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Economic Effects of the US Trade Policy Changes on Northern Ireland's Trade¹

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Abstract

This research paper examines potential effects of the recent changes in the US trade policy on Northern Ireland's trade. In addition to overall effects, the research also examines sector-specific effects considering the different responsiveness of trade to tariffs in each sector. The analysis uses a modern multi-country, multi-sector Quantitative International Trade Model accounting for trade in final goods as well as intermediate inputs and international input-output linkages. This modelling framework captures both direct effects of tariff changes on trade flows as well as second round effects of trade policy changes that propagate through complex inter-country inter-sectoral production linkages. The results of the counterfactual analysis indicate that, relative to a situation of no tariff changes, the increased US tariffs applied since 2025 would have sizeable negative effects on the bilateral trade between Northern Ireland and the US in the long run. The largest trade losses are estimated to be in chemicals and other transport equipment in terms of export flows and manufacturing of electrical machinery in terms of import flows. The estimated changes in bilateral trade flows with Great Britain, Ireland, and the rest of the EU members are positive, albeit small, reflecting trade reallocation across import sources and export destinations, in response to the increased US trade tariffs.

Keywords Trade policy, Quantitative international trade model, Sectoral heterogeneity, International input-output linkages

JEL Codes F11, F13, F14, F16, F17

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Non-Technical Summary

Research and Policy Context

The United States (US) is an important trading partner for Northern Ireland's exports and imports. The increased trade tariffs on US imports from all countries implemented by the Trump Administration are likely to impact directly on Northern Ireland's trade with the US as well as on Northern Ireland's trade with other countries via indirect effects propagated through international production and trade linkages. Given the high sectoral concentration of Northern Ireland's exports and imports, sector-specific effects are likely to vary greatly reflecting the variation in the response of sectoral trade flows to changes in tariffs.

Against this background, this research paper examines the potential effects of the increased tariffs on US imports on Northern Ireland's trade with the US, Great Britain, Ireland, the rest of the EU and the rest of the world by considering simultaneously the direct impact on trade flows and the indirect effects coming through international production and trade linkages. In addition to overall effects, the research also examines effects on Northern Ireland's trade by sector considering the potential different trade responsiveness to tariffs by sector. A particular focus of the analysis is on impacts of differential tariffs applied to US imports of goods from Northern Ireland and Ireland and related challenges and opportunities for exporters on the island of Ireland.

The analysis uses a modern Quantitative International Trade Model accounting for trade in final goods as well as intermediate inputs. This research paper builds on and extends previous analysis by the Department for the Economy Northern Ireland examining the direct effects of changes in the US trade policy on Northern Ireland's trade (Department for the Economy Northern Ireland, 2025).²

To analyse the potential direct and indirect effects of the increased US trade tariffs on Northern Ireland's trade, the following four counterfactual scenarios are simulated with respect to a situation of no tariff changes since 2019:

- **Scenario A:** potential effects of increased US trade tariffs announced on 2 April 2025.

² A summary of the main findings of this analysis is available from <https://www.economy-ni.gov.uk/publications/direct-economic-impact-new-usa-tariff-regime-local-economy>

- **Scenario B:** potential effects of tariff rates after the ruling of the Supreme Court of the United States (SCOTUS) on the 20th February 2026 which struck down the IEEPA 10% floor and country-specific top-up tariffs.
- **Scenario C:** potential effects of tariff rates post-SCOTUS ruling under Section 122 at 10%.
- **Scenario D:** potential effects of tariff rates post-SCOTUS ruling under Section 122 at 15%.

Simulations reflect long-term reallocation of production and trade and should be interpreted as upper-bound effects incorporating general equilibrium adjustments across sectors and countries given the changes in US trade policy.

Key Findings

The following key findings emerge from the counterfactual analysis:

Under Scenario A – increased trade tariffs imposed on 2 April 2025, compared to a situation of no tariff changes since 2019, estimated long-term export flows from Northern Ireland to the US are lower by 14%, while Northern Ireland’s import flows from the US decrease by 12%. Northern Ireland’s bilateral trade flows with Great Britain, Ireland, and the rest of the EU countries are estimated to increase slightly, reflecting trade reallocation across import sources and export destinations.

Sector-specific effects. The counterfactual estimates of exports indicate that the sectors with the largest positive contributions to the change in total exports are electrical machinery and mining and quarrying, sectors facing relatively low increases in US tariffs. The high responsiveness in the mining and quarrying sector is explained by the high trade elasticity in the model, although exports in this sector account for only a small share of Northern Ireland total exports at baseline. In contrast, the most significant negative contributions to the change in total exports occur in chemicals, other transport equipment and other manufacturing. These sectors had higher initial export shares, higher input-output linkages, and faced above-average increases in US tariffs. The counterfactual estimates of imports indicate that the sectors with the largest positive contributions to the change in total imports are petroleum and other manufacturing, while the highest negative contribution occur in manufacturing of electrical machinery, a sector which is highly interrelated with transport equipment and other manufacturing sectors where export volumes and input demand fall.

Welfare effects. Relative to the baseline scenario with no tariff changes, Northern Ireland's welfare, which captures how changes in trade costs affect a country's purchasing power through cheaper access to foreign goods and improved export opportunities, declines by almost 1% and is primarily driven by the decline of terms-of-trade (-0.90%) while the change in the volume-of-trade is marginal (-0.04%). These results are consistent with Northern Ireland being a small open economy and a price-taker on world markets. The estimates reveal an important heterogeneity with respect to the contribution of sectors to the aggregate welfare effect. The most important contribution to the deterioration in the terms-of-trade is driven by agriculture and food manufacturing, sectors where substitution across suppliers is relatively easy. The negative volume-of-trade effect is mainly driven by sectors which are highly interconnected in international production networks such as textiles, metal products, and electrical machinery.

Further counterfactual simulations corresponding to the most recent changes in US trade tariffs following on from the SCOTUS ruling on the IEEPA tariffs indicate potential lower declines of Northern Ireland's bilateral trade with its main trading partners, consistent with the lower trade tariffs considered in the respective scenarios. Relative to a situation of no tariff changes, export flows from Northern Ireland to the US in the long run are estimated to be lower by 5% in Scenario B (post-SCOTUS ruling tariffs without Section 122 surcharges) and lower by 12% and 14% in Scenario C (post-SCOTUS ruling tariffs under Section 122 at 10%) and Scenario D (post-SCOTUS ruling tariffs under Section 122 at 15%), respectively. Northern Ireland's imports from the US follow a similar pattern, with a small increase of 1.5% in Scenario B and much larger decreases, by 17% and 23% in Scenario C and Scenario D, respectively. As is the case in Scenario A, counterfactual estimates in Scenarios C and D indicate trade reallocation towards Great Britain, Ireland, and the rest of the EU.

Sector-specific effects. As in the case of counterfactual estimates in Scenario A (US trade tariffs before the SCOTUS ruling), the most affected sectors are chemicals and other transport equipment in terms of export flows, and manufacturing of electrical machinery in terms of import flows.

The trade tariffs deals between the US and the UK (US-UK Prosperity Deal of 8 May 2025) and the US and EU (Cooperation Agreement on Fair and Balanced Trade of 27 July 2025) result in a **tariff divergence on the island of Ireland:** exported goods from Ireland to the US will be subject to 15% tariffs while exported goods to the US from Northern Ireland will be subject to 10% tariffs stacked on existing Most Favoured Nation (MFN) tariffs. Whether the UK or EU tariffs for exports of goods from Northern Ireland to the US are more advantageous depends on specific products/industry.

Policy Implications

Taken together, the results of this research suggest that the recent changes in the US trade policy are likely to affect negatively Northern Ireland's trade with the US. In the long run, a reallocation of production and trade across sectors and countries is expected resulting in increased bilateral trade between Northern Ireland and Great Britain, Ireland and the rest of the EU.

While the US tariffs imposed after the SCOTUS ruling reduce the economic impact of these changes in the US trade policy on Northern Ireland's trade, uncertainty about further tariff changes is likely to impact negatively on businesses' decisions on investment, input sourcing and contract pricing. While these decisions are taken at company level, we suggest that a range of policy measures could assist Northern Ireland's enterprises to mitigate these risks, enhance their resilience to trade shocks and create new growth opportunities through access to new international markets. Such policy measures could include:

- **Mapping of Northern Irelands' supply chains** and identifying export and import dependencies in strategic sectors in the context of geopolitical shifts.
- **Developing frameworks and data-based tools** for anticipating and monitoring trade vulnerabilities and possible critical supply chain disruptions.
- **Market diversification** – designing tools available to enterprises, particularly those exposed to increased US trade tariffs, to explore and enter in new export and import markets.

1 Introduction

The US is an important trading partner for Northern Ireland’s exports and imports. The increased trade tariffs on US imports from all countries implemented by the Trump Administration are likely to impact directly on Northern Ireland’s trade with the US as well as on Northern Ireland’s trade with other countries via indirect effects propagated through international trade linkages. Given the high sectoral concentration of Northern Ireland’s exports and imports, sector-specific effects are likely to vary greatly reflecting the variation in the response of sectoral trade flows to changes in tariffs.

Against this background, this research paper examines the potential direct and indirect effects of the increased US import tariffs on Northern Ireland’s trade with the US, Great Britain,³ Ireland, the rest of the EU and the rest of the world. A particular focus of the analysis is on impacts of differential tariffs applied to US imports of goods from Northern Ireland and Ireland and related challenges and opportunities for exporters on the island of Ireland.

