

The Marketplace for PRNs

Market Status Report By Tom Rickerby, Head of Trading



Record closing prices to the 2022 market, diminished carry-in and an uncertain outlook contributed to some of the highest opening PRN prices on record. However, Q1 supply data suggests strong prices appear to be correlating with improved supply, triggering a general market sell-off late in the quarter.

A total of 375,888 tonnes traded on t2e during Q4, down 20% on the previous quarter and 7% on the same period last year. 203,514 tonnes were traded in the

2023 Spot Market, 71,994 tonnes were traded in the 28 Day Rolling Market and 100,380 tonnes were traded in the 2023 Forward markets.

Paper

2023 Paper PRNs opened at record Q1 prices, building on the strength and uncertainty of the 2022 market. Early trading consolidated around £35.00 per tonne in both Spot and Forward markets reflecting bullish seller sentiment. Reports of deteriorating conditions in the underlying Paper recycling markets characterised by a reported 10 – 20% fall in arisings and weak global demand, helped fortify sellers' early price expectations. Buyers, however, were less convinced, with many early buyers deterred by high prices, a cautious approach that would prove to be prudent by the end of the quarter. By early April weakening buying support backed up by strong monthly supply data signalled the first real test of sellers' collective resilience. With prices already sliding, the release of unexpectedly strong quarterly supply data triggered a more intensified sell off. Spot prices fell sharply to close the quarter at £16.00 per tonne, down 55% on the March high.

Plastic

It has been an unsettled opening quarter for the 2023 plastic market, coming off the back of all time high prices and a second successive missed in-year target in 2022. The market struggled to find a stable price level, testing highs of £350.00 and lows of £245.00 during the period. Despite expectations of another challenging year for Plastic (carry-in tonnage is at an all-time low and Q1 supply looks to have missed target), the plastic price remains vulnerable to cashflow pressures and liquidity constraints on both sides of the market. A feature that is likely to cause unpredictable and volatile trading conditions again this year. Spot prices closed the quarter to the downside at £300.00 per tonne following a mixed reaction to the Q1 supply data.

Glass

Glass' price action in the first quarter is a reflection of its back-to-back years of inflationary PRN price pressure and tightening supply. Fears of recent history repeating itself saw Remelt Spot prices rise 18% to a quarter 1 high price of £142.00 per tonne in the run up to the release of the Q1 data with traded volume more than doubling on the same period last year. Glass Other prices rose more aggressively on weak supply, pumping nearly 60% to briefly hit parity with the Remelt price at £135.00 per tonne in late March. Improved year on year supply saw prices for both materials fall back, Remelt closed the quarter down 12% at £125.00, whilst Aggregate fell more sharply, dropping a quarter of its value, to close at £100.00 per tonne.

Aluminium

Aluminium PRN supply outperformed expectations in Q1 contradicting a growing sense of negative market sentiment within UBC markets. Q1 saw the best supply quarter for 2 years, a result that brought a cap to a market that has been rising month on month since the beginning of the year. Spot prices rose 25% to a year high of £202.00 per tonne but fell back to close the quarter at £200.00 following the release of the data. Traded volume was up 41% on the same period last year.

Steel

Early confirmation of strong Steel carry-in tonnages and improving confidence in can markets set Steel Spot and Forward prices on a downward trajectory early in the quarter. Prices fell 13% to £38.00 per tonne in the Spot and hit a year low price of £37.00 in the 28 Day Rolling Market. Strong Q1 supply data and the collapse of the general recycling price will likely continue the price slide into Q2.

Wood

Wood set the early price for General recycling in the 1st Quarter, trading at an average of £6.15 (20%) below the paper price. A discount that reflects Wood's status as the only material to comfortably hit target in-year in 2022. Despite this, Q1 prices remained strong, up 65% on the 2022 average and nearly 7 times higher than the opening price for the same period last year. Prices fell late in the quarter on the back of strong supply data (Wood's best supply quarter since 2015 and up 19% on last year) closing the period realigned to the Paper price at £17.00 per tonne.

