

Research Bulletin 19/10 | Trade Patterns and Business Characteristics

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Summary

The Northern Ireland Statistics and Research Agency (NISRA) reports on the value of sales and purchases by Northern Ireland businesses in the Broad Economy Sales and Exports Statistics (BESES). To explore this data further, secondary analysis was carried out on the 2016 BESES dataset to explore the patterning of trade by NI businesses who sold into, or purchased from, NI, Great Britain, Ireland, the Rest of Europe and the Rest of the World, with a particular focus on externalⁱ trade. In addition, summary results of ongoing analysis of sales and purchases and the associated characteristics and outcomes for NI businesses based on the BESES data were published exploring the differences between NI businesses trading only within the local NI market to those NI businesses trading externally and exporting.

This paper synthesises and summarises selected highlights from the two research reports^{ii & iii} generated on foot of this analytical work.

Introduction

As a small open economy, Northern Ireland (NI) sells and purchases goods and services both within the local markets of NI and Great Britain and exports and imports these internationally. Over a relatively recent period there has been considerable development in the range and depth of data reflecting that trade driven both by needs identified by local stakeholders and, additionally, the outturn of the independent review of UK economic statistics by Professor Sir Charles Bean^{iv}.

Locally, the Northern Ireland Statistics and Research Agency (NISRA)^v reports on the value of sales and purchases by NI businesses in the Broad Economy Sales and Exports Statistics (BESES^{vi & vii}). To explore this data further, secondary analysis was carried out on the 2016 BESES dataset to explore the patterning of trade by NI businesses who sold into, or purchased from, NI, Great Britain (GB), Ireland (ROI), the Rest of Europe (REU) and the Rest of the World (ROW), with a particular focus on external trade. In addition, summary results of ongoing analysis of sales and purchases and the associated characteristics and outcomes for NI businesses based on the BESES dataset were published exploring the differences between NI businesses trading only within the local NI market to those NI businesses trading externally.

Patterning of Trade

With an established time series showing a relatively stable annual picture, BESES estimates for 2016 (Table 1) show that total sales by companies in NI were £68.9bn, with 72% of total sales accounted for by goods and 28% services. As with most economies, NI trade within the local NI market and external sales to GB account for the greatest share (85%) of total sales with exports accounting for some 15% of total sales. In terms of broad export destinations, the total value of exports of goods and services was highest for countries outside Europe (ROW) at £4.4bn, followed by ROI (£3.4bn) and REU (£2.3bn).

Table 1: Sales and purchases, destination and source, by goods and services (£bn)

All Sales	Sales of Goods	Sales of Services		All Purchases	Purchases of Goods	Purchases of Services
£68.9	£49.4	£19.5	All	£44.3	£35.2	£9.1
£44.7	£30.6	£14.2	NI	£24.1	£18.1	£6.0
£14.0	£10.5	£3.5	GB	£13.4	£11.0	£2.4
£3.4	£2.7	£0.7	ROI	£2.3	£2.0	£0.3
£2.3	£1.9	£0.4	REU	£2.1	£2.0	£0.2
£4.4	£3.7	£0.7	ROW	£2.4	£2.2	£0.2
£24.1	£18.8	£5.3	All External Sales/Purchases	£20.2	£17.1	£3.1
£10.1	£8.3	£1.8	All Exports/Imports	£6.8	£6.1	£0.7

Figures may not sum due to rounding.

Source: Derived from Northern Ireland Broad Economy Sales and Exports Statistics: Goods and Services Results 2016 and Northern Ireland Broad Economy Sales and Exports Statistics: Purchases and Imports Results 2016

Purchases of goods and services by NI businesses follow the same general pattern as that for sales, with purchases from NI and GB at £37.5bn^{viii} accounting for some 85% of all purchases, with imports from outside the UK accounting for 15% of all purchases. In comparing the share of goods within both purchases and sales of goods and services, a higher proportion of purchases by NI businesses (79%) were accounted for by goods compared to that for sales (72%).

