Minneapolis Fed
RESEARCH

Appendix: How Exporters Grow

Doireann Fitzgerald

Federal Reserve Bank of Minneapolis and NBER

Stefanie Haller

School of Economics, University College Dublin

Yaniv Yedid-Levi

Vancouver School of Economics, University of British Columbia

Staff Report 539
Revised January 2017

_____

Appendix: How Exporters Grow

Contents

List of Tables

List of Figures

1 Detailed data description

Disclaimer: This description is taken from the online appendix to Fitzgerald and Haller (2015), and is reproduced here for the convenience of readers.

1.1 Census of Industrial Production

The Irish Census of Industrial Production (CIP) is a census of manufacturing, mining and utilities that 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) 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. Share of revenue exported is 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.

1.2 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. The data available to us covers the period 1996-2014. 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.

1.2.1 Quality of CIP-customs match

Our measures of firm-level variables and exports come from different sources - the CIP and customs data. There are three 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. The third is that customs data cover only exports of merchandise, and do not include exports of services. 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. As noted in the text of the paper, 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. Note that this may include exports of services as well as exports of merchandise. 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.

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 Nonex	Customs Nonex	CIP Nonex	Customs Ex	CIP Ex	Customs Nonex	CIP Ex	Customs 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 Nonex	Customs Nonex	CIP Nonex	Customs Ex	CIP Ex	Customs Nonex	CIP Ex	Customs 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.

1.3 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 PROD-COM 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

10-fold 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 1000 EUR in both surveys, but occasionally they report in actual Euros.)

2 Assignment of NACE 3-digit industries to industry groups

Note: This includes only industries where firms are recorded to be in production in Ireland. This classification follows Vermeulen (2007) as described in Fitzgerald and Haller (2013).

I. Consumer food products 151 Production, processing and preserving of meat and meat products 152 Processing and preserving of fish and fish products 153 Processing and preserving of fruit and vegetables 154 Manufacture of vegetable and animal oils and fats 155 Manufacture of dairy products 158 Manufacture of other food products 159 Manufacture of beverages 160 Manufacture of tobacco products **II. Consumer non-food non-durables** 174 Manufacture of made-up textile articles, except apparel 175 Manufacture of other textiles 177 Manufacture of knitted and crocheted articles 181 Manufacture of leather clothes 182 Manufacture of other wearing apparel and accessories 183 Dressing and dyeing of fur; manufacture of articles of fur 191 Tanning and dressing of leather 192 Manufacture of luggage, handbags and the like, saddlery and harness 193 Manufacture of footwear 221 Publishing 222 Printing and service activities related to printing 223 Reproduction of recorded media 244 Manufacture of pharmaceuticals, medicinal chemicals and botanical products 245 Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations 364 Manufacture of sports goods 365 Manufacture of games and toys 366 Miscellaneous manufacturing n.e.c. **III. Consumer durables** 297 Manufacture of domestic appliances n.e.c. 323 Manufacture of television and radio receivers, sound or video recording or reproducing apparatus and associated goods 334 Manufacture of optical instruments and photographic equipment 335 Manufacture of watches and clocks 341 Manufacture of motor vehicles 354 Manufacture of motorcycles and bicycles 361 Manufacture of furniture 362 Manufacture of jewelery and related articles 363 Manufacture of musical instruments **IV. Intermediate goods** 132 Mining of non-ferrous metal ores, except uranium and thorium ores 141 Quarrying of stone 142 Quarrying of sand and clay 143 Mining of chemical and fertilizer minerals 145 Other mining and quarrying n.e.c. 156 Manufacture of grain mill products, starches and starch products 157 Manufacture of prepared animal feeds 171 Preparation and spinning of textile fibres 172 Textile weaving 173 Finishing of textiles 176 Manufacture of knitted and crocheted fabrics 201 Sawmilling

and planing of wood; impregnation of wood 202 Manufacture of veneer sheets; manufacture of plywood, laminboard, particle board, fibre board and other panels and boards 203 Manufacture of builders' carpentry and joinery 204 Manufacture of wooden containers 205 Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials 211 Manufacture of pulp, paper and paperboard 212 Manufacture of articles of paper and paperboard 241 Manufacture of basic chemicals 242 Manufacture of pesticides and other agro-chemical products 243 Manufacture of paints, varnishes and similar coatings, printing ink and mastics 246 Manufacture of other chemical products 247 Manufacture of man-made fibres 251 Manufacture of rubber products 252 Manufacture of plastic products 261 Manufacture of glass and glass products 262 Manufacture of non-refractory ceramic goods other than for construction purposes; manufacture of refractory ceramic products 263 Manufacture of ceramic tiles and flags 264 Manufacture of bricks, tiles and construction products, in baked clay 265 Manufacture of cement, lime and plaster 266 Manufacture of articles of concrete, plaster and cement 267 Cutting, shaping and finishing of ornamental and building stone 268 Manufacture of other non-metallic mineral products 271 Manufacture of basic iron and steel and of ferro-alloys 272 Manufacture of tubes 273 Other first processing of iron and steel 274 Manufacture of basic precious and non-ferrous metals 275 Casting of metals 284 Forging, pressing, stamping and roll forming of metal; powder metallurgy 285 Treatment and coating of metals; general mechanical engineering 286 Manufacture of cutlery, tools and general hardware 287 Manufacture of other fabricated metal products 312 Manufacture of electricity distribution and control apparatus 313 Manufacture of insulated wire and cable 314 Manufacture of accumulators, primary cells and primary batteries 315 Manufacture of lighting equipment and electric lamps 316 Manufacture of electrical equipment n.e.c. 321 Manufacture of electronic valves and tubes and other electronic components **V. Energy** 101 Mining and agglomeration of hard coal 102 Mining and agglomeration of lignite 103 Extraction and agglomeration of peat 111 Extraction of crude petroleum and natural gas 112 Service activities incidental to oil and gas extraction, excluding surveying 232 Manufacture of refined petroleum products **VI. Capital goods** 281 Manufacture of structural metal 282 Manufacture of tanks, reservoirs and containers of metal; manufacture of central heating radiators and boilers 283 Manufacture of steam generators, except central heating hot water boilers 291 Manufacture of machinery for the production and use of mechanical power, except aircraft, vehicle and cycle engines 292 Manufacture of other general purpose machinery 293 Manufacture of agricultural and forestry machinery 294 Manufacture of machine tools 295 Manufacture of other special purpose machinery 300 Manufacture of office machinery and computers 311 Manufacture of electric motors, generators and transformers 322 Manufacture of television and radio transmitters and apparatus for line telephony and line telegraphy 331 Manufacture of medical and surgical equipment and orthopaedic appliances 332 Manufacture of instruments and appliances for measuring, checking, testing, navigating and other purposes, except industrial process control 333 Manufacture of industrial process control equipment 342 Manufacture of bodies (coachwork) for

motor vehicles; manufacture of trailers and semi-trailers 343 Manufacture of parts and accessories for motor vehicles and their engines 351 Building and repairing of ships and boats 352 Manufacture of railway and tramway locomotives and rolling stock 353 Manufacture of aircraft and spacecraft 355 Manufacture of other transport equipment n.e.c.

