Regional Price Disparities in Deadweight Cattle: Understanding the NI / GB Price Differential

Final Report – December 2013

OXFORD ECONOMICS

LMC
Livestock & Meat Commission

Contents

Foreword

With the highest prime cattle prices in Europe, the early-1990s is regarded by many as the zenith for the Northern Ireland beef trade. Before BSE afflicted the UK in 1996, NI beef prices were, for a short time, higher than Great Britain, based largely on high value contracts in European markets coupled with a favourable exchange rate. What followed was years of closed export markets, periods of intervention and the re-emergence of a price differential with GB.

Since 2009, when over a decade of price stagnation gave way to more fluid market conditions, farmgate beef prices have increased sharply across the UK. By mid-November 2013, Northern Ireland farmgate prices were second only to Great Britain in terms of the global beef trade. However, despite the strong global performance of Northern Ireland beef prices, the price gap between NI and GB remains a source of frustration for producers.

This report finds that on average NI R3 steer prices have been 14p/kg below corresponding prices in GB between 2009 and 2012. The market forces behind this differential are worth examining, not least because debate on the issue has typically been hindered by lack of information and conjecture which in turn contributes to tension; but also because a better understanding of the issue may facilitate action to help redress the differential, giving potential to add real value to the supply chain.

In 2012, the Livestock and Meat Commission appointed Oxford Economics to examine the nature and cause of the price differential. In conjunction with a project steering group, the brief was to explore reasons for the price differential through consultations with stakeholders and to find evidence to explain why prime cattle prices in GB were higher. This report delivers on this key objective by identifying the relative influence of each factor driving the price differential. The causes have been evaluated in terms of their relative importance and are ranked as having a major, medium or minor influence on the price differential. In the process, the research has uncovered many important findings that are useful in their own right, in explaining how the cattle trade operates in NI and GB.

The scope of this report was limited to 2009 – 2012, but developments in the beef trade in 2013 have given cause for reflection on the evolving findings. Two such findings were that barriers to the GB live export trade and the influence of the ROI trade were major drivers of the price differential. Exceptional circumstances, including the horsemeat crisis, gave rise to some interesting trends in these areas in 2013. For example, the renewed focus of UK retailers on local (British) sourcing emphasised the distinction between NI and ROI supplies. It is in this context that a wider differential emerged between NI and ROI prime cattle prices in 2013, with seemingly reduced capacity of the ROI trade to act as a drag on NI prime cattle prices.

This emphasis on British sourced product has also resonated through the live cattle trade. Tight supplies in GB and the primacy of UK origin product has meant that some GB-based processors have become more active in procurement in NI and exports for direct slaughter to GB have doubled in the last year. The combination of these and other drivers has led to a narrowing of the differential in the autumn of 2013 relative to previous years and in this regard the events of 2013 go some way to underlining several of the key findings within this report.

This report provides an objective analysis of those factors which determine that the NI market returns lower prime cattle prices than GB. The price differential is clearly a complex phenomenon which is constantly evolving and the report finds that many of the drivers are interconnected. Because of this we encourage stakeholders to read the entire report and resist temptation to focus in on specific issues.

The report findings, coupled with recent experience, provide encouragement that action can be taken to influence the differential and add significant value to the red meat supply chain. It is important to

understand that to overturn the differential will rely on sustained and determined effort in a number of key areas, combined with the confluence of some external factors (such as exchange rates and supply elsewhere) that are beyond the control of the Northern Ireland industry. This report therefore identifies priority areas for action and LMC in conjunction with the steering group has outlined recommendations to help redress the differential.

Ian Stevenson, Chief Executive Officer, Livestock and Meat Commission and Chairman of Project Steering Group

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Ian Stevenson – Chief Executive, Livestock & Meat Commission (Chair)

Prof. Bob Bansback OBE – International Meat Secretariat Economics Committee

Dr. Paul Caskie – Principal Agricultural Economist, Department of Agriculture & Rural Development

Gillian Gallagher – Policy Officer, Ulster Farmers' Union

Phelim O'Neill – Chief Executive, NI Meat Exporters' Association

Conall Donnelly – Economist, Livestock & Meat Commission

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Ulster Farmers' Union; Dunbia; Linden Foods; Foyle Food Group; ABP Food Group; WD Meats; Agriculture and Horticulture Development Board; Quality Meat Scotland; Bord Bia; British Meat Processing Association; National Farmers Union England & Wales; National Farmers Union Scotland; Irish Farmers Association; Marks & Spencers; National Beef Association; OSI Food Solutions; Linergy; ASDA; Duncrue Food Processors ; Department of Agriculture and Rural Development; British Cattle Movement Service; NI Livestock and Auctioneers Association; Association of Independent Meat Suppliers

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Executive Summary

Background to the study

Beef production remains one of Northern Ireland's most significant agricultural enterprises with the value of output of finished cattle in 2012 amounting to £408.8m, or almost one quarter of total agricultural output in that year. The majority of this output is sold to the local processing industry which sells the meat on in various forms to the wholesale and retail trades and other customers. The beef and sheepmeat processing sector had a gross turnover of £1,125m in 2012 which represented over a quarter of the food and drinks processing sector in Northern Ireland.

One issue which has been the cause of significant contention within the industry is the disparity in regional farmgate beef prices across the UK, with prime deadweight cattle prices in Northern Ireland being lower than those in Great Britain (GB). The ongoing debate and speculation about the reasons for the price differential has contributed to tensions within the industry. This research is therefore important, not only to provide better information and improve the quality of debate on the issue, but also to provide the evidence on which to make recommendations for the way forward. The Livestock and Meat Commission therefore commissioned Oxford Economics to undertake an independent statistical analysis of the regional disparities in deadweight cattle prices across Great Britain and Northern Ireland.

The scope of this research was limited to the four year period 2009 to 2012 in order to ensure that the findings were both recent and relevant. Furthermore, the quality of data available has been much better since 2009 and the narrow time-scale also facilitates more in-depth analysis of key drivers.

The approach to the research was in two stages:

- **Qualitative research** – which involved discussion with a wide range of stakeholders in the industry to establish what were perceived to be the key factors influencing or contributing to the differential; and
- **Quantitative research** – which involved a detailed statistical analysis of each of the factors identified in the first stage. Official data from a wide range of sources have been used including the Livestock and Meat Commission NI (LMC), Agriculture and Horticulture Development Board (AHDB), British Cattle Movement Service (BCMS), the Department for Agriculture and Rural Development (DARD), the Animal and Public Health Information System (APHIS) and Bord Bia.. This data has been supplemented by confidential commercial data kindly provided to us by a number of individual companies and plants.

Extent of the differential

We have concluded that there has been a significant differential between prices paid for prime cattle in Northern Ireland and Great Britain throughout the 2009-2012 reference period. Between January 2009 and December 2012, the average weekly difference between Northern Ireland R3 steer prices and equivalent prices in Great Britain as a whole has been 14.2p/kg, which was found to be statistically significant. The GB price was consistently higher throughout the period but the differential widened significantly during the last 5 months of 2012.

We have also found that the differential varied by grade of cattle (see Table E1 below). The average price differential for R4 steers was greater at 21.3p over the same period and the average price paid for an average prime animal were higher in Great Britain than in Northern Ireland. On the contrary, the price paid

for P2 cows has been on average 9.2p/kg lower in GB than equivalent Northern Ireland prices during the same period. These average variances are all statistically significant.

Table E1: Average price differential by selected grade, NI vs GB, 2009 – 2012

	Avg diff	
	p / kg	%
R3 Steer	-14.2	-5%
R3 Heifer	-9.6	-3%
R3 Young Bull	-11.2	-4%
R4 Steer	-21.3	-7%
R4 Heifer	-16.7	-6%
O3 Young Bull	-16.7	-9%
P2 Cow	+9.2	+3%

Source: Oxford Economics, LMC

The differential has also varied by GB regions and the price differential for prime cattle is generally much greater between Northern Ireland and Scotland than between Northern Ireland and other reporting GB regions. For example, the average price differential with Scotland for R3 steers over the 2009-2012 period was 22.5p/kg, while the differential with Southern England was much narrower, at 5.8p/kg. It should also be noted that Northern Ireland prices are generally higher than those reported in the Republic of Ireland where prices paid for R3 steers were on average 8p/kg lower than in Northern Ireland.

A number of stakeholders raised the question of the validity of these comparisons because of potential differences in the way in which prices are reported. We have looked into this and have noted that price reporting systems are regulated and audited by the European Commission. Therefore, we are of the opinion that the prices collected provide a sufficient basis for valid comparisons to be made. However, we would recommend that there should be continuing regular liaison between price reporting agencies across the UK and Ireland in order to monitor issues that may impact upon the prices reported.

Factors contributing to the differential

As a result of our consultations with the industry, a long list of factors was identified which potentially explain and contribute to the persistent differential in the price paid for prime cattle in Northern Ireland relative to the price paid in Great Britain. We have undertaken a detailed statistical analysis of each of these factors to establish the degree to which they may or may not contribute to the differential, using econometric analysis and tests of statistical significance where appropriate.

Based on this analysis we have concluded that the factors can be grouped under three headings – major, medium and minor - reflecting the broad order of the significance of their impact on the differential. Our assessment of whether a factor is major, medium or minor is based on our considered judgement taking into account the following:

- The economic potential of the factor to impact on the price differential;
- The explanatory power and consistency of the analysis, including the statistical significance of the relationship where this is available; and
- The reliability of the evidence available to us.

The headings can therefore be described as follows:

- **Major factors** – are those which in our judgement demonstrate positively all three of the above characteristic – there is a clear economic rationale, the statistical analysis is strong and consistent and the evidence is reliable;
- **Medium factors –** are those for which there is a clear economic rationale but where the statistical analysis may not be strong or the evidence not wholly reliable ; and
- **Minor factors –** are those for which the economic rationale may be less convincing and/or where the statistical evidence is not strong or is less reliable.

Using these headings, and in no particular order, the factors contributing to the price differential are set out in Table E2 below together with a brief summary of the key evidence that has been used to arrive at our judgement.

Table E2: Summary of evidence for factors influencing the NI/GB price differential

Major Factors	Summary of key evidence
Additional costs and barriers to trade for Northern Ireland into GB markets for both the sale of live cattle and the trade in beef	The additional cost of transport of live cattle to GB processors (over and above intra-NI transport costs) is of the order of 10-12p/kg when measured as a carcass weight equivalent (CWE). Similarly, the additional cost of transporting beef to GB is estimated to be between 3-6p/kg CWE. TB incidence – both actual status and a fear of future TB incidence – and the restrictions on movement arising from this, both real and perceived, is also a barrier to the sale of live cattle from Northern Ireland to GB. A range of other factors such as the complexity of building cross-industry relationships are also issues affecting trade between NI and GB. These factors add additional costs for the NI beef industry in servicing its main market.
The impact of Republic of Ireland trade	There is an extensive trade in both live cattle and beef between North and South. NI beef and Irish beef are partial substitutes and the availability of a cheaper supply in the Republic of Ireland tends to constrain Northern Ireland prices relative to GB.
The relative supply and more seasonal nature of cattle production in Northern Ireland	The more seasonal nature of cattle supply in Northern Ireland, with on average 27.4% of cattle slaughtered in the autumn, due to grass based production methods, is linked to lower prices in Northern Ireland during this period. This also has an impact on processor costs as a result of excess capacity at other times of the year. There is also a relationship between the relative supply of cattle in NI and GB on the differential, but this was found to be both within and less prominent than seasonality.

Medium Factors	Summary of key evidence
Differences in the structure of the production and processing industries in Northern Ireland compared with Great Britain	The average size of finishing herd, which accounts for the majority of cattle supply, is smaller in Northern Ireland than in GB – 24% of cattle slaughtered were presented by herds finishing over 500 head compared with 29% in GB. This combined with the potential for more intense competition for cattle in GB, partly driven by the presence of a large number of small independent operators, may exert some upward pressure on GB prices relative to Northern Ireland due to the bargaining power of producers

Adherence to specification between GB and NI in terms of the typical criteria set by factories	A detailed comparison of the proportions of cattle presented to plants in Northern Ireland and GB by weight, age and grade, shows that a higher proportion of cattle in GB price reporting plants meet a typical retailer specification. There also may be a tendency in GB for smaller abattoirs to buy up cattle that do not meet specification. This has an impact on the markets served by processors and the price paid for cattle.
Higher costs of production experienced by Northern Ireland processors relative to those facing GB processors	Processing plants in Northern Ireland face higher costs for energy and rendering (in addition to transport costs mentioned above) compared with plants in GB with average processing costs estimated at 3-5p/kg higher in Northern Ireland. In a low margin industry this puts some downward pressure on prices paid for cattle.
Variations in the end markets for beef processors in Northern Ireland and GB	While almost all Northern Ireland prime cattle are eligible for the GB multiple retail market, end markets for beef vary on a plant by plant basis. Distance from the larger more lucrative GB markets and sourcing policy (driven primarily by transport costs) means that Northern Ireland plants have a smaller share of those markets than GB counterparts, relying more heavily on alternative wholesale or foodservice markets which return lower prices. The NI industry is also more dependent on European export markets which have been less profitable particularly in the latter part of the study period.

Minor Factors	**Summary of key evidence**
Differences in herd mix between Northern Ireland and GB	There are only small differences in the proportion of premium breeds in Northern Ireland and GB. This has a very limited impact on the price differential with GB, although it would have a more significant impact on the price differential between Scotland and the rest of the UK.
The impact of movements in the £stg/€EUR exchange rate	Variations in exchange rates will affect the relative price of Northern Ireland and Irish beef on the UK market. However the exchange rate has been very stable over the 2009-2012 period and has had limited impact on the price differential, although the actual exchange rate has a bearing on the substitutability of Irish beef for NI beef in some British markets. At the same time we recognise that a significant and prolonged change in the £/€ exchange rate could lead to it having a more pronounced impact.
Differences in the price discovery mechanism	In Northern Ireland, processor deadweight price quotations are published in contrast to the GB situation. In GB there are a higher percentage of finished cattle sold through live auction markets than in Northern Ireland. Despite these differences, the evidence shows that this has a negligible impact on the price differential.
The price spread across different types of cattle and the impact of higher prices for cows in N Ireland	The pricing model varies across regions reflecting local specialisms but there is no evidence to suggest that cross subsidisation takes place between the price paid for prime cattle and cows.

In broad terms, we conclude that there is no single factor accounting for the price differentials between Northern Ireland and other GB regions, but rather a combination of the factors described above, as many of them are inter-related and work together.

Areas for action and recommendations

A number of the factors identified as contributing to the price differential are more easily addressed than others and this is reflected on our recommendations. The analysis presented in this report and subsequent conclusions suggests that there are a number of areas where action might be taken to address the issues raised.

The Project Steering Group has identified a number of specific recommendations (opportunities) pertaining to each of the key areas for action identified by Oxford Economics. The action areas and corresponding recommendations are set out in table E3 below:

Table E3: Key action areas and recommendations

Action Area	Recommendation	Owner
Increasing the proportion of cattle within customer specifications Based on a like-for-like comparison, a smaller proportion of NI cattle are meeting retail specifications compared with GB. A greater degree of uniformity will reduce processing costs and ensure more NI beef is fit for premium markets. The benefits will accrue to both producers and processors. A better coordinated supply base has potential benefits by improving producers' bargaining power, improving communication in the supply chain and delivering processors consistent volumes of in-spec cattle.	That industry and government prioritise the integration of data and software systems for the genetic evaluation of cattle breeds. The aim being the development of breeding programmes that use genomics to facilitate the profitable production of cattle to commercial specifications.	Government / Industry
	To deliver joined up use of the BOVIS, APHIS, LMC Data and AFBI / CAFRE Knowledge and Technology Transfer services, for producers and processors to encourage and promote adherence to specification.	Government / Industry
	To encourage smaller scale beef producers to consider if greater use of live markets to sell cattle as forward stores brings a better return than finishing. As well as potentially improving specification (by increasing the volume of beef from specialist finishers), this has the potential to improve producer bargaining power.	Government / Industry
	Industry should consider opportunities afforded by the Rural Development Programme 2014-2020 to support the creation of producer organisations to better organise the supply of cattle to market requirements. With the sufficient level of co-operation and appropriate incentives such an initiative could provide processors with greater certainty over the supply of raw material and focus on delivery to specification, whether niche or otherwise.	Industry

	Keeping the pricing matrix under review to ensure that producers are adequately incentivised to produce in-spec cattle with a view to ensuring that the supply chain actively shapes its supply of raw material.	Government / Industry
Differentiating NI Beef In its key markets, NI beef is, at best, regarded as equivalent to GB product. In other markets NI and ROI beef are seen as substitutes. Yet NI beef has a number of unique selling points, that can be packaged and promoted to potentially make it even more attractive to retail and foodservice customers. Stronger differentiation at a business-to-business level could deliver a premium for the NI industry.	The development of a NI Business-to-Business Beef Brand / Campaign would allow the NI industry to differentiate itself from ROI and GB beef. The NI beef industry has several unique selling points that set it apart from the other UK regions and ROI: - A traceability system that is arguably the most sophisticated in Europe; - One of the longest established and most robust quality assurance schemes in the world; - A bovine information system (BOVIS) that has the potential to facilitate benchmarking, genetic evaluation and carbon footprint measurement at farm and wider industry level; - A world leading feed materials assurance scheme; and - An integrated veterinary surveillance and support service focused on protecting and enhancing animal health and welfare. Collectively, these tools underpin the marketing efforts of the industry by providing reassurance on the provenance, quality, health and environmental credentials of NI beef. While these systems are in some ways too complicated to be promoted at a consumer level, they provide essential reassurance to retail and foodservice customers. Combined with the strong reputation of our farmers, processors and products, these systems potentially provide the basis for a strong NI business-to-business brand which could be developed to positively differentiate NI beef from its competitors. Finally, the NI industry should explore a business-to-business or consumer branding approach in export markets.	Government / Industry
Reducing barriers to live export trade with GB To some extent at least, the live export trade from NI to GB has been under-utilised from 2009 - 2012. This has been due to a combination of factors including TB restrictions, associated regulations and misconceptions about those regulations. Resolution of these issues where possible will support the live export trade which in turn could help redress the	Government should review the regulations around the movement of cattle from certain categories of restricted herds in NI for direct slaughter in GB.	Government
	As part of government commitments to reduce Bovine TB, DARD should consider the importance of the identification of genetic traits associated with TB / TB resistance. In conjunction with breeding programmes and use of genomics, such work has the potential to reduce and eventually eradicate the disease.	Government / Industry
	To deliver a relevant market information seminar,	Government

differential, particularly at times of strong NI supplies and when the differential exceeds transport costs. This is usually in the autumn when seasonality is a major factor.	involving producers, hauliers, agents and government. This would include clarifying regulations around live exports to GB.	/ Industry
Ongoing monitoring Deadweight Beef Prices and the GB/NI/ROI differential	It is important to continue monitoring the deadweight beef prices in the respective countries partly to build on the existing knowledge as to why the differentials exist. Ongoing liaison is required between price reporting agencies to ensure that the growing complications of breed premiums and other incentives are monitored and communicated where possible.	Government / Industry

1 Introduction

1.1 Background to the study

Beef and sheep meat is the largest sector of the Northern Ireland agri-food industry by turnover, which in 2010 stood at £968m (26%) and was estimated to increase to over £1bn in 2011. The size of the suckler cow herd is approximately 280,000 having recovered by 8% over the past three years but it is still 20% below the peak levels of the mid 1990's. The sector relies heavily on external markets, with 72% of sales being outside Northern Ireland. Great Britain is the most significant external market, accounting for 50% of sales. Increased demand for red meat in a wide range of export markets however, presents significant development opportunities.

The primary production base in Northern Ireland is extremely fragmented with approximately 20,000 beef and sheep farms in addition to approximately 3,500 dairy farms; with dairy origin animals making up almost half the cattle slaughtered for beef. The majority of these beef and sheep farms are very small. For example, approximately 50% of beef cows are found in herds with less than 30 animals. In terms of farms that finish cattle, 24% of cattle slaughtered in NI originate from farms finishing over 501 head per annum, compared to 29% in GB. Two thirds of all finished cattle in GB come from herds finishing over 101 head, compared with just over half in NI. Similarly, at the small farm level, 13% of all finished cattle in NI are sourced from herds of up to 20 head. In GB, the comparable figure is 5%.

Processing in Northern Ireland is concentrated with the five largest processors, slaughtering over 90% of the animals processed. The largest processors are mainly private, family-owned businesses with one owned by a farmers' co-operative. All processors also carry out secondary processing i.e. boning with some additionally engaged in retail packing.

A recent report by the Agri-Food Strategy Board summarises the key strengths of the industry as follows:

> *The quality of livestock and the environment in which it is produced underpins the strong and growing reputation of our local red meat sector. This reputation is reinforced by the long established Farm Quality Assurance Scheme (FQAS) which supports access for Northern Ireland beef and lamb to premium markets in the UK and EU, coupled with the high level of traceability in livestock and livestock products. Our processors, equipped with well invested and accredited facilities, have also developed a strong track record in building business nationally and internationally.*

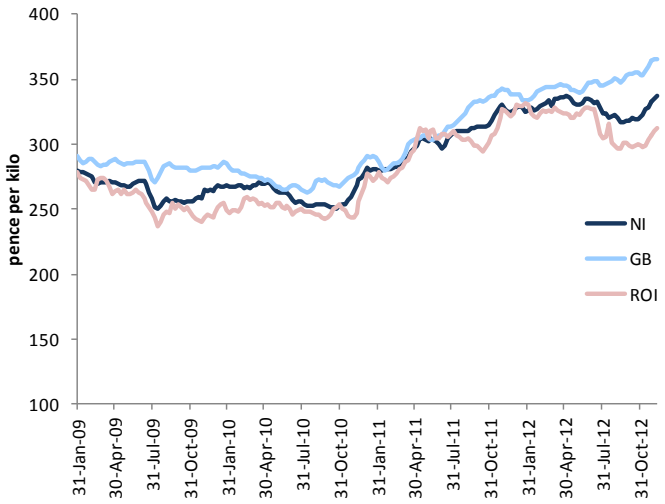
The report envisages a positive medium term outlook for the industry if a number of actions are taken.

However, one issue that has been the cause of significant contention within the industry is the regional farmgate beef price disparity across the UK with prime deadweight cattle prices in Northern Ireland lower than those in GB (although it should be noted that NI pays a higher price for deadweight cows than GB). This issue has been a source of debate and friction in recent years, particularly at times when the differential is at its greatest. It has led to complaints that producers in NI are not receiving full value for their product relative to the other UK regions, despite the fact that they are supplying a large proportion of their beef into the same retail and foodservice markets.

Between January 2009 and December 2012, the average weekly difference between NI R3 steer prices and equivalent prices in GB as a whole was been 14.2p/kg. The differences in R4 steer prices were 21.3p p/kg over the same period. At times the differential has been much wider / narrower than this average figure (see Charts 1.1.1a – 1.1.1c below). The corresponding difference between NI and Scottish R3 Steer

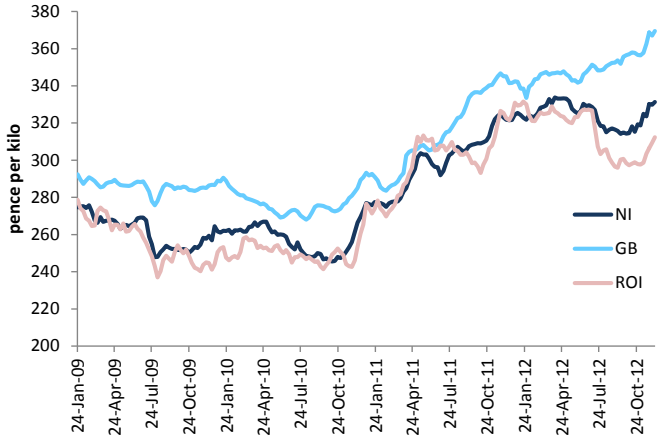
prices has been 22.5p/kg. A comparison between NI and Southern England shows a smaller difference of 5.8p/kg. Meanwhile, R3 prices in NI have generally been 8p/kg higher than corresponding prices in ROI over the same period. Again this has been subject to seasonal changes and fluctuations with exchange rates.

Chart 1.1.1a: R3 Steer price, NI, GB & ROI, 2009 – 2012



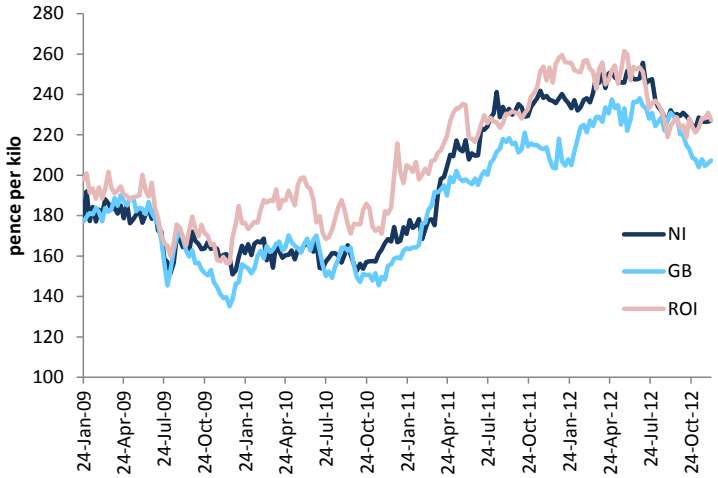
Source: LMC

Chart 1.1.1b: R4 Steer Prices, NI, GB & ROI, 2009 – 2012



Source: LMC

Chart 1.1.1c: P2 Cow Prices, NI, GB & ROI, 2009 – 2012



Source: LMC

The differential in prices also varies depending on cattle grades and categories. For example, the average weekly difference between NI and GB R3 heifer prices was 9.8p/kg between January 2009 and December 2012. During that period, the average price differential on R4 steers was 21.3p/kg, while on R4 heifers, the differential averaged 16.7p/kg. NI P2 cows have been on average 9.2p/kg higher than equivalent GB prices during that period.

The differential is an emotive issue. For some producers it is a question of equality while others see it as evidence of market manipulation by beef buyers. Others see it is an important strategic issue that must be addressed to maximise the potential of the NI beef industry. The LMC, as commissioners of this study, believe that the reasons for the regional disparities across the UK and Ireland are multi-faceted and complex. The LMC firmly believe that greater understanding of this differential would be beneficial in several ways. Firstly, a more complete understanding of the causes of the differential is necessary if industry is to attempt to tackle this issue. Secondly, more information may help producers with successful marketing of their stock and finally, a better understanding of the differential would help to remove some of the conjecture that is a feature of this ongoing debate and perhaps help to improve supply chain relationships.

This study has therefore been undertaken against this background and with these objectives.

1.2 The purpose of this study

Oxford Economics were commissioned by the Livestock and Meat Commission to research independently and statistically, the regional disparity in deadweight cattle prices across Great Britain and Northern Ireland.

The primary aim of this research is to provide a greater understanding of the regional price disparity in deadweight cattle across GB and NI through independent research. The findings of this study will be used to advance the debate on the subject by reducing conjecture, enhancing relationships across the industry and informing future strategy for the industry.

The research has focused on establishing the key reasons for the differential in deadweight cattle prices across the UK since 2009, with a core focus on the relative position of NI cattle prices in relation to the rest of the UK. The research focuses on farmgate prices for various grades and categories of cattle.

Although the research is primarily statistical it has combined both quantitative and qualitative analysis:

- Quantitative analysis of the factors potentially driving deadweight cattle prices and the regional price disparities. This has focused on correlating deadweight prices against individual factors and then using econometric modelling, to evaluate the drivers of the disparity on a combined basis and assess their respective contribution.
- Qualitative analysis of the factors potentially driving the regional price disparities, supplementing the quantitative analysis, through discussions with industry professionals to ensure that the study goes beyond the statistics and addresses popular concerns. This has ensured that factors where data may be difficult (or impossible) to obtain, or factors that cannot be explicitly quantitatively modelled will receive due notice in the study.

1.3 Report structure

The remainder of this report is structured as follows:

- **Chapter 2: What is the scale of regional price differential?** This chapter examines the trends and comparability in deadweight cattle prices across the UK, both in terms of average prices and those by grade and category of cattle. It then tests the statistical significance of the differential in prices between different regions and the scale of the differential.
- **Chapter 3: Industry consultation – key findings.** This chapter provides a summary of the key findings from the qualitative stage of the project and the key factors that were identified affecting price disparities that the research has then focused on.
- **Chapter 4: Key factors affecting the price differential.** This chapter brings together the qualitative findings with other quantitative and other qualitative evidence to investigate the key factors identified through the consultation process.
- **Chapter 5: Conclusions and key action areas.** This chapter provides an overall assessment of the conclusions of the study and key action areas to enhance relationships across the industry.

2 What is the scale of regional price differential?

2.1 Introduction

This chapter is designed to test robustly whether the price differential between NI, GB and its constituent regions is statistically significant, and what is the scale of the differential. The differential is analysed at NI / GB level in the first instance, with the NI / GB price reporting regions following (Scotland, Northern England, Central England / Wales and Southern England).

However, before progressing to the rigorous testing, the chapter first examines the comparability of the price reporting data in NI, GB and the regions.

2.2 Data comparability

The price reporting of deadweight cattle is a statutory requirement, administered and regulated by the European Commission (EC) [1]. The prices are reported to LMC in NI and AHDB in GB. Price reporting for the entire UK is managed by the Rural Payments Agency (RPA). In NI, DARD provide oversight and are the competent authority on price reporting matters. As the process is governed at EU level, both NI and GB are subject to the same guidelines and regulations. Both the LMC and AHDB price reporting processes are subject to routine EU inspections. The last inspection in Northern Ireland was in May 2011. A GB inspection was performed in 2013.

In the consultation phase of this project, which is discussed in detail in section 3 of this report, the sample sizes for report pricing were queried. It was noted by most that in NI almost all plants report prices whereas the sample size in GB would be lower, albeit accounting for c. 66% of all carcasses.

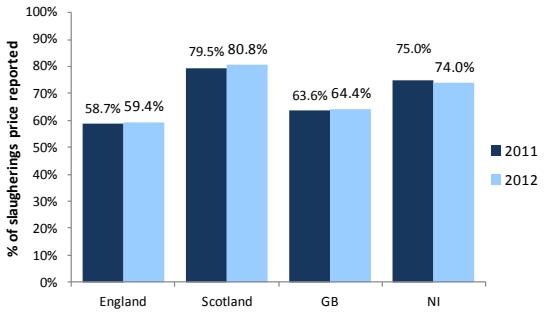
The regulation states that all abattoirs that slaughter over 20,000 bovines per annum are required to report prices. Those with a throughput of less than 20,000 are not required to do so, unless specifically designated by the state. As a result, the prices published are based on a statistical sample, and not the entire population. However, this is the common approach for almost all statistical analysis. The EU regulation states that the sample size should represent:

- 30% of the adult bovine animals slaughtered; and/or
- 25% of the slaughtering in those regions which together cover at least 75% of the total slaughtering

Chart 2.2.1 and 2.2.2 show the sample price reported in NI, GB and the price reporting regions.

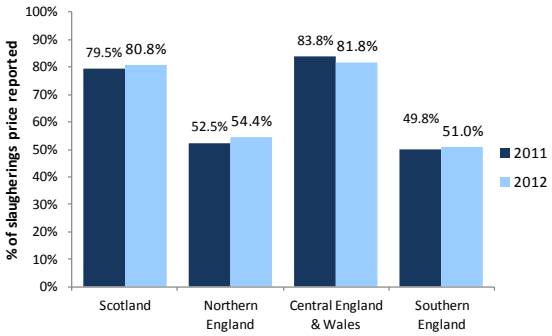
[1] Commission Regulation (EC) No 1249/2008

Chart 2.2.1: Price reported sample as % of total kill, GB countries, 2011 & 2012



Source: Oxford Economics, BCMS, LMC, AHDB

Chart 2.2.2: Price reported sample as % of total kill, GB regions, 2011 & 2012



Source: Oxford Economics, BCMS, LMC, AHDB

The structure of the red meat processing sector in NI (a small number of large plants, as noted in section 4.2.1 and analysed more thoroughly in section 5.2) ensures that the sample in NI covers 74% of the total kill in 2012. The rates in England / Wales and Scotland are 59.4% and 80.8% respectively; all are well within the EU requirement and generally accepted academic practices.

Therefore, we can conclude that on the basis of sampling, the prices are directly comparable.

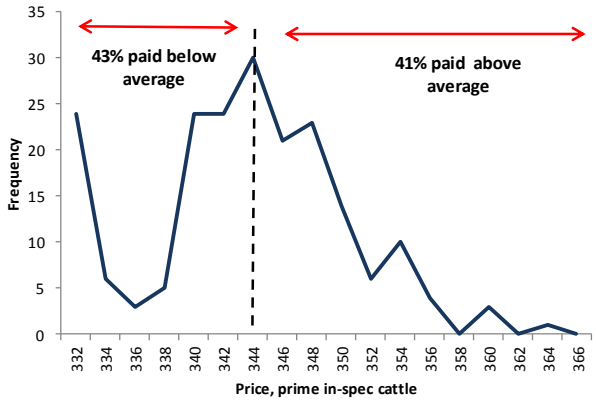
Under the regulation, a weighted average price paid by class (steer, heifer, young bull, cow or mature bull) and grade is calculated on a weekly basis.

Category and grade are major factors in price formation and these are the basis of the price reporting process. However, they are not the only factors that determine price and the impact of premiums for specific breeds, delivery to specification and loyalty bonuses are also important drivers of price. While factories are required to report full details of prices paid, the price reporting legislation only requires prices to be reported by grade and category. Therefore, it is possible that there may be a range of prices within a specific classification, with some cattle of the same grade and category attracting higher prices (e.g.in-spec or breed premiums) and others attracting lower prices (e.g. overage or non-FQAS). Therefore, differences between NI and GB in the supply of in-spec cattle, premium breeds and payment of loyalty bonuses may explain the differential to some degree. These and other relevant factors are explored in detail in this report.

2.3 Average prices

It is worth emphasising that the published price reported statistics refer to average prices for each grade. Whilst this is the only feasible way of publishing the data, it should be remembered that, as with any average, there will be some cattle receiving a higher price and some receiving a lower price than the average. Chart 2.3.1 provides a snapshot of the spread of prices in NI for a randomly selected reporting week.

