

The Marketplace for PRNs

**Market Status Report** *By Tom Rickerby, Head of Business Development*



Volatility in Paper and Plastic has dominated trading in Q3 as the implications of import restrictions in China continue to unsettle the market. However, talk of a severe downturn in PERN generation has again failed to be reflected in the Q3 supply data creating further debate, discord and division over the question of a "fair" market price. This is likely to

rumble on. With China's restrictions coming into force next quarter, the UK's historic reliance on this market to meet recycling targets will be tested to the full.

317,281 tonnes traded during the period, down 29% on the previous quarter and 4% on the same period last year. 121,162 tonnes were traded in the Spot market and 208,462 tonnes were traded in the Forward markets.

**Paper**

Continued restrictions and uncertainty over exports to China has seen confidence, demand and prices plummet in recovered paper markets over the course of the 3rd quarter. The knock-on effect has seen Paper PRN prices move in the opposite direction. Spot prices more than doubled during the period trading from £0.95 to £2.00 in the Spot market and reached a year high of £2.20 in the December forward market. The unexpected disruption to the export market has meant many sellers have had to revise their forecasted PRN generation downwards, placing a greater emphasis on meeting contractual supply agreements and reducing liquidity in the open market. The rising spot price has prompted many buyers to lock in prices for next year. 2018 forward markets traded in good volume from £0.95 up to £1.50. Total paper volume traded was down 54% on the previous quarter but up 61% on the same period last year.

**Plastic**

The plastic market continued to defy strong supply data as any justifications for a downward price correction following the Q2 data release were immediately overridden by China's announcement via the WTO that a full plastic waste import ban would be implemented from 2018. Bullish sentiment and nervous buying dominated in the first half of the quarter as spot prices increased 40% to a year high of £88.00 per tonne – The highest plastic price since November 2008. However, a retrace to £70.00 in early October quickly developed into a full-blown sell-off following the release of October monthly data that hinted at a record 3rd quarter. By the release of the Q3 data 2 weeks later the market was in free fall. At the quarter close spot prices had collapsed to £25.00 wiping off 70% of the PRN value in a month. Plastic traded volume was up 18% on the previous quarter.

**Steel**

The average steel price fell by a third in Q3 as the market registered a third quarter in a row of falling prices. Whilst steel PRN generation has slowed in Q3, it has already produced enough evidence to cover 98% of the 2017 obligation. Steel surpluses will now compete with paper and wood to satisfy remaining general recycling demand in the final quarter. Fortunately for sellers the declining steel price has met strengthening paper and wood prices heading in the opposite direction. Prices hit a year low of £1.80 in the December forward market as steel undercut the paper and wood price to attract general recycling demand. Transitional steel opened at £7.00. This is

36% lower than 2017 and the lowest opening steel price since 2012.

**Aluminium**

Aluminium traded volumes were up 14% on the previous quarter as prices continued to soften. Like steel, aluminium has consistently outperformed its quarterly target for 2 years now resulting in a strong buyer's market. Prices fell to a year low of £5.00 in the spot market. This quarter's average spot price is the lowest since Q4 2014.

**Glass Remelt**

Glass prices remained relatively static for the 3rd quarter in a row, trading between £11.50 and £12.50 in the Spot, although the average fell by 5% on the previous quarter. Volumes were up 86% on the previous quarter but down over 50% on the same period last year. A strong Q3 supply figure may see late buyers hold out for reduced prices in the final quarter. Prices opened in the 2018 markets at

