

**Financial Exposure of Scottish Local Authorities Arising  
from Reductions in Recyclate Material Prices**

**Report to**

**Scottish Government  
CoSLA**

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Contract Reference: Financial Exposure of Scottish Local Authorities Arising from Reductions in Recyclate Material Prices.

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## Executive Summary

The current global financial crisis has had a major impact on the income that Local Authorities in Scotland are receiving for their recyclate. The principal materials affected are, paper, card, cans and plastics. Glass and organics markets have been relatively unaffected, as the domestic demand has remained consistent.

From a survey of Scottish local authorities (21 of 32 returned data) carried out in early December, it is estimated that the net impact of the fall in materials is £3.9 million if annualised. This is based on the change in prices being offered by the market from August 2008 to November 2008.

Furthermore, if prices were to continue to fall to a point where councils received no income for these principal materials the total annualised financial impact on Scottish local authorities would be £7.7 million as illustrated on Figure 1 below. The majority of this impact would come from the News and Pams market, although with 16 councils reporting fixed price contracts this has helped reduced local authority exposure to the fall in prices.

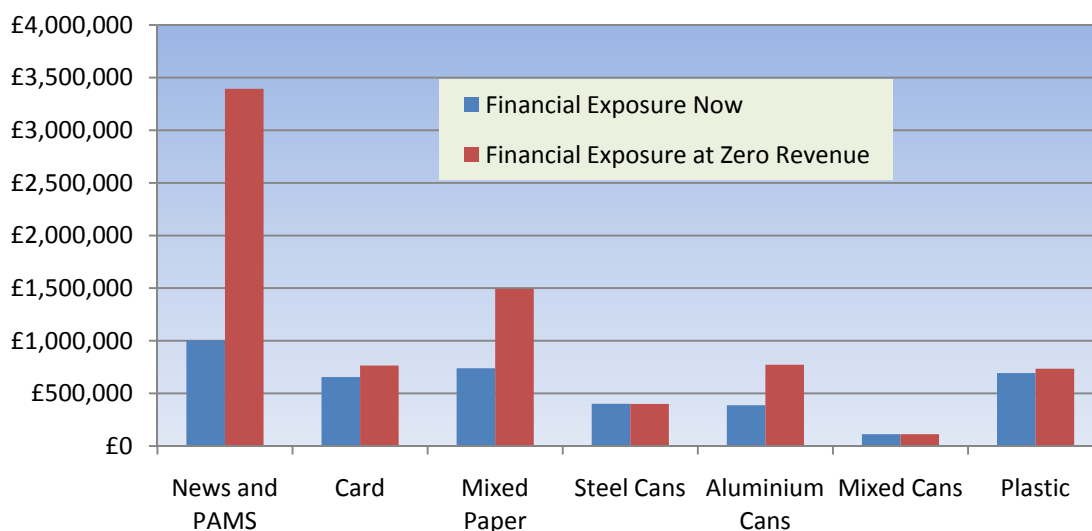


Figure 1; Projected Financial Exposure to Local Authorities in Scotland

Comparing several pricing indices - WRAP's Material Pricing Reports, Let's Recycle and FOEX indices - the average changes in material pricing in November, based on the previous 9 months, were:

- 71% for News and Pams – which have held, because of the UK domestic demand for material;
- 30% and 8% respectively for card and mixed paper (lower grades);
- 20% for mixed plastic bottles and
- 55% for Aluminium Used Beverage Cans (UBC)

- The price for steel cans has dropped to zero. Corus the main outlet for steel cans is currently experiencing a significant downturn in orders and is seeking payroll reductions and temporary layoffs for its employees.

As of mid December 2008 prices for materials continue to fall, although there is some indication from re-processors that the price drops may be stabilising.

The glass and organics market have remained stable as these materials are primarily reprocessed in Scotland.

In response to the need to achieve target levels of recycling in packaging waste, the Packaging Recovery Note (PRN) values have increased an average of 232% over the short term.

Despite initial concerns about stockpiling material this has largely not occurred and no councils report an intention to do so at this time. The private sector waste management companies also report that despite the drop in prices for lower grade materials, outlets do exist although at low or no income.

The 32 Local Authorities use 191 waste management contractors and community groups. Many of these are small organisations and will struggle with the significantly lower prices.

Discussions with the three major waste companies in Scotland suggest that larger operators are more likely to be able to cope with the market variances.

The report concludes with several recommendations which would help Councils face the immediate impact of price reductions, but more importantly address the long term problem of security of markets for Scotland's local authority recyclates.