Chart 2.3.1: Price spread (prime, in-spec cattle excl. premium breeds), NI, 2012/13 (week 44)



Source: LMC

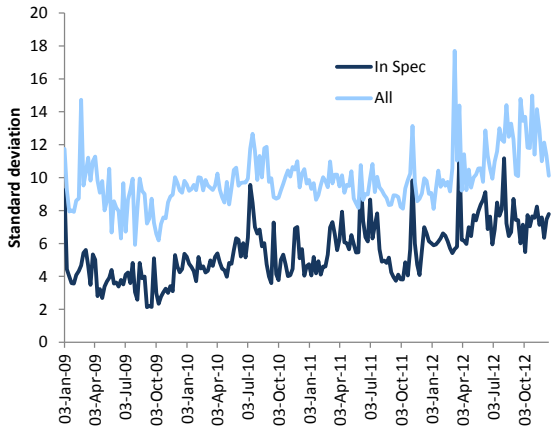
The chart shows that 16% of all cattle received the average price reported (£3.44 per kg), with an evenly matched spread above and below the average. The range of prices from the highest price paid to the lowest price paid was 32p per kg. It is worth noting that the upside on the cattle price was much higher in this given week, with the highest price paid, £3.64 per kg; some 20p above the average. Conversely, the lowest price paid – £3.32 per kg – was only 12p below the average. However, only a very limited number of cattle (4) received over £3.60 (the highest prices).

In economic theory terms, this suggests that there is a minimum price which the market must pay to secure the cattle it needs, but a less obvious upper price limit that would be paid for a continuous supply of high quality cattle.

Over a four year period an examination of the standard deviation[2] provides an insight into cattle price spreads in NI, GB and GB regions. Charts 2.3.2 a, b and c demonstrate this for R3 cattle prices in NI, GB and the GB regions.

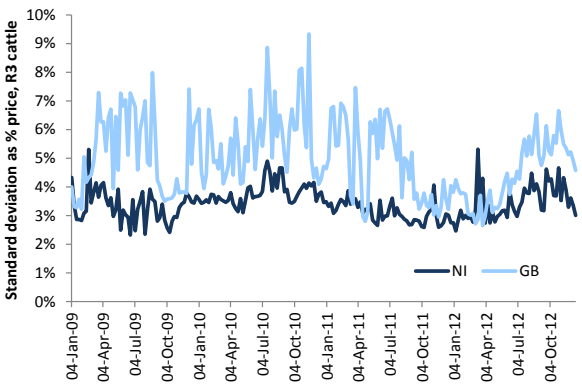
[2] The standard deviation is a measure of the variance a variable has from the average of the population or sample size. The lower the value of the standard deviation (σ) the closer the data points are to the average. By contrast, a higher standard deviation indicates that the data is spread further from the average – which is called dispersion. Standard deviation is useful in calculating the margin of error in data – producing a figure commonly called a confidence interval. For example, in a plot of normal distribution around 95% of all data points lie within 2 standard deviations from the average . Standard deviation also allows us to define a value as "statistically significant". In other words, data that cannot be explained by normal random error and instead an explanation is required for the deviations.

Chart 2.3.2a: Standard deviation of R3 steers and heifer prices, NI, 2009 -2012



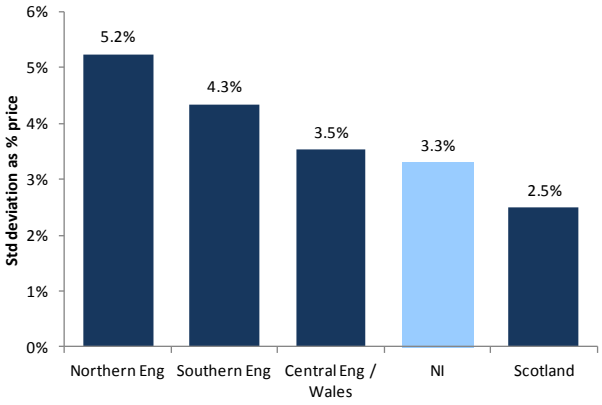
Source: LMC

Chart 2.3.2b: Standard deviation as % of price reported, NI & GB, 2009 – 2012



Source: LMC, AHDB

Chart 2.3.2c: Standard deviation as % price reported (R3 steer & heifer), NI & GB regions, 2011 – 2012



Source: Oxford Economics, AHDB, LMC

Although statistical and technical in nature, this analysis is useful as it provides additional information in the range of prices reported for cattle in any given week. For example, the average price and standard deviation for R3 steers and heifers in NI for the final week of 2012 were £3.38 per kg and 10.3p respectively. This means that we can surmise with accuracy that 95% of all price reported cattle R3 cattle slaughtered in that week received between £3.18 and £3.59 per kg. In many ways, this is a more useful indicator of market prices than solely the average price.

The trend presented in the charts above suggests that the variation in prices paid in any given week is narrower for R3 cattle in-spec than for all cattle and has increased over time in NI as price has risen. However, when measured as a percentage of the price paid (chart 2.3.2b), it has remained relatively

consistent since 2009. More interestingly, the evidence presented indicates that the spread of prices paid for R3 cattle in GB is wider, with proportionately less cattle receiving the average price. The regional data shows that NI is second only to Scotland in terms of the consistency of price paid for R3 steers and heifers in 2012.

2.4 Extent of the differential

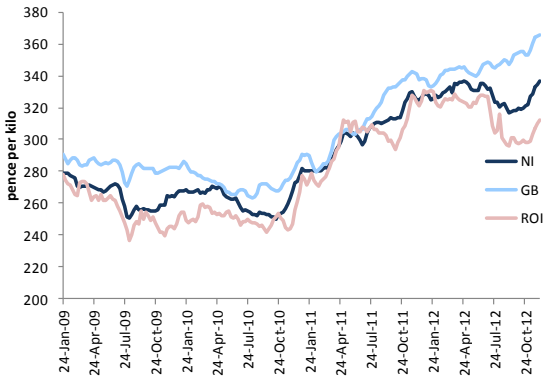
This section examines the statistical significance of the differential in prices across a range of grades of cattle. However, in the interest of practicality, the R3 steer has been selected as the reference grade for the further analysis in chapters 4 and 5. The R4 grade is also extensively referenced since the R4L grade is the most common grade for prime cattle in GB.

It is important to note that the selection of the R3 grade for analysis is important on a number of levels. Firstly, it is the most common grade in the NI prime cattle slaughter mix. Secondly, analysis of the R4 grade is complicated by the fact that fat class 4 is split into two sub-grades in GB (4L & 4H) and three sub-grades in NI (4-,4=,4+). Fat class 4L (in GB) and 4-,4= (in NI) are generally regarded as being in-spec with 4H and 4+ being out of spec. This adds a level of complication to any analysis of the R4 grade. Finally, the R3 grade is slightly less likely to be skewed by the impact of premiums on traditional breeds. Proportionately fewer of these premium cattle tend to kill out at the R3 grade compared to R4 and O grades.

2.4.1 NI vs. GB average prices

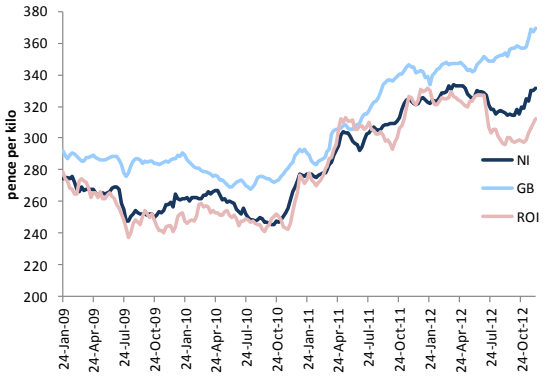
It has been recognised that following the onset of BSE in 1996, deadweight prices for prime cattle, on average, have been lower in NI than GB. As the final consumer market has changed considerably since even the turn of the century, this analysis focuses on recent trends. Based on the price reported data from 2009, the average price reported for R3 steers in NI has only been above the GB average on 3 weeks out of a possible 205, or for less than 1.5% of the time). Subsequently, the price was higher for R3 heifers on 16 weeks (8%) and R3 young bulls on 19 weeks (9.4%). R4 steer prices were never ahead in NI over the period (R4 heifer prices have on 1 occasion.) Conversely, P2 cow prices were ahead on 158 of the 203 weeks (78%). Charts 2.4.1 a and b below presents the average price reported for R3 steers and R4 steers respectively, which show that the differential with R4 steers is greater again.

Chart 2.4.1a: R3 steer prices, British Isles, 2009 – 2012



Source: LMC

Chart 2.4.1b: R4 steer prices, British Isles, 2009 – 2012



Source: LMC

The greater difference in the R4 price between NI and GB reflects the fact that R4L cattle in GB often attract similar prices to R3 cattle. In NI, the opposite is the case with R4-/= cattle almost universally penalised relative to R3 grades. Furthermore, the R4 grade is also more than proportionately impacted by premium breeds and where there are differences in the number of Aberdeen Angus, Hereford and other traditional breeds in the slaughter mix between NI and GB. This may also be reflected in the differential at R4 level (refer to 4.2.3 for more detail).

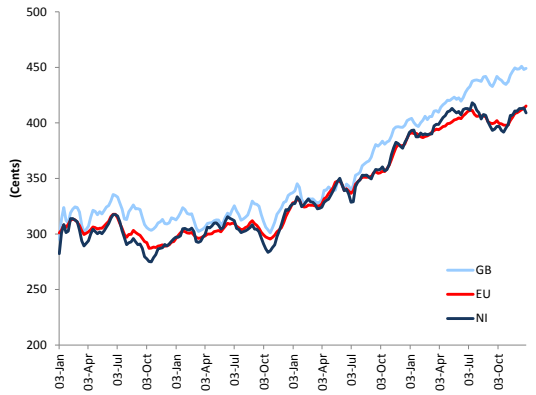
Whilst the price reported price in GB has almost always been higher than that in NI, it is worth noting that the differential increased significantly in the last quarter of 2012, as is noticeable in chart 2.4.1. The drivers behind the recent divergence have been subject of much debate and are discussed throughout chapters 4 and 5.

Although chart 2.4.1 portrays a rather negative picture of NI deadweight cattle prices, there are some more positive observations:

- NI prime cattle prices are regularly higher than those in ROI: for example, ROI R3 steer prices have only been higher than NI prices on 25 separate weeks since 2009 (12%);
- NI prices have continued to track the EU average, with prices ahead of the EU almost half of the time; and
- The prices reported for non-prime cattle (lower graded cattle, bulls and cull cows, the majority of which would be dairy origin) in NI are regularly above those reported for GB.

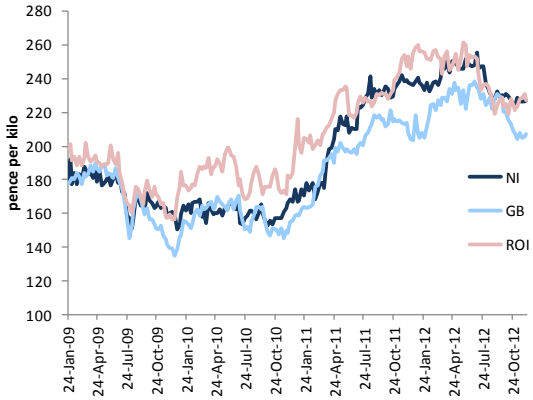
The trends noted above are pictured in charts 2.4.2 and 2.4.3 below:

Chart 2.4.2: R3 steer price, NI, GB and EU avg., 2009 – 2012



Source: Bord Bia

Chart 2.4.3: P2 cow prices, British Isles, 2009 – 2012



Source: LMC

Whilst there is a positive note for the beef production industry in the three points and charts above, there is still a significant differential in deadweight prime cattle prices.

Table 2.4.1 below sets out the results of regression analysis on the differential in prices between GB and NI. The analysis proves that a differential exists[3], with a high level of statistical certainty.

Table 2.4.1: Average price differential by selected grade, NI vs. GB, 2009 – 2012

	Avg diff		Stat
	p / kg	%	significance
R3 Steer	-14.2	-5%	***
R3 Heifer	-9.6	-3%	***
R3 Young Bull	-11.2	-4%	***
R4 Steer	-21.3	-7%	***
R4 Heifer	-16.7	-6%	***
O3 Young Bull	-16.7	-9%	***
P2 Cow	9.2	3%	***

Source: Oxford Economics , LMC

Note: Red *text* indicates a negative differential. Black *text* indicates a positive differential

Note: * = 10% significance level, ** = 5% significance level, *** = 1% significance level

The analysis in table 2.4.1 considers a cohort of grades, and finds a statistically significant differential for all grades presented. These range from an average of -21.3p for R4 steers (7% of the average price over the period) to -9.6p for R3 heifers (3%). Conversely, there is a positive differential in the P2 cow grade, where,

[3] The 1% significance level (traditionally signalled with the *** symbol) suggests that we can conclude with 99% accuracy that a price differential exists.

on average, the prices reported in NI are 9.2p above those in GB. These figures represent the average price differential between 2009 and 2012.

As noted previously, the differential has escalated since the late summer / autumn of 2012, with the differential in R3 steer prices peaking at 37p in week 41 of 2012. Table 2.4.2 below displays the average differential across grades on an average basis.

Table 2.4.2: Average differential per annum, NI vs. GB, 2009 – 2012

	R3 Steer	R3 Heifer	R3 Young Bull	R4 Steer	R4 Heifer	P2 Cow
	p / pkg					
2009	-18.3	-11.6	-16.6	-24.7	-21.0	3.7
2010	-11.1	-7.2	-8.5	-20.0	-14.5	3.3
2011	-9.3	-6.2	-6.0	-16.0	-12.0	14.4
2012	-19.1	-14.0	-14.5	-25.2	-19.8	15.6
	%					
2009	-6.9%	-4.4%	-6.3%	-9.5%	-8.0%	2.2%
2010	-4.2%	-2.7%	-3.4%	-7.8%	-5.6%	2.1%
2011	-3.1%	-2.0%	-2.0%	-5.4%	-4.0%	6.8%
2012	-5.8%	-4.2%	-4.6%	-7.8%	-6.1%	6.5%

Source: LMC

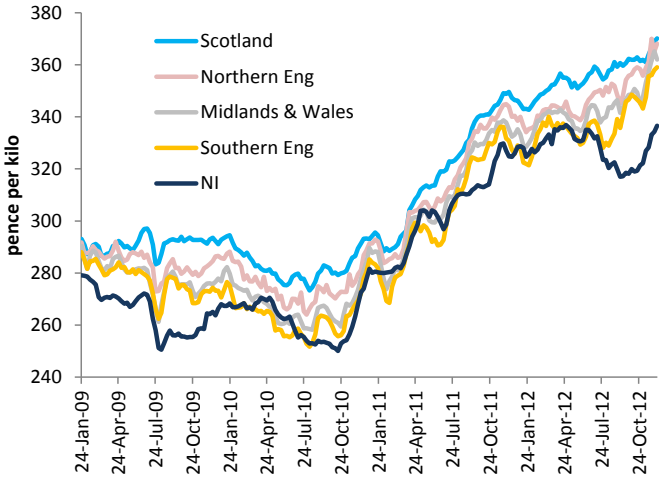
Note: Yellow shading indicates the least differential. Red shading indicates the highest differential.

This shows that the differential had narrowed in 2011, before diverging again in 2012. The differential in the R3 steer price had converged from an average of -18p in 2009 (6.9%) to 9p in 2011, before widening to 19p in 2012. The convergence in 2011 was due to a 16% rise in NI prices against a 14% rise in GB prices. The trend is very similar across the selected grades presented. However, it is important to note that although the differential has increased in the latter quarters of 2012, it has not yet reached 2009 levels (in % terms). The drivers of the differential are explored more fully in chapters 4 and 5.

2.4.2 NI vs. GB regions R3 / R4 prices

There is much variation in the characteristics of the market at a GB regional level, hence the need to split the analysis out to the GB price reporting regions where possible (Scotland, Northern England, Central England / Wales and Southern England). Chart 2.4.4 below maps the price reported for R3 steers for NI and the GB regions.

Chart 2.4.4: R3 steer price, NI & GB regions, 2009 – 2012



Source: LMC

As can be seen from the chart, NI has been amongst the lowest in terms of price reported for R3 steers and consistently the lowest since mid-April 2012 (to the end of 2012 at least).

However, the range in prices reported across GB is sizeable. In the 49th week of 2012, the average price reported in Scotland – the highest – was £3.70 per kg, with the price in the Southern English region £3.59 per kg, presenting a regional differential of 11p. On average, the differential between Scotland and Southern England has been almost 17p over the 2009 – 2012 period. Nevertheless, NI was a further 22.5p behind the Southern English prices in the same week.

The same level of rigour that was applied to test for a statistically significant differential between GB and NI prices has been applied to the GB regions against NI. This is presented in table 2.4.3 below. For practical reasons, the analysis presented has been limited to R3 and R4 steer prices.

Table 2.4.3: Average price differential by selected grade, NI vs. GB regions, 2009 - 2012

	Autumn	Winter	Spring	Summer	R^2
Scotland	-31.7	-18.9	-15.9	-23.1	44.8%
Northern England	-24.3	-13.6	-10.0	-14.5	39.8%
Central England & Wales	-17.9	-8.0	-5.6	-8.1	34.1%
Southern England	-14.5	-3.1	-2.1	-3.0	33.8%
GB	-22.9	-12.1	-9.0	-13.0	38.6%

Source: Oxford Economics, LMC

Note: Red text indicates a negative differential. Black *text* indicates a positive differential.

Note: * = 10% significance level, ** = 5% significance level, *** = 1% significance level

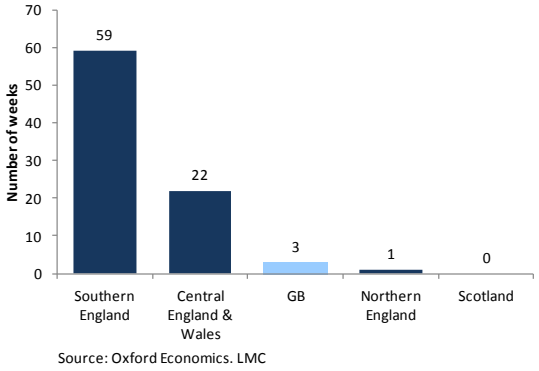
Note: Autumn = Sept, Oct, Nov: Winter = Dec, Jan, Feb

Spring = March, April, May: Summer = June, July, August

As per the findings at GB level, we can conclude that there is a statistically significant differential in prime deadweight cattle prices between NI and each of the GB price reporting regions. All analysis is significant to the 1% level, bar the R3 steer price in Southern England. This is significant to the 5% level[4]. Whilst the 5% level is also accepted at an academic level, we felt that this required further analysis (given the noticeable difference from the general trend).

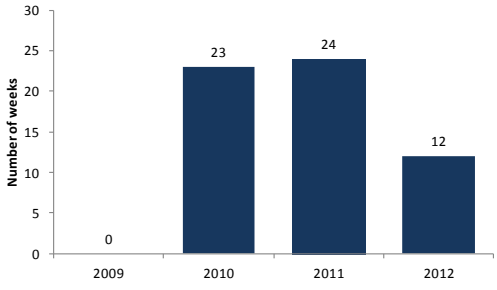
Additional analysis found that when the last five months of 2012 (when the differential significantly widened) are removed, there is not a statistically significant differential in R3 steer prices between NI and Southern England (although the differential in R4 steer prices remains significant.) This emphasises the impact the rapid increases of the differential in the last five months of 2012 has had on the differential. Charts 2.4.5 and 2.4.6 below show the number of weeks over the past 3 years that the NI R3 steer price has been ahead of the GB regions.

Chart 2.4.5: No. of weeks NI prices have been above GB regions, 2009 -2012 (R3 Steer)



Source: Oxford Economics. LMC

Chart 2.4.6: No. of weeks NI prices have been above Southern England prices by year, 2009 – 2012 (R3 Steer)



Source: Oxford Economics. LMC

NI average R3 steer prices have been higher than those in Southern England in 59 of the 205 weeks in the last 3 years. Chart 2.4.5 suggests that in 2010 and 2011, NI prices were above those in Southern England (for R3 steers) for almost half of the time, but less than a quarter of the time in 2012. NI R3 steer prices have been above Central England / Wales on 22 occasions (11%), Northern England on only 1 occasion (week 23 of 2011) and never ahead of Scotland since 2009. NI R4 steer prices were above those in Southern England for 30 weeks (15%) between 2009 and 2012 and above Central England for 4 weeks (2%). R4 steer prices in NI where never above Northern England, Scotland nor the GB average over the period.

The early findings from this analysis (which are investigated further in subsequent chapters) are that there must be fundamental and long standing reasons why the Northern England (and most likely Central England / Wales) regions attract a higher price. However, the regular swing in prices between NI and Southern England suggest the differential is more market led and thus can be influenced by market forces (such as demand and supply), as opposed to the more fundamental differential that appears to exist

[4] Similar to the 1% significance level, the 5% significance level means we can state with 95% accuracy that there is a price differential, as opposed to 99% accuracy.

between NI and Central England, Northern England and Scotland; which is not swayed by shorter term market forces.

2.5 Summary

The first step in making comparisons of average prices for cattle in Northern Ireland and GB regions is to ensure that the price reporting systems are the same and that the comparisons of average prices are being made on a like for like basis. The analysis demonstrates that the price reporting systems comply with European Commission regulations and are a valid base on which to make comparisons.

The basis for comparisons is the mean R3 / R4 prices but it is important to note that there is considerable variation in any one week around the average price. For example, in the final week of 2012 the average price for R3 steers in Northern Ireland was £3.34 per kg but there was a potential variation of 20p above and below this average.

The main conclusions from the comparisons of average prices in Northern Ireland and elsewhere can be summarised as follows:

- The average price reported for R3 steers in GB has been higher than that reported in NI on all but 3 weeks of the last 4 years, with an average differential of 14.2p per kg;
- The average R4 steer price in GB has been higher than reported in NI on every occasion over the past 4 years, with the average differential 21.3p per kg;
- The differential has widened significantly in the final quarter of 2012;
- Average prices for prime cattle in NI are consistently higher than those in ROI and NI prices tend to track the EU average;
- Average prices for non-prime cattle in NI are regularly above those for GB;
- The differential in prices for R3 prime cattle in NI and those in Scotland, the Northern England, Central England / Wales and the GB average is statistically significant; and,
- When the final 5 months of 2012 are removed from the analysis, there is no statistically significant differential in R3 steer prices between NI and Southern England (although the R4 differential remains statistically significant).

3 Industry consultation – key findings

Note: The consultation process took place between January 2013 and May 2013, and hence movements in the market thereafter cannot be included. We have, however, given some consideration to the impact of the horsemeat crisis in early 2013. This is covered in box 3.2.

3.1 Introduction

This chapter presents a summary of the dialogue held as part of the study with key industry organisations, bodies and experts. The purpose of the consultations was to establish the views of all the stakeholders on the underlying reasons for the price differentials and to use these views as a basis for examining the various factors in the quantitative analysis. There was a wide range of differing views expressed to the research team, not all unanimously held, and this highlighted the need to undertake a more detailed evidence based analysis of the factors contributing to the differentials.

The views expressed in this chapter are those of the consultees and not Oxford Economics. These are opinions / perceptions and – whilst many are based on evidence - should not be considered as conclusive findings, merely a representation of stakeholders' evaluation of the situation. All views expressed are done so on an anonymous basis; however, we are able to identify collective groups, such as 'the processing industry', 'the production industry', 'retail industry' and 'industry bodies'. A full list of those organisations consulted is noted in the acknowledgements at the outset of the report.

3.2 Price differentials

All consultees accepted that recently (over the last year especially) there has been a widening price differential between NI and GB deadweight cattle. It was also accepted that NI prices have been consistently lower than GB prices in the post BSE era (1996); and ROI prices lower still.

Despite the general agreement over the extent of price differentials there were initial concerns mentioned by consultees in relation to how the data on prices are compiled, used and compared, including:

- The inclusion of loyalty bonuses in reported prices. There was a lack of clear understanding from industry consultees over whether loyalty bonuses are captured in prices and the need to clarify that the price reporting in this regard was the same across NI, GB and ROI.
- The second-tier deductions to quoted prices. It was suggested by some GB based consultees that these can make a significant difference to the actual price the producer receives and the structure of second-tier deductions needs to be understood across both markets[5].
- The comparison of R3 prices which are arguably not directly comparable due to the weight, age and origin of cattle impacting on the base price. It was also noted that the R3 and R4L grades in GB generally receive at least the same price (if not higher) whereas there is a noticeable differential in NI.

[5] The issue of second tier deductions were examined in more detail. However, they were found to be a non-issue within the context of this study and therefore are not referenced elsewhere in this report.

- The combined price reporting for commercial cattle and premium cattle which also confuses the comparisons since it would be more transparent to report the price for premium brands separately.

Summary

There was a consensus view that a price differential between for prime deadweight cattle between NI and GB had been in existence post BSE. A range of consultees asserted a selection of initial areas for clarification regarding price reporting mechanisms, to ensure the prices reported were comparable.

Certain technical concerns relating to the comparability of pricing data have been addressed in Chapter 2 and overall prices were judged to be comparable. The majority of these issues are addressed in Chapter 4.

3.3 Supply

3.3.1 Overall supply numbers

There was general acceptance by most that the period over which price disparities have been at their greatest, particularly over the last six months of 2012, has coincided with a significant tightening of cattle supplies in GB. Falling supplies have become the prevailing trend in GB and this is partially attributed to the cost pressures on producers (although it was noted across the board that NI producers are also impacted by the rising cost of production) . Many believe this will continue given the direction of impending CAP reforms, and ongoing de-coupling of subsidies. In contrast most consultees did not express similar concerns in relation to NI cattle supplies, which were viewed as being more constant.

The pressure on supply in GB was particularly evident in 2012 with the closure and consolidation of plants across GB. The majority of processing industry consultees commented that at such times security of supply is equally as important as the quality of supply, with processors likely to penalise less severely which pushes prices up when supplies are tight. Similarly, where large scale plants are under pressure to secure their futures their actions can specifically influence the price of the region in which they are located.

It was also commented by many that across all markets the competition for cattle is almost always very intense, given the large retail contracts that are required to be met. This can result in prices being set that do not necessarily reflect the end market, purely the price needed to secure cattle. It was also noted that the intense competition can manifest itself in other ways than the reported price, such as reductions in the second-tier deductions and/or perks such as free transport. This again suggests various pressures in the price mechanism with out of spec cattle unlikely to be penalised as heavily. Other views suggested that because the NI processing market is more consolidated vis-a-vis the GB market, where there are a greater number of processors competing for supplies, there are comparatively fewer selling options for the NI producer who therefore has less market power to negotiate prices.

The influence of ROI cattle on market supply was also viewed as very important by most consultees (regardless of industry position), particularly at times of peak seasonal supply (with ROI imports for direct slaughter contributing to the ‘autumn flush’), as it leads to a higher numbers of cattle which can put downward pressure on NI prices unlike GB. Processor representatives suggested this was both a good and bad thing for the industry - on the one hand it alleviates short term supply pressures but on the other it could undermine NI supplies in the longer term (if producers are not receiving high enough prices to carry on farming). In addition, it was a consensus view from the processing industry that the ROI market is a

competitor for non-prime cattle and cows, thereby driving prices for these types of cattle up. It was commented by a small number of producer representatives that if there had not been as many ROI imports for direct slaughter on the market during 2012, the price differentials between GB and NI might have been much lower. It was also noted from the processing industry that the influence of ROI direct slaughter imports was vital to securing the supply of cattle needed at the time and had a differing influence across processors.

Summary – potential impact on the market

The overall level of supply in the market was seen to impact on average prices in various ways:

- The tightening of supply has put significant and more pronounced pressure on deadweight cattle prices across GB relative to NI. This was reflected in the relative upward movement of the English price against the Scottish price given the tightening of supplies in England. The influence of ROI cattle on NI prices also exacerbates this dynamic. It will be important to assess how the supply situation has differed, both over recent months and historically across the NI and GB markets.
- There are likely to be various influences on the price formation caused by the tightening of supply including the reality that realised prices are unlikely always to reflect fully the quality of cattle. This affects how penalties are applied and a tight market price no longer necessarily sends the correct price signal with regards to quality and the end retail prices for such beef.
- The influence of ROI cattle on market supply was also viewed as very important by most consultees (regardless of industry position), particularly at times of peak seasonal supply (with ROI imports for direct slaughter contributing to the 'autumn flush'), as it leads to a higher numbers of cattle which can put downward pressure on NI prices unlike GB. Conversely, it was strongly asserted by the processing industry that ROI market provides firm competition for non-prime cattle and cow prices, thus driving non-prime and cow prices up.

3.3.2 Scale, ownership and structure of supply

There was general agreement that the scale of farming in GB is larger than in NI and this does affect the structure of supply.

In England, most consultees agreed that the finishing system is becoming more dominant whilst in Scotland, herd sizes have been historically larger due to the predominance of the suckler system and the land structure. Many viewed the overwhelming trend as a movement towards a larger finishing system as subsidies continue to fall. Given the lack of other income streams (particularly dairy farming) it was remarked that in Scotland the industry has been more market led, given there has been little choice but to consolidate smaller farms.

In contrast, most consultees agreed that the size of farms in NI was much smaller than GB with a higher prevalence of part-time and 'hobby' farming. The majority of consultees cited that finishing farms do exist in NI, but are considered to be in the minority, with this element of beef farming suggested as being in its infancy. Others highlighted that it is estimated that finishing farms in NI finish c.70% of all cattle. The predominance of ownership (compared to GB where there is a greater influence of tenant farms) was also highlighted as a key reason why there is less consolidation of producers in NI compared to GB with many producers committed to preserving the family farm. The ownership structure also allows greater flexibility for farmers to subsidise their incomes through other means (e.g. other work, other family member incomes, dairy farming etc.). It was highlighted that the official herd size statistics may actually understate these

comparisons and it will be important to investigate the distribution of the herd size as well as the average to understand the extent of large scale finishers. It was highlighted by a couple of different parties that these characteristics mean that in NI there tends to be a larger number of smaller suppliers with cattle of variable quality compared to a smaller number of larger suppliers in GB. One consultee did reference that it is efficient to produce quality cattle in either very small numbers or very large numbers, with 'medium' sized production units likely to suffer from the greatest inefficiencies. However, there was a consensus view that the inconsistency of supply vis-a-vis GB, in both quantity and quality terms, comparatively reduces the negotiating and bargaining power of the NI producer.

Summary – potential impact on the market

These characteristics were deemed by consultees to potentially impact on the market in the following ways:

- Producers in GB were regarded as having greater economies of scale by those who had dealings with both NI and GB suppliers. Specialist finishers will always receive higher price for cattle (in both places) given the higher consistency, reliability and business risk carried in terms of quality and quantity. NI finishers (as in GB) will hold forward contract with processors for guaranteed supplies and be paid a quantity related bonus. These bonuses are subject to meeting the criteria over a period of time, and as such, are often paid retrospectively (with the Angus scheme in NI a prime example). Similarly those suppliers with a stronger track record of supplying in-spec animals (but who are not necessarily large scale finishers) are likely to receive a price higher than the base price quoted to others. This implies that there is a multi-tier market that potentially distorts the overall picture as reflected through the reported prices. The same principle applies in GB.
- It was implied that those larger suppliers will hold more market power and have a stronger base from which to negotiate than smaller suppliers.
- Comparatively there are a much higher number of overall suppliers supplying fewer cattle each to processing plants in NI than GB. It was strongly asserted by certain processor representatives that legislation[6] regarding beef batching and beef labeling dictates a need for homogeneity in the supply. As such, it was noted that the fragmented nature of the NI supply (many small suppliers, cattle of different origin) adds extra processing costs in terms of dealing with a larger number of batches.

3.3.3 Seasonality of supply

There was widespread agreement that in NI and the ROI there is traditionally higher degree of seasonality in the supply of cattle than across the GB market with supplies significantly higher in the autumn. The seasonal trend has traditionally been driven by the different feeding systems with the grass system in NI / ROI versus the more intensive feeding systems in GB that can rely on the by-products of other industries. However, it was asserted by the production industry that there has been a less seasonal pattern for prime cattle in NI over recent years. The particularly bad weather conditions in NI / ROI in the summer of 2012 led to a significant cull of cows and lower quality animals; due to a lack of silage and concerns over feed costs.

[6] Rural Payments Agency, *Beef Labelling Guide,* August 2009 http://rpa.defra.gov.uk/rpa/index.nsf/15f3e119d8abcb5480256ef20049b53a/0397b65b8f92b04a802574c100429568/$FILE/BLS%20Guide.pdf

Although importantly it was also noted that for prime cattle, the seasonality (or 'autumn flush') was less evident in 2012, with the autumn kill numbers more heavily influenced by the cull of cows (which is traditionally has a more pronounced seasonal nature) and imports from ROI for direct slaughter.

Summary – potential impact on the market

The seasonal nature of supply was deemed to potentially impact on the market in the following ways:

- NI / ROI price is relatively weaker (against GB prices) in autumn time due to the stronger degree of seasonality and less aggressive nature of *'cattle chasing'* at such times. Processors assert that they are under significant pressure to find suitable market outlets for higher supplies at this time, often by using cold stores or undercutting the competition, which all contributes to lower deadweight cattle prices.
- The seasonality pattern is common across the island of Ireland, due to the similarities in production systems and the climate, therefore Irish cattle supplies in autumn time will impact on the NI prices as well.
- The seasonal nature of demand for beef was also noted, with demand peaking in winter and at its lowest in the summer.

3.3.4 Herd mix and slaughter profile (in-spec, origin and quality assured)

Herd mix

There was general acceptance across all consultees that the herd mix differs significantly across all markets (including within England) leading to significant differences in the overall slaughter profile, which indirectly could affect prices.

Most believed that in NI relative to the GB average (in particular Northern England and Scotland) there would be a higher proportion of beef cattle bred from the dairy herd in the slaughter mix, which would be similar to the Southern region in England but contrast significantly to the Scottish and Northern English picture.

In Scotland, the dominance of the suckler system and premium breeds, most notably Aberdeen Angus and Shorthorn, has ensured that supply has been able to respond effectively to meet the rising demand for premium beef. In addition, it was noted that in Scotland, the reduced volume of dairy beef, meant that beef cattle have been bred for optimal yields. There was a general feeling that Scottish producers had worked hard over the last 20 years to tailor supply to meet market specifications – through appropriate feeding systems, particularly using the cereal by-products from other industries (such as whisky distilling). Most consultees accept that Scotland will continue to attract premium prices above GB due to these characteristics and the strong branding of Scotch beef (see discussion on branding below).

Whilst there is a general acceptance that Scottish prices will always be higher, due in part to the premium Scotch beef brand and the herd mix (although one consultee suggested the herd mix accounts for no more than 1p in the average reported price), there is less clarity amongst consultees as to whether differences between NI and England herd mixes impact on overall market prices.

On the one hand many believe that the herd mix in NI suffers from legacy issues associated with the pre-BSE continental market focussed era where significant quantities of cattle were exported live from NI / ROI. During that era there was an emphasis on large cattle which has shaped the genetics of the breeding herd

to this day and arguably is not suited to producing (in weight terms) the consistent in-spec cattle needed to fulfil UK retailer contracts as well as GB cattle.

The 'mixed market signals' portrayed by NI processors was also cited as an alternative driver of heavy cattle. Producer representatives cited the importance of cash flow in the production industry, and that additional weight equates to additional money in absolute terms, if not on a per kilo basis. It was noted by the same that if processors penalised overweight cattle to the full published amount, it would discourage the industry from producing heavy cattle. Conversely, the processing industry strongly stated that one reason for not fully implementing penalties was the presence of ROI as a competitor market.