3 Pure learning models of post-entry export dynamics

Let firm i face demand for good j in market k at time t given by:

$$Q_t^{ijk} = \left(P_t^{ijk}\right)^{-\theta} \exp\left(\varepsilon_t^{ijk}\right) \tag{1}$$

Suppose there is both a permanent and a transitory component to ε_t^{ijk}:

$$\varepsilon_t^{ijk} = \nu^{ijk} + \eta_t^{ijk} \tag{2}$$

The firm can observe ε_t^{ijk} only by selling some non-zero amount in the market at t. The firm does not observe ν^{ijk} and η_t^{ijk} separately, but knows the distributions for both. As a result, prior to entry, its beliefs about ε_t^{ijk} are given by the unconditional distribution of $\nu^{ijk} + \eta_t^{ijk}$. Post-entry, at date t, the information set of a firm which entered the market at date $t - a$ is given by $\left\{\varepsilon_{t-a}^{ijk}, \ldots, \varepsilon_{t-1}^{ijk}\right\}$. The firm uses Bayes' Rule to form beliefs about the distribution from which ε_t^{ijk} is drawn, and hence the distribution it uses to form expectations of ε_t^{ijk} evolves with $\left\{\varepsilon_{t-a}^{ijk}, \ldots, \varepsilon_{t-1}^{ijk}\right\}$.

Conditional on participation at date t, the firm faces a static optimization problem. It can either set prices or set quantities, and the nature of dynamics depend on which it sets.

3.1 Firm sets quantities

This is the case considered by the literature. If the firm chooses its quantity to maximize this period's expected gross profit, given its information set, its problem is:

$$\max_{Q_t^{ijk}} \left(Q_t^{ijk}\right)^{\frac{\theta-1}{\theta}} \mathbb{E}\left(\exp\left(\frac{1}{\theta}\varepsilon_t^{ijk}\right) \mid \left\{\varepsilon_{t-a}^{ijk}, \ldots, \varepsilon_{t-1}^{ijk}\right\}\right) - C_t^{ij} Q_t^{ijk} \tag{3}$$

and its optimal quantity is:

$$Q_t^{ijk} = \left(\frac{\theta-1}{\theta}\right)^{\theta} \left(C_t^{ij}\right)^{-\theta} \left[\mathbb{E}\left(\exp\left(\frac{1}{\theta}\varepsilon_t^{ijk}\right) \mid \left\{\varepsilon_{t-a}^{ijk}, \ldots, \varepsilon_{t-1}^{ijk}\right\}\right)\right]^{\theta} \tag{4}$$

After supplying this quantity to the market, the firm observes the market-clearing price, given by:

$$P_t^{ijk} = \left(\frac{\theta}{\theta - 1}\right) C_t^{ij} \frac{\exp\left(\frac{1}{\theta}\varepsilon_t^{ijk}\right)}{\mathbb{E}\left(\exp\left(\frac{1}{\theta}\varepsilon_t^{ijk}\right) \mid \left\{\varepsilon_{t-a}^{ijk}, \ldots, \varepsilon_{t-1}^{ijk}\right\}\right)} \tag{5}$$

Once it sees the price, the firm can infer ε_t^{ijk}, and can update its beliefs accordingly. Revenue is given by the product of price and quantity:

$$R_t^{ijk} = \left(\frac{\theta - 1}{\theta}\right)^{\theta - 1} \left(C_t^{ij}\right)^{1-\theta} \left[\mathbb{E}\left(\exp\left(\frac{1}{\theta}\varepsilon_t^{ijk}\right) \mid \left\{\varepsilon_{t-a}^{ijk}, \ldots, \varepsilon_{t-1}^{ijk}\right\}\right)\right]^{\theta - 1} \exp\left(\frac{1}{\theta}\varepsilon_t^{ijk}\right) \tag{6}$$

Note that revenue, quantity and price all depend on $\mathbb{E}\left(\exp\left(\frac{1}{\theta}\varepsilon_t^{ijk}\right) \mid \left\{\varepsilon_{t-a}^{ijk}, \ldots, \varepsilon_{t-1}^{ijk}\right\}\right)$, which we will refer to as the firm's "belief." Revenue and quantity are *increasing* in the firm's belief, (with elasticities $\theta - 1$ and θ respectively), while *realized* prices are *decreasing* in its belief (with elasticity 1). At the same time, conditional on beliefs, quantities do not depend on ε_t^{ijk} (and hence the firm's true ν^{ijk}), while conditional on beliefs, prices do depend on the firm's true ν^{ijk}, and are *increasing* in ε_t^{ijk}, and hence in the firm's true ν^{ijk}.

Because quantity and price both depend on beliefs about the distribution of idiosyncratic demand, dynamics in beliefs due to Bayesian learning can induce post-entry dynamics in both variables. Beliefs about idiosyncratic demand also affect the decision to exit in the presence of fixed costs of participation.

3.2   Firm sets prices

If the firm chooses its price to maximize this period's expected gross profit, it solves:

$$\max_{P_t^{ijk}} \left(P_t^{ijk} - C_t^{ij}\right) \left(P_t^{ijk}\right)^{-\theta} \mathbb{E}\left(\exp\left(\varepsilon_t^{ijk}\right) \mid \left\{\varepsilon_{t-a}^{ijk}, \ldots, \varepsilon_{t-1}^{ijk}\right\}\right) \tag{7}$$

The optimal price is then a constant markup over marginal cost:

$$P_t^{ijk} = \frac{\theta}{\theta - 1} C_t^{ij} \tag{8}$$

Given that it sets this price, the quantity demanded is:

$$Q_t^{ijk} = \left(\frac{\theta - 1}{\theta}\right)^{\theta} \left(C_t^{ij}\right)^{-\theta} \exp\left(\varepsilon_t^{ijk}\right) \tag{9}$$

Once it sees the quantity demanded, the firm can infer ε_t^{ijk}. Revenue is:

$$R_t^{ijk} = \left(\frac{\theta - 1}{\theta}\right)^{\theta - 1} \left(C_t^{ij}\right)^{1-\theta} \exp\left(\varepsilon_t^{ijk}\right) \tag{10}$$

Note that when the firm sets prices, revenue, quantity and price *do not* depend on the firm's conditional expectation of $\exp\left(\varepsilon_t^{ijk}\right)$, i.e. its belief (though if there is a fixed cost of participation, its belief does affect the decision to exit). As a result, even though there is learning, there are no post-entry dynamics in revenues, prices and quantities. Meanwhile, conditional on beliefs, quantities are *increasing* in the firm's true ν^{ijk}, while conditional on beliefs, prices do not depend on ν^{ijk}.