The headline figures above show the overall value and whole economy patterning of the sales and purchases of goods and services by NI businesses and the broad destination and source of those sales and purchases.

The traditional approach to analysing, summarising and disseminating BESES sales and purchases data (and other business survey data) reflects a 'vertical' approach, that is, of total sales or purchases to NI, to GB or exports to the ROI, REU or ROW as discrete market silos. The approach taken to the analysis reported in "Northern Ireland Businesses: Trade Flows, Surplus and Deficit" was more 'horizontal' in nature. That is, taking discrete groups of businesses and examining the patterning of their sales and purchases across, rather than within, markets. Within these

analyses, external sales and external purchases refer to all sales and purchases outside of NI, (including GB) whilst exports and imports refer to all sales and purchases outside of the UK.

Closest markets attract the most focus

It is well established that trade is correlated strongly with proximity and the experience of NI is no different either in terms of the value or in the number of businesses trading. In terms of the numbers of externally selling NI businesses, businesses selling goods and services exclusively to the closest markets of GB (28%) or the ROI (35%) together accounted for almost two-thirds of all external selling businesses. In terms of businesses externally purchasing goods and services, 44% exclusively purchased from GB with 16% purchasing exclusively from the ROI. Many businesses however sold into, and purchased from, multiple markets reflecting the supply chain interconnectedness of modern economies. Just over one third (34%) of externally selling businesses (3,989) sold goods and services into multiple markets. A larger number of externally purchasing businesses (5,805), reflecting a slightly larger share (37%) of such businesses, purchased goods and services from multiple markets.

Whilst the closest markets attract the greatest number of business trade, at the extremes of NI external traders, some 728 business, or 6% of all external selling businesses, sold goods and services to all 4 broad external markets of GB, ROI, the REU and the ROW. In terms of businesses externally purchasing goods and services, 854 businesses (5%) purchased goods and services from all four markets of GB, the ROI, the REU and the ROW.

Trade patterning, similarities and differences

Inevitably, whilst attention is often given to trade with distinct markets and the number of businesses and the value and type of trade being conducted with them, the market patterning of the underpinning trade by discrete groups of businesses is often overlooked.

As two distinct (but overlapping) groups of externally selling businesses, businesses who sell into GB and businesses who sell into ROI both achieved total sales of goods and services in all markets of £28.9bn in 2016. The patterning of sales of both groups of businesses was, however, different.

For businesses selling into GB, sales to GB amounted to £14bn with a further £7.3bn to NI, £3.4bn to the ROW, £2.2bn to the REU and £2.0bn to ROI. That is, for businesses selling into GB, GB was the dominant market accounting for almost half of all their sales, with local sales within NI accounting for a further quarter of sales.

For those businesses selling into ROI, their sales were highest for NI (£13.7bn) followed by GB (£7.5bn), ROI (£3.4bn), the ROW (£2.5bn) and the REU (£1.8bn). For those businesses selling into ROI, sales to ROI represented 12% of the total sales of their goods and services in all markets, with sales to NI, the dominant market, approaching almost half of total sales for this group of businesses.

Simply put, for the group of businesses who sell into GB, those external sales dominate the value of their trade whilst for those businesses who sell into ROI, the value of sales to the local NI market is dominant.

Whilst the value of all sales and purchases made by NI businesses are detailed in the BESES (Table 1), the further analysis conducted looked specifically at the level and patterning of the purchases of goods and services made by externally selling businesses in NI. On that basis, between one quarter and one third of the purchases by externally selling businesses were imports. For example, for businesses who sell to GB, 24% of their purchases of goods and services were imports with the same level seen for businesses who sell to ROI (24%). This level rose to 32% for businesses selling to the ROW and 32% for businesses selling to the REU. On that basis, businesses who sell farther afield import a greater share of their goods and services from farther afield.