It was noted by producer representatives that certain plants in GB were accepting heavier cattle within the 'specification range', with similar levels of flexibility not available in NI. Processor representatives strongly asserted that this was only the case in a very limited number of plants in GB, and was a largely out-dated system relating back to the height of the BSE outbreak, when heavier cattle were encouraged as a means of increasing the supply of beef into the market. It was noted that the heavier weight range is likely to be removed in the short / medium term, due in part to an increasing preference for lean beef. An independent industry representative noted that the degree of diversity of markets being served, and the composition of local supplies, was likely to be a driver in this.

There were mixed messages from producers about whether farming larger continental breeds does produce higher profits. A small number of producer representatives were keen to note a few case studies whereby producers in NI were producing and supplying out-of-spec cattle, but still making a profit margin due to low input costs. A small number of processor consultees believed that in NI there is a preference for breeds that were more suitable for the pre-BSE market in mainland Europe and are not as preferable in the current UK multiple retail market. It was suggested that the commitment to such breeds and the importance of cash flow makes farmers less likely to change and adapt new production techniques.

On the other hand, some industry body representatives were less convinced that the differences in breeding structures between England and NI were pronounced enough to affect the uniform supply of cattle significantly and impact on price differentials.

Slaughter profile

Perceived differences in the herd mix were often put forward as the reason for differences in the slaughter mix. The issue surrounding fundamental differences in the slaughter mix emerged with all processors with factories in both NI and GB who commented that there is a much greater consistency of in-spec cattle (particularly in reference to the preferred weight range) in the slaughter mix in their GB plants compared to NI plants. However, it was also noted that the weight range in some GB plants is wider (including those with a presence in both GB and NI), up to 450kg in some cases and hence the figures for in-spec would be skewed by the wider range.

This is a complex issue and the implication is that suppliers in GB, consistently offering more in-spec / uniform supply of animals (at the correct weight range), will receive higher prices for those in-spec animals than a supplier in NI would for similarly in-spec animals (given the lack of consistency in the supply). Conversely, many producer representatives asserted that this should not impact on the average price of an R3 animal at the correct weight range since this is essentially an identical animal within the EU grading system.

The in-spec issue is also cited across the processing sector as particularly important (as well as guaranteeing supplies) in explaining why specialist finishers, who consistently supply in-spec animals (within the preferred weight range), will also receive a higher price than other smaller producers, and may also face reduced penalties for out of spec cattle.

Producer representatives highlighted that the R4L grade in GB generally receives a similar, if not higher, price than the R3 grade. It was noted by the same that this is not the case in NI, with the R4 grade penalised against an R3. Given that NI and GB beef service largely the same key markets, it was strongly asserted that this should be addressed qualitatively. Processor representatives noted that the issue was largely a case of tradition, with fattier cuts of beef typically preferred in GB over leaner meat in NI. It was cited that within GB, there was a strong regional preference, with heavier cattle rewarded in Northern England and Scotland. Similarly, an independent industry representative noted NI's tradition with exporting beef to mainland Europe, where leaner beef is more marketable. It was noted that the preference for – and rewarding of – particular grades will be driven by the diversity of end markets services, of which was often cited NI's wider range of end markets.

There was also a perception among producers of a closer business relationship between suppliers and processors in GB; which has ensured that producers are influenced more effectively to produce the beef required. It was asserted that this has been implemented most effectively in Scotland where breeders have adapted supply to meet retailer in-spec standards. In NI this type of dialogue was perceived as being weaker, with perceived issues of trust particularly among suppliers. It was also noted that the closer business relationship is likely to be directly related to differences in structure of the production industry.

Another key element of the slaughter mix is the origin of cattle. In GB the vast majority of cattle will be British and there will be no slaughtering of Irish origin cattle. In a NI plant there is more likely to be supplies of different origins – NI origin and ROI origin which may have been either imported for direct slaughter or have been imported by an NI farmer and finished locally. It should also be noted that the origin of cattle varies over time (with one consultee citing Irish born and NI reared cattle have been discouraged by some plants since the end of 2011). This increases the overall number of boning batches needed in the NI plant compared to the GB plant. Multiple large scale processors suggested that there is an additional 5-10p/kg in the cost of processing beef in NI in comparison to GB, including boning batches, utility costs and less value in the rendering market.

There was a general acceptance that the Farm Quality Assurance Scheme in NI is perhaps the best across the UK. However, processors still need to separate boning batches according to whether cattle are FQAS/ non-FQAS which alongside different origins, different breeds (premium vs. commercial) and over / under 30 months multiplies out to increase the overall number of boning batches that a NI processor needs to undertake compared to a GB processor. It was noted that whilst the presence of the Scotch PGI label in Scotland adds a further layer of batching, this is offset by the premium paid (of which there is no premium for ROI sourced beef in NI) and that the main focus for comparison is England, where cattle of non UK origin are rarely handled.

Summary – potential impact on the market

The herd and slaughter mix were deemed to potentially impact on market prices in the following ways:

- If there is a greater supply of uniform cattle in GB relative to NI from producers (due to a more suitable herd mix and larger farm sizes) then this potentially affects the base price that processors are prepared to offer, which in turn impacts on the price realised by producers.
- If it is perceived by processors that there are a greater supply of in-spec cattle in GB relative to NI from producers then this may influence the quoted price in GB.
- There was cross-industry agreement that there is a larger selection of abattoirs in GB, many of which are not supplying major supermarkets and thus have niche specialisms in handling out-of-spec cattle.

As a result, this creates a competitive market for out-of-spec animals, which it was noted does not have a comparable presence in NI.

3.4 Demand factors

3.4.1 End demand

There was widespread agreement that tracing final demand or markets for NI versus GB cattle is very complicated, given that the raw materials (i.e. cattle) that enter the processing plants are very different to the final products (cuts of beef) sold. It was cited on multiple occasions that the end market for beef has changed fundamentally since the pre-BSE era. Pre 1996, the market focussed on selling carcasses, whereas the market today is for boneless beef cuts. It was also noted that in the pre-BSE era, when NI prices were marginally above those in GB, the end market was more focussed on exports, whereas the market is now concentrated on GB retail outlets.

UK retail demand is clearly the most important market for NI and GB beef products, in volume and value terms, with processors serving retail contracts with a number of supermarkets. This is the main reason put forward as to why price disparities should not exist on the scale currently being experienced (i.e. beef sourced in NI and GB is entering the same market and is eligible to be sold under the British Red Tractor label or similar premium range). The consultation has flagged that this hypothesis is not as straightforward as it appears and tracing back final demand and product markets to raw cattle supplies is complex.

However, despite the importance in UK retail sales, its share as a proportion of total demand differs across NI processors. Overall across those NI processors consulted, it was estimated that approximately one third of their beef products are exported to the European market. In contrast, GB processors tend to be more focused on the UK retail market, given that GB is a net importer of beef.

There appear to be subtle differences in the business models used by NI processors, with some satisfying customer contracts via all plants but with others having customer contracts more heavily aligned to one plant in particular (i.e. each plant has its own customer profile). For instance, one processor reported that it has a very different customer profile for its GB plant compared to its NI plant. Said processor estimated that a greater quantity of products from their GB operations service UK retail contracts whilst the NI operations serves a greater range of European customers and UK wholesale, with less emphasis on the prime UK retailers market[7]. A greater proportion of NI products may still enter the UK retail market from time to time but largely to assist with supplementing orders from the GB site. Furthermore, a greater proportion of products sold from the NI plant into UK retail (around 50%) are within the discount or promotional range.

It was also commented by the majority of processors that UK retailers preferred to source the majority of their products for the English retail market from GB plants for food security reasons (e.g. ferry strikes). Others, primarily in the production industry challenged this assertion and suggested that NI supplies are fundamentally treated the same.

For those retailers and food service companies consulted it does appear that supplies are broadly aligned to specified plants to ensure quality assurance and traceability but there was no general view that NI beef supplies were treated differently from English, Scottish or Welsh suppliers, although suppliers were distributed across GB to ensure security of supply. It was noted that retail sourcing policy varies across retailers; some may specify that cattle come from the one plant but others stated that carcasses may be

[7] Evidence presented in section 4.7.2 of this report supports this view, albeit to a lesser extent than estimated during the consultation.

moved about and processed in different locations (by those processors with more than one plant) as long as quality assurance and origin criteria were being met.

There was discussion as to whether selling to European markets was delivering the best return to the producer given the higher average prices in the UK retail sector. Various reasons for this structure were put forward by processors including that in the longer term it is best to serve a range of markets rather than be dominated by UK retail alone. Although today the UK retail market is the most profitable, the market outlook does change especially as exchange rates fluctuate. As highlighted by Irish bodies, despite the GB retail market offering the best returns for ROI beef there is still a need to export products across Europe rather than focus purely on GB.

Most processors also reported that low proportions of sales of beef that is eligible (i.e. British and FQAS) is sold into the premium GB retail market. For instance whilst the vast majority of products will be quality assured and all UK retailers as a minimum will ask for quality assurance (Red Tractor, NIFQAS or otherwise), the level of actual sales into the premium market is lower than might be expected from NI (also see branding below). The same principle is true in Scotland for Scotch beef; it was suggested that the vast majority of cattle reared in Scotland are eligible for the Scotch brand but in reality much smaller proportion is actually used in the premium market.

A small number of industry bodies were sceptical about whether in reality it is possible to differentiate the end product market to any significant degree for NI and GB processors (and link back to producer prices) given the sophistication of the supply chains serving the Northern European markets in which Anglo-Irish processing firms operate. They cited that these companies would be the most efficient at moving products from GB to NI sites for further processing or retail packing and that the prime cattle sourced from both markets would be used to fulfil the strictest UK retail specifications.

It was strongly asserted by producer representatives that, although the end market is likely to have an effect on the price paid to producers, not maximising sales from NI into the premium retailer, when a significantly higher proportion is eligible, is underselling the quality NI product. However, an alternative viewpoint emphasised by the processing industry cited the need to hedge risk by servicing diverse markets, with the collapse of the EU market following the BSE outbreak noted as an acute example.

Summary – potential impact on the market

The end markets for beef products were seen to potentially impact on prices in the following ways:

- A greater proportion of prime beef products from GB processors enter the UK retail market than NI, thus it was suggested that producer prices would be affected by different final returns. Similarly, if fewer products are being sold into the premium GB retail market in NI compared to GB this could potentially depress overall prices relative to GB if the alternative markets were not as attractive.
- Similarly, if weaker export markets are proportionately more important in the final destination of NI sourced premium beef products then this potentially weakens the overall producer prices for prime cattle.
- It was strongly asserted by producer representatives that, not maximizing the quantity of sales into premium markets is underselling the quality NI product. However, an alternative viewpoint emphasised the need to hedge risk by servicing diverse markets, with the collapse of the EU market following the BSE outbreak noted as an acute example.

3.4.2 Branding and marketing

Branding of beef products was regarded by most as an important differentiator in terms of price, particularly in relation to premium brands such as Aberdeen Angus. The Scottish market was regarded by most as exceptional in this regard given the Scotch brand which has added another level of premium and been influential in setting higher prices for Scottish deadweight cattle. It was noted that many Scottish plants prioritise domestic production and supplies given the higher market returns but that other Scottish plants are more focussed on the Red Tractor scheme and thus premium GB retail market as opposed to Scottish PGI supplies. Similarly, it was noted that the Scottish beef authorities invest a considerable sum in promoting Scotch beef and have secured PGI status. It was also noted that Welsh beef has a similar PGI status, although the development of a 'Welsh Beef' imagine similar to that of Scotch beef is an ongoing process. Comparatively, one industry body representative noted that there is not significant marketing of NI beef, largely due to the fact that there is not a unique brand for NI beef. It was also recognised that having a significant NI brand may not add value, as it could potentially differentiate it from the GB product, which attracts a premium at present.

Scottish branding contrasts with the role of branding in the rest of the UK. The Red Tractor *'brand'* was generally perceived by most to not hold the same power that it used to, with other means of quality assurance of growing importance and the simple desire for British beef taking precedence. In many ways quality assurance is seen as more of a commercial requirement than a brand per se. However, such branding has perhaps become more relevant in light of recent developments such as the horsemeat crisis. Although in general there is a strong commitment to British branding by most major retailers, it is becoming harder to justify given the pressures on consumer spending with some supermarkets now sourcing Irish beef as well (e.g. Morrisons which were previously 100% British). The NI equivalent to the Red Tractor is the Farm Quality Assurance scheme which is described in detail below.

Box: 3.1: NI FQAS

The NI Beef and Lamb Farm Quality Assurance Scheme (FQAS) underpins local, external and export marketing of NI beef. The scheme is owned and managed by LMC on behalf of the Northern Ireland red meat industry and is equivalent to the UK Assured Food Standards which means that UK beef can be marketed in GB under the Red Tractor label. In Northern Ireland, retailers actively market beef and lamb under the FQAS label and the brand has gained renewed prominence in NI over the last year with LMC investing in a "Look for the Logo" advertising campaign. Retailers have afforded the FQAS logo increased prominence on retail packs and in their own promotional campaigns and LMC has also invested in advertising of the FQAS brand.

There was feedback that NI beef perhaps suffers an identity problem with consultees routinely referring to "exports to the GB market". This implies that NI product is essentially regarded as an imported product rather than being integral to the UK supply, both when sending cattle direct for slaughter or through live trade.

3.4.3 Retailer behaviour

The retailers and food service companies consulted all tend to have long term established business relationships with processors and although it is a highly price competitive market, such relationships are very important.

Retailers / food service companies do procure across the UK to ensure that their suppliers are not competing with one another but more importantly to ensure supply is not constrained if there were an upset to one location. Suppliers also tend to be located in those areas where cattle supply is greatest. However, it was also asserted by retailers consulted that NI has arrived comparatively late to the GB retailer market, having focussed on exporting beef to the EU in the pre-BSE era. As a result, the NI beef industry has had to actively compete on a cost basis in order to build relationships with an established supply chain in GB. Similarly, GB based consultees questioned NI's commitment to the GB market in the long term, with a perception that the wider NI beef industry would prefer to return to exporting to the EU at the expense of GB, should suitable opportunities arise.

Box 3.2: The impact of horsemeat

The horsemeat crisis of early 2013 had a substantial impact on the beef trade, with the impact most acutely felt in GB across the processed beef products, most notably ready meals containing beef. Thus, the impact has been most severely felt outside of the prime beef market.

One of the main impacts was increased retailer scrutiny of the supply chain and as a result, processors have become increasingly motivated to procure beef more tightly in line with specifications. Quality assurance incentives are now much stronger with processors applying rigid penalties on non-FQAS cattle. Furthermore, processors have revised their incentive schemes for in-spec cattle with increased bonuses available for cattle that kill to specification. Focus on specification in the aftermath of "Horsegate" has been a key factor in the reduced demand from processors for ROI origin stock that have been finished on Northern Ireland farms, since they are effectively outside specification. This also is a reflection of the renewed demand for locally sourced production which has emerged as a priority issue in the aftermath of the horsemeat crisis. The focus within the UK trade has shifted generally to a shorter supply chain and full traceability.

It remains to be seen how much impact the horsemeat crisis has on the industry in the longer term.

3.4.4 Retail price discovery mechanism

There do not tend to be fixed contracts between processors and retailers /food service companies with instead a price agreement decided on a fixed period, in the range of 4 weeks – 3 months (according to those consulted). Prices will be negotiated based on a number of factors such as the price of the carcass the week before, processor prices for certain cuts and of course the end retail price. Other companies looking for specific beef products might put out tenders for a particular product to selected suppliers who will then send a brief back and the company selected will lead on the product and develop it. All consultees made it clear that price negotiation is a highly competitive process and whilst there is consideration for producer costs these will be viewed in terms of whether they are likely to be long term or short term in nature.

From those consulted, contracts / price agreements tend to be with the processing company on one level (for commercial reasons) but often supplies will come from named plants (for those processors with more than one plant) with the majority reporting a degree of flexibility to meet demand from other plants, provided all plants in the supply chain meet the quality assurance criteria.

For European customers procuring from NI processors, the price and demand is heavily determined by exchange rates, particularly between sterling and the euro. Supplies will be negotiated on a short term basis to ensure exchange rate changes can be taken into account with supplies often changing between NI

and ROI depending on favourability. In 2012 there was a reduction in supplies sourced from the UK because of the higher cattle prices compared to the rest of Europe.

3.5 Market dynamics

3.5.1 Influence of ROI market

There is overwhelming agreement from most parties that the border with ROI influences the overall market (as highlighted in other sections above). It is argued that this resonates in a number of ways:

- **Supplies to processing plants in NI:** The significant trade of cattle between NI and ROI was recognised by all consultees across the industry, with reference to the typically higher prices paid for prime cattle in NI and typically higher prices paid for cows in ROI. It was noted that ROI producers are more likely to send exports for direct slaughter to NI before the GB market, with ease of transport and established relationships cited as prominent drivers. Such behaviour was strongly asserted by the production industry as inflating the NI supply and thus lowering prices. Conversely, the majority of processors strongly noted that if producers were penalised more heavily for out of spec cattle, then more NI cattle would go to ROI although producer representatives did reference that many processors in NI have sister plants in ROI, suggesting that such a trend seemed unlikely. Equally, the processing industry did reiterate that many plants in ROI have no NI presence and are actively competing for NI supplies.
- **Creating differences within the processing of plants:** .Processors noted the inclusion of ROI origin (imported for direct slaughter or ROI born / NI reared) cattle in processing plants in NI, resulted in more boning batches, adding a further layer of fragmentation to the industry. It was noted that there are very few examples of live ROI cattle exports to GB or finishing farms of ROI cattle being set up in GB, mainly because English processors are not experienced at dealing with different origin cattle. Others noted that the large Anglo-Irish companies with plants in GB were unlikely to accept Irish cattle that could undermine their Irish site operations.

3.5.2 Movement of live cattle from NI to GB

There were various views on why the period of relatively high GB to NI prices has not been accompanied by a high level of live cattle movements across the Irish Sea by producers in NI. Various reasons were put forward by cross-industry consultees – some based on perception and some based on fact – as to why what appears a very attractive business proposition is not being fully utilised. These issues are noted below:

- Consultees suggested that there are institutional market barriers associated with the movement of NI cattle to GB, particularly in terms of veterinary tests and lack of differentiation from authorities in GB, who often associate NI cattle with ROI cattle (and the regulations that apply to ROI imports).
- There was widespread agreement across the producer industry that TB was an issue prohibiting the sale of cattle from NI to GB (particularly Scotland). However, exporting eligibility with regard to TB was not consistently understood across the industry, with various definitions as to the precise criteria for exporting. The most significant message was that producers that were not officially TB free (and had been TB free for a period) were not eligible to export.
- Similarly, it was suggested that whilst TB in its own right was a significant issue, the fear of TB was at least as prominent. It was noted by producer representatives that there was a perceived

apprehension from GB processors to become reliant on a supply line that could be put at risk by future TB outbreaks.

- A small number of producer representatives suggested that the price differential was not sustained over a suitably long period at a level that would justify shopping to GB over and above the transport and logistical costs of doing so (with transport costs estimated at 12/14p p/kg), but that the market may respond should the differential remain substantial in the longer term. Other consultees (primarily processors) felt that if the opportunity was there, market forces would ensure it happened.
- The availability of transport infrastructure was cited as a potential issue; although the majority view was that transport is not the issue. Instead, it was perceived that the export centres (linked to institutional barriers) which cattle must go through before being transported are at capacity, potentially constraining the trade. However, there was also considerable lack of clarity across those in the industry with regard to export centres and whether or not cattle could be exported directly from the farm[8].
- It was perceived that NI live auction markets cannot sell cattle direct for slaughter in GB as part of their regular sales. Whilst many are labelled as 'export centres', cattle can only be sold direct for slaughter in NI through specialist export auctions. It was strongly asserted that the criteria for export auctions are that all cattle entered must be eligible for export; it was noted that this is rarely practical in NI, largely due to TB incidence and other animal health regulations. This factor was strongly asserted by one consultee as being a major factor, effectively offering no transparent / natural market place for the phenomenon.
- It was suggested that those producers most likely to do so (i.e. professional large scale finishers) are not doing so as they are receiving a quantity bonus payment from NI processors which is large enough to cover any profits from shipping live animals to GB factories.
- It was also noted that there is a degree of reluctance by Scottish plants to source cattle from other parts of GB given an element of protectionism towards the Scotch brand. Also, it was perceived that Scottish plants would prefer to procure cattle from Northern England first (should Scottish supplies not be sufficient) given the similar breeds (often Scottish bred cattle). Distance from market and security of supply were strongly asserted as detrimental to NI's position in sales to GB.
- The majority of producer representatives suggested that given the nature of the beef producing industry in NI, with many 'part time' farmers, identifying processors in GB, developing a relationship and initiating the transport operation was a time consuming process and not feasible for many in the beef industry.

3.5.3 Role of live markets and intermediaries

The live auctions in England are still regarded as an important market feature accounting for a significant amount of prime beef cattle sales, with consultees suggesting between 15 and 20% of sales liveweight in GB; the majority view is that this level is much lower in NI. There is a general perception in GB that liveweight prices and deadweight prices are interconnected, with movements in one causing movements in the other.

[8] A range of facts on the criteria for exporting are presented in Annex A. .

When considering the link between liveweight and deadweight prices in NI, one consultee suggested that the trade was almost solely driven by the deadweight price, as this is the inevitable end market. (It was also suggested by a GB based consultee that this may be due to the structure of the industry in NI, whereby stores tend to be sold at a later stage in the process vis-à-vis GB, where stores tend to be sold earlier and lighter.) However, it was noted that the sale of forward stores in the liveweight trade was unlikely to be a determining factor of deadweight prices, with the sale of finished cattle through the ring more pertinent. As such, it was noted that the significant differences in the scale of the liveweight trade for finished cattle is likely to be the explaining factor. It was also noted that the live trade prices are subject to the same seasonal patterns as the deadweight trade.

It was noted that the buyer profile in the live trade (fatstock ring) has changed considerably over the past 10 / 15 years, with a much smaller proportion of cattle sold directly to the butchery trade. The closure of council run abattoirs in the 1990's was cited as the main driver of this. The majority of fatstock sold at auction are now sold to market agents / intermediaries.

In NI, producer representatives asserted that, on average (particularly in the latter parts of the study period); the smaller producer may receive a better price through the live trade, with the opposite true for a larger, specialist finisher.. It was also recognised that whether the live trade or deadweight trade returns better depends largely on how the animal eventually kills out.

3.6 Factors of production

3.6.1 Processor costs

There is general acceptance across the industry that excess capacity exists in the processing sector, both in NI and GB. The processing industry strongly asserted that this is more pronounced in NI due to the seasonal nature of supplies and that GB factories are operating more consistently. Indeed, the processing industry noted the need to have capacity to handle trade for 2 / 3 months of the year, which is largely redundant for the remainder of the period. The majority of the production industry consultees asserted that processors in NI actively seek ROI cattle, sometimes paying more for them than for NI supplies, to supply contracts in ROI and generally ensure that capacity is used as efficiently as possible. However, it was noted by industry bodies throughout that the volume of ROI imports for direct slaughter varies across processors.

Several reasons were put forward why processor costs between the GB and NI markets may differ, these included:

- Costs like electricity and gas prices, which are higher for NI processors compared to GB counterparts;
- Transport costs that NI producers face in shipping products to the UK retail market. However, it was noted by the production industry that there is considerable shipping of beef carcasses from GB to NI for boning / further processing, with the cost of transport for carcass beef estimated at 5p/kg;
- The processing industry strongly emphasised that it was much easier to do business in GB, particularly in relation to planning procedures and other bureaucratic procedures which add to the costs of doing business in NI;
- Wage costs for processing staff were generally regarded as similar across NI and GB plants but would be higher for managerial staff in GB plants;

- Number of processing batches due to differing origins and number of suppliers. There was general agreement among consultees representing the processing side of the NI industry that NI processors have more batches in the boning hall than GB processors to account for different origins, which multiplies out the number of batches in terms of FQAS / non-FQAA and UTM / OTM;
- Most processors also highlighted that there is less value derived from certain parts of the carcass for NI cattle than GB cattle, particularly hides. Hides from NI are often damaged due to the rearing system (slatted houses as opposed to straw beds) which reduces their overall return; and
- Rendering costs were highlighted as considerably higher in NI compared to GB. It was noted that this was due both to recent events in the GB rendering sector and NI's distance from the market.

A small number of producer consultees and industry bodies were sceptical around how big a difference these factors make to overall margins in NI as opposed to GB processors, particularly given the strong perception across the industry that NI firms have some of the most sophisticated and modern plants, as is highlighted by the movement of beef carcasses from GB to NI for boning / further processing.

The general feedback in terms of processor costs from retailers / food service companies was that NI processors are extremely good at what they do and perhaps more skilled than GB counterparts at reducing production costs / adapting production techniques to ensure they are maximising efficiency. They also tend to look to the long term in their investment plans compared to GB processors.

3.7 Future outlook and key action areas

Most consultees observed that the global demand for beef will continue to rise given the population pressures the world faces and potential food shortages and that prices should therefore remain firm when compared to historic levels. As current supplies are tight on world markets, this will continue driving prices upwards and also have implications for sourcing cheap beef imports as emerging economies such as Brazil and China increase their meat consumption.

In light of the recent public reaction to the discovery of horsemeat in beef meat products, it was also commented that UK retailers (perceived to hold most of the power in the industry) are perhaps realising that beef retail prices can no longer be kept so low without consequences; as a result, many consultees believed there would be an increased emphasis on quality over cost as the industry responds.

Despite the longer term macro trends, the industry at present faces a continual squeeze between high costs and consumer demands for affordable meat. The majority of beef producers are still reliant on support payments to bridge the income gap.

There were mixed views regarding the price differential in 2012 and whether or not it represented a price bubble. Some consultees noted that they expected the price gap to narrow as supply in GB begins to recover, whilst others did not envisage a significant fall in GB deadweight cattle prices in the future unless supply increases significantly.

3.8 Other

3.8.1 Grading system

Overall there was a general acceptance that the Video-Image Automated (VIA) grading systems in NI and ROI, as opposed to manual system in GB, were unlikely to account for any substantial price differentials

between the two markets. The grading standard in NI, GB and ROI is the same. This standard is inspected and examined by EU expert graders, who review the performance of graders whether human or machine.

The introduction of VIA in March 2011 in NI led to a tightening of the standard when machine was calibrated to the standard set by a panel of EU expert graders. Indeed, some consultees argued that the perceived tougher grading of the VIA should have led to an increase in NI prices and a narrowing of the differential when the machines were introduced.

A small number of industry body representatives suggested that pricing deadweight cattle based on a grading system – automated or otherwise – would eventually be superseded by a system based on meat yields. However, it was noted that the introduction of such a system would require a consensus across the industry and as such, is unlikely to happen in the short to medium term.

3.9 Summary

Based on our industry consultations, there appear to be a number of factors which may be responsible for the price differential. The table below summarises the main factors that emerged from these consultations and how they might contribute to the average price differential. This set of factors then set the agenda for the analysis that is presented in the next section.

Factor	Potential link with prices	Differences (hypothesises across markets to be investigated)		Action - evidence to be investigated
		NI	GB	
Price reporting samples	Large scale or premium beef processors potentially skew the GB price	74% of factories price report	60 % of factories in England & Wales and 80% in Scotland price report	Examining average price if such plants excluded (particularly North of England)
Supply numbers	Variable supplies across markets with tighter supply leading to higher prices	Supplies less tight	Tight supplies (particularly 2012)	Examine data on supply of prime cattle to plants across GB (including regions)
Market consolidation	Linked to tighter supply numbers, more pressure on GB processors	Less pressure from tight supplies	Under more pressure - evident from closures / unknown fate of some abattoirs	Examine data on penalties, regional price hikes linked to particular factories
ROI supply / influence	Influences overall supply of cattle to NI processors and potential export of live cattle to ROI	More competition from ROI supplies, floods market at particular times	Influences GB market much less - no substantial live export trade	Examine data on the ROI supplies
Scale of farming	Smaller producer size in NI reduces market bargaining and negotiation power	Smaller herd sizes, less specialist finishers	Higher herd sizes, more specialist finishers	Examine data on herd sizes and producer structure
Seasonality	Greater vulnerability to seasonality in NI exaggerates price differentials in peak supply times	High degree of seasonality (comparatively) due to feed systems	Lower degree of seasonality due to feeding / rearing systems	Examine data on seasonality
Herd mix	Greater farming of less suited breeds in NI for meeting processor demands / in-spec standards and higher degree of dairy in production mix	Higher reliance on less suited cattle for beef supply chain / higher dairy herd mix	Adapted more quickly towards more suitable breeds for beef industry	Examine differences in herd mixes across NI and GB (including regions)
Slaughter profile / in-spec	Greater supply of in-spec cattle affects base price that processors prepared offer (in turn affecting the quoted price)	Less in-spec cattle	More in-spec cattle	Examine data on in-spec rates
End demand / markets	Greater reliance on exporting and markets beyond UK retail in NI	More exporting and reliance on markets outside of UK retail (wholesale) and more discounting	Less exporting and higher reliance on UK retail	Examine processor information with regards to market outlets where have one plant in NI and GB
Processor operating costs	If processor costs differ impact on price offered to producers	Higher cost for various reasons	Lower cost than NI for various factors	Examine processor information with regards to various elements of operating costs

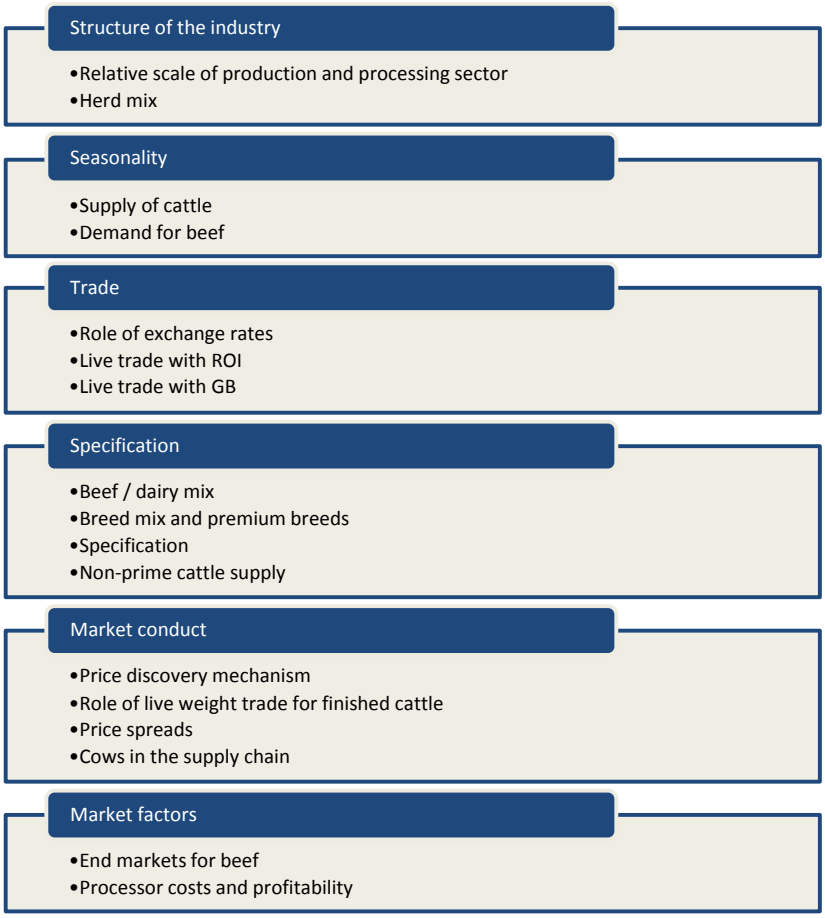
4 Key factors affecting the price differential

4.1 Introduction

This chapter reviews the key factors likely to influence the price differential and wherever possible uses statistical methods to assess their potential impact on the differential.

Based on our consultations with the industry and discussions with the Steering Group, factors considered likely to have an impact on the beef price differential have been grouped under six key headings with cross-factor relationships considered throughout. The six key headings and the factors considered under each are laid out in figure 4.1.1. The issue of data comparability has already been discussed, looking specifically at sample sizes and we have concluded that for the purposes of this study, price reporting and other statistics are sufficiently aligned to allow analysis.

Figure 4.1.1: Factors for analysis



In the remainder of this chapter we have examined each of these factors in turn, scrutinising the statistical evidence that is available for each and drawing a conclusion as to its significance in explaining the price differentials. In the final section the various factors are ranked in order of their significance.

4.2 Structure of the industry

4.2.1 Relative scale of finishing

The structure of the industry is fundamental to how it operates and where the balance of bargaining power lies across key players. The different and complex structures in NI vis-à-vis GB in both the beef production sector and the beef processing industry were cited across all consultations; however, views vary regarding its potential impact on the differential.

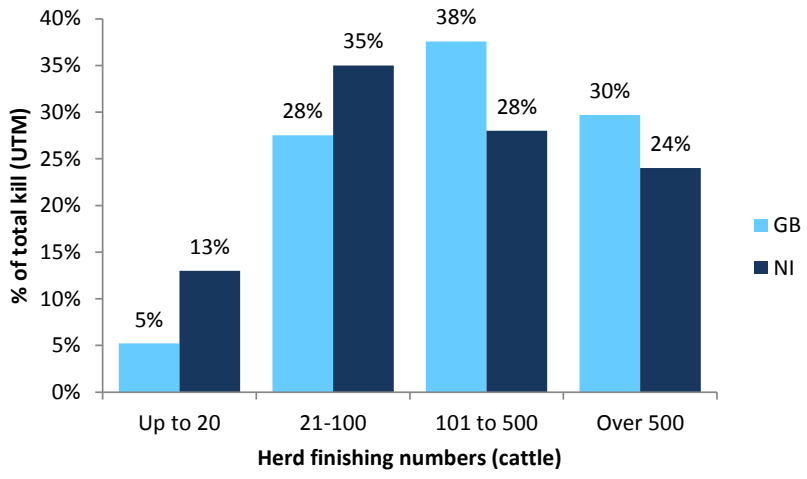
This sub-section evaluates the data on the comparative size and structure of the industry in NI and GB and considers how this might influence the price differential.

Both the Northern Ireland and GB beef finishing sectors are characterised by the presence of a small number of very large producers who finish a large proportion of the cattle. These finishers operate alongside a large number of small producers who produce a smaller proportion of the cattle. It is widely accepted that the largest finishers are likely to receive "loyalty bonuses" given the extra level of bargaining power that they hold in the market. It is also widely accepted that the smallest finishers are likely to operate as price takers.

Regional differences therefore in the proportion of cattle supplied by larger producers, who have more bargaining power, could potentially have an impact on the average reported price (by grade) on a regional basis.

Analysis shows that there are some quite significant differences in the scale of beef finishing in Northern Ireland and GB.