## 1. Introduction

The recent downturn in the world's financial economy is having a serious impact on the markets and outlets for the recyclates recovered by Scottish Local Authorities. The income from recyclate materials contributes to the overall costs of a recycling service provided by local authorities.

This report evaluates the impact of recyclate material prices on Scottish local authorities, by determining the financial exposure individual councils are finding, and to identify what steps Scottish Councils and Government might take to minimise the long term consequences.

This report is based on a detailed survey conducted by COSLA and subsequently analysed by Remade Scotland. It also draws on further follow-up consultations with the Waste Management Industry and market/price analysis conducted by Remade Scotland and WRAP. Material tonnages used are drawn from Waste Data Flow (WDF) 2006/07.

Information was sought in three phases:

- An initial letter sent to all 32 Councils to ascertain the extent of the market problem;
- A detailed questionnaire which councils were asked to return completed;
- Discussions held at the meeting of the COSLA Waste Mangers Network on the 28<sup>th</sup> November 2008.

The basic information sought related to:

1. **Contracts** –contract type ( e.g. gate fee, fixed income, price with rebate, spot market), contract lengths;
2. **Gate fees** – previous and current gate fees, including any change to rebates applied and the basis of any rebates (e.g. % of value obtained by contractor)'
3. **Contract Security** – views were sought on security of contract (eg had the contractors sought to renegotiate contract), and any known stockpiling issues.

Most councils responded by providing some data and while this is relatively incomplete, some insight can nonetheless be determined.

## 2. Materials and Contracts

This section considers the impact of the fall in prices for the principal materials, in particular News and Pams, which are collected by most local authorities, representing a significant proportion of the material collected at the kerbside as a single stream or as part of a co-mingled collected material. Prices over the past year have been taken from WRAP's Market Pricing Reports, Let's Recycle Price Indices for domestic, export and in the case of paper, Merchant prices (a price which would be given by a local waste paper merchant). An FOEX is also given for News and Pams. News and Pams material is highlighted because most data provided by the Councils related to this recycle stream.

### 2.1. News and Pams

Scottish News and Pams prices have historically been much lower than reported prices and indices would suggest and is an ongoing issue for Scotland. However rebates paid to Councils are based on a variety of contract types and often involve an agreed percentage of the income that the contractor receives. Where News and Pams are delivered direct to the mills, prices ex works are similar, although additional transport costs will reduce the net income.

As seen in the Figure 2, over the previous year, prices while remaining relatively stable had risen to a historical high in August 2008. However, the price data suggests that in November 2008 the price being achieved was 71% of the average price over the previous 9 months. These price falls are not as significant for the other materials given in Annex 1, largely because demand from the UK domestic market has helped to retain the value.

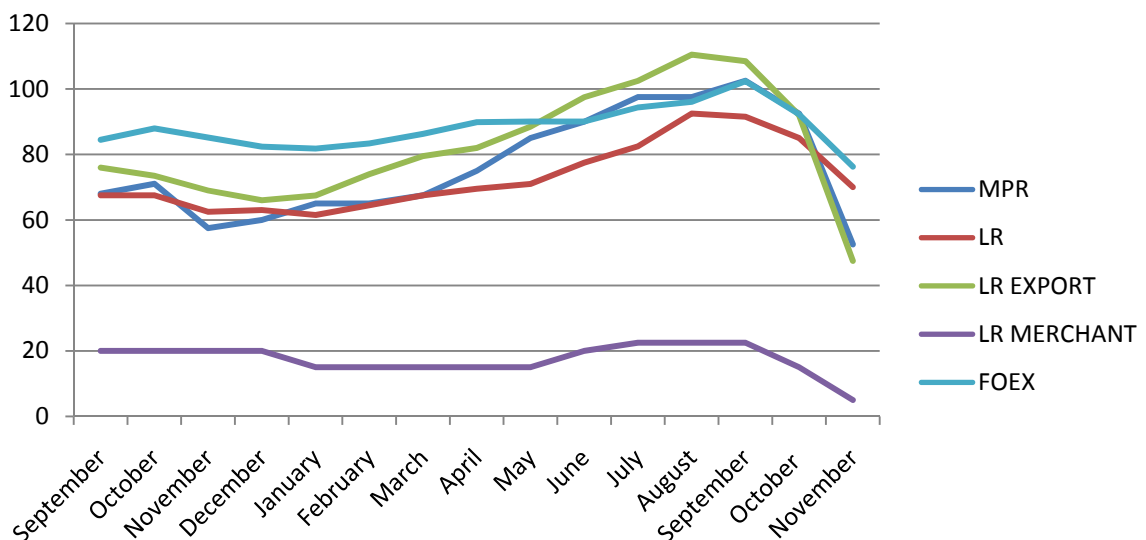


Figure 2: News and PAMS Historical Pricing (£ per tonne) 2007/8

Of the 28 Councils who reported in WDF 2006/2007 that they recovered News and Pams, 21 provided information on the income they received.