Q1 Feb - Apr 23	High	Low	Traded this quarter	Quarterly Average Price	YTD Average Price	Total Volume
Paper						
Spot 2023	£36.00	£16.00	41,121	£30.40	£30.68	46,054
28 Day Rolling 2023	£35.00	£17.00	35,450	£29.20	£29.20	35,450
APR Forward 2023	£32.00	£32.00	5,000	£32.00	£33.69	67,000
JUL Forward 2023	£34.00	£20.00	23,500	£25.30	£25.30	23,500
OCT Forward 2023	£34.00	£15.25	6,750	£21.14	£21.14	6,750
DEC Forward 2023	£34.00	£34.00	2,000	£34.00	£34.00	2,000
Plastic						
Spot 2023	£350.00	£245.00	61,268	£312.82	£312.00	67,959
28 Day Rolling 2023	£350.00	£250.25	14,618	£313.76	£314.83	18,886
APR Forward 2023	£350.00	£295.00	2,625	£337.14	£337.83	10,725
JUL Forward 2023	£350.00	£300.00	1,800	£344.44	£365.41	6,050
OCT Forward 2023	£310.00	£295.00	1,650	£306.36	£351.89	4,900
DEC Forward 2023	£310.00	£310.00	1,250	£310.00	£356.94	4,500
Glass Other						
Spot 2023	£135.00	£85.00	24,952	£110.81	£109.77	26,088
28 Day Rolling 2023	£132.00	£94.00	8,219	£108.44	£108.44	8,219
APR Forward 2023	£95.00	£95.00	1,500	£95.00	£95.00	1,500
JUL Forward 2023	£95.00	£95.00	1,000	£95.00	£102.50	4,000
OCT Forward 2023	£95.00	£95.00	2,000	£95.00	£95.00	2,000
DEC Forward 2023	£105.00	£105.00	1,000	£105.00	£105.00	1,000
Transitional JAN Forward 2024	£105.00	£105.00	1,000	£105.00	£105.00	1,000
Glass Remelt						
Spot 2023	£142.00	£120.00	31,109	£135.76	£135.44	31,509
28 Day Rolling 2023	£141.00	£135.00	3,700	£137.89	£137.89	3,700
APR Forward 2023	£130.00	£130.00	1,000	£130.00	£130.00	4,000
JUL Forward 2023	£130.00	£130.00	1,000	£130.00	£130.00	7,000
OCT Forward 2023	£130.00	£130.00	4,300	£130.00	£130.00	4,300
DEC Forward 2023	£130.00	£130.00	2,000	£130.00	£130.00	2,000
Transitional JAN Forward 2024	£130.00	£130.00	1,000	£130.00	£130.00	1,000
Steel						
Spot 2023	£44.00	£38.00	7,244	£39.20	£39.95	8,254
28 Day Rolling 2023	£47.00	£37.00	6,607	£38.33	£38.33	6,607
APR Forward 2023	£44.00	£40.00	2,400	£40.67	£55.11	16,150
JUL Forward 2023	£40.00	£38.00	7,850	£39.93	£44.29	13,850
OCT Forward 2023	£40.00	£38.00	6,850	£39.90	£39.90	6,850
DEC Forward 2023	£48.00	£40.00	1,600	£40.50	£40.50	1,600
Wood						
Spot 2023	£30.00	£17.00	33,891	£24.25	£24.31	34,085
28 Day Rolling 2023	£24.50	£24.00	3,000	£24.33	£24.33	3,000
APR Forward 2023	£30.00	£25.00	5,000	£27.00	£19.11	17,700
JUL Forward 2023	£30.00	£25.00	8,955	£27.10	£27.10	8,955
OCT Forward 2023	£30.00	£25.00	2,100	£29.76	£29.76	2,100
DEC Forward 2023	£30.00	£30.00	2,000	£30.00	£30.00	2,000
Aluminium						
Spot 2023	£202.00	£150.00	3,929	£185.89	£185.89	3,929
28 Day Rolling 2023	£177.50	£175.00	400	£176.88	£158.23	775
APR Forward 2023	£150.00	£150.00	500	£150.00	£139.91	1,060
JUL Forward 2023	£200.00	£150.00	1,150	£177.22	£164.32	1,400
OCT Forward 2023	£197.00	£150.00	1,100	£175.64	£162.56	1,350
DEC Forward 2023	£150.00	£150.00	500	£150.00	£150.00	500