Chart 4.1.1: Proportion of UTM cattle slaughtered at price reporting plants by size of finishing herd, NI and GB, 2012



Source: LMC, AHDB

Chart 4.1.1 clearly shows some differences in the scale of beef finishing in Northern Ireland and in GB. For example, while 24 per cent of cattle slaughtered in NI were presented by herds finishing over 501 head, the equivalent figure for GB was 29 per cent. Likewise, 66 per cent of GB slaughtering came from herds that finished over 101 head. The equivalent figure in NI was just 52 per cent. At the other end of the scale, 13 per cent of the NI kill was accounted for by herds that finished up to 20 cattle in the year. The equivalent figure for GB was just five per cent.

These figures illustrate the point that more cattle are marketed in GB by larger producers who are likely to have more bargaining power and thus are better able to demand a higher price. In addition, procuring cattle from a smaller number of large finishers lowers the cost of administration to processors. The impact of this on the average price paid is likely to be small and will depend on the relative size of loyalty bonus available to large scale finishers in GB and NI. (The legislation regarding the collection of loyalty bonuses is covered in Box 4.2.1 below).

It was established during the consultation phase that the scale of loyalty bonuses varies by finisher and on a processor-by-processor basis. Therefore, it is impossible to be absolutely definitive regarding the scale of bonuses, but an isolated example suggested that the largest finishers can expect to achieve an additional 10p/kg.

Box 4.2.1: Supplementary loyalty bonuses for larger finishers

The issue of loyalty bonus payments, which are paid to beef producers on the basis of a significant, consistent supply of cattle over a specified period was cited as an area of ambiguity by producer consultees. EU regulation clearly states that all supplementary payments (which include 'quantity' bonuses) should be price reported. The key paragraphs from the European Commission Regulation (No 1249/2008) are below:

Article 16 (3)

Any slaughterhouse or natural or legal person referred to in the first subparagraph of Article 15(1) which makes supplementary payments to suppliers of adult bovine animals or their carcasses, such payments not being taken into account in the prices reported, shall notify the competent authority of its Member State of the last supplementary payment made by it, and the period to which it relates. Thereafter it shall notify the Member State of the amount of any supplementary payments each time such payment is made.

Article 16(4)

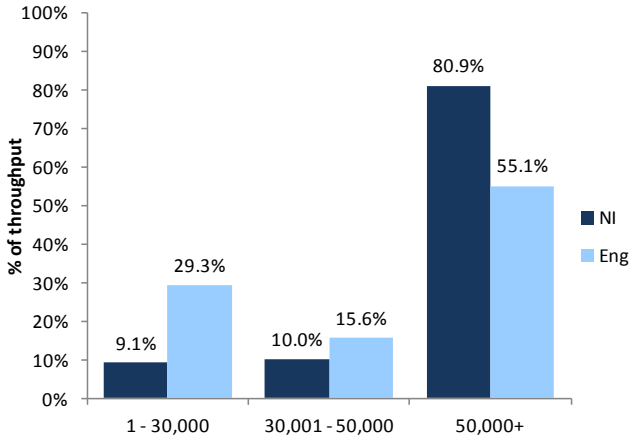
(c) to take into account supplementary payments made, as referred to in paragraph 3, if the correction would amount to at least 1 % of the price for the class in question. In making the correction under point (c) the competent authority shall divide the total supplementary payments made in relation to the beef sector in the Member State concerned in the previous financial year, by the total annual throughput in tonnes of adult bovine animals for which prices are reported.

During the consultation phase, some processors indicated that they reported loyalty bonuses in the initial price reports. Others suggested that they paid them retrospectively and reported them as supplementary payments to DARD which is also acceptable. The competent authority in NI confirmed that all relevant processors were aware of the regulation and actively report supplementary payments where appropriate.

4.2.2 Relative scale of processing

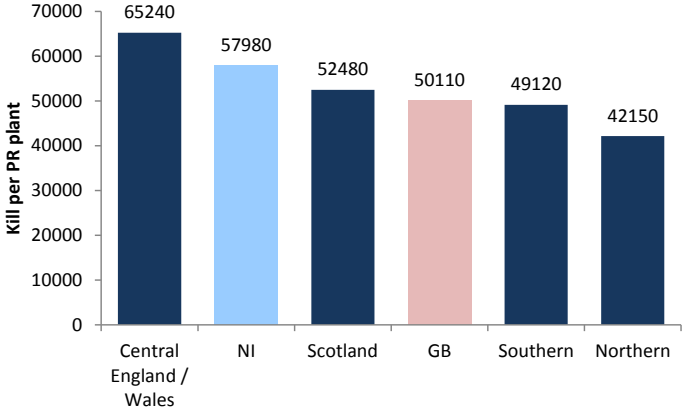
The structure of the beef processing sector is very different to the producing sector. There are 10 abattoirs in NI – across 8 distinct processing businesses (or groups) – in comparison to 168 in England. When measured comparatively, the average throughput per plant in NI is 44,600, compared to just over 9,770 in England. Therefore, compared with the relatively large number of producers, the beef processing industry in NI is made up of fewer large plants compared to a more diverse portfolio in GB. Chart 4.2.2 below maps the distribution of plants by throughput and chart 4.2.3 plots the number of cattle per plant across GB regions.

Chart 4.2.2: Red meat processing industry by size, NI & England, 2011/12



Source: AHDB, LMC

Chart 4.2.3: Average kill per price reporting plant, NI & GB regions, 2012



Source: LMC, AHDB

The difference in distribution (when considering all plants) is very apparent in the chart, with over 80% of plants in NI killing over 50,000 head per annum, in comparison with just over half in England; less than 10% of plants in NI kill less than 30,000 head, compared to almost 30% in England.

However, when only price reporting plants are considered (chart 4.2.3), the distribution of scale is less evident. The average kill for a price reporting plant in NI is almost 58,000 head, compared to just over 50,000 head in GB. Indeed, at a regional level price reporting plants in Central England / Wales kill 65,240 head on average, over 7,000 more than price reporting plants in NI. This is less relevant in the context of the structure of the industry, but does have implications when considering economies of scale and potential efficiency, as discussed in section 4.7.1.

Whilst the analysis suggests a smaller number of processing options in NI, it does not necessarily mean that there is a lack of competition in the NI beef processing industry. It is also worth noting that GB plants (and ROI plants) are viable outlets for NI cattle, increasing competition for NI cattle supplies; although it should be noted that they are subject to barriers to trade (as is the market for beef.) Similarly, processors in NI have the same opportunities to purchase cattle from producers in GB and ROI. (Data covered in sections 4.4 and 4.5 show that this does happen, albeit to a varying extent; these sections also consider whether this happens to an optimal level, the potential barriers to trade, and what impact it might have on the differential).

From this analysis, we conclude that there are many small beef producers in NI selling cattle into a market comprising of a few large processors. This is not perfect competition9, but nor is it a monopoly. In GB, the structure of the industry is more diverse, with the average finishing herd size larger and the average plant smaller. This diversity has an impact, with many of the smaller, independent plants in GB having developed niche markets and thus not as actively competing for prime cattle. As a result, this creates markets for niche, potentially 'out-of-spec' cattle. These markets are less apparent in NI, with the small number of large processors primarily focussed on prime cattle and the GB retail market.

It is impossible to determine statistically what, if any, impact the structural differences have on prime deadweight cattle prices. However, it is economically rational to conclude that the smaller, more fragmented nature of the NI beef production industry, less emphasis on large beef finishers and a small number of large processors all have a role in putting downward pressure on the negotiating position of the beef finisher and thus having an indirect, if unquantifiable, impact on the NI / GB price differential.

4.2.3 Herd mix

The herd mix, whether it is the mix of breeds or the beef/dairy mix, should be accounted for through the EU grading system and pricing grid, with some experts suggesting 75% of its impact on average price and thus the price differential would be within the grid. Therefore, we expect it to have only an indirect impact on prices and the differential. However, during the consultations, several issues, related to breed mix, were raised which could potentially impact price. These include:

- Cross-subsidisation;
- Propensity to be in-spec; and
- Premium Breeds.

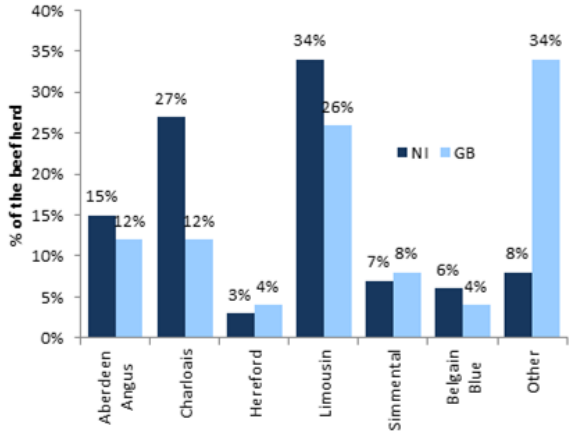
4.2.3.1 Breed Mix

The existence of penalties on out-of-spec cattle and bonuses for in-spec cattle means that differences in the breed mix can lead to differences in prices. The impact of this will be determined by the levels of

[9] A perfectly or "purely" competitive market is such that no single company has enough market power to dictate the price of a good whose qualities and characteristics are the same. (I.e. do not vary between different suppliers). In reality, the definition of a perfectly competitive market is so strict that there are very few (if any) perfectly competitive markets.

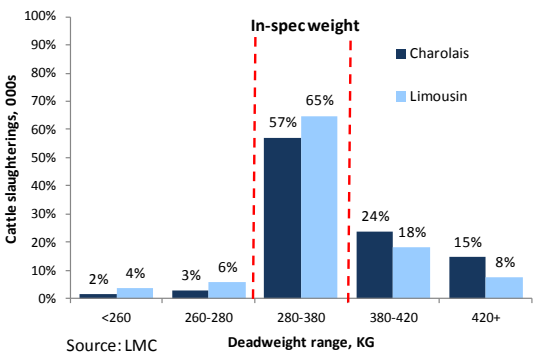
bonuses and penalties and the relative numbers of each breed in different regions. For example, the predominance of certain beef breeds in NI vis-à-vis GB has been found to be correlated with overweight kill, as shown in charts 4.2.4 and 4.2.5 below.

Chart 4.2.4: Breed mix (as % of beef herd), NI & GB, 2011



Source: APHIS / BCMS

Chart 4.2.5: Deadweight by breed (summary), NI, 2012



Source: LMC

Chart 4.2.4 shows six of the most common beef breeds in NI/GB in 2011. The differences in premium breeds such as Aberdeen Angus and Hereford are minimal. The major difference is in Charolais, with the NI beef herd 15 percentage points more Charolais concentrated than GB. It is also worth noting that the six breeds presented in chart 4.2.4 account for 92% of the NI beef herd, compared with only two-thirds in GB. This greater diversity is likely to be driven by the greater number of localised breeds across GB, of which the North Devon and Sussex breeds are two examples.

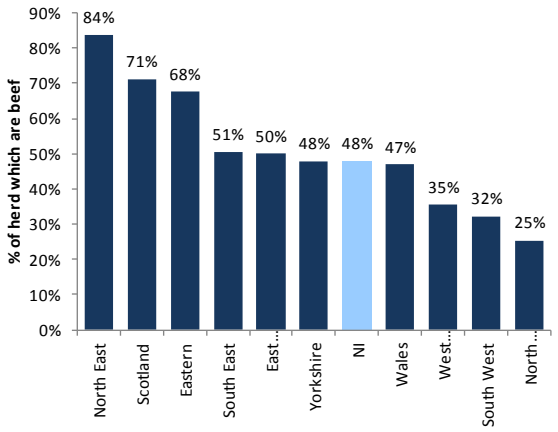
Chart 4.2.5 shows the proportion of carcasses across different deadweight categories; almost 40% of all Charolais killed in NI in 2012 were overweight, compared with only 26% of Limousin (the most popular breed). These discrepancies have been consistent over the 2009-2012 period. There are likely to be various reasons why the Charolais breed is more popular in NI, ranging from meat yield and size to more trivial issues such as personal preference, colour and heritage. It was cited by some consultees that the Charolais was amongst the most optimal breeds suited to the pre-BSE exporting era, but that they are perhaps less well suited to the modern, boneless beef led market. However, the impact on the differential is minimal, and driven only by the indirect factors, such as the propensity for certain breeds to go more easily overweight.

4.2.3.2 Beef vs. Dairy Herd Mix

Stronger supplies of suckler-origin beef relative to dairy-origin beef may have an impact on the end markets that processors are able to service using their regional supply base. This may in turn be reflected in the processors' procurement priorities and lead to an element of cross-subsidisation in their buying practises.

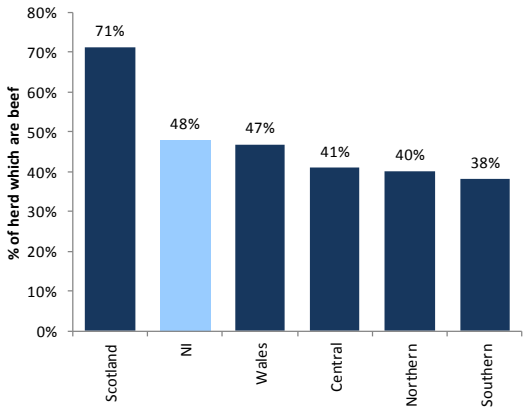
Analysis of the beef/dairy origin across regions, which was frequently noted across consultations as a key factor (again, not through grade, but indirectly) has produced some interesting results, as in charts 4.2.6 and 4.2.7 below.

Chart 4.2.6: Beef / dairy mix. Gov't office regions, 2010



Source: AHDB

Chart 4.2.7: Beef / dairy mix, price reporting regions, 2010



Source: AHDB

Chart 4.2.6 shows that percentage of the herd which are beef across the 11 government office regions[10]; the data show that 48% of the herd are of beef origin in NI, placing it in the middle of the pack. The North East – with 84% beef – and Scotland – 71% beef – are the specialist beef producing regions in GB. This is fully consistent with the views expressed in the consultations, and would support the argument that beef/dairy origin is a factor in price formation and a driver of the NI-GB price differential. However, when the 11 government office regions are amalgamated into the broader price reporting regions[11], the picture is very different. Only 40% of the herd in Northern England are of beef origin, driven by the significant dairy operations in the North West of England. NI moves into second place, behind Scotland.

Oxford Economics clarified the comparability between price reporting regions and the common amalgamation approach we applied, and have been informed that they are broadly similar, but may differ slightly due to data disclosure rules. As such, we would urge caution with the precision of the figures, but would not expect the magnitudes to change significantly.

This analysis allows us to conclude that the beef / diary mix in its own right appears to have little impact on the price paid for prime cattle. However, the issue is likely to be less about the ratio of beef to dairy, and more about the presence of a critical mass. As discussed in section 4.6.2, the magnitudes of beef and dairy cattle are likely to play a role in the spread of prices paid and as noted earlier, the presence of cull cows in the slaughter mix during peak season in NI is likely to keep NI cattle prices lower.

4.2.3.3 Premium Breeds

The existence of significant premiums for traditional / speciality breeds means that more Aberdeen Angus, Hereford or other traditional breeds could drive up the average reported price. The impact of this will be determined by both the scale of the bonus and the relative numbers of premium breeds in the slaughter mix in different regions. In 2013 for example, a new Aberdeen Angus bonus scheme was launched by a major retailer supplier in Northern Ireland. Under the terms of this scheme, a base price is offered on a weekly

[10] There are 12 Government office regions (more commonly referred to as 'regions'). However, London is not included here.

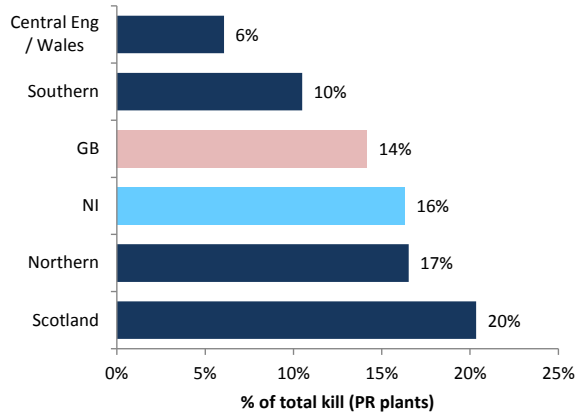
[11] Northern = North East, North West, Yorkshire; Midlands and Wales = East Midlands, West Midlands, Wales; Southern = East of England, South East, South West

basis that is equivalent to that week's average English & Welsh farmgate price. An additional 40p/kg is then paid to each supplier at the end of the month. In 2013, Hereford bonuses were quoted at up to 61p/kg over and above the LMC base quote.

There are no specific EU guidelines stating that these transactions should be treated differently; in simple terms, the price reported must be the price paid, irrespective of whether part of the price is a bonus.

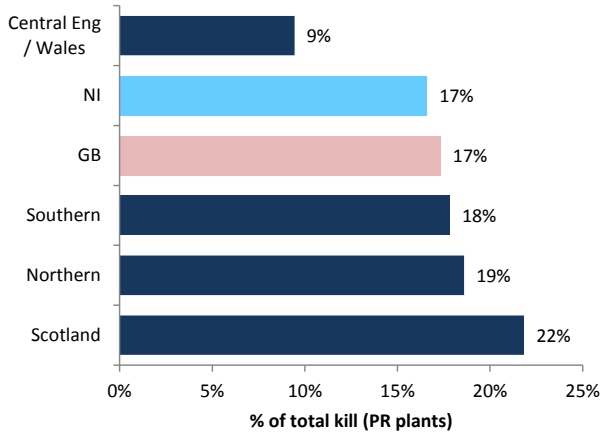
The handling of bonuses paid for premium breeds (which are determined by market forces) is not an issue from a regulation perspective; it is widely recognised that these bonus payments are included in the price reported. Instead, the concern is from a statistical perspective. A comparably high presence of premium cattle within the slaughter mix, which attract a bonus, could lead to the average price published being high as a result. Charts 4.2.8 and 4.2.9 below demonstrate the percentage of Aberdeen Angus in the slaughter mix in 2012.

Chart 4.2.8:Premium breeds[12] as % of kill, NI & GB regions, 2012



Source: LMC, BCMS

Chart 4.2.9: Native breeds[13] as % of kill, NI & GB regions, 2012



Source: LMC, BCMS

One in five cattle slaughtered in Scottish price reporting plants are classed as a premium breed and thus attract a bonus. The comparable NI figure is 16%, 4 percentage points below the Scottish proportion but 2 percentage points ahead of GB. The higher proportion of premium breeds in NI versus GB discounts the issue of premium breeds as a driver of the NI / GB price differential. The evidence presented on chart 4.2.9, which widens the range to include native breeds, which may attract bonuses in certain areas further supports this, with NI and GB proportions very similar. (It is, however, likely to be a factor when considering

[12] Premium breeds = Aberdeen Angus, Hereford, Shorthorn and Dexter.

[13] Native breeds = Premium breeds plus: Belted Galloway, Blue Grey, British White, Devon, Galloway, Gloucester, Highland, Irish Moiled, Lincoln Red, Longhorn, Luing, Red Poll, Shetland, South Devon, Welsh White, Welsh Black, White Galloway, White Park, Whitebred Shorthorn

NI prices in comparison to Scotland, but this difference is understood, and even then, its impact on the differential equates to less than 10% of the differential[14]).

It is important to note that those traditional breeds like Aberdeen Angus and Hereford that attract premiums are less likely to kill out at the R3 grade and are more likely to be awarded an O conformation or 4 in fat. This is partly because, in Northern Ireland at least, a large proportion of these cattle are sourced from the dairy herd. However, in a region like Scotland where the suckler herd is more dominant, it is likely that a higher proportion of these cattle kill out at the R3 grade. The impact of traditional breeds on R3 prices, in a region like Scotland is likely to be greater.

However, we can conclude that premium breeds in the slaughter mix have no impact on the NI/GB price differential.

Conclusion: Structure of the industry

It is impossible to determine statistically what, if any, impact the structural differences have on prime deadweight cattle prices. However, it is economically rational to conclude that the smaller, more fragmented nature of the NI beef production industry, less emphasis on large beef finishers and a small number of large processors all have a role in putting downward pressure on the negotiating position of the producer and thus having a significant indirect, if unquantifiable, impact on the NI / GB price differential. At least 75% of the impact of the herd mix – either beef/dairy mix or the preference for beef breeds – should be captured in the pricing grid; therefore the impact of the herd mix is minor. However, we do conclude that the preference for certain beef breeds may have an indirect impact on the differential, through the prevalence of preferred breeds in NI to be overweight or not meet specification requirements.

In addition, the role of premium breeds in the slaughter mix is discounted as a potential factor in the NI / GB deadweight price differential. Regardless of its impact – or otherwise – on the differential, structural differences are unlikely to change significantly, as structural changes in primary production tend to be very gradual in nature.

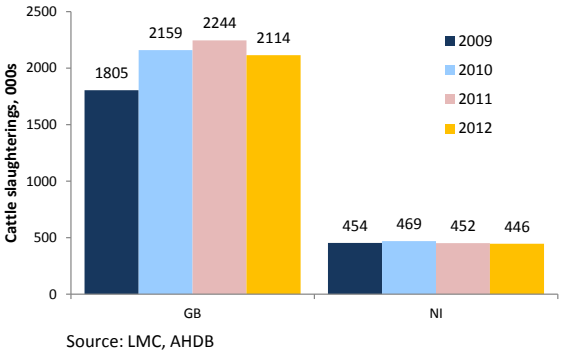
4.3 Relative Supply and Seasonality

4.3.1 The supply of cattle

Supply and demand are fundamental in a market economy, with theory suggesting that as the supply increases, the price decreases (all other things being equal). The market for deadweight cattle is no different, with changes in supply and demand both throughout the year and over the longer term, impacting directly on price. Charts 4.3.1 (a) and 4.3.1 (b) below show the supply of deadweight cattle to abattoirs over the past three years.

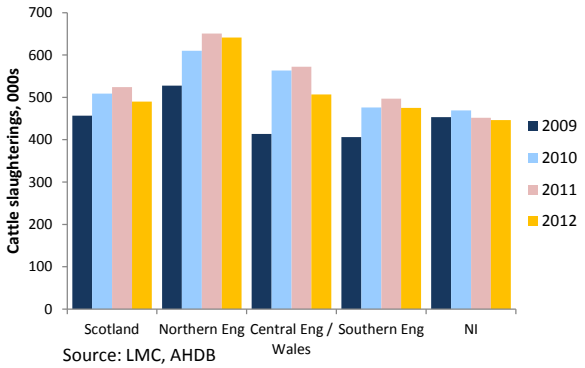
[14] This is calculated as the difference between the weighted average price when 16% of the kill in NI attracts a bonus and when 20% attract the bonus (as is the proportion in Scotland). This assumes that the bonus paid for premium cattle is 40p/kg

Chart 4.3.1 (a): Slaughtering, GB & NI, 2009 – 2012



Source: LMC, AHDB

Chart 4.3.1 (b): Slaughtering, GB regions and NI, 2009 – 2012



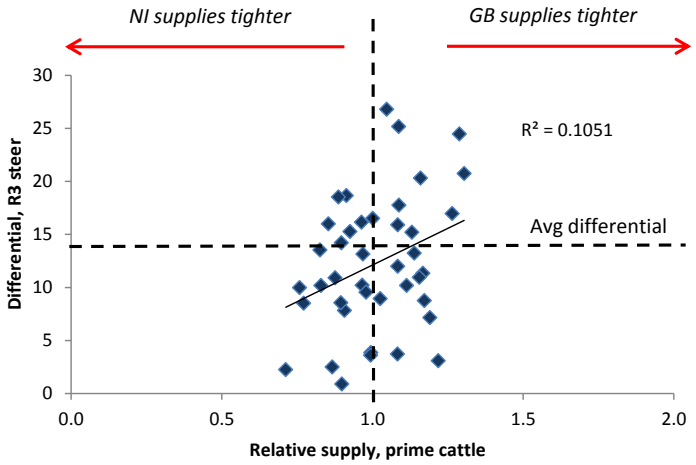
Source: LMC, AHDB

At an annual level, the number of cattle slaughtered has remained fairly constant in GB and NI since 2010, following a surge of over 350,000 additional cattle in GB in 2010 following tight supplies in 2009. This is despite widespread concerns regarding the scarcity of cattle at a GB level in 2012. However, it should be noted that the charts above refer to all cattle killed (both prime and cull cows / non-prime) and the scarcity of cattle referred to above occurs more prominently at a seasonal level during the year (as discussed below).

In NI, the total number of cattle slaughtered has remained very steady over the past four years. The variation between 2010 (peak year) and 2012 (lowest year) was less than 23,000 cattle (4.9%). The trend at a regional level is very similar over time; 2009 was a low year across the board in GB, with 2010 and 2011 interchanging as the peak years, before a lower kill (albeit marginally) in 2012.

Many consultees suggested that the tight supplies across GB in the latter half of 2012 were a key determinant in the higher prices being paid there and the divergence of the differential. Chart 4.4.2 below examines to what degree the relative supplies in NI and GB impact on the differential.

Chart 4.3.2: Relative supply[15] of cattle in NI & GB vs price differential, 2009 – 2012



Source: Oxford Economics, LMC, AHDB

The evidence presented in the chart suggests that there is a relationship between the tightness of supplies in NI relative to GB (and vice versa) and the differential. For example, the data points in the left hand side suggest that the supply of cattle in NI is scarcer than in GB and the evidence suggests the the price differential tends to be narrower on these occasions. There are very few instances whereby the supply in NI has been tighter and the differential wider (those above the horizontal dashed line, which is set at the average differential). Conversely, when supplies in GB are relatively tighter (right hand side), there is a much bigger spread in the differential. Despite the analysis removing seasonality, the evidence suggests that even when supplies in GB are relatively tighter, the largest differential still tends to occur in the second half of the year and the narrower differential in the first half of the year.

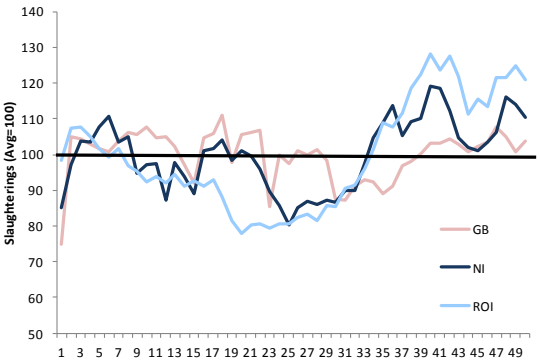
Therefore, we can conclude that relatively tighter supplies in NI tend to narrow the differential, but we cannot conclude that a scarcity of supply in GB expands the differential. Indeed, the evidence suggests that seasonality, which is a recurring trigger for differing levels of relative supply, is a more prominent driver of the differential.

4.3.2 Seasonality of the supply of cattle

Although, at an annual level, supplies have remained relatively consistent, seasonality throughout the year is considered by many to be a significant factor in driving deadweight cattle prices. Prices tend to be highest at times of scarce supply (typically spring in GB, NI and ROI) and lower at times of plentiful supply (autumn in the UK and Ireland). Charts 4.3.3 and 4.3.4 below show the seasonality of supply across the GB, NI and ROI regions for the calendar year 2012.

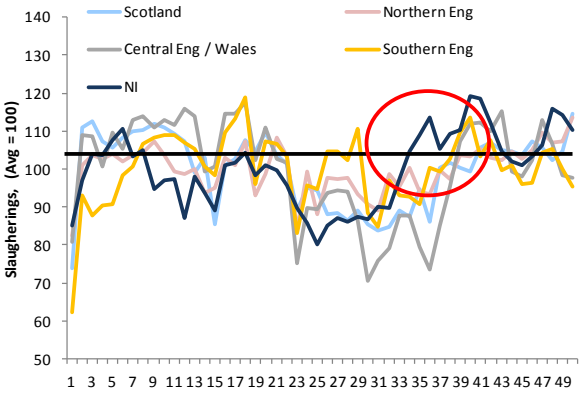
[15] The relative tightness of supply in NI vis-à-vis GB is measured as : the supply in MonthX relative to the average supply in the month over the study period, in NI, divided by the same in GB. Mathematically = [Kill Month YY (NI) / Average Month kill 2009-2012 (NI)] / [Kill Month YY (GB) / Average Month kill 2009-2012 (GB)]. A figure of grater than 1 suggests supplies were relatively

Chart 4.3.3: Prime cattle slaughtering, GB, NI and ROI, 2012



Source: LMC / AHDB / Bord Bia

Chart 4.3.4: Prime cattle slaughtering, GB regions & NI, 2012



Source: LMC, AHDB

The charts above show the supply in any given week relative to the weekly average supply. The seasonal nature is more pronounced in ROI and NI compared to GB and this could potentially contribute to the price differential. Possible reasons for the seasonal variations are discussed below. The data show that 27.4% of the total prime cattle kill took place in autumn (September / October / November) in NI, compared with 30% in ROI and 25.5% in GB. Indeed, the seasonal factor in GB was lagged in 2012 compared to NI and ROI, with GB still below average levels into the third week of September (week 38).

NI also appears to experience a greater degree of seasonality at a regional level. In 2012, the peak season in NI began in mid-August, some four weeks ahead of Southern England. Table 4.3.1 below sets out the distribution of prime cattle kill across the seasons, looking at a longer time period to aid robustness.

Table 4.3.1: Distribution of prime cattle slaughtering by season, NI & GB regions, 2009-2012

	Autumn	Winter	Spring	Summer
Scotland	24.9%	24.4%	24.9%	25.9%
Northern England	24.6%	23.8%	25.4%	26.1%
Central England & Wales	23.9%	24.2%	25.4%	26.5%
Southern England	22.7%	23.5%	26.4%	27.3%
NI	27.4%	23.8%	26.3%	22.5%
GB	24.2%	24.0%	25.4%	26.3%

Source: LMC, AHDB, Oxford Economics

The seasonal distribution is relatively consistent across the board, with no season straying too far from the 25% average. Scotland has the most consistent supply over the year, followed by Northern England, with only a noticeable increase in supplies over the summer months. The seasonal pattern in GB is more prominent in Southern England and Central England / Wales, where summer is the most popular season for prime cattle supplies. Not surprisingly, the NI seasonal trend peaks in the autumn, with the 27.4% of prime cattle killed during these months proportionately in excess of GB as a whole and the contingent regions, reflecting the grass-based finishing systems that predominate in NI.

Given the seasonal distribution of supplies, it is not surprising that the econometric analysis finds that the price differential varies across seasons, widening in autumn and closing in spring. This is set out in table 4.3.2 below.

Table 4.3.2: Average price differentials by season (p/kg), NI vs. GB, 2009 – 2012

	Autumn	Winter	Spring	Summer
R3 Steer	-22.9	-12.1	-9.0	-13.0
R3 Heifer	-19.6	-8.9	-6.4	-9.9
R3 Young Bull	-17.0	-8.8	-5.7	-7.5
R4 Steer	-30.7	-19.4	-14.6	-20.3
R4 Heifer	-25.2	-14.8	-11.2	-15.4

Source: Oxford Economics / LMC

Note: Autumn = Sept, Oct, Nov: Winter = Dec, Jan, Feb
Spring = March, April, May: Summer = June, July, August

The analysis presented above confirms that the price differential shows seasonal volatility and that seasonality contributes strongly to explaining the variation in prices. The range of the differential is significant, varying from 23p in the autumn to only 9p in the spring for R3 steers. This represents a swing of over 150% in the differential. The trend is similar for all grades presented and the GB regions, as laid out in table 4.3.3. The R4 price differential is consistently wider across the seasons.

Table 4.3.3: Average price differential by season (R3 Steer), GB regions & NI, 2009 – 2012

	Autumn	Winter	Spring	Summer	R^2
Scotland	-31.7	-18.9	-15.9	-23.1	44.8%
Northern England	-24.3	-13.6	-10.0	-14.5	39.8%
Central England & Wales	-17.9	-8.0	-5.6	-8.1	34.1%
Southern England	-14.5	-3.1	-2.1	-3.0	33.8%
GB	-22.9	-12.1	-9.0	-13.0	38.6%

Source: Oxford Economics / LMC / AHDB

The analysis show that the differential at least doubles across seasons, ranging to being almost six times higher in the peak autumn season than the spring lull with Southern England. The R^2 suggests[16] that seasonality is a significant factor in explaining the level of the differential, with in the least case, seasonality explaining just over a third of the variation in the differential.

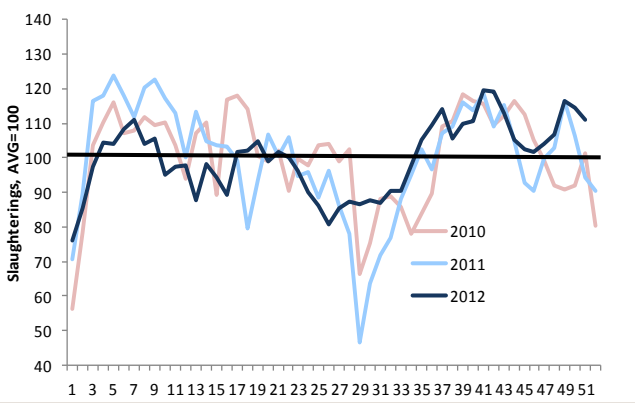
The evidence suggests that the seasonal nature of supply of prime cattle in NI has reduced over the period. This is a positive step for the wider NI beef industry. The evidence is summarised in Box 4.3.1.

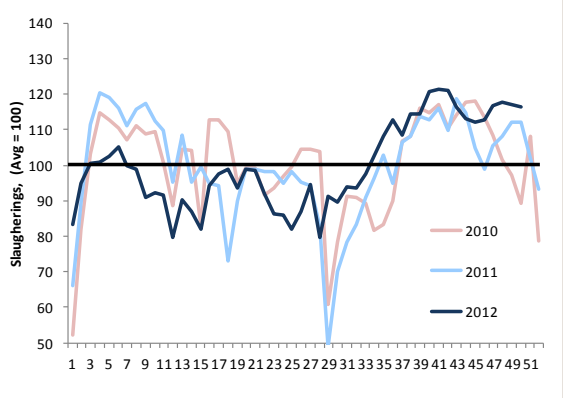
Box 4.3.1: Recent trends in the seasonality of prime cattle

It was also noted in the consultations that the seasonality for peak cattle supply in NI had reduced in 2012, vis-à-vis previous years. Charts 4.3.5 and 4.3.6 test this hypothesis.