Under more general demand and price setting rather than quantity setting, prices depend on beliefs only, while quantities depend on both beliefs and the true ν_t^{ijk}. Hence, both prices and quantities evolve with beliefs.

3.3 Simple example

Suppose $\nu^{ijk} \sim N\left(\mu_\nu, \sigma_\nu^2\right)$ and $\eta_t^{ijk} \sim N\left(0, \sigma_\eta^2\right)$. If the firm has never participated in the market, its beliefs are given by the unconditional distribution of ε_t^{ijk}, $N\left(\mu_\nu, \sigma_\nu^2 + \sigma_\eta^2\right)$. Assuming the firm entered the market at date $t - a$ and observed the sequence of shocks $\left\{\varepsilon_{t-a}^{ijk}, \ldots, \varepsilon_{t-1}^{ijk}\right\}$, its posterior belief at date t about ε_t^{ijk} is distributed $N\left(\mu_a, \sigma_a^2\right)$, where

$$\mu_a = \frac{\sigma_\eta^2}{\sigma_\eta^2 + a\sigma_\nu^2}\mu_\nu + \frac{a\sigma_\nu^2}{\sigma_\eta^2 + a\sigma_\nu^2}\frac{1}{a}\left(\sum_{s=1}^{a}\varepsilon_{t-s}^{ijk}\right) \tag{11}$$

$$\sigma_a^2 = \frac{\sigma_\eta^2\sigma_\nu^2}{\sigma_\eta^2 + a\sigma_\nu^2} + \sigma_\eta^2 \tag{12}$$

In this case, conditional on continued participation, observations whose true value of ν^{ijk} is below the mean μ_ν will have belief $\mathbb{E}\left(\exp\left(\varepsilon_t^{ijk}\right) \mid \left\{\varepsilon_{t-a}^{ijk}, \ldots, \varepsilon_{t-1}^{ijk}\right\}\right)$ declining with tenure in a market on average. In contrast, conditional on continued participation, firms whose true value of ν^{ijk} is above μ_ν will on average have belief $\mathbb{E}\left(\exp\left(\varepsilon_t^{ijk}\right) \mid \left\{\varepsilon_{t-a}^{ijk}, \ldots, \varepsilon_{t-1}^{ijk}\right\}\right)$ increasing with tenure in a market. The relative prevalence of the latter trajectories is increasing in the size of fixed costs of participation. Note that if the firm sets quantities, quantities depend on beliefs only, while prices depend on realizations of shocks as well as beliefs. The converse is true under price setting with non-CES demand.

3.4 Even simpler example

Suppose that $\varepsilon_t^{ijk} = \nu^{ijk} + \eta_t^{ijk}$, where ν^{ijk} is permanent and η_t^{ijk} is iid. Suppose $\nu^{ijk} = 1$ with probability 0.5, and $\nu^{ijk} = -1$ with probability 0.5. Similarly $\eta_t^{ijk} = 1$ with probability 0.5 and $\eta_t^{ijk} = -1$ with probability 0.5. If a firm sees a history that includes $\varepsilon_t^{ijk} = 2$, it learns that it has $\nu^{ijk} = 1$. If it sees a history that includes $\varepsilon_t^{ijk} = -2$, it learns it has $\nu^{ijk} = -1$. If it sees a history that includes only $\varepsilon_t^{ijk} = 0$, it believes $\nu^{ijk} = 1$ with probability 0.5, and $\nu^{ijk} = -1$ with probability 0.5 (which is also the unconditional belief). Suppose that all firms have the same marginal cost, and the fixed cost of participation is such that firms that know they have $\nu = -1$ wish to exit the market, but that uninformed firms and firms that know $\nu = 1$ wish to continue. Then, using the distribution of all possible histories, the selection rule, and equations (4) and (5) above for price and quantity under quantity setting, we can characterize the behavior of quantity and price in export spells of different length. Figures 1 and 2 below illustrate this behavior, under the assumption that $\theta = 2$. As in the body of the paper, quantity and price in 1-year spells are normalized to 1.

Figure 1: Pure learning model: Quantity trajectories by spell length
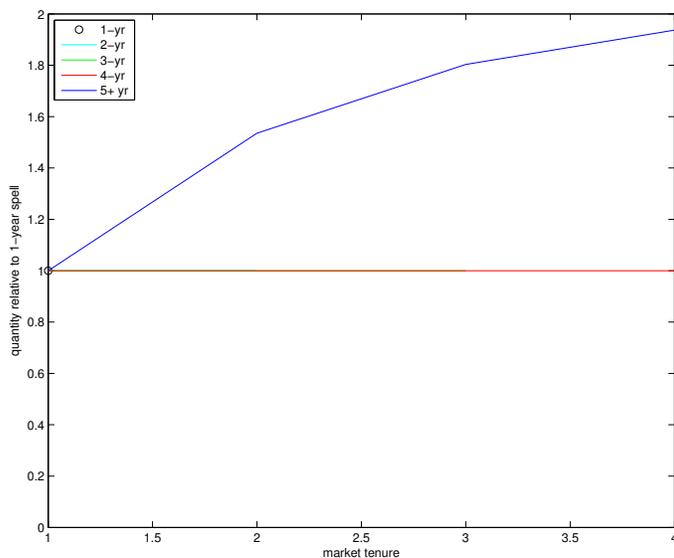
Notes: Figure illustrates quantity trajectories by spell length in a simple example of a model with CES demand with elasticity equal to 2, idiosyncratic demand with a permanent and an iid component, Jovanovic-style learning about demand, and quantity setting.

