



Additional Data Paper: Northern Ireland Trade Data and Statistics

This annex summarises the available trade data and statistics relating to Northern Ireland as of August 2017. It includes:

- Value of trade between Northern Ireland, Ireland and Great Britain
- Characteristics of exporting businesses in Northern Ireland
- Volumes of freight to and from Northern Ireland
- Agriculture and food cross-border supply chains

Summary

1. The United Kingdom (UK) remains the most significant market for businesses in Northern Ireland – sales to Great Britain were worth one and a half times the value of all Northern Ireland exports and nearly four times the value of exports to Ireland in 2015.¹ Nevertheless, the sale of finished products to Great Britain relies upon cross-border trade in raw materials and components within integrated supply chains meaning trade with both Great Britain and Ireland are vital to Northern Ireland's economy.
2. The trade in higher value finished products is often dependent on lower value, higher volume, cross-border trade earlier in the supply chain. Over 5,000 businesses in Northern Ireland exported goods to Ireland in 2015, one and a half times as many as sold goods to Great Britain, with just over half the businesses exporting goods and services to Ireland employing fewer than 10 people. This dependency on cross-border trade is most notable in the agri-food sector, where exports account for 27% of Northern Ireland food and drink processing sales, and Ireland is the destination for 53% of export sales from the sector.

Data sources

3. There are two main sources of data on trade for Northern Ireland:
 - HM Revenue & Customs (HMRC) – HMRC is responsible for collecting the UK's international trade in goods data. Their 'UK Regional Trade Statistics (RTS)' combine UK-wide Intrastat returns and customs declarations with data from Office for National Statistics' (ONS) Inter-Departmental Business Register to apportion trade to each of the constituent parts of the UK, including Northern Ireland.
 - Northern Ireland Statistics & Research Agency (NISRA) – NISRA is responsible for collecting the Broad Economy Sales and Export Statistics (BESES). BESES provides an experimental measure of local businesses' domestic, regional and export sales² to markets outside Northern Ireland and has been gathered through the Northern Ireland Annual Business Inquiry since 2011.

¹NISRA Broad Economy Sales and Export Statistics (BESES), 2017

²Only Northern Ireland sales to, or purchases from, outside the UK (i.e. not those with Great Britain) are considered exports or imports.

4. In addition, the Department of Agriculture, Environment and Rural Affairs in Northern Ireland (DAERA) collects and publishes detailed administrative data on the movement of animals, and the Central Statistics Office (CSO) in Ireland also produces its own estimates of trade between Ireland, Northern Ireland and Great Britain.
5. Where data is available from multiple sources, NISRA and DAERA sources are used to provide consistent estimates of trade in both goods and services between Northern Ireland and Ireland, and between Northern Ireland and Great Britain for local businesses. HMRC sources are used where equivalence is required between UK national trade or for trade at the individual product level.
6. Further information about the different sources of data used in this paper can be found in Appendix 1.

UK trade with Ireland

7. ONS data indicate that the UK had an overall trade surplus with Ireland of £7 billion (£25.7 billion or 5% of UK exports, £18.7 billion or 3% of UK imports³) in 2015.⁴ The majority of UK exports to Ireland were trade in goods, worth some £16.8 billion, while UK imports of goods from Ireland were worth £12.8 billion.⁵

External sales by businesses in Northern Ireland

8. NISRA estimates the total value of exports from Northern Ireland in 2015, including both goods and services, to be £10 billion (14% of total sales by farms and businesses in Northern Ireland). Goods exports, including farming and fishing, make up £7.8 billion of this.⁶
9. Total exports are comprised of 2% from the farming and fishing sectors⁷, 12% processed agri-food and drink⁸, 64% other manufactured goods⁹, 20% of services¹⁰ and 3% from non-UK tourism¹¹ (Table 1).¹²

³[Balance of Payments annual geographical data tables, ONS, 2017](#). Note ONS estimates of trade in goods differ from HMRC's due to adjustments required for Balance of Payments purposes.

⁴2015 is the reference year as this is the most recent year for both the NISRA survey source and Balance of Payments annual geographical tables. These figures differ from those provided in the Irish Government's *Ireland and the negotiations on the UK's withdrawal from the European Union*, which states that "The Irish economy is still heavily reliant on the UK as a trading partner with 17% (€39bn) of all exports destined for the UK and 14% (€30bn) of all imports sourced from the UK in recent years." The difference in these figures is due to their data sources, with this paper using ONS estimates and the Irish Government paper using CSO estimates. Further information can be found in Appendix 1

⁵[Balance of Payments annual geographical data tables, ONS, 2017](#).