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Managing Director's Comments May 2023



A busy quarter, the final data for 2022 and the first for 2023. While the first is supposed to close the door on 2022 and the second open the door on 2023, both leave unanswered questions. So too does the future of the Scottish DRS, where political enthusiasm may have outrun good advice. Questions remain on consistency of collection, one of the core ingredients of Extended Producer Responsibility. Nevertheless, this has not stopped the calculations of an appropriate material fee to be paid to Local Authorities for their efforts in collecting Packaging. Questions also remain on the future of the General Recycling Obligation.

Q1 Data

A combination of low shipping rates and high PRN values, the reciprocal of last year, has seen export volumes explode both year on year and quarter on quarter. It also reflects a more settled global logistics environment than immediately post-Putin's invasion of Ukraine. In contrast the obligation has plummeted. While it was speculated that a shift from consumerism to tourism combined with rising interest rates and reduced spending power would cause the obligation to fall for the first time since the regulations were introduced, a 12.5% reduction to below the 2017 General Recycling Obligation was not! High PRN prices may have focused companies on recalibrating their obligations and/or not registering. Whichever it has given a false base on which to project the annual obligation.

On the other side of the coin the delay on the introduction of the Scottish DRS will mean that at a minimum in 2023 and 2024 PRNs will be issued on Scottish beverage containers.

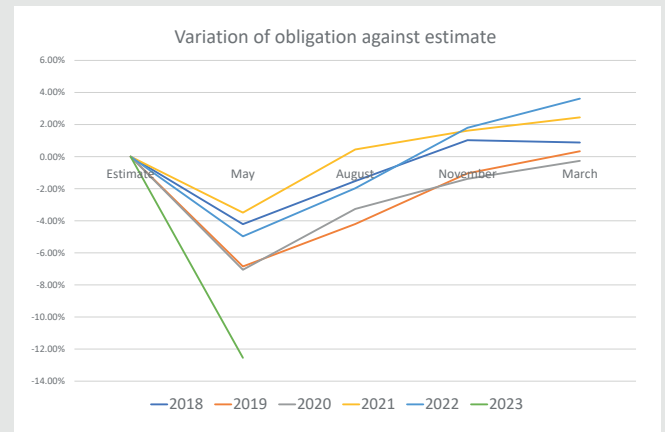
Scottish DRS

The Scottish DRS appears to be a prime example of political enthusiasm clouding clarity of thought. The Scottish Government now find themselves with a thorny dilemma. On the one side they are damned if they go ahead before the remainder of the UK as DRS imposes significant costs on society and the environment through a dual collection service. On the other they are damned if they do not with retailers and operators, particularly Biffa, having put in significant investment to meet the original deadline. Now the start date has been delayed to at least October 2025 and it looks like glass will be excluded initially to provide consistency throughout the UK in which case Glass PRNs would continue to be issued on this packaging.

Consistency

The introduction of the modulated fee for different forms and materials used in packaging has been one of the core pillars of EPR. It is expected to raise £1.5 billion for Local Authorities. The Government seems to be fixed on this side of the bargain whilst

being somewhat slower on imposing consistency of collection, an essential ingredient in reducing consumer confusion and promotion of recycling nationally, on local authorities.



General Recycling Obligation

The importance of the General recycling obligation is often both overlooked and unappreciated when the Regulations are reviewed. This is an error. It is an essential ingredient within the system. It retains value in material specific PRNs after they reach their material specific target, hence incentivising industry to exceed rather than fall short of its target reducing price volatility. It also introduces flexibility into the system to compensate for the variations both between years and material types used for packaging.