Figure 2: Pure learning model: Price trajectories by spell length
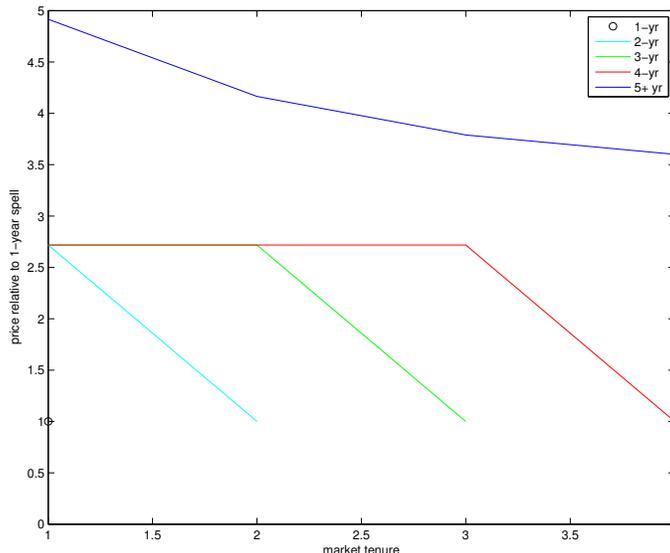
Notes: Figure illustrates price trajectories by spell length in a simple example of a model with CES demand with elasticity equal to 2, idiosyncratic demand with a permanent and an iid component, Jovanovic-style learning about demand, and quantity setting.

These figures illustrate four key features of the behavior of quantity and price in the pure learning model. First, under quantity setting (and quantity setting is necessary to get revenue growth in the longest spells) rising quantity in successful spells is accompanied by falling price. Second, initial quantities do not forecast spell length. Third, initial prices are higher for long spells than short spells. Fourth, prices fall immediately before exit in short spells, as the reduction in price is what signals to firms that they have a low permanent draw.

4 Construction of standard errors on structural parameter estimates

In constructing standard errors for our structural parameter estimates, we follow Gourieroux, Montfort and Renault (cited in the paper) and Chapter 4 of Gourieroux and Montfort (1996).

Let μ be the parameter vector, and μ_0 our estimates of the parameters. Let $b(\mu) = (m - m(\mu))' V (m - m(\mu))$ be our criterion function, where V (a diagonal matrix with the inverse of the standard errors of the estimates of the moments on the diagonal) is the weighting matrix we use.

Let $\Omega^* = J I^{-1} J$.

J is given by:

$$J = 2 \begin{bmatrix} \left(A \left(X_1' X_1 \right)^{-1} A' \right)^{-1} & 0 \\ 0 & \left(B \left(X_2' X_2 \right)^{-1} B' \right)^{-1} \end{bmatrix}$$

where X_1 is the matrix of data on independent variables used to estimate our quantity regressions, and A is the matrix which converts the parameter estimates into the targeted moments (a linear combination of a subset of the parameter estimates). X_2 is the matrix of data on independent variables used to estimate our exit moments, and B is the matrix which converts the parameter estimates into the targeted moments (a linear combination of a subset of the parameter estimates).

I is given by:

$$I = \begin{bmatrix} I_{11} & 0 \\ 0 & I_{22} \end{bmatrix}$$

where

$$I_{11} = A \frac{1}{n_1} \left(\frac{1}{n_1} X_1' X_1 \right)^{-1} \left(\frac{1}{n_1} \sum_{i=1}^{n_1} e_{1i} x_{1i} x_{1i}' \right) \left(\frac{1}{n_1} X_1' X_1 \right)^{-1} A'$$

and

$$I_{22} = B \frac{1}{n_2} \left(\frac{1}{n_2} X_2' X_2 \right)^{-1} \left(\frac{1}{n_2} \sum_{i=1}^{n_2} e_{2i} x_{2i} x_{2i}' \right) \left(\frac{1}{n_2} X_2' X_2 \right)^{-1} B'$$

The inside part of each of these expressions is the robust variance-covariance matrix for the estimates of the coefficients of the quantity and exit equations respectively. Note that we set the off-diagonal terms of the I matrix equal to zero because we do not jointly estimate the quantity and exit equations, so we do not know what are the off-diagonal terms of the variance-covariance matrix of the moment estimates.

Let S be the number of draws used to construct the simulated moments (in our case, 50,000).

The variance-covariance matrix of the parameter estimates is then given by:

$$W = \left(1 + \frac{1}{S} \right) \left[\frac{\partial b'}{\partial \mu} (\mu_0) V \frac{\partial b}{\partial \mu'} (\mu_0) \right]^{-1} \frac{\partial b'}{\partial \mu} (\mu_0) V \Omega^{*-1} V \frac{\partial b}{\partial \mu'} (\mu_0) \left[\frac{\partial b'}{\partial \mu} (\mu_0) V \frac{\partial b}{\partial \mu'} (\mu_0) \right]^{-1}$$

The numerical derivatives of the criterion function are sensitive to the choice of Δ, the vector of increments to the parameters. Our baseline choice of Δ is 0.01 times the baseline parameter vector.

5 Robustness tables: Reduced form empirical analysis

Table 5: Summary statistics on full sample of exporter-years and baseline estimation samples

	(1)	(2)	(3)	(4)	(5)
	Full sample	Product R, Q, P	Market R, #prod	Product exit	Market exit
# employees, mean	84	132	103	92	93
# employees, median	25	48	31	27	26
Firm age, mean	19	21	20	19	19
Firm age, median	16	18	17	16	16
Share foreign owned	0.23	0.36	0.28	0.25	0.25
# export markets, mean	7	11	8	8	8
# export markets, median	2	5	3	2	2
Export share, mean	0.32	0.47	0.37	0.34	0.34
Export share, median	0.15	0.43	0.22	0.17	0.16

Notes: First column reports summary statistics on the full sample of exporter-years. Column 2 reports summary statistics on the firm-years used to estimate columns 1-3 in Table 4 in the paper, i.e. the baseline product-market level analysis of revenue, quantity and price. Column 3 reports summary statistics on the firm-years used to estimate columns 4-5 in Table 4 in the paper, i.e. the baseline market level analysis of revenue and number of products. Column 4 reports summary statistics on the firm-years used to estimate column 1 of Table 5 in the paper, i.e. the baseline product-market level analysis of exit. Column 5 reports summary statistics on the firm-years used to estimate column 2 of Table 5 in the paper, i.e. the baseline market level analysis of exit.