Chart 4.3.5: Prime cattle slaughtering, NI, 2009 – 2012 (LHS)

Chart 4.3.6: Total cattle slaughtering, NI, 2009 – 2012 (RHS)





Source: LMC

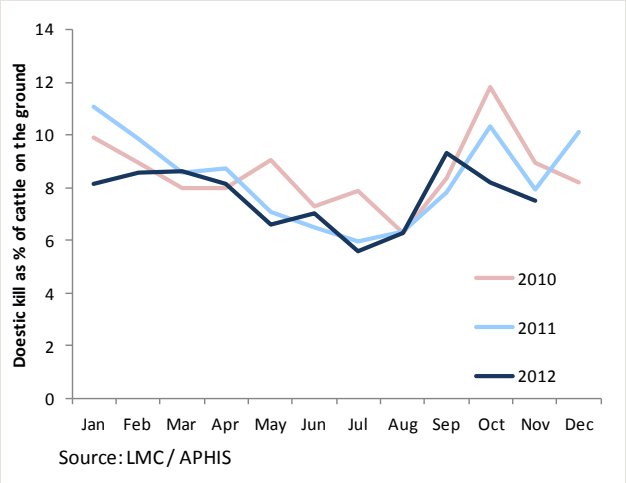
Chart 4.3.5 (which focuses on prime cattle) does suggest a more consistent year round performance in 2012. Although there is an obvious increase in the kill in the third quarter, there is no substantial

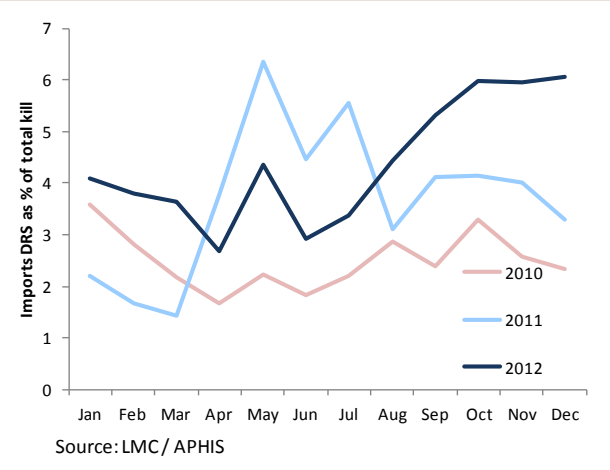
[16] The R^2 is a statistical measure for measuring the explanatory power of a factor. Essentially, the higher the percentage, the more of the factor explains the outcome.

reduction in the kill in the mid-year, as has occurred in previous years. In distribution terms, 27.4% of prime cattle slaughtering took place in autumn in 2012, ahead of 26.1% in 2011, similar to the 27.3% in 2010 and well down on the almost 30% in 2009. This does suggest that the seasonality of prime cattle kill has reduced somewhat over the period with the proportional increase of the autumn kill in 2012 perhaps attributable to poor weather conditions. However, as noted in chart 4.3.6, the seasonality of the total kill (which includes cull cows – traditionally more seasonal) increased markedly in 2012, again due in part to poor weather conditions. The evidence supports producer representative views that seasonality has reduced somewhat over recent years, in terms of the cattle available for slaughter and total beef cattle on the ground.

Chart 4.3.7: Cattle slaughtered as % of cattle on the ground, 2010 – 2012 (LHS)

Chart 4.3.8: Imports for direct slaughter as % of total kill, NI, 2010 – 2012 (RHS)





Note: Cattle on the ground is calculated as all beef cattle between 12 and 30 months of age

Cattle availability represents the total number of NI origin cattle killed in any given month. The quantity of imports and exports are the key drivers of this figure. The analysis shows that 2012 broadly followed a familiar seasonal pattern until mid-way through the year. Between June and December 2012, the kill in NI as a percentage of total NI origin cattle killed has remained below 'expected' levels (chart 4.3.7). This was driven by a marked increase in live exports to GB from NI, (which in itself is almost certain to have been driven by an increased price differential), which in turn led to an increase in the proportion of imports to NI for direct slaughter.

The analysis in chart 4.3.7, which represents prime kill as a percentage of beef cattle on the ground (aged between 12 and 30 months), shows a similar trend. The trend is less obvious in the summer months, becoming more pronounced in October, when the prime kill in NI represented only 8% of beef cattle on the ground, compared with 10% in October 2011 and almost 12% in October 2010.

With the percentage of available cattle in NI coming forward for slaughter in NI decreasing significantly in the peak season in 2012, the percentage of cattle imported for direct slaughter increased dramatically in 2012 in comparison to previous years, as shown in chart 4.3.8.

Imports peaked at 6% of the total kill in October 2012, ahead of previous years (4% in 2011 and 3% in 2010 respectively).

Recognising that seasonality is a significant factor is useful but understanding the underlying drivers is more complex. From a producer perspective, the pronounced seasonality across the Island of Ireland is due to the primarily grass based finishing system in comparison to the more varied systems in place across GB (with cereals and food industry by-products more readily available in GB, particularly Northern England and Scotland). In addition, it was noted that the autumn season is aligned with tough cash flow requirements for producers. These factors are likely to be difficult to alter. From a processor perspective, the seasonal pattern requires plant infrastructure to be sufficiently capable of handling peak supplies, with excess capacity as a result throughout the remainder of the year17.

A sharp increase in supply will – all other things being equal – lead to a reduction in price paid, as the customer has more options. In this case, seasonality is a trigger for an increase in supply and thus a lowering of prices. Although there is an increase in the demand for beef in the late autumn / winter (coinciding with the Christmas demand following a maturation period) the increase in beef demand is outstripped by the increase in cattle supplies; the data for the period suggests an average 29% increase in supply of cattle between summer and autumn and a 13% average increase in UK beef demand between autumn and winter.

There is no evidence that contract prices for beef with major GB retailers differs significantly on a seasonal basis. (Indeed, consultees from both the processing industry and retail industry verified that contract prices were set in advance, for a period of at least 3 months).

Therefore, the marked increase in cattle supplies during peak season in NI allows the processing industry to reduce the price paid to secure cattle. This could be motivated by a desire to dis-incentivise additional supplies due to supply side constraints, due to increased competition in the end market for beef or simply to increase the profit margin at a time when the market allows (there are almost certainly times of scarce supply when the market demands a price be paid that squeezes factory profit margins). The issue of profitability is addressed in section 4.7.

The issue of seasonality is longstanding, which leads to a trend typically resulting in prices for beef dropping when supplies are still relatively scarce (July in NI) in anticipation of increased supplies in the autumn. A similar argument could be made in regard to the seasonality in the Central England & Wales and Southern England regions – with prices falling in late spring in anticipation of increased supply in summer. Indeed, the fact that supplies of cattle in Southern England and Central England / Wales peak in the summer is also likely to be a factor in the lowering of NI deadweight cattle prices in the summer, as the GB market is saturated with GB sourced beef.

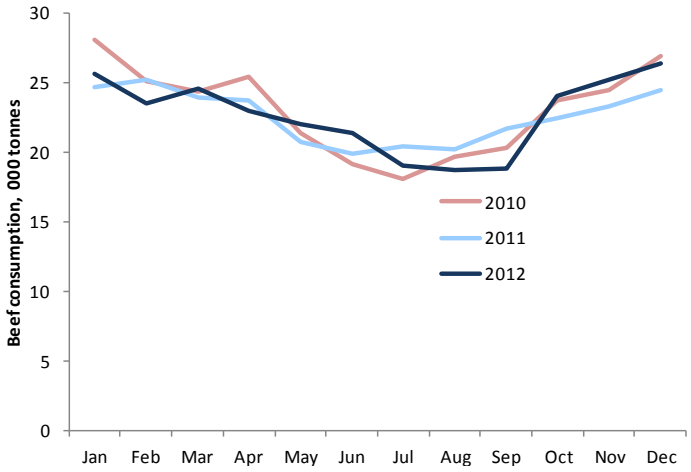
The issue of relative supply security in NI which took place in 2012 also highlights the almost unique nature of the wider NI beef production industry. Under economic theory, the price would have risen in times of apparent scarcity of supply. However, the presence of the ROI market provided a readymade supply of cattle, removing the pressure to raise prices significantly in NI. The role of the border with ROI is discussed in a later section.

4.3.3 Demand for beef

Beef consumption in the UK has remained fairly steady in absolute terms over the last 5 years, albeit with pronounced seasonal variations, as summarised for the past 3 years in chart 4.3.9. Beef consumption peaks in December and dips in the middle of the year.

[17] This point is also referenced in section 7.7 in the context of higher processor costs.

Chart 4.3.9: Consumption of beef (tonnage), UK, 2010 – 2012



Source: Kantar

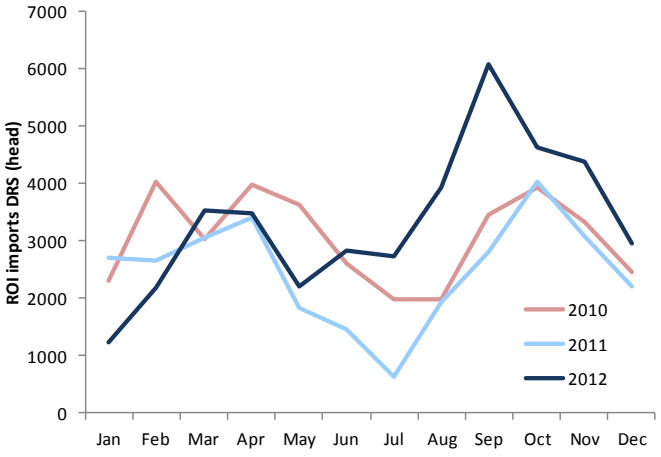
This is an established seasonal trend and as such is engrained within the structure of the industry. Therefore, does the seasonal nature of the supply of cattle complement this? Addressing this issue fully would be exceptionally complex, giving the differing maturation periods required for different cuts of beef.

This analysis allows us to conclude that having a high level of cattle supply in autumn is important to service the peak beef demand in the winter. This is supported by the desire to secure additional cattle supply over the period by importing cattle from ROI. However, the manner in which the price paid for cattle in the autumn months falls suggests that the seasonality of supply is more pertinent in determining prices for cattle than the seasonality of beef demand further down the line. In the context of the wider study, the seasonality of beef demand is negligible.

4.3.4 Seasonality of import and export activity

As noted previously, the similar climate and thus cattle finishing systems across NI and ROI result in a similar seasonal pattern in the supply of cattle across each, indeed seasonal trends are more pronounced in ROI. Therefore, it is perhaps not surprising that the autumn is the peak period for importing ROI cattle into NI for direct slaughter. Although the magnitudes vary, this trend has been similar over the past 3 years, as highlighted below.

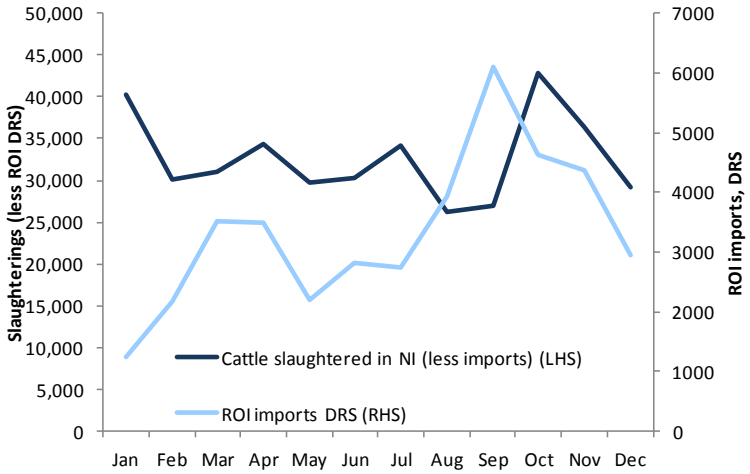
Chart 4.3.10: Seasonality of ROI imports for direct slaughter, NI, 2010 – 2012



Source: APHIS

In each of the last 3 years, ROI import levels have remained relatively steady in the first half of the year, before increasing markedly over the late summer / autumn period and declining again post October. It is apparent that between 2009 and 2012, there was a consistent desire from processors for ROI sourced cattle all year round, peaking in the autumn period. As noted earlier, this may be related to the desire to secure a high level of supply in advance of the peak beef demand period. However, the fact that the availability of ROI cattle correlates with the peak supply of NI cattle – as plotted in chart 4.3.11 below - leads to further seasonality in cattle slaughtering and thus does contribute towards pushing the price down at this peak time.

Chart 4.3.11: ROI imports for direct slaughter and slaughter of NI cattle in NI, 2012

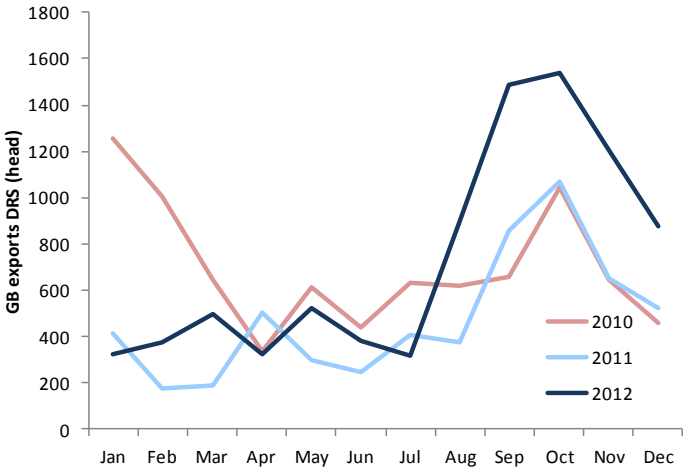


Source: APHIS, LMC

Patterns for the quantity of cattle exported from NI to GB for direct slaughter are not dissimilar. Again, this is a by-product of the finishing system in NI. Chart 4.3.12 below illustrates exporting activity. The trend shows that on average over the last 3 years, exports to GB have increased over the peak autumn period

(notwithstanding the irregular early 2010 period). However, the most recognisable surge has been in 2012, during a period when GB prices have risen significantly and hence the differential has widened making exports to GB more attractive for producers.

Chart 4.3.12: Seasonality of exports to GB for direct slaughter, NI, 2010 – 2012



Source: APHIS

Consultees asserted that some of the key aspects for establishing a regular GB exporting market (for live cattle as opposed to beef) was developing long term relationships and providing a consistent supply. Whilst statistical analysis can provide no insight into the former, it does suggest an inconsistent supply of cattle to GB. This is likely to have an impact on the desirability of NI cattle for the GB processor. Indeed, one of the key issues discussed later is whether or not the GB export market is performing optimally. Theory would suggest that if the quantity of cattle exported to GB increased – even at peak times – it would lower the NI supply and thus the market pressure could lead to an increase in NI prices. The evidence presented here does suggest a prominent seasonal nature in GB exporting, with exports more than doubling in the last 6 months of the year (in comparison to the first 6) in both 2011 and 2012[18]. The supply to slaughterhouses in NI (less imports) did not increase by as significant a margin.

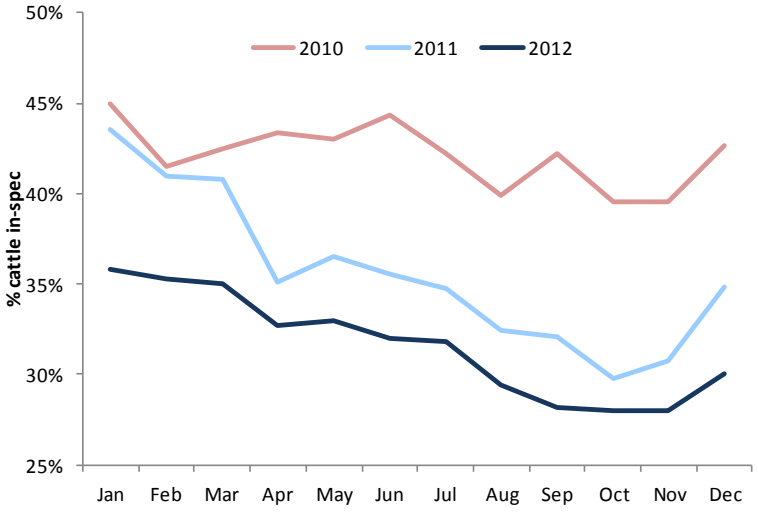
Thus, we conclude that GB exports are seasonal in nature, as would be expected. Whilst this has some impact on the differential, seasonality is minor in comparison within the context of trade in live cattle to the GB industry, as expressed later in the report.

4.3.5 Seasonal nature of 'in-spec' cattle

It is not surprising that the proportion of cattle meeting the specification (the definition of which is discussed later) declines over the autumn period. Chart 4.3.13 below summarises this.

[18] It should be noted that the the level of exporting cattle to GB has doubled in 2013, in line with a prolonged wide differential. .

Chart 4.3.13: Seasonality of specification, NI, 2010 – 2012



Source: LMC

Note: Specification is based upon the specification of steers and heifers.

It is worth noting that this has been a trend over all 4 years studied (3 of which are charted above), both before and after the implementation of VIA. In 2012, the percentage of cattle in-spec has been on a downward trend. In 2012, the levels of specification peaked at 34% in the winter period and falling to a low of 28% in autumn. This trend is similar across all years, with the proportion of cattle in spec peaking in winter and at its lowest during autumn. Penalties on out of spec cattle can be more readily applied during autumn when availability is stronger.

However, whilst a lower proportion of cattle 'in-spec' essentially suggests an average lower quality of cattle, we believe its impact within the context of seasonality is minor. Instead, the overall seasonality of supply is the prime driver of the seasonal impact of the differential.

Conclusion: Impact of seasonality

We conclude that seasonality of supply has a major impact on the price differential. Autumn is the peak period in NI (with 27.4% of total cattle killed), hence driving down NI prices relative to GB (25.5%). In GB, spring tends to be the peak period, hence stagnating prices there whilst prices rise in NI, narrowing the differential through market demand and supply. A sharp increase in supply will – all other things being equal – lead to a reduction in price paid, as the customer has more options. In this case, seasonality is a trigger for an increase in supply and thus a lowering of prices. The higher level of ROI imports and propensity for cattle to be 'out-of-spec' during the peak autumn period contributes further to the seasonality impact. The seasonality of beef demand is less important in determining the price paid for deadweight cattle.

The seasonal nature of the supply of cattle in NI is longstanding in nature (hence market expectations lead to a lower of prices in July in anticipation of extra supply in the autumn) and as driven by a range of factors which will prove difficult to change. However, the evidence does suggest a reduction in seasonality in 2012.

4.4 Trade

This section seeks to examine the important role trade has in the wider beef industry. The section is divided into 3 subsections. The first examines the trade in live cattle to GB, considering the level of trade in the 2009-12 period and what the barriers to trade are. The second considers the role of exchange rates in influencing trade. The third section examines the role of trade (and proximity) with ROI on the NI deadweight cattle industry.

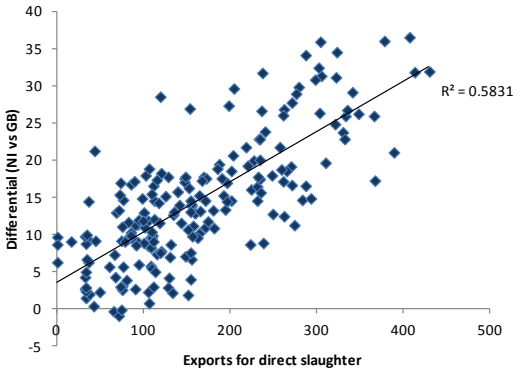
4.4.1 Additional costs to and barriers to trade with GB

4.4.1.1 Trade of live cattle

Free market economic theory suggests that the market will always seek to maximise the return for a product. As such, if an opportunity (supposing the potential return exceeds the potential risk) arises to make a greater return, the seller will seek to take the opportunity.

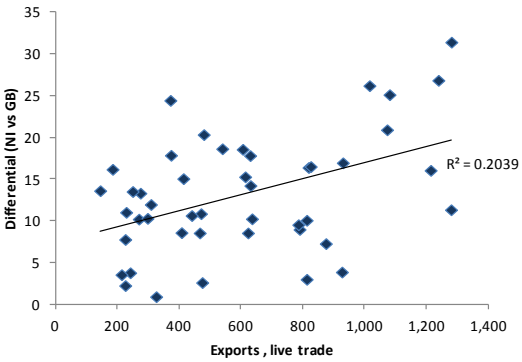
Exporting cattle for direct slaughter - or further feeding – from NI to GB can be viewed in this manner. Charts 4.4.1 and 4.4.2 below show that the cattle exporting market clearly responds to the differential. That is, when the differential for deadweight cattle prices between NI and GB increases, so too does the number of cattle exported.

Chart 4.4.1: Live Exports to GB Factories vs. differential (NI / GB), 2009 – 2012



Source: Oxford Economics, APHIS

Chart 4.4.2: Live Exports to GB Farms vs. differential (NI / GB), 2009 – 2012



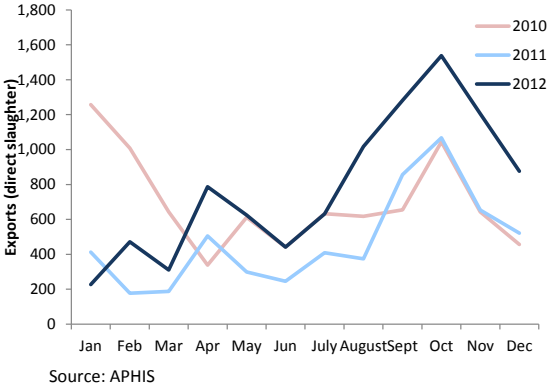
Source: Oxford Economics, APHIS

The charts show a very clear positive relationship between the differential and exports, for both cattle exported to factories for direct slaughter and cattle exported to farms for further feeding. (This suggests that the differential in prices between NI and GB is genuine, and not related to price reported statistics). However, the same theory that explains this behaviour also suggests that the differential would not remain in the longer term, and as such, the quantity of cattle exported would have a natural limit.

The theory suggests that increasing numbers of cattle would be exported until the price decreased in GB – (through an increase in supply) and prices increased in NI (through a decrease in supply). This would be the equilibrium price, making exporting additional cattle less attractive. However, there is limited evidence that this has happened or is happening in the NI / GB deadweight cattle market.

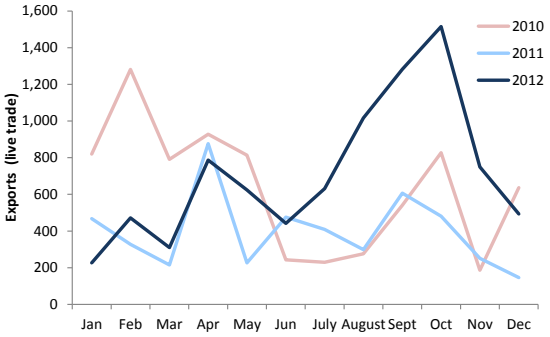
Whilst the number of cattle exported to GB has increased markedly (charts 4.4.3a and 4.4.3b below) in line with an increasing differential in the latter quarters of 2012, it is widely recognised throughout the industry that this figure could be higher. Volumes certainly did increase significantly in the autumn of 2012 and have been sustained at the higher level throughout 2013. Nonetheless, the increase in exports has not been sufficient to close the differential to any great degree.

Chart 4.4.3a: Live Exports to GB Factories, NI, 2009 – 2012



Source: APHIS

Chart 4.4.3b: Live Exports to GB Farms, NI, 2009 – 2012



Source: APHIS

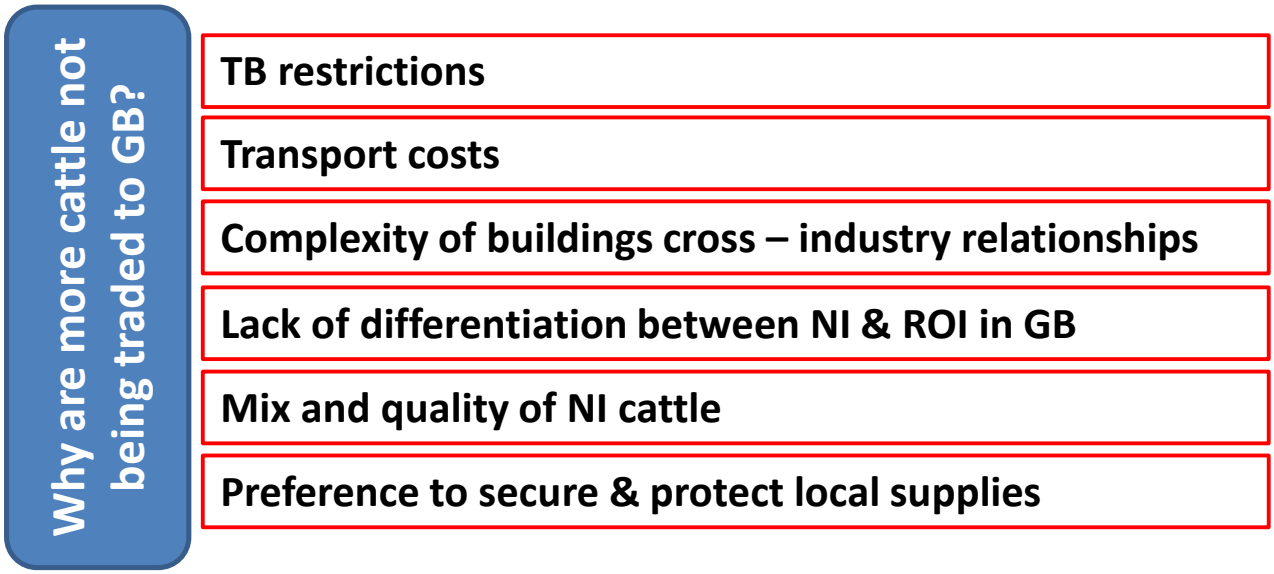
The quantity of cattle exported to GB for direct slaughter to factories peaked at over 1,500 head in October 2012. Whilst October is traditionally the peak month for exports, 2012 levels were 44% above those in 2010/11. This is reflective of the significant differential over the period, but the figure still represents only 5% of the total NI origin cattle slaughtered. Under such market circumstances, one might expect the proportion to be greater[19].

The export of cattle in live trade to GB shows no significant seasonal trend. There has been a noticeable increase in the quantity of cattle exported to farms since mid-2012, which peaked at over 1,200 cattle per month in September 2012. As noted earlier, the live trade between NI and ROI is less responsive to market conditions than the direct slaughter trade, due largely to the nature of the business. Indeed, the higher quantity of store cattle exported to GB is perhaps reflective of tight supplies in GB in the second half of 2012.

However, whilst the quantity of cattle exported to GB noticeably increased in late 2012, with the proportion of total NI kill exported averaging 3.2% of the total NI kill in December (compared with less than 2% in the same month in 2010 and 2011), the differential remains significant and as such, it still remains feasible to export. It was strongly asserted during the consultation phase that the exporting market was not functioning properly, with a lower quantity of cattle exported than might be expected given the differential. Various reasons were put forward to explain this. They are summarised in figure 4.4.1 below and addressed individually following.

[19] It should be noted that in 2013, as the differential between NI and GB has remained significant, the quantity of live cattle traded to GB has almost doubled in year-on-year figures.

Figure 4.4.1: Summary of reasons cattle are not moving freely to GB



Source: Oxford Economics

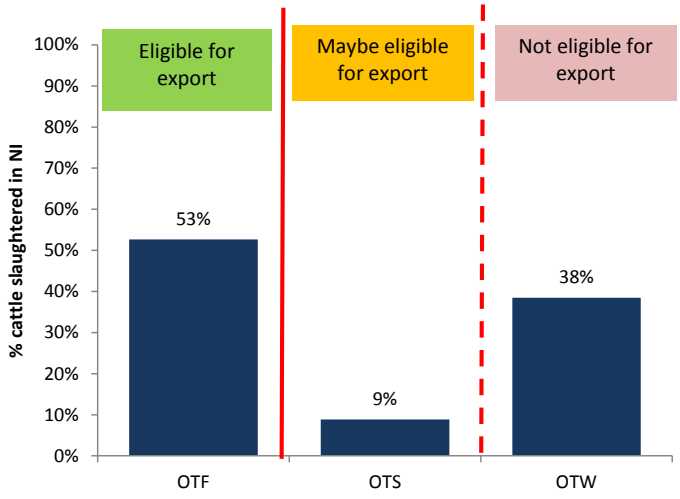
4.4.1.2 TB restrictions

Restrictions due to TB incidence were strongly asserted by many producer representatives as perhaps the major restriction on the sale of live cattle to GB. This could be particularly accentuated given that Scotland – NI's largest shipping partner - became a TB free region in 2009. Such restrictions could act as market restriction and a barrier to trade and thus explain why exporting to GB market is not fully functioning.

However, whilst there is a widespread perception that TB is a major factor, DEFRA regulations state that in order to import cattle into England from NI, *'cattle must originate from herds which are officially Brucellosis and Tuberculosis free'*. Whilst this will undoubtedly restrict some movement, the majority of herds are officially TB free at any given moment in time. Evidence suggests that 38% of all cattle slaughtered in NI in 2012 were from OTW herds (chart 4.4.4) and that a further 9% were classed as OTW, and thus not eligible for export. It is also likely that a significant proportion of cattle slaughtered from OTW herds will be sourced from the large finishing herds, whereby the nature of the business dictates that TB incidence will be high, and where quantity bonuses cancel out the additional returns which could be made by exporting to GB. .However, we recognise that the fear of TB incidence for those herds which are eligible to export is in itself a significant factor affecting sales to GB.

The requirements differ depending on whether the cattle are being imported to England for breeding / production (live trade) or for direct slaughter. The one major difference is that for the former, the cattle must have *'passed a comparative intradermal tuberculin test'* within the 30 days prior to export. This is not the case for cattle being imported into England from NI for direct slaughter. Whilst this argument relies on the English regulation, the EU oversees this regulation and as such, the same rules apply to Scotland. Similarly, potentially restrictive criteria such as the time spent on the last holding prior to exporting are not applied to cattle for direct slaughter. Annex A outlines the differing TB statuses and the animal health regulations pertaining to shipping live cattle from NI to GB.

Chart 4.4.4: Proportion of cattle slaughtered by TB status, NI, 2012



Source: APHIS

Note: A herd with either an OTS or OTW Status are restricted from moving any animal off farm except to immediate direct slaughter in NI. Therefore NONE can export live animals. There is only one exception to this rule. If a herd has OTS status because they have an animal currently on farm that has given an inconclusive result and has yet to be resolved, and if that herd has NOT had a status of OTW within three years, then it may move animals freely within UK i.e. NI and GB. It cannot, however, export live animals to another MS.

We can conclude that TB incidence is a significant trade barrier in exporting cattle for direct slaughter in GB. Although the majority of cattle are eligible for export, having over a third of cattle not eligible for export is significant. Additionally, the fear of future TB incidence and thus a restriction in exporting – from both processors in GB and producers in NI - alongside differing perceptions and lack of clarity regarding export criteria in NI are also significantly restricting trade.

4.4.1.3 Transport costs

The additional cost of transporting both cattle and beef to GB was noted as a potential barrier to sales to GB, with shipping costs undoubtedly a key determinant in the decision to export cattle and an ongoing driver of processor / retail pack sourcing policy.

Though consultations with a selection of hauliers and processors, we have estimated the cost of shipping on a carcass weight equivalent basis (CWE), as set out in table 4.4.1 below:

Table 4.4.1: Illustrative shipping costs for cattle and beef, NI – GB

Type	Cost
Live shipping (cattle)	10-12p/kg CWE
Retail pack (beef)	8p/kg, CWE
Boneless beef	2p/kg CWE

Source: Haulage company / anon.processors

Note: The figures presented in the table above (and analysis below) are illustrative estimates. They represent the cost of transport on the ferry. They will vary on a load-by-load basis.

The price differential between NI and Scotland has averaged 22.5p (R3 Steer) over the past 3 years and the NI / GB average differential (R3 Steers) has exceeded 14p on 97 of the 204 weeks over the study period and in every week since June 2012. Whilst this suggests the differential was sufficiently large to make it profitable to export, we recognise that infrastructure requirements and other factors (as discussed below) probably require a sustained period of profitability in order for the industry to react.[20]

There is a much wider variation in the cost of shipping beef to GB, with the cost of shipping pallets of boneless beef estimated at 2p/kg CWE and the cost of shipping retail packs averaging 8p/kg CWE (and can range to as much as 12p/kg). Therefore, whilst the cost of shipping boneless beef is relatively minor, the additional cost – however marginal – combined with issues of supply security will have an impact on sourcing policy, with negative connotations for the NI industry.

The cost of shipping retail packs is much more significant at 8p/kg. However, the fact that there are retail packs operating in NI and shipping to GB suggest there is significant value added in the process, in excess of 8p/kg CWE. Therefore, by shipping boneless beef to GB, the wider NI beef industry is potentially losing out on at least 6p/kg of value added. This is a significant indirect cost driven by additional transport costs.

Therefore we conclude that additional transport costs to the main market in GB are a fundamental issue for the NI beef industry, ranging across both the sale of live cattle to GB and the exporting of beef.

4.4.1.4 Other factors

Perception itself can be a restrictive factor, not only in terms of TB but in the wider GB export picture, such as ‘complexity of building relationships’, ‘lack of differentiation between NI cattle and ROI cattle from GB authorities’ and the preference of GB processors to source locally. These issues are both apparent in live cattle sales and the beef industry.

The mix and quality of NI cattle (i.e. the number of cattle that match the desired specification) vis-à-vis those in Scotland / Northern England was also raised as a potential reason for somewhat limited exporting activity. The specification of cattle is addressed in the next section. However, whilst we find that the proportion of cattle in spec in NI is only marginally lower than GB, we believe that the quality / specification of cattle is only one of several factors that constrain the exports of both cattle and beef to GB.

[20] As has been seen with the significant increases in live cattle exports in 2013.

4.4.1.5 Conclusions for trade to GB

We conclude that there are a range of additional costs and barriers to trade facing the wider NI beef industry which a) limited the exporting activity of live cattle over the study period and b) add additional costs to processors and have an influence on sourcing policy for processors and retailing packs in GB.

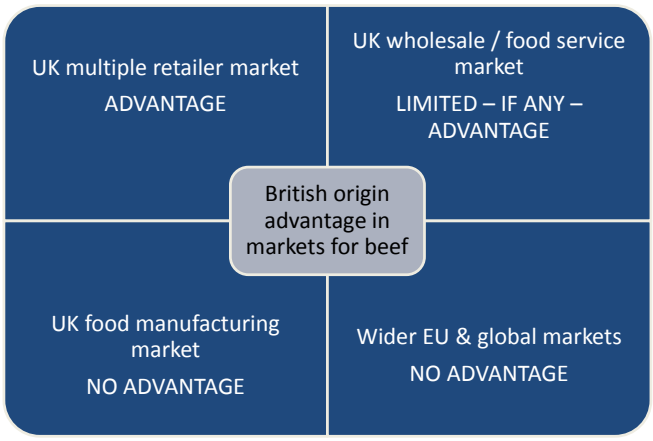
Additional transport costs are the consistent fundamental driver across both of these issues and TB incidence – both actual TB status and fear of future TB incidence – also a significant factor constraining live cattle sales to GB. Other factors, such as the complexity of building relationships are equally relevant to both the live cattle sales and beef industry, but are found to be minor, but not insignificant, within this context.

4.4.2 Impact of exchange rates

The role of exchange rates movements on cattle prices in NI is threefold. Firstly, to what degree does this impact on the number of cattle imported into NI from ROI? The second is the role in which it encourages ROI-GB trade – for both live cattle and beef – which potentially competes with cattle / beef supplied from NI to GB. Finally, it has an impact on the end markets for beef.