Looking forward

In the past those years that have started with high PRN prices end with low ones. Although, the Q1 data and the delay of the Scottish DRS both point to this being replicated, there are also indicators that prices will remain high. Only wood met material specific targets in 2022, a reduced carry forward and Q1, the first quarter ever where exports exceed domestic reprocessing, is the largest on record which suggests that at least some of the increase is being brought forward from last year due to logistics issues around Christmas. Also, it can be seen that the obligation will increase. The question is high far? Equally to make last year's obligation Q1's record will need to be replicated over the next three quarters. So until the data improves, current prices are likely to stay.

Thank you to Rob Powell for his insightful commentary on the challenges of logistics. Thank you too for your support this quarter. We look forward to continuing to be of service to you as 2023 progresses.

Angus Macpherson
Managing Director

The Marketplace for PRNs

Q1, 2023 Supply Analysis By Andrew Letham, Operations Manager



The 2023 compliance year began on a challenging note, with many materials undersupplied last year. This meant that carry-in across all materials was only 141,012 tonnes (t), down 361,690t from 2022. To give the market

confidence that targets could be met despite the diminished carry-in, strong Quarter 1 (Q1) supply was needed across all materials. And in large part, that is what we got. All materials saw growth year-on-year (YoY) as overall supply grew by 351,177t. Paper, Wood and Steel saw the most significant growth, up 23%, 48%, and 54% respectively, contributing a total of 285,000t of additional supply. With the drop in carry-in largely offset by an upturn in recycling, it is a positive start to the year. However, strong supply will need to be maintained, as targets remain at last year's challenging levels.

Despite calls from the Agencies for producers to register on time, currently registered producers are 764 short of the final number last year and 226 lower than the initial release in 2022. Economic downturn and what many buyers perceived as exorbitant high prices at the back end of last year have likely led to a reduction in packaging placed on the market and producers revisiting their calculations. This makes quantifying the impact of missing producers difficult. However, it is safe to assume that the obligation will grow significantly from its current level, which is 295,740t down YoY at 7,218,051t.

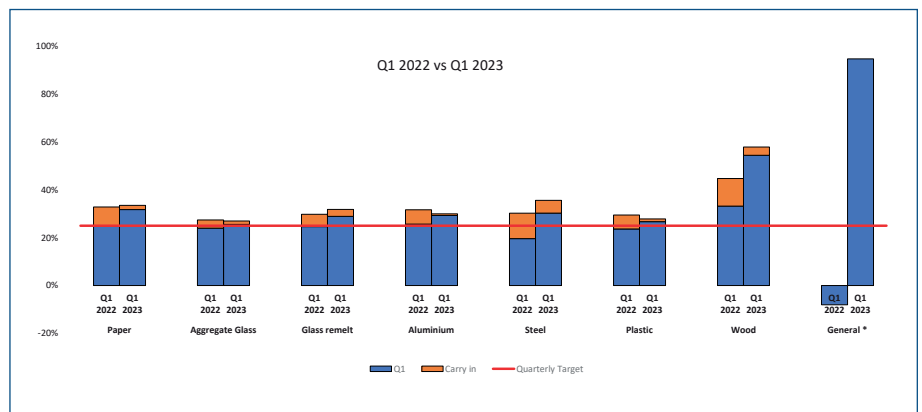
Plastic, although 8% up on an abysmal opening quarter in 2022 at 284,294t, remains in a precarious supply position. The use of over 50,000 tonnes of carry-in to meet compliance last year has meant that only 12,198t are available by way of a buffer this year, which includes just under 5,000t of non-compliance. Demand currently sits 145,574t below last year's final number, 4% down YoY. At current levels of supply, a 6% drop in demand is required for us to meet the target in year. This is feasible but would be made a lot more comfortable by an upturn in recycling levels.

A 23% YoY increase in supply, coupled with a 132,999t drop in demand, has turned what looked to be a tight market on its head. Buoyed by high opening prices, exports grew 19% on last year's average, as **Paper** recycling crept above 1 million tonnes in consecutive quarters for the first time ever. A total of 1,030,011 tonnes were reported as recycled. The dramatic fall in price that followed caught many sellers unaware and led to questions being raised about the increased levels of collection during a period of low consumption, and the application of agreed protocols. Whether these claims are legitimate remains to be seen. However, at current levels of supply, targets for both Paper and General Recycling (with the help of wood) will be met with ease.