Table 6: Dynamics of revenue, quantity, price, # products: market-year fixed effects

Spell duration	Product rev.		Quantity		Price		Market rev.		# Products	
	Spell intercept									
2 years	0.53	(0.02)**	0.53	(0.02)**	-0.01	(0.01)	0.42	(0.04)**	0.10	(0.01)**
3 years	0.77	(0.03)**	0.77	(0.04)**	-0.00	(0.02)	0.77	(0.06)**	0.15	(0.01)**
4 years	0.96	(0.05)**	0.97	(0.05)**	-0.00	(0.02)	0.87	(0.07)**	0.19	(0.02)**
5 years	1.09	(0.06)**	1.09	(0.07)**	-0.01	(0.03)	1.12	(0.09)**	0.19	(0.02)**
6 years	1.15	(0.08)**	1.12	(0.08)**	0.04	(0.04)	1.20	(0.11)**	0.26	(0.03)**
7+ years	1.41	(0.05)**	1.41	(0.05)**	0.00	(0.02)	1.35	(0.06)**	0.29	(0.01)**
Market tenure	2-year spell									
2 years	-0.03	(0.03)	-0.03	(0.03)	-0.00	(0.02)	-0.02	(0.05)	0.00	(0.01)
Market tenure	3-year spell									
2 years	0.44	(0.05)**	0.45	(0.05)**	-0.01	(0.02)	0.48	(0.07)**	0.11	(0.02)**
3 years	-0.06	(0.05)	-0.06	(0.05)	0.00	(0.02)	0.02	(0.07)	0.01	(0.02)
Market tenure	4-year spell									
2 years	0.53	(0.06)**	0.56	(0.07)**	-0.02	(0.03)	0.61	(0.09)**	0.13	(0.02)**
3 years	0.55	(0.06)**	0.61	(0.07)**	-0.06	(0.03)*	0.58	(0.10)**	0.11	(0.02)**
4 years	-0.02	(0.07)	-0.01	(0.07)	-0.01	(0.03)	0.18	(0.10)*	0.01	(0.02)
Market tenure	5-year spell									
2 years	0.62	(0.09)**	0.62	(0.09)**	0.01	(0.04)	0.71	(0.12)**	0.15	(0.03)**
3 years	0.70	(0.09)**	0.70	(0.09)**	0.00	(0.04)	0.75	(0.12)**	0.18	(0.03)**
4 years	0.57	(0.09)**	0.61	(0.09)**	-0.04	(0.04)	0.59	(0.12)**	0.18	(0.03)**
5 years	-0.03	(0.09)	-0.00	(0.09)	-0.03	(0.04)	0.03	(0.13)	0.04	(0.03)
Market tenure	6-year spell									
2 years	0.72	(0.11)**	0.76	(0.11)**	-0.04	(0.05)	0.68	(0.14)**	0.21	(0.04)**
3 years	0.86	(0.11)**	0.93	(0.11)**	-0.07	(0.05)	0.90	(0.14)**	0.21	(0.04)**
4 years	0.83	(0.11)**	0.91	(0.11)**	-0.08	(0.05)*	1.02	(0.14)**	0.24	(0.04)**
5 years	0.69	(0.11)**	0.74	(0.11)**	-0.04	(0.05)	0.74	(0.15)**	0.14	(0.04)**
6 years	0.12	(0.11)	0.14	(0.12)	-0.02	(0.05)	0.09	(0.15)	0.00	(0.04)
Market tenure	7+ year spell									
2 years	0.85	(0.06)**	0.88	(0.06)**	-0.03	(0.03)	1.02	(0.07)**	0.21	(0.02)**
3 years	1.16	(0.06)**	1.19	(0.06)**	-0.04	(0.03)	1.36	(0.07)**	0.28	(0.02)**
4 years	1.30	(0.06)**	1.33	(0.06)**	-0.03	(0.03)	1.51	(0.07)**	0.31	(0.02)**
5 years	1.33	(0.06)**	1.36	(0.07)**	-0.04	(0.03)	1.61	(0.07)**	0.33	(0.02)**
6 years	1.29	(0.06)**	1.32	(0.07)**	-0.03	(0.03)	1.57	(0.07)**	0.32	(0.02)**
7+ years	1.30	(0.06)**	1.37	(0.06)**	-0.07	(0.03)**	1.65	(0.06)**	0.34	(0.02)**
cens	3.68	(0.03)**	3.72	(0.03)**	-0.04	(0.01)**	4.04	(0.03)**	0.93	(0.01)**
	Fixed effects									
Firm-prod-yr	Yes		Yes		Yes		No		No	
Firm-yr	No		No		No		Yes		Yes	
Market-yr	Yes		Yes		Yes		Yes		Yes	
N	312952		312952		312952		113912		113912	
rsq	0.77		0.83		0.90		0.66		0.57	
rsq-adj	0.59		0.69		0.82		0.58		0.47	

Notes: Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level, and log revenue and log number of products at the firm-market-year level. Full set of firm-product-year and market-year effects included in firm-product-market-year regressions. Full set of firm-year and market-year effects included in firm-market-year regressions. Stata command used is reghdfe. Omitted category is spells that last one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 7: Exit hazard: market-year fixed effects

Market tenure	Firm-prod-mkt		Firm-mkt	
2 years	-0.13	$(0.00)^{**}$	-0.16	$(0.00)^{**}$
3 years	-0.20	$(0.00)^{**}$	-0.22	$(0.01)^{**}$
4 years	-0.24	$(0.00)^{**}$	-0.25	$(0.01)^{**}$
5 years	-0.25	$(0.01)^{**}$	-0.28	$(0.01)^{**}$
6 years	-0.25	$(0.01)^{**}$	-0.27	$(0.01)^{**}$
7+ years	-0.25	$(0.00)^{**}$	-0.28	$(0.01)^{**}$
	Fixed effects			
Firm-prod-yr	Yes		No	
Firm-yr	No		Yes	
Market-yr	Yes		Yes	
N	381452		103297	
rsq	0.70		0.49	
rsq-adj	0.47		0.35	

Notes: Dependent variable is an indicator for exit in the next period. Full set of firm-product-year and market-year effects included at the firm-product-market-year level. Full set of firm-year and market-year effects included at the firm-market-year level. Stata command used is reghdfe. Omitted category is market tenure equal to one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 8: Dynamics of revenue, quantity, price: product-market-year fixed effects