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	High	Low	Traded This Quarter	Quarter Average Traded Price	YTD Average Traded Price	Year to date aggregated traded
<b>Paper</b>						
Spot 2017	£2.00	£0.95	22,426	£1.49	£1.06	76,966
Oct Fwd 2017	£1.85	£1.15	28,454	£1.58	£0.99	140,755
Dec Fwd 2017	£2.20	£1.35	32,226	£1.82	£1.07	132,226
Tran Jan Fwd 2018	£1.25	£1.25	20,000	£1.25	£1.15	30,000
Apr Fwd 2018	£0.95	£0.95	12,500	£0.95	£0.95	127,500
Jul Fwd 2018	£1.50	£0.95	22,500	£1.19	£0.99	77,500
<b>Plastic</b>						
Spot 2017	£85.00	£25.00	66,354	£67.76	£54.78	167,968
Oct Fwd 2017	£78.00	£78.00	450	£78.00	£44.50	16,350
Dec Fwd 2017	£85.00	£25.00	12,546	£45.71	£46.59	30,246
Tran Jan Fwd 2018	£85.00	£35.00	1,750	£63.57	£63.57	1,750
<b>Glass Aggregate</b>						
Spot 2017	£11.50	£11.10	4,715	£11.17	£11.35	7,814
Dec Fwd 2017	£11.50	£11.50	371	£11.50	£11.25	2,155
Apr Fwd 2018	£13.00	£13.00	3,000	£13.00	£13.00	3,000
<b>Glass Remelt</b>						
Spot 2017	£12.50	£11.50	9,344	£11.71	£12.01	15,308
Oct Fwd 2017	£12.30	£12.00	3,677	£12.07	£12.32	9,977
Dec Fwd 2017	£11.50	£11.50	1,053	£11.50	£12.16	3,053
Tran Jan Fwd 2018	£12.80	£12.50	3,500	£12.63	£12.63	3,500
Apr Fwd 2018	£13.00	£13.00	3,000	£13.00	£13.00	3,000
<b>Steel</b>						
Spot 2017	£4.90	£3.35	5,902	£3.86	£6.01	28,823
Dec Fwd 2017	£2.75	£1.80	10,200	£2.12	£2.34	11,200
Tran Jan Fwd 2018	£7.00	£6.00	2,300	£6.87	£6.87	2,300
<b>Wood</b>						
Spot 2017	£2.25	£1.65	4,078	£1.74	£1.89	18,639
Oct Fwd 2017	£1.75	£1.65	18,600	£1.67	£1.67	29,100
Dec Fwd 2017	£1.65	£1.65	5,826	£1.65	£1.66	11,326
Tran Jan Fwd 2018	£4.25	£4.25	1,000	£4.25	£3.86	6,000
Jul Fwd 2018	£4.25	£4.25	4,000	£4.25	£4.39	9,000
<b>Aluminium</b>						
Spot 2017	£9.50	£5.00	1,544	£6.30	£8.61	3,947
<b>Recovery</b>						
Spot 2017	£0.40	£0.35	7,965	£0.36	£0.41	23,509
Tran Jan Fwd 2018	£0.45	£0.45	8,000	£0.45	£0.45	8,000

## Managing Director's Comments – November 2017

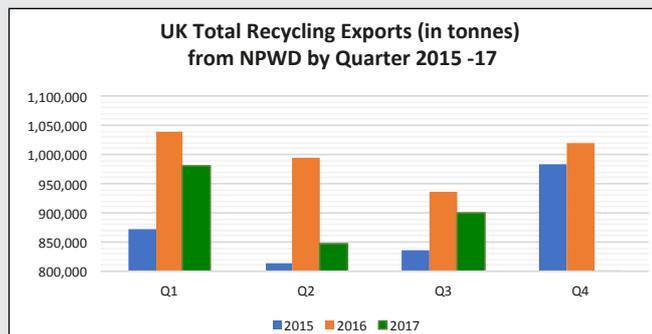


A quarter a little like the progress towards Brexit. Everything seems much as normal but a concern as to whether it is the lull before the storm? The discussion points of the quarter have been the potential impact of China's proposed quality standards and the miraculous performance by plastic exporters. From a trading perspective the

quarter is like last year with a greater interest in forward trading into 2018.

### Exports to China

It is difficult to tell exactly what percentage of UK exports of secondary raw materials are processed in China as many are now pre-processed elsewhere to meet the quality standards required. Whatever it is substantial and near to 50% in most materials. In this we reflect most of the other secondary raw material exporters such as United States, Japan, Australia as well as the remainder of Western Europe. So when China announces that from 1 January 2018 it is going to refuse to accept secondary raw materials with a impurity fraction greater than 0.3% it is a cause of considerable global concern. Not only how will those standards of purity be achieved but also what happens to those materials that cannot achieve those standards of purity? Where this will impact greatest is household/municipal waste which has been the source of the highest levels of mixed recyclables and the lowest levels of source separation. Inevitably the debate is being re-opened about the optimum location for separation the household or the MRF? If the latter within the UK or without? Also can current technology produce from mixed recyclables the quality standards required? Added to the mix are the health and safety concerns of mixing food waste with recyclables and the debate about whether weight based targets are suitable? If they are not what measurement standard should be implemented? Remembering that targets like quality standards need to be identifiable, measurable and verifiable!

