t in 2023. Hence, the ~285kt of new capacity that is set to come on-stream would increase European capacity by ~4%. This will likely put some pressure on operating rates.

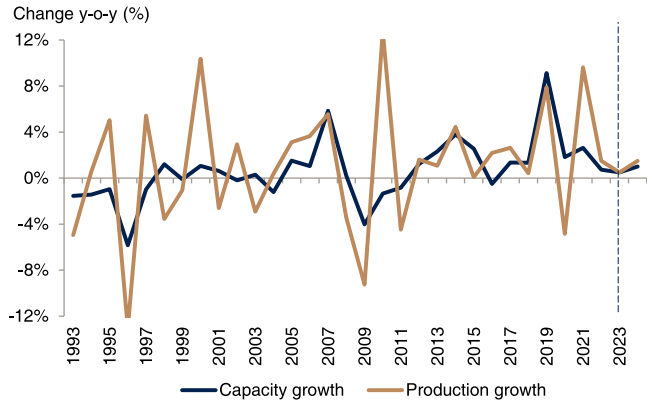
However, note that the kraft paper market is very diverse, e.g. the Steyrermühl kraft paper conversion will target the MG kraft paper market. The MG market is ~3mt, and the new capacity expansion will add ~5% to this sub-market. Also note that the '23 capacity increases came from Russia and Belarus (Segezha), and could stay domestic. In addition, the current strong environmental trends and a potential shift from plastic to kraft paper bags could mean that we are likely to see higher growth rates than we have seen historically.

Packaging paper: Announced new capacity expansion projects globally

Europe					
Company	Mill	Country	Type	Cap. ch. (kt)	Year
International paper	Kwidzyn	Poland	conversion	113	2020
Iberpapel	Hernani	Spain	new PM	85	2020
Mondi	Steti	Czech Republic	conversion	45	2020
Segezha	Segeza mill	Russia	new output internally	50	2021
Ilim Group	Koryazhma	Russia	conversion	70	2023
Svetlogorsk P&C	Svetlogorsk	Belarus	new PM	150	2023
Heinzel	Steyrermühl	Austria	conversion	150	2024
Mondi	Steti	Czech Republic	New PM	210	2025
Total new capacity planned '24-				**285**	

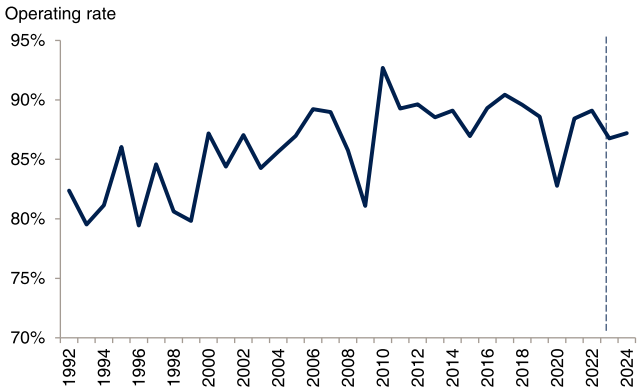
Source: ABG Sundal Collier, Fastmarkets RISI, Company data

Kraft paper EU: production vs. capacity chg.



Source: ABG Sundal Collier, RISI

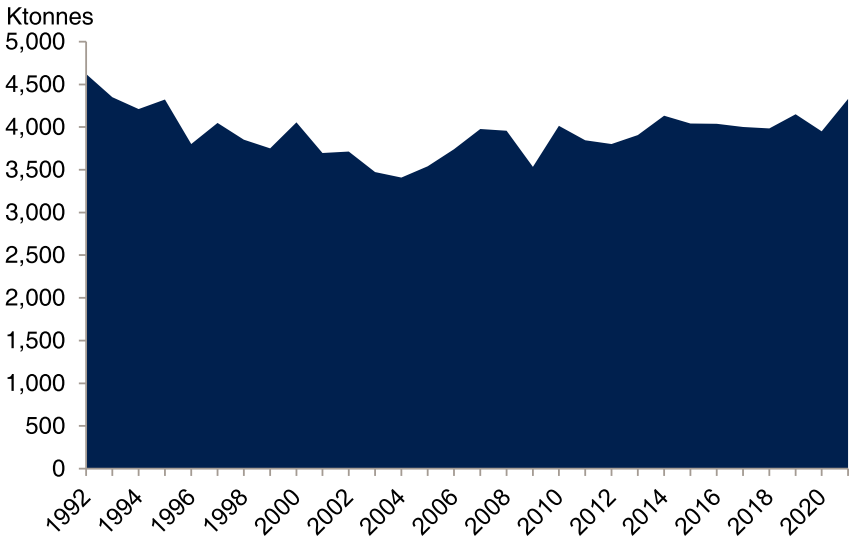
Kraft paper Europe. operating rate



Source: ABG Sundal Collier, RISI

As a proxy for the European market balance for kraft paper, we look at the European market for wrapping paper with data from Fastmarkets RISI (kraft paper makes up 85-95% of this market). European demand for kraft paper has been relatively stable, with a demand CAGR of 1.3% for the past 15 years. This means that the growth in kraft paper consumption has been lower than other packaging grades, which is likely explained by the high growth in plastic packaging, and particularly plastic bags. Plastic bag bans and higher prices for plastic bags could change this (see PPWR discussion).

European kraft paper consumption



Source: ABG Sundal Collier, RISI

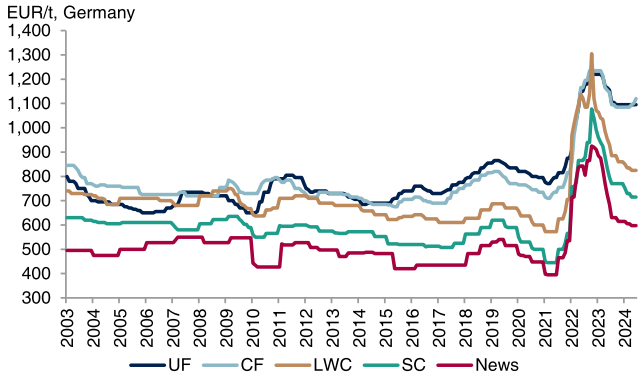
Paper: Better demand, more supply cuts

European paper prices: abating decline and price hikes

Paper prices have been under pressure: down +20% in '23, after doubling from the trough in Q1'21 to the peak in Q1'23 (higher input costs/tighter market balance). We saw the first price increases in Q2'24 (following pulp) with coated fine prices +3%. On average, paper prices fell "only" -0.5% q-o-q vs. -1.4% in Q1'24. US paper prices fell -0.1% in Q2'24 (Apr-May) vs. -2% in Q1'24. Note that Palm announced the first newsprint price hike (+10-13%).

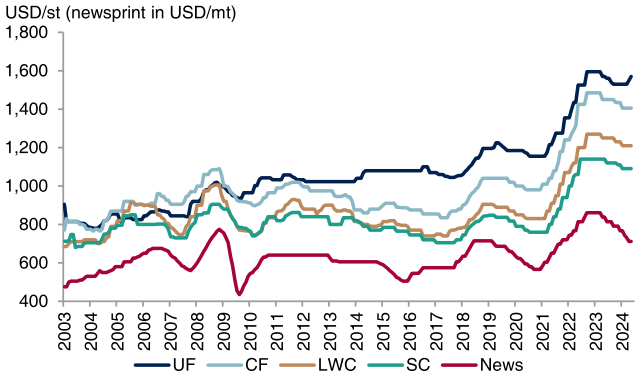
Coated fine fell -11% from peak, but has since risen +3% from trough. Uncoated fine is down -10% while newsprint/magazine prices are down -35% (from peak). The price decline has been much less severe in the Americas (more consolidated market). Prices fell -0.1% in Q2'24 (Apr-May) vs. -2% in Q1'24, which hurts Billerud's newly-acquired Verso Paper. Lower European paper prices are negative for Norske, UPM and Holmen.

European paper prices



Source: ABG Sundal Collier, RISI

US paper prices



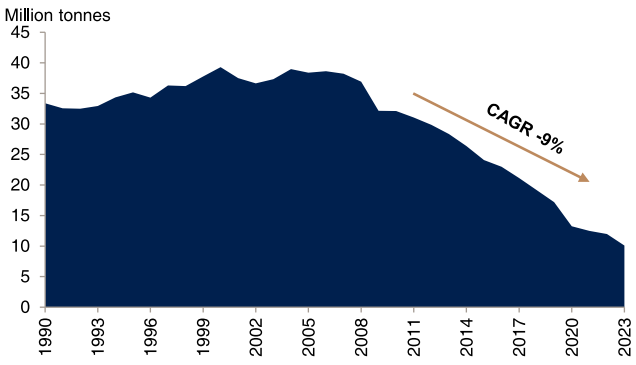
Source: ABG Sundal Collier, RISI

Paper demand — more improvements

Newsprint demand down 9% p.a. the last 10Y

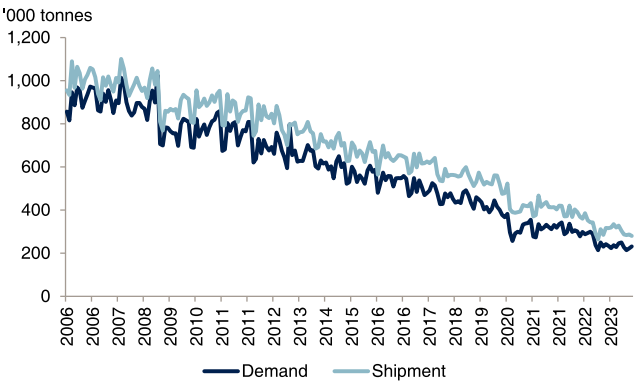
Global demand for newsprint reached a peak of 39 million tonnes in 2000 and has been declining ever since due to conversion from printed newspapers to online services. The structural decline is clearly visible from 2006/2007 in Europe, but happened already in 1999 for North America. The structural decline between 2009 and 2019 was ~6% p.a. However, the COVID-19 pandemic facilitated a shift in demand (-23% decline y-o-y in 2020), and global consumption was 11 million tonnes in 2023 vs 12 million tonnes in 2022 (10Y CAGR -9%).