	Product rev.		Quantity		Price	
Spell duration	Spell intercept					
2 years	0.52	(0.04)**	0.55	(0.04)**	-0.02	(0.02)
3 years	0.82	(0.06)**	0.80	(0.06)**	0.02	(0.03)
4 years	0.95	(0.08)**	0.94	(0.08)**	0.01	(0.04)
5 years	1.04	(0.10)**	1.05	(0.10)**	0.00	(0.06)
6 years	1.06	(0.12)**	1.07	(0.13)**	-0.01	(0.06)
7+ years	1.39	(0.07)**	1.43	(0.08)**	-0.04	(0.04)
Market tenure	2-year spell					
2 years	-0.01	(0.05)	-0.02	(0.05)	0.01	(0.03)
Market tenure	3-year spell					
2 years	0.44	(0.07)**	0.46	(0.07)**	-0.02	(0.04)
3 years	-0.08	(0.07)	-0.06	(0.08)	-0.02	(0.04)
Market tenure	4-year spell					
2 years	0.50	(0.10)**	0.54	(0.10)**	-0.04	(0.05)
3 years	0.58	(0.10)**	0.66	(0.10)**	-0.08	(0.06)
4 years	0.12	(0.10)	0.13	(0.10)	-0.01	(0.06)
Market tenure	5-year spell					
2 years	0.63	(0.13)**	0.66	(0.13)**	-0.03	(0.07)
3 years	0.70	(0.13)**	0.71	(0.13)**	-0.01	(0.07)
4 years	0.62	(0.13)**	0.67	(0.14)**	-0.05	(0.07)
5 years	0.12	(0.13)	0.12	(0.14)	0.00	(0.07)
Market tenure	6-year spell					
2 years	0.81	(0.16)**	0.85	(0.17)**	-0.03	(0.08)
3 years	0.98	(0.16)**	1.05	(0.16)**	-0.06	(0.08)
4 years	1.03	(0.16)**	1.07	(0.17)**	-0.04	(0.08)
5 years	0.71	(0.16)**	0.70	(0.17)**	0.01	(0.08)
6 years	0.14	(0.17)	0.11	(0.18)	0.02	(0.09)
Market tenure	7+ year spell					
2 years	0.89	(0.09)**	0.92	(0.09)**	-0.03	(0.04)
3 years	1.20	(0.09)**	1.28	(0.09)**	-0.08	(0.04)*
4 years	1.38	(0.09)**	1.41	(0.09)**	-0.03	(0.05)
5 years	1.48	(0.09)**	1.49	(0.09)**	-0.01	(0.05)
6 years	1.38	(0.09)**	1.41	(0.10)**	-0.03	(0.05)
7+ years	1.43	(0.09)**	1.47	(0.09)**	-0.03	(0.04)
cens	3.68	(0.05)**	3.71	(0.05)**	-0.03	(0.03)
	Fixed effects					
Firm-prod-yr	Yes		Yes		Yes	
Prod-mkt-yr	Yes		Yes		Yes	
N	113817		113817		113817	
rsq	0.78		0.83		0.87	
rsq-adj	0.61		0.70		0.76	

Notes: Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level. Full set of firm-product-year and product-market-year effects included in all regressions. Stata command used is reghdfe. Omitted category is spells that last one year. Robust standard errors are calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 9: Exit hazard: product-market-year fixed effects

Market tenure	Firm-prod-mkt	
2 years	-0.12	(0.00)**
3 years	-0.18	(0.01)**
4 years	-0.21	(0.01)**
5 years	-0.22	(0.01)**
6 years	-0.22	(0.01)**
7+ years	-0.23	(0.01)**
	Fixed effects	
Firm-prod-yr	Yes	
Prod-mkt-yr	Yes	
N	144819	
rsq	0.69	
rsq-adj	0.47	

Notes: Dependent variable is an indicator for exit in the next period. Full set of firm-product-year and product-market-year effects included. Stata command used is reghdfe. Omitted category is market tenure equal to one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 10: Dynamics of revenue, quantity, price: alternative quantity measure

Spell duration	Product rev.		Quantity		Price	
	Spell intercept					
2 years	0.53	(0.06)**	0.60	(0.06)**	-0.08	(0.04)**
3 years	0.70	(0.08)**	0.86	(0.09)**	-0.15	(0.05)**
4 years	0.74	(0.11)**	0.89	(0.12)**	-0.15	(0.06)**
5 years	0.81	(0.14)**	1.00	(0.16)**	-0.19	(0.09)**
6 years	1.02	(0.19)**	1.20	(0.20)**	-0.17	(0.09)**
7+ years	1.29	(0.13)**	1.38	(0.14)**	-0.09	(0.07)**
Market tenure	2-year spell					
2 years	-0.05	(0.07)	-0.05	(0.08)	0.00	(0.05)
Market tenure	3-year spell					
2 years	0.52	(0.11)**	0.48	(0.12)**	0.04	(0.07)
3 years	0.01	(0.11)	-0.02	(0.12)	0.04	(0.07)
Market tenure	4-year spell					
2 years	0.54	(0.14)**	0.51	(0.16)**	0.02	(0.08)
3 years	0.61	(0.14)**	0.54	(0.16)**	0.07	(0.08)
4 years	-0.05	(0.15)	-0.10	(0.16)	0.05	(0.08)
Market tenure	5-year spell					
2 years	0.75	(0.19)**	0.73	(0.22)**	0.02	(0.12)
3 years	0.66	(0.19)**	0.60	(0.21)**	0.05	(0.11)
4 years	0.66	(0.18)**	0.64	(0.20)**	0.02	(0.11)
5 years	0.26	(0.19)	0.10	(0.22)	0.15	(0.11)
Market tenure	6-year spell					
2 years	0.52	(0.26)**	0.53	(0.27)**	-0.01	(0.13)
3 years	0.75	(0.26)**	0.83	(0.26)**	-0.07	(0.11)
4 years	0.81	(0.25)**	0.72	(0.26)**	0.09	(0.12)
5 years	0.93	(0.24)**	0.98	(0.26)**	-0.05	(0.13)
6 years	0.46	(0.25)	0.49	(0.27)*	-0.03	(0.13)
Market tenure	7+ year spell					
2 years	0.90	(0.16)**	1.03	(0.18)**	-0.13	(0.09)
3 years	1.25	(0.16)**	1.27	(0.18)**	-0.02	(0.08)
4 years	1.34	(0.16)**	1.40	(0.17)**	-0.07	(0.08)
5 years	1.42	(0.16)**	1.54	(0.17)**	-0.12	(0.09)
6 years	1.42	(0.16)**	1.48	(0.17)**	-0.07	(0.08)
7+ years	1.51	(0.15)**	1.52	(0.16)**	-0.01	(0.08)
cens	3.39	(0.07)**	3.64	(0.08)**	-0.25	(0.04)**
	Fixed effects					
Firm-prod-yr	Yes		Yes		Yes	
Market	Yes		Yes		Yes	
N	56758		56758		56758	
rsq	0.78		0.83		0.92	
rsq-adj	0.61		0.70		0.85	

