Appendix: Exporters and Shocks

Contents

List of Tables

List of Figures

1 CIP data

Our first data source is the Irish Census of Industrial Production (CIP). This census of manufacturing, mining and utilities takes place annually at both the firm (enterprise) and plant (local unit) level. All firms with 3 or more persons engaged are required to fill in a return. The industries covered are NACE revision 1.1 (the harmonized European industrial classification system) classes 10 to 41 until 2007 and NACE revision 2 classes 05 to 39 from 2008. The data available to us covers the period 1991 to 2009. Survey forms and methodology documents for this data are available on the web at www.cso.ie.
Variables in the CIP data are checked for a number of different measurement issues: industry (NACE), county and ownership changes are ignored if they revert in the following year. A similar procedure applies where first or last observations differ from those after or before.

Figures on employment relate to employment in the firm in the second week of September. In some cases this can result in zero employees in combination with a positive wage bill. Where the average wage is clearly out of line with the firm's employment history, the figures are adjusted. For example, if employment is zero but the wage bill is positive, employment figures are obtained by averaging the average wage over the previous and the following year and backing out the employment figure closest to the nearest full number from the wage bill for the current year.

Sales are checked for digit issues based on large changes in sales per employee and deviations from the mean over time. Fuels, materials and wages are checked for large changes from one year to the next and whether they exceed sales both individually as well as taken together. Export and import shares are checked for big changes from year to year as well as for once-off zero observations.

The sampling frame for the CIP is the CSO's business register. Firm identifiers on this register occasionally change due to name or legal status changes even if the firm physically stays the same. We identified possible cases of reclassification in the CIP among firms in the top decile according to turnover. The actual cases were then confirmed by CSO statisticians. We assign these firms a new firm identifier that stays the same over their time in the CIP to ensure they are not classified as entrants or exiters. This affects just over 50 firms throughout the sample period.

2 PRODCOM data

The PRODCOM survey covers all industrial enterprises with three or more persons engaged which are wholly or primarily engaged in industrial production and industrial services in the mining, quarrying and manufacturing industries. The survey does not cover the products of coal and lignite mining and coke and refined petroleum products. The business activity classification used in this publication is based on the Statistical Classification of Economic Activities in the European Community i.e. NACE revision 2. Prior to 2008 PRODCOM publications were based on the NACE Rev.1.1 classification.

The PRODCOM classification is organised into product divisions and classes corresponding to the sectoral divisions (2 digit) of NACE revision 2. It uses an eight-digit product code - XX.XX.XX.XX. The first four digits of the code correspond to the 4-digit classes of NACE. The first six digits are the European Community Classification of Products by Activity (CPA) codes. The CPA provides a detailed listing of the characteristic products for each 4-digit NACE economic activity. The last two digits provide a more detailed breakdown of the CPA classes into PRODCOM product headings. There is a direct link between the PRODCOM classification and the EU foreign trade Harmonised System/Combined Nomenclature (HS/CN) classification.

There were a small number of duplicates in the Prodcom files for the years 2003-2005. These were dealt with by either reassigning firm identifiers, aggregation or deletion. Production values in the PRODCOM file were checked against sales in the CIP for more than 10fold discrepancies (total value over all products in PRODCOM more than 10 times (less than one tenth of) sales in CIP. Values (and if appropriate also proportionately) volumes were then adjusted in the majority of cases by reducing the number of digits in PRODCOM. In a few instances sales in the CIP were adjusted. (Firms are asked to report in multiples of 1000EUR in both surveys, but occasionally they report in actual Euros.)

3 Customs data

Irish customs data are collected by the Revenue Commissioners. Starting in 1993, data for intra-European and extra-European trade are collected separately using two different systems called Intrastat and Extrastat. All VAT-registered traders make regular VAT returns, which record the total value of goods imported from and exported to other EU countries. In addition, traders whose exports to EU countries in the previous twelve months exceeded 635,000 must make a detailed Intrastat export return each month, which reports the value

and volume of intra-EU exports, by destination market and product classification. There is some imputation of data when VAT returns or Intrastat returns are missing. The reporting threshold for extra-European exports to the Extrastat system is 254 Euro per transaction. There is no imputation for Extrastat returns.

Intrastat and Extrastat records are transferred to the CSO, and matched by the CSO to the Business Register using confidential information. We have access to the value (in Euros) and volume of exports by destination market and product classification, aggregated to an annual frequency. We do not have access to a flag for imputed data.

3.1 Quality of CIP-customs match

Our measures of firm-level variables and exports come from different sources - the CIP and customs data. There are two issues in using customs data matched to firms as a measure of export participation (and to a lesser extent, exports conditional on participation). The first is the fact that not all customs records can be matched by the CSO to firms on the Business Register. The second is the possibility that some firms export through intermediaries rather than directly, and are hence misclassified as non-exporters. Table 1 reports customs exports matched by the CSO to firms as a share of total published merchandise exports, and customs exports matched to CIP firms (a subset of firms) as a share of total published merchandise exports. The share of exports that can be matched to firms on the Business Register is relatively low for the period 1996-1998, and highest for the period 1999-2009.

We do have independent information from the CSO on export participation, as firms are asked what share of total sales is due to export sales. In Table 2 we report the number of firms in each of the following four categories: nonexporters in both CIP and customs; nonexporters in CIP, exporters in customs; exporters in CIP, nonexporters in customs; exporters in both CIP and customs. In Table 3 we report the share of CIP revenue accounted for by each of these four groups. It appears possible from these statistics that there are moderately sized firms who are misclassified as nonexporters due to an inability to match the relevant customs records with the Business Register.

Table 4 reports CIP exports (obtained by multiplying a firm's reported export share by its total sales) as a share of total CIP sales, customs exports matched to CIP firms as a share of total CIP sales, and CIP exports for firms classified as exporters by the customs definition as a share of total CIP sales. The latter two ratios are relatively similar, suggesting that on average, the CIP measure of exports may be of reasonable quality, and that conditional on being matched to a CIP firm, customs records provide a relatively complete picture of

exports. However it also suggests that, due to an inability to match customs records to firm identifiers, some exporters are misclassified as nonexporters. Unfortunately, since our empirical strategy relies on precise measurement of the destination composition of exports, we cannot exploit the CIP export measure in our analysis.

Table 1: Exports matched to firms as a share of published merchandise exports

	All firms	CIP firms
1996	0.57	0.53
1997	0.59	0.52
1998	0.65	0.56
1999	0.76	0.64
2000	0.75	0.61
2001	0.74	0.58
2002	0.74	0.60
2003	0.77	0.62
2004	0.78	0.65
2005	0.76	0.62
2006	0.75	0.61
2007	0.77	0.64
2008	0.74	0.64
2009	0.76	0.65
avg 2000-09	0.76	0.62

Notes: First column reports the ratio of customs exports for which the CSO can find a match to a firm on the Business Register (including firms not in the CIP) to total published merchandise exports. The second column reports the ratio of customs exports for which the CSO can find a match to a CIP firm (satisfying our nonzero turnover and employment criteria) to total published merchandise exports. Source: CSO and authors' calculations.