Global newsprint demand



Source: ABG Sundal Collier, RISI, Bloomberg

European newsprint consumption

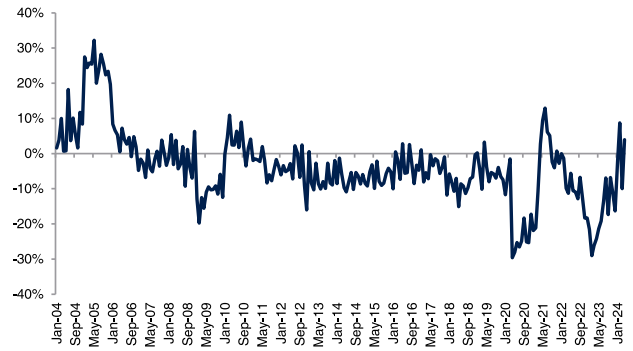


Source: ABG Sundal Collier, Euro-graph

Newsprint shipments were decent in H1'22 (Global -3% y-o-y, Europe -1% y-o-y), but the rapid price surge put pressure on the end-user in H2'22. Furthermore, anticipation of lower

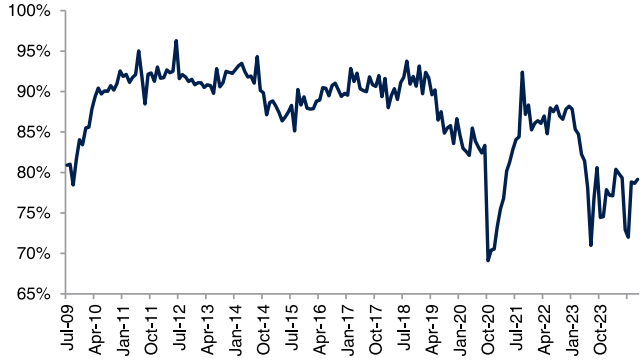
prices and weaker demand led to destocking throughout the value chain from Q4'22-Q4'23. The European newsprint demand situation has seen improvements into '24, though, as shipments "only" fell -1% y-o-y in Q1 (vs. -11% in Q4'23), and +4% in April.

European newsprint shipments, y-o-y



Source: ABG Sundal Collier, Euro-graph

Global newsprint capacity utilisation, %

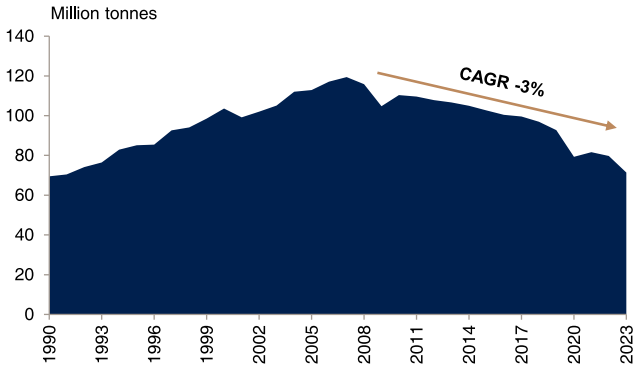


Source: ABG Sundal Collier, Bloomberg. Note: Seasonally adjusted (X11).

Printing & writing paper demand decrease 3% p.a.

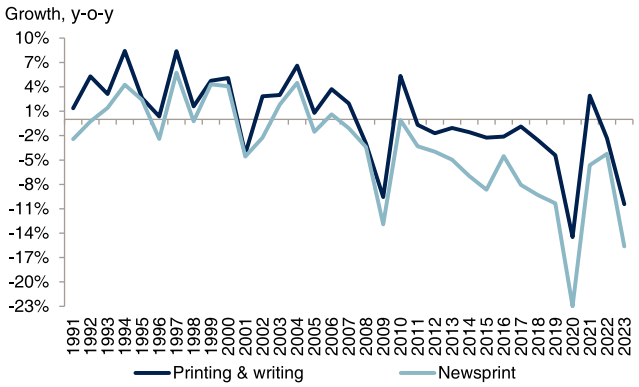
Demand for printing and writing paper (magazine and fine paper) reached a peak in 2007, with global demand of 119 million tonnes. Since then, it has declined by 3% p.a. to ~71 million tonnes in 2023 vs. ~80 million tonnes in 2022.

Global Printing & Writing paper demand



Source: ABG Sundal Collier, RISI, Bloomberg

Consumption growth, y-o-y



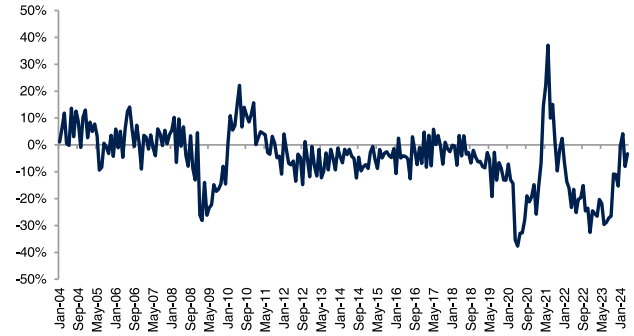
Source: ABG Sundal Collier, RISI, Bloomberg

Magazine paper shipments in Europe decreased "only" ~1% y-o-y in Q1'24 vs. -12% in Q4'23 (-3% in April). Shipments for LWC, the more expensive magazine grade, increased 2% in Q1, while SC was down -7%. There is a substitution effect between the grades, as consumers switch from the high-end paper grades to cheaper lower-end grades when prices increase too much. This is also one of the arguments behind the strong correlation between the publication product grades.

European fine paper shipments fell ~24% in '23, but the situation improved materially into Q1'24, as shipments were up 18% y-o-y in Q1 vs. -4% in Q4'23 (+20% in April). Q1 marked the first quarter with a positive y-o-y increase since Q4'21 (note easy comps though).

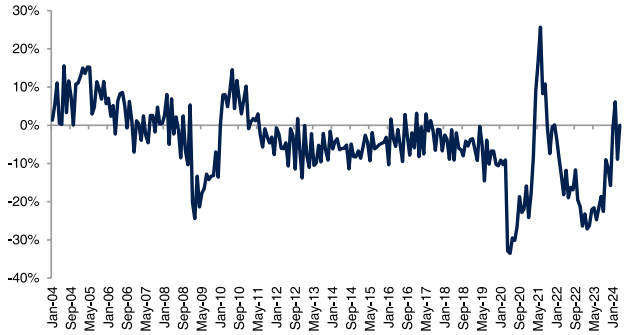
Total paper shipments increased +8% y-o-y in Q1'24 vs. -9% in Q4'23 (+10% in April).

European magazine paper shipments, y-o-y



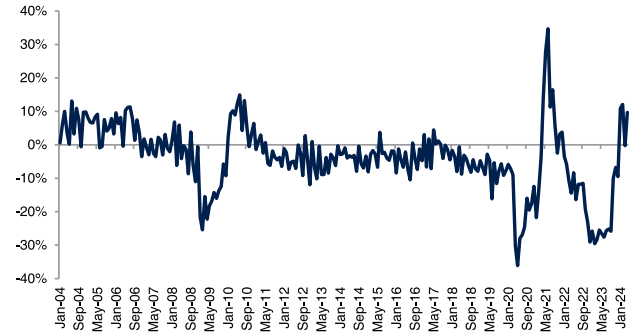
Source: ABG Sundal Collier, Euro-graph

European publication paper shipments, y-o-y



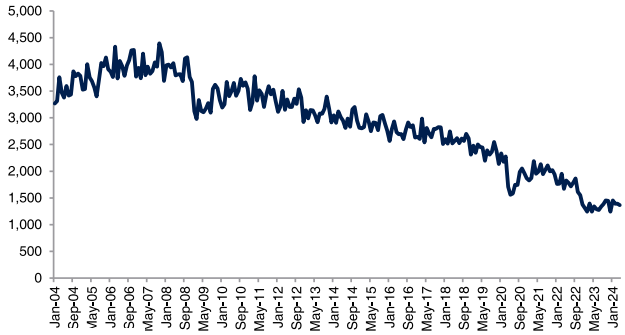
Source: ABG Sundal Collier, Euro-graph

Total paper shipments (all grades), y-o-y



Source: ABG Sundal Collier, Euro-graph

Total European paper shipments (mt)