⁶[NISRA Broad Economy Sales and Export Statistics \(BESES\), 2017 – supplementary tables](#)

⁷[Statistical Review of Northern Ireland Agriculture, DAERA, 2016](#).

⁸[Statistical Review of Northern Ireland Agriculture, DAERA, 2016](#).

⁹[NISRA Broad Economy Sales and Export Statistics \(BESES\), 2017 – Statistical Bulletin](#)

¹⁰[Estimating the value of service exports abroad from different parts of the UK, ONS, 2016 & NISRA Broad Economy Sales and Export Statistics \(BESES\), 2017 – Goods and Services Results](#)

¹¹[Northern Ireland Tourism Statistics, NISRA, 2016](#).

¹²Figures may not add up to 100% due to rounding.

Table 1: Total value of Northern Ireland sales and exports by broad industry sector and destination, 2015 (£ million)

	Northern Ireland	Great Britain	Ireland	Rest of Europe	Rest of World	Total Exports	Total Sales
Farming & Fishing^a	1,072	50	169	38	0	207	1,329
Live Animals	717	50	44	19	-	63	829
Unprocessed Milk	356	-	125	-	-	125	480
Live and Unprocessed Fish	-	-	1	19	0	20	20
Manufactured Goods^b	30,272	10,711	2,749	1,599	3,211	7,559	48,541
Production & Other Agricultural Industries	5,737	8,660	1,349	1,332	2,814	5,496	19,893
(of which agri-food) ^c	1,147	2,098	625	416	137	1,177	4,424
Construction Industries	1,527	369	61	2	2	66	1,962
Distribution Industries	21,021	1,329	1,197	229	264	1,689	24,040
Service Industries	1,986	352	141	36	131	308	2,646
Services	16,933	3,370	628	327	592	1,999	22,615
Non-Financial Services ^d	13,473	3,138	628	327	592	1,547	18,158
Pens, Ins & Financial Services ^e	3,460	*	*	*	*	*	4,457
Tourism^f	219	274	61	93	117	270	764
Total Sales and Exports of Goods	31,344	10,761	2,918	1,637	3,211	7,766	49,870
Total Sales and Exports	48,497	14,405	3,607	2,057	3,920	10,035	73,249

Source: NISRA Broad Economy Sales and Export Statistics, 2017 – supplementary tables¹³

10. While sales to the rest of the UK are not classified as exports, in 2015 total sales to Great Britain of £14.4 billion were higher than total Northern Ireland exports and represented 20% of total sales by businesses in Northern Ireland.¹⁴

Trade in goods

Between Northern Ireland and Ireland

11. NISRA estimates the total value of goods (excluding the farming and fishing sectors) sold by businesses in Northern Ireland to Ireland at £2.7 billion in 2015 (6% of all sales by Northern Ireland businesses and 36% of all exported goods)¹⁵ and the total value of

¹³Notes

(a.) DAERA Statistical Review of Northern Ireland Agriculture: DAERA, 2016. Unprocessed fish refers to fish landed by Northern Ireland Fishermen in Ireland, Denmark and Norway. Live fish refers to the sale of live fish and shellfish from Northern Ireland aqua-culture firms. Export sales only

(b.) NISRA Broad Economy Sales and Export Statistics (BESES), 2017 – Goods and Services Results

(c.) DAERA Statistical Review of Northern Ireland Agriculture: DAERA, 2016 estimates of agri-food. Note figures are not directly comparable with BESES published totals

(d.) NISRA Broad Economy Sales and Export Statistics (BESES), 2017 – Goods and Services Results

(e.) ONS Estimating the value of service exports by destination from different parts of Great Britain: 2015: ONS have published the exports as experimental statistics for 2015

NISRA NI Economic Accounts Project - 2013 Experimental Results Northern Ireland & Total Sales figures are based on NISRA Supply & Use Tables (SUTS) for reference year 2013

(f.) NISRA Northern Ireland Tourism Statistics 2015: Rest of Europe expenditure is based on 'mainland Europe' and not solely EU Countries

¹⁴NISRA Broad Economy Sales and Export Statistics (BESES), 2017 – supplementary tables

¹⁵NISRA Broad Economy Sales and Export Statistics (BESES), 2017. This figure excludes farming and fishing to make it directly comparable with the value of imports, where no estimate is available for the farming and fishing sectors.