By complete contrast, for those NI businesses that do not externally sell goods and services, 6% of their purchases were imports.

Trade surplus and deficit

For all businesses selling to and purchasing from specific markets, it is possible to calculate the difference between their respective sales and purchases values and to further explore the patterning of the overall trade surplus of £24.6bn in 2016 as reported by the BESES.

Those businesses selling goods and services to GB reported an overall trade surplus of £11.9bn with £7.6bn (64%) of this accounted for by trade with GB as a single destination market. Businesses selling to ROI had a total trade surplus of £7.7bn of which £1.8bn was accounted for by ROI as a single destination market, representing 23% of the group's total trade surplus. Respective figures for businesses trading with the REU were £1.1bn sourced from trade with the REU representing 26% of the overall trade surplus of £4.3bn for this group. Those businesses trading with the ROW had a total surplus of £8.5bn with £2.9bn of this (34%) accounted for by trade surplus with the ROW.

Businesses selling to the REU and businesses selling to the ROW each reported trade deficits with NI (-£0.7bn and -£1bn respectively) whilst each group reported overall trade surpluses from trade in all markets. The trade deficits with NI reported by businesses selling to the REU and ROW reflect the relative level of sourcing of goods and services from NI which may then be sold to external markets either as intermediate products or final products.

Those NI businesses who did not externally sell had trade deficits with all external markets comprising -£5.0bn with GB, -£0.6bn with ROI, -£0.4bn with the REU and -£0.2bn with the ROW. The deficits with external markets reported by those NI businesses who do not externally sell, reflects the level of out sourcing of goods and services from outside NI for selling on within NI (Table 2).

Table 2: Net outturn of sales minus purchases (£bn)

	Trade difference with...					
	NI	GB	ROI	REU	ROW	TOTAL
Businesses who sell Goods and Services to GB	£0.8	£7.6	£0.9	£0.9	£1.8	£11.9
Businesses who sell Goods and Services to ROI	£4.5	£0.5	£1.8	£0.3	£0.7	£7.7
Businesses who sell Goods and Services to REU	-£0.7	£1.9	£0.5	£1.1	£1.5	£4.3
Businesses who sell Goods and Services to ROW	-£1.0	£5.4	£0.3	£0.8	£2.9	£8.5
Businesses who do not externally sell Goods and Services	£16.0	-£5.0	-£0.6	-£0.4	-£0.2	£9.9

Note: Some businesses sell and purchase to and from more than one market and therefore totals can only be summed across individual rows and not by column.

Impact of the Wholesale and Retail sector

Given the scale of purchases in the Wholesale and Retail sector, additional analysis looked specifically at the patterning and scale of trade within the Wholesale and Retail sector. Almost three quarters (72%) of goods purchased externally by businesses in the Wholesale and Retail sector were from GB, with a further 9% purchased from ROI and 10% from the ROW. External trade of NI businesses within the Wholesale and Retail sector comprised large deficits (-£6.2bn) with GB, and further deficits with the REU (-£0.7bn) and the ROW (-£0.6bn).

The impact of the trade in goods by the NI Wholesale and Retail sector on economy-wide estimates of NI trade is illustrated by the finding that excluding the Wholesale and Retail sector from economy-wide estimates produces an external NI trade surplus in goods of £9.1bn. Including the Wholesale and Retail sector reduces the overall external NI trade surplus in goods to £1.7bn reflecting the £7.4bn deficit with external markets in the trade of Wholesale and Retail goods.

Trade and Business Characteristics

With the “Characteristics of Northern Ireland Firms Engaged in Trade (December, 2019)” report, analysis was undertaken to provide a closer look at the business characteristics and associated outcomes of business trade. This analysis focused again on a ‘horizontal’ analytical perspective looking at discrete groups of businesses and their associated business characteristics and outcomes such as business legal status, levels of employment, turnover and Gross Value Added^{ix}.