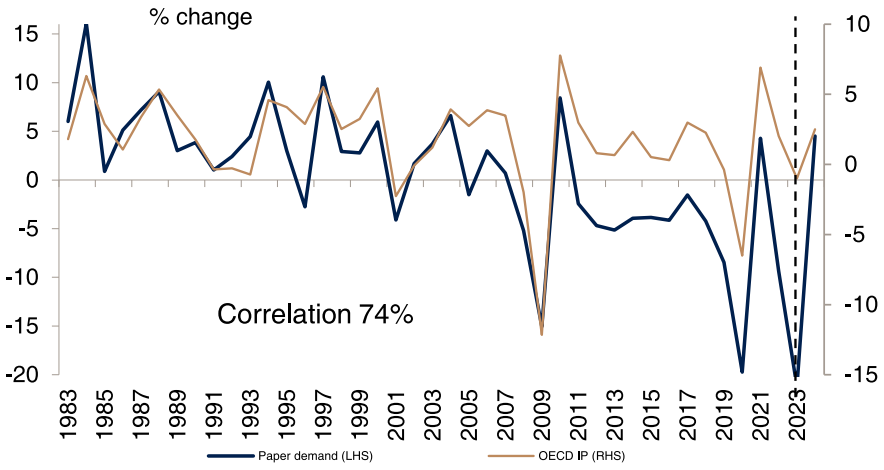


Source: ABG Sundal Collier, Euro-graph

The ABGSC paper demand model: positive trend incoming

Paper demand is cyclical and driven by advertising spending, which can fluctuate significantly from year to year due to the global business cycle (macro growth). We find that OECD industrial production (IP) growth is the best measure/proxy of the cyclical paper demand characteristics.

Paper demand vs. OECD IP growth



Source: ABG Sundal Collier, RISI, Macrobond

We rely heavily on this relationship in our paper demand model. However, we also include a price factor (elasticity) and a time effect (structural decline).

Paper demand model: 1980-2019

	News	UF	CF	SC	LWC	Average
OECD IP, CH%						
Coefficient	1.11	0.60	1.35	0.99	1.47	1.10
Lag (years)	0.00	0.00	0.00	0.00	0.00	0.00
t-stat	6.49	4.42	6.78	5.77	6.98	6.09
Price, CH%						
Coefficient	-0.17	-0.10	-0.28	-0.22	-0.57	-0.27
Lag (years)	1.00	1.00	1.00	1.00	1.00	1.00
t-stat	-3.11	-2.72	-3.78	-2.84	-6.00	-3.69
Year						
Coefficient	-0.26	-0.21	-0.45	-0.17	-0.44	-0.31
Lag (years)	0.00	0.00	0.00	0.00	0.00	0.00
t-stat	-5.36	-5.37	-7.78	-3.35	-6.96	-5.76
Total R-sq in mode	71%	65%	80%	64%	81%	72%

(1) Based on RISI data 1980-2019

Paper demand model: 2007-2019 (structural decline)

	News	UF	CF	SC	LWC	Average
OECD IP, CH%						
Coefficient	0.99	0.54	1.28	0.86	1.68	1.07
Lag (years)	0.00	0.00	0.00	0.00	0.00	0.00
t-stat	6.59	3.79	6.48	5.24	6.26	5.67
Price, CH%						
Coefficient	-0.03	-0.26	0.00	-0.19	-0.01	-0.10
Lag (years)	1.00	1.00	1.00	1.00	1.00	1.00
t-stat	-0.55	-2.37	0.00	-1.42	-0.06	-0.88
Year						
Coefficient	-0.40	-0.11	-0.39	-0.48	-0.47	-0.37
Lag (years)	0.00	0.00	0.00	0.00	0.00	0.00
t-stat	-2.52	-0.68	-1.60	-2.63	-1.74	-1.83
Total R-sq in mode	83%	74%	82%	83%	86%	81%

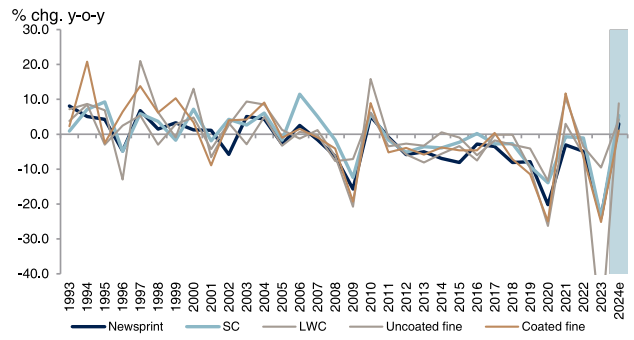
(1) Based on RISI data 2007-2019

The results in the table above show that paper demand can be well approximated by this approach. All coefficients have the expected sign and are statistically significant.

1. **The business cycle factor** – or the growth in OECD industrial production (no time lags): As Western Europe is a net exporter of paper, global economic growth better explains its shipment growth than European economic growth. A 1% higher OECD IP growth leads to ~1.1% higher paper shipments.
2. **The price factor** – or the change in paper price in the previous year: A decrease in the price in the previous year should be positive for demand in the subsequent year, and vice versa. A 1% paper price increase tends to decrease next year's paper shipments by ~0.3%.
3. **Structural decline factor** - To capture the structural decline in paper demand, we include a time variable (year). The data shows that shipment growth tends to drop by ~0.3pp per year (over the entire period).

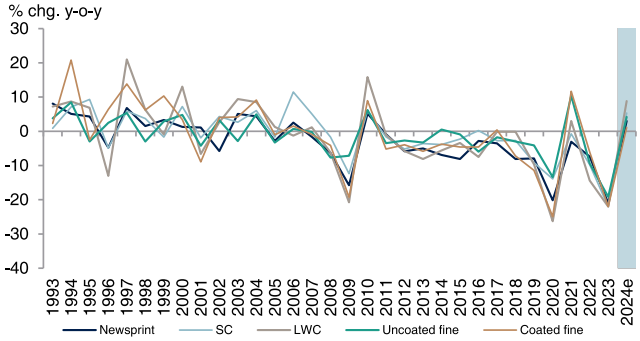
Putting the model to action, the overall demand picture in 2024 looks better than 2023. Paper prices rose 40-89% in 2022, which put significant pressure on demand in 2023. In the chart to the left below, we assume the actual paper price decrease in 2023. This is driven by lower energy/RCP costs as previously discussed. In the chart to the right, we assume ABGSC's paper price model instead of actual prices for '22-'23 as a measure to capture the normalised price excluding the energy price effect in 2022. Furthermore, we assume -1% IP growth in 2023 and +2.5% for 2024. The models suggest a 1-9% demand increase in 2024. We note that the unprecedented surge in paper prices in 2022 is out of the sample range for the parameters of our demand model, and the model estimate is naturally more uncertain than normal.

ABGSC paper demand model



Source: ABG Sundal Collier, RISI

ABGSC demand model: normalised paper prices



Source: ABG Sundal Collier, RISI

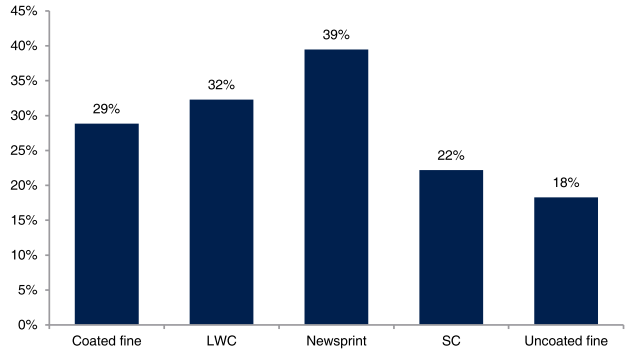
Even more capacity cuts: ~15% in '24/25

Capacity cuts were plentiful in '20-'22, which also led to a tighter market balance for most paper grades, but too small for '23 at 3%. For '24, we previously expected capacity cuts of ~10%. However, more cuts have been announced: UPM will permanently close its Hürth newsprint mill (330kt or 9% of W-European supply) and shut one uncoated fine paper machine at Nordland Papier (280kt or 5% of W-European supply) and Sappi has ceased coated fine paper production at its Lanaken mill (265kt). As a result, we now expect ~15% capacity cuts for '24 and '25.

The cuts are still below what is needed to keep capacity utilisation at adequate levels, but it is an improvement nonetheless. SC seems the most promising with ~30% of the capacity being closed (mainly driven by UPM's closure of the Plattling mill). Coated fine, uncoated fine, and newsprint have improved vs. previously, now standing at ~12%, ~13%, and ~22%, respectively (~6%, ~9%, and ~15% previously).