goods imported from Ireland at £1.8 billion over the same period.¹⁶ The value of exports to Ireland has remained fairly stable over the period between 2011 and 2015, fluctuating between a peak of £3 billion in 2013 and a low of £2.7 billion in 2015.¹⁷

12. HMRC data enables us to break down trade between Northern Ireland and Ireland by sector.¹⁸ The largest export sector to Ireland was Food and Live Animals worth 33% of total Northern Ireland exports in 2015.¹⁹ In turn, the largest import sector from Ireland was Machinery and Transport Equipment worth 34% of total imports to Northern Ireland.²⁰

Table 2: Northern Ireland exports and imports to and from Ireland by sector, 2015 (£ million)

Product Sector	Exports from Northern Ireland to Ireland	Imports into Northern Ireland from Ireland
Food and live animals	732	796
Beverages and tobacco	116	73
Crude materials, inedible, except fuels	88	114
Mineral fuels, lubricants and related materials	54	69
Animal and vegetable oils, fats and waxes	16	15
Chemicals and related products	179	200
Manufactured goods classified chiefly by material	374	272
Machinery and transport equipment	295	918
Miscellaneous manufactured articles	352	209
Commodities and transactions not elsewhere classified	10	7
Total	2,217	2,673

Source: Regional Trade Statistics, HMRC, 2017

13. At a product level, Dairy Products and Birds' Eggs (£204 million) and Meat and Meat Preparations (£169 million) together accounted for over 15% of total exports to Ireland in 2015. This was followed by Miscellaneous Manufactured Articles at 6% (£141 million) and Road Vehicles at 5% (£118 million).²¹

¹⁶Northern Ireland Broad Economy Sales & Exports Data: Purchases & imports of goods and services, 2011 - 2015

¹⁷NISRA Broad Economy Sales and Export Statistics (BESES), 2017

¹⁸As a result of differing methodologies, the total volume of trade between Northern Ireland and Ireland will differ between the HMRC estimates and the NISRA estimates in Table 1. See Appendix 1 for more information

¹⁹DAERA statistics suggest HMRC figures underestimate 'food and live animals' exports

²⁰Regional Trade Statistics, HMRC, 2017

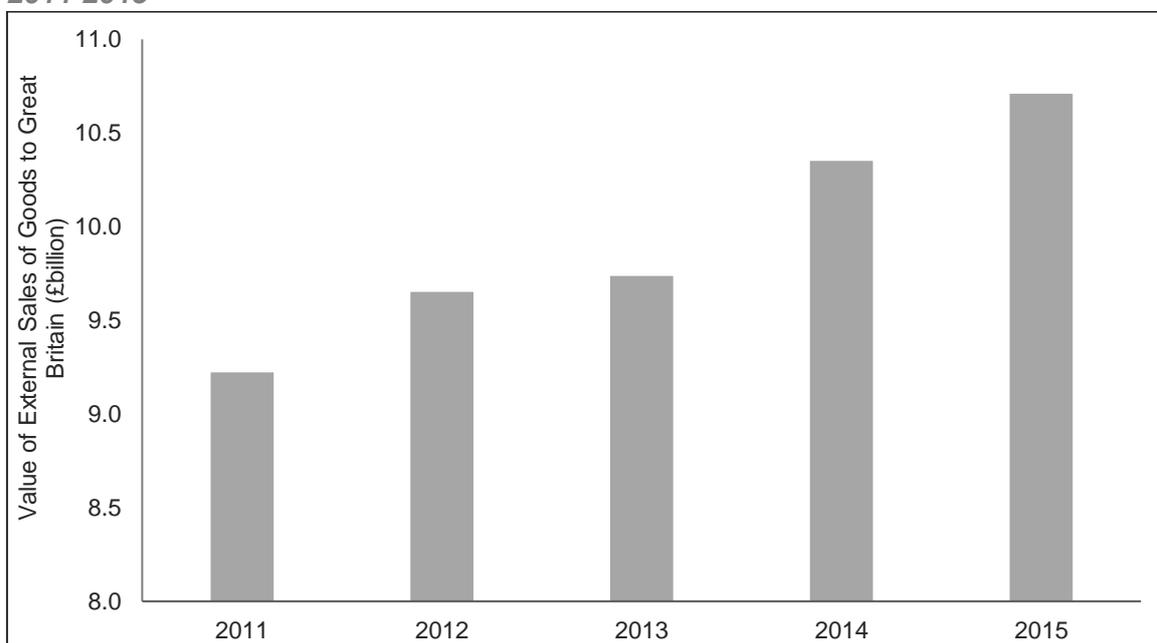
²¹Regional Trade Statistics, HMRC, 2017

14. Telecoms and Sound Recording Equipment (£691 million), Meat and Meat Preparations (£292 million) and Cereals (£143 million) represented the largest product categories imported to Northern Ireland from Ireland over the same period.²²