Table 2: Export status: CIP and Customs classification, number of firms

	CIP	Customs	CIP	Customs	CIP	Customs	CIP	Customs	
	Nonex	Nonex	Nonex	Ex	Ex	Nonex	Ex	Ex	Total
1996	2017		94		1277		969		4357
1997	1927		286		864		1417		4494
1998	1922		280		786		1482		4470
1999	1981		273		720		1587		4561
2000	1999		397		699		1731		4826
2001	1930		428		665		1745		4768
2002	2119		452		641		1732		4944
2003	2092		485		632		1693		4902
2004	1929		504		486		1666		4585
2005	1840		436		441		1590		4307
2006	1911		456		509		1600		4476
2007	2436		476		750		1604		5266
2008	2364		478		937		1558		5337
2009	2075		495		841		1495		4906
avg 2000-09	2070		461		660		1641		4832

Notes: First column is the number of CIP firms who report zero exports in the CIP, and who are not matched with any export flows in the customs data. Second column is the number of CIP firms who report zero exports in the CIP and are matched with positive export flows in the customs data. Third column is the number of CIP firms who report positive exports in the CIP and are not matched with any export flows in the customs data. Fourth column is the number of CIP firms who report positive exports in the CIP and are matched with positive export flows in the customs data. Source: CSO and authors' calculations.

Table 3: Export status: CIP and Customs classification, share of CIP revenue

	CIP	Customs	CIP	Customs	CIP	Customs	CIP	Customs
	Nonex	Nonex	Nonex	Ex	Ex	Nonex	Ex	Ex
1996	0.10		0.02		0.33		0.56	
1997	0.09		0.02		0.28		0.62	
1998	0.08		0.01		0.28		0.63	
1999	0.07		0.01		0.24		0.68	
2000	0.07		0.02		0.21		0.70	
2001	0.08		0.02		0.25		0.65	
2002	0.07		0.02		0.24		0.68	
2003	0.05		0.02		0.25		0.68	
2004	0.05		0.02		0.24		0.69	
2005	0.05		0.02		0.25		0.68	
2006	0.05		0.02		0.26		0.67	
2007	0.06		0.01		0.28		0.65	
2008	0.07		0.02		0.22		0.69	
2009	0.06		0.05		0.22		0.68	
avg 2000-09	0.06		0.02		0.24		0.68	

Notes: First column is the share of CIP sales accounted for by CIP firms who report zero exports in the CIP, and who are not matched with any export flows in the customs data. Second column is the share of CIP sales accounted for by CIP firms who report zero exports in the CIP and are matched with positive export flows in the customs data. Third column is the share of CIP sales accounted for by CIP firms who report positive exports in the CIP and are not matched with any export flows in the customs data. Fourth column is the share of CIP sales accounted for by CIP firms who report positive exports in the CIP and are matched with positive export flows in the customs data. Source: CSO and authors' calculations.

Table 4: Different measures of exports: Ratios to total CIP sales

	Total CIP exports	Total matched customs exports	CIP exports of firms with customs exports > 0
1996	0.64	0.42	0.42
1997	0.66	0.41	0.47
1998	0.69	0.49	0.49
1999	0.73	0.55	0.55
2000	0.74	0.55	0.58
2001	0.73	0.55	0.53
2002	0.75	0.54	0.56
2003	0.75	0.47	0.54
2004	0.76	0.50	0.55
2005	0.77	0.47	0.55
2006	0.75	0.44	0.53
2007	0.75	0.44	0.52
2008	0.71	0.49	0.54
2009	0.71	0.53	0.54
avg 2000-09	0.74	0.50	0.54

Notes: First column is the ratio of total exports reported by CIP firms to total sales reported by CIP firms. Second column is the ratio of total customs exports matched to CIP firms to total sales reported by CIP firms. Third column is the ratio of total CIP exports reported by CIP firms who are matched to non-zero export flows in the customs data to total sales reported by CIP firms. Source: CSO and authors' calculations.

3.2 Export markets used in our analysis of export responses

In our full sample we include the following destinations: Australia, Austria, Belgium, Brazil, Canada, China, Denmark, Finland, France, Germany, Hong Kong, India, Italy, Japan, Malaysia, Mexico, Netherlands, New Zealand, Norway, Portugal, Saudi Arabia, South Africa,

Spain, Sweden, Switzerland, Thailand, Turkey, United Arab Emirates, United Kingdom, United States.

Of these, the following are in Intrastat: Austria, Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Portugal, Spain, Sweden, United Kingdom.

The following countries are in Extrastat: Australia, Brazil, Canada, China, Hong Kong, India, Japan, Malaysia, Mexico, New Zealand, Norway, Saudi Arabia, South Africa, Switzerland, Thailand, Turkey, United Arab Emirates, United States.

4 Tariff data

4.1 Tariff sources by country

Irish exporters face zero tariffs in the EU throughout our sample period (1996-2009). They face Most Favored Nation (MFN) tariffs in the following sample countries for the full sample period: Australia, Brazil, Canada, China, Hong Kong, India, Japan, Malaysia, New Zealand, Saudi Arabia, Thailand, United Arab Emirates and the US. Norway and Switzerland are part of the European Free Trade Area (EFTA) of which the EU is also a member throughout the sample period. Tariffs on most products are zero in Norway and Switzerland, but there are non-zero tariffs on some agricultural products and processed agricultural products. The EU and Turkey are part of a customs union throughout the sample period, but again, there are zero tariffs on some agricultural products and processed agricultural products. For some portion of the sample period, Irish exporters face the MFN tariff in Mexico and South Africa; free trade agreements between these countries and the EU came into effect during the sample period, and Irish exporters face preferential tariffs for the latter part of the period.

Throughout, we restrict attention to HS 6-digit products for which there are no non-ad-valorem tariffs at the sub-6-digit tariff line (non-ad-valorem tariffs are more prevalent for some countries than for others and their use declines over time). For these 6-digit products we collect the average tariff across all tariff lines within the 6-digit product, and an indicator for whether there is variation in tariffs across tariff lines within the 6-digit product.

We collect most of our tariff data from the WTO's *Tariff Download Facility*. This is supplemented occasionally by the World Bank's *World Integrated Trade Solution* (WITS) database. We have verified that when both the WTO and WITS report tariffs, the two sources are almost always in agreement. Our data is also supplemented occasionally by information from official documents of preferential trade agreements. We now detail for each country whether and when supplemental sources are used, and provide the relevant details.

- **Australia:** Ireland faces MFN tariffs in Australia 1996-2009. MFN tariffs for Australia are taken from the WTO, available 1996-2009.

- **Brazil:** Ireland faces MFN tariffs in Brazil 1996-2009. MFN tariffs for Brazil are taken from the WTO, available 1997-2002 and 2004-2009. We fill in the tariff for 2003 with the tariff in 2002 for products for which the tariff in 2002 is the same as the tariff in 2004.

- **Canada:** Ireland faces MFN tariffs in Canada 1996-2009. MFN tariffs for Canada are taken from the WTO, available 1996-2009.

- **China:** China joined the WTO in 2001. Ireland faces MFN tariffs in China 2001-2009. The WTO reports MFN tariffs for China 2001-2009, and also for 1996 and 1997. These are the tariffs we use.

- **Hong Kong:** Ireland faces MFN tariffs in Hong Kong 1996-2009. MFN tariffs are taken from the WTO, available 1996-2009 (tariffs are all equal to zero).

- **India:** Ireland faces MFN tariffs in India 1996-2009. MFN tariffs are taken from the WTO, available 1996-1997, 2000-2002 and 2006-2008. Tariffs for 2009 are taken from WITS.