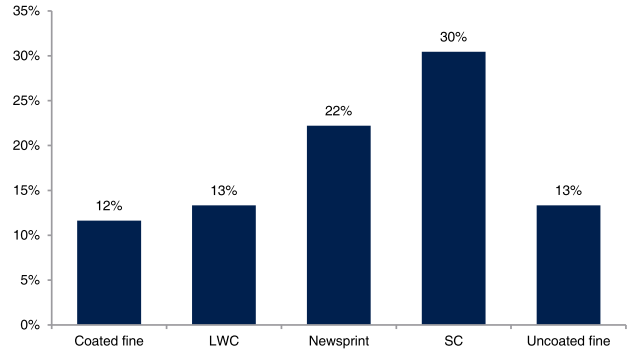
A total of ~9.6m tonnes of paper capacity cuts have been announced for ’21-’25. The majority of the cuts were announced by SCA, Stora, UPM and Norske Skog. Furthermore, several paper producers have announced that they will convert their paper mills to packaging. Norske Skog plans to convert 360kt of newsprint capacity to containerboard. Stora Enso, VPK, Ilim, Smurfit Kappa and Heinzel have all announced conversions for ’22-’25, and UPM has sold its Shotton newsprint mill and its Steyrermühl mill for conversion. Below, we list the recently announced capacity cuts in Europe.

Significant paper capacity cuts in '20-'22



Source: ABG Sundal Collier, RISI

Coated fine and magazine needs more cuts '23-'25



Source: ABG Sundal Collier, RISI

New paper capacity cuts in Europe

Major capacity cuts ('000t/y)

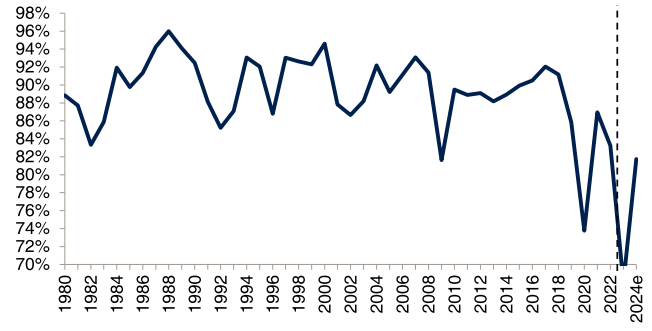
Country	Company	Mill	Grade	2021	2022	2023	2024	2025
France	Lecta	Condat le Lardin	CWF	0	0	0	-210	0
France	Arjowiggins	Alizay	UWF	0	-215	-85	0	0
Germany	UPM	Plattling	CME, lwc	0	0	0	-225	0
Germany	UPM	Plattling	UME, sc, oth	0	0	0	-405	0
Finland	UPM	Kaipola	NEW	-240	0	0	0	0
Finland	UPM	Kaipola	CME, lwc	-205	0	0	0	0
France	UPM	Chapelle Darblay	NEW	-50	0	0	0	0
Finland	Stora Enso	Oulu	CWF	-700	0	0	0	0
Germany	Sappi	Stockstadt	CWF	-180	0	0	0	0
Norway	Norske Skog	Saugbrugs	UME, sc	-115	0	0	-35	0
Sweden	SCA	Ortviken	CME, lwc	-475	-5	0	0	0
Sweden	Stora Enso	Hyltebruk	NEW	-235	0	0	0	0
Sweden	Stora Enso	Kvarnsveden	UME, sc	-150	-250	0	0	0
Finland	Stora Enso	Veitsiluoto	UWF	-265	-300	0	0	0
Finland	Stora Enso	Veitsiluoto	CME	-115	-110	0	0	0
United Kingdom	UPM	Shotton	NEW	-85	-170	0	0	0
Germany	Stora Enso	Sachsen	NEW	0	0	-245	-50	0
Austria	Norske Skog	Bruck	NEW	0	-85	-40	0	0
France	VPK	Alizay	UWF	0	-215	-85	0	0
France	Norske Skog	Golbey	NEW	0	0	-135	-35	0
Austria	UPM	Steyrermuhl	NEW, imp	0	0	-135	-135	0
Germany	UPM	Schongau	UME	0	0	-95	-95	0
Finland	Stora Enso	Anjala	UME	0	0	-63	-188	0
Germany	Sappi	Stockstadt	UWF	0	0	0	-245	0
Austria	Heinzel	Laakirchen	UME, sc	0	0	0	0	-350
Sweden	Holmen	Braviken	UME, mf, dir	0	0	0	-25	-85
Italy	Burgo Group	Duino	CME	0	0	0	-200	0
Germany	Leipa	Schwedt	CME	0	0	0	-180	0
Germany	UPM	Hurth	NEW	0	0	0	-55	-275
Germany	UPM	Nordland	UWF	0	0	0	-47	-233
Belgium	Sappi	Lanaken	CWF	110	15	0	-265	0
Announced capacity changes selected companies				**-2900**	**-1445**	**-882.5**	**-2404**	**-943**
Other projects				-605	-27	30	-413	0
Total announced capacity changes				**-3,505**	**-1,472**	**-853**	**-2,817**	**-943**
Total capacity change, y-o-y				*-11%*	*-5%*	*-3%*	*-11%*	*-4%*

Source: ABG Sundal Collier, RISI

Capacity utilisation set to improve in '24

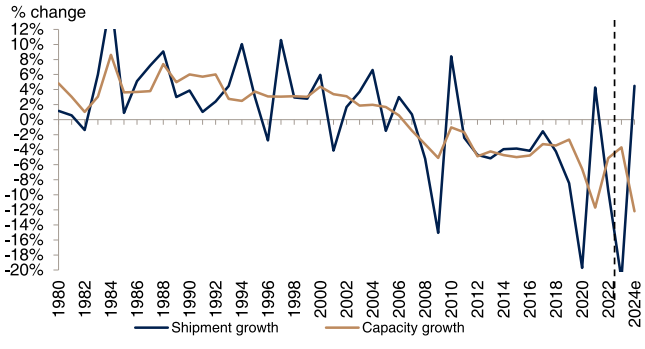
The announcement of only 3% capacity cuts for '23 was too low compared to the actual demand decline of 20-25%. Hence, the capacity utilisation rate fell to 68%. Historically, the capacity utilisation rate has been ~89%. However, the expected cuts of 15% in '24-'25 shows that the market is moving in the right direction. Combined with a potential +4-5% better demand in '24e suggested by our demand model (much lower prices in '23), the utilisation rate is set to increase in '24e. We previously expected the overall paper utilisation rate to reach 79-80% in '24e vs. 68% in '23, but with the fresh cuts we now see it reaching 81-82%. However, if the demand increase of ~8% seen so far in '24 persist throughout the year, the utilisation rate could reach +85%.

Paper: capacity utilisation



Source: ABG Sundal Collier, RISI

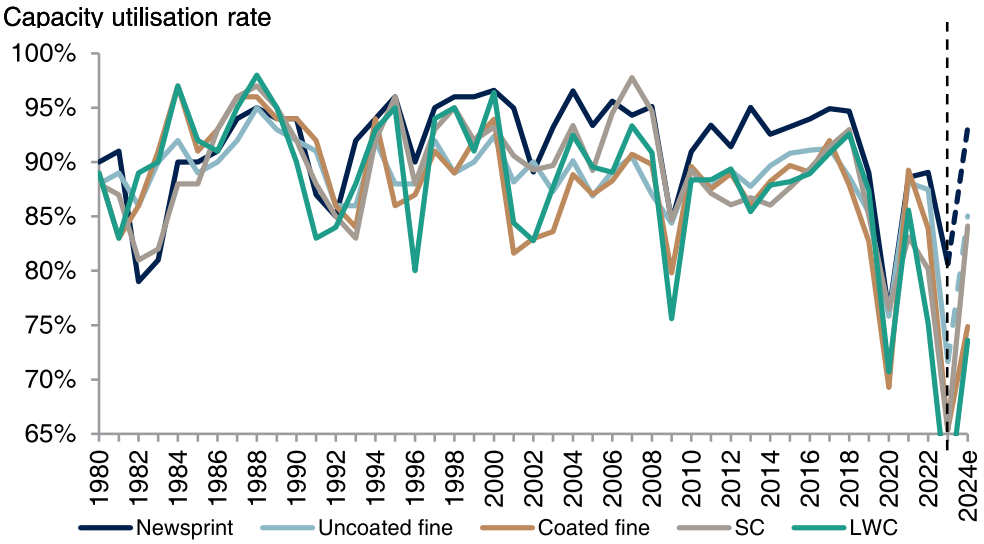
Paper: capacity cuts vs. shipment growth



Source: ABG Sundal Collier, RISI

UPM's cut improve the newsprint and uncoated fine paper market balances significantly: The newsprint utilisation rate would rise to ~93% vs 85% earlier and the uncoated fine paper utilisation rate would rise to ~85% vs. 80% earlier. The market balance for magazine paper is weak (better for SC than LWC) and more capacity cuts are needed to support prices.