N° Councils	Impact
16	No Change in price reported
5	Average drop of £22 from £42 to £20/T
7	Unreported – Average drop of £22/T applied
28	Total Impact = £1,003,454

Table 1: Reported Price Changes experienced by Councils between August and November 2008

As shown in Table 1, 16 of the 21 reported no change in income. These councils have fixed price contracts. Of the 5 Councils who did report a drop in income the average variation was a drop of £22/tonne from £42/tonne in August to £20/tonne in November. This average drop was applied to the 7 Councils who did not provide any information. This information suggests a financial impact of around **£1 million** over one year.

However in 2007/8 140,545 tonnes of News and Pams were recycled and if this average drop was applied to the total tonnage the financial impact rises to over **£3million**. Since 16 councils have a degree of security from fixed prices, the overall impact has been limited to **£1million**. If however the price for News and Pams was to drop to zero, then the exposure of those councils not in a fixed price contract would total almost **£2million**.

## 2.2. Other Materials

Similar pricing data are provided in Annex 1 for the other materials which Councils collect. These show significant reductions in price in November compared with the average over the previous 9 months. For low grade paper such as cardboard (to 30% of value), mixed paper (to 8% of value), mixed plastic bottles (to 20% of value), aluminium cans (to 55% of value). Steel prices have fallen to zero, because of the reduced demand from major users of steel.

Applying a similar analysis to these materials (as given for News and Pams) Table 2 shows the net impact of price falls across all materials if applied over a year.

Material	Current Exposure (£k)	Potential Exposure if Income falls to Zero (£k)
News and Pams	1,003	3,393
Card	655	764
Mixed Paper	738	1492
Steel Cans	401	400
Aluminium Cans	387	773
Mixed Cans	112	112
Plastic Bottles	693	734
<b>Total Financial Exposure</b>	<b>£3,989k</b>	<b>£7,668k</b>

Table 2: Financial Exposure of Councils at November 2008 prices and at no income for materials

Glass prices have remained stable over the past year. Recycled glass, offers economic benefits in terms of energy savings by glass manufacturers, and therefore remains in demand, particularly while energy prices remain high. Organic composts continue to serve local markets which have not been affected by the global financial downturn.

UK domestic markets for compost, glass, and News and Pams (in part) have helped to limit the impact of falling recyclate prices in Scotland.



### 3. Price versus Security of Market

Councils will often have more than one contract for all their recovered recyclate, one contract for their co-mingled collection and other contracts for their recycling centres and points for the associated materials.

In choosing a contract structure councils can make their decision on price or on market security. Councils reported the following broad categories of contract types:

- Contracts **based on a fixed and certain price** for both parties;
- Contracts **based on price**, with or without the prospect of rebates and which may seem to offer good procurement value;
- Contracts largely **based on spot market prices** at a point in time.

Normal best value and procurement would suggest a contract offering the best price at the time of contract signature would be of most benefit to the Council, rather than a contract which offers security of outlet. Indeed income has been particularly emphasised in recent years with the relatively buoyant nature of the recycling industry which has seen many material prices reach all time highs.

Yet recovered materials are a commodity and like all tradable materials, are subject to the demand from markets, with some materials particularly vulnerable to global downturns in demand. Arguably the recent high commodity prices also led some contractors to have a false sense of market security. One particular example is a contractor having recently committed to a very low gate fee for a co-mingled dry recyclate, now seeking a gate fee of £40/t more.

Security of market should remain a concern, particularly when there were cases in the early 1990's of recycled paper being landfilled because of a lack of markets. Markets do currently exist - the issue is, what price should local authorities pursue for the security of these markets?

The impact of recyclate prices was recently explored in Remade Scotland's review of recyclate prices<sup>1</sup>, where it was identified that prices obtained by Councils for recyclate represent only a small proportion of the overall costs of providing a service – i.e a 50% change in income from the sale of recyclate represents only around 7% change in the overall cost for a typical dry recyclate kerbside collection service. The study looked at the possible benefits of consortia material selling and the net value of improved prices to the councils' recycling services. This illustrates the lesser importance of recyclate income on the overall cost of delivery of recycling services.