- **Japan:** Ireland faces MFN tariffs in Japan 1996-2009. MFN tariffs are taken from the WTO, available 1996-2009.

- **Malaysia:** Ireland faces MFN tariffs in Malaysia 1996-2009. MFN tariffs are taken from the WTO, available 1999-2009. Malaysia reports 2007 tariffs in the 2002 revision of the HS 6-digit classification (rather than the 2007 revision) and we account for this.

- **Mexico:** Ireland faces MFN tariffs in Mexico 1996-2000. Ireland faces a preferential tariff 2001-2009 (see http://ec.europa.eu/trade/policy/countries-and-regions/countries/mexico/). MFN tariffs are taken from WITS, available 1997-2009. The preferential tariff is taken from the WTO, available in 2001 and 2007. We fill in missing values and missing years for the preferential tariff data with the MFN tariff where the MFN tariff is ad valorem and equal to zero. Mexico reports 2002 tariffs in the 1996 revision of the HS 6-digit classification (rather than the 2002 revision), and reports 2007 tariffs in the 2002 revision of the HS 6-digit classificaiton (rather than the 2007 revision), and we account for this.

- **New Zealand:** Ireland faces MFN tariffs in New Zealand 1996-2009. MFN tariffs are taken from the WTO, available 1996-1999, 2001 and 2003-2009. We fill in the tariff for 2000 with the tariff in 1999 for products for which the tariff in 1999 is the same as the tariff in 2001. We do the same for 2002 for HS 6-digit products for which there is a one-to-one correspondence between the 1996 and 2002 revisions of the HS 6-digit classification.

- **Norway:** Ireland faces the preferential tariff offered to the EU 1996-2009. This preferential tariff is taken from the WTO, available 1999-2009. We fill in some missing values in preferential tariffs for these years with the MFN tariff (also taken from the WTO) where the MFN tariff is ad valorem and equal to zero.

- **Saudi Arabia:** Ireland faces MFN tariffs in Saudi Arabia 1996-2009. MFN tariffs are taken from the WTO, available 2001-2008. Tariffs for 2009 are taken from WITS.

- **South Africa:** Ireland faces MFN tariffs in South Africa 1996-1999. Ireland faces a preferential tariff 2000-2009. MFN tariff data is available from the WTO for the years 2000-2003, 2005 and 2007-2009. Data on the preferential tariff is taken from the WTO, 2000-2003 and 2007-2009. We make use of this preferential tariff data, filling in both missing data for these years and for 2005 using the MFN tariff where the MFN tariff is ad valorem and equal to zero.

- **Switzerland:** Ireland faces the preferential tariff offered to the EU 1996-2009. This preferential tariff is taken from the WTO, available 1996-2009. We fill in some missing values in preferential tariffs for these years with the MFN tariff (also taken from the WTO) where the MFN tariff is ad valorem and equal to zero.

- **Thailand:** Ireland faces MFN tariffs in Thailand 1996-2009. MFN tariffs are taken from the WTO, available 1999, 2001 and 2004-2009. We fill in the tariff for 2000 with the tariff in 1999 for products for which the tariff in 1999 is the same as the tariff in 2001.

- **Turkey:** Turkey and the EU have a customs union agreement which came into force at the beginning of 1996. Preferential tariffs under this agreement are taken from the WTO, available 1996-2004, 2006 and 2008-2009. We fill in the tariff for 2005 with the tariff in 2004 for products for which the tariff in 2004 is the same as the tariff in 2006. We do the same for 2007 for HS 6-digit products for which there is a one-to-one

correspondence between the 2002 and 2007 revisions of the HS 6-digit classification. We fill in some missing values in preferential tariffs for these years with the MFN tariff (also taken from the WTO) where the MFN tariff is ad valorem and equal to zero. Based on the customs union document[1] we fill in any remaining missing non-agricultural tariffs as zero.

- **United Arab Emirates:** Ireland faces MFN tariffs in the United Arab Emirates 1996-2009. MFN tariffs are available from the WTO for 2005, 2007 and 2008. We take tariffs for 2009 from WITS. We fill in the tariff for 2006 with the tariff for 2005 if there is a one-to-one correspondence between the 2002 and 2007 revisions of the HS 6-digit classification, and the tariff in 2005 equals the tariff in 2007.

- **United States:** Ireland faces MFN tariffs in the US 1996-2009. MFN tariffs are taken from the WTO, available 2007-2009. We take tariffs for 1996 from WITS, using information from the WTO for 1997 to identify which HS 6-digit products have non-ad-valorem tariffs at the tariff line.

4.2 Coverage

Table 5 lists for each country and year in the data the number of HS6-digit products for which we have tariff data, excluding HS 6-digit products where there are non-ad-valorem tariffs and where there is sub-6-digit variation at the tariff line. The blanks represent years in which no data is available.

[1] http://www.avrupa.info.tr/fileadmin/Content/Downloads/PDF/Custom_Union_des_ENG.pdf

Table 5: Tariff data coverage: # of HS6s for which we have tariffs

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Australia	4,638	4,640	4,727	4,738	4,748	4,751	4,826	4,826	4,826	4,826	4,826	4,632	4,632	4,632
Brazil		4,444	4,438	4,436	4,416	4,426	4,506	629	4,466	4,452	4,459	4,274	4,272	4,266
Canada	3,693	3,687	3,446	3,461	3,471	3,472	3,534	3,620	3,622	3,592	3,592	3,396	3,392	3,525
China	4,633	4,602				4,548	4,608	4,639	4,674	4,735	4,740	4,519	4,521	4,520
Hong Kong	5,113	5,113	5,113	5,113	5,113	5,113	5,222	5,222	5,222	5,222	5,222	5,051	5,051	5,051
India	5,103	5,102			4,704	4,754	4,947				4,838	4,728	4,613	4,738
Japan	3,860	3,870	3,866	3,783	3,787	3,782	3,855	3,851	4,023	4,033	4,020	3,835	3,835	3,817
Malaysia				4,215	4,313	4,334	4,468	4,443	4,448	4,451	4,452	4,243	4,355	4,363
Mexico		3,873	3,862	3,808	3,805	3,814						4,542		
New Zealand	3,992	4,019	4,062	4,090	4,042	4,080	3,753	4,165	4,208	4,207	4,377	4,177	4,288	4,289
Norway				4,615	4,622	4,626	4,728	4,768	4,829	4,810	4,811	4,649	4,649	4,649
Saudi Arabia						4,644	4,869	4,900	4,897	4,905	4,967	4,920	4,813	4,919
South Africa					3,229	3,286	2,864	3,390				4,387	4,391	4,411
Switzerland	4,425	4,516	4,517	4,514	4,556	4,556	4,660	4,674	4,676	4,679	4,720	4,557	4,574	4,566
Thailand				3,826	129	3,869			3,936	3,939	3,975	4,058	4,058	4,057
Turkey	4,616	4,620	4,623	4,634	4,634	4,634	4,727	4,724	4,700	4,640	4,649	4,406	4,467	4,489
UAE										5,186	4,242	4,920	4,920	4,963
USA	3,075	3,069	3,040	3,240	3,215	3,283	3,336	3,322	3,492	3,353	3,353	3,168	3,170	3,169

Notes: Source: WTO, WITS and authors' calculations. The table reports for each country and year the number of HS6 categories for which there are no ad valorem tariffs, and all tariffs on all tariff lines within the HS6 are identical.