The extent to which NI and ROI cattle / beef are substitutable goods in the GB market was well debated throughout the consultation phase. Consultees representing the production industry were keen to highlight NI beef's status as Red Tractor eligible due to its British origin, and therefore open to the prime GB multiple retailer market. ROI beef – or cattle born in ROI and finished in the UK – are not typically eligible for these markets. Therefore, the two are not perfect substitutes. Nevertheless, the processing industry – whilst acknowledging the Red Tractor eligibility – highlighted that the prime GB multiple retailer market is only one of a number of market segments that NI beef gets sold into. In the majority of other markets (such as GB wholesale, GB food manufacturing and the wider EU market) the UK origin and high levels of specification associated with the GB multiple retailer market is of limited value. However, quality assurance in its own right underpins sales in almost all markets. Therefore, with UK born eligibility and the Red Tractor stamp of limited value in these alternative markets, ROI beef is able to actively compete with – and is a substitute for – NI beef (or indeed GB beef). This means that NI and ROI beef are competing on equal terms in many markets. GB beef is less affected as a higher proportion of it is sold into the multiple retailer market and hence the differential occurs. Figure 4.4.2 below summarises the various markets and where NI has an advantage over ROI beef due to its British origin.

Figure 4.4.2: Markets

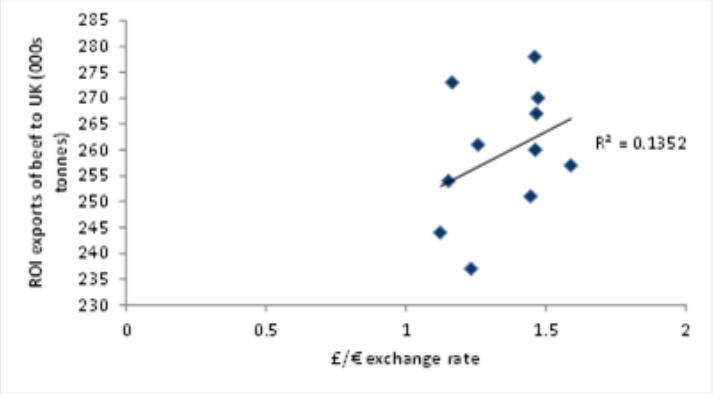


NI beef and its UK origin status are only an advantage vis-à-vis ROI beef in one out of four potential markets. Therefore in theory, NI beef can only hope to attract a premium within one of four markets. Recent moves by two of the four large multi-national retailers had appeared to potentially pave the way for ROI beef to become eligible for a significant proportion of the multiple retailer market (or 'prime GB market'), through a selection of 'value brands'. However, one of the proposed arrangements received considerable negative feedback in the GB press and has since been postponed. Indeed, this strong reaction emphasises the preference for British beef among British consumers and while this exists should further act to support this premium product going forward.

However, outside this market, NI and ROI beef have some level of substitutability and as such exchange rates become increasingly important. When sterling strengthens against the Euro, does more beef (or more cattle) flow into the GB market and potentially displace NI beef?

Our analysis of the relationship between exchange rates and the export of beef[21] from ROI to GB shows a positive correlation over the long run. This is displayed in chart 4.4.5. Chart 4.4.6 also shows that the relationship is also driven by consumption levels in GB.

Chart 4.4.5: ROI-UK exports vs. £/€ exchange rate, 2002 – 2012



Source: Oxford Economics, Bord Bia

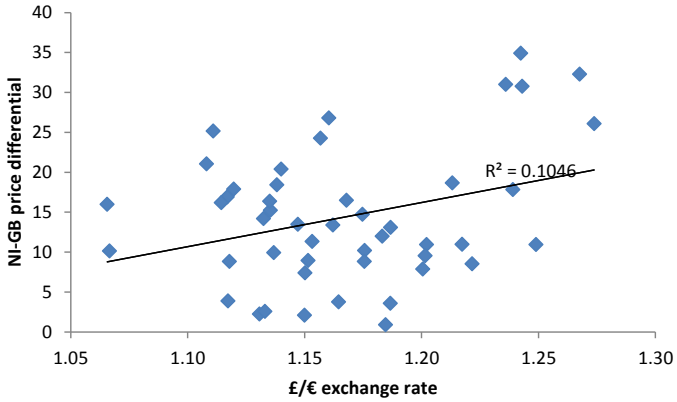
This shows that increased GB demand for beef, or the price of ROI beef relative to GB beef, drives exports from ROI to GB. Whilst neither of these traits are surprising, they do suggest that there is scope for NI beef to be displaced in the GB market as price movements make ROI beef more competitive. The underlying data from the charts above suggest that the total quantity of beef exported from ROI decreased by 6,000 tonnes between 2009 and 2010, whilst the quantity exported to the UK increased by 29,000 tonnes over the same period. The average exchange rate over the period moved from €1.123 per £ in 2009 to €1.166 per £ in 2010. Conversely – although not a perfect comparator – evidence from the DARD *Size and performance of the Agri-Food Industry* report shows that between 2009 and 2010 the value of NI red meat[22] sold into GB decreased by £9m, despite the overall value of beef sold increasing by almost £93m.

[21] This analysis refers to all beef exports and is measured in 000s tonnes carcass weight.

[22] Beef and sheep meat – used as a proxy here.

This evidence suggests that NI beef was displaced due – at least in part – to the competitive exchange rate. This issue is also likely to render the EU market less attractive for NI beef exporters and limits competition. The exchange rate also has an impact on live cattle movements between ROI and GB, although given the smaller quantum; this is less significant in the context of this study

Chart 4.4.6: Exchange rates vs. NI-GB price differential (R3 Steers), 2009 – 2012



Source: Oxford Economics

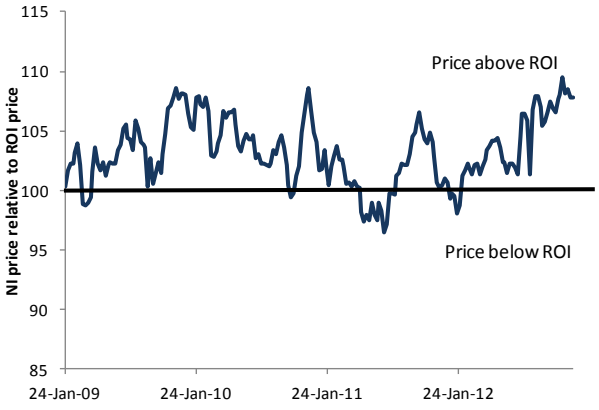
Although the emphasis of this analysis has been on how exchange rate movements can move favourably for ROI – and hence against NI, the converse must also be true; NI's position is that it is exposed to exchange rate movements, particularly given the proportion of NI beef sold in the Eurozone.

4.4.3 Trade with ROI

The land border with ROI, and associated currency exchange movements, is a unique characteristic of the Northern Ireland economy compared with the rest of the UK. Like other goods, cattle can move relatively freely between NI and ROI, both for direct slaughter and live trade. There was a widespread view amongst the producer representatives consulted that the 'ROI factor' played an important role in potentially depressing prices in NI (and hence contributing to the differential). Many other consultees cited the presence of cheaper cattle in ROI as a key factor as to why NI could not expect to achieve GB prices for deadweight cattle in the long run, without specifically relating its impact to the week-by-week price and differential movements. It is worth noting that imports for direct slaughter are not price reported; however, there presence in the overall slaughter mix increases supplies and thus potentially depresses the price reported price.

It was widely asserted, particularly by the processing industry, that excluding exchange rate impacts, prices in NI could never rise significantly above ROI levels particularly over the longer term. Chart 4.4.7 and table 4.4.1 below show relative prices between NI and ROI, as measured in £ sterling to isolate the exchange rate movement.

Chart 4.4.7: Relative prices (R3 steer), NI &ROI, 2009 – 2012



Source: Oxford Economics / LMC

Table 4.4.1: Range of differentials across grade, NI & ROI, 2009 – 2012

	NI / ROI differential		
	Max	Min	Average
R3 steer	9.5%	-3.5%	3.3%
R3 heifer	5.9%	-4.7%	1.1%
R3 Young Bull	3.4%	-8.0%	-2.3%
R4 steer	8.8%	-5.2%	1.9%
R4 heifer	6.0%	-6.3%	-0.2%
P2 Cow	6.6%	-77.3%	-5.8%

Source: Oxford Economics / LMC

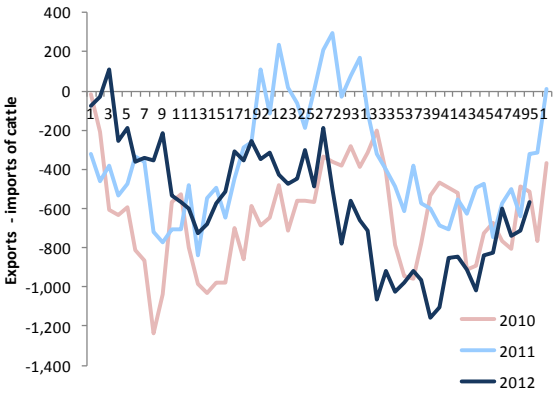
Chart 4.4.7 highlights that although the R3 steer price in NI has been consistently above that in ROI over the 2009 – 2012 period, it has never strayed more than 10% above the ROI price. Similarly, the differential between Scotland and Southern England (for R3 steers) has not deviated by more than 10% over the same period. Table 4.4.1 shows that since 2009, 10% has been the maximum deviation above ROI price levels for any grade of cattle in NI, with the average rate marginally above 3% for R3 steers and 1.8% across all the prime cattle grades presented. Conversely, there is a much larger variation in P2 cow prices, with ROI prices peaking at almost 23% above the NI price. This occurred in the first week of 2011. Subsequently, the number of cattle exported to ROI for direct slaughter almost doubled in the weeks following, emphasising the role of free cattle movement on the island of Ireland in responding to market forces.

This evidence supports the view that when exchange rate movements or other factors cause price differentials between NI and ROI to widen, market participants respond in a way that limits and reduces the size of the differential.

To provide a more complete understanding of the impact of the ROI influence – particularly understanding if it has an impact on the week-to-week prices – and considering the differences in processor led imports for direct slaughter and producer led live trade impacts, each of these factors is addressed below.

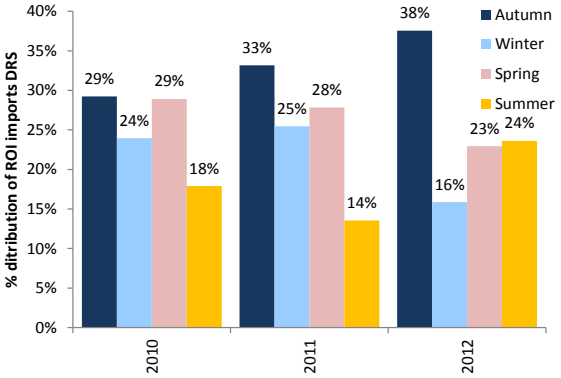
The data (chart 4.4.8) show that bar a short period in the middle of 2011, NI is a significant net importer of cattle for direct slaughter from ROI.

Chart 4.4.8: 'Trade balance' (exports – imports), NI & ROI, 2009 -2012



Source: Oxford Economics / LMC

Chart 4.4.9: Seasonality of ROI imports for Direct Slaughter, 2009 – 2012



Source: APHIS

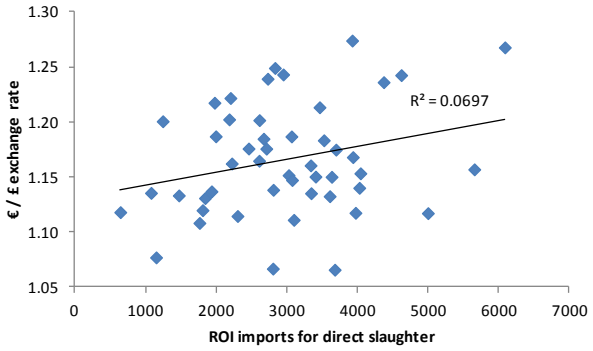
The seasonal pattern in importing cattle from ROI is obvious in chart 4.4.9 with the autumn period the peak time for imports. However, as noted in section 4.2, the autumn period in 2012 has experienced higher than usual levels of imports. An average of 1,160 cattle per week were imported for direct slaughter, compared with 762 over the same period in 2011 and 777 in 2010.

As noted previously, the similarity in climate and beef finishing system across the island of Ireland is a driver of the autumn seasonal peak (alongside issues such as the availability of cattle in ROI and exchange rates), and a shortage of home bred prime cattle in NI being slaughtered in NI (in comparison with previous years) has resulted in an increase in imports from ROI for direct slaughter.

Although the autumn seasonal peak is obvious in chart 4.4.9, other seasonal trends are less so. Chart 4.4.10 maps the distribution of ROI imports over years, showing significant variation in the winter, summer and spring seasons.

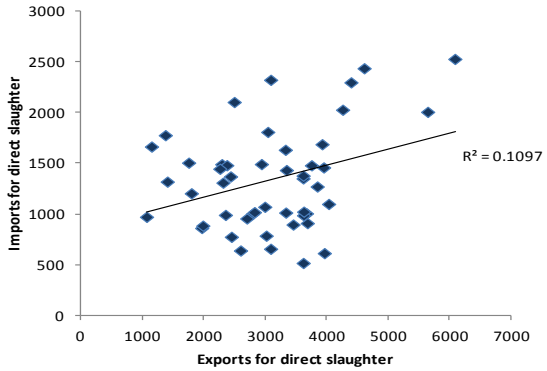
Perhaps not surprisingly, NI imported fewer cattle during 2011, as the exchange rate made it less attractive to do so. It is also worth noting that during this period, the ROI R3 steer price was ahead of NI in 15 out of the 52 weeks, also discouraging imports to NI. Chart 4.4.10 below shows that the exchange rate is positively correlated with of the quantity of imports on a week-by-week basis.

Chart 4.4.10: Imports for direct slaughter & £/€ exchange rates, 2009 – 2012



Source: Oxford Economics

Chart 4.4.11: Imports for direct slaughter vs. exports for direct slaughter, NI, 2009 - 2012



Source: Oxford Economics, APHIS

However, alongside the exchange rates, the analysis in chart 4.4.11 also shows that necessity is strongly correlated with the quantity of imports. Necessity is measured as the availability of cattle for slaughter. This is proxied in chart 4.4.11 as imports vs. exports, on the basis that as live exports from NI increase, the level of available supply in NI reduced, hence increasing the requirement for importing from ROI. The R2, which measures explanatory power, suggests that the necessity to secure supply is at least, if not more, prominent in driving the number of imports from ROI. The experience in the autumn / winter of 2012 is testament to this.

Having undertaken a range of analysis, we cannot conclude that importing for direct slaughter from ROI drives prices in NI – and indirectly the differential – on a week-by-week basis. However, at a higher level, the presence of the ROI market, with free movement of cattle, is a major determinant in the deadweight price of prime cattle in NI as it provides a supply of typically cheaper, partially substitutable prime cattle. However, the inverse is true, whereby the threat of exports to the ROI market, undermining local supplies, leads to above average prices paid for cows.

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Box 4.4.3: The impact of the market in 2013

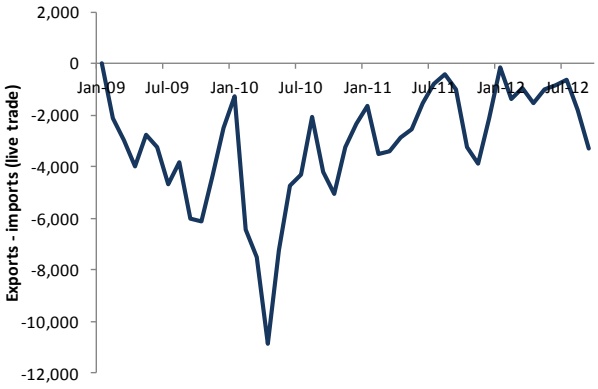
The study period for this research was 2009-2012. During that period, NI R3 steer prices did not surpass ROI prices by more than 10%. However, special circumstances have led to this gap widening, with NI prices in recent weeks approximately 15% ahead of ROI. In addition, NI prices are only 5% below GB, which is unusually low for the autumn period. This divergence from the trend observed in the four years prior is an active example of the influence of key factors. Notably:

Horsemeat affair: this led to a strong emphasis among British retailers in the demand for British origin beef. As a result, NI beef (and thus cattle) is better positioned relative to ROI beef;

Availability: steer slaughtering in NI are down 19.7% on the same period last year, with GB figures only 2.3% below for the same period. This has helped to underpin NI prices.

In addition to the impact of cattle for direct slaughter, there is also a significant market in the import of live cattle, for further production in NI. These cattle are ROI born and can qualify for NI FQAS status following a 90 day period on a quality assured farm. However, they can never be classed as British and as such, are ineligible for the premium GB retail market. Due to the nature of the live trade import, it is viewed as producer led (or indirectly processor-led), whereas importing for direct slaughter is very much processor led. Chart 4.4.12 below shows the 'net trade' in the live cattle market.

Chart 4.4.12: 'Net trade' in live cattle, NI & ROI, 2009 - 2012



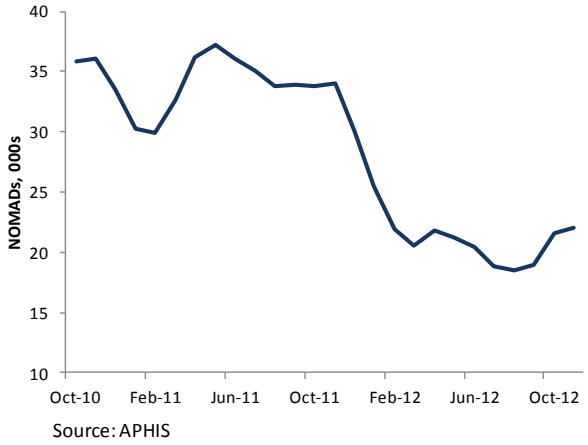
Source: APHIS

As shown in chart 4.4.12, NI is a significant net importer of live cattle from ROI. At no stage over the past four years has NI exported more cattle to ROI than it imported. The average monthly level over the past four years has been 3,610, in comparison to 1,722 imported for direct slaughter, showing the scale of the live trade market. It has been noted that the outcome of this could be shaped differently if processors in NI were not paying above GB average prices for cows. This issue is addressed in section 4.5.

However, the quantity of ROI born cattle on the ground in NI has been decreasing steadily since 2009, with a marked fall between October 2011 and March 2012. There were an average of 35,200 ROI born cattle[23] in the NI beef herd in 2010, compared to 21,000 in 2012 (33,600 in 2011). This is demonstrated in charts 4.4.13a and 4.4.13b.

[23] These figures refer to the quantity of ROI born cattle UTM currently on the ground, as a proxy for prime cattle. Where proportions or relativities are quoted, these too refer to proportion of the UTM herd.

Chart 4.4.13a: Quantity of UTM ROI born cattle on ground, NI, 2009 – 2012



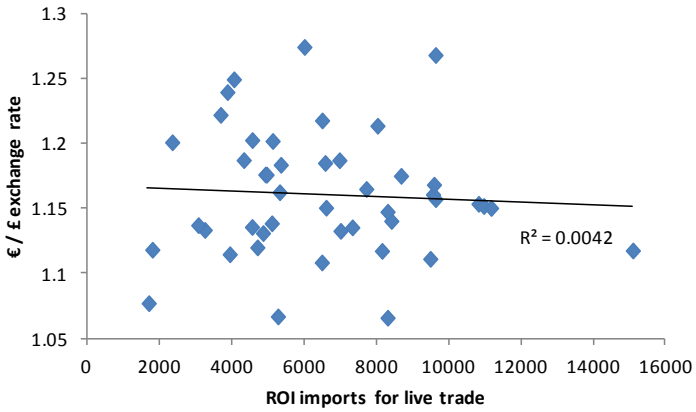
Source: APHIS

Chart 4.4.13b:UTM ROI born as % of cattle on ground, NI, 2009 – 2012

Source: APHIS

At their peak in April 2011, ROI imports for further farming in NI accounted for almost 10% of the UTM beef herd in NI, compared with 5.8% in November 2012. The trend had been in long term decline until August 2012, when they grew proportionately from 4.8% to 5.8%. Due to the nature of the market, which is more long term than import for direct slaugter, it is perhaps not surprising that the movements in the number and proportion of ROI live cattle show less variation than imports for direct slaughter. Consequently, the statistical evidence presented in chart 4.4.14 below suggests that the market for live trade imports is less responsive to exchange rate movements than the import for direct slaughter trade. This is likely to be due to the longer term nature of the industry, with the end price only realised after an extended period, as opposed to the 'immediate' return from direct slaughter. It is also likely to be price driven, with the emphasis on the market price which may-or-may not be driven by exchange rates.

Chart 4.4.14: Live Imports from ROI vs €/£ exchange rates, 2009 - 2012



Source: APHIS, Oxford Economics

There is no discernible correlation between the £ / € exchange rate and the quantity of cattle imported for further breeding and production. Instead, it is likely that movements in this market are driven over the

longer term through price signals from the processing industry. It was noted in the industry consultation phase that the processing industry had been discouraging live imports over recent times, which supports the statistical analysis.

Data limitations with regard to the slaughtering of live imports make it impossible to statistically test their impact on the week-to-week prices in NI. However, given that the imports for direct slaughter, which are more flexible and intuitively may be expected to have a greater impact in the short term, were found to have no impact on the prices on a week-by-week basis, it is highly unlikely that the presence of ROI cattle in the slaughter mix would cause significant price movements.

However, at a higher level, the presence of ROI origin finished in NI in the slaughter mix causes fragmentation in the market. They are classed separately and their eligibility for certain markets also differs from those imported for direct slaughter, and NI origin cattle.

Conclusion: Trade

Trade with both GB and ROI (and for both cattle and beef) is a major factor in determining the price of deadweight cattle and thus a major factor in the NI / GB price differential.

We conclude that the live export trade with GB has been lower than might have been expected during the 2009 – 2012 period, which may have contributed to sustaining the differential. TB incidence – both those herds not eligible to export and the fear of TB incidence in the future – and transport costs are the fundamental underlying drivers of this. Over one third of cattle slaughtered in NI in 2012 were not eligible for export. This potentially constrains trading opportunities for those finishers at risk of TB or who have their TB free status withdrawn. Other factors such as perception and complex relationship frameworks may contribute but are impossible to quantify.

We conclude that NI beef and ROI beef are partial substitutes, and as such, trade with ROI has a major impact on the NI / GB price differential, through the availability of a typically cheaper supply of prime cattle and the established close working relationships between NI and ROI companies.

Exchange rate movements also have an influence on the NI / ROI market dynamic, but we find that the £/€ exchange rate in its own right has at least a minor influence on the differential, through providing competition for NI beef with ROI beef when conditions are favourable.

4.5 Specification

This sub-section statistically assesses the 'in-spec' profile of cattle in NI vis-à-vis GB. It was a consensus view amongst the processing industry that the proportion of in-spec cattle in NI was significantly lower than that in GB and that this had a significant impact on the price differential. The sub-section begins by clarifying what specification means in this context and the broad performance of the NI industry, before a more detailed examination of the components of specification in comparison with GB. The section ends by looking at the incentive system for specification in NI.

4.5.1 Understanding specification

Over the last 10 years, specification has become an increasingly important aspect of multiple retail and food service beef contracts. NI processors, for example, are required to comply with the requirements of their customers which extend to specifications on both beef production and processing. Typically, these

beef production specifications include criteria on grade, age, weight and quality assurance. Depending on the contract other criteria may also be applied. These requirements change from time-to-time and vary from one retailer to another and henceforth, processor requirements will also vary.

In late 2009 factories in NI announced a new incentive structure for adherence to specification with bonuses for cattle that were in-spec and penalties for those that were out of spec. This was introduced by one factory and other factories quickly followed applying a similar incentive scheme based on almost identical criteria. These criterion are outlined below:

Specification	Criteria
Categories	Steers and Heifers
Grades	E, U, R, 3, 4-, 4= & O+3
Weight	280-380kg
Age	Under 30mths
FQAS	Yes
Country of Origin	UK Only
No of days of last farm	21 days – 90 days

These criterions are used as a benchmark in this analysis to measure the proportion of in-spec prime cattle available NI and GB markets.

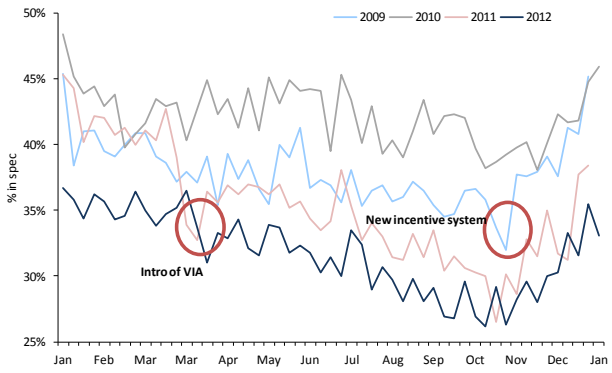
It is important to note that when comparing R3 prices in NI and GB, R3 is an in-spec grade. On the other hand R4 comprises some in-spec grades (R4-/= in NI) and some out of spec grades (R4+ in NI).

It was noted during the consultations that specification is not consistently understood across the industry; various consultees had differing ideas regarding what exactly 'in spec' meant and the mechanisms driving and encouraging it.

4.5.2 Proportion of in-spec cattle in NI

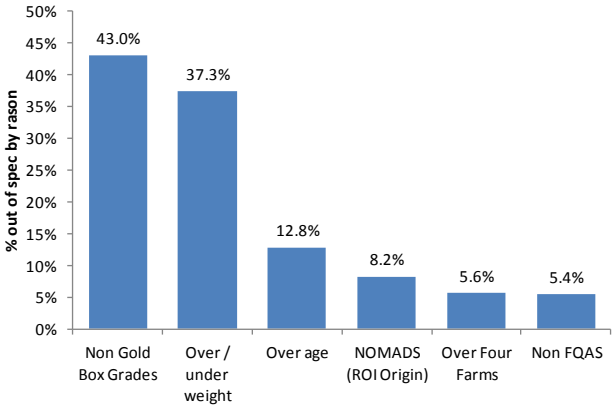
The data – as shown in chart 4.5.1 below – show that on average, between 30% and 35% of prime cattle slaughtered in NI were 'in spec' i.e. they met the required specification.

Chart 4.5.1: % of steers and heifers 'in-spec', NI, 2009 – 2012



Source: LMC

Chart 4.5.2: Reasons for being 'out-of-spec', NI, 2012



Source: LMC

The proportion of prime cattle 'in-spec' varies on a week-by-week basis, with the range in 2012 peaking at 36.5% during March and troughing at 26.2% during October. Specification proportions have varied over time, with two key occasions, as highlighted on the chart. Firstly, the introduction of the new incentive scheme (as outlined above) in October 2009 led to a marked increase in the proportion of in-spec cattle over the short term. The second was the introduction of VIA[24] in March 2011, which led to a decrease in the proportion of cattle killing out at in-spec grades. However, the introduction of the perceived tougher grading system has not necessarily had a negative impact on prices[25].

Chart 4.5.2 highlights the key reasons why a carcass does not meet the specification. Over 40% of out of spec carcases do not meet the desired grades. Weight is the second most prominent issue, with 37% of all out-of-spec carcasses in NI either under or overweight. Over age accounts for just over 12% of those not in spec and other factors, such as ROI origin cattle, non-farm quality assured cattle and those which have not met the maximum number of movements are minor factors, accounting for a combined 19% of the reasons for being out-of-spec[26]. The following sub-section addresses the key components of specification – grade, weight and age – comparatively between NI and GB.

4.5.3 GB / NI performance on specification

This section draws upon fully representative LMC data (NI), AHDB data (GB regions) and BCMS data (GB regions) alongside statistical evidence provided by an anonymous processing group. Both sources are considered in tandem on a component-by-component basis; the processor evidence allows us to examine all aspects of specification together, something which is not possible with official data alone (in GB).

[24] VIA refers to video imaging analysis, the method of grading cattle in NI (and used throughout the EU) which was introduced in NI in January 2011

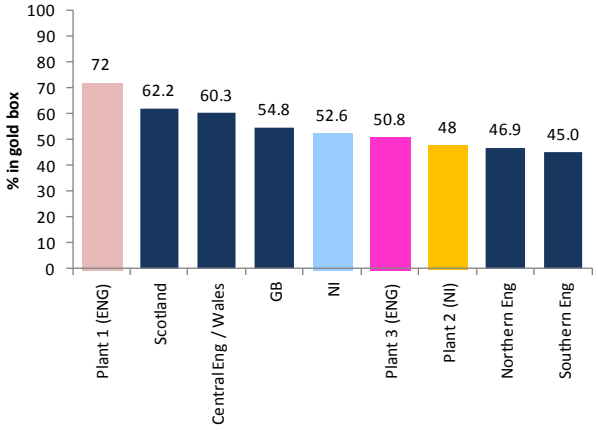
[25] Economic theory suggests that under the new system, where an in-spec carcase is less common – and thus more desirable – the carcase should attain a higher price. Thus we can conclude that VIA is not a significant driver of the price differential.

[26] The analysis presented in chart 4.5.2 and discussed has been derived through prioritising reasons for being out-of-spec. Therefore, each category is mutually exclusive and thus there is no double counting.

The lack of clarity discussed above on which grades are in-spec – and its subsequent impact – is apparent when analysing cattle grades, as in chart 4.5.3 below:

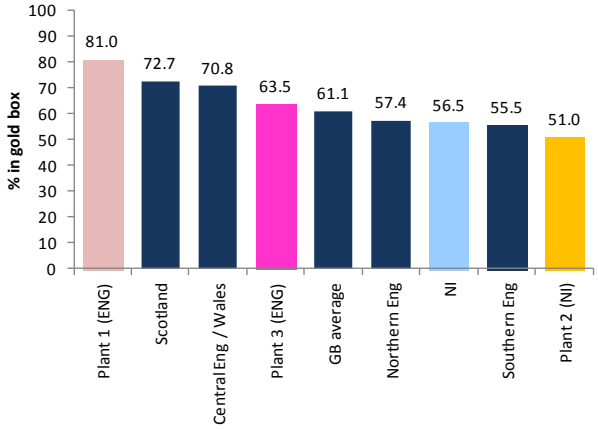
Chart 4.5.3: Percentage of cattle in 'gold box', NI & GB regions, 2012

Excluding O+4L and O+4-=



Source: Oxford Economics / LMC / AHDB / Anon. processor

Including O+4L and O+4-= (not gold box in NI)



Source: Oxford Economics / LMC / AHDB / Anon processor

When examining cattle in the 'gold box'[27] grades (and only grade, not weight / age), using the NI pricing grid and proxying it for GB, 54% of all prime cattle in NI were in the desired grade. This suggests NI fares well, ahead of GB and behind only Scotland and the Midlands. Northern England, regularly cited as the specialist beef producing region in England, achieves only 47% of cattle in the 'gold box'. However, when the O+4L (GB) and O+4-= (NI) grades are included as 'in-spec' – as some in the industry do – the picture changes significantly. With 56.5% of cattle in the wider specified grades, NI now drops below the Northern England proportion. This difference is driven by the large quantity of carcasses classed as O+4L across GB vis-à-vis proportionately fewer O+4-= in NI. This is likely to cause significant confusion with regard to the wider specification issue, as different interpretations of NI's performance are likely to be driven by a different definition of what constitutes specification.

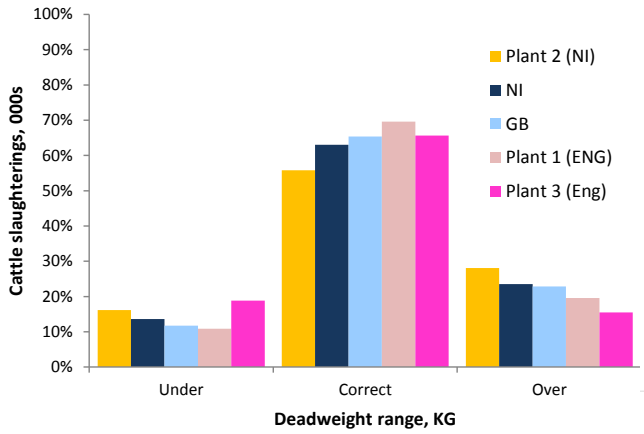
The individual plant data[28] shows that the sample plants are at either end of the spectrum. Plant 1, based in England[29], achieves well ahead of the GB average, with over 4 out of every 5 cattle slaughtered of the preferred grades (when O+4L is included). Conversely, the figure is marginally above 1 out of every 2 in the processors NI plant (plant 2). The second English plant (plant 3), compares more similarly with NI, suggesting there is variation in specification across England. Weight and age are considered in a similar manner below.

[27] The 'gold box' refers to the range of grades from the NI pricing grid which are eligible to attract an 8p bonus (should they also match weight, age and other criteria). Specifically, 'gold box' grades are: E, U, R, 3 & 4-= and O+3

[28] Whilst one plant could not be considered fully representative of the region, when considered – and verified – alongside the official AHDB data, Oxford Economics are confident that for the purposes of this study, the individual processor data provides insight and llows us to draw conclusions we could not have otherwise.

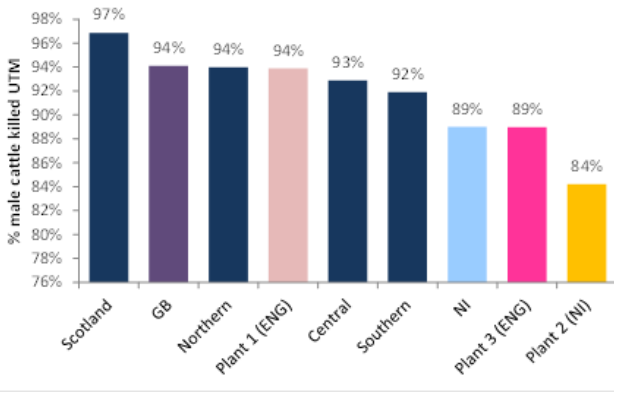
[29] The price reporting region the plant operates in is not being disclosed in order to protect the processors' identity. Oxford Economics are aware of the plants' location and have considered it when verifying the data provided.

Chart 4.5.4: % of prime cattle in weight band, NI & GB, 2012



Source: LMC / AHDB

Chart 4.5.5: % of male cattle[30] under 30 months, NI & GB price reporting regions, 2012



Source: LMC / BCMS / Anon. processor

The data above suggests that NI performs below the GB average in relation to both the proportion of prime cattle in the desired weight categories and the proportion of prime cattle less than thirty months. In NI, 63% of prime cattle killed attain deadweight of between 280-380kgs, compared to 65% in GB. In terms of age, Scotland performs best, with 97% of all male slaughtering at UTM; the comparable figure for GB is 94%, with NI a further 5 percentage points behind, at 89%.