Between Northern Ireland and Great Britain

15. NISRA estimates the total value of goods (excluding farming and fishing)²³ sold externally to Great Britain at £10.7 billion in 2015 (22% of total sales by Northern Ireland businesses), up from £10.4 billion in 2014. Figure 1 shows the consistent upward trend in external sales to Great Britain over the last five years.²⁴

Figure 1: Value of external sales of goods from Northern Ireland to Great Britain, 2011-2015



Source: *Broad Economy Sales and Export Statistics, NISRA, 2017*

16. NISRA further estimates the total value of goods purchased in Northern Ireland from Great Britain (excluding farming and fishing) at £11.6 billion in 2015.²⁵
17. NISRA estimates that of the £10.7 billion of goods sold externally to Great Britain (excluding farming and fishing), 19% were in manufactured agri-food products and the majority (81%) were in other manufactured products.²⁶

Between Ireland and Great Britain

18. HMRC estimates that in 2015, £13.5 billion of UK exports to Ireland originated from Great Britain: £10.9 billion from England, £1.7 billion from Scotland and £0.9 billion from Wales.²⁷ In turn, there were £8.6 billion of imports from Ireland to Great Britain in

²²Regional Trade Statistics, HMRC, 2017

²³£50m direct farming and fishing sales to GB (Statistical Review of Northern Ireland Agriculture, DAERA, 2016)

²⁴NISRA Broad Economy Sales and Export Statistics (BESES), 2017

²⁵Northern Ireland Broad Economy Sales & Exports Data: Purchases & imports of goods and services, 2011 - 2015

²⁶NISRA Broad Economy Sales and Export Statistics (BESES), 2017

²⁷Regional Trade Statistics, HMRC, 2017. A significant portion of trade (~10%) is classified as “unknown” and is not assigned to a particular region

the same year: £8 billion to England, £0.3 billion to Scotland, and £0.3 billion to Wales.²⁸

19. HMRC further estimates that in 2016, the value of UK exports to Ireland originating from Great Britain increased to £13.6 billion, and that the value of UK imports from Ireland originating in Great Britain increased to £9.1 billion.²⁹
20. The Irish CSO trade statistics indicate that €13.8 billion worth of goods were exported from Ireland to Great Britain in 2015 (12% of total Ireland goods exports) and €16.9 billion worth of goods were imported to Ireland from Great Britain in 2015 (24% of total Ireland goods imports).³⁰

Between Northern Ireland and the rest of the European Union and rest of the world

21. HMRC's Regional Trade Statistics estimates that in 2015, Northern Ireland exported £1.7 billion of goods to the rest of the European Union (EU), excluding Ireland (24% of total goods exports) and £3 billion to the rest of the world (44% of total goods exports).³¹

Trade in services

22. The services sector accounted for almost three quarters of gross value added (GVA) in Northern Ireland in 2015³² and currently represents over 80% of employment in Northern Ireland.³³ Over the last five years the sector has contributed over 43,000 jobs to the Northern Ireland economy, by far the largest of any sector, and increased in size by almost 6%.³⁴ External sales make up a significant part of this picture.
23. In 2015, 6,290 businesses in Northern Ireland were involved in external sales of services, 95% of which employ fewer than 50 people. Businesses selling services outside of Northern Ireland account for employment of around 119,000 and GVA of £5.6 billion for the Northern Ireland economy.³⁵
24. The primary external market for Northern Ireland services is Great Britain, which accounted for 67% (£3.1 billion) of sales in 2015. A further £1 billion of external sales was recorded in Ireland (£630 million) and the rest of the EU (£330 million). Sales from the rest of the world amounted to £590 million in the same period.³⁶

Characteristics of businesses selling outside of Northern Ireland

25. Over 5,000 businesses in Northern Ireland sold goods to Ireland in 2015, of which all but 67 were Small and Medium Enterprises (SMEs).³⁷ Micro-businesses (0-9

²⁸Regional Trade Statistics, HMRC, 2017. A significant portion of trade (~10%) is classified as "unknown" and is not assigned to a particular region

²⁹Regional Trade Statistics, HMRC, 2017. A significant portion of trade (~10%) is classified as "unknown" and is not assigned to a particular region

³⁰Goods Exports and Imports, Central Statistics Office, 2017. These figures differ from those in Footnote 4 as they are for goods only and do not include services. For further detail about the differences between these figures, refer to Appendix 1

³¹Regional Trade Statistics, HMRC, 2017. A significant portion of trade (~10%) is classified as "unknown" and is not assigned to a particular region. BESES data allocate trade to Europe as opposed to the EU so HRMC data is used here.