4.3 More details on creation of variables used in the regressions

In the text of the paper, we describe how we create tariff variables at the level of the firm-product-market for our analysis of entry and exit, and our analysis of export revenue. One point that we do not mention there for reasons of space is as follows. When we are constructing a weighted average over a number of HS6 categories, for some of which we do not have tariff data, we take the weighted average only across the HS6s for which we do have tariff data.

4.4 Variation in the data

We illustrate the variation in the raw data by running some simple fixed effects regressions and plotting the histograms of the resulting residuals. Let j index concorded HS6 products, let k index countries and let t index time. We then construct the variables $\ln\left(1+T_t^{jk}\right)$ and $\Delta\ln\left(1+T_t^{jk}\right)$ and run the following regressions:

$$\ln\left(1+T_t^{jk}\right)=\alpha^{jk}+c_t^j+\varepsilon_t^{jk}$$

and

$$\Delta\ln\left(1+\tau_t^{jk}\right)=c_t^j+\eta_t^{jk}$$

Figure 1 plots a histogram of the residuals from the first regression (ε_t^{jk}). Figure 2 plots a histogram of the residuals from the second regression (η_t^{jk}).

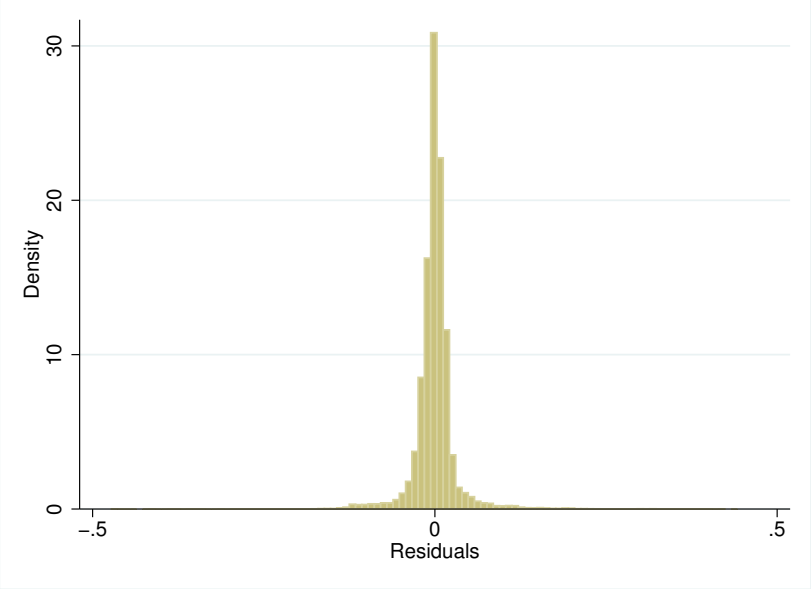

Figure 1: Residual variation in tariff levels

Notes: Figure shows histogram of residuals from regressing $\ln\left(1+\tau_t^{jk}\right)$ on country fixed effects and HS6-year fixed effects. Source: WTO and authors' calculations.

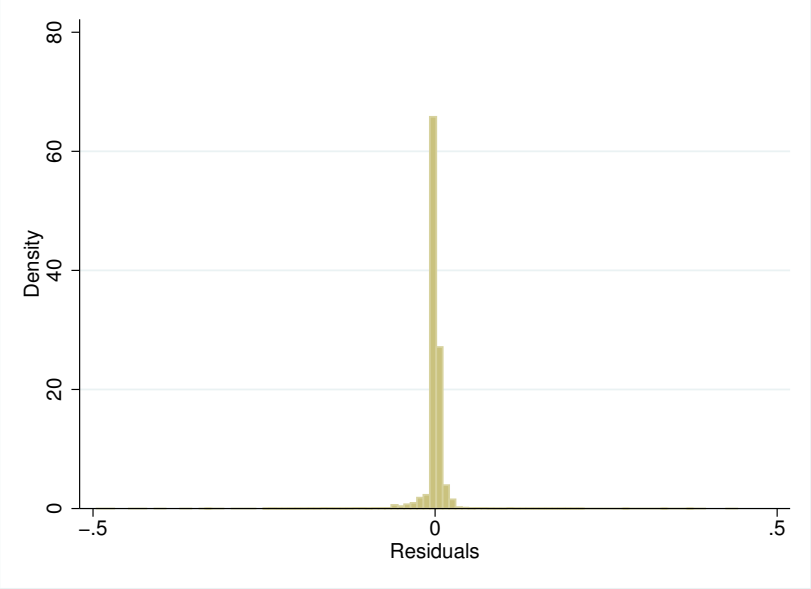

Figure 2: Residual variation in tariff changes

Notes: Figure shows histogram of residuals from regressing $\Delta \ln\left(1+\tau_t^{jk}\right)$ on HS6-year fixed effects. Source: WTO and authors' calculations.

5 Macro data

5.1 Sources

Annual average nominal exchange rates with the US dollar are taken from the IMF's *International Financial Statistics* (IFS). These are used to construct nominal exchange rates between the Irish currency (Irish Punt 1996-2001, Euro 2002-2009) and the relevant partner currency. Fixed Euro conversion rates from the European Central Bank are used to convert pre-Euro currencies to Euros.

The CPI for all countries except China and the United Arab Emirates is taken from IFS. The CPI for China and for the United Arab Emirates 2007-2009 are taken from the the World Bank's *World Development Indicators* (WDI).

National accounts data on GDP, exports and imports in current local currency are taken from both the OECD's *National Accounts Statistics* and the WDI. For Brazil, Hong Kong, India, Malaysia, Saudi Arabia, Thailand and the United Arab Emirates, the WDI data is used. For all other countries, the OECD data is used. Real demand in each market is calculated as GDP - Exports + Imports, deflated by the CPI (taken from IFS for all countries other than China and the UAE, for which data from WDI is used).

5.2 Variation in the data

We illustrate the variation in the raw data by running some simple fixed effects regressions and plotting the histograms of the resulting residuals. Let k index markets and let t index time. For each variable $w = \ln RER,\ \ln Q$ we run the following regressions:

$$w_t^k = \alpha^k + c_t + \varepsilon_t^k$$

and

$$\Delta \ln w_t^k = c_t + \eta_t^k$$

The histograms of the residuals from the four resulting regressions are in Figures 3, 4, 5 and 6.

