

### **Market Snapshot – December 2018**

Recovered HDPE bottle prices have risen sharply during the fourth quarter. In contrast, PET bottle prices have seen much smaller increases. The relative weakness of PET prices may be due to the loss of export demand due to import restrictions in China and elsewhere in Asia. Mixed polymer bottles and LDPE 98:2 film have been most affected by import restrictions.

Based on the latest trade data, four countries account for 45% of the UK's recovered plastic export market: Malaysia, Taiwan, Indonesia and Turkey. All of these countries have introduced import restrictions apart from Turkey.

The main market development in recovered paper prices during the fourth quarter of 2018 was the decline in the price of OCC. Market anecdote suggests that the lack of guidance from China on 2019 demand was behind the decline in prices.

There has been less interest from alternative export markets in restricting imports of recovered paper so far. The UK remains heavily dependant on China as an end market with almost two-thirds of its OCC exports sent to China. There are suggestions that China may delay its total ban on solid waste imports (which was thought to include materials like OCC) from the end of 2020 to 2021. However, there has been no official confirmation of this.

Recovered glass and metal can prices are broaldy stable. Meanwhile, although recovered textile prices saw little change during the fourth quarter of 2018, the price of textiles sourced from charity shops has seen a sharp fall over the past year. Strong supply due to the warm weather and weak demand in many export markets contributing to the decline.

Table 1: Key recovered material prices

£ per tonne				% change	
	Dec-17	Sep-18	Dec-18	Sep-18 to Dec-19	One year
Recovered paper					
OCC (domestic)	110	105	68	-35%	-38%
News & PAMs	98	104	95	-9%	-3%
Mixed (domestic)	55	39	43	10%	-22%
Recovered plastic					
Clear PET	175	196	188	-4%	7%
Coloured PET	25	23	28	22%	12%
Mixed HDPE	275	296	350	18%	27%
Mixed polymer	83	63	53	-16%	-36%
Natural HDPE	385	448	475	6%	23%
LDPE 98:2	188	178	145	-19%	-23%
Recovered cans					
Aluminium	1065	1006	1070	6%	0%
Steel	128	149	145	-3%	13%
Mixed	110	90	95	6%	-14%
Glass					
Clear	20	19	20	5%	0%
Amber	13	14	18	29%	38%
Green	15	11	15	36%	0%
Mixed	13	10	10	0%	-23%
Textiles					
Banks	283	223	255	14%	-10%
Charity Shops	425	258	253	-2%	-40%

Source: WRAP Materials Pricing Report

Note: Percentage changes are based on the mid-points of the ranges where applicable.

### **RECOVERED MATERIAL MARKETS**

### **Plastics**

Over the past twelve months recovered HDPE prices have increased by around one-quarter. This trend continued during the fourth quarter of 2018 with both natural HDPE and mixed HDPE bottle prices up strongly.

Natural HDPE bottle prices increased to £475 per tonne in Q4 2018 the highest level since mid-2015. Although it's not clear what has been driving the increase, it's clear that unlike PET (which was, and still is heavily exposed to export market demand), HDPE has not been affected to the same extent.

Clear PET bottle prices fell slightly during Q4 2018 to £188 per tonne, although prices are up around 7% from year earlier levels. Although coloured PET bottle prices have been volatile they are relatively low value at around £25 per tonne.

The recovered plastic markets most affected by the China ban and subsequent import restrictions elsewhere in Asia are mixed polymer bottles and LDPE 98:2 film. That trend continued in late 2018 with prices for both grades down around 15-20%.



According to the latest HMRC trade data, the UK exported 443kt of recovered plastic (both packaging and non-packaging) in the period Jan-Oct 2018, down 5% compared with the same period in 2017.

Based on the latest data published by HMRC (October 2018) four countries account for 45% of the UK's recovered plastic export market: Malaysia, Taiwan, Indonesia and Turkey. However, the picture is likely to change significantly over coming months.

# Box 1: Malaysia and Taiwan introduce import restrictions while Vietnam extends ban

Malaysia: In late July, the Malaysian government imposed a three-month freeze on existing Approved Permits (AP's) for plastic waste imports. Three months later, the ban was lifted but tighter regulations were introduced - recyclers had to fulfil 18 new conditions before getting APs, and pay a small levy per tonne of imported plastic waste.

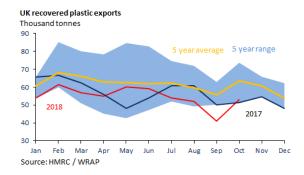
The conditions include limiting imports to "clean and homogeneous" industrial and post-consumer plastic waste, banning imports from developing countries, and capping waste imports at 70% of companies' operating capacity. Companies also have to get an accredited third party to verify their processing machines' operating capacity, produce photos of their waste imports, and apply for a letter of recommendation from the Department of Environment.

According to Malaysia Housing and Local Government Ministry (KPKT), only eight recyclers have fulfilled all the conditions, with the ministry receiving 32 AP applications as of mid-December.

Taiwan: In Taiwan regulations took effect in early October reducing the types of material allowed for import. Companies can only import post-industrial plastic from their overseas production facilities or loads of a single material type. It's unclear whether certain polymers are banned altogether.

Vietnam: The ban on recovered plastic imports coming through major Vietnamese ports was scheduled to end in mid-October, but it has since been extended until further notice.

Turkey: No announcement has been made on import restrictions.



Feedback from UK plastics exporters suggests that much of the recovered plastics exported

to alternative export destinations are then (after processing) being transhipped to China. Exporters confirm that plastics must either be processed into a pellet or a flake and must be a consistent size and shade in order to be granted entry into China.