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<sup>1</sup> *Recyclate Prices – An Examination of the Factors Affecting the Prices Obtained by Scottish local Authorities for Recyclable Materials. December 2007*

### 3.1. Fixed Price Contract

Stability of outlets over a variable income has been chosen by 16 Councils (76% of those who responded to the COSLA survey). These Councils report no change to the income they received for News and Pams. Details of these 16 contracts are given in the table below.

Contract Type	No of Councils	Description
<b>Direct Contract with Mills</b>	3	Aberdeenshire, Glasgow and North Ayrshire collect the material and have a fixed contract with a Newsprint Mill, thus providing a guaranteed income
<b>Fixed Gate Fee and no Income</b>	3	These councils have “de-risked” their position by seeking a competitive Fixed Gate Fee for co-mingled materials and no rebate - North and South Lanarkshire
<b>Fixed / Agreed Contracts</b>	5	East Renfrewshire, Midlothian, Perth & Kinross, Stirling, West Dunbartonshire, Clackmannanshire
<b>Integrated Collection and Disposal</b>	2	Edinburgh has an integrated contract with Abitibi. East Lothian has a collection contract with the private sector.
<b>PPP</b>	2	Argyll & Bute and Dumfries & Galloway have PPPs which incorporate assumed incomes into the overall contract price over a 25 year period
<b>Did not previously obtain an income</b>	1	Shetland Islands

Table 3: Councils who have fixed price arrangements in place for Recyclates

### 3.2. Gate Fee and Variable Rebate

Another alternative contract arrangement reported by a further 3 Councils is where there is a fixed gate fee and a variable rebate. North Ayrshire (for their paper from recycling centres and points) and South Ayrshire receive a rebate of 50% of the income obtained by their contractor. West Dunbartonshire has a similar arrangement although the 50% share is based not on the direct income but on the differences between an agreed benchmark price and the average of several price indices.

### 3.3. Spot Prices

Of the Councils who reported, 8 advised that they sold at spot prices. This was often due to the view that the materials being recovered were of high quality and therefore able to command a better price than offered by fixed contracts. Details of these councils are given in the table below.

No of Councils	Council	Description
7	Dundee, Highland, Inverclyde, Midlothian, Moray, Orkney, Western Isles	Spot prices for majority of materials
1	Glasgow	Spot prices for plastic & card only

Table 4: Councils operating spot pricing for materials

### 3.4. MRF Costs

There is limited information on the actual gate fees paid by Councils in Scotland for any of the various types of contracts in place. However, Remade Scotland using its own MRF costing Model and some initial MRF work undertaken by WRAP estimate that for a new purpose-built MRF<sup>2</sup> utilising sorting technologies would require gate fees in the range of £35-£50/tonne, including the cost of capital. However, prices being charged by the privates sector do appear to be less, thus suggesting:

- That the material collected is not being subject to the modern MRF reprocessing technologies, with probable reliance on older, less efficient sorting processes;
- That quality of MRF output is likely to be reduced as a consequence – with the resulting impact on supplying into less value, overseas markets.

### 3.5. Availability of Contractors

Waste Data Flow lists 191 contractors recovering or processing waste on behalf of Local Authorities. The majority of these are small scale operations generally dealing with a limited range of materials and include the community sector. For Councils outside the Central belt there are only a limited number of larger scale operators who are able to or willing to tender for Council co-mingled contracts. This has not necessarily resulted in poor or overpriced contracts so far, but limited contractors does place an additional requirement on Councils to be clear about the services they require from the operators and to negotiate appropriate conditions.

<sup>2</sup> *Treatments Capacity Requirements – work due to be reported early in 2009*

## 4. The Impact of PRNs

One consequence which has occurred as a result of the global downturn in demand for recyclate materials has been the impact on the value of Packaging Recovery Notes (PRNs). Organisations, obligated under the UK Packaging Waste Regulations are still required to ensure their respective targets for recycling and recovery are met. This has meant that the value of PRNs has increased on average by 232% in the past month, helping to support prices and the flow of packaging materials. The price change is across the range of materials as shown in Figure 3 below.