In addition to overall effects, the research also examines effects on Northern Ireland’s trade by sector considering the potential different trade responsiveness to tariffs by sector. The analysis uses a modern Quantitative International Trade Model accounting for trade in final goods as well as intermediate inputs following Caliendo and Parro (2015). Similar models have been used to examine the effects of increased US tariffs on the UK’s trade with the world (Tamberi 2024), on the EU’s trade with the world (Hinz, Méjean, and Schularick 2025), on global and country-sector value added (Naqvi 2025), the effects of Brexit on the UK’s trade (Dhingra et al. 2017) and on the EU trade and welfare (Vandenbussche et al. 2017), as well as economic effects on trade, output and employment in the US and EU countries from a non-Transatlantic Trade and Investment Partnership (TTIP) agreement (Vandenbussche et al. 2018).

Given the fragmentation of production processes across national borders, assessing the economic effects of trade shocks such as the recent increased US trade tariffs on goods requires considering global value chains linkages and trade costs worldwide (Acemoglu et al. 2012; Johnson 2014; Vandenbussche et al. 2018).

This research paper builds on and extends previous analysis by the Department for the Economy Northern Ireland examining the direct effects of changes in the US trade policy on Northern

³ While these are bilateral sales and purchase flows within the UK, for the comparability of the effects of increased tariffs on Northern Ireland’s trade with its main trade partners, we refer to these as trade flows. This approach has been used in other research papers, see for example, Kren and Lawless (2023) and Barrett and Bergin (2025).

Ireland's trade (Department for the Economy Northern Ireland, 2025).⁴ Specifically, the analysis uses a Computable General Equilibrium (CGE) model⁵ and estimates the direct effects of the new US trade tariffs announced on 2 April 2025 on the exports and imports of local businesses and long-term employment and output growth for Northern Ireland's economy and 30 individual sectors.

The remainder of this paper is structured as follows. Section 2 presents the modelling framework for quantifying the economic effects of changes in trade policy used for this research. Section 3 discusses the data and calibration procedure. Section 4 examines the importance of the US in Northern Ireland's international trade. Section 5 describes the recent changes in the US trade policy. Section 6 presents the results of the analysis of the effects of the changes in the US trade policy on Northern Ireland's international trade. In addition, this section discusses potential implications of the tariff divergence for exporters on the all-island of island. Section 7 discusses potential effects of the energy shock originated in the Iran war on Northern Ireland's trade. Finally, Section 8 summarises the key results and policy implications.

2 Modelling Economic Effects of Trade Policy Changes – Analytical Framework

2.1 Model's Structure

The analysis of economic effects of US trade policy on Northern Ireland's trade in this research paper is carried out using a modern Quantitative International Trade Model (QITM) framework pioneered by Eaton and Kortum (2002) and developed further by Eaton et al. (2012), Costinot and Rodriguez-Clare (2014), and Caliendo and Parro (2015). This framework is based on Ricardian trade theory and it has been used in many recent studies assessing the economic effects of changes in trade policy in the context of international production networks (see for example, Gnocato et al. 2025; Hinz, Mahlkow and Wanner, 2025; Kalemli-Ozcan, Soylu, and Yildirim 2025; Gersbach, Maunoir, and Walsh, 2025; Auclert, Rognlie, and Straub, 2025).

The underlying assumptions and key features of the Ricardian trade theory framework are as follows:⁶

⁴ A summary of the main findings is available from <https://www.economy-ni.gov.uk/publications/direct-economic-impact-new-usa-tariff-regime-local-economy>

⁵ The CGE model has been developed for the Department for the Economy Northern Ireland by the Fraser of Allander Institute at the University of Strathclyde. Technical details on the model are available from <https://www.economy-ni.gov.uk/sites/default/files/publications/economy/research-bulletin-19-6-expanding-analytical-toolkit-with-cge-model.pdf>

⁶ For more details on the Ricardian trade theory frameworks see Eaton and Kortum (2022), Costinot and Rodriguez-Clare (2014), Caliendo and Parro (2015) and Hinz, Mahlkow and Wanner (2025).

- **Ricardian comparative advantage** – countries differ with respect to the technological efficiency in the production of goods;
- **Trade costs** – international trade is subject to trade costs such as tariffs, transport costs, and non-tariff trade barriers;
- **Perfect competition** - firms and consumers are price-takers. Producers and consumers source goods from the country with the lowest production and trade costs;
- **Productivity levels** are drawn independently for each good and country from a Fréchet distribution;⁷
- **Relative costs, technology and bilateral trade barriers** are key determinants of aggregate trade patterns.

While traditional Ricardian trade models capture the direct responsiveness of domestic production and trade flows to changes in tariffs, they do not account for second round effects of changes in trade policy that propagate through complex inter-country inter-sectoral production linkages.

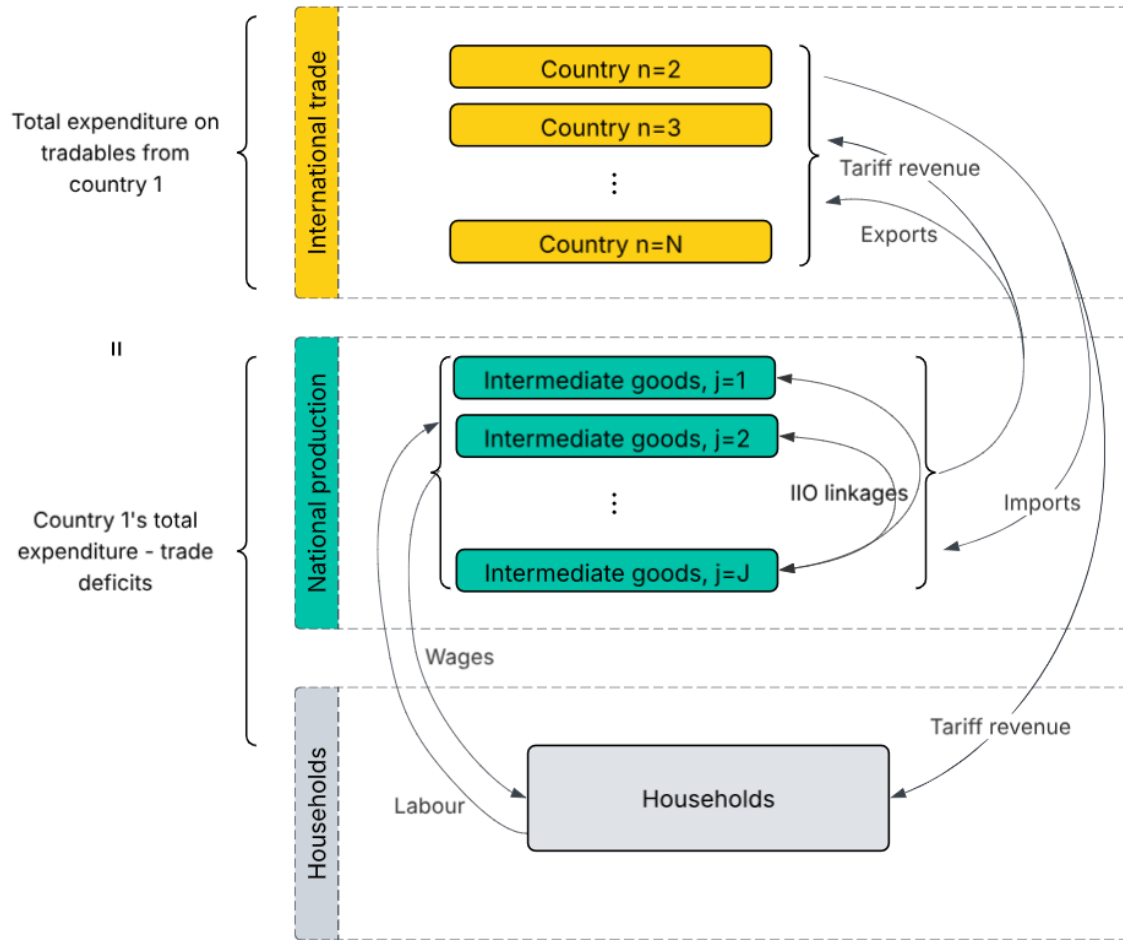
Caliendo and Parro (2015) extended the Ricardian quantitative trade framework by incorporating trade with intermediate goods, sectoral heterogeneity and international input-output linkages. The model quantifies the differential role that trade with intermediate goods and sectoral linkages have on the effects of changes in tariffs on trade flows and overall welfare.

The Quantitative International Trade Model used for this research has a modular structure as shown in Figure 1⁸.

⁷ This statistical distribution combines a country-sector parameter reflecting the average productivity (absolute advantage) with a sector-specific parameter reflecting the dispersion of productivities and thus the strength of comparative advantage. For more details, see for example, Hinz, Mahlkow and Wanner, 2025.

⁸ Caliendo and Parro (2015) provide a detailed technical description of the model.

Figure 1: Multi-country, multi-sector quantitative international trade model with international input-output linkages



Source: Authors' elaboration based on Caliendo and Parro (2015).

In this modelling framework, intermediate goods in a given sector are used for the production of sectoral goods that are final goods for consumption and materials as intermediate goods for tradable and non-tradable goods in all sectors. Producers in each sector purchase intermediate goods from the lowest cost supplier across countries. Average productivity and productivity dispersion varies across sectors. Changes in tariffs have different impacts across sectors due to heterogeneity in productivity dispersion, the share of intermediate goods in production and sectoral input-output linkages.