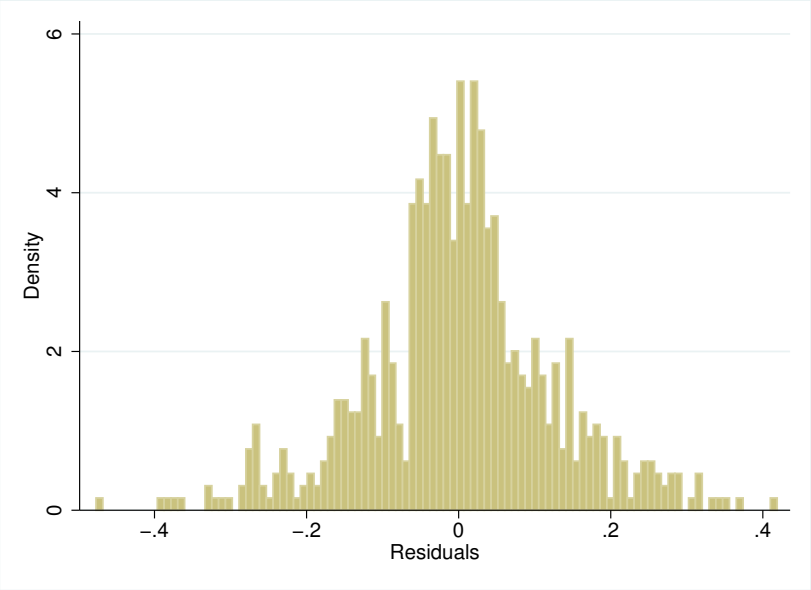

Figure 3: Residual variation in real exchange rate level

Notes: Figure shows histogram of residuals from regressing rer_t^k on country fixed effects and year fixed effects. Source: IFS, WDI and authors' calculations.

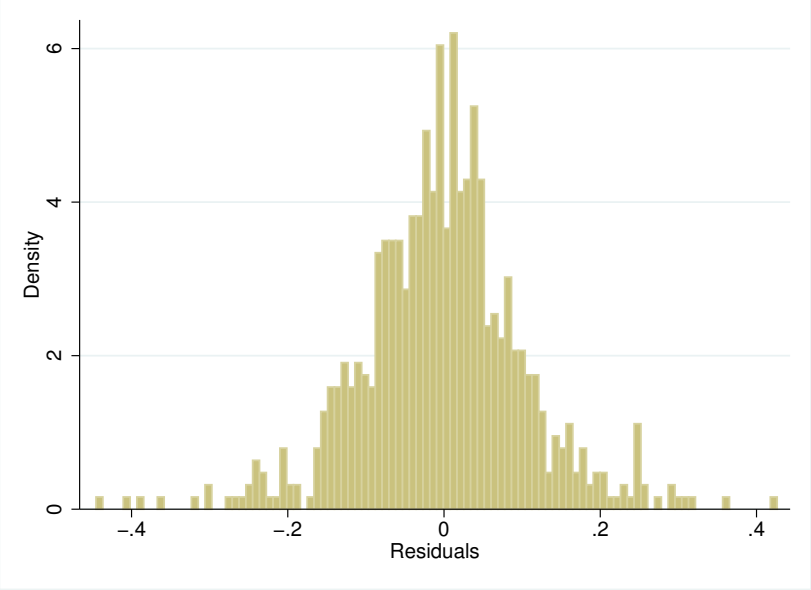

Figure 4: Residual variation in real demand level

Notes: Figure shows histogram of residuals from regressing dem_t^k on country fixed effects and year fixed effects. Source: OECD, WDI, IFS and authors' calculations.

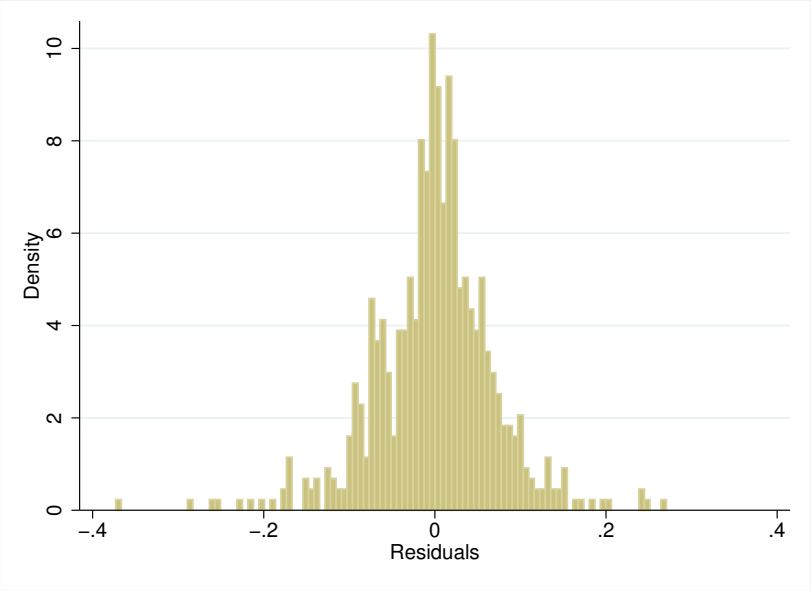

Figure 5: Residual variation in real exchange rate differences

Notes: Figure shows histogram of residuals from regressing $\Delta \ln rer_t^k$ on year fixed effects. Source: IFS, WDI and authors' calculations.

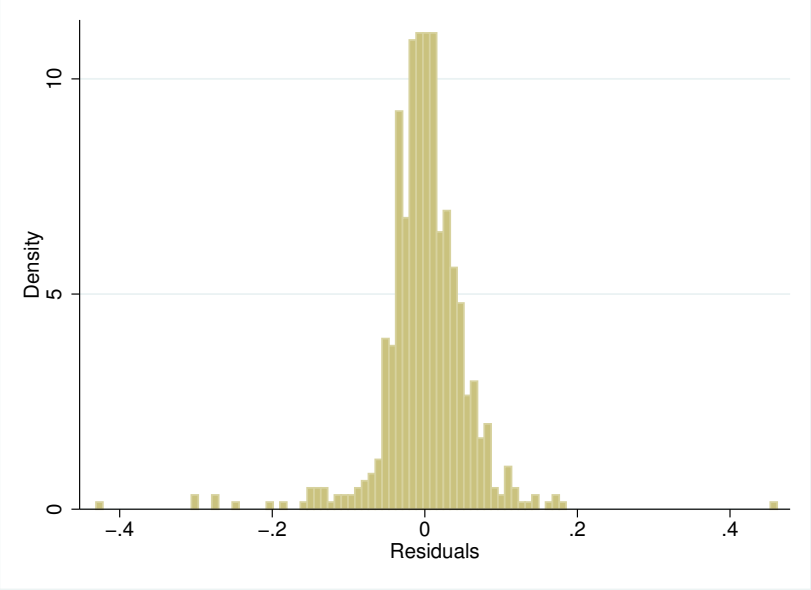

Figure 6: Residual variation in real demand differences

Notes: Figure shows histogram of residuals from regressing $\Delta \ln dem_t^k$ on year fixed effects. Source: OECD, WDI, IFSI and authors' calculations.