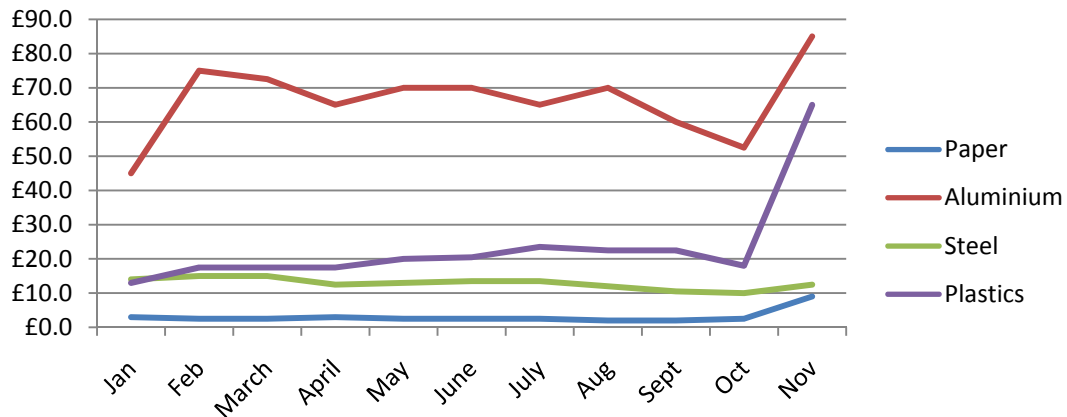


Figure 3 PRN Values during 2008

PRNs are generated by reprocessors of packaging waste and are then paid an income. This helps to cushion the impact of the fall in recyclate prices. Glass (not included above) PRN values have remained stable over the past month, in line with stable market prices, because of the continued demand from the Scottish and UK market for glass.

## 5. Material Flow to Domestic and Overseas Markets

As highlighted earlier, the materials for which markets and outlets remain robust are primarily those which can be treated and processed locally. Of the 983,812 tonnes of recyclate recovered in 2006/7 almost half of the material remained in Scotland (materials being glass, rubble, WEEE and organics). The destination for the rest, although being initially handled by reprocessor/exporters in the UK, is unknown. Such data are difficult to acquire since material is aggregated and shipped to overseas destinations. Figure 4 provides a summary of the information available on the destination of recyclates.

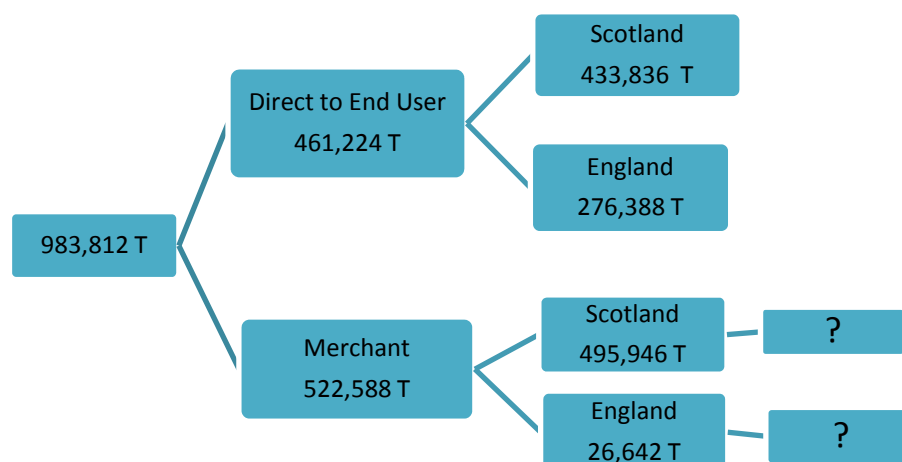


Figure 4 Materials direct to end users

The following table highlights where recyclate materials that go directly to an end user are specifically managed and reprocessed. The table demonstrates that with the exception of electronic waste, the majority of higher value material such as paper, plastic and cans is handled in England.

Material	Tonnage	End Market/Location
Rubble	117,272	Scotland
Green Waste	262,136	Scotland
Paper	25,664	England
Plastics	1,004	England
Glass	43,879	Scotland
Cans	778	England
Electronics	10,491	Scotland

Table 5: Materials passed on to known End User

One concern is the lack of knowledge of where recyclate materials eventually end up. Duty of Care regulations exist to ensure controlled waste is safely managed, and ensures all those managing waste including those responsible for producing it in the first instance take appropriate actions to manage the waste. However, Duty of Care does not form a sufficiently robust system upon which Councils can rely on to track recyclate to its ultimate destination. Waste will pass through a number of reprocessors before reaching end markets.

Nevertheless, with the requirement for robust data on recycling performance and the need to understand better the end markets, consideration should be given to developing more robust audit trails for recyclates. Such information would help inform investment and contract decisions for security of markets.