Small in number, big in impact

In relation to business size, a small number of large businesses (with 250 or more employees) made up the greatest share of the value of total sales (37%), total purchases (33%) and total employment (33%) in 2016. This concentration is particularly evident in the value of exports and external sales with large businesses making up only 1% of exporting and externally selling businesses by number but accounting for nearly half of the value of exports (48%) and over half of the value of external sales (54%).

The value of external purchases and imports are also more focussed in large businesses accounting for 38% of the value of all external purchases and imports.

By contrast, and in terms of the value of sales and purchases within NI, the total values of sales and purchases were similar for small businesses as a group (with 10-49 employees), medium-sized businesses (50-249 employees) and large businesses (250 or more employees).

At the extremes of business size, a higher proportion of micro businesses with between 5-9 employees buy and sell locally, accounting for 70% of their total purchases and 82% of their total sales. Large businesses in contrast have the lowest shares of their purchases and sales which are sourced locally (47% of their total purchases; 49% of their total sales).

Locally, retail is King

Looking specifically at the industrial sector of businesses and their trade, the Wholesale and Retail sector dominated all sales and purchases made by NI businesses, as well as for external purchases and imports, accounting for 48% of all goods and services sold within NI, 39% of all goods and services purchased within NI, 54% of external purchases and 45% of imports.

By contrast however, the total value of external sales and exports by NI businesses are dominated by the Manufacturing sector accounting for 60% of external sales and 61% of exports, the majority of these sales being in goods.

Whilst the patterning of the sale and purchase of goods mirrors that for the whole economy given the dominance of the value of trade in goods, for businesses who sell services the most dominant sector for local (NI) and external sales was Construction (21% and 32% respectively). Exports on the other hand, were dominated by businesses in the Information and Communication sector (30%).

For businesses purchasing services, the Manufacturing sector and the Transportation and Storage sector were each responsible for 19% of the value of services imports, while the Construction sector was the most dominant sector for the external purchasing of services accounting for 27% of the total value of external services purchases.

Concentration of sales

The picture of the high reliance in NI on a relatively small number of businesses was further examined by looking at the extent to which sales overall, and in which particular sectors, the top selling businesses were concentrated.

Overall, and for external sales, the top 5 external selling businesses by value accounted for 29% of all external sales (Table 3).

The concentration of sales within the top 5 businesses was much higher for external sales in the Construction (46%) and Production (48%) sectors, and much less concentrated in the Services sector, with the top 5 Services sector businesses accounting for 18% of Services sector total external sales.

Overall, exports follow a similar pattern to that of external sales, with the top 5 exporting businesses accounting for 23% of all exports. Export sales in the Production sector was more concentrated in the top 5 exporters (37%) than for any other sector with businesses in the Wholesale and Retail sector and in the Construction sector each having the lowest concentration of exports (21%) in the top 5 businesses.

Table 3: Proportion of external sales and exports accounted for by the top 5 businesses

	External sales businesses			Exporting businesses		
	All external sales (£bn)	Top 5 external sellers (£bn)	Top 5 as a % of all external sales	All exports (£bn)	Top 5 exporters (£bn)	Top 5 as a % of all exports
All sectors	£24.1	£7.0	29%	£10.1	£2.3	23%
Construction sector	£2.2	£1.0	46%	£0.3	£0.1	21%
Wholesale and Retail Sector	£3.7	£1.0	28%	£1.8	£0.4	21%
Production Sector	£14.7	£7.0	48%	£6.3	£2.3	37%
Service Sector	£3.5	£0.6	18%	£1.7	£0.5	28%

Figures may not sum due to rounding.

¹From government sources and the EU

Source: Derived from Northern Ireland Broad Economy Sales and Exports Statistics: Goods and Services Results 2016

The overall value of imports are more concentrated in the top 5 importing businesses than for external purchasers, with one fifth of the total value of imports accounted for by the top 5 importing businesses compared to 13% for external purchasing businesses. The Production sector had the highest concentration of imports by value in the top 5 businesses (33%) and the Construction sector had the highest concentration of external purchases in the top 5 (48%). For the Services sector, value of imports are more concentrated in the top 5 importers (31%) than that for external purchasers (20%).