³²Regional gross value added (income approach), ONS, December 2016

³³Quarterly Employment Survey, NISRA, June 2017

³⁴Quarterly Employment Survey, NISRA, June 2017

³⁵NISRA Broad Economy Sales and Export Statistics (BESES), 2017

³⁶NISRA Broad Economy Sales and Export Statistics (BESES), 2017

³⁷SMEs comprise businesses with fewer than 250 employees

employees) account for a large share of the total number of businesses exporting to Ireland. Although only 10% of micro-businesses in Northern Ireland export to Ireland they account for over half (51%) the number of business trading across the land border.³⁸

26. An InterTradeIreland report of 2013 on exporting SMEs in Ireland and Northern Ireland found that cross-border trade represented the first market outside of their domestic market for the vast majority (73%) of Northern Ireland businesses that commenced exporting within the last 10 years.³⁹
27. In value terms, 80% of external sales in goods from Northern Ireland to Ireland were accounted for by businesses with fewer than 250 employees in 2015. However, only 13% were accounted for by micro-businesses.⁴⁰
28. Preliminary analysis indicates that businesses with employees in district councils closest to the border may have a greater propensity to export. Table 3 shows that those businesses with a larger share of exports relative to their share of employment are likely to share a border with Ireland. The exception is Fermanagh and Omagh, which has a relatively low value of export activity.⁴¹

Table 3: Export share as proportion of employment share, by District Council, 2015 (%)

District Council	Share of Total Exports	Share of Employment	Export Share as % of Employment Share
Antrim & Newtownabbey	8	8	101
Ards & North Down	3	6	45
Armagh City, Banbridge & Craigavon	13	10	127
Belfast	24	29	81
Causeway Coast & Glens	3	6	51
Derry City & Strabane	7	7	102
Fermanagh & Omagh	2	5	47
Lisburn & Castlereagh	6	7	80
Mid & East Antrim	4	6	62
Mid Ulster	12	8	151
Newry, Mourne & Down	9	8	120
<i>Head Office outside Northern Ireland</i>	10	0	-

Source: Broad Economy Sales and Export Statistics, NISRA, 2017 NI Business Register and Employment Survey, September 2015

³⁸NISRA Broad Economy Sales and Export Statistics (BESES), 2017

³⁹Analysis of the key features of an exporting SME on the island of Ireland. InterTradeIreland, 2013

⁴⁰NISRA Broad Economy Sales and Export Statistics (BESES), 2017

⁴¹NISRA Broad Economy Sales and Export Statistics (BESES), 2017 & NI Business Register and Employment Survey, September 2015

29. Almost 3,500 businesses sold goods to Great Britain in 2015, of which all but 65 were SMEs. Businesses employing more than 250 people accounted for over 60% of sales to Great Britain. Despite a similar number of large businesses (over 250 employees) trading with Ireland and Great Britain, their sales to Great Britain were more than 10 times the value of sales to Ireland.⁴²

Volume of freight

30. While the HMRC and NISRA trade statistics provide insight into the value of goods sold outside of Northern Ireland, in order to gather as complete a picture as possible, we must further consider the volume of freight moving in and out of Northern Ireland. This is because trade in finished products is often dependent on lower value but sometimes higher volume cross-border trade earlier in the supply chain.

Road freight between Northern Ireland and Ireland

31. The Irish Revenue Commissioners estimate that 177,000 heavy goods vehicles (HGVs) and 208,000 light vans cross the border between Northern Ireland and Ireland each month.⁴³

32. The Department for Transport estimates that in 2015, there were 0.4 million laden journeys and 6.4 million tonnes of freight were carried by Northern Ireland registered HGVs between Northern Ireland and Ireland (10% of goods lifted in total by Northern Ireland registered HGVs). 4.4 million tonnes were lifted in Northern Ireland and transported to Ireland while 2.1 million tonnes were lifted in Ireland and transported to Northern Ireland.⁴⁴