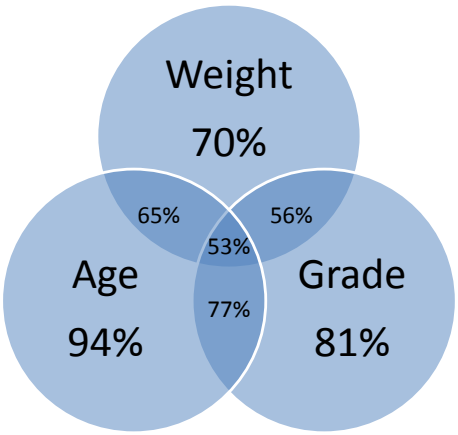
Again, the individual plant data, which refer to all prime cattle as opposed to all males,31 are at opposite ends of the spectrum. Plant 1, based in England achieves 70% in the preferred weight category and 94% in under 30 months outperforms the GB average. In comparison, with 56% weight and 84% in age, the NI plant is below the NI average. However, variation from the average is to be expected on a plant-by-plant basis, as is further evidenced by plant 3, also based in England.

With, on average, 53% of prime cattle in the gold box grades, 63% in the specified weight range and 89% under 30 months, it may be somewhat surprising that only between 30% and 35% in NI match all three criteria. Unfortunately, mapping the three key strands of specified together is not possible with the AHDB data. However, it is possible with the plant data, and as such, the charts and discussion below relate to the individual plant data. Figure 4.5.1 maps the different elements of specification together.

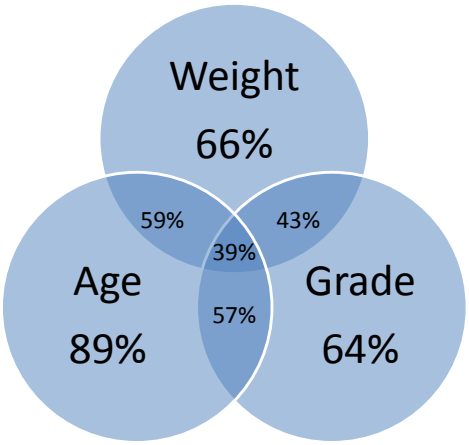
[30] The representative NI and GB regions data refer to all male slaughterings UTM. The individual plant data refer to all prime cattle. The comparison of all male cattle and all prime cattle (steers, heifers and young bulls) are suitable. The significant skewing factor in data of this nature is the inclusion of cull cows, which are omitted in both cases.

Figure 4.5.1: Components of specification, Venn Diagram, plant examples

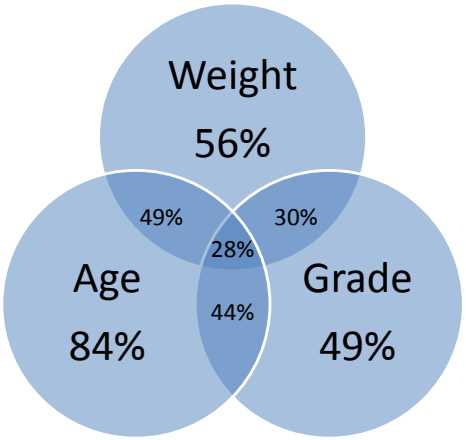
Plant 1: England



Plant 3 England



Plant 2: NI



Source: Anon Processor

The diagrams above provide a visual method of viewing specification, utilising the plant specific evidence provided. The analysis for the NI based plant shows that: 56% of prime cattle are of the specified weight range, 84% of the specified age range but only 49% are both the specified weight and specified age. Similarly, 56% are of the specified weight, 49% of the specified grade but only 30% are both the specified weight range and specified grade. This suggests a trade-off between weight and grade. (This was reported by consultees who suggested that in an effort to get cattle into the higher grades, the cattle can be pushed overweight and vice-versa). When all components of specification are considered together, only 28% of prime cattle presented at this example plant achieved 'in-spec' status. The trends are similar for the two plants based in England, but both report a significantly higher proportion of prime cattle presented 'in-spec'.

From this, we can conclude that NI performs slightly below the GB average in regard to weight and age. With regard to grade, those that consider O+4L to be in spec are likely to have a strong perception that NI struggles to meet the specification, and this alone may be enough to influence the differential. We conclude that differences in the proportion of cattle presented within specification are likely to have an impact on the differential. The evidence also suggests that there is scope for improving the proportion of cattle in spec. However, first and foremost, there is need for an updated and improved understanding of specification across the industry (with perceptions regarding poorer specification in NI likely to also have an impact) and subsequent clearer market signals.

Conclusion: Specification

We conclude that there are differences in the levels of in-spec cattle presented to price reporting plants in NI vis-à-vis GB. However, these differences are relatively minor, with evidence suggesting that there are quantums of out-of-spec cattle presented to price-reporting plants in GB. We also note that many of the smaller, independent plants in GB have niche specialisms in dealing with out-of-spec cattle, and thus when examining the relative levels of specification in their entirety, we find the differences in specification to be less prominent.

However, the fact remains that there is a lower proportion of cattle in NI meeting specification, and this has an impact on the markets they can service and hence the price paid.

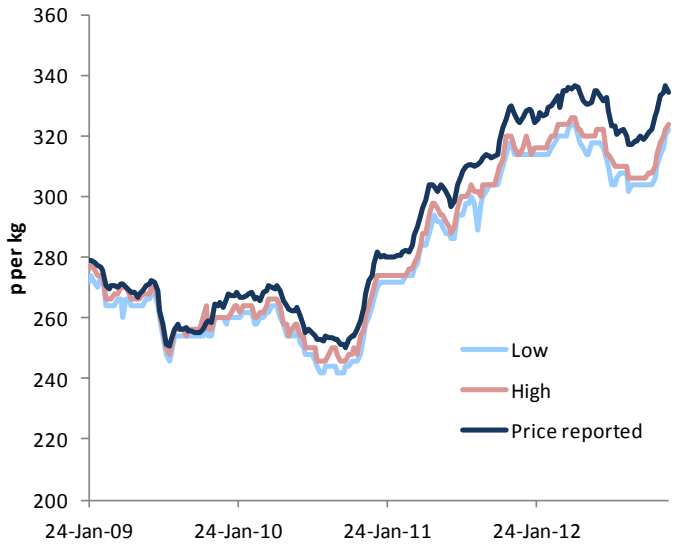
4.6 Market Conduct

4.6.1 Price discovery mechanism

4.6.1.1 Published quote prices

The physical structure of the NI beef industry differs considerably from that across GB; the price discovery mechanism also differs significantly. The mechanism in GB is different, with no system for collecting or publishing processors' quoted prices. Instead, the deadweight market relies to a greater extent on the price paid at live weight markets (whereas there is only a limited live trade for finished cattle in NI). The evidence presented in chart 4.6.1 shows that in NI, the price reported price is typically in excess of the highest quote price, suggesting that the published quote in NI acts as a price floor and is indeed likely to get bid up. For example, in 2012, was on average 4.3% ahead of the highest quote.

Chart 4.6.1: Quotes and price reported (R3 steer), NI, 2009 – 2012



Source: Oxford Economics, LMC

This proves that there is room for – and active engagement of – price negotiation in the NI beef industry. The analysis also suggests a very limited seasonal pattern, with the price reported 2.8% above the top quote in the autumn and 2.7% in the spring – over the period 2009 - 2012.

The use of a published quote system also contributes to less volatility in the average price reported. The data show that the standard deviation, which measures the variation from the average price reported has grown over time in NI, in line with increases in price. As a percentage of the average price reported, it has remained fairly consistent at 3.3% of the average price. This suggests that on average, 95% of R3 prime cattle receive a price 7% either side of the average.

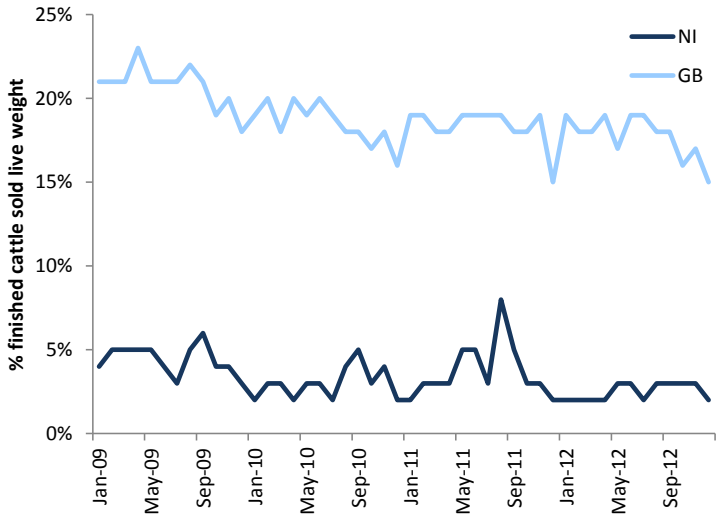
In comparative terms, NI is second only to Scotland in price consistency across the R3 grade. The wider spread of prices around the average reported across England could be driven by one of the following factors, and is most likely caused by a combination of both:

- **The price discovery mechanism** – without a range of published quotes there is a limited benchmark from which to negotiate. Whilst live markets do provide a good insight, there is perhaps more room for price fluctuation below and above the average price, (with the homogenous system in Scotland an exception to the rule);
- **Prices across plants / producers –** the evidence could suggest a greater variation in prices paid across plants or to different producers in England.

4.6.1.2 Liveweight trade in finished cattle

A major difference between the trade in finished cattle in NI compared to GB is the presence of a significant liveweight trade in finished cattle in GB, whereas in NI this trade is much less significant relative to the deadweight trade. The liveweight trade is recognised as being a considerable contributor in the price discovery mechanism in GB. Chart 4.6.3 below highlights the proportion of finished cattle sold through the live market in NI and GB.

Chart 4.6.2: Proportion of finished cattle sold through live trade, NI and GB, 2008 - 2013



Source: LMC, APHIS, AHDB

The live weight trade in finished cattle in NI has typically averaged less than five per cent of NI slaughtering in recent years. This is in contrast with GB where 15-20 per cent of finished cattle were traded live in recent years. This suggests there is an additional competition in GB, with deadweight cattle prices formed through both the deadweight and live weight trade. However, the deadweight price of cattle is inevitably the end market for finished cattle, and thus there is limited scope for the two to diverge significantly over the longer term. Differences in price paid live weight and price paid deadweight depend largely on how the animal eventually kills out.

Whilst there is some variation in this trend on a week-by-week basis, there is no evidence to suggest the structure is likely to change in NI. Therefore, with less than 1 in 20 finished cattle sold live weight – compared to almost 1 in 6 in GB, we conclude that the scale of the live weight trade in NI results in it having a limited role in deadweight price formation.

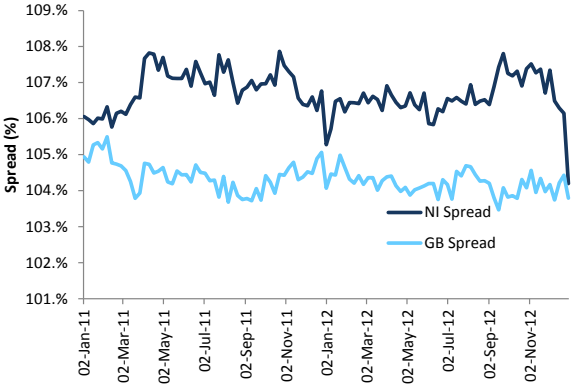
4.6.2 Price spreads

The spread of prices paid across different grades of cattle was raised as a potential issue, and it was suggested by some consultees that NI processors can afford to pay above GB prices for lower grade cattle by paying less for the prime beef breeds. This sub-section examines this issue in detail. It firstly looks at the spread of prices within prime cattle by looking at the price paid for in-spec grades versus out of spec grades. It then examines the price paid for cows and young bulls in comparison with in-spec prime cattle. The analysis will seek to establish whether market conduct in GB and NI varies in this respect and whether it has any impact on the differential.

4.6.2.1 Price Spread: In-spec Prime Cattle v Out of Spec Prime Cattle

An examination of the spread of in-spec and out of spec prime cattle prices in GB and NI finds no evidence to substantiate this particular suggestion that NI factories subsidise out of spec prices by paying less for in-spec cattle.

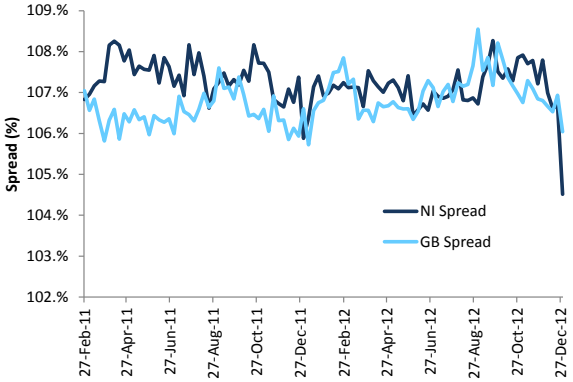
Chart 4.6.3: Spread between in-spec and out of spec prime cattle prices (wider grades), GB and NI, 2011-2013



Source: AHDB, LMC

In-spec grades: E, U, R, 3, 4L / - / = & O+3

Chart 4.6.4: Spread between in-spec and out of spec prime cattle prices (narrow grades), GB and NI, 2011-2013



Source: AHDB, LMC

In-spec grades: E, U, R, O+ , 3, 4

Chart 4.6.4 clearly shows that the spread in price between in-spec and out-of-spec grades is wider in NI than in GB. This is counter to the suggestions made during consultations and one reason for this wider spread may be that a narrower sub-set of grades is considered to be in-spec in NI compared to GB. Chart 4.6.5 tests this theory by including 4H/+ and O+4L / - / = as in-spec grades. When this analysis is undertaken the spread in price is similar in both NI and GB.

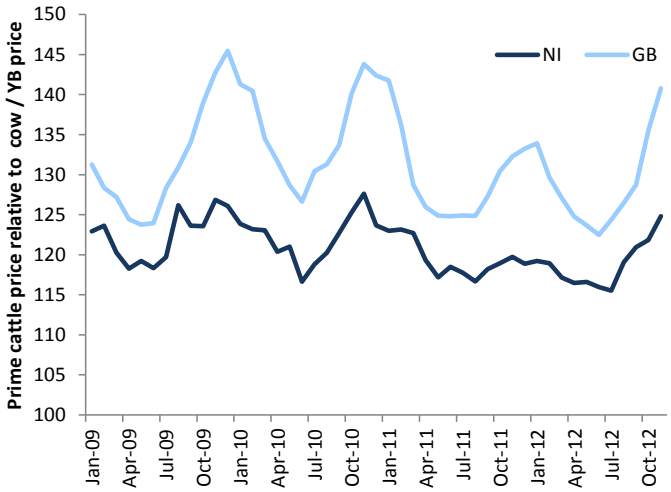
There is no evidence to suggest that in-spec cattle prices in NI are discounted to accommodate paying higher prices for out-of-spec cattle. Therefore, we dismiss this as a potential factor in the differential.

4.6.2.2 Price Spread: In-spec Prime Cattle versus Cows / Young Bull Prices

In order to undertake the analysis of prime cattle prices versus the price paid for other categories, we have constructed a prime cattle price and a cow / YB price – relating solely to categories and grades32 - using weighted averages. We have then compared the prime cattle price relative to the cow / YB price. Chart 4.6.6 below shows the relationship between relative prices in NI and GB.

[32] Prime cattle grades are: E, U, R, 3 & 4-= and O+3; Cow and YB grades are proxied as: P2 & O3 cows and O3 YBs

Chart 4.6.5: Prime cattle price relative to Cow / YB price, NI and GB, 2009-2012



Source: Oxford Economics, LMC

Over the 2009 – 2012 period, the prime cattle prices in Northern Ireland were on average 21% above cow / YB prices; the ratio was 31% in GB. This gap between spreads in NI and GB has remained consistent over the period, with both tending to follow a similar seasonal pattern.

Regionally, the largest spread in prices has alternated between Scotland and Southern England. In 2012 the prime cattle price averaged 28% above the cow / YB price in Scotland and 32% in Southern England (although this has narrowed over the period). Northern Ireland has had the narrowest spread of any GB region throughout the period, although this has been only marginally below Central England / Wales.

Table 4.6.1: Prime cattle price relative to the cow / YB price, NI & GB regions, 2009-2012 annual avg.

	Spread - prime cattle and cow / YB prices			
	2009	2010	2011	2012
Scotland	134	138	131	128
Northern Eng	127	131	125	126
Central Eng / Wales	122	122	121	121
Southern Eng	136	137	131	132
Northern Ireland	122	122	120	119

Source: Oxford Economics, LMC

In Southern England (and to some extent Northern England), where there are a significant proportion of dairy cattle – 529,000 head (62%) and 379,000 head respectively (60%) – dairy cattle are a significant part of the industry, but both the large magnitude of supply and competitiveness of export markets drives prices down, hence the large spread in prices. The 2012 figure, which averaged above the Scottish equivalent for the first time over the period, is likely to be skewed by special circumstances.

The NI position is that with an almost 50:50 split between dairy and beef origin cattle, the region could be cited as not too dependent on either sector. The narrow spread is driven by both lower prime cattle prices and higher cow / YB prices. The latter could potentially be explained by there being insufficient magnitudes of dairy origin cattle to drive the prices down to the same extent that occurs in Southern England and the more export orientated nature of the beef industry, with 21% of all beef (carcass weight) being exported to Europe, where cow beef is more popular and is accepted as attaining a higher price. The figure for UK exports is closer to 16% (this includes the NI industry and also includes offal, suggesting that GB export activity in the beef market is significantly proportionally smaller than NI). The adjacent presence of the ROI market, which generally returns a higher price for cows / YBs than NI, is also likely to be a factor in securing the supply of cow supplies. Indeed, the fact that ROI pays a higher price for cow beef, given its highly export orientated market, further supports this argument.

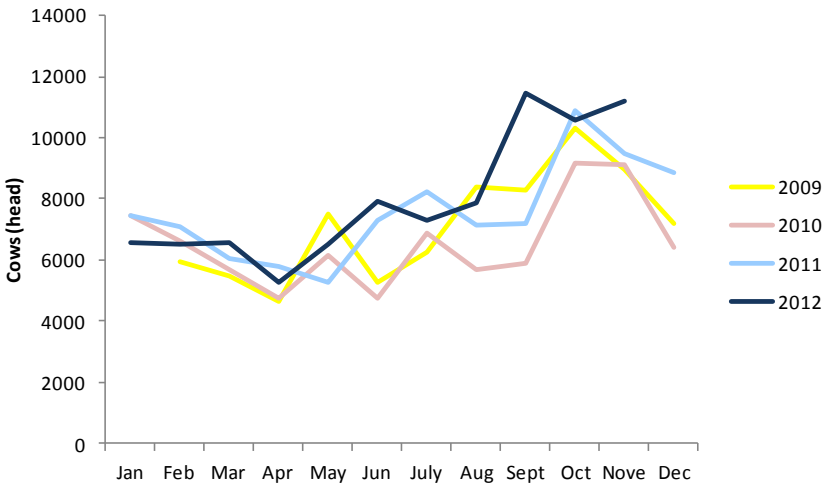
In conclusion, whilst the evidence suggests a lower spread of prices across GB than in NI – and whilst the critical mass of the mix is cited as a major driver – this cannot be directly attributed to processor led cross subsidisation, as was noted by some consultees. We calculated that in order to pay an additional 10p/kg for all prime cattle slaughtered in NI in 2012 (which would not close the differential entirely), and keep the total amount paid for all cattle unchanged, 18p/kg would have had to be removed from the price of an average cow / YB. The considerable difference in magnitudes is contradictory to claims of cross-subsidisation (and indeed a similar calculation using cow prices as opposed to including YBs leads to a required 29p/kg reduction in cow prices to accommodate a 10p/kg rise in prime cattle prices.

Therefore, we conclude that whilst the spreads differ by region, this is correlated with the beef/dairy mix and thus market forces dictate the price paid; and hence the spread of prices has only a minor impact on the differential.

4.6.3 Cows in the supply chain

As has been addressed in the context of seasonality in section 4.3, there is a more prominent trend in the seasonal supply of cows than there is for prime cattle. Chart 4.6.7 below reiterates this, charting the quantity of cows slaughtered in NI on a monthly basis over the past 4 years. This shows that the quantity of cows slaughtered increases in the latter half of the year, peaking in the autumn period.

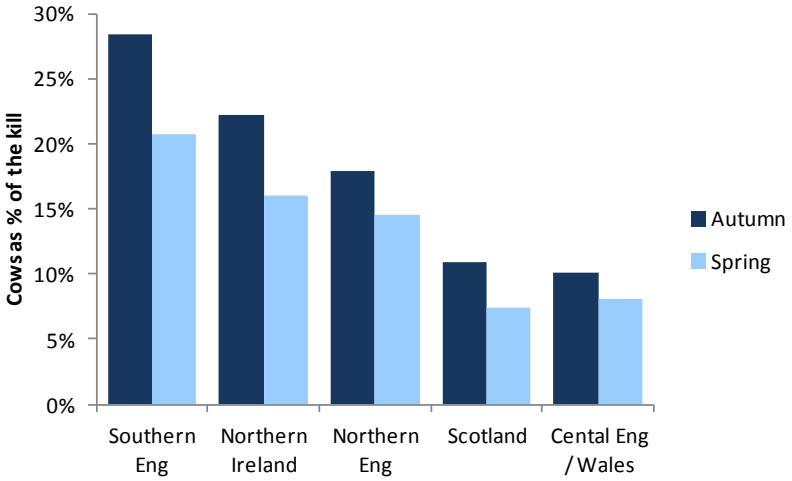
Chart 4.6.6: Cows slaughtered, NI, 2009 – 2012



Source: LMC

Chart 4.6.8 below highlights that this trend is similar across all GB regions, with a peak autumn period and a low spring period. However, the magnitudes do differ. In Southern England, almost 30% of the total kill in the autumn period is attributable to cows, in comparison to 20% in the spring. Despite having a more balanced beef/dairy mix than Northern England, NI features second on the list. Cows account for almost one quarter of the kill in the peak autumn period and 16% in the spring. This suggests that cows are more prominent in the kill throughout the year in NI than they are in Northern England, despite the large dairy industry in the North West.

Chart 4.6.7: Proportion of cows in total kill by season, NI & GB regions, 2009-2012 average



Source: AHDB, Oxford Economics

This is potentially one factor driving the relationship between the proportion of cows in the slaughter mix and the price paid for in-spec cattle. Interestingly, NI is the only region which shows a consistent strong negative relationship between the two, with the exception of 2011 (Northern England shows a consistent negative relationship, but the coefficients are weaker) are . However, the seasonal nature of cow supply is more prominent in NI and thus isolating the direct impact of cows in the slaughter mix on the differential is difficult.

Table 4.6.2: Correlations between cows in the slaughter mix and in-spec cattle prices, NI & GB regions, 2009-2012

	Correlation coefficients			
	2009	2010	2011	2012
Scotland	0.67	-0.01	0.72	0.03
Northern England	-0.62	-0.15	0.40	-0.09
Central England & Wales	-0.09	0.22	0.60	-0.26
Southern England	-0.55	-0.14	0.63	0.35
Northern Ireland	-0.88	-0.37	0.57	-0.70

Source: Oxford Economics, LMC

Note: A negative value suggests a negative relationship i.e. one where as the number of cows in the slaughter mix increases, the in-spec price falls. A positive correlation suggests a positive relationship. The higher the absolute value of the coefficient, the stronger the relationship.

Therefore, we can conclude that the number of cows in the slaughter mix has a unique impact in NI that is not recognisable in wider GB. This is influenced by the NI processing industries experience in realising value in cow beef, likely to be as a direct consequence of the proximity to the ROI market. We conclude that whilst cows in the supply chain can have an impact on the price paid (and thus the differential) on a short term basis, this factor only has a minor impact on the differential when considered in isolation. Instead, the majority of its impact is accounted for within the seasonality of supply.

Conclusion: Market Conduct

We conclude that although the price discovery mechanism is different in NI vis-à-vis GB, market forces (supply, demand, end markets and quality) will dictate the price paid to secure cattle, regardless of the mechanism used to derive it. Therefore, factors such as the publishing of quotes – which occurs in NI but not GB (and thus provides a price floor and minimizes the spread of prices) and the larger live trade for finished cattle in GB, have only a minor impact on the price differential.

The pricing model for different types of cattle (in-spec, out-of-spec, prime and cows) varies across region, with local specialisms apparent, particularly regions with a high proportion - or large critical mass - of dairy or beef cattle. As a region with a fine balance between dairy and beef origin cattle, NI has a narrower spread, driven by paying below average prices for prime cattle and above average prices for young bulls and cows. (The latter is also partially driven by the proximity to ROI, which pays above average prices for cows). Nevertheless, we conclude that it is not viable to assume that this is deliberate cross-subsidisation but instead market forces. Thus, we conclude that it has only a minor impact on the price differential.

4.7 Market factors

4.7.1 Processor costs

Note: It has not been possible within the scope of this study to undertake a detailed examination of processor costs on a plant-by-plant basis. However, we have used secondary data on the industry and information provided to us by the industry to draw our conclusions.

During the consultation phase of this study, producer representatives argued strongly that higher processing costs in Northern Ireland could be one of the factors contributing to a price differential with GB, with higher costs resulting in a lower prices being paid to the producer of the raw material. We have examined the evidence for this argument in this section.

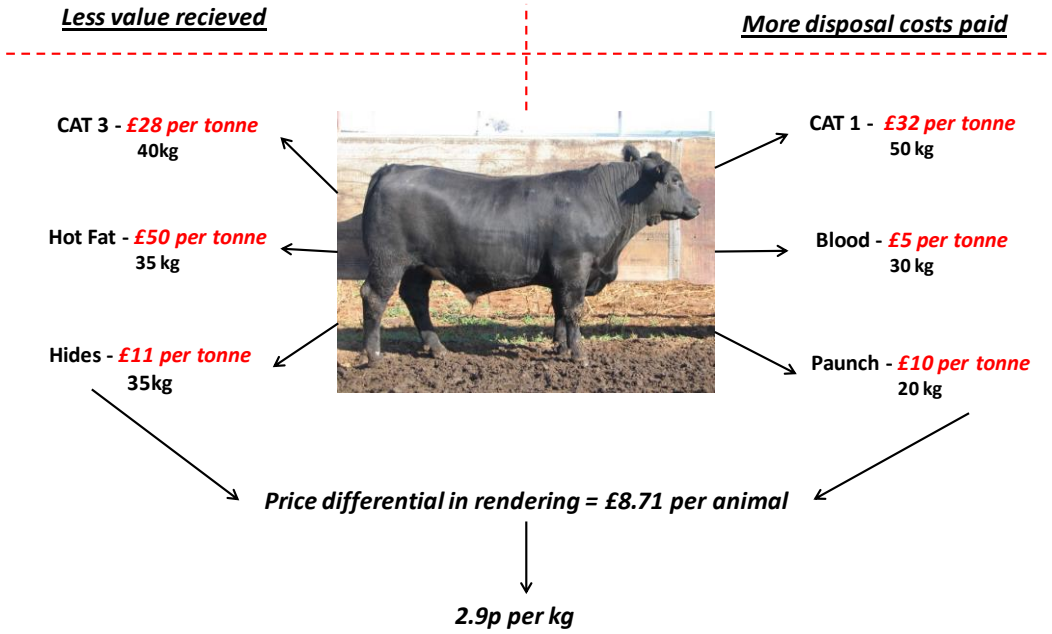
It was also a consensus view in the processing industry that the cost of processing beef in NI is higher than GB, with some processors suggesting a figure of between 3p and 5p/kg (not including additional transport costs, which are covered in section 4.4.1.3). The industry cited various factors driving the additional cost of processing in NI beyond transport costs, include higher rendering costs and some higher overhead costs.

We have examined each of these areas of cost in more detail below.

4.7.1.1 Rendering

The rendering in is a complex sub-sector within the wider food processing industry. It is our understanding, from detailed conversations with industry specialists, that processors receive a small value for category 3 material, hot fat, offal and hides and have to pay for the disposal of category 1 material, blood and paunch. The consensus view was that it costs more to dispose of items in NI than in GB and less is paid for material that has value.

Figure 4.7.1: Understanding the difference in rendering costs, NI & GB, 2012



Source: Oxford Economics / selected processors

The figure presented in figure 4.7.1 above suggest that it costs an additional £32 per tonne to dispose of category 1 material, £5 per tonne to dispose of blood and £10 per tonne to dispose of paunch. Conversely, the NI processor receives £28 per tonne less for category 3 material, £50 per tonne less for hot fat and £11 per tonne less for hides. The average weight of each is also provided in the figure.

Calculating the differential on a per animal basis suggests a differential in rendering costs of £8.71 per animal, equivalent to approximately 2.9p/kg.

However, whilst we can verify from the analysis that a differential exists in the rendering market, we cannot directly link this to the deadweight price differential i.e. we cannot state that 2.9p of the average 14p differential is directly due to rendering. This is because we cannot conclude that a decrease in the additional cost of rendering would be passed on directly to the producer. Instead, we can conclude that rendering costs are higher in NI than GB and that it adds an additional cost to the processing of beef in NI comparative to GB, which in turn puts pressure on the profitability of NI processing plants.

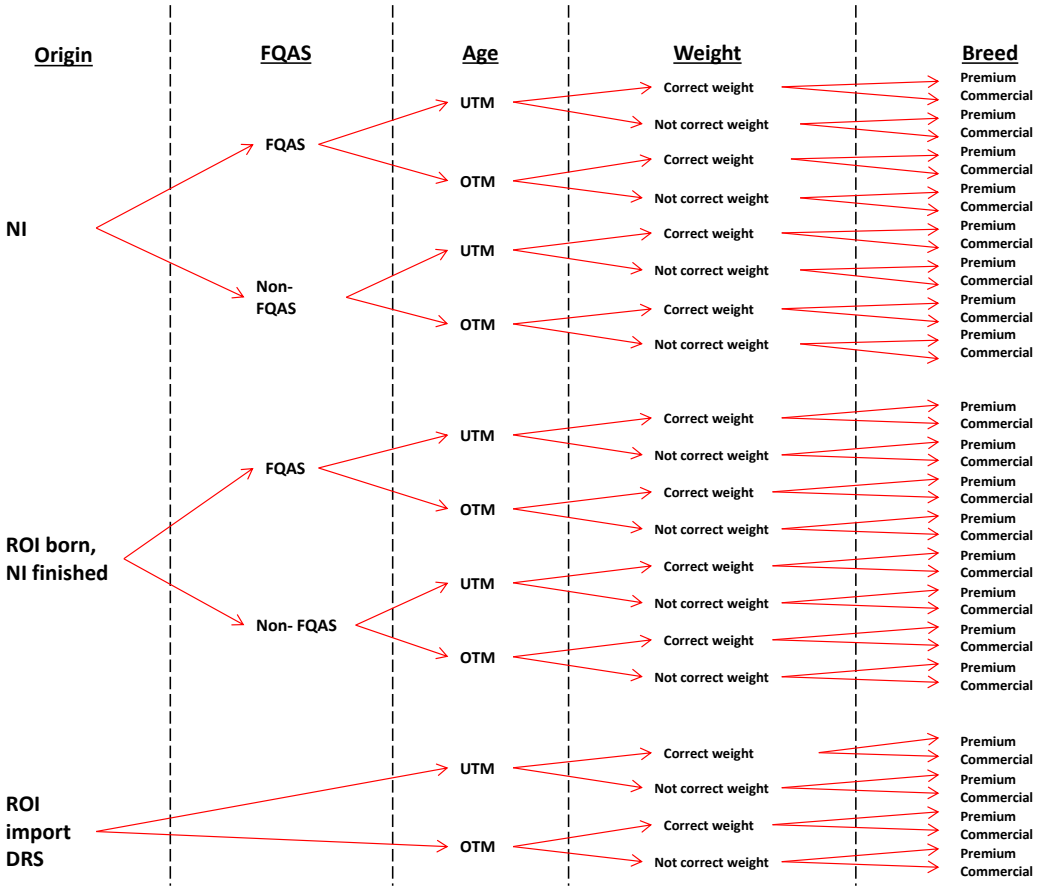
At the same time, it is widely recognised that the existing state of the rendering market in GB is unsustainable, with many key companies posting significant losses year-on-year in recent times. Looking forward, it is unlikely that the significant differential in rendering costs will exist in the longer term. However, this is likely to be driven by an increase in the cost of / decrease in the value from rendering in GB as opposed to a decrease in the cost of / increase in the value from rendered products in NI. Therefore, it is unlikely that a narrowing in the rendering differential will deliver any real benefits to the NI producer. It should also be noted that the majority of rendered material is transferred to GB, and hence there is likely to be a notional differential due to transport costs.

4.7.1.2 Overhead costs

Overhead costs were also cited at approximately 2-3p/kg higher in NI than GB. This includes an array of factors, such as electricity costs, staffing, planning and batching. We are not able to explicitly quantify all of these in the manner we have with other factors, but can look at some qualitative evidence.

The batching of beef for boning – which is undertaken to ensure that only the appropriate beef ends up in the correct product – is a complex operation and is driven by commercial commitments. Therefore, it is likely to vary on a plant-by-plant basis. However, in almost all cases, factors such as origin, quality assurance, age and weight will be key factors. Figure 4.7.2 below provides an illustrative example of beef boning batches.

Figure 4.7.2: Understanding the cost of batching, NI Steers and Heifers



Source: Oxford Economics / selected processors

As demonstrated in figure 4.7.2, there can be up to 40 potential boning batches based on this example, and potentially over 80 if additional factors, such as the time spent on the last farm, were included. Whilst it is recognised that there will not be 40 batches in any given day / week at any given plant, the presence of additional batching leads to additional 'down time' in plants, therefore leading to a loss of efficiency. It was widely asserted that plants in GB have comparatively fewer batches and hence less down time. This is largely due to having only 1 origin of cattle, notwithstanding the differential of Scotch beef in Scotland, which receives a premium. We cannot quantify the impact of additional boning batches, but can conclude that they are a valid component of additional processor costs in NI.

Electricity costs were also cited as a significant contributor to additional overhead costs. Evidence from a recent report by the Utility Regulator suggests that NI has the second highest electricity costs in Europe for large commercial enterprises. The article is summarised in box 4.7.1 below33. It should also be noted that not all plants in NI have access to cheaper forms of power, notably gas, as is the case across GB.

[33] The full report is available at: http://www.uregni.gov.uk/news/regulator_publishes_comparative_electricity_prices

Box 4.7.1: Electricity prices in NI

The Utility Regulator recently published a report which, for the first time, provides a comparison of electricity prices in Northern Ireland with the rest of Europe. The three key findings of the report, which shows comparative prices for 2011, (the most recent available for 15 EU member states) are:

• for domestic consumers, prices were around the EU average;
• for very small industrial and commercial (I&C) consumers, electricity prices were also around the EU average. Small I&C consumers account for around 70% of all non-domestic consumers in Northern Ireland; and
• for the remaining 30% of I&C consumers electricity prices were among the highest in Europe.