Notes: Sample includes only observations for which a second measure of quantity (other than tonnes) is available. This alternative measure is the measure of quantity used, and this quantity is used to construct unit values. Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level. Full set of firm-product-year and market effects included in all regressions. Omitted category is spells that last one year. Robust standard errors are calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 11: Dynamics of revenue, quantity, price, # products: topcoding at 8

Spell duration	Product rev.		Quantity		Price		Market rev.		# Products	
					Spell intercept					
2 years	0.52	(0.02)**	0.52	(0.02)**	-0.01	(0.01)	0.41	(0.04)**	0.10	(0.01)**
3 years	0.77	(0.03)**	0.77	(0.04)**	0.00	(0.02)	0.75	(0.06)**	0.15	(0.01)**
4 years	0.97	(0.05)**	0.97	(0.05)**	0.00	(0.02)	0.85	(0.07)**	0.19	(0.02)**
5 years	1.08	(0.06)**	1.10	(0.07)**	-0.01	(0.03)	1.11	(0.09)**	0.19	(0.02)**
6 years	1.15	(0.08)**	1.11	(0.08)**	0.04	(0.04)	1.18	(0.11)**	0.25	(0.03)**
7 years	1.19	(0.11)**	1.21	(0.11)**	-0.02	(0.05)	1.15	(0.13)**	0.27	(0.03)**
8+ years	1.51	(0.06)**	1.49	(0.06)**	0.02	(0.03)	1.43	(0.06)**	0.29	(0.02)**
Market tenure					2-year spell					
2 years	-0.03	(0.03)	-0.03	(0.03)	0.00	(0.02)	-0.03	(0.05)	-0.01	(0.01)
Market tenure					3-year spell					
2 years	0.43	(0.05)**	0.44	(0.05)**	-0.01	(0.02)	0.47	(0.07)**	0.11	(0.02)**
3 years	-0.05	(0.05)	-0.06	(0.05)	0.00	(0.02)	0.01	(0.07)	0.01	(0.02)
Market tenure					4-year spell					
2 years	0.53	(0.06)**	0.55	(0.07)**	-0.02	(0.03)	0.61	(0.09)**	0.13	(0.02)**
3 years	0.54	(0.06)**	0.59	(0.07)**	-0.05	(0.03)*	0.57	(0.09)**	0.12	(0.02)**
4 years	-0.04	(0.07)	-0.03	(0.07)	-0.01	(0.03)	0.16	(0.10)*	0.01	(0.02)
Market tenure					5-year spell					
2 years	0.63	(0.09)**	0.61	(0.09)**	0.01	(0.04)	0.70	(0.12)**	0.15	(0.03)**
3 years	0.70	(0.09)**	0.69	(0.09)**	0.01	(0.04)	0.73	(0.12)**	0.18	(0.03)**
4 years	0.56	(0.09)**	0.60	(0.09)**	-0.03	(0.04)	0.56	(0.12)**	0.18	(0.03)**
5 years	-0.04	(0.09)	-0.02	(0.09)	-0.02	(0.04)	0.01	(0.12)	0.04	(0.03)
Market tenure					6-year spell					
2 years	0.73	(0.11)**	0.77	(0.11)**	-0.04	(0.05)	0.66	(0.14)**	0.21	(0.04)**
3 years	0.86	(0.11)**	0.94	(0.11)**	-0.07	(0.05)	0.87	(0.14)**	0.21	(0.04)**
4 years	0.84	(0.11)**	0.91	(0.11)**	-0.07	(0.05)	1.00	(0.14)**	0.23	(0.04)**
5 years	0.69	(0.11)**	0.73	(0.11)**	-0.04	(0.05)	0.71	(0.15)**	0.14	(0.04)**
6 years	0.08	(0.11)	0.10	(0.12)	-0.02	(0.05)	0.06	(0.15)	-0.01	(0.04)
Market tenure					7 year spell					
2 years	0.82	(0.15)**	0.81	(0.15)**	0.00	(0.06)	0.95	(0.18)**	0.24	(0.05)**
3 years	1.02	(0.14)**	1.02	(0.15)**	0.00	(0.06)	1.17	(0.18)**	0.25	(0.05)**
4 years	1.17	(0.14)**	1.16	(0.15)**	0.02	(0.06)	1.14	(0.18)**	0.25	(0.05)**
5 years	1.09	(0.14)**	1.09	(0.15)**	0.00	(0.06)	1.05	(0.19)**	0.28	(0.05)**
6 years	0.88	(0.14)**	0.82	(0.15)**	0.06	(0.06)	1.05	(0.18)**	0.25	(0.05)**
7 years	0.13	(0.15)	0.10	(0.15)	0.03	(0.07)	0.39	(0.18)**	0.04	(0.05)
Market tenure					8+ year spell					
2 years	0.83	(0.07)**	0.86	(0.08)**	-0.04	(0.03)	0.99	(0.08)**	0.20	(0.02)**
3 years	1.17	(0.07)**	1.21	(0.08)**	-0.04	(0.03)	1.38	(0.08)**	0.29	(0.02)**
4 years	1.31	(0.08)**	1.35	(0.08)**	-0.04	(0.03)	1.55	(0.08)**	0.33	(0.02)**
5 years	1.36	(0.08)**	1.40	(0.08)**	-0.04	(0.03)	1.65	(0.08)**	0.34	(0.02)**
6 years	1.36	(0.08)**	1.42	(0.08)**	-0.06	(0.03)*	1.64	(0.08)**	0.34	(0.02)**
7 years	1.29	(0.08)**	1.36	(0.08)**	-0.07	(0.03)**	1.63	(0.08)**	0.33	(0.02)**
8+ years	1.31	(0.07)	1.43	(0.07)**	-0.12	(0.03)**	1.58	(0.07)**	0.34	(0.02)**
cens	3.71	(0.03)**	3.75	(0.03)**	-0.04	(0.01)**	4.02	(0.03)**	0.92	(0.01)**
					Fixed effects					
Firm-prod-yr	Yes		Yes		Yes		No		No	
Firm-yr	No		No		No		Yes		Yes	
Market-yr	Yes		Yes		Yes		Yes		Yes	
N	307164		307164		307164		110265		110265	
rsq	0.77		0.83		0.90		0.66		0.57	
rsq-adj	0.58		0.69		0.82		0.59		0.47	