## 6. Consultation with the Industry

Brief discussions were held with William Tracey, Shanks and Viridor to establish an industry view on the state of the markets. The view that emerged, although not always completely unanimous, was generally that:

- **Volatility** - the recent volatility in the recyclate commodity market is unprecedented.
- **Markets Exist** - the majority of materials are finding a market although the lower grades are receiving low or no income and that China remains an important market. It was suggested that some co-ordinated effort from Scotland might help expand other Asian markets.
- **PRNs** – these are seen as being a very useful mechanism for stimulating and supporting the development of plants and processing to produce products from waste, especially for glass and wood.
- **Cost of Capital** - a reduction of 2% or so in borrowing has not had much impact on the cost of finance for the reduction has not always been passed on to customers.
- **Future Markets** – a view is that things may stabilise early in 2009, but there may be some casualties but the main players are likely to survive. Until then there is a need for both reprocessors and councils to reach a common understanding of the market problems and renegotiate if necessary.

## 7. Conclusions and Recommendations

### 7.1. Key Issues

There is a widespread acceptance that prices have never changed so dramatically as they have done in the past month. While early indications for December suggest prices are continuing to fall, how long term such price shifts are, is uncertain.

#### *Impact on Councils*

It has been shown that should November prices continue for a full year then Scottish local authorities would be exposed to a shortfall of almost £4 million in a full financial year across a range of materials. If it were not for some councils who have longer term contracts, fixed price and security of markets, this figure could be as high as £7.7million.

#### *Domestic and Overseas Markets*

Where local markets are used, (organics/glass) prices have remained robust and have not been affected by the downturn. Indeed the News and Pams sector has seen a lesser drop (71% of its previous value) than other materials largely because of the continued demand for material from the UK paper mill market. However other materials, plastics, aluminium, steel, mixed paper and card have seen more dramatic falls.

Scotland already reprocesses 50% of its recyclate but with the exception of electronics the majority of higher value materials, especially paper and plastics are being sent elsewhere. The development of these local markets over the past few years has helped cushion the current impact, although further investment and the use of the PRN value, especially in plastic reprocessing would assist the development of more local markets and hence offer greater market security.

#### *Contract Types*

The crisis has highlighted the contrasting impacts of contract types held by different local authorities. Those contracts focussed on spot prices or price with rebates have particularly suffered in the past month. Councils with fixed prices have largely been protected from the downturn.

### 7.2. Recommendations

Based on the above the following recommendations are made:

1. **Allow markets to settle** – the prices changes have been swift and significant, but it is important to see how long term the effects are and take stock before any early intervention on the part of councils and Government;
2. **Understand the financial implications** – communicate the financial impact across councils, and consider what financial provision might be made by



councils or Government to address any continued shortfall in material prices. Councils should understand that the material price represent a small proportion of the overall costs of recycling services;

3. **Improve on contract practices** – explore with local authorities a consistent approach the award of contracts which more fully acknowledge the value of security of markets (for example more joint working among councils in the award of contracts and consistent use of contract terms and conditions which promote market security).
4. **Better understanding of material flows** – promote greater accountability of waste reprocessors through contracts to determine the final destinations of materials.
5. **Promote quality** – the downturn has emphasised the important of material quality in achieving markets at reasonable prices. Councils should encourage proper investment in reprocessing infrastructure through their contracts, even if it has a price premium.
6. **Support local markets** – the importance of a local market for higher value recyclates is recognised. Through continuing strategic and co-ordinated support and further investment, Scotland should seek to develop these local markets.

## Annex 1 Market Prices for Other Materials

The figures in this section show the changes in price per tonne over a 14 month period for a range of materials. Where the pricing indices report ranges then mean figures have been used.

### Key to the indices

- MPR – WRAP Material Pricing Report
- LR Mill – Lets Recycle Mill Prices
- LR MERCH – Lets Recycle Merchant Prices
- LR – Lets Recycle Export Prices