Q1 **Glass** Recycling saw 38,483t growth YoY, with 37,063t of this coming in Remelt. Demand also dropped 82,620t (5%) YoY. However, this is tempered by a 39,955t reduction in carry-in due to the undersupply in Aggregate last year. This could have been more severe without a huge Q4 return, 22.5% above the yearly average at 150,890t. Despite this, the price of both grades has remained

Material	Carry In	Q1	YTD 2023 Obligation	YTD Supply + Carry In	Balance
Paper	56,652	1,030,110	3,243,294	1,086,762	-2,156,532
Aggregate Glass	6,614	118,907	465,397	125,521	-339,876
Glass remelt	34,605	346,266	1,196,736	380,871	-815,865
Aluminium	914	40,478	138,164	41,392	-96,772
Steel	18,587	105,488	348,422	124,075	-224,347
Plastic	12,198	284,294	1,065,284	296,492	-768,792
Wood	11,442	179,368	329,706	190,810	-138,896
General *	0	408,160	431,048		-22,888
Total	141,012	2,104,911	7,218,051	2,245,923	-4,541,080

**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.*



high. At the time of writing, several large glass producers remain unregistered, which will lead to growth in obligation. This currently sits 255,812t below last year's total of 1,917,945t. At current levels of supply, we could afford a 12% (200,000t) rise in obligation and still meet the target in year.

Aluminium recorded its best quarter since Q1 2021, as high prices carried over from last year. Up 12.7% on last year's average and 20.5% quarter on quarter (QoQ). Carry-out was all but wiped out, with only 914 tonnes available in 2023, and the obligation up 992 tonnes YoY at 138,422 tonnes. Several late-registering producers are expected to add to the obligation by the end of the year, which currently sits 7.5% (11,339 tonnes) short of the final 2022 figure (149,647 tonnes). However, if current levels of supply continue, we would comfortably meet the target.

A good start to the year in **Steel**, as the 105,488 tonnes reported as recycled was up 15.4% (14,088 tonnes) on last year's average (91,400 tonnes) and 54% on Q1 last year, which was the worst return in steel since 2009. Opening obligations (348,422 tonnes) remain broadly similar to last year, which grew 9.5% by the end of the year. Carry-in has been halved from last year at 18,587 tonnes, however any impact of this has largely been mitigated by the much-improved opening quarter.

Wood posted its best recycling return since Q3 2010, up 13% on last year's average at 179,368 tonnes. At current levels of supply and demand, wood would contribute more to general recycling than to its own material-specific obligation, which currently sits 9.5% (35,076 tonnes) down YoY and 14.2% (54,828 tonnes) down on last year's final obligation.

The Marketplace for PRNs

Current Deep Sea Container Shipping in the Post-Pandemic World



Rob Powell – Managing Director – Miro Logistics Limited

Rate pressure in the number one dominating factor in today's sea container shipping market, leading to a cycle of monthly price reductions. Although this may seem beneficial for recyclable exports from the UK, it is challenging for companies like Miro Logistics,

which specialises in exporting recyclables to deep sea destinations – as well as detrimental to everyone active in the market.

A Challenging Situation: Cargo Levels and Pressure in the Post-Pandemic Shipping Industry

Miro Logistics exclusively focuses on exporting wastepaper, metals, and plastics, acting as a bridge between waste sorting facilities and commodity traders in the UK and overseas. With 20 years of experience in recyclables and 30 years in deep sea shipping, we purchase space on vessels by acquiring a portion of the allocated weight allowance shared among competing shipping lines.

If the UK were not exporting recyclables, 80% of shipping containers leaving the country would be empty during normal economic times. The circular economics of container movements rely on higher freight prices for the import leg of the journey. Today's container ships earn their majority profit from carrying lighter inbound cargoes to developed economies.