Capacity utilisation rate per grade



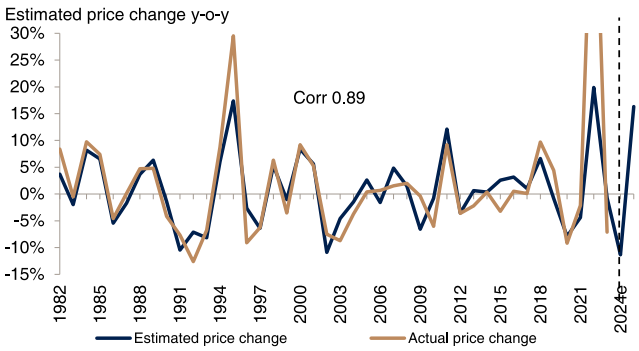
Source: ABG Sundal Collier, RISI

The ABGSC paper price model: up in '25

Our paper price model based on input costs (gas, RCP) points to 35-40% price decline into 2024 vs. 2022. In this section, we show our predictions based on our more fundamental and macro-driven price model. The price model is based on the capacity utilisation rate, the pulp price and USD/EUR. Note that there is a one-year lag on average between paper prices and the drivers below.

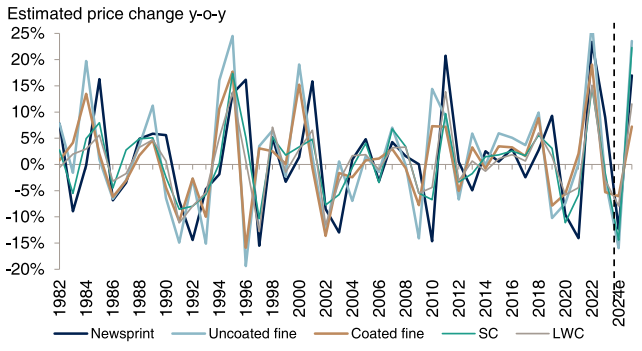
1. **Capacity utilisation rate:** A 10% higher utilisation rate has a 9% effect on paper prices.
2. **Pulp:** A 10% increase in pulp prices increases paper prices by 3%.
3. **USD/EUR:** A 10% stronger USD vs. EUR increases paper prices by 4%.

ABGSC paper price model



Source: ABG Sundal Collier, RISI

ABGSC paper price model per grade



Source: ABG Sundal Collier, RISI

Our model suggests paper prices down ~10% in '24 (which has already happened by now). For '25 however, our model points to prices up 15-20%, driven by higher pulp prices and improved capacity utilisation in '24. Notably, newsprint prices looks set to increase +20% in '25, while uncoated fine prices could increase 20-25%, both significantly driven by the UPM cuts.

The table below shows the lag mechanism at work: pulp prices lag OECD IP growth by three quarters and the different paper/packaging grades lag the pulp price by 0-3 quarters. The share prices move in tandem with OECD IP growth and three quarters ahead of earnings.

Correlation analysis between P&P grades, macro and product prices

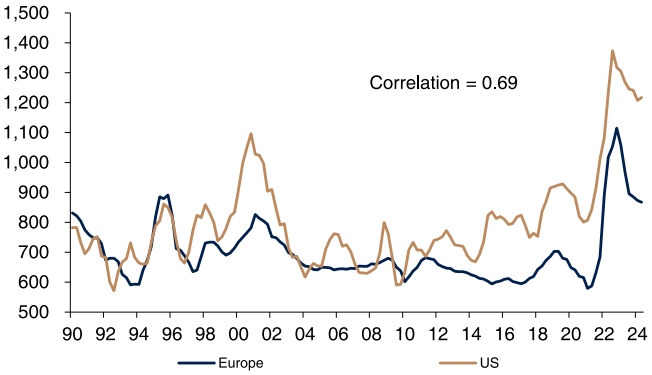
Correlation analysis			Time lag (quarters)				
Product price	vs	variable	0	1	2	3	4
P/BV paper stocks		OECD IP q-o-q	60%				
Pulp (NBSK)		OECD IP q-o-q				65%	
Sawn goods		Pulp (NBSK)	79%				
Containerboard		Pulp (NBSK)	85%				
Coated fine paper		Pulp (NBSK)	80%				
Uncoated fine paper		Pulp (NBSK)	80%				
Kraft paper		Pulp (NBSK)		81%			
Magazine paper (LWC)		Pulp (NBSK)		65%			
Magazine paper (SC)		Pulp (NBSK)			65%		
Cartonboard		Pulp (NBSK)			57%		
Newsprint		Pulp (NBSK)				80%	
Tissue		Pulp (NBSK)				86%	
			Early cyclicals	Late cyclicals			

Source: ABG Sundal Collier

US paper prices at a ~40% premium vs. European prices

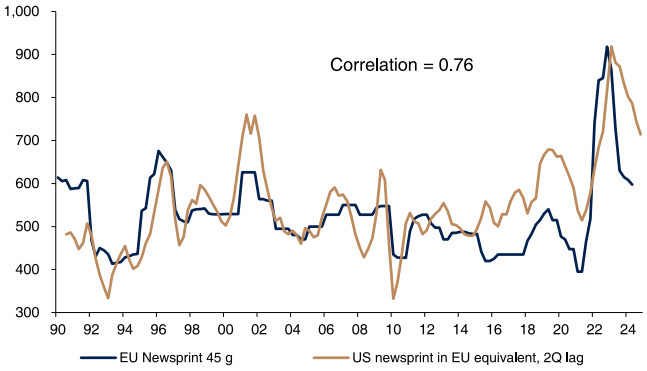
Average US paper prices measured in EUR in Q2'24 were ~40% above European prices vs. the all-time high spread of ~48% in Q4'21 and ~38% in Q1'24. The spread is still above the historical average of ~15%. For newsprint, US prices are ~20% above European prices vs. the usual premium of ~5%. Paper prices tend to move in tandem in the two regions when quoted in the same currency, but the link has become weaker post-2011. The prices spread out at the same time as consolidation levels in North America increased.

Paper index US vs. Europe



Source: ABG Sundal Collier, RISI

Newsprint US vs. Europe

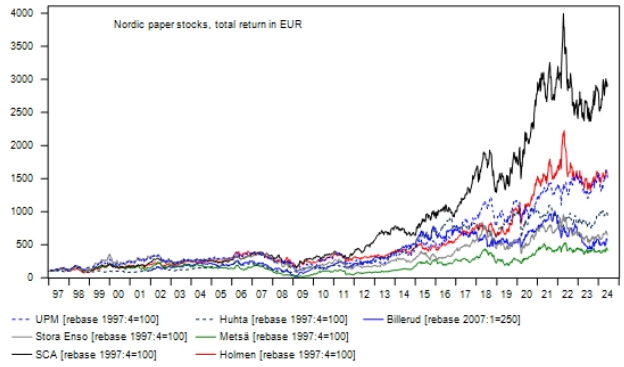


Source: ABG Sundal Collier, RISI

The integrated players win (forest/energy owners)

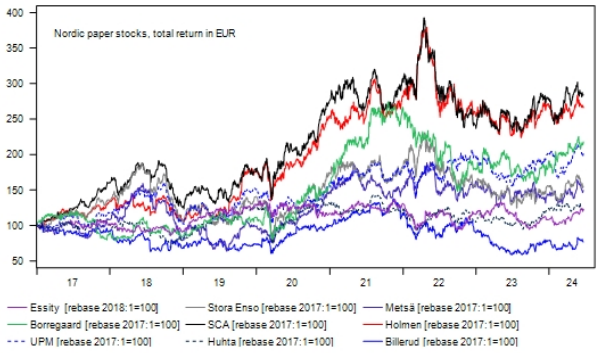
The graphs below show that SCA and Holmen have outperformed their peers in terms of total returns to shareholders (forest assets), together with UPM (energy assets) during the last 25 years. Borregaard seems to belong to the same club, but it has a shorter period as a separately listed company. These are the same companies that have the best asset quality and margins over time.

Total return since 1997



Source: ABG Sundal Collier

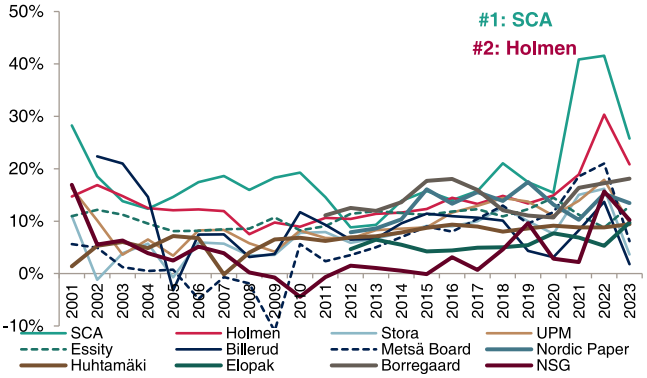
Total return since 2017



Source: ABG Sundal Collier

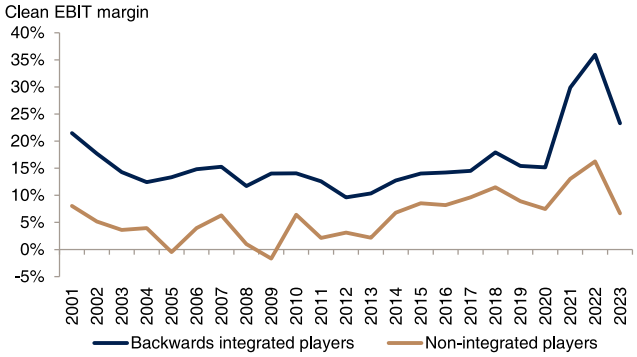
The two players that have historically been backward-integrated with significant forest assets, SCA and Holmen, stand out with the highest margins over time. SCA's EBIT margin has averaged 28% over the last five years, while Holmen has achieved a 20% EBIT margin. The other players have 9-11% margins on average, and we can clearly see the margin difference between the backward-integrated and non-integrated companies over time. The risk with this approach is that we can become backward-looking, but in this case we reckon that the past is a good guide for the future.