Modelling the impact of changes in trade policy such as increased trade tariffs using this Quantitative International Trade Model has several advantages relative to using traditional Ricardian trade models (see Caliendo and Parro 2015):

- **Capturing heterogeneous effects across sectors** by using sector-specific trade elasticities - these effects are not captured when averaging tariffs across sectors;

- **Modelling the demand for trade in goods to produce intermediate goods** – this demand is not accounted for in models where goods are traded to produce final goods only;
- **Modelling Input-Output linkages** – producers are using inputs from multiple sectors exploiting the benefits from having access to cheaper materials/from other sectors – these effects are not captured by models where producers are using inputs from one sector only.

2.2 Calibration Procedure

The model is first calibrated to the base year 2019 which is used as baseline to avoid trade disruptions arising from the COVID-19 pandemic. The calibration procedure involves finding equilibrium prices, wages, and trade flows consistent with the parameters and exogenous variables in the model. Taking these parameters and exogenous variables as given, the change in the tariff rates corresponding to each of the counterfactual scenarios is then introduced and the model is estimated again to obtain the new equilibrium prices, wages, and trade flows. The model is solved by updating the vector of wages and solving for prices, input costs, and expenditures repeatedly until the trade balance condition holds (i.e. the effective aggregate expenditure on goods from a given country n by the rest of countries equals the total expenditure of country n excluding tariff payments).⁹

2.3 Interpretation of Results

This paper focuses on the trade effects resulting from the recent changes in US trade policy. Trade effects are model-implied general equilibrium changes in bilateral trade flows. Since gross output in each country and sector is produced to meet domestic and foreign demand, including intermediate input demand, changes in trade flows induced by tariff shocks translate into changes in sectoral production through general equilibrium. When foreign demand for a sector's goods falls, production contracts, factor demand declines, and resources reallocate across sectors. In this sense, although tariffs directly affect bilateral trade costs, the resulting trade responses reflect real production adjustments rather than purely accounting changes in trade flows. These model-consistent trade flows should be interpreted as counterfactual equilibrium outcomes reflecting reallocation of sourcing patterns within the structural framework outcomes rather than forecasts.

Another set of results derived from the model are welfare effects, defined as changes in real income resulting from the movement between the initial and counterfactual tariff structure. In the model,

⁹ In particular, the model is solved for tariff changes iteratively using the fixed-point iteration method (Otto and Denier, 2005), building on and extending the codes made available in Caliendo and Parro (2015).

welfare corresponds to the purchasing power of households and is measured as the ratio of nominal income to the price index of the consumption bundle. Nominal income consists of labour income and tariff revenues, with tariff revenues assumed to be transferred as a lump sum to households. Consequently, welfare changes reflect both variations in nominal income and changes in prices induced by the tariff shock.

When evaluating welfare, the model decomposes the effects of tariff changes into a terms-of-trade component and volume-of-trade component. The terms-of-trade component capture changes in welfare coming through the relative price of a country's exports compared with its imports, reflecting the extent to which a country can influence world prices through its trade policy. The volume-of-trade component captures gains associated with the creation of trade measured as import values deflated by import prices.

Finally, it is important to emphasise that the trade and welfare effects from trade simulations correspond to long-run comparative static outcomes. The model compares two steady states associated with the initial and counterfactual tariff structures and assumes that labour can reallocate across sectors until a new equilibrium is reached. Consequently, trade and welfare effects reflect differences across equilibria rather than transition dynamics or short-run frictions that may arise during the reallocation of resources following a change in trade policy.

3 Data

The model is calibrated for 31 countries¹⁰ and 32 sectors (18 tradable sectors and 14 non-tradable sectors)¹¹ with 2019 as the base year.

3.1 Trade Data

Bilateral trade data for all countries except for Northern Ireland are extracted from the United Nations Statistical Division Commodity Trade (COMTRADE) database for the year 2019, before the COVID-19 related trade disruptions. Trade flows are expressed in current USD and reported using the HS (Harmonized System) classification at the 6-digit level. Trade flows are then aggregated at the 3-digit International Standard Industrial Classification (ISIC) Rev. 3 using the United Nations conversion tables and then aggregated into the 18 tradable sectors included in the model following Caliendo and Parro (2015). The Rest of the World is constructed using each countries' total exports to and total imports from the countries not included in the model.

In the case of Northern Ireland, data on trade flows are sourced from the Regional Trade Statistics (RTS) prepared by the HM Revenue & Customs (HMRC). The data are reported in current GBP at the 2-digit Standard International Trade Classification (SITC) level. Exports and imports by partner country are harmonized to 2-digit ISIC before being aggregated into the 18 tradable sectors using the average official exchange rate for 2019 taken from the World Bank's World Development Statistics.¹² International trade flows for Northern Ireland are subtracted from those of the UK to obtain trade flows for Great Britain.

Additionally, the sales and purchases between Northern Ireland and Great Britain are included in the bilateral trade matrix. These flows are obtained from the Northern Ireland Economic Trade Statistics (NIETS) prepared by the Northern Ireland Statistics and Research Agency (NISRA). Since these data are presented using the Standard Industrial Classification (SIC), sectors are first harmonized to ISIC using concordance tables.¹³

¹⁰Argentina, Australia, Austria, Brazil, Canada, Chile, China, Denmark, Germany, Finland, France, Great Britain, Greece, Hungary, India, Indonesia, Ireland, Italy, Japan, South Korea, Mexico, Northern Ireland, Norway, Netherlands, New Zealand, Portugal, USA, Spain, Sweden, South Africa, and the Rest of the World.

¹¹ The sectoral classification is described in Table A1 in the Appendix.

¹² The SITC-ISIC concordance tables used are sourced from the [WITS-UN](#) and [F.R.E.I.T.](#) The final aggregations between the SITC codes and tradable sectors are presented in Table A2 in the Appendix.

¹³ The Standard Industrial Classification (SIC) used in the in the Input-Output analytical tables produced by NISRA can be directly mapped into the sectors included in the model (see column 1 of Table A3 in the Appendix).

3.2 Trade Tariffs Data

Trade tariffs data for 2019 are sourced from the United Nations Statistical Division-Trade Analysis and Information System (UNCTAD-TRAINS). Effective applied tariff rates weighted by total imports in 2019 are obtained at the 6-digit HS product classification.

US tariff data for 2025 are obtained from the U.S. Tariff Barrier Estimates 2025 prepared by Global Trade Alert.¹⁴ This data base includes US tariffs at the HS 8-digit product level for each exporting country and aggregated using 2024 US import values as weights.

In both cases, tariff data are first converted from HS to ISIC using the United Nations conversion tables and then aggregated as trade-weighted averages into the 18 tradable sectors included in the model following Caliendo and Parro (2015).

3.3 Trade Elasticities

Trade elasticities used in the counterfactual simulations are obtained from the estimates of productivity dispersion, with larger values reflecting less productivity dispersion, lower substitution across inputs, and lower responsiveness to tariff changes. Trade elasticities are sourced from Caliendo and Parro (2015). The value for the manufacturing of electrical goods is replaced by the mean value of this sector along with manufacturing of communication and medical equipment.

To assess the sensitivity of the results to alternative and most recent trade elasticities estimates, the calibration procedure is reproduced using trade elasticities at product-level estimated by Fontagné et al. (2022) using variation in bilateral tariffs for each product category for the universe of country pairs over the 2001 to 2016 period. Elasticities at the sector level are obtained by first harmonizing HS to ISIC and obtaining mean values weighted by total trade observed in 2019.

3.4 Input-Output Data

Input-output data come from different sources. Data for most countries included in the model are sourced from the OECD Inter-Country Input-Output tables (ICIO) 2023 release for 2019. In the case of Northern Ireland, the data are obtained from the Input-Output Analytical Tables for 2019 from the NISRA Economic Accounts Project. Since data for Northern Ireland are presented using the Standard Industrial Classification (SIC), sectors are first harmonized using the ISIC. The mapping is similar as the one used for the Northern Ireland and Great Britain sales and purchases data, except for the following sectors: Petroleum, Chemicals, and Pharmaceuticals. In the model, petroleum and chemicals (which includes pharmaceutical products) are two separate sectors.

¹⁴ [Section 122 in effect: what the US tariff regime looks like now - Global Trade Alert.](#)

However, in the Input-Output analytical tables for NI, petroleum and chemicals are aggregated (SIC industries 19-20) and pharmaceuticals is reported separately (SIC industry 21). As a result, the NI Input-Output coefficient for the petroleum sector included in the model corresponds to the aggregated industry SIC 19-20 and the Input-Output coefficient for chemicals corresponds to the pharmaceuticals industry, SIC 21.¹⁵

4 Northern Ireland: The Importance of the US in Northern Ireland's International Trade

This section discusses the importance of the US in Northern Ireland's International Trade with goods and services (excluding Northern Ireland's sales to and purchases from Great Britain).¹⁶

4.1 International Trade Partners

The US is the second top destination for Northern Ireland's exports after Ireland, accounting for 13% of total exports on average between 2021-2025. These two export destinations together with the next two, Canada and Germany, accounted for nearly 65% of Northern Ireland's total exports over this period (Table 1). Ireland and the US are also important origins of Northern Ireland's imports representing about 35% and 7.5% of the total, respectively.

It is worth noting that the composition of exports and imports across main trade partners does not change significantly between 2021-2025 compared to 2019. This pattern is reassuring in relation to using 2019 as the base year to calibrate the model as it reflects the broad structure of Northern Ireland's trade while avoiding the potential disruption in global value chains in other economies resulting from the COVID-19 pandemic.