6 Additional tables

Table 6: Summary statistics on exporters and non-exporters

		Mean										
				Share	Share	rate of export			ex. size premium		export	# markets
	# firms	employees	age	foreign	multi	particip.	entry†	exit†	employees	revenue	intensity	per exporter
1996	4357	55	14	0.16	0.03	0.25			3.31	4.40	0.46	9.4
1997	4494	56	15	0.15	0.03	0.38			2.35	2.97	0.36	7.0
1998	4470	57	16	0.15	0.03	0.40	0.06	0.07	2.60	3.83	0.38	7.2
1999	4561	57	16	0.14	0.03	0.41	0.09	0.09	3.03	4.60	0.37	7.4
2000	4826	55	16	0.13	0.03	0.45	0.13	0.07	3.14	4.55	0.34	6.9
2001	4768	55	16	0.14	0.03	0.46	0.08	0.07	3.07	3.22	0.33	6.8
2002	4944	51	17	0.13	0.03	0.45	0.08	0.10	3.12	5.19	0.31	6.8
2003	4902	49	17	0.13	0.03	0.45	0.10	0.13	3.33	5.66	0.31	6.9
2004	4585	51	18	0.12	0.03	0.48	0.11	0.13	3.52	5.42	0.31	6.7
2005	4307	53	19	0.13	0.03	0.48	0.08	0.15	3.36	5.26	0.31	6.8
2006	4476	52	18	0.11	0.03	0.47	0.13	0.15	3.28	5.22	0.30	6.4
2007	5266	45	17	0.09	0.02	0.40	0.11	0.16	3.59	5.50	0.29	6.3
2008	5337	40	16	0.09	0.02	0.39	0.09	0.16	4.17	8.44	0.28	5.9
2009	4906	39	17	0.09	0.02	0.41	0.08	0.14	4.18	8.51	0.29	6.4
Avg	4729	51	17	0.13	0.03	0.42	0.09	0.12	3.29	5.20	0.33	6.9

Notes: Statistics are for our cleaned data set of CIP firms. Firms are defined as exporters if they are matched to positive concorded product exports from customs data. Export intensity is calculated as total concorded product exports from customs divided by sales reported in the CIP. Values greater than 1 are replaced by 1. † The set of potential entrants used to calculate the entry rate in year t includes all firms present in year t which did not export in year $t-1$. This includes firms born in year t. The set of potential exiters used to construct the exit rate in year $t$includes all firms exporting in year $t-1$, including those who are no longer present in the CIP in year t. Entry and exit rate averages are calculated over 1998-2009. Source: CSO and authors' calculations.

Table 7: Share of exports by destination in published trade data

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Australia	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Canada	1	1	1	0	0	1	1	1	0	0	0	0	0	1
China	0	0	0	0	0	0	1	1	1	1	1	1	2	2
Denmark	1	1	1	1	1	1	1	1	1	1	1	1	1	0
Japan	3	3	3	3	4	4	3	3	3	3	2	2	2	2
Norway	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Sweden	2	2	2	2	2	1	1	1	1	1	1	1	1	1
Switzerland	2	2	2	2	2	3	3	3	3	4	3	4	3	3
UK	25	25	22	22	22	24	24	18	17	17	18	19	18	16
US	9	11	14	15	17	17	18	21	20	19	19	18	19	22
Euro 9	41	40	43	40	37	35	38	41	42	43	42	40	40	41

Notes: Source: Comtrade and authors' calculations. The Euro 9 includes Austria, Belgium, Finland, France, Germany, Italy, Netherlands, Portugal and Spain.

Table 9: Export entry: Full results including coefficients on export history controls

	(1)	
	Entry	
	coeff	s.e.
τ_t^{jk}	-0.007	(0.002)**
rer_t^k	0.002	(0.001)**
dem_t^k	0.005	(0.001)**
	Omitted: No ex. experience	
$X_{t-2}^{ijk} = 1$	0.141	(0.004)**
$X_{t-3}^{ijk} = 1$	0.072	(0.004)**
$X_{t-4}^{ijk} = 1$	0.040	(0.002)**
Firm-prod-yr f.e.	yes	
Prod-mkt f.e.	yes	
N	2,383,762	
R^2	0.29	
R^2-adjusted	0.24	
	In-sample entry rate	
All	0.008	
$X_{t-2}^{ijk} = 1$	0.226	
$X_{t-3}^{ijk} = 1$	0.140	
$X_{t-4}^{ijk} = 1$	0.075	
$X_{t-k}^{ijk} = 0$	0.006	

Notes: Products are defined based on the concordance of Prodcom and CN product definitions. Sample period is 1998-2009. Only potential entrants are included. Dependent variable is an indicator for entry at the firm-product-market-year level. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 8: Share of in-sample exports by market tenure and export spell length

	Export spell length							
Market tenure	1 year	2 years	3 years	4 years	5 years	6 years	7+ years	Censored exit
1 year	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01
2 years		0.01	0.00	0.01	0.00	0.00	0.02	0.01
3 years			0.00	0.01	0.00	0.00	0.03	0.01
4 years				0.00	0.00	0.00	0.03	0.01
5 years					0.00	0.00	0.03	0.01
6 years						0.00	0.02	0.00
7+ years							0.09	
Censored entry								0.63

Notes: Products are defined based on the concorded CN product definition as described above. Shares are calculated within each year, and then each year is weighted equally. Market tenure is censored when exporting is ongoing in 1996 or begins in 1997. Given top-coding at 7 years, completed export spell length is censored when entry takes place in 2004 or later and exporting is ongoing at the Source: CSO and authors' calculations.

Table 10: Export exit: Full results including coefficients on export history controls

	(1)	
	Exit	
	coeff	s.e.
τ_t^{jk}	0.127	(0.116)
rer_t^k	0.015	(0.023)
dem_t^k	0.013	(0.024)
	Omitted: $age_{t-1}^{ijk} = 1$	
$age_{t-1}^{ijk} = 2$	-0.068	(0.008)**
$age_{t-1}^{ijk} = 3$	-0.099	(0.009)**
$age_{t-1}^{ijk} = 4$	-0.115	(0.010)**
$age_{t-1}^{ijk} = 5$	-0.099	(0.011)**
$age_{t-1}^{ijk} = 6$	-0.132	(0.012)**
$age_{t-1}^{ijk} = 7+$	-0.129	(0.011)**
Censored age	-0.150	(0.008)**
Firm-prod-yr f.e.	yes	
Prod-mkt f.e.	yes	
N	70,189	
R^2	0.60	
R^2-adjusted	0.49	
	In-sample exit rate	
All	0.218	
$age_t^{ijk} = 1$	0.379	
$age_t^{ijk} = 2$	0.313	
$age_t^{ijk} = 3$	0.208	
$age_t^{ijk} = 4$	0.221	
$age_t^{ijk} = 5$	0.173	
$age_t^{ijk} = 6$	0.139	
$age_t^{ijk} = 7+$	0.138	
Censored age	0.135	

Notes: Products are defined based on the concordance of Prodcom and CN product definitions. Sample period is 1998-2009. Only potential exiters are included. Dependent variable is an indicator for exit at the firm-product-market-year level. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 11: Export entry: Marginal effects by ownership

	Domestic		Foreign	
In-sample entry rate	0.005		0.029	
Share of observations	0.862		0.138	
	coeff	s.e.	coeff	s.e.
τ_t^{jk}	0.002	(0.002)	-0.055	(0.001)**
rer_t^k	0.002	(0.001)**	0.003	(0.001)**
dem_t^k	0.005	(0.001)**	0.006	(0.001)**

Notes: Products are defined based on the concordance of Prodcom and CN product definitions. Sample period is 1998-2009. Only potential entrants are included. Dependent variable is an indicator for entry at the firm-product-market-year level. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 12: Export exit: Marginal effects by ownership

	Domestic		Foreign	
In-sample exit rate	0.237		0.203	
Share of observations	0.433		0.567	
	coeff	s.e.	coeff	s.e.
τ_t^{jk}	0.157	(0.212)	0.116	(0.118)
rer_t^k	0.008	(0.023)	0.012	(0.023)
dem_t^k	0.010	(0.025)	0.010	(0.025)

Notes: Products are defined based on the concordance of Prodcom and CN product definitions. Sample period is 1998-2009. Only potential exiters are included. Dependent variable is an indicator for exit at the firm-product-market-year level. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 13: Export entry: Marginal effects by Rauch classification of products