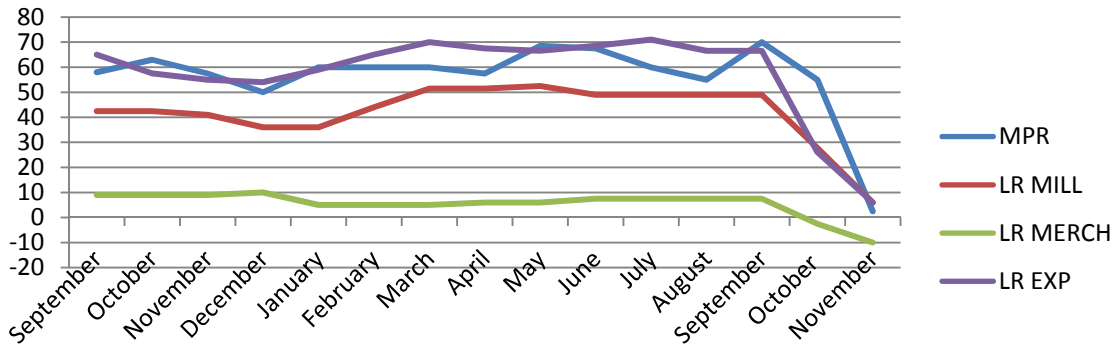


Figure A1: Mixed Paper Historical Pricing

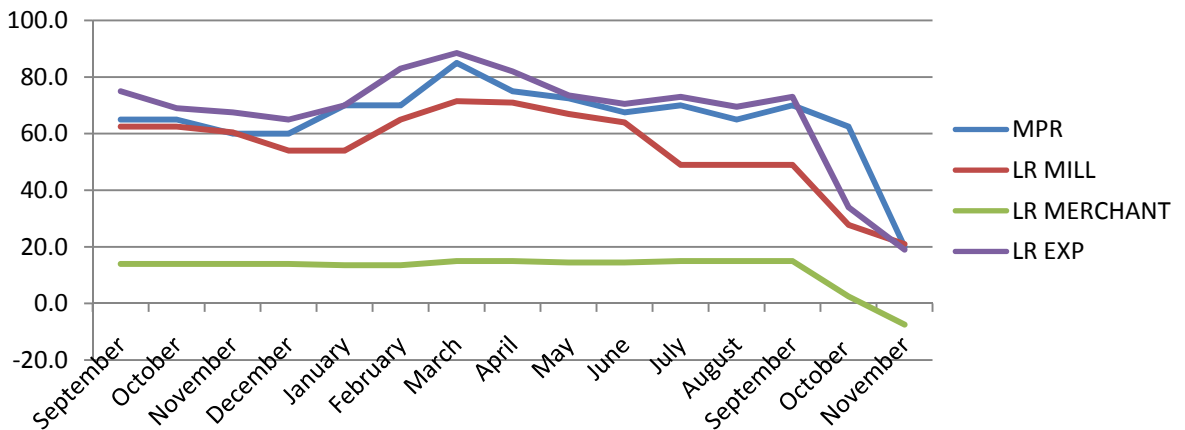


Figure A2: Cardboard Historical Pricing

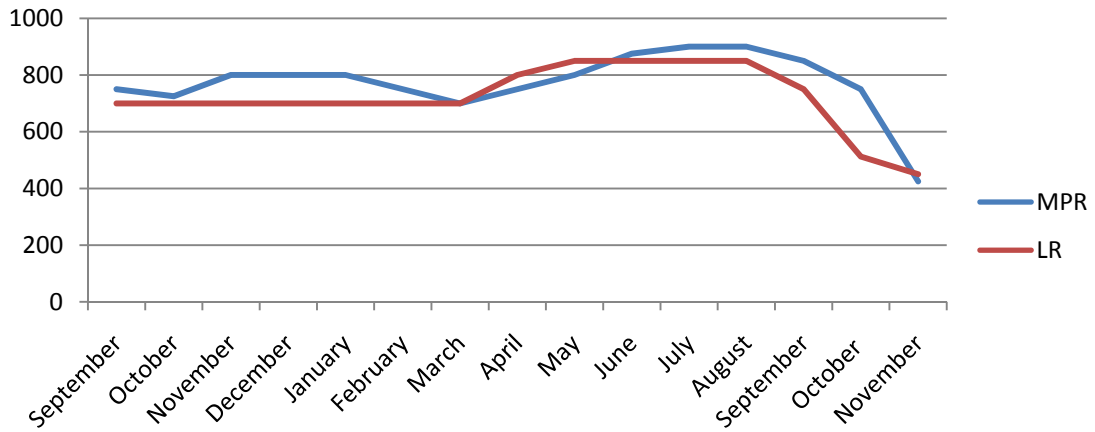


Figure A3: Used Beverage Container Aluminium Historical Pricing