¹⁵ The full mapping is presented in column 2 of Table A3 in the Appendix.

¹⁶ In 2023, sales of goods and services from Northern Ireland to Great Britain represented 51.4% of total external sales and Northern Ireland's purchases of goods and services from Great Britain accounted for 60.8% of Northern Ireland's total external purchases (Source: NISRA Data Portal - NIETS02 [Northern Ireland Economic Trade Statistics 2023](#)).

Table 1: Northern Ireland's Top International Trade Destinations and Origins, 2021-2025

Partner Country	Exports (%)					
	2019	2021	2022	2023	2024	2025
Ireland	35.2	40.8	41.0	38.0	41.1	42.9
USA	12.8	11.4	11.3	14.0	15.5	12.4
Canada	6.5	4.1	4.3	4.7	4.6	5.6
Germany	5.1	4.1	3.9	4.6	4.3	4.6
France	4.4				3.90	4.1
Netherlands		4.3	4.9			
Belgium				3.9		
Total top 5	59.6	64.7	65.4	65.2	69.4	65.5
Partner Country	Imports (%)					
	2019	2021	2022	2023	2024	2025
Ireland	29.8	36.3	36.3	35.5	36.3	35.4
China	9.0	10.2	10.4	8.9	9.8	10.0
USA	9.7	6.7	6.7	8.6	7.5	7.1
Germany	8.5	6.2	6.4	6.4	6.6	6.7
Netherlands	8.5	6.3	5.6	6.4	6.4	6.4
Total top 5	65.5	65.7	65.4	65.8	66.6	65.5

Notes: The figures in the table are shares in total nominal export and import values, respectively.

Source: Authors' calculations based on Regional Trade Statistics (RTS) prepared by the HM Revenue & Customs (HMRC).

4.2 Sectoral Patterns

Sectoral trade patterns in this subsection are analysed using the Regional Trade Statistics (RTS) prepared by the HM Revenue & Customs (HMRC) disaggregated at the one-digit SITC1 level. Machinery and transport equipment was Northern Ireland's top export sector between 2021-2025 and represented 33% of all exports followed by Food and live animals (18%), Chemicals & related products (13%), Miscellaneous manufacturing (12%), and Manufacturing of basic goods - textile, metals, rubber, and related products - (10%) (Table 2). Among these sectors, the US represented an important destination for Machinery, and transport equipment, Chemicals & related products, and Miscellaneous manufacturing.

During this period, imports were concentrated in Machinery and transport equipment (26%), Food and live animals (19%), Manufacturing of basic goods (16%), Chemicals (15%), and Miscellaneous manufacturing (14%). The US was an important origin of imports of Machinery and transport equipment, and, to a lesser extent, Chemicals & related products, and Miscellaneous manufacturing.

Table 2: Northern Ireland's Top International Trade Sectors

Sector		Exports (%)		Imports (%)	
		2019	2021-25	2019	2021-25
Machinery and transport equipment	All	36.9	33.4	25.4	26.4
	USA	5.0	6.3	5.9	4.1
Food and live animals	All	16.2	18.3	18.0	18.6
	USA	0.1	0.2	0.1	0.1
Chemicals	All	12.5	13.2	13.8	15.4
	USA	3.5	3.2	1.4	1.3
Manufacturing nec	All	15.5	12.1	16.5	14.1
	USA	3.1	2.2	1.5	1.1
Basic manufacturing	All	8.8	10.1	16.7	15.8
	USA	0.3	0.4	0.7	0.5
Subtotal	All	89.9	87.2	90.4	90.3
	USA	12.0	12.2	9.5	7.1

Notes: The figures in the table are shares in total nominal export and import values, respectively.

Source: Authors' calculations based on Regional Trade Statistics (RTS) prepared by HM Revenue & Customs (HMRC).

4.3 Product Patterns

Trade patterns by product discussed in this subsection are identified using the Regional Trade Statistics (RTS) prepared by the HMRC disaggregated at the two-digit SITC level. Pharmaceutical products represent an important share of Northern Ireland's exports (5%) and imports (5.9%) (Table 3). Top exports also include Machinery for specialised industries (10%), Dairy products and eggs (7%), Other transport equipment (6%) and General industrial machinery (5%). The US is a particularly important destination for Specialised machinery and pharmaceutical products.

Table 3: Northern Ireland's Top Products Traded Internationally

Sector		Exports		Sector		Imports	
		2019	2021-25			2019	2021-25
Machinery for particular industries	All	9.4	10.4	Medicinal and pharma	All	3.3	6.1
	USA	2.4	3.1		USA	0.1	0.1
Medicinal and pharma	All	5.0	4.9	Road vehicles	All	2.9	5.9
	USA	3.2	2.8		USA	0.4	0.4
Dairy products and eggs	All	6.0	6.7	Meat and meat preparations	All	6.1	5.5
	USA	0.0	0.0		USA	0.0	0.0
Other transport equipment	All	9.7	6.0	Electrical machinery	All	4.7	5.0
	USA	1.2	1.1		USA	1.5	1.1
General industrial machinery	All	5.4	5.3	Articles of apparel and clothing	All	5.0	4.1
	USA	0.6	1.0		USA	0.0	0.0
Subtotal	All	35.4	33.2	Subtotal	All	22.0	26.7
	USA	7.3	8.0		USA	2.0	1.6

Notes: The figures in the table are shares in total nominal export and import values, respectively.

Source: Authors' calculations based on Regional Trade Statistics (RTS) prepared by the HM Revenue & Customs (HMRC).

5 Changes in the US Trade Policy since 2025

On 2 April 2025, the US Administration issued the Executive Order 14257¹⁷ invoking the International Emergency Economic Powers Act (IEEPA) and imposing a set of reciprocal tariffs¹⁸ to rebalance US bilateral trade flows. The Order imposed an additional “ad valorem” tariff on all imports of at least 10% and specific reciprocal tariffs for certain countries: 20% for the EU countries; 34% for China; 24% for Japan; 26% for India; and 25% for South Korea.

On 20 February 2026, the Supreme Court of the United States (SCOTUS) ruled that IEEPA does not authorize the US President to impose trade tariffs. The ruling invalidated the baseline 10% tariff as well as country-specific top-ups. On the same day, the White House responded with the Proclamation 11012 invoking the section 122 of the Trade Act of 1974 and imposing a temporary import surcharge of 10 percent ad valorem for 150 days excluding certain mineral, metal, energy,

¹⁷ [Executive Order 14527](#).

¹⁸ Reciprocal tariffs excluded imports of steel, copper, aluminium, automobiles and auto parts (imports of these goods faced a previous universal tariff of 25% imposed on the 10th of February 2025), pharmaceuticals, and energy.

fertilizers, agricultural, pharmaceutical, vehicle, and electronic products.¹⁹ The import surcharge was threatened to be raised to 15 percent but has not been yet modified.

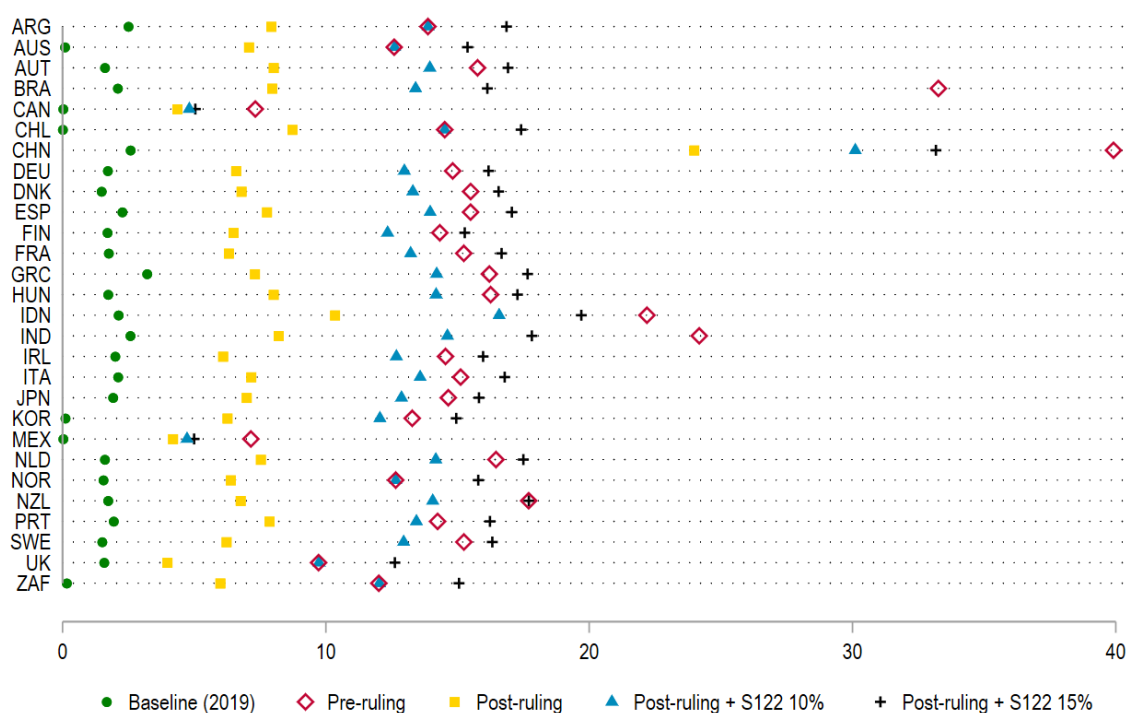
Data prepared by Global Trade Alert²⁰ allow to track the US tariff rates across all scenarios: before the Supreme Court of the United States (SCOTUS) ruling, after the SCOTUS ruling without the Section 122 surchargers, and post-SCOTUS ruling under the Section 122 tariffs at 10% and 15%. The trade-weighted average US tariff across all products fell from 15.3% to 8.1% after the SCOTUS ruling but increased back to 11.4% under Section 122 at 10% and 13% under Section 122 at 15%.