Clean EBIT margins per company



Source: ABG Sundal Collier, Company data

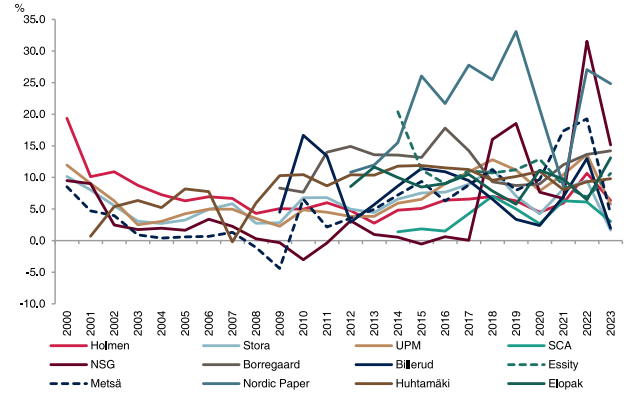
Margin integrated vs. non-integrated players



Source: ABG Sundal Collier, Company data

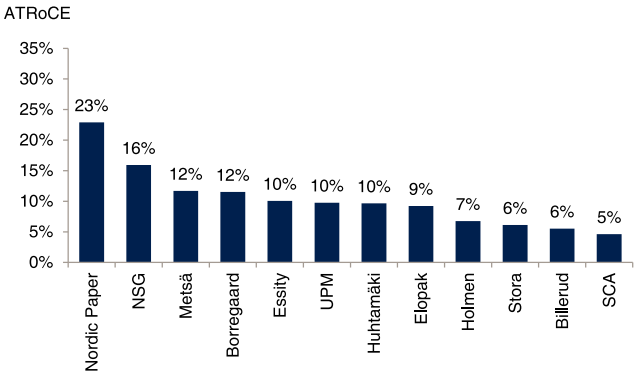
Ideally, we would have used after-tax return on capital employed (ATRoCE) as the benchmark. The problem with this metric is that capital employed is not calculated in the same way across the companies. SCA, Holmen and Stora have revalued their forest assets to real transaction values, which lowers ATRoCE significantly. Norske, Nordic Paper and Borregaard have old, very depreciated assets, which increases ATRoCE.

ATRoCE per company



Source: ABG Sundal Collier, Company data

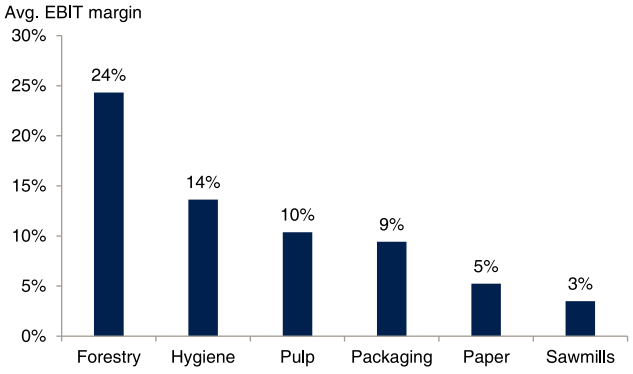
ATRoCE last 5y



Source: ABG Sundal Collier

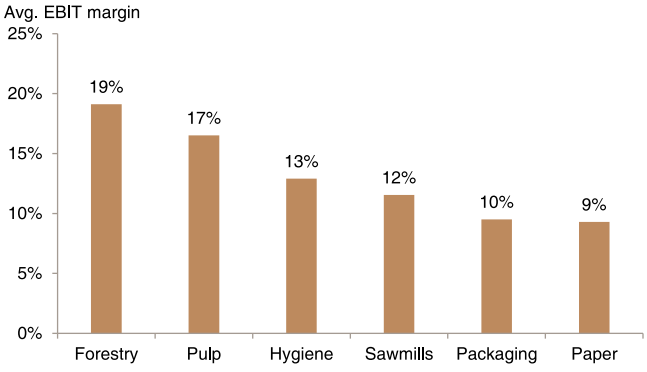
When we look at international pure plays a similar pattern emerges. Forestry is the most profitable segment here as well, with an average EBIT margin of ~24%. Thereafter, Hygiene follows with ~14%, Pulp (10%) and Packaging (9%). Paper and Sawmills are found at the bottom with margins of ~5% and ~3%, respectively.

Average historical EBIT margins per category



Source: ABG Sundal Collier, Compay data

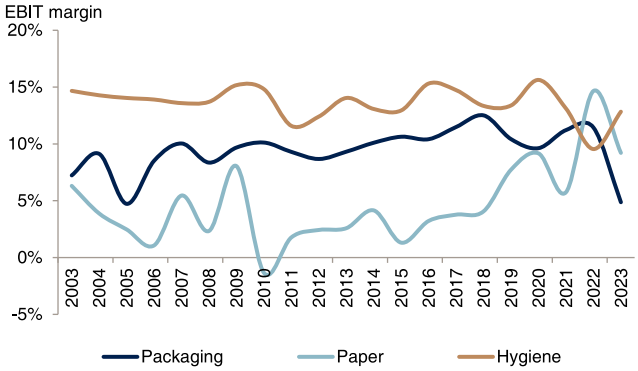
Average EBIT margins per category, '19-'23



Source: ABG Sundal Collier, Company data

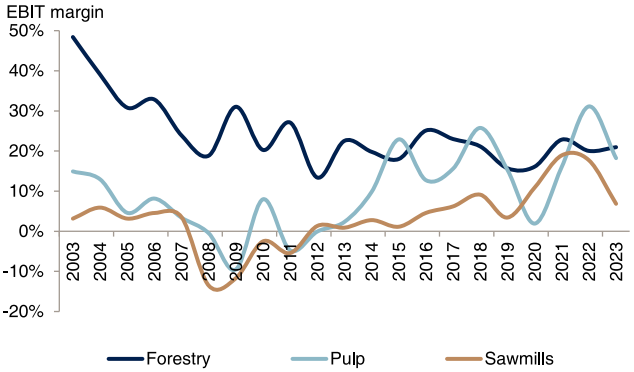
Looking at the historical time series, we see that Forestry, Hygiene and Packaging have almost consistently outperformed the other segments over time. Note, however, how pulp margins have risen over time, and especially in the last 5-year period.