Value to the economy

The NI economy is heavily reliant on externally selling and exporting businesses. These businesses, whilst relatively few in number, account for over half the value of total sales and around a third of business employment. Non-external sales businesses, whilst larger in number, accounted for only 43% of the value of total sales, however, they have the highest proportion of business employment (64%).

Sellers

Businesses who externally sold or exported had considerably higher turnover and employed more than those businesses that only had internal NI sales. On that basis, 11,780 businesses were external sellers with an average turnover of £3.36m and average employment of 17 people, whilst 8,509 businesses exported and had an average turnover of £4.29m and average employment of 21 people. By contrast, the 40,274 businesses who did not externally sell had an average turnover of £0.73m and average employment of 9 people (Table 4).

On average, businesses who sold externally or exported had a turnover which was roughly 5 times higher and employed roughly twice as many employees as those that did not sell externally.

Table 4: Exporting and external sales businesses compared to non-external sellers

	Total Employment	Total employment costs (£bn)	Turnover exc VAT (£bn)	GVA (£) at basic prices (£bn)	GVA (£) at basic prices per head	Total amounts received in subsidies ¹ (£bn)	Number of businesses
All businesses	562,464	£10.7	£68.9	£21.5	£38,296	£0.5	52,054
External sales businesses	204,276	£5.8	£39.5	£11.5	£56,448	£0.4	11,780
Exporting business	180,570	£5.2	£36.5	£10.3	£57,167	£0.4	8,509
Non external sales	358,189	£5.2	£29.3	£10.0	£27,944	£0.1	40,274

Figures may not sum due to rounding.

¹From government sources and the EU

Source: Derived from Northern Ireland Broad Economy Sales and Exports Statistics: Goods and Services Results 2016

The average employment cost for exporters and external sellers (£29,067 and £28,191) was twice as much as that of non-external sellers (£14,544) reflecting the associated differences in the skills and remuneration levels for employees between external and non-external sellers.

The differences in employment and employment costs are reflected in the values of Gross Value Added (GVA) for employees within businesses trading in different markets. The average GVA per head for exporting (£57k) and externally selling businesses (£56k) was double that of non-external selling businesses (£28k).

Buyers

For businesses that purchase goods and services, the larger number of locally purchasing businesses had a lower turnover (£22bn) than the smaller number of externally purchasing businesses (£47bn). In total, 15,821 businesses externally purchased with average turnover of £2.97m and average employment of 20. For the 8,904 importing

businesses, average turnover was £3.96m with an average employment of 24. The 36,233 businesses who did not externally purchase had an average turnover of £0.6m and average employment of 7 (Table 5).

Table 5: Importing and externally purchasing businesses compared to non-external sellers

	Total Employment	Total employment costs (£bn)	Turnover exc. VAT (£bn)	GVA (£) at basic prices per head	Total amounts received in subsidies ¹ (£bn)	Total purchases of goods, materials & services (£bn)	Number of businesses
All businesses	562,464	£11.0	£68.9	£38,296	£0.5	£42.2	52,054
External purchases businesses	317,885	£7.4	£47.0	£43,554	£0.4	£32.2	15,821
Importing businesses	211,512	£5.5	£35.2	£46,377	£0.4	£24.8	8,904
Non external purchases businesses	244,579	£3.6	£21.9	£31,463	£0.0	£10.0	36,233

Figures may not sum due to rounding.

¹From government sources and the EU

Source: Derived from Northern Ireland Broad Economy Sales and Exports Statistics: Goods and Services Results 2016

In comparison to sellers, more employment is located within externally purchasing businesses (56%), with 43% of employment in non-externally purchasing businesses.