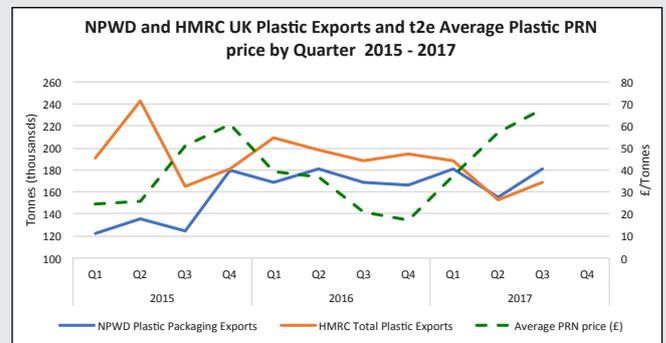


As the quarter closes there are indications that China may relax its impurity levels to the great relief of many, but the concern remains that this will just paper over the cracks of a creaking recycling infrastructure within the UK. The industry is looking to the Government for guidance and support. However, the focus of the Government is firmly elsewhere. With more frequent tales of illegal dumping and waste bonfires, landfill tax is now viewed to have run its course, so the recycling industry is looking to producers to either come up with or finance solutions. Producer responsibility is the current mantra. It is a very effective tool but without effective regulation it is unlikely on its own to

deliver the solutions to which all aspire.

### The Plastic miracle

Of all the packaging materials to be potentially impacted greatest by the restrictions of imports into China plastic is top. Beyond bottles it traditionally struggles both on quality and to discover end markets for the diverse range of other plastics used in packaging. So as the restrictions of China's National Sword operation impact it was anticipated that PRN availability in Q3 would drop. In defiance of expectations it has instead increased to reach almost record levels not only domestically but also in exports where it appears that Asian countries outwith China have rapidly stepped into the void created by China. Disagreement between HMRC and NPWD, particularly as the HMRC figures include non-packaging plastics, about the tonnage of plastic being exported is a cause for concern.



### Looking Forward

The crystal ball is far from clear. The obligation rises next year. UK Reprocessing is at its highest since Q3 2010 while exports although below the record 2016 levels are still above the previous record in 2015. Both Aluminium and Steel should be able to reach their targets although this is significantly dependent on exports so there may be headwinds if the currency strengthens as 2018 progresses. Glass and Recovery having had their hiatuses seems to be going through a period of stability. The concerns remain in Plastic and General recycling. In the former will the new export levels remain and in the later with the doubling in the Wood target will there be sufficient residue available if Paper declines further? The forward markets are pricing this in now and we are seeing considerably more interest in trading in 2018 markets as participants opt for price certainty rather than correctly judging a volatile market.

Thank you for your support this quarter and Simon Ellin for his remarks. I wish you an enjoyable festive season and look forward to being of service to you next year, which is not to suggest that there is not plenty to run in this!

Angus Macpherson  
Managing Director



## Q3 Supply Analysis *by Andrew Letham, Sales and Marketing Manager*



With the plastic market trading at levels not seen since 2009, and with two relatively strong quarters already under our belts, the market looked to the Q3 supply data to give some substance to the volatility we have seen to date in Plastic. As

sellers began to lower their price expectations in early October suspicions arose that Q3 supply data would be better than expected and that the high PRN prices we have experienced may not be entirely justified. Plastic prices slipped 40% in 3 weeks, from £81.00 down to £48.00, before we received confirmation of the largest quarterly return to date. The 274,571 tonnes(t) recycled eclipsed the previous highest return by 7,885t and prices fell accordingly, dropping £13.00 to £35.00 in a day, before falling to £25.00 three days later.

The data showed Plastic exports to have grown by 25,800t from Q2 despite the slowdown from China, with the high PRN price clearly facilitating the movement of material into new and existing markets. Domestic reprocessing fell slightly from Q2 but remained at record levels with over 94,0134t recycled. The strong Q3 result means that, including carry in, 83% of target has been achieved with only 171,635t required for the remainder of the year. Compliance now seems a foregone conclusion and with transitional tonnage already trading above 2017 spot prices, it can be assumed that there will also be a substantial carry forward into 2018. Q4 supply data not released until February 2018 will give the clearest indication as to the impact that National Sword has had, but in a year of such volatility opinion will be divided with some pointing to the efficiency of the PRN system whilst others will be altogether more cynical. Either way 2018 looks set to be a challenging year with issues in China ongoing and buyers likely to be cautious with many feeling badly burnt by the drastic price correction.

Paper made a slight recovery in Q3 with 921,942t recycled, an uplift of 31,526t from Q2 but still over 80,000t short of the average 2016 quarterly return. Prices steadily increased throughout the quarter with supply thin on the ground, opening at £0.95 and more than doubling to close at £2.00. Paper's material specific compliance was never in question for 2017 with the target already achieved when carry in is considered. Paper's contribution to the General Recycling obligation has however continued to diminish which may well extend into 2018 with China set to introduce a 0.3%\* contamination limit.