33. In addition, 1.6 million tonnes of goods were transported from Northern Ireland to Ireland by Irish HGVs, representing 1.4% of all Irish freight lifted while 2.3 million tonnes were lifted from Ireland to Northern Ireland representing 1.9% of all Irish freight lifted.⁴⁵

34. The Department for Transport also produces estimates that show that in 2015, the largest commodity, by volume, of goods transported from Northern Ireland to Ireland by UK-registered HGVs was in food and drink products (770,000 tonnes). There were also large quantities of glass, cement and other non-metallic mineral products (500,000 tonnes) and agricultural products (480,000 tonnes) transported.⁴⁶

35. In turn, from Ireland to Northern Ireland the largest volume of products transported in 2015 by UK-registered HGVs were glass, cement and other non-metallic mineral products (880,000 tonnes), wood products (550,000 tonnes) and food and drink products (460,000 tonnes).⁴⁷

36. Half of all border crossings to Ireland by Northern Ireland-registered HGVs are at the Newry-Dundalk corridor, with the rest predominantly on the southern part of the border along main roads into the Irish borderlands and Dublin. 70% of cross-border journeys by Northern Ireland registered HGVs start and/or end in the areas of Northern Ireland

⁴²[NISRA Broad Economy Sales and Export Statistics \(BESES\), 2017](#)

⁴³Daniel Mulhall, Ambassador of Ireland to the UK, [oral evidence to the Northern Ireland Affairs Committee](#), February 2017

⁴⁴[Road Freight: CSRGT NI, 2014-2016, Department for Transport, 2016](#)

⁴⁵[CSO Road Freight Transport Survey, Central Statistics Office, 2017](#)

⁴⁶[Road Freight: CSRGT NI, 2013-2015, Department for Transport, 2016](#)

⁴⁷[Road Freight: CSRGT NI, 2013-2015, Department for Transport, 2016](#)

closest to the border, predominantly near Newry, Dundalk, Aughnacloy, Middletown, and Monaghan.⁴⁸

Road freight between Northern Ireland and Great Britain

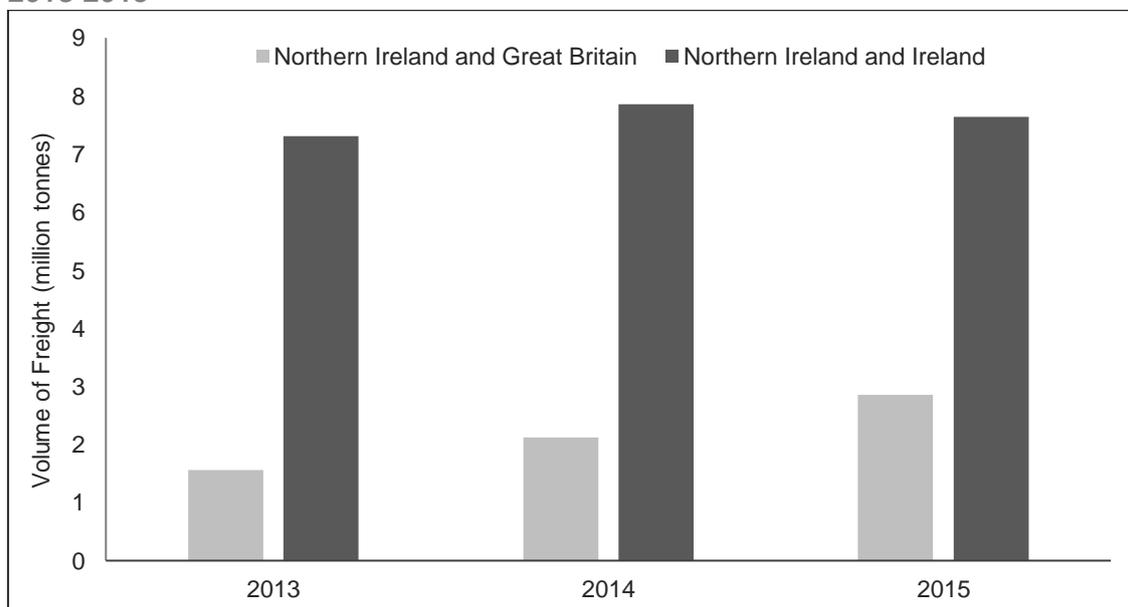
37. The Department for Transport estimate that in 2015, there were 2.9 million tonnes of freight carried by UK-registered HGVs between Northern Ireland and Great Britain. This was made up of 1.4 million tonnes of freight transported from Northern Ireland to Great Britain and 1.4 million tonnes transported from Great Britain to Northern Ireland.⁴⁹