Average EBIT margin by segment



Source: ABG Sundal Collier, Company data

Average EBIT margin by segment



Source: ABG Sundal Collier, Company data

Income Statement (SEKm)	2017	2018	2019	2020	2021	2022	2023	2024e	2025e	2026e
Sales	16,134	16,229	16,957	16,343	19,480	23,952	22,798	22,591	22,153	21,584
COGS	-12,996	-12,809	-13,550	-12,738	-14,538	-15,345	-16,684	-17,552	-16,830	-16,012
Gross profit	3,138	3,420	3,407	3,605	4,942	8,607	6,114	5,040	5,323	5,572
EBITDA	**3,138**	**3,420**	**3,407**	**3,605**	**4,942**	**8,607**	**6,114**	**5,040**	**5,323**	**5,572**
Depreciation and amortisation	-991	-1,014	-1,140	-1,172	-1,260	-1,344	-1,359	-1,364	-1,344	-1,344
EBITA	**2,147**	**2,406**	**2,267**	**2,433**	**3,682**	**7,263**	**4,755**	**3,676**	**3,979**	**4,228**
EBIT	**2,147**	**2,406**	**2,267**	**2,433**	**3,682**	**7,263**	**4,755**	**3,676**	**3,979**	**4,228**
Net financial items	-54	-26	-34	-42	-39	-88	-49	-57	-60	-60
Pretax profit	**2,113**	**2,356**	**11,083**	**2,439**	**3,691**	**7,442**	**4,706**	**3,619**	**3,919**	**4,168**
Tax	-445	-89	-2,350	-458	-688	-1,566	-1,009	-792	-862	-917
Net profit	**1,668**	**2,267**	**8,733**	**1,981**	**3,003**	**5,876**	**3,697**	**2,827**	**3,056**	**3,251**
Net profit to shareholders	**1,668**	**2,267**	**8,733**	**1,981**	**3,003**	**5,876**	**3,697**	**2,827**	**3,056**	**3,251**
EPS	19.68	16.42	53.67	12.23	18.55	36.29	22.83	18.03	19.60	20.84
EPS adj.	19.44	13.64	-0.72	11.94	18.25	34.64	22.83	18.12	19.60	20.84
Total extraordinary items after tax	20	-24	8,850	48	48	267	0	0	0	0
Tax rate (%)	*21.1*	*3.8*	*21.2*	*18.8*	*18.6*	*21.0*	*21.4*	*21.9*	*22.0*	*22.0*
Gross margin (%)	*19.4*	*21.1*	*20.1*	*22.1*	*25.4*	*35.9*	*26.8*	*22.3*	*24.0*	*25.8*
EBITDA margin (%)	*19.4*	*21.1*	*20.1*	*22.1*	*25.4*	*35.9*	*26.8*	*22.3*	*24.0*	*25.8*
EBITA margin (%)	*13.3*	*14.8*	*13.4*	*14.9*	*18.9*	*30.3*	*20.9*	*16.3*	*18.0*	*19.6*
EBIT margin (%)	*13.3*	*14.8*	*13.4*	*14.9*	*18.9*	*30.3*	*20.9*	*16.3*	*18.0*	*19.6*
Pre-tax margin (%)	*13.1*	*14.5*	*65.4*	*14.9*	*18.9*	*31.1*	*20.6*	*16.0*	*17.7*	*19.3*
Net margin (%)	*10.3*	*14.0*	*51.5*	*12.1*	*15.4*	*24.5*	*16.2*	*12.5*	*13.8*	*15.1*
Growth Rates y-o-y	-	-	-	-	-	-	-	-	-	-
Sales growth (%)	*7.8*	*0.6*	*4.5*	*-3.6*	*19.2*	*23.0*	*-4.8*	*-0.9*	*-1.9*	*-2.6*
EBITDA growth (%)	*-1.3*	*9.0*	*-0.4*	*5.8*	*37.1*	*74.2*	*-29.0*	*-17.6*	*5.6*	*4.7*
EBITA growth (%)	*-0.7*	*12.1*	*-5.8*	*7.3*	*51.3*	*97.3*	*-34.5*	*-22.7*	*8.2*	*6.3*
EBIT growth (%)	*-0.7*	*12.1*	*-5.8*	*7.3*	*51.3*	*97.3*	*-34.5*	*-22.7*	*8.2*	*6.3*
Net profit growth (%)	*17.2*	*35.9*	*285.2*	*-77.3*	*51.6*	*95.7*	*-37.1*	*-23.5*	*8.1*	*6.4*
EPS growth (%)	*17.2*	*-16.6*	*nm*	*-77.2*	*51.6*	*95.7*	*-37.1*	*-21.0*	*8.7*	*6.4*
Profitability	-	-	-	-	-	-	-	-	-	-
ROE (%)	*7.7*	*10.0*	*27.5*	*4.8*	*6.7*	*11.3*	*6.5*	*4.9*	*5.2*	*5.2*
ROE adj. (%)	*7.6*	*10.1*	*-0.4*	*4.7*	*6.6*	*10.8*	*6.5*	*4.9*	*5.2*	*5.2*
ROCE (%)	*8.5*	*9.2*	*31.4*	*5.4*	*7.5*	*13.4*	*7.9*	*6.1*	*6.5*	*6.8*
ROCE adj. (%)	*8.5*	*9.3*	*6.4*	*5.3*	*7.4*	*12.9*	*7.9*	*6.1*	*6.5*	*6.8*
ROIC (%)	*6.8*	*9.0*	*5.1*	*4.4*	*6.1*	*10.4*	*6.3*	*4.8*	*5.1*	*5.3*
ROIC adj. (%)	*6.8*	*9.0*	*5.1*	*4.4*	*6.1*	*10.4*	*6.3*	*4.8*	*5.1*	*5.3*
Adj. earnings numbers	-	-	-	-	-	-	-	-	-	-
EBITDA adj.	*3,138*	*3,420*	*3,407*	*3,605*	*4,942*	*8,607*	*6,114*	*5,040*	*5,323*	*5,572*
EBITDA adj. margin (%)	*19.4*	*21.1*	*20.1*	*22.1*	*25.4*	*35.9*	*26.8*	*22.3*	*24.0*	*25.8*
EBITDA lease adj.	3,138	3,420	3,407	3,605	4,942	8,607	6,114	5,040	5,323	5,572
EBITDA lease adj. margin (%)	*19.4*	*21.1*	*20.1*	*22.1*	*25.4*	*35.9*	*26.8*	*22.3*	*24.0*	*25.8*
EBITA adj.	2,147	2,406	2,267	2,433	3,682	7,263	4,755	3,676	3,979	4,228
EBITA adj. margin (%)	*13.3*	*14.8*	*13.4*	*14.9*	*18.9*	*30.3*	*20.9*	*16.3*	*18.0*	*19.6*
EBIT adj.	2,147	2,406	2,267	2,433	3,682	7,263	4,755	3,676	3,979	4,228
EBIT adj. margin (%)	*13.3*	*14.8*	*13.4*	*14.9*	*18.9*	*30.3*	*20.9*	*16.3*	*18.0*	*19.6*
Pretax profit Adj.	2,093	2,380	2,233	2,391	3,643	7,175	4,706	3,619	3,919	4,168
Net profit Adj.	1,648	2,291	-117	1,933	2,955	5,609	3,697	2,827	3,056	3,251
Net profit to shareholders adj.	1,648	2,291	-117	1,933	2,955	5,609	3,697	2,827	3,056	3,251
Net adj. margin (%)	*10.2*	*14.1*	*-0.7*	*11.8*	*15.2*	*23.4*	*16.2*	*12.5*	*13.8*	*15.1*

Source: ABG Sundal Collier, Company Data

Cash Flow (SEKm)	2017	2018	2019	2020	2021	2022	2023	2024e	2025e	2026e
EBITDA	3,138	3,420	3,407	3,605	4,942	8,607	6,114	5,040	5,323	5,572
Net financial items	-54	-26	-34	-42	-39	-88	-49	-57	-60	-60
Paid tax	-445	-89	-2,350	-458	-688	-1,566	-1,009	-792	-862	-917
Cash flow before change in WC	2,639	3,305	1,023	3,105	4,215	6,953	5,056	7,996	4,400	4,595
Change in working capital	91	618	149	-678	881	2,046	-1,081	-963	-1,529	-1,863
Operating cash flow	**2,730**	**3,923**	**1,172**	**2,427**	**5,096**	**8,999**	**3,975**	**7,033**	**2,872**	**2,732**
Capex tangible fixed assets	-950	-900	-1,071	-1,783	-1,307	-900	-2,000	-2,000	-2,000	-2,000
Free cash flow	**1,780**	**3,023**	**101**	**644**	**3,789**	**8,099**	**1,975**	**5,033**	**872**	**732**
Dividend paid	-1,017	-1,017	-1,134	-567	-1,741	-1,822	-2,591	-1,862	-1,404	-1,404
Share issues and buybacks	0	0	0	0	0	0	0	0	0	0
Other non-cash items	209	-2,066	-4,404	-745	-3,008	-6,201	524	-3,848	2,432	4,162
Balance Sheet (SEKm)	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024e**	**2025e**	**2026e**
Other intangible assets	0	0	0	0	0	0	0	0	0	0

Balance Sheet (SEKm)	2017	2018	2019	2020	2021	2022	2023	2024e	2025e	2026e
Tangible fixed assets	27,044	28,015	50,959	53,559	57,842	63,046	67,504	67,941	67,397	66,853
Total other fixed assets	1,749	1,740	1,620	1,717	1,756	1,680	1,686	1,688	1,688	1,688
Fixed assets	28,793	29,755	52,579	55,276	59,598	64,726	69,190	69,629	69,085	68,541
Receivables	32	35	14	43	39	18	50	61	61	61
Other current assets	5,710	6,844	6,264	5,962	7,957	14,757	9,277	9,128	9,299	9,136
Cash and liquid assets	356	278	483	1,262	507	1,935	1,202	373	373	373
Total assets	**34,891**	**36,912**	**59,340**	**62,543**	**68,101**	**81,436**	**79,719**	**79,191**	**78,818**	**78,111**
Shareholders equity	22,035	23,453	40,111	42,516	46,992	56,950	56,923	57,499	60,555	63,806
Total equity	**22,035**	**23,453**	**40,111**	**42,516**	**46,992**	**56,950**	**56,923**	**57,499**	**60,555**	**63,806**
Long-term debt	3,292	3,085	4,267	5,443	4,608	4,080	3,071	2,868	968	-742
Total other long-term liabilities	5,650	5,839	10,299	10,570	11,610	13,490	13,858	13,909	13,909	12,129
Short-term debt	-	-	-	-	-	-	-	-	-	-
Accounts payable	3,914	4,535	4,663	4,014	4,891	6,916	5,867	4,915	3,386	2,919
Total liabilities and equity	**34,891**	**36,912**	**59,340**	**62,543**	**68,101**	**81,436**	**79,719**	**79,191**	**78,818**	**78,111**
Net IB debt	2,936	2,807	3,784	4,181	4,101	2,145	1,869	2,495	595	-1,115
Net IB debt excl. pension debt	2,936	2,807	3,784	4,181	4,101	2,145	1,869	2,495	595	-1,115
Net IB debt excl. leasing	2,936	2,807	3,784	4,181	4,101	2,145	1,869	2,495	595	-1,115
Capital employed	25,327	26,538	44,378	47,959	51,600	61,030	59,994	60,367	61,523	63,064
Capital invested	24,971	26,260	43,895	46,697	51,093	59,095	58,792	59,994	61,150	62,691
Working capital	1,828	2,344	1,615	1,991	3,105	7,859	3,460	4,274	5,974	6,279
EV breakdown	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Market cap. diluted (m)	35,598	70,560	68,009	68,009	68,009	68,009	68,009	65,501	65,501	65,501
Net IB debt adj.	2,936	2,807	3,784	4,181	4,101	2,145	1,869	2,495	595	-1,500
Market value of minority	0	0	0	0	0	0	0	0	0	0
Reversal of shares and participations	-1,749	-1,740	-1,620	-1,717	-1,756	-1,680	-1,686	-1,688	-1,688	-1,688
Reversal of conv. debt assumed equity	-	-	-	-	-	-	-	-	-	-
EV	**36,785**	**71,627**	**70,173**	**70,473**	**70,354**	**68,474**	**68,192**	**66,309**	**64,408**	**62,313**
Total assets turnover (%)	46.2	45.2	35.2	26.8	29.8	32.0	28.3	28.4	28.0	27.5
Working capital/sales (%)	12.1	12.9	11.7	11.0	13.1	22.9	24.8	17.1	23.1	28.4
Financial risk and debt service	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Net debt/equity (%)	13.3	12.0	9.4	9.8	8.7	3.8	3.3	4.3	1.0	-1.7
Net debt / market cap (%)	8.2	4.0	5.6	6.1	6.0	3.2	2.7	3.8	0.9	-1.7
Equity ratio (%)	63.2	63.5	67.6	68.0	69.0	69.9	71.4	72.6	76.8	81.7
Net IB debt adj. / equity (%)	13.3	12.0	9.4	9.8	8.7	3.8	3.3	4.3	1.0	-2.4
Current ratio	1.56	1.58	1.45	1.81	1.74	2.42	1.79	1.95	2.87	3.28
EBITDA/net interest	57.9	131.5	100.2	85.8	126.7	97.8	124.8	88.4	88.7	92.9
Net IB debt/EBITDA (x)	0.9	0.8	1.1	1.2	0.8	0.2	0.3	0.5	0.1	-0.2
Net IB debt/EBITDA lease adj. (x)	0.9	0.8	1.1	1.2	0.8	0.2	0.3	0.5	0.1	-0.3
Interest coverage	39.6	92.5	66.7	57.9	94.4	82.5	97.0	64.5	66.3	70.5