	Commodity		Reference		Differentiated	
In-sample entry rate	0.018		0.010		0.007	
Share of observations	0.044		0.194		0.762	
	coeff	s.e.	coeff	s.e.	coeff	s.e.
τ_t^{jk}	-0.018	(0.010)*	0.000	(0.007)	-0.007	(0.003)**
rer_t^k	-0.000	(0.002)	0.003	(0.001)**	0.002	(0.001)**
dem_t^k	0.007	(0.002)**	0.005	(0.001)**	0.005	(0.001)**

Notes: Products are defined based on the concordance of Prodcom and CN product definitions. Sample period is 1998-2009. Only potential entrants are included. Dependent variable is an indicator for entry at the firm-product-market-year level. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 14: Export exit: Marginal effects by Rauch classification of products

	Commodity		Reference		Differentiated	
In-sample exit rate	0.222		0.201		0.230	
Share of observations	0.109		0.244		0.647	
	coeff	s.e.	coeff	s.e.	coeff	s.e.
τ_t^{jk}	-4.859	(1.737)**	0.147	(0.207)	0.090	(0.135)
rer_t^k	0.060	(0.044)	0.022	(0.024)	0.016	(0.024)
dem_t^k	0.127	(0.066)*	0.010	(0.027)	0.011	(0.026)

Notes: Products are defined based on the concordance of Prodcom and CN product definitions. Sample period is 1998-2009. Only potential exiters are included. Dependent variable is an indicator for exit at the firm-product-market-year level. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 15: Export entry and exit: shocks in differences with lagged difference

	(1)		(2)	
	Entry		Exit	
	coeff	s.e.	coeff	s.e.
$\Delta\tau_t^{jk}$	-0.026	(0.007)**	-1.384	(0.591)**
Δrer_t^k	0.004	(0.001)**	0.109	(0.034)**
Δdem_t^k	0.005	(0.002)**	-0.033	(0.085)
$\Delta\tau_{t-1}^{jk}$	0.003	(0.006)	0.533	(0.506)
Δrer_{t-1}^k	-0.000	(0.001)	-0.027	(0.035)
Δdem_{t-1}^k	0.006	(0.002)**	-0.039	(0.086)
Export history controls	yes		yes	
Firm-prod-yr f.e.	yes		yes	
Prod-mkt f.e.	yes		yes	
N	2,183,222		62,851	
R^2	0.30		0.62	
R^2-adjusted	0.25		0.51	

Notes: Products are defined based on the concordance of Prodcom and CN product definitions. Sample period is 1998-2009. Only potential entrants are included in the entry regression and potential exiters in the exit equation. Dependent variable is an indicator for entry or exit at the firm-product-market-year level. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 16: Export entry: Different samples

	(1)		(2)	
	Intrastat		Intra above threshold	
	coeff	s.e.	coeff	s.e.
rer_t^k	0.014	(0.002)**	0.046	(0.010)**
dem_t^k	0.005	(0.002)**	0.017	(0.009)*
Export history controls	yes		yes	
Firm-prod-yr f.e.	yes		yes	
Prod-mkt f.e.	yes		yes	
N	1,171,865		262,933	
R^2	0.44		0.47	
R^2-adjusted	0.38		0.39	
	In-sample entry rate			
All	0.010		0.040	

Notes: Products are defined based on the concordance of Prodcom and CN product definitions. Sample period is 1998-2009. Only potential entrants are included. First column includes only Intrastat countries. Second column includes only Intrastat countries and firms exporting more than the reporting threshold to Intrastat countries. Dependent variable is an indicator for entry at the firm-product-market-year level. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 17: Export exit: different samples

	(1)		(2)	
	Intrastat		Intra above threshold	
	coeff	s.e.	coeff	s.e.
rer_t^k	0.085	(0.033)**	0.074	(0.034)**
dem_t^k	0.031	(0.028)	0.033	(0.029)
Export history controls	yes		yes	
Firm-prod-yr f.e.	yes		yes	
Prod-mkt f.e.	yes		yes	
N	52,011		49,683	
R^2	0.67		0.67	
R^2-adjusted	0.56		0.56	
	In-sample exit rate			
All	0.190		0.186	

Notes: Products are defined based on the concordance of Prodcom and CN product definitions. Sample period is 1998-2009. Only potential exiters are included. First column includes only Intrastat countries. Second column includes only Intrastat countries and firms exporting more than the reporting threshold to Intrastat countries. Dependent variable is an indicator for exit at the firm-product-market-year level. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 18: Export revenue: Full results including coefficients on export history controls

	(1)	
	Baseline	
	coeff	s.e.
	Low exit probability	
τ_t^{jk}	-3.21	(0.66)**
rer_t^k	0.54	(0.09)**
dem_t^k	0.35	(0.09)**
	High exit probability	
τ_t^{jk}	0.72	(0.58)
rer_t^k	0.50	(0.08)**
dem_t^k	0.26	(0.09)**
	All	
$age_t^{ijk} = 2$	0.75	(0.02)**
$age_t^{ijk} = 3$	1.04	(0.02)**
$age_t^{ijk} = 4$	1.25	(0.03)**
$age_t^{ijk} = 5$	1.42	(0.03)**
$age_t^{ijk} = 6$	0.24	(0.15)**
$age_t^{ijk} = 7+$	0.38	(0.15)**
Censored age	0.59	(0.15)**
Firm-prod-yr f.e.	yes	
Prod-mkt f.e.	yes	
N	191,780	
R^2	0.77	
R^2-adjusted	0.68	

Notes: Products are defined based on the concordance of CN product definitions. Dependent variable is log revenue in Euro at the firm-product-market level. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 19: Export revenue: Interactions on shocks: Ownership

	Domestic owned		Foreign owned	
	coeff	s.e.	coeff	s.e.
	Low exit probability			
τ_t^{jk}	0.51	(1.15)	-3.99	(0.71)**
rer_t^k	0.56	(0.09)**	0.53	(0.09)**
dem_t^k	0.30	(0.09)**	0.37	(0.09)**
	High exit probability			
τ_t^{jk}	3.00	(0.85)**	0.18	(0.63)
rer_t^k	0.53	(0.09)**	0.49	(0.09)**
dem_t^k	0.24	(0.09)**	0.27	(0.09)**

Notes: Products are defined based on the concordance of CN product definitions. Dependent variable is log revenue in Euro at the firm-product-market level. Export history controls include indicators for export tenure (topcoded at 7 years), and an indicator for censored export tenure. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 20: Export revenue: Interactions on shocks: Rauch classification of products

	Commodity		Reference		Differentiated	
	coeff	s.e.	coeff	s.e.	coeff	s.e.
	Low exit probability					
τ_t^{jk}	8.13	(10.29)	-1.40	(1.30)	-3.77	(0.80)**
rer_t^k	-0.19	(0.31)	0.54	(0.10)**	0.63	(0.09)**
dem_t^k	-0.14	(0.44)	0.22	(0.10)**	0.26	(0.10)**
	High exit probability					
τ_t^{jk}	10.58	(12.17)	-0.00	(1.53)	-0.08	(0.67)
rer_t^k	-0.14	(0.31)	0.54	(0.10)**	0.58	(0.09)**
dem_t^k	-0.13	(0.44)	0.09	(0.10)	0.18	(0.10)*