38. The Department for Transport further estimates that in 2015, the largest commodity transported by volume both from Northern Ireland to Great Britain and from Great Britain to Northern Ireland by UK-registered HGVs was in food and drink products (680 thousand tonnes in both directions).⁵⁰

Change in road freight over time

39. The amount of goods lifted by UK-registered HGVs between Northern Ireland and Great Britain almost doubled between 2013 (1.6 million tonnes) and 2015 (2.9 million tonnes). Tonnage lifted by UK-registered HGVs between Northern Ireland and Ireland remained relatively constant over the three years at between 7 and 8 million tonnes per year.⁵¹

Figure 2: Volume of freight transported by road between Northern Ireland and Ireland and between Northern Ireland and Great Britain by UK-registered HGVs, 2013-2015



Source: Road Freight: CSRG T NI, 2013-2015, Department for Transport, 2016

⁴⁸Road Freight: CSRG T NI, 2014-2015, Department for Transport, 2016

⁴⁹Road Freight: CSRG T NI, 2013-2015, Department for Transport, 2016

⁵⁰Road Freight: CSRG T NI, 2013-2015, Department for Transport, 2016

⁵¹Road Freight: CSRG T NI, 2013-2015, Department for Transport, 2016. Note these figures differ from those in paragraph 32 as they relate to UK-registered HGVs as opposed to Northern Ireland registered HGVs

Northern Ireland port freight movements

40. The majority of trade between Northern Ireland and Great Britain is through the ports, with a small volume of freight (31,000 tonnes) handled through Belfast International and Belfast City airports in 2015.⁵² Of the 24.8 million tonnes of freight handled by Northern Ireland major ports during 2015, Belfast port handled 16.7 million tonnes (67%).⁵³
41. Belfast Port has estimated that approximately 15-20% of its traffic either emanates from, or is destined for, Ireland. For some trades, the percentage will be lower (for example, timber and fertilizer) while for others it is much greater (for example, newsprint and packaging and steel imports).⁵⁴

Agriculture and food cross-border supply chains

42. Farming and processing industries are contributing over £1.1 billion per annum of value added to the Northern Ireland economy in 2016, which represents around 3.3% of total annual GVA⁵⁵ in Northern Ireland.⁵⁶
43. The cross-border integration of the agri-food industry means it is a key focus of Northern Ireland trade flows to and from Ireland. InterTradeIreland estimates that food, beverages and tobacco account for 49% of cross-border manufacturing trade.⁵⁷ Exports account for 27% of Northern Ireland food and drink processing sales, and Ireland is the destination for 53% of export sales from the sector.⁵⁸
44. For a number of food processing sectors, the reliance on exports is above average. For example, dairy processing (42% of sales are exports), sheep processing (37%), fish processing (39%) and drinks manufacturing (44%). In addition, 27% of the milk produced on Northern Ireland farms is processed in Ireland and 42% of sheep and lambs are processed in Ireland.⁵⁹
45. The product journey of milk illustrates the integration of cross-border supply chains. A quarter of the milk produced on Northern Ireland's farms (nearly 600 million litres) goes to Ireland for processing⁶⁰ with an estimated value of £124.5m. In addition, around 5% of milk processed in Northern Ireland is also imported from Ireland.⁶¹

Conclusion

46. This document represents the most detailed picture available of trade to and from Northern Ireland at the time of publishing (16 August 2017). While this is a one-off analytical publication, further internal work is underway to update and improve on these estimates to better understand these flows and the complex supply chains underpinning them.

⁵²Freight 2005-2015, Civil Aviation Authority, 2017

⁵³Port Freight Statistics, Department for Transport, 2017

⁵⁴Belfast Harbour's Commercial Director

⁵⁵Where value added is defined as "the sum of all output, less costs of intermediate inputs, or, in national accounts terms, intermediate consumption"

⁵⁶Northern Ireland Agri-Food Sector, Key Statistics, DAERA, 2017

⁵⁷Sectoral Cross Border Trade, InterTradeIreland, 2015.