Source: ABG Sundal Collier, Company Data

Share Data (SEKm)	2017	2018	2019	2020	2021	2022	2023	2024e	2025e	2026e
Actual shares outstanding	85	168	162	162	162	162	162	156	156	156
Actual shares outstanding (avg)	85	168	162	162	162	162	162	156	156	156
All additional shares	0	83	-6	0	0	0	0	-6	0	0
Actual dividend per share	12.00	6.75	3.50	10.75	11.25	16.00	11.50	9.00	9.00	9.00
Reported earnings per share	19.68	16.42	53.67	12.23	18.55	36.29	22.83	18.03	19.60	20.84

Source: ABG Sundal Collier, Company Data

Valuation and Ratios (SEKm)	2017	2018	2019	2020	2021	2022	2023	2024e	2025e	2026e
Shares outstanding adj.	85	168	162	162	162	162	162	156	156	156
Diluted shares adj.	85	168	162	162	162	162	162	156	156	156
EPS	19.68	16.42	53.67	12.23	18.55	36.29	22.83	18.03	19.60	20.84
Dividend per share	12.00	6.75	3.50	10.75	11.25	16.00	11.50	9.00	9.00	9.00
EPS adj.	19.44	13.64	-0.72	11.94	18.25	34.64	22.83	18.12	19.60	20.84
BVPS	259.98	139.60	247.71	262.56	290.21	351.70	351.54	368.69	388.29	409.13
BVPS adj.	259.98	139.60	247.71	262.56	290.21	351.70	351.54	368.69	388.29	409.13
Net IB debt/share	34.64	16.71	23.37	25.82	25.33	13.25	11.54	16.00	3.82	-9.62
Share price	420.00	420.00	420.00	420.00	420.00	420.00	420.00	420.00	420.00	420.00
Market cap. (m)	35,598	70,560	68,009	68,009	68,009	68,009	68,009	65,501	65,501	65,501
Valuation	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
P/E (x)	21.3	25.6	7.8	34.3	22.6	11.6	18.4	23.3	21.4	20.1
EV/sales (x)	2.28	4.41	4.14	4.31	3.61	2.86	2.99	2.94	2.91	2.89
EV/EBITDA (x)	11.7	20.9	20.6	19.5	14.2	8.0	11.2	13.2	12.1	11.2

Valuation and Ratios (SEKm)	2017	2018	2019	2020	2021	2022	2023	2024e	2025e	2026e
EV/EBITA (x)	17.1	29.8	31.0	29.0	19.1	9.4	14.3	18.0	16.2	14.7
EV/EBIT (x)	17.1	29.8	31.0	29.0	19.1	9.4	14.3	18.0	16.2	14.7
Dividend yield (%)	2.9	1.6	0.8	2.6	2.7	3.8	2.7	2.1	2.1	2.1
FCF yield (%)	5.0	4.3	0.1	0.9	5.6	11.9	2.9	7.7	1.3	1.1
Le. adj. FCF yld. (%)	5.0	4.3	0.1	0.9	5.6	11.9	2.9	7.7	1.3	1.1
P/BVPS (x)	1.62	3.01	1.70	1.60	1.45	1.19	1.19	1.14	1.08	1.03
P/BVPS adj. (x)	1.62	3.01	1.70	1.60	1.45	1.19	1.19	1.14	1.08	1.03
P/E adj. (x)	21.6	30.8	-581.3	35.2	23.0	12.1	18.4	23.2	21.4	20.1
EV/EBITDA adj. (x)	11.7	20.9	20.6	19.5	14.2	8.0	11.2	13.2	12.1	11.2
EV/EBITA adj. (x)	17.1	29.8	31.0	29.0	19.1	9.4	14.3	18.0	16.2	14.7
EV/EBIT adj. (x)	17.1	29.8	31.0	29.0	19.1	9.4	14.3	18.0	16.2	14.7
EV/CE (x)	1.5	2.7	1.6	1.5	1.4	1.1	1.1	1.1	1.0	1.0
Investment ratios	-	-	-	-	-	-	-	-	-	-
Capex/sales (%)	5.9	5.5	6.3	10.9	6.7	3.8	8.8	8.9	9.0	9.3
Capex/depreciation	1.0	0.9	0.9	1.5	1.0	0.7	1.5	1.5	1.5	1.5
Capex tangibles / tangible fixed assets	3.5	3.2	2.1	3.3	2.3	1.4	3.0	2.9	3.0	3.0
Depreciation on tangibles / tangibles	3.66	3.62	2.24	2.19	2.18	2.13	2.01	2.01	1.99	2.01

Source: ABG Sundal Collier, Company Data

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ABG Sundal Collier Ratings and Investment Banking by 8/15/2024

	Research Coverage	Investment Banking Clients (IBC)	
	% of	% of	% of
Total of Rating	Total Rating	Total IBC	Total Rating by Type
BUY	64.66%	18%	7.63%
HOLD	30.41%	4%	3.60%
SELL	4.38%	1%	6.25%

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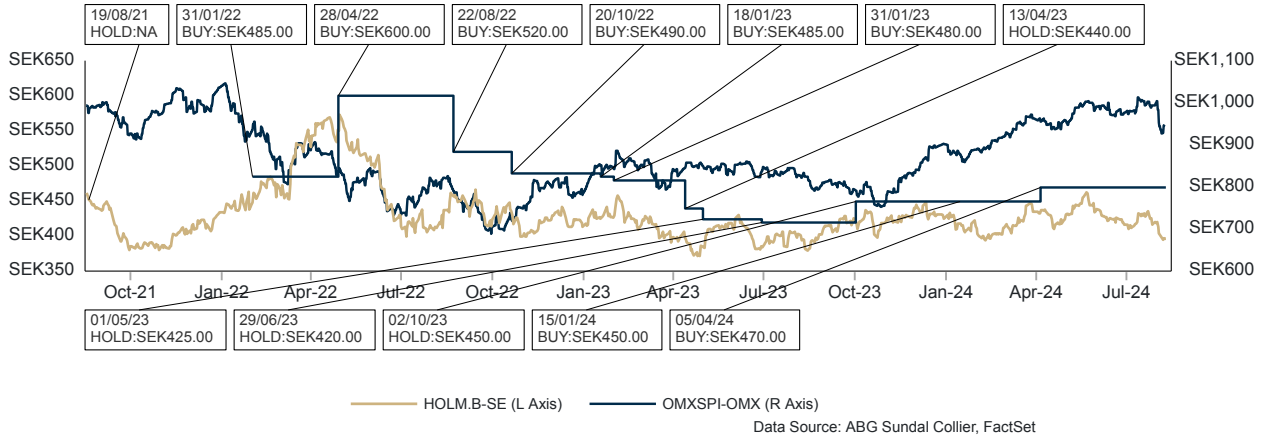
Stock price, company ratings and target price history

Company: Holmen **Currency:** SEK **Current Recommandation:** BUY
Date: 14/8/2024 **Current Target price:** 470.0
Current Share price: 420.00



Data Source: ABG Sundal Collier, FactSet

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Production of recommendation: 8/15/2024 19:00.

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