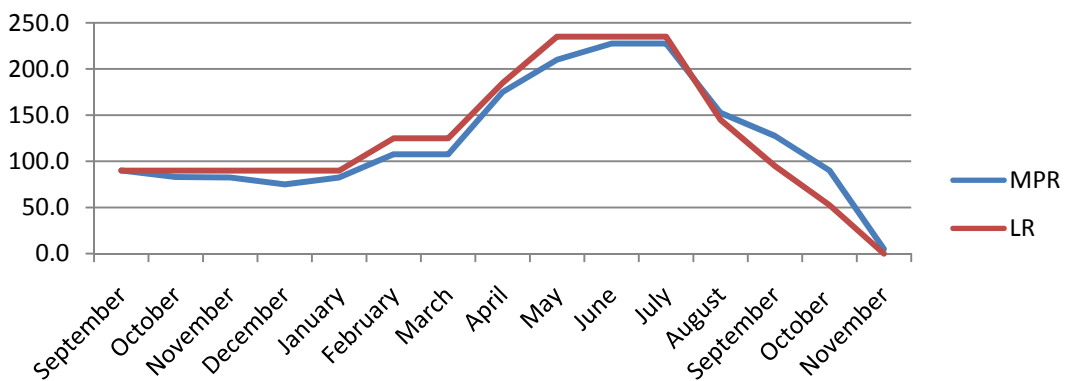


Figure A4: Steel Cans Historical Pricing

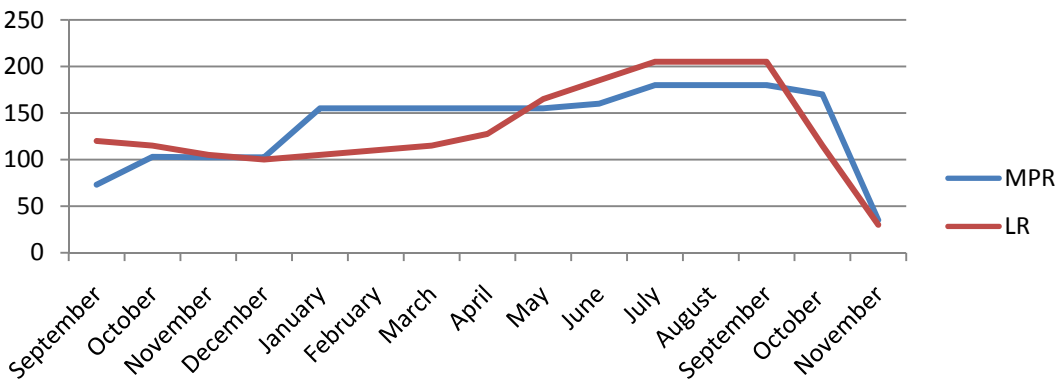


Figure A5: Plastics Historical Pricing

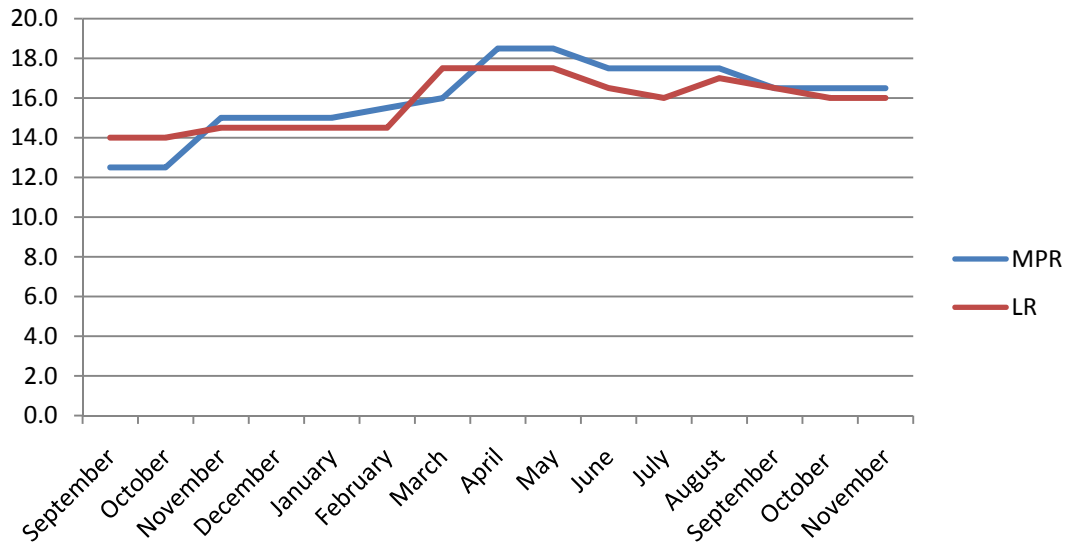


Figure A6: Mixed Glass Historical Pricing