There was some perception amongst consultees that NI plants have on average a higher throughout than those in GB and as such, this is likely to result in efficiency gains that could potentially offset some of the higher processing costs. When considering all plants in GB, the evidence suggests NI plants are on average larger. However, when considering only the price reporting plants – which is a fair comparison given the relative scale of the industry and is highlighted in section 4.2 – the evidence suggests that the difference is much less pronounced, with average throughput in a GB price reporting plant is 50,000 head, compared to 58,000 head in NI. Indeed, the average price reporting plant in Central England / Wales has a throughput of over 65,000 head Therefore, there is little evidence to suggest price reporting plants in NI have economies of scale over price reporting plants in GB, and there are likely to be economies of scale at the largest GB price reporting plants vis-à-vis those in NI,

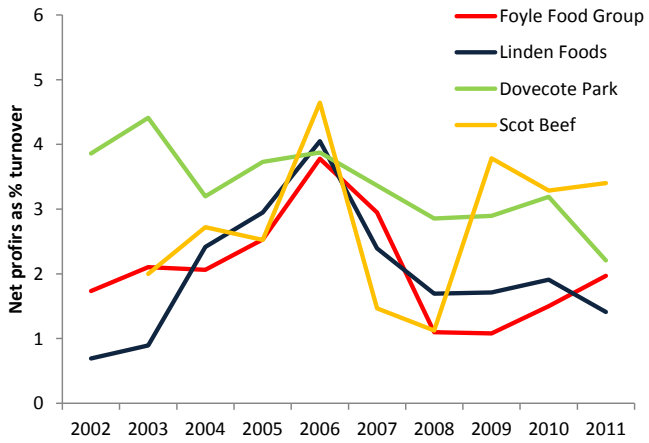
It was also reported to us by processors who have plants both in Northern Ireland and elsewhere that some employment costs can be lower in Northern Ireland. Basic labour costs are similar across the UK, driven by the minimum wage but we understand that average supervisory and management costs may be lower in Northern Ireland because of slacker local labour markets.

4.7.1.3 Profitability

It was also noted that the beef processing industry is a high turnover / low profit margin business, not just in NI but across GB. Chart 4.7.1 below displays the profit margin34 for a selection of processing companies from whom data are published.

[34] Profitability is measured as profit before interest, tax and amortisation divided by turnover.

Chart 4.7.1: Profitability, selected meat processors, 2002 – 2011



Source: Companies House (accessed through FAME database)

It should be noted that both Foyle Food Group and Linden Foods have operations elsewhere in Britain that feed into these accounts and as such the profit margins reported by these processors cannot be interpreted as an indication of the profitability of the NI industry alone. Notwithstanding this important qualification, the accounts data suggest an average profitability of around 2.5% across all companies and all years. This is very similar to the average profit margin for the industry quoted in official sources, that is, 'Size & Performance of the NI Food & Drinks Processing Sector' published by DARD, is similar to the conclusions of the Red Meat Taskforce (2007) findings and is verified by evidence provided by Plimsol.

4.7.1.4 Conclusions of processing costs

From this analysis, we can conclude that there are likely to be additional costs to processing beef in NI in comparison to GB. However we cannot make any direct link between higher processing costs and the price differential, as we cannot conclude that a reduction in these costs would be passed on directly to the producer and thus reflected in the prices reported. Given the inelastic nature of cattle supplies in NI, it is likely that at least part of the additional cost is passed on to the producer.

The intertwined complexities of the market are also likely to play a role; for example, the presence of the ROI market, which traditionally pays above NI prices for cow beef, is likely to lead to the additional processing costs not being uniformly reflected across all grades of cattle. Similarly, costs and profitability are likely to vary by season; for example, the period of high throughput and lower prices in the autumn is likely to be more profitable for the processing industry, but conversely, the late spring / early summer period of low throughput and higher prices is likely to be less profitable.

4.7.2 End markets for beef

Economic theory suggests that the price a seller receives for a product should be reflective of the price an intermediary can receive when selling the item further down the supply chain, less a transaction fee (profit). This is very likely to be the case in the deadweight beef market, with the price a producer receives for cattle linked to the price the processor receives for beef. However, when considering this in more detail, the beef industry is very complex. The processor is effectively disassembling the carcass and selling cuts on an individual basis. The market is made more complex by the fact that different cuts of beef attract different prices in different markets at different times of the year. Therefore, mapping the value a processor receives

for an individual steer against what was originally paid for it is impossible. The end markets for beef are summarised in figure 4.7.3.

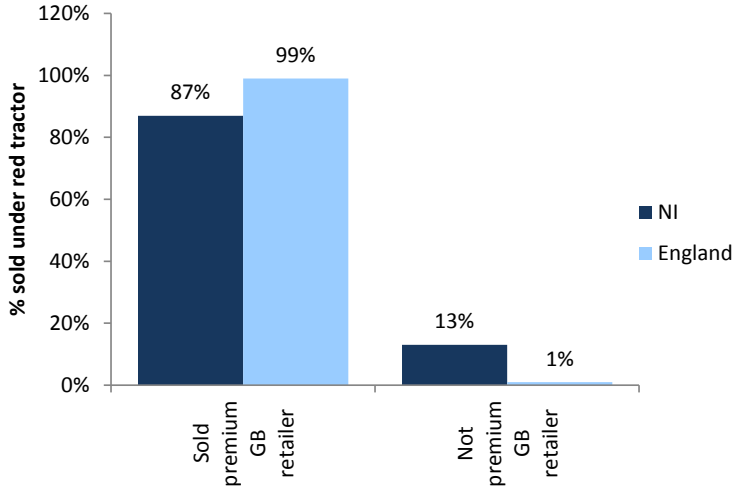
Figure 4.7.3: Summary of end markets for beef

Source: Oxford Economics

The markets outlined above illustrate the various end markets for beef; as different cuts receive a different value across the markets, it is difficult to cite any particular market as the highest value added or the best one to sell into. All markets will also buy a range of beef; for example, the UK food service and catering supplies industry will buy some premium cuts and the UK multiple retailer markets will buy lower value cuts. Although we cannot determine which markets produce the best returns overall, it is widely viewed across the industry that the UK multiple retailer market is the premium market for the best cuts. However, maximising returns is related to maximising the value of the entire carcass, and as such, it is best to serve a multitude of markets.

It was suggested by a significant proportion of the processing industry that the final markets for beef varied on a plant-by-plant basis (even across processor groups), with a higher proportion of beef from plants in GB tending to service the premium GB retailer market (recognised as the 'highest value' market). The data analysis presented in the remainder of this chapter was facilitated by the use of commercially sensitive data from a processing group who wish to remain anonymous. Chart 4.7.2 below summarises the percentage of beef sold into the premium GB retail market across plants.

Chart 4.7.2: Percentage of prime beef sold into prime GB retail market (as % of beef eligible to do so, NI & England, 2012 – Anonymous Processor



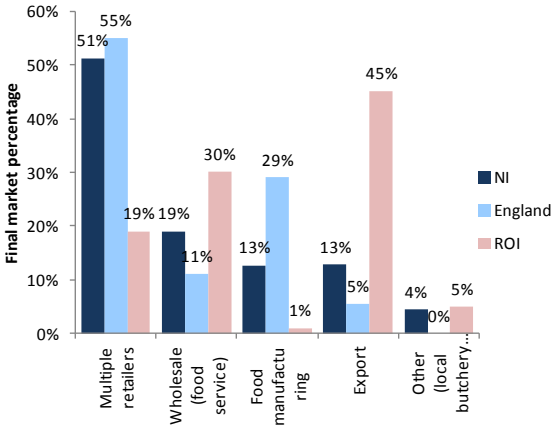
Source: Anon. processor, not necessarily representative

In the English plant (a proxy for GB), almost all beef which is eligible is sold into the premium GB retail market, while in NI, the figure is 87%. This supports the views raised in the consultations (albeit perhaps not to the same magnitude). It suggests that in this example, 13% of the beef produced in NI which meets the GB retailer criteria is not sold as such. There is potential for this beef to be sold into lower value markets. This perceived 'underselling' of the premium product could have an impact on the price paid for prime cattle in NI, and hence the differential.

The reasons behind a lower proportion of eligible beef from NI being sold into the premium GB retail market label are varied. A minority of consultees suggested that the end market customers had a preference for beef sourced from GB being sold in GB. However, this appears not to be the case. It was a consensus view amongst end market customers that they deal with the processor group, and thus do not specify the location of the plant from which the beef must be sourced, provided all plants meet the quality assurance standards. Instead, the sourcing policy is at the discretion of the processor groups and the retail packers. Any preference for GB beef is due to NI's comparative distance from the GB market, which affects both transport costs and security of supply.

At a more specific level, charts 4.7.3 and 4.7.4 below provide an overview of the final markets for prime beef across a plant located in NI, one in GB and one in ROI.

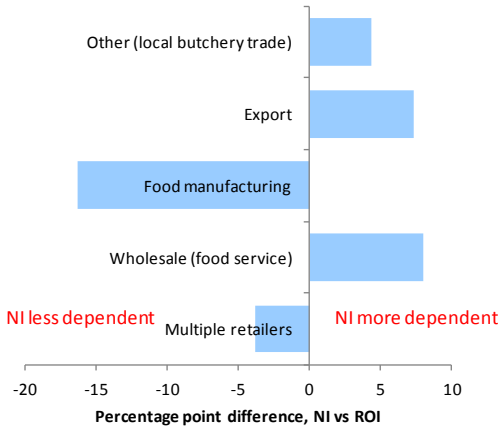
Chart 4.7.3: End market for prime beef across selected processor plants, 2012 :



Source: Anon. processor

Not necessarily representative

Chart 4.7.4: Relative end markets for prime beef, NI & England, 2012

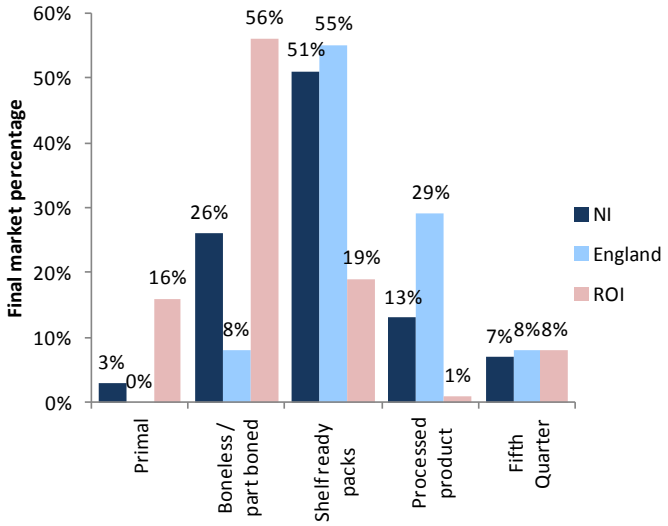


Source: Anon. processor

Not necessarily representative

The data show that the proportions of beef sold into the GB retail market (the market in its entirety and not the premium market discussed earlier in this section) – is almost equal between NI and England, with over half going into that market in both cases. The major difference – perhaps more evident in chart 4.7.4, which explicitly shows the differences in final markets between NI and England – is the prominence of food manufacturing as a final market in the English plant, accounting for almost 30% of output in England against 13% in NI. Subsequently, NI is more dependent than the English plant in the wholesale market (19% against 11% respectively), the local butchery trade and others (4% against nil respectively) and exporting (13% and 5% respectively). It should also be noted that NI exports a much smaller proportion than ROI, where 45% of all prime beef sales in the example ROI plant are exported, with the majority likely to be exported to GB. It should be noted, however, that this is based on one plant in NI. The total proportion of beef exported into mainland EU from NI is 20% of carcass weight. The type of product sold, as illustrated in chart 4.7.5, strongly reflects the final markets.

Chart 4.7.5: Type of prime beef product sold (by value), NI, England & ROI plant, 2012



Source: Anon. processor

The NI plant sells considerably more of its beef as boneless / part boned in comparison to the English plant, reflecting the proportionately greater exporting nature of the NI market, and indeed this is further reflected when considering the ROI example, where over half of all beef sold is boneless / part boned. Conversely, a greater proportion of the English beef is sold as processed product. However, in both cases, over half of the beef is sold in shelf-ready packs. This correlates with the desired specification (as covered earlier); almost half of all beef is sold in shelf ready packs, the vast majority of which will be uniform, with a pre-determined size. Therefore, the beef produced must be of a suitable size to fit the uniform packaging, and as such, this drives the preference for cattle of a certain size; larger cattle tend to produce costs too large for the packaging. This is less of an issue in the scale of primal and boneless / part boned beef.

Although this analysis is limited to only one processing group, it does provide useful evidence on the final markets for beef. From this analysis, we can conclude that the end markets for beef are likely to vary on a plant-by-plant basis, even within a processing group. As such, this is likely to have an impact on the price a processor receives for beef, and thus the price the processor can pay for cattle. However, as noted earlier, the sourcing of beef is at the discretion of the processor / processing group, and not the final customer. It appears that NI's comparative distance from the GB market is the overwhelming factor driving sourcing policy.

Additional high value export markets are a potential option for the industry. Indeed, a new high value market is likely to have an effect on prime deadweight prices, with the pre-BSE era testament to that. However, it should be noted that at present, the GB multiple retailer market is widely recognised as the highest value market for beef, and any move towards exporting at the expense of it should be carefully considered. In addition, one of the key characteristics that sets NI beef apart from ROI beef is its high quality assurance standard and British origin. These factors are likely to be less important outside GB. As a result, NI beef would have to complete with cheaper alternatives, from ROI and elsewhere on markets outside GB.

Conclusion: Market factors

We conclude that this has a medium impact on the differential. There is strong evidence that processing costs are higher in a number of areas than in GB and due to the inelastic supply of cattle, it is likely that this is passed on – at least in part – to producers. However, the industry is high turnover and low margin in nature both in GB and NI and has to operate within an environment of cost pressures.

We conclude that the end markets for beef are likely to vary on a plant-by-plant basis, even across one processing group. As such, this is likely to have an impact on the price a processor receives for beef and thus the price the processor can pay for cattle. NI's distance from the GB market is the overwhelming driver of sourcing policy and as such, end markets for beef are deemed to have a medium impact on the differential.

4.8 Summary

The various potential factors influencing the disparity in prices paid for deadweight cattle in GB compared with NI have been analysed statistically in considerable detail. As a result of this analysis we have concluded that within each of the factor headings considered there are a number of specific factors which have contributed to the existence of the price differential. These are summarised in the table below.

Table 4.8.1 Summary of Findings

Key factor	Area of influence on price differential
Structure of the industry	Differences in the structure of the production and processing industries in Northern Ireland compared with Great Britain have some influence on the differential due to the relative sizes of finishing herds and more intense competition for cattle in GB. We have also examined differences in herd mix but this appears to have only a limited impact on prices.
Relative supply and seasonality	The relative supply and more seasonal nature of cattle production in Northern Ireland is linked to lower prices here. Consumer demand for beef is also seasonal but this has little or no impact on the differential.
Trade	The complex pattern of trade in both deadweight and live cattle is both influenced by relative prices and also influences market prices. In particular the transport costs associated with the movement of cattle to Great Britain is an important factor affecting price. The barriers (both real and perceived) to trade with GB caused by TB incidence also limit the capacity of the market to reduce any price differential. Furthermore, the extensive trade in cattle between the Republic of Ireland and Northern Ireland and GB and the fact that NI and Irish beef are at least partial substitutes is an important factor in suppressing the price paid for cattle in Northern Ireland. While exchange rates have been relatively stable over this period, any future volatility will have the potential to disrupt trading patterns and affect prices.
Specification	Our detailed analysis of cattle presented to plants in NI and GB shows that there are variations in specification between GB and NI in terms of

	the criteria set by factories and adherence to those specifications by producers. This has an impact on the markets served by processor and prices paid for cattle.
Market conduct	Although there are differences in the way in which the market is provided with information on prices in GB and NI, our analysis shows that this does not have a significant impact on the ultimate price.
Other market factors	Two other factors that emerge from the analysis that have some impact on prices are the higher costs of processing experienced by NI processing plants and the variations in the end markets for beef produced by the various plants. Both these factors put downward pressure on prices paid in Northern Ireland.

5 Conclusions and key action areas

5.1 Conclusions

The first step in making comparisons of average prices for cattle in Northern Ireland and British regions is to ensure that the price reporting systems are the same and that the comparisons of average prices are being made on a like for like basis.

The main conclusions from the comparisons of average prices in Northern Ireland and elsewhere can be summarised as follows:

- The average price reported for R3 steers in GB has been higher than that reported in NI on all but 3 weeks of the last 4 years, with an average differential of 14.2p per kg;
- The average R4 steer price in GB has been higher than reported in NI on every occasion over the past 4 years, with the average differential 21.3p per kg;
- The differential in R3 prices has widened significantly in the final quarter of 2012;
- Average prices for prime cattle in NI are consistently higher than those in ROI and NI prices tend to track the EU average;
- In contrast to prices for prime cattle, average prices for non-prime cattle in NI are regularly above those for GB;
- The differential in prices for R3 prime cattle in NI and those in Scotland, the Northern England, Central England / Wales and the GB average is statistically significant; and
- When the final 5 months of 2012 are removed from the analysis, there is no statistically significant differential in R3 steer prices between NI and Southern England (although the R4 differential remains statistically significant).

Based on widespread consultations with all parts of the industry that were undertaken for this study, there are considered to be a number of factors which may influence this price differential.

The various potential factors influencing the disparity in prices paid for deadweight cattle in GB compared with NI have been analysed statistically in considerable detail. Our conclusions on each driver along with a summary of the evidence are presented in table 5.1.1.

Based on this analysis we have concluded that the factors can be grouped under three headings – major, medium and minor – reflecting the broad order of the significance of their impact on the differential. Our assessment of whether a factor is major, medium or minor is based on our considered judgement taking into account the following:

- The economic potential of the factor to impact on the price differential;
- The explanatory power and consistency of the analysis, including the statistical significance of the relationship where this is available;
- The reliability of the evidence available to us.

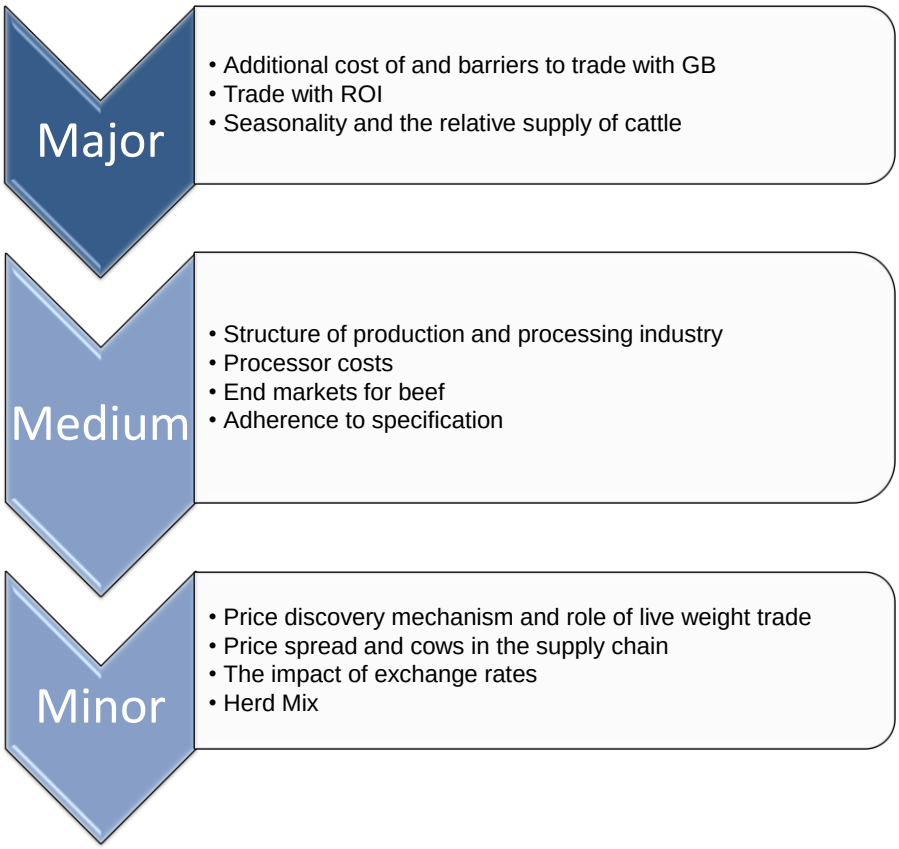
The headings can therefore be described as follows:

- **Major factors –** are those which in our judgement demonstrate positively all three of the above characteristics – there is a clear economic rationale, the statistical analysis is strong and consistent and the evidence is reliable;

- **Medium factors** –are those for which there is a clear economic rationale but where the statistical analysis may not be strong or the evidence not wholly reliable ; and
- **Minor factors** – are those for which the economic rationale may be less convincing and/or where the statistical evidence is not strong or is less reliable.

Using these headings, and in no particular order, the factors contributing to the price differential are set out in Figure 5.1.1 below.

Figure 5.1.1: Summary of factors contributing to NI / GB deadweight price differential



Source: Oxford Economics

In Table 5.1.1 below we have summarised the evidence used to arrive at our judgement on the significance of the factors listed above under major, medium and minor headings.

Table 5.1.1: Summary assessment of factors affecting the NI/GB price differential

Major Factors	Summary of key evidence
Additional costs and barriers to trade for Northern Ireland into GB markets for both the sale of live cattle and the trade in beef	The additional cost of transport of live cattle to GB processors (over and above intra-NI transport costs) is of the order of 10-12p/kg when measured as a carcass weight equivalent (CWE). Similarly, the additional cost of transporting beef to GB is estimated to be between 3-6p/kg CWE. TB incidence – both actual status and a fear of future TB incidence – and the restrictions on movement arising from this, both real and perceived, is also a barrier to the sale of live cattle from Northern Ireland to GB. A range of other factors such as the complexity of building cross-industry relationships are also issues affecting trade between NI and GB. These factors add additional costs for the NI beef industry in servicing its main market.
The impact of Republic of Ireland trade	There is an extensive trade in both live cattle and beef between North and South. NI beef and Irish beef are partial substitutes and the availability of a cheaper supply in the Republic of Ireland tends to constrain Northern Ireland prices relative to GB.
The relative supply and more seasonal nature of cattle production in Northern Ireland	The more seasonal nature of cattle supply in Northern Ireland, with on average 27.4% of cattle slaughtered in the autumn, due to grass based production methods, is linked to lower prices in Northern Ireland during this period. This also has an impact on processor costs as a result of excess capacity at other times of the year. There is also a relationship between the relative supply of cattle in NI and GB on the differential, but this was found to be both within and less prominent than seasonality.

Medium Factors	Summary of key evidence
Differences in the structure of the production and processing industries in Northern Ireland compared with Great Britain	The average size of finishing herd, which accounts for the majority of cattle supply, is smaller in Northern Ireland than in GB – 24% of cattle slaughtered were presented by herds finishing over 500 head compared with 29% in GB. This combined with the potential for more intense competition for cattle in GB, partly driven by the presence of a large number of small independent operators, may exert some upward pressure on GB prices relative to Northern Ireland due to the bargaining power of producers
Adherence to specification between GB and NI in terms of the typical criteria set by factories	A detailed comparison of the proportions of cattle presented to plants in Northern Ireland and GB by weight, age and grade, shows that a higher proportion of cattle in GB price reporting plants meet a typical retailer specification. There also may be a tendency in GB for smaller abattoirs to buy up cattle that do not meet specification. This has an impact on the markets served by processors and the price paid for cattle.
Higher costs of production	Processing plants in Northern Ireland face higher costs for energy and

experienced by Northern Ireland processors relative to those facing GB processors	rendering (in addition to transport costs mentioned above) compared with plants in GB with average processing costs estimated at 3-5p/kg higher in Northern Ireland. In a low margin industry this puts some downward pressure on prices paid for cattle.
Variations in the end markets for beef processors in Northern Ireland and GB	While almost all Northern Ireland prime cattle are eligible for the GB multiple retail market, end markets for beef vary on a plant by plant basis. Distance from the larger more lucrative GB markets and sourcing policy (driven primarily by transport costs) means that Northern Ireland plants have a smaller share of those markets than GB counterparts, relying more heavily on alternative wholesale or foodservice markets which return lower prices. The NI industry is also more dependent on European export markets which have been less profitable particularly in the latter part of the study period.

Minor Factors	**Summary of key evidence**
Differences in herd mix between Northern Ireland and GB	There are only small differences in the proportion of premium breeds in Northern Ireland and GB. This has a very limited impact on the price differential with GB, albeit it would have a more significant impact on the price differential between Scotland and the rest of the UK.
The impact of movements in the £stg/€EUR exchange rate	Variations in exchange rates will affect the relative price of Northern Ireland and Irish beef on the UK market. However the exchange rate has been very stable over the 2009-2012 period and has had limited impact on the price differential, although the actual exchange rate has a bearing on the substitutability of Irish beef for NI beef in some British markets. At the same time we recognise that a significant and prolonged change in the £/€ exchange rate could lead to it having a more pronounced impact.
Differences in the price discovery mechanism	In Northern Ireland, processor deadweight price quotations are published in contrast to the GB situation. In GB there are a higher percentage of finished cattle sold through live auction markets than in Northern Ireland. Despite these differences, the evidence shows that this has a negligible impact on the price differential.
The price spread across different types of cattle and the impact of higher prices for cows in Northern Ireland	The pricing model varies across regions reflecting local specialisms but there is no evidence to suggest that cross subsidisation takes place between the price paid for prime cattle and cows.

In broad terms, we conclude that there is no single factor accounting for the price differentials between Northern Ireland and other GB regions, but rather a combination of the factors described above, as many of them are inter-related and work together.

5.2 Key areas for action

The report highlights many issues that have a bearing on the differential that exists in prime cattle prices between Northern Ireland and Great Britain. The Project Steering Group has developed recommendations based around Oxford Economics' findings. Action has been recommended by the Steering Group on issues that are designed to bring benefits to producers, at reasonable cost and where prospects for success are judged to be realistic. In developing its recommendations, the group is mindful of the work undertaken by the Agri-Food Strategy Board, and has aimed to complement the recommendations contained in the 'Going For Growth' action plan.

Several of the major drivers of the differential are potentially impenetrable where any attempt to affect direct change would be futile and even counter-productive. For example, there are external issues, such as exchange rates, that are beyond the control of NI industry. Additional transport costs incurred by the production and processing sectors due to our distance from the GB market are fundamental. In terms of seasonality, autumn finishing is a deeply embedded feature of the NI industry, principally due to our comparative advantage in grass-based production and the higher costs of imported feedstuffs. For many producers, autumn finishing is optimal and any direct action to reduce seasonality may be counter-productive from an efficiency perspective.

Given the nature of some of these issues, sustained and determined effort is required on a range of action areas that can directly and indirectly impact the causes of the differential. The question of peak autumn supplies is perhaps best addressed by examining the potential for live exports when domestic supplies are particularly strong. Notwithstanding the issue of seasonality, the NI industry must prioritise the sustainability of the domestic industry and this is best served by adding maximum value to the product within Northern Ireland. As a region, the NI beef industry must play to its strengths and seek to position itself as the premier provider of premium beef products in the UK. In this regard it can overcome the drawback of being geographically removed from its key markets in GB and further afield.

Depending on the level of success, coupled with the confluence of a range of external drivers, it is not unrealistic to expect that the differential could be narrowed. In this context, LMC will continue to monitor the price differential and review progress in efforts being made on the action points below.

Table 5.2.1: Action areas and recommendations

Action Area	Recommendation	Owner
Increasing the proportion of cattle within customer specifications Based on a like-for-like comparison, a smaller proportion of NI cattle are meeting retail specifications compared with GB. A greater degree of uniformity will reduce processing costs and ensure more NI beef is fit for premium markets. The benefits will accrue to both producers and processors. A better coordinated supply base has potential benefits by improving producers' bargaining power, improving communication in the supply chain and delivering processors consistent volumes of in-spec cattle.	That industry and government prioritise the integration of data and software systems for the genetic evaluation of cattle breeds. The aim being the development of breeding programmes that use genomics to facilitate the profitable production of cattle to commercial specifications.	Government / Industry
	To deliver joined up use of the BOVIS, APHIS, LMC Data and AFBI / CAFRE Knowledge and Technology Transfer services, for producers and processors, to encourage and promote adherence to specification.	Government / Industry
	To encourage smaller scale beef producers to consider if greater use of live markets to sell cattle as forward stores brings a better return than finishing. As well as potentially improving specification (by increasing the volume of beef from specialist finishers), this has the potential to improve producer bargaining power.	Government / Industry
	Industry should consider opportunities afforded by the Rural Development Programme 2014-2020 to support the creation of producer organisations to better organise the supply of cattle to market requirements. With the sufficient level of co-operation and appropriate incentives such an initiative could provide processors with greater certainty over the supply of raw material and focus on delivery to specification, whether niche or otherwise.	Industry
	Keeping the pricing matrix under review to ensure that producers are adequately incentivised to produce in-spec cattle with a view to ensuring that the supply chain actively shapes its supply of raw material.	Government / Industry
Differentiating NI Beef In its key markets, NI beef is, at best, regarded as equivalent to GB product. In other markets NI and ROI beef are seen as substitutes. Yet NI beef has a number of unique selling points, that can be packaged and promoted to potentially make it even more attractive to retail and foodservice customers. Stronger differentiation at a business-to-business level could deliver a premium for the NI industry.	The development of a NI Business-to-Business Beef Brand / Campaign would allow the NI industry to differentiate itself from ROI and GB beef. The NI beef industry has several unique selling points that set it apart from the other UK regions and ROI: - A traceability system that is arguably the most sophisticated in Europe; - One of the longest established and most robust quality assurance schemes in the world; - A bovine information system (BOVIS) that has the potential to facilitate benchmarking, genetic evaluation and carbon footprint measurement at farm and wider industry level - A world leading feed materials assurance scheme	Government / Industry

	- An integrated veterinary surveillance and support service focused on protecting and enhancing animal health and welfare Collectively, these tools underpin the marketing efforts of the industry by providing reassurance on the provenance, quality, health and environmental credentials of NI beef. While these systems are in some ways too complicated to be promoted at a consumer level, they provide essential reassurance to retail and foodservice customers. Combined with the strong reputation of our farmers, processors and products, these systems potentially provide the basis for a strong NI business-to-business brand which could be developed to positively differentiate NI beef from its competitors. Finally, the NI industry should explore a business-to-business or consumer branding approach in export markets.	
Reducing barriers to live export trade with GB To some extent a least, the live export trade from NI to GB has been under-utilised from 2009 - 2012. This has been due to a combination of factors including TB restrictions, associated regulations and misconceptions about those regulations. Resolution of these issues where possible will support the live export trade which in turn could help redress the differential, particularly at times of strong NI supplies and when the differential exceeds transport costs. This is usually in the autumn when seasonality is a major factor.	Government should review the regulations around the movement of cattle from certain categories of restricted herds in NI for direct slaughter in GB.	Government
	As part of government commitments to reducing Bovine TB, DARD should consider the importance of the identification of genetic traits associated with TB / TB resistance. In conjunction with breeding programmes and use of genomics, such work has the potential to reduce and eventually eradicate the disease.	Government / Industry
	To deliver a relevant market information seminar, involving producers, hauliers, agents and government. This would include clarifying regulations around live exports to GB.	Government / Industry
Ongoing monitoring Deadweight Beef Prices and the GB/NI/ROI differential	It is important to continue monitoring the deadweight beef prices in the respective countries partly to build on the existing knowledge as to why the differentials exist. Ongoing liaison is required between price reporting agencies to ensure that the growing complications of breed premiums and other incentives are monitored and communicated where possible.	Government / Industry

Annex A: TB status and restrictions

Understanding differing TB statuses

There are three official statuses that a herd can have – Officially Tuberculosis Free (OTF), Officially Tuberculosis Free Suspended (OTS) and Officially Tuberculosis Free Withdrawn (OTW). The definitions are summarised below:

OTF

OTF means Officially Tuberculosis Free and is used in EU Directive 64/432 to describe those cattle herds that may undertake intra-community trade.

A herd is OTF if:

New herd

All the animals within the herd originate from OTF herds, or

All have undergone a TB test with negative results 60 days after the establishment of the herd.

Existing herd

All animals undergo a TB test with negative results annually, and

There are no clinical signs or suspicion of TB infection in the herd.

OTS

OTS means OTF Suspended. The breakdown herd status is OTS if:

There is a total of 1-5 reactors/LRSs (lesion at routine slaughter animals) during the course of the breakdown, and

No animal has had two positive results from the four possible tests (skin, post mortem, histology, bacteriology).

The herd remains OTS only if the patch Veterinary Officer (VO) is content that the disease risk is not high enough to require OTW.

A herd will also be made OTS if there is a suspect clinical case.

An OTS breakdown herd is prohibited from moving animals into another herd, market or export. Animals may move direct to slaughter. An OTS breakdown herd can usually purchase animals from OTF herds.

OTW

OTW means OTF Withdrawn. The breakdown herd status is OTW if:

There is a total of more than 5 reactors/LRSs (lesion at routine slaughter animals) during the course of the breakdown, or

Any animal has had two positive results from the four possible tests (skin, post mortem, histology, bacteriology), or

Any animal has had positive bacteriology results for bovine TB, or

The VO decides that the level of disease risk requires OTW.

An OTW breakdown herd is prohibited from moving animals into another herd, to market or export. Animals may move direct to slaughter. An OTW breakdown herd can usually purchase animals from OTF herds. However, moves into an OTW breakdown herd may be prohibited should the VO consider it necessary due to the severity of the breakdown.

Any associated herds will always have the same herd status (OTS, OTW) as the breakdown herd.

Regulation for importing cattle into England from Northern Ireland

In order to export cattle from NI to England, the following conditions apply in accordance with the DEFRA General License No: IMP/GEN/2010/13:

Each animal must bear suitable identification from the competent authority (DARD);

Each consignment of cattle must be accompanied by a health certificate signed by a DARD veterinary inspector, stating that:

Animals for breeding or production must have:

- Originated from herds which are officially Brucellosis and TB free;
- Have passed a TB test in the 30 days prior to export;
- Non-castrated cattle must have passed a Brucellosis test 30 days prior to export;
- Show no signs of other infection / disease and be fit to travel;
- Have been resident on the holding of origin at least 30 days prior to exporting;
- Be moved in suitably authorised and cleansed vehicles;
- After consignment, will be kept separate from cattle not similarly certified; and
- Must be subjected to a comparative TB test between 60 and 120 days after arrival in England.

Animals for slaughter must have:

- Originated from herds which are officially Brucellosis and TB free;
- Show no signs of other infection / disease and be fit to travel;
- Be moved in suitably authorised and cleansed vehicles;
- After consignment, will be kept separate from cattle not similarly certified; and
- Must be slaughtered within 24 hours of arrival.

Other regulations such as 'direct shipment from NI to GB, informing the AHO, maintaining suitable certification for a minimum period of 12 months and compliance with any authorised officer are applied to all cattle.

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