UK plastic packaging recycling compliance data shows that 242kt was recycled during Q3 2018, 12% lower than year earlier levels; the decrease coming almost exclusively from lower exports. Plastic PRN prices increased over the past few months to around £130 per tonne in late 2018 as concerns about meeting 2018 recycling targets grew.

### **Paper**

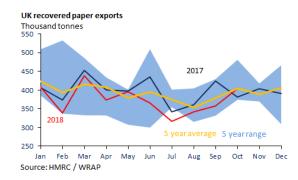
The main market development in recovered paper prices during the fourth quarter of 2018 was the decline in the price of OCC. Domestic OCC prices fell from £105 per tonne in September to below £70 per tonne by the end of the year. Prices remain above the levels seen in March 2018 just after China introduced tougher restrictions on imported fibre contamination levels. Market anecdote suggests that the lack of guidance from China on 2019 demand (in the form of import permits) was behind the decline.

Domestic mixed paper and board prices remain around £40-£45 per tonne. Prices have recovered from the lows set in spring 2018 but remain around 20% below year earlier levels. News & PAM prices continue to trade in the £95-£105 per tonne range having been largely unaffected by the Chinese import restrictions.



According to the latest HMRC trade data, the UK exported 3.7Mt of recovered paper in the period Jan-Oct 2018, down 6% compared with the same period in 2017.

At the start of 2018 China accounted for around 40% of the UKs recovered paper exports, but since July it has increased to just over 50%. In October 2018 the main non-China export destination was India, accounting for 71kt of the UK's exports or 18%.



UK paper packaging recycling compliance data shows that 933kt was recycled during Q3 2018, broadly stable compared with year earlier levels. Paper PRN prices have increased from around £10 per tonne in mid-2018 to around £15-£20 per tonne in Q4 2018. The rise in price may reflect concerns over evidence supply to meet the general recycling obligation.

# **Box 2: Further Chinese restrictions on imported OCC could be delayed**

Since mid-December, The Ministry of Ecology and Environment (MEE) issued permits allowing 6Mt of recovered fibre for import in 2019; China approved the import of more than 20.6Mt of recovered fibre in 2018.

Chinese authorities previously indicated that they would stop imports of recovered paper for recycling by the end of 2020. Although not confirmed, market anecdote suggests that the total ban on imports, if it is to happen, will not be imposed before 2021. China is expected to notify the WTO of its intention sometime during 2019.

Over the past twelve months (including October 2018) the UK exported 2.5Mt of OCC, with 1.7Mt (65%) going to China.

### **Glass**

The price of amber and green cullet rose by around one-third during Q4 2018. Clear and mixed cullet prices are unchanged.



Glass packaging recycling compliance data shows that 406kt was recycled during Q3 2018, down 7% compared with year earlier levels. Glass PRN prices have increased from around £15 per tonne in mid-2018 to around £30-£40 per tonne in Q4 2018. Glass PRN prices have increased on concern that the 2018 target is not going to be met.

### **Aluminium & steel**

Recovered aluminium and steel can prices are broadly stable at around £1070 per tonne and £145 per tonne respectively.

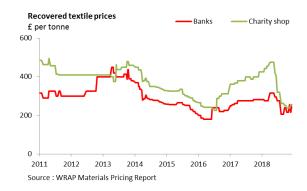


Aluminium packaging recycling compliance data shows that 28kt was recycled during Q3 2018, up 21% compared with year earlier levels. Despite the increase in evidence, aluminium PRN prices have increased from around £25 per tonne in mid-2018 to around £110 per tonne in late 2018.

Steel packaging recycling compliance data shows that 106kt was recycled during Q3 2018, up 12% on year earlier levels. Steel PRN prices have increased from £15 per tonne in mid-2018 to around £15-£20 per tonne during the fourth quarter 2018.

#### **Textiles**

Recovered textile prices sourced from textile banks increased by 14% during the fourth quarter to £255 per tonne, although prices remain around 10% below year earlier levels. Charity shop textile prices were broadly unchanged during late 2018. Prices for this grade fell by 40% over the past year. A combination of warm summer which led to a significant increase in the amount of recovered textile supply combined with economic concerns in many exports markets is thought to have led to reduced demand for recovered textiles. Note that the quality of the textiles collected and transport costs may have a significant impact on the overall price achieved.



WRAP Economics Team December 2018

## **Glossary**

CPI Confederation of Paper Industries

EA Environment Agency HDPE High density polyethylene

HMRC Her Majesty's Revenue & Customs

kt Thousand tonnes

LDPE Low density polyethylene

Mt Million tonnes

News & PAMs Newspapers & magazines NPWD National Packaging Waste Database

OCC Old corrugated cardboard
PET Polyethylene terephthalate
PRN Packaging Recovery Note

While we have taken reasonable steps to ensure this report is accurate, WRAP does not accept liability for any loss, damage, cost or expense incurred or arising from reliance on this report. Readers are responsible for assessing the accuracy and conclusions of the content of this report. Quotations and case studies have been drawn from the public domain, with permissions sought where practicable. This report does not represent endorsement of the examples used and has not been endorsed by the organisations and individuals featured within it. This material is subject to copyright. You can copy it free of charge and may use excerpts from it provided they are not used in a misleading context and you must identify the source of the material and acknowledge WRAP's copyright. You must not use this report or material from it to endorse or suggest WRAP has endorsed a commercial product or service. For more details please see WRAP's terms and conditions on our website at <a href="https://www.wrap.org.uk">www.wrap.org.uk</a>

Waste & Resources Action Programme The Old Academy 21 Horse Fair Banbury, Oxon OX16 0AH Tel: 01295 819 900 Fax: 01295 819 911 E-mail: info@wrap.org.uk Helpline freephone 0808 100 2040

www.wrap.org.uk/marketinformation