Wood supply has been abundant in 2017 and Q3 was no different. 106,558t were recycled, meaning the target has been achieved, leaving an oversupply of 97,556t including carry in with a full quarter still to be counted. Prices have held up relatively well given the oversupply moving between £2.00 and £1.65. This can largely be attributed to the strengthening of the Paper price and subsequently General recycling. With an approximate 70% increase of the obligation in real terms next year, prices have continued to trade above £4.00 into 2018 which looks set to be an altogether different market.

Glass recycling performed well in Q3 as Remelt grew 13.5% from Q2 with 326,332t recycled. Aggregate recycling fell 9.5% with a return of 108,354t, but total glass recycling was still ahead of the quarterly target by over 7% before carry in. When carry in is included only a further 335,232t are required to meet the total Glass obligation for the year, which could be achieved by Remelt alone. With little available aggregate, Prices of the two notes converged at £11.50 for volume in late October.

Steel fell 18.5% from Q2 with 94,532t recycled in Q3. Trading had already taken place below £5.00 as we entered Q3 and softened further to close the quarter at £3.50 with 98% of target had already been achieved. Excess tonnage is now being assigned to General Recycling and prices have aligned with Paper and Wood trading as low as £1.80 in the forward markets.

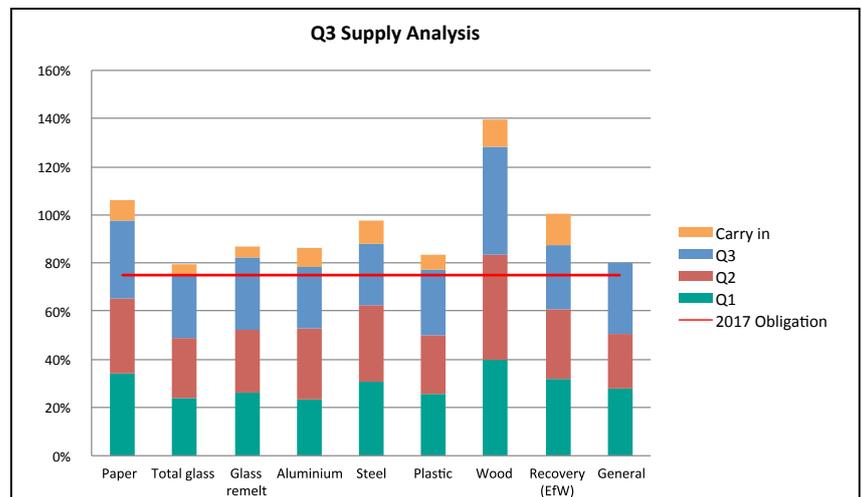
Aluminium prices fell below £5.00 shortly after the release of the Q3 figures with 23,196t reported as recycled. Only a further 12,489t are required to achieve target for 2017 and with an average quarterly return of 23,682t this year very little excitement is anticipated for the remainder of the year.

\*at the time of writing this article, the contamination limit set out by Chinese officials was 0.3%, as stated. However, it has now reported that this limit may increase to 0.5% or even 1% in some materials, though this is yet to be confirmed.

Material	Carry In	Q1	Q2	Q3	2017 Obligation	YTD Supply + Carry In	Balance
Paper	246,360	966,487	890,893	922,590	2,850,996	3,026,330	175,334
Total Glass*	61,218	387,752	403,808	435,682	1,623,692	1,288,460	-335,232
Glass remelt	45,343	283,115	287,304	326,332	1,087,873	942,094	-145,779
Aluminium	6,839	21,256	26,594	23,196	90,374	77,885	-12,489
Steel	34,610	112,637	116,072	94,701	367,213	358,020	-9,193
Plastic	64,709	261,070	250,687	274,571	1,018,011	851,037	-166,974
Wood	26,900	97,350	106,558	110,475	244,730	341,283	96,553
EfW	77,900	193,209	171,539	161,846	602,614	604,494	1,880
General *	0	297,798	245,858	312,461	1,071,891		-1,071,891
Total	502,661	2,039,761	1,966,151	2,023,061	7,869,521	6,547,509	-1,323,892

\*Total Glass consists of the combined total supply of Glass Remelt and Glass aggregate.

\* Please note the general supply figure has been generated from calculating the surplus material prns in each quarter and does not include carry in tonnage.