Notes: Products are defined based on the concordance of CN product definitions. Dependent variable is log revenue in Euro at the firm-product-market level. Export history controls include indicators for export tenure (topcoded at 7 years), and an indicator for censored export tenure. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 21: Export revenue: Differences with second lag

	coeff	s.e.
	Low exit probability	
$\Delta\tau_t^{jk}$	-1.01	(1.53)
Δrer_t^k	0.41	(0.16)**
Δdem_t^k	0.66	(0.26)**
	High exit probability	
$\Delta\tau_t^{jk}$	0.80	(1.50)
Δrer_t^k	0.30	(0.17)*
Δdem_t^k	0.84	(0.23)**
	Low exit probability	
$\Delta\tau_{t-1}^{jk}$	-2.38	(2.67)
Δrer_{t-1}^k	0.18	(0.22)
Δdem_{t-1}^k	0.76	(0.27)**
	High exit probability	
$\Delta\tau_{t-1}^{jk}$	-3.18	(2.36)
Δrer_{t-1}^k	-0.12	(0.18)
Δdem_{t-1}^k	-0.08	(0.30)
Export history controls	yes	
Firm-prod-yr f.e.	yes	
N	122,401	
R^2	0.37	
R^2-adjusted	0.23	

Notes: Products are defined based on the concordance of CN product definitions. First column includes only Intrastat countries. Second column includes only Intrastat countries and firms exporting more than the reporting threshold to Intrastat countries. Dependent variable is log revenue in Euro at the firm-product-market level. Export history controls include indicators for export tenure (topcoded at 7 years), and an indicator for censored export tenure. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 22: Export revenue: Different samples

	(1)		(2)	
	Intrastat		Intra above threshold	
	coeff	s.e.	coeff	s.e.
	Low exit probability			
rer_t^k	0.76	(0.11)**	0.81	(0.12)**
dem_t^k	0.24	(0.11)**	0.34	(0.12)**
	High exit probability			
rer_t^k	0.74	(0.11)**	0.79	(0.12)**
dem_t^k	0.15	(0.11)	0.26	(0.12)**
Export history controls	yes		yes	
Firm-prod-yr f.e.	yes		yes	
Prod-mkt f.e.	yes		yes	
N	1,171,865		102,675	
R^2	0.44		0.84	
R^2-adjusted	0.38		0.77	

Notes: Products are defined based on the concordance of CN product definitions. Dependent variable is log revenue in Euro at the firm-product-market level. Export history controls include indicators for export tenure (topcoded at 7 years), and an indicator for censored export tenure. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 23: Revenue dynamics

	coeff	s.e.
Mkt tenure	2-year spell	
1 year	0.48	(0.05)**
2 years	0.49	(0.05)**
Mkt tenure	3-year spell	
1 year	0.83	(0.06)**
2 years	1.23	(0.06)**
3 years	0.66	(0.09)**
Mkt tenure	4-year spell	
1 year	0.86	(0.08)**
2 years	1.42	(0.08)**
3 years	1.45	(0.09)**
4 years	1.00	(0.11)**
Mkt tenure	5-year spell	
1 year	1.03	(0.11)**
2 years	1.67	(0.10)**
3 years	1.70	(0.11)**
4 years	1.59	(0.11)**
5 years	0.98	(0.11)**
Mkt tenure	6-year spell	
1 year	0.98	(0.13)**
2 years	1.86	(0.13)**
3 years	1.93	(0.12)**
4 years	1.94	(0.13)**
5 years	1.65	(0.14)**
6 years	1.17	(0.14)**
Mkt tenure	7+ year spell	
1 year	1.26	(0.08)**
2 years	2.08	(0.07)**
3 years	2.32	(0.07)**
4 years	2.49	(0.07)**
5 years	2.60	(0.07)**
6 years	2.58	(0.07)**
7+ years	2.51	(0.06)**
	Censored	
cens entry	2.74	(0.04)**
cens exit	1.40	(0.05)**
	Fixed effects	
Firm-prod-yr	Yes	
Prod-mkt-yr	Yes	
N	121,261	
rsq	0.73	
rsq-adj	0.55	

Notes: Products are defined based on the concorded CN product definition as described above. Dependent variable is log revenue at the firm-product-market-year level. Full set of firm-product-year and product-market-year effects included. Omitted category is spells that last one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

7 Robustness on adding-up exercise

The algorithm we use to calculate aggregate elasticities is available as a matlab file on request.

We examine robustness to two alternatives to the exercises reported in the paper. First, we allow entry and exit responses to shocks to differ between the short and long run. In this exercise, the first year of the shock, we make use of the changes in entry and exit rates implied by Column (2) of Table 10 in the paper (the specification where tariffs and real exchange rates enter in differences rather than in levels). For all subsequent years, we make use of the changes in entry and exit rates implied by our baseline specification. We do this, both allowing for differences in revenue responses with tenure, and imposing the same revenue responses at all levels of export tenure. In both cases, we allow for both entry and exit responses. The results are reported in Table 24. The entry responses from the specification where shocks enter in differences are larger than the entry responses from the baseline fixed effects specification. But the exit responses from the specification where shocks enter in differences are "perverse" as well as being larger in magnitude. As a result, in this exercise, responses on impact are smaller, while responses throughout the transition are larger than in the comparable cases where there is no distinction between short run and long run entry responses. Naturally, responses in the steady state are not affected.

Second, we allow for heterogeneity in exit responses by tenure in the export market. In this exercise, we apply the changes in exit rates implied by the bottom two panels of Table 9 in the paper (the specification where marginal effect are allowed to vary with export history). We do this, both allowing for differences in revenue responses with tenure, and imposing the same revenue responses at all levels of export tenure. In both cases, we allow for both entry and exit responses. The results are reported in Table 24. Elasticities are magnified relative to the case where the same exit response is applied at all levels of tenure.

Table 24: Elasticities of aggregate exports with respect to shocks

	Tariff shock			
	Short and long tenure revenue elasticities		Long tenure revenue elasticities only	
	Robustness exercise			
Horizon	Short vs long run	Heterogeneous exit	Short vs long run	Heterogeneous exit
1	-1.00	-1.82	-2.81	-3.57
2	-2.07	-2.18	-3.90	-3.91
3	-2.29	-2.50	-4.14	-4.21
4	-2.50	-2.78	-4.35	-4.48
5	-2.68	-3.00	-4.53	-4.69
6	-2.90	-3.20	-4.67	-4.85
steady state	-3.55	-4.50	-5.23	-5.98
	Real exchange rate shock			
	Short and long tenure revenue elasticities		Long tenure revenue elasticities only	
	Robustness exercise			
Horizon	Short vs long run	Heterogeneous exit	Short vs long run	Heterogeneous exit
1	0.46	0.52	0.48	0.54
2	0.56	0.53	0.57	0.55
3	0.56	0.53	0.58	0.55
4	0.57	0.55	0.59	0.57
5	0.58	0.56	0.60	0.58
6	0.59	0.57	0.61	0.59
steady state	0.64	0.63	0.66	0.65

Notes: First column of each panel reports elasticities allowing for differences between entry and exit responses on impact, and entry and exit responses thereafter. Second column of each panel reports elasticities allowing the response of exit to differ by tenure. For details of construction of aggregate elasticities, see text.