In the case of the UK, the average US effective applied tariffs decrease from 10.3% to 3.3% after the SCOTUS ruling and increased back to 10.3% under Section 122 at 10% and 14.4% under Section 122 at 15%. Figures 2 and 3 plot the trade-weighted average US tariff for each country and sector in the model at baseline in 2019 and across the different scenarios observed between 2026. Following on from the SCOTUS ruling and the 10% surcharges imposed under Section 122, tariff rates are substantially lower for most countries and sectors compared to the “reciprocal” tariffs adopted imposed in April 2025. Tariffs under Section 122 at 15% would imply substantial reductions in the average applied rate for countries facing high pre-SCOTUS ruling IEEPA tariff rates such as China, India, and Brazil, but higher mean rates for most countries in the model given the new higher floor of 15%. Similarly, average tariffs would tend to be higher under Section 122 at 15% vs the pre-ruling scenario, particularly in the non-metal manufacturing industries.

¹⁹ [Proclamation 11012](#).

²⁰ [Section 122 in effect: what the US tariff regime looks like now - Global Trade Alert](#).

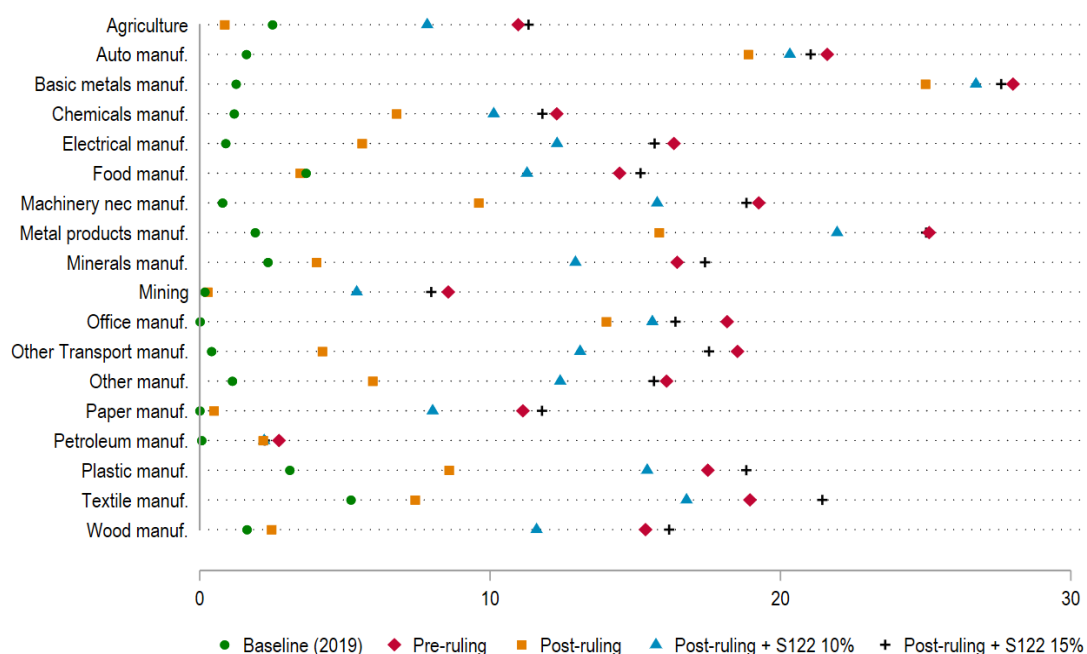
Figure 2: Mean US Effective Applied Tariffs by Country



Notes: The figure plots the trade-weighted average US effective applied tariffs in 2019 and 2025-2026 obtained from UNCTAD TRAINS (2019) and Global Trade Alert (post-2025) for each country in the model.

Source: Authors' calculations based on UNCTAD-TRAINS and Global Trade Alert.

Figure 3: Mean US Effective Applied by Sectors



Notes: The figure plots the trade-weighted average US effective applied tariffs in 2019 and 2025-2026 obtained from UNCTAD TRAINS (2019) and Global Trade Alert (post-2025) for each sector in the model.

Source: Authors' calculations based on UNCTAD-TRAINS and Global Trade Alert.

6 Quantifying the Effects of Changes in US Trade Policy on Northern Ireland's Trade

6.1 Counterfactual Scenarios

This subsection presents the quantified economic effects of changes in the US trade policy using 2019 as the base year and different counterfactual scenarios. While trade tariffs under Section 122 at 10% are in place at the time of writing this paper, the measure is transitory and faces legal challenge by 24 US states.²¹ Considering the substantial uncertainty in the medium-term about the US trade policy changes, the pre-SCOTUS ruling tariffs adopted under the Executive Order 14257 on 2 April 2025 are used to construct the reference counterfactual scenario. Estimations are initially carried out using the Caliendo and Parro (2015) trade elasticities. Alternative effects under the post-SCOTUS ruling scenarios with and without the Section 122 tariffs as well as using the product-level trade elasticities from Fontagné et al. (2022) are presented later in the paper.

6.2 Counterfactual Effects under the Pre-SCOTUS ruling Trade Tariffs

The first set of results are counterfactual trade effects of the increased US trade tariffs announced on 2 April 2025 relative to no tariff changes since 2019 – **Scenario A**. The model-implied general equilibrium export flows from Northern Ireland to the US decrease by 14%, while Northern Ireland's import flows from the US decrease by 12.4% (Table 4). The estimated changes in bilateral trade flows with Great Britain, Ireland, and the rest of the EU members are positive, albeit small, reflecting trade reallocation across import sources and export destinations, in response to the increased US trade tariffs. Northern Ireland's total exports and imports increase by 0.34% and 1.40%, respectively.²²

Table 4: Scenario A: Effects on Northern Ireland's Bilateral Trade with Main Trade Partners

Trade Partner	Exports to (% change)	Imports from (% change)
US	-14.0	-12.4
Great Britain	1.64	3.58
Ireland	0.59	2.85
Rest of the EU	1.63	1.46
Total	0.34	1.40

Notes: Effects represent model-implied general equilibrium changes in Northern Ireland's bilateral trade flows at producer prices.

Source: Authors' simulations.

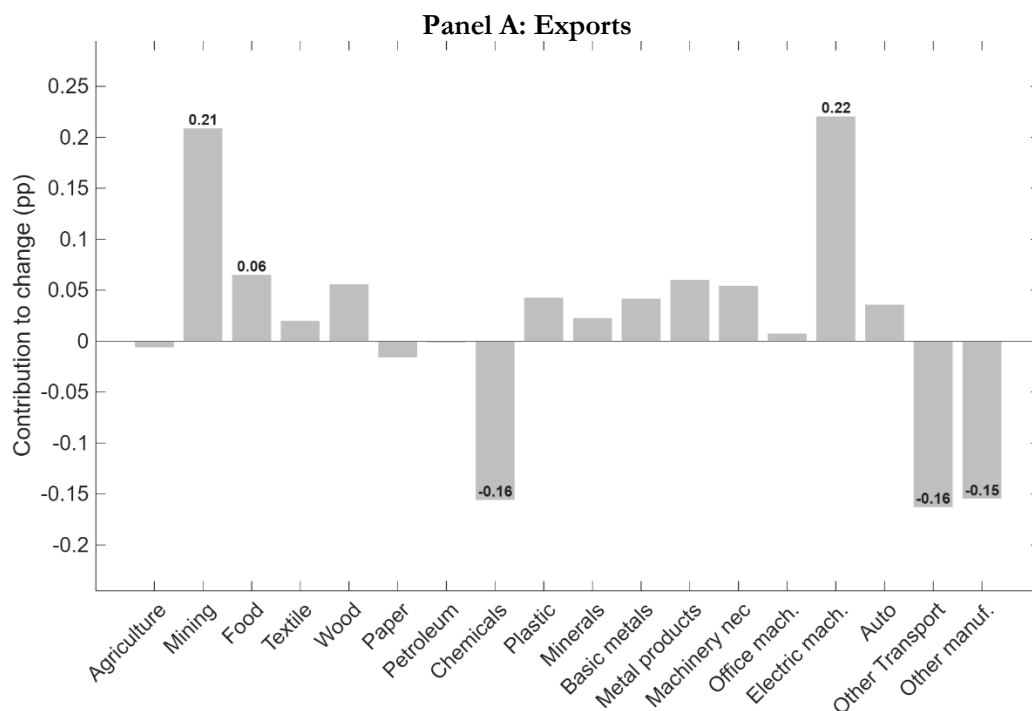
²¹ [Twenty-four US states filed lawsuit to stop Trump's latest global tariffs.](#)

²² These changes are estimated long-term general equilibrium changes and should not be interpreted as projections or actual increases in Northern Ireland's trade.