## Meet the Market: Paper Exporter, Simon Ellin CEO, Recycling Association and Independent Waste Paper Producers Ltd (IWPP Ltd)



### Q: How long have you worked in the recovered paper industry and what is your current role?

A: 27 years and I am currently CEO of the Recycling Association and our trading/brokering company IWPP Ltd. Uniquely for a Trade Association, we are largely funded by our own brokering company. This allows us to

keep membership fees low and everyone pays the same regardless of size. So one member one vote, which is a real strength of our organisation.

### Q: Have you ever known a more turbulent and uncertain time than this?

A: Potentially, no I haven't. We have been warning about China's clampdown for some time and, if it is introduced, it will be the biggest game changer the industry has seen in my time.

### Q: Talk us through some of the major challenges facing the industry at the moment?

A: Due to lack of investment in UK manufacturing capacity, we have become a net exporter of many materials. Using recovered paper for example, the collection side has grown whilst the manufacturing side has diminished, which means of the 8 million tonnes a year we collect, less than 40% is re-processed in the UK and over 45% is exported to China. This leaves the UK horribly exposed to the current and growing reduction in demand from China, where they are proposing a complete ban on mixed papers, a complete ban on post-consumer plastics and a reduction in the outthrow standard from 1.5% to 0.3%\*. The problems are thus twofold – where are the banned materials going to be recycled and can we meet the new quality standards?

### Q: What will the major impacts be on the recycling supply chain?

A: The impact will be massive – where will local authority mixed papers and post-consumer plastics be recycled? Can local authorities and waste management companies meet 0.3%\*? I think this is a wake-up call for the whole supply chain. From the designers and manufacturers of difficult or impossible to recycle items – Pringle tubes, laminate pouches, shrink wrapped sports drink bottles,

sandwich boxes, coffee cups etc etc etc – the list is enormous. To local authorities who seem to think their responsibility ends when the public puts their contaminated recycling in their recycling box or bin – SEPA have just released figures showing a minimum average infested contamination at the household of 17% which is totally unacceptable. Our members have made considerable investment in the technology and infrastructure to process these materials and it seems to us that they are the ones that always have to pick up the tab whilst the rest of the supply chain buries their heads in the ground.

### Q: Do you see this having an impact on PRN /PERN generation and price?

A: In the short term at least, yes I do – because exports of paper have slowed down, I expect the market to continue to tighten. I also don't see plastics meeting targets in Quarter 4, although Quarter 3 results caught everyone by surprise!

### Q: Do you feel that the government is doing enough to address the current situation? Is there anything you would like to see done differently?

A: Absolutely government are not doing enough – Michael Gove embarrassed himself recently when he was asked in the Environment committee if he was aware of the China situation. I was stunned by his ignorance, especially when ourselves and the CPI had written to him in July alerting him to the situation. If I blagged my way through my job in the way as Gove does, I'd be sacked. Our industry is suffering from a lack of coherent and complimentary policy which has allowed our industry to grow in an ad hoc manner to meet stupid weight based targets. Politicians like to buy votes with their perceived green credentials, but with a few exceptions, very few ever stick their heads above the parapet.

### Q: How does the UK recycling industry need to adapt to remain competitive in an evolving global market place?

A: Full supply chain responsibility backed up by extended producer responsibility and coherent, visionary policy that allows us to produce a quality commodity for applications within a global marketplace.

*\*at the time of writing this article, the contamination limit set out by Chinese officials was 0.3%, as stated. However, it has now reported that this limit may increase to 0.5% or even 1% in some materials, though this is yet to be confirmed.*

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between £12.50 and £13.00 setting a familiar tone for next year.

### Glass Aggregate

Weak supply in Aggregate glass has meant trading opportunities have been limited again this quarter despite quarter on quarter trading growth of 26%. The spot average price during the quarter was only 2% lower than the previous quarter and 1% lower than the same period last year; a stark indication of the lack of price movement in the glass market over the past 18 months.

### Wood

Demand for wood increased this quarter as a strengthening paper price forced buyers to look to alternative markets for competitive

general recycling prices. 2017 wood trading increased by 134% on the previous quarter. Despite the increase in demand the average wood price fell slightly during the quarter as volume orders attracted lower prices. 2018 wood prices also fell 6% to £4.25.

### Recovery

New offers at 35p per tonne brought fresh incentive for buyers to close out recovery positions in Q3. A spike in activity that saw traded volume increase by 57% on the previous quarter. The quarterly spot average of £0.36 per tonne is the lowest Recovery price since Q4 2013. Transitional recovery opened at £0.45.

**We would like to take the opportunity to thank all participants for their ongoing support in 2017 and wish you all a very Happy Christmas and New Year. We look forward to being of assistance in 2018.**