Returning to rate issues - the shipping line's higher-paying import cargo has dried up, resulting in vessels running empty. 15 months ago, we faced a crisis involving drivers, fuel, ports, and space on vessels – receiving a cold call from a shipping line was a thing of the past. However, when inflation hit, people with now limited disposable income shifted their spending toward experiences instead of consumables.

From Panic to Inflation: The Impact of the Pandemic on Shipping Lines

During and after the pandemic, shipping lines made colossal profits, abusing customers and capturing the attention of governmental authorities worldwide. The shipping lines seemingly had their act together, implementing strategies to increase overall rate levels regularly. This acceleration in logistics costs was the catalyst for inflation, which was then followed by fuel, energy and food.

Today, the once amicable relationships between likeminded shipping line behemoths have seemingly broken down, reverting to an era where price supersedes service. Despite the sharp contraction in price in the last 12 months - many ships remain in service. This generally maintains capacity on global trade lanes, leading to the huge drop in container pricing levels.

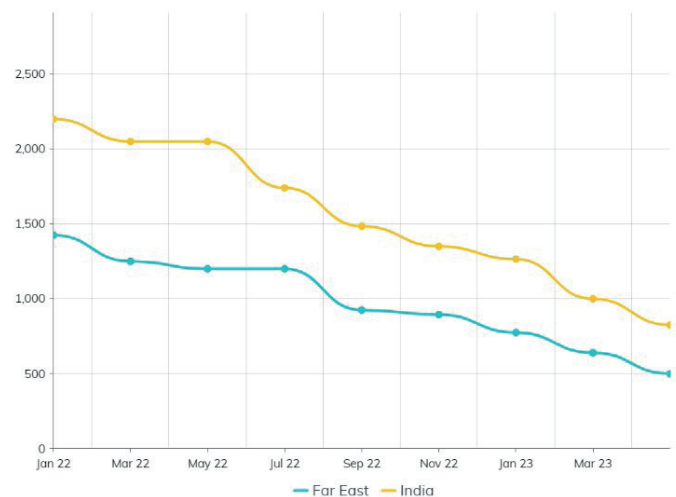
The Challenge for Exporters: Navigating Decreased Consumerism and Shipping Rate Levels

The current challenge for exporters is to secure the lowest possible shipping prices to facilitate material purchases. This challenge is compounded by the decrease in consumerism and subsequent reduction in recyclables, which creates a downward spiral in

shipping rate levels. As material sellers attempt to maintain high prices, traders tirelessly seek the best freight levels. However, once achieved, shipping cost levels become temporary as the rates are shared among competing lines, perpetuating the cycle. Rate levels have plummeted from over \$2,000 USD to under \$500 for a shipping container from door to the Far East, and import prices have decreased from \$20,000 USD to \$1,200 USD for shipments to the West,

While the situation may appear gloomy, we see it as just another challenge in the supply chain cycle. *Another one of those...* Experience and strong relationships with shipping lines are crucial to navigating these ever-evolving issues.

UK Export Rates USD / 40 HC- Wastepaper



Preparing for Future Shifts: Advice for Exporters.

The price decline still has potential to continue, however the shipping lines who have accumulated substantial reserves in the last 3 years will not allow loss making to go on indefinitely. The positive is that the process of shipping is currently incredibly easy, with the ability to organize a 40ft High Cube container in the morning and have it positioned and loaded on the same day – something unheard of previously. There is seemingly unlimited space available on vessels, and the driver crisis has come to an end, with ports operating smoothly.

At some point soon, the dynamics will shift. Lines will increase blank sailing programs, and equipment may become scarce. The shipping lines will once again implement surcharges. Several markets around the world are already reporting this.

In light of this, I offer the following advice: maintain relationships with your logistics partners, even if it incurs slightly higher costs, you will need friends in the future. Utilise this current time to expand your logistics supplier portfolio. Be mindful that at any point soon, the market will turn and if you are loading containers in the following month without a fixed price, you may get caught on the wrong side of a General Rate Increase (GRI) or spurious surcharge announcement.