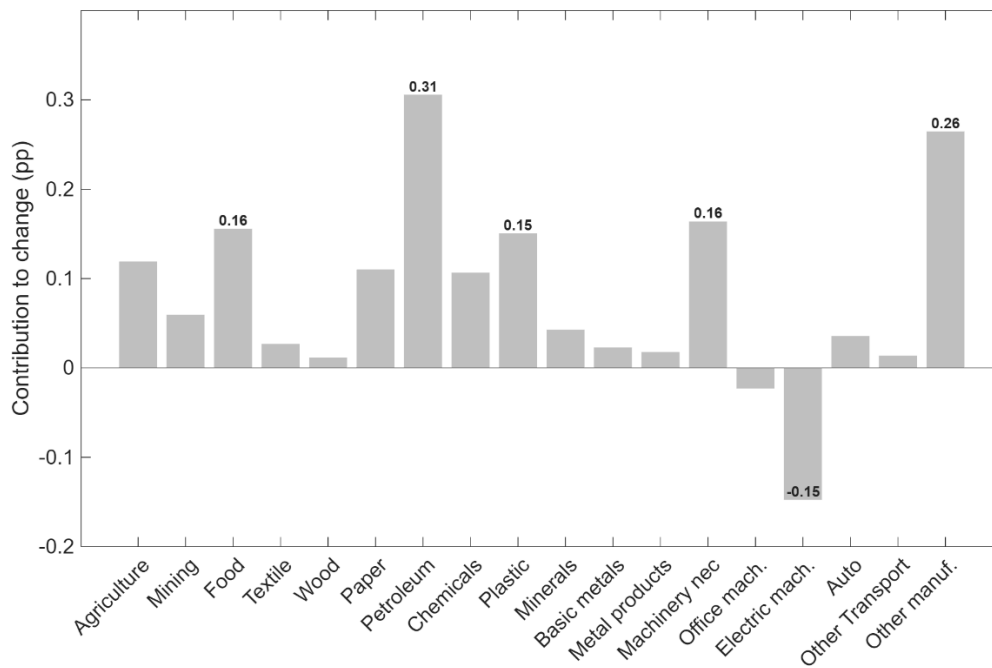
The next set of results look at the model-implied general equilibrium trade flows by tradable sector. Panel A of Figure 4 presents sectors' percentage points contribution to the total percent change in exports. Figure 4 shows that the largest positive contributions to the change in exports arise in electrical machinery and mining and quarrying - sectors facing relatively low increases in US tariffs. While mining and quarrying represents only a small share of NI total exports at baseline (less than 3%), the combination of a low US tariff increase and one of the highest trade elasticities in the model explains the relatively high responsiveness in this sector's exports. In contrast, the most significant negative contributions to the change in total exports occur for chemicals, other transport equipment and other manufacturing. These industries had higher initial export shares, higher input-output linkages, and faced above-average increases in US tariffs.

Panel B of Figure 4 plots sectors' percentage points contribution to the percentage change in total import flows. Import composition reallocates towards petroleum and other manufactures and away from electrical machinery manufacturing, a sector which is highly interrelated with transport and other manufacturing sectors where export volumes and input demand fall.

Figure 4: Sectoral Trade Effects for Northern Ireland



Panel B: Imports



Notes: Effects represent model-implied general equilibrium contributions to the change in bilateral trade flows at producer prices. They are not direct forecasts of observed trade statistics. Contributions to the change are calculated as the trade flow change in each sector scaled by the initial aggregate trade flow.

Source: Authors' simulations.

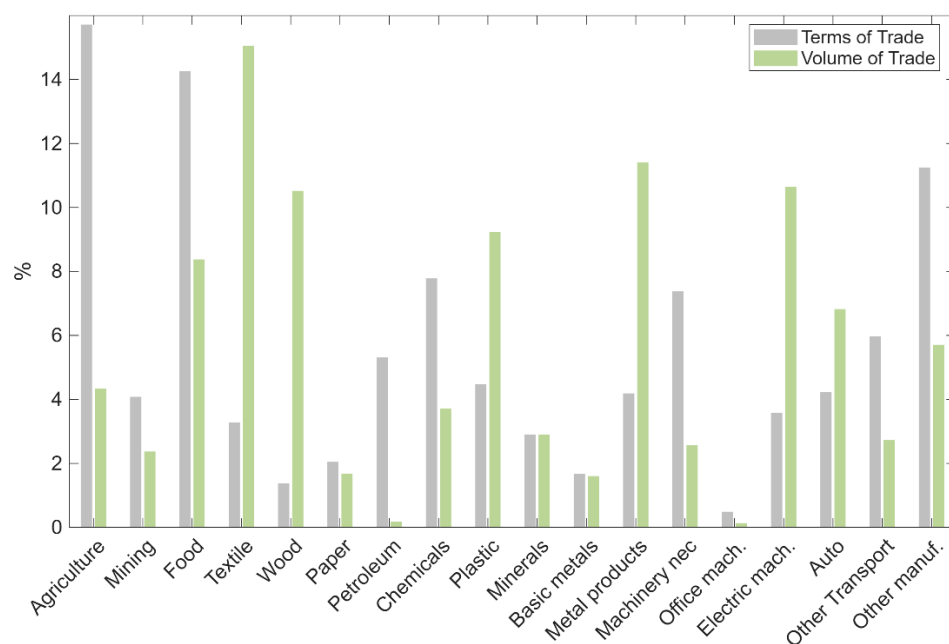
The last set of results quantify the welfare effects resulting from the tariff changes. The model-implied welfare for Northern Ireland falls by 0.94% and is primarily driven by the terms-of-trade component (-0.90%) rather than the volume-of-trade component (-0.04%). As a small open economy,²³ Northern Ireland takes most of the resulting changes in international relative prices compared to larger economies which are able to influence prices of goods abroad. The welfare loss is among the highest in the model alongside small economies such as Greece and highly impacted large economies such as the US and India. The pattern is consistent with gravity-based trade models where smaller economies experience large welfare effects, mainly due to price movements, in response to trade shocks.

Figure 5 presents the contribution to the aggregate welfare trade effect by sector and documents important sectoral heterogeneity. Agriculture and food manufacturing, sectors where leading producers are larger economies facing stronger tariff increases such as Brazil, China, and India,

²³ Using data from the NISRA for 2023, our calculations indicate that the ratio of exports and imports to GDP in Northern Ireland was 42%. This ratio increases to 95% when sales to and purchases from the rest of the UK are included.

and where substitution across suppliers is relatively easy, contribute the most to the terms-of-trade deterioration. By contrast, manufacturing of textiles, metal products, and electrical machinery, industries with high sectoral interconnections and trade openness, account for most of the negative volume-of-trade effect.

Figure 5: Sectoral Contribution to Welfare Trade Effects in Northern Ireland



Notes: Sector contributions are calculated as the sectoral changes in welfare due to the volume-of-trade and terms-of-trade divided by the aggregated changes for each component across sectors. Welfare effects are calculated using equation (16) in Caliendo and Parro (2015).

Source: Authors' simulations.

6.3 Alternative Scenarios

This subsection presents the model simulations using data on tariff rates from the Global Trade Alert in three alternative scenarios:

- i) **Scenario B** - tariff rates after the ruling of the Supreme Court of the United States (SCOTUS) on the 20th February 2026 which struck down the IEEPA 10% floor and country-specific top-up tariffs;
- ii) **Scenario C** - tariff rates post-SCOTUS ruling under Section 122 at 10%;
- iii) **Scenario D** - tariff rates post-SCOTUS ruling under Section 122 at 15%.

In all three cases, counterfactual simulations are obtained relative to the 2019 baseline. The estimated welfare effects are stable across the three scenarios.²⁴ Therefore, the discussion of the counterfactual estimates focuses on the trade flows effects.

Table 5 presents the counterfactual estimates for Northern Ireland's bilateral trade with its main trading partners in the three scenarios described above. The estimated export flows from Northern Ireland to the US decrease by 5% in Scenario B (post-SCOTUS ruling tariffs without Section 122 surcharges) but fall by 12% and 14% in Scenario C (post-SCOTUS ruling tariffs under Section 122 at 10%) and Scenario D (post-SCOTUS ruling tariffs under Section 122 at 15%), respectively. Northern Ireland's estimated imports from the US follow a similar pattern, with a small increase of 1.5% in Scenario B and much larger decreases, by 17% and 23% in Scenario C and Scenario D, respectively. Results show that the effects in the scenarios under Section 122 tariffs are stronger which reflects the fact that Northern Ireland and closer trade partners are more affected in relative terms compared to the Scenario A where the incidence was relatively higher for distant partners such as Brazil and India. As is the case in Scenario A, counterfactual estimates in Scenarios C and D indicate trade diversion towards Great Britain, Ireland, and the rest of the EU.

²⁴ These results are available from the authors upon request.

Table 5: Counterfactual Effects on Northern Ireland's Trade with Main Trade Partners

	Scenario A	Scenario B	Scenario C	Scenario D
Export to (% change):				
US	-14.0	-5.40	-11.60	-13.50
Great Britain	1.64	1.00	1.70	1.90
Ireland	0.59	-0.15	0.40	0.70
Rest of EU	1.63	0.70	1.40	1.40
Total Exports	0.34	0.15	0.005	-0.01
Imports from (% change):				
US	-12.4	1.48	-16.6	-23.2
Great Britain	3.58	0.40	3.30	4.25
Ireland	2.85	-0.16	2.20	3.10
Rest of EU	1.46	-0.32	1.40	2.10
Total Imports	1.40	0.26	0.96	1.2

Notes: Effects represent model-implied general equilibrium changes in bilateral trade flows at producer prices. They are not direct forecasts of observed trade statistics

Source: Authors' simulations.