GVA per head is higher for importing businesses (£46k per head) and external purchasing businesses (£44k per head) than non-external sales businesses (£31k per head).

For purchasers, business that externally purchased both goods and services had the highest average turnover, with average turnover for external purchasers of goods and services (£6.6m per business) nearly four times higher than external purchasers of goods only (£1.7m per business) and external purchasers of services only (£1.6m per business).

The GVA for employees is highest for businesses that purchase both goods and services (£48k), with external purchases of goods only or services only having lower GVA's per head (£38k and £39k respectively).

Conclusions

Whilst trade activity is strongly correlated to the proximity of markets, many externally-focused businesses sell into and purchase from multiple markets. The overall patterning of business trade varies with the markets being sold into and, for all businesses externally trading, the GB market remains dominant in terms of value.

In overall terms, the trade in goods and services by NI businesses resulted in a trade surplus of £24.6bn in 2016, although underpinned by small trade deficits with markets outside the UK and ROI. The balance of trade in goods by NI businesses is, however, distorted by the level of reliance by NI businesses in the Wholesale and Retail sector on the external purchasing and imports of goods. For example, excluding the Wholesale and Retail sector from trade balance analysis produces an external NI trade surplus in goods of £9.1bn. Including the Wholesale and Retail sector reduces the overall external NI trade surplus in goods to £1.7bn reflecting the £7.4bn deficit NI businesses have with external markets in the trade of Wholesale and Retail goods.

In terms of the characteristics of these businesses, a small number of large businesses contribute disproportionately to the total sales, purchases and employment of NI businesses. The top 5 businesses account for 29% of all external sales, 23% of all exports, 13% of all external purchases and 20% of imports. As with sales, employment is disproportionately concentrated in external trading and exporting businesses although, overall, businesses who do not externally sell account for 64% of total businesses employment.

The 'added value' to the Northern Ireland economy associated with external trading is highlighted by the finding that the average GVA per employee is substantially higher for businesses who externally trade compared to the average GVA for businesses who do not. In particular, the GVA per employee associated with businesses who trade in both goods and services is higher than that for businesses who trade in either goods only or services only.

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ⁱ External markets refers to all markets outside of Northern Ireland which includes Great Britain whilst export/import markets refers to all markets outside Northern Ireland and Great Britain.

ⁱⁱ See: Northern Ireland Businesses: Trade Flows, Surplus and Deficit at: <https://www.economy-ni.gov.uk/articles/eu-exit-analysis>

ⁱⁱⁱ See: Characteristics of Northern Ireland Firms Engaged in Trade at: <https://www.economy-ni.gov.uk/articles/eu-exit-analysis>

^{iv} See: <https://www.gov.uk/government/publications/independent-review-of-uk-economic-statistics-final-report>

^v For further information on Northern Ireland economic and labour market statistics see: <https://www.nisra.gov.uk/statistics/economy>

^{vi} The BESES reports on sales and purchases by businesses in NI and excludes purchases and sales made by individuals and households.

^{vii} Further background information for the BESES publications can be found [here](#).

^{viii} The BESES reports purchases of goods from GB and, inevitably, many of these goods or components of final goods may have originated outside the UK but resold from GB into NI. Similarly, it is possible that imports apportioned to particular regions may similarly be resold as finished goods or as intermediate consumption goods purchased elsewhere including from GB or NI. Unpicking the ultimate source of goods or component parts and the underpinning supply chain is a complex and challenging exercise and additional research is currently underway to attempt to explore this in more detail.

^{ix} Approximate Gross Value Added at Basic prices represents the income generated by businesses, out of which is paid wages and salaries, the cost of capital investment and financial charges before arriving at a figure for profit. It includes taxes on production (e.g. business rates), net of subsidies but excludes subsidies and taxes on products (e.g. VAT and excise duty). This is an output-based measure of GVA. All published GVA is given at basic prices.