⁵⁸Size and Performance of the Northern Ireland Food and Drinks Processing Sector, DAERA, 2015

⁵⁹Size and Performance of the Northern Ireland Food and Drinks Processing Sector, DAERA, 2015

⁶⁰DAERA estimate using Statistical Review of Northern Ireland Agriculture, DAERA, 2016

⁶¹Statistical Review of Northern Ireland Agriculture, DAERA, 2016

Appendix 1: Further detail on available data sources

1. There are two main sources of Northern Ireland, UK and Ireland trade data: HMRC's Regional Trade Statistics, based on Intrastat, and customs declarations relating to products, and NISRA's Broad Economy Sales and Exports Survey (BESES) covering trade in goods and services, including with Great Britain.
2. In addition, DAERA produces estimates of trade in farming, fishing and agri-food and the Irish CSO produces trade statistics relating to products based on Intrastat and customs declarations to the Irish Revenue Commissioners.
3. Each of these series is derived from systems originally designed to serve different purposes, use a range of different methodologies and as a result provide different estimates of the value of trade.
4. This Appendix provides further background on the sources and the rationale for their use in this paper, reflecting their respective strengths and limitations.

Differences between sources

5. Table A1 below illustrates the differences between the sources for sales and purchases (of goods only) to and from Ireland in 2015:
 - NISRA/DAERA's estimate of Northern Ireland exports to Ireland is higher than HMRC's by £0.7bn while HMRC's estimate of imports from Ireland is about £0.5bn higher than the NISRA/DAERA estimate.
 - Both HMRC and CSO consider Northern Ireland to be a net importer of goods from Ireland, whereas NISRA considers Northern Ireland a net exporter.
 - HMRC estimates of Northern Ireland sales to Ireland are 2.8 times greater than CSO's estimates of imports from Northern Ireland (£2,217m to £792m) while NISRA data is 3.6 times greater (£2,917m to £792m).

Table A1: Northern Ireland Sales to and Purchases of Goods from Ireland, 2015 (£ million)

Data Source	Northern Ireland Sales to Ireland	Northern Ireland purchases from Ireland	Northern Ireland / Ireland Trade Balance
NISRA/DAERA (Of which farming & fishing)	2,917 (207)	2,137 (65)	+ 780 (+142)
HMRC	2,217	2,673	- 456
CSO ⁶²	792	1,266	- 474

Source: NISRA Broad Economy Sales and Export, HMRC Regional Trade Statistics & CSO Goods Exports and Imports, 2017

⁶²Bank of England average annual Sterling to Euro exchange rate in 2015 of €1=£0.73 applied to CSO data

6. These differences arise because

- HMRC RTS data is derived from the Oversea Trade Statistics, which is designed to provide estimates of UK national trade with other countries. RTS, however, is a National Statistic dataset to show trade by individual constituent parts of the UK (including Northern Ireland). The estimates for Northern Ireland therefore include both direct reports of trade by Northern Ireland businesses and some trade allocated to Northern Ireland, which is reported by Great Britain-based businesses that have employees based in Northern Ireland.
- HMRC also models the type of product traded by the smallest businesses that are not required to describe product type below the reporting threshold (£250,000 for exports).
- It is not possible to allocate around 8% of UK exports or 8% of imports to any of the constituent parts of the UK.
- BESES covers all large Northern Ireland businesses (20 or more employees) and a stratified sample of the remainder. It covers both goods and services and sales to Great Britain, which are not available from HMRC. BESES estimates are grossed to population levels but are subject to sampling error.
- BESES does not cover the farming, fishing, financial, insurance and pension sectors, but is consistent with turnover and GVA estimates from NISRA's main financial survey (Annual Business Inquiry). NISRA also shares data with DAERA on the agri-food sector to optimise coherence.
- CSO estimates are based on administrative returns to the Irish Revenue Commissioners. While they also estimate trade in products below the reporting threshold this is quite high for businesses selling into Ireland (€500,000).

Discussion

7. Recent improvements to the HMRC regional allocation methodology have narrowed the gap between NISRA and HMRC estimates of goods exports, but widened the difference regarding imports. Prior to the change, BESES and HMRC estimates of Northern Ireland imports were historically very close, and trended similarly. However, the new methodology introduced by HMRC has resulted in their estimate of Northern Ireland imports increasing from a historical norm of just under £6 billion to around £8.6 billion in 2013. HMRC estimates show that Northern Ireland total imports were worth £9.3bn in 2015 and £10.1 billion in 2016. These differences are very marked for imports from the rest of the EU and the rest of the world and least marked for trade with Ireland.

Conclusion

8. HMRC sources have therefore been used where equivalence is required between UK national trade or for trade at the individual product level. NISRA and DAERA sources have been used to provide consistent estimates of trade in both goods and services between Northern Ireland and Ireland and Northern Ireland and Great Britain for local businesses.