Table 6 presents counterfactual changes in Northern Ireland's trade flows focusing on the top trade sectors: agriculture, food, chemicals, electrical machinery, other transport equipment, and other goods. The patterns are similar with those in Scenario A (trade tariffs before the SCOTUS ruling), the most affected sectors being chemicals and other transport equipment manufacturing in terms of export flows, and manufacturing of electrical machinery in terms of import flows.

Table 6: Sectoral Trade Effects for Northern Ireland across Different Scenarios

	Scenario A	Scenario B	Scenario C	Scenario D
Exports (pp contribution to percent change):				
Agriculture	-0.006	0.06	0.01	-0.02
Food manufacturing	0.06	0.03	0.06	0.07
Chemicals	-0.16	-0.03	-0.12	-0.15
Electrical machinery man.	0.22	0.11	0.18	0.19
Other transport equipment	-0.16	-0.15	-0.41	-0.48
Other manufacturing	-0.15	0.001	-0.12	-0.16
Imports (pp contribution to percent change):				
Agriculture	0.12	-0.03	0.07	0.11
Food manufacturing	0.16	0.03	0.13	0.16
Chemicals manufacturing	0.10	0.04	0.09	0.11
Electrical machinery man.	-0.15	0.03	-0.20	-0.29
Other transport equipment	0.01	0.05	-0.04	-0.07
Other manufacturing	0.26	0.05	0.23	0.29

Notes: Effects represent model-implied general equilibrium contributions to the change in bilateral trade flows at producer prices. They are not direct forecasts of observed trade statistics. Contributions to the change are calculated as the trade flow change in each sector scaled by the initial aggregate trade flow.

Source: Authors' simulations.

Tables A5 and A6 in the Appendix present counterfactual bilateral and sectoral trade effects when the model is simulated using the Fontagné et al. (2022) product-level trade elasticities instead of the Caliendo and Parro (2015) sector-level elasticities. Overall, these effects are qualitatively similar across Northern Ireland's main trade partners and sectors but larger in magnitude. This difference is expected since the product-level elasticities aggregated at the sectoral level tend to be higher, which implies larger trade effects in response to the same changes in tariffs.

6.4 Challenges and Opportunities for Exporters on the Island of Ireland

The trade tariffs deals between the US and the UK (US-UK Prosperity Deal of 8 May 2025)²⁵ and the US and EU (Cooperation Agreement on Fair and Balanced Trade of 27 July 2025)²⁶ result in a tariff divergence on the island of Ireland: exported goods from Ireland to the US will be subject to 15% tariffs while exported goods to the US from Northern Ireland will be subject to 10% tariffs stacked on existing Most Favoured Nation (MFN) tariffs.

This divergence, equivalent to a “tariff border” poses a challenge to the Windsor Framework – the post-Brexit arrangements for Northern Ireland's trade. Based on the Windsor Framework, Northern Ireland is subject to certain EU rules for goods: depending on the rules of origin for a given product, many goods originating from Northern Ireland are treated as EU-origin when exported. In a situation where exported goods from Northern Ireland contain components from the Republic of Ireland or other EU countries, Northern Ireland's exporters could face increased costs from tariff and regulatory complexity and market complexity.²⁷ Enterprises involved in cross-border supply chains will be particularly exposed to this increased complexity. The rules of origin imply that the origin of goods must be clearly identified and, to qualify as goods originated from Northern Ireland and the tariff applied for exports from the UK to the US, substantial transformation is required. For example, just repackaged goods in Northern Ireland would not be accepted as goods originated in Northern Ireland.²⁸

Whether the UK or EU tariffs for exports of goods from Northern Ireland to the US are more advantageous depends on specific products/industry. According to the US Executive Order of 31 July 2025,²⁹ the EU 15% tariff is not additional to the standard (MFN) US tariff rate, while the UK

²⁵ <https://www.whitehouse.gov/presidential-actions/2025/06/implementing-the-general-terms-of-the-united-states-of-america-united-kingdom-economic-prosperity-deal/>

²⁶ <https://www.whitehouse.gov/briefings-statements/2025/08/joint-statement-on-a-united-states-european-union-framework-on-an-agreement-on-reciprocal-fair-and-balanced-trade/>

²⁷ [Did the EU or the UK get the better trade deal with the US? | RSM UK.](#)

²⁸ [US tariffs: the island of Ireland perspective | RSM UK.](#)

²⁹ [Further Modifying the Reciprocal Tariff Rates – The White House](#), President Donald J. Trump's Executive Order, 31 July 2025.

10% tariff is in addition to the standard US tariff rate. Thus, in the case of US imports from UK where the standard tariff rate is less than 5%, UK exporters (including exporters of goods originated in Northern Ireland) have an advantage over EU exporters (including exporters of goods originated in the Republic of Ireland). In a situation when the standard tariff rate is more than 5%, UK exporters will have a disadvantage relative to EU exporters.

Given that goods from the EU could move to Northern Ireland free of tariffs and without VAT, there could be an opportunity for EU enterprises to move intermediate goods to Northern Ireland for further processing and then to export to the US the further processed goods to take advantage of the lower US tariff if they satisfy the rules of origin for the UK. It is however uncertain if and the extent to which this opportunity will be seized by enterprises based in Northern Ireland and the Republic of Ireland or other EU countries.

Imports of goods from the US into Northern Ireland if deemed to be at risk of moving onwards to the rest of the EU via Ireland will be subject to EU tariffs including any retaliatory EU tariffs. Importers of goods from the US into Northern Ireland are likely to face increased administrative burdens at ports of entry.

7 Potential Impact of the War in Iran on Northern Ireland's Trade

Another important consideration is the emergence of an additional major global supply shock at the time of writing this paper: the closure of the Strait of Hormuz due to the conflict between the US, Israel and Iran in March 2026. This shock is expected to generate additional trade disruption, not only through sharp energy price increases but also through downstream effects on critical products such as fertilizers, petrochemicals, and agricultural goods. Preliminary analysis by Hinz et al. (2026) suggests that the shock will affect key world trade partners such as Taiwan, India, and South Korea given their high dependence on energy imports from the Gulf region.

Given the structure of the quantitative trade model used in this research, an oil price can be represented as a tariff equivalent increase in import costs for the petroleum sector. This mechanism reinforces existing tariff-induced trade distortions by raising product costs and affecting real income. Because the petroleum sector has the highest trade elasticity in the model, such a shock is likely to result in substantial welfare and trade reallocation effects. Stronger input-output linkages with the mining and chemicals sectors amplify these adjustments and propagate the effects to downstream industries, including food, paper, and rubber and plastics. An important avenue for future research is to explicitly incorporate this type of large-scale energy supply disruption into the model to quantify its interaction with recent trade policy shocks.

8 Key Findings and Policy Implications

This research paper quantifies economic effects of recent changes in the US trade policy on Northern Ireland's trade. This research uses a modern multi-country, multi-sector Quantitative International Trade Model with input-output linkages calibrated to data in 2019 (base year) for Northern Ireland, Great Britain, 29 other countries and the Rest of the World. Each country has 32 sectors (18 tradable and 14 non-tradable sectors).

Four counterfactual scenarios are simulated with respect to a situation of no tariff changes since 2019. Simulations reflect long-term reallocation of production and trade and should be interpreted as upper-bound effects incorporating general equilibrium adjustments across sectors and countries given the changes in US trade policy. The following key findings emerge from the counterfactual analysis:

Under Scenario A – increased trade tariffs imposed on 2 April 2025, compared to a situation of no tariff changes since 2019, estimated export flows from Northern Ireland to the US decrease by 14%, while Northern Ireland's import flows from the US decrease by 12%. Northern Ireland's bilateral trade flows with Great Britain, Ireland, and the rest of the EU countries are estimated to increase slightly, reflecting trade diversion across sources and destinations. Given that trade tariffs with countries other than the US do not change, the overall estimated effects on Northern Ireland's trade with these trading partners are positive, albeit small, reflecting trade reallocation across import sources and export destinations, given the increased US trade tariffs.

Sector-specific effects. The counterfactual estimates on exports indicate that the sectors with the largest positive contributions to the change in total exports are electrical machinery and mining and quarrying, sectors facing relatively low increases in US tariffs. The high responsiveness in the mining and quarrying sector is explained by the high trade elasticity in the model, although exports in the sector account for only a small share of Northern Ireland total exports at baseline. In contrast, the most significant negative contributions to the percent change in exports occur for chemicals, other transport equipment and other manufacturing. These industries had higher initial export shares, higher input-output linkages, and faced above-average increases in US tariffs. The counterfactual estimates for imports indicate that the sectors with the largest positive contributions to the percent change are petroleum and basic manufactures, while the highest negative contribution occur for electrical machinery manufacturing, an industry which is highly interrelated with transport equipment and other manufacturing sectors where export volumes and input demand fall.

Welfare effects. Relative to the baseline scenario with no tariff changes, Northern Ireland's welfare declines by almost 1% and is primarily driven by the terms-of-trade decline (-0.90%) while the change in the volume-of-trade is marginal (-0.04%). These results are consistent with Northern Ireland being a small open economy and a price-taker on world markets. The estimates reveal an important heterogeneity with respect to the contribution of sectors to the aggregate welfare effect. The most important contribution to the deterioration in the terms-of-trade is driven by agriculture and food manufacturing, sectors where leading producers are from large economies such as Brazil, China and India and where substitution across suppliers is relatively easy. The negative volume of trade effect is mainly driven by sectors which are highly interconnected in international production networks such as textiles, metal products, and electrical machinery.

Further counterfactual simulations corresponding to the most recent changes in trade tariffs following on from the SCOTUS ruling on the IEEPA tariffs indicate lower declines of Northern Ireland's bilateral trade with its main trading partners consistent with the lower trade tariffs considered in the respective scenarios. Relative to a situation of no tariff changes, export flows from Northern Ireland to the US are estimated to be lower by 5% in Scenario B (post-SCOTUS ruling tariffs without Section 122 surcharges) and lower by 12% and 14% in Scenario C (post-SCOTUS ruling tariffs under Section 122 at 10%) and Scenario D (post-SCOTUS ruling tariffs under Section 122 at 15%), respectively. Northern Ireland's imports from the US follow a similar pattern, with a small increase of 1.5% in Scenario B and much larger decreases, by 17% and 23% in Scenario C and Scenario D, respectively. Once again, it is important to highlight that these effects are measured in producer prices and reflect real production and trade reallocations in the long run. As is the case in Scenario A, counterfactual estimates in Scenarios C and D indicate trade diversion towards Great Britain, Ireland, and the rest of the EU.

Sector-specific effects. As in the case of counterfactual estimates in Scenario A (trade tariffs before the SCOTUS ruling), the most affected sectors are chemicals and other transport equipment in terms of export flows, and manufacturing of electrical machinery in terms of import flows.

The trade tariffs deals between the US and the UK (US-UK Prosperity Deal of 8 May 2025) and the US and EU (Cooperation Agreement on Fair and Balanced Trade of 27 July 2025) result in a **tariff divergence on the island of Ireland:** exported goods from Ireland to the US will be subject to 15% tariffs while exported goods to the US from Northern Ireland will be subject to 10% tariffs stacked on existing Most Favoured Nation (MFN) tariffs. Whether the UK or EU tariffs for exports of goods from Northern Ireland to the US are more advantageous depends on specific products/industry.

Taken together, the results of this research suggest that the recent changes in the US trade policy are likely to affect negatively Northern Ireland's trade with the US. A reallocation of production and trade across sectors and countries is expected with increased bilateral trade between Northern Ireland and Great Britain, Ireland and the rest of the EU.

While the US tariffs imposed after the SCOTUS ruling reduce the economic impact of these changes in the US trade policy on Northern Ireland's trade, uncertainty about further tariff changes is likely to impact negatively on businesses' decisions on investment, input sourcing and contract pricing. While these decisions are taken at company level, a range of policy measures could assist Northern Ireland's enterprises to mitigate these risks, enhance their resilience to trade shocks and create new growth opportunities through access to new international markets. Such policy could include:

- **Mapping of Northern Irelands' supply chains** and identifying export and import dependencies in strategic sectors in the context of geopolitical shifts.
- **Developing frameworks and data-based tools** for anticipating and monitoring trade vulnerabilities and possible critical supply chain disruptions.
- **Market diversification** – designing tools available to enterprises, particularly those exposed to increased US trade tariffs, to explore and enter in new export and import markets.

Further research could inform such policy measures by generating new knowledge to assess: (i) the exposure of Northern Ireland' strategic sectors to foreign input dependence; (ii) the vulnerability to external trade shocks across products, sectors, supply chains and the overall economy; (iii) the interconnectedness between sectors within the all-island economy and implications of the “tariff border” on cross-border trade between Northern Ireland and Ireland; (iv) potential economic effects of the interaction between large-scale energy supply shocks with recent trade policy shocks on Northern Ireland's trade.

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Appendix

Table A1: Sectors in the Model

Sector	Industry	Description	ISIC Rev 3 Correspondence
1	Agriculture	Agriculture, forestry and fishing	1-5
2	Mining	Mining and quarrying	10-14
	Manufacturing		
3	Food	Food products, beverages and tobacco	15-16
4	Textile	Textiles, textile products, leather and footwear	17-19
5	Wood	Wood and products of wood and cork	20
6	Paper	Pulp, paper, paper products, printing and publishing	21-22
7	Petroleum	Coke refined petroleum and nuclear fuel	23
8	Chemicals	Chemicals and chemical products	24
9	Plastics	Rubber and plastics products	25
10	Minerals	Other non-metallic mineral products	26
11	Basic metals		27
12	Metal products	Fabricated metal products, except machinery and equipment	28
13	Machinery nec		29
14	Office	Office, accounting and computing machinery	30
15	Electrical	Electrical machinery, apparatus nec; radio, tv, communication, medical, precision and optical instruments, watches and clocks	31-33
16	Motor vehicles	Motor vehicles trailers and semi-trailers	34
17	Other transport	Other transport equipment	351-359
18	Other	Manufacturing nec and recycling	36-37
19	Electricity	Electricity, gas, and water supply	40-41
20	Construction		45
21	Retail	Wholesale and retail trade	50-52
22	Hospitality	Hotels and restaurants	55
23	Transport	Land, water, air transport; aux. transport act.; post and telecommunication	60-64
24	Finance	Financial intermediation	65-67
25	Real estate		70-71
26	Computer	Computer and related activities	72-73
27	Other Business		74
28	Public	Public admin. and defence	75
29	Education		80
30	Health	Health and social work	85
31	Other services	Other community social and personal services	90-93
32	Private	Private households with employed persons	95

Notes: Manufacturing of communication equipment and Manufacturing of medical equipment are aggregated into Electrical manufacturing; Land, water, air, and auxiliary transport and post are aggregated into Transport; Renting machinery is combined with Real estate activities; and R&D is aggregated into other businesses. The data sources and calibration procedure are described in the following subsections.

Source: Authors elaboration based on the ISIC Rev. 3 classification.

Table A2: Model's Sectors and Mapping to SITC Industries

Sectors	SITC industries
Agriculture, forestry and fishing	05, 22-24, 29
Mining and quarrying	27, 28, 32
Manufacturing	
Food products, beverages and tobacco	06-12, 41-43
Textiles	26, 65, 83-85
Wood products	63
Pulp, paper, paper products, printing and publishing	25, 64
Petroleum	33
Chemicals	51-56, 59
Rubber and plastic products	57-58, 62
Minerals	66
Basic metals	67-68
Metal products	69
Machinery nec	71-74
Office machinery	75
Electrical machinery	76-77, 88
Motor vehicles	78
Other transport equipment	79
Other manufacturing nec	81-82, 87, 89

Source: Authors elaboration based on WITS-UN and F.R.E.I.T ISIC-SITC concordance tables.

Table A3: Model's Sectors and Mapping to SIC Industries

Sector	NISRA NIETS SIC industries	NISRA Input-Output SIC industries
1 Agriculture	1-3	1-3
2 Mining	5-9	5-9
Manufacturing		
3 Food	10-12	10-12
4 Textiles	13-15	13-15
5 Wood	16	16
6 Paper	17-18	17-18
7 Petroleum	19	19-20
8 Chemicals	20-21	21
9 Rubber and plastics	22	22
10 Minerals	23	23
11 Basic metals	24	
12 Metal products	25	25
13 Machinery n.e.c.	28	28
14 Office and computing machinery	26	26
15 Electrical machinery	27	27
16 Motor vehicles	29	29
17 Other transport equipment	30	30
18 Other manufacturing	31-33	31-33

Source: Authors' elaboration based on NISRA data.

Table A4: Bilateral Trade Effects across Different Scenarios – Trade elasticities from Fontagné et al. (2022)

	Pre-ruling	Post SCOTUS ruling – No S122	Post SCOTUS ruling + S122 at 10	Post SCOTUS ruling + S122 at 15
Export to (% change):				
US	-17.1	-9.01	-20.3	-24.1
Great Britain	1.7	1.47	1.99	2.14
Ireland	4.19	1.19	3.57	4.58
Rest of EU	3.77	1.26	3.14	3.73
Total	0.22	-0.09	0.17	-0.11
Imports from (% change):				
US	-25.2	-2.79	-21.4	-28.5
Great Britain	3.09	0.36	2.62	3.46
Ireland	3.06	-0.57	2.38	3.32
Rest of EU	3.09	-0.14	0.90	1.54
Total	1.10	0.09	0.57	0.78

Notes: Effects represent model-implied general equilibrium changes in bilateral trade flows at producer prices. They are not direct forecasts of observed trade statistics.

Source: Authors' simulations.

Table A4: Sectoral Trade Effects across Different Scenarios – Trade elasticities from Fontagné et al. (2022)

	Pre-ruling	Post SCOTUS ruling – No S122 tariffs	Post SCOTUS ruling + S122 tariffs at 10	Post SCOTUS ruling + S122 tariffs at 15
Export (pp contribution to change):				
Agriculture	-0.06	-0.09	-0.06	-0.05
Food manufacturing	-0.17	-0.14	-0.12	-0.12
Chemicals manufacturing	-0.63	-0.006	-0.45	-0.59
Electrical machinery man.	0.08	0.04	0.06	0.08
Other transport equipment	-0.47	-0.22	-0.83	-1.02
Other manufacturing	-0.26	-0.04	-0.20	-0.25
Imports (pp contribution to change):				
Agriculture	0.09	-0.04	0.05	0.08
Food manufacturing	0.13	-0.006	0.08	0.11
Chemicals manufacturing	0.02	0.06	0.04	0.03
Electrical machinery man.	0.09	0.02	0.05	0.05
Other transport equipment	-0.10	0.06	-0.20	-0.24
Other manufacturing	0.30	0.04	0.25	0.32

Notes: Effects represent model-implied general equilibrium changes in bilateral trade flows at producer prices. They are not direct forecasts of observed trade statistics.

Source: Authors' simulations.