Notes: Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level, and log revenue and log number of products at the firm-market-year level. Full set of firm-product-year and market effects included in firm-product-market-year regressions. Full set of firm-year and market effects included in firm-market-year regressions. Omitted category is spells that last one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 12: Exit hazard: topcoding at 8

Market tenure	Firm-prod-mkt		Firm-mkt	
2 years	-0.13	$(0.00)^{**}$	-0.16	$(0.00)^{**}$
3 years	-0.20	$(0.00)^{**}$	-0.22	$(0.01)^{**}$
4 years	-0.24	$(0.00)^{**}$	-0.25	$(0.01)^{**}$
5 years	-0.25	$(0.01)^{**}$	-0.27	$(0.01)^{**}$
6 years	-0.24	$(0.01)^{**}$	-0.27	$(0.01)^{**}$
7 years	-0.25	$(0.01)^{**}$	-0.28	$(0.01)^{**}$
8+ years	-0.23	$(0.01)^{**}$	-0.25	$(0.01)^{**}$
	Fixed effects			
Firm-prod-yr	Yes		No	
Firm-yr	No		Yes	
Market-yr	Yes		Yes	
N	381452		103297	
rsq	0.70		0.47	
rsq-adj	0.47		0.34	

Notes: Dependent variable is an indicator for exit in the next period. Full set of firm-product-year and market effects included at the firm-product-market-year level. Full set of firm-year and market effects included at the firm-market-year level. Omitted category is market tenure equal to one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 13: Dynamics of revenue, quantity, price, # products: Long sample

Spell duration	Product rev.		Quantity		Price		Market rev.		# Products	
					Spell intercept					
2 years	0.52	(0.02)**	0.51	(0.02)**	0.01	(0.01)	0.43	(0.04)**	0.09	(0.01)**
3 years	0.76	(0.03)**	0.75	(0.03)**	0.01	(0.01)	0.85	(0.05)**	0.16	(0.01)**
4 years	0.89	(0.04)**	0.89	(0.04)**	0.00	(0.02)	0.90	(0.06)**	0.19	(0.01)**
5 years	1.06	(0.05)**	1.06	(0.05)**	0.01	(0.02)	1.14	(0.07)**	0.19	(0.02)**
6 years	1.19	(0.06)**	1.17	(0.06)**	0.02	(0.03)	1.16	(0.09)**	0.22	(0.02)**
7+ years	1.38	(0.04)**	1.38	(0.04)**	0.00	(0.02)	1.49	(0.04)**	0.29	(0.01)**
Market tenure					2-year spell					
2 years	-0.02	(0.02)	-0.01	(0.02)	-0.01	(0.01)	-0.01	(0.04)	-0.01	(0.01)
Market tenure					3-year spell					
2 years	0.43	(0.04)**	0.44	(0.04)**	-0.01	(0.02)	0.44	(0.06)**	0.10	(0.01)**
3 years	0.01	(0.04)	0.00	(0.04)	0.01	(0.02)	0.02	(0.06)	0.01	(0.01)
Market tenure					4-year spell					
2 years	0.56	(0.05)**	0.58	(0.05)**	-0.02	(0.02)	0.62	(0.08)**	0.12	(0.02)**
3 years	0.59	(0.05)**	0.61	(0.05)**	-0.02	(0.02)	0.60	(0.08)**	0.11	(0.02)**
4 years	0.10	(0.05)*	0.09	(0.05)	0.01	(0.03)	0.23	(0.08)**	0.00	(0.02)
Market tenure					5-year spell					
2 years	0.67	(0.06)**	0.67	(0.06)**	-0.01	(0.03)	0.73	(0.10)**	0.14	(0.02)**
3 years	0.74	(0.06)**	0.75	(0.06)**	-0.01	(0.03)	0.76	(0.10)**	0.17	(0.02)**
4 years	0.64	(0.06)**	0.65	(0.07)**	-0.01	(0.03)	0.66	(0.10)**	0.17	(0.02)**
5 years	0.03	(0.07)	0.06	(0.07)	-0.03	(0.03)	0.15	(0.10)	0.06	(0.02)**
Market tenure					6-year spell					
2 years	0.76	(0.08)**	0.76	(0.08)**	0.00	(0.03)	0.71	(0.11)**	0.20	(0.03)**
3 years	0.89	(0.08)**	0.94	(0.08)**	-0.05	(0.03)	0.86	(0.11)**	0.21	(0.03)**
4 years	0.88	(0.08)**	0.91	(0.08)**	-0.03	(0.03)	1.06	(0.11)**	0.21	(0.03)**
5 years	0.71	(0.08)**	0.71	(0.08)**	0.00	(0.03)	0.79	(0.12)**	0.15	(0.03)**
6 years	0.13	(0.08)	0.15	(0.09)*	-0.02	(0.04)	0.16	(0.12)	0.01	(0.03)
Market tenure					7+ year spell					
2 years	0.83	(0.04)**	0.84	(0.05)**	-0.02	(0.02)	0.96	(0.05)**	0.20	(0.01)**
3 years	1.12	(0.04)**	1.14	(0.05)**	-0.02	(0.02)	1.30	(0.05)**	0.27	(0.01)**
4 years	1.30	(0.05)**	1.33	(0.05)**	-0.03	(0.02)	1.49	(0.05)**	0.30	(0.01)**
5 years	1.35	(0.05)**	1.38	(0.05)**	-0.03	(0.02)*	1.59	(0.05)**	0.32	(0.01)**
6 years	1.35	(0.05)**	1.38	(0.05)**	-0.03	(0.02)	1.62	(0.05)**	0.31	(0.01)**
7+ years	1.48	(0.04)**	1.53	(0.04)**	-0.05	(0.02)**	1.84	(0.04)**	0.36	(0.01)**
cens	3.87	(0.03)**	3.93	(0.03)**	-0.06	(0.01)**	4.21	(0.03)**	0.93	(0.01)**
					Fixed effects					
Firm-prod-yr	Yes		Yes		Yes		No		No	
Firm-yr	No		No		No		Yes		Yes	
Market	Yes		Yes		Yes		Yes		Yes	
N	465040		465040		465040		164904		164904	
rsq	0.77		0.83		0.89		0.64		0.55	
rsq-adj	0.60		0.71		0.82		0.56		0.45	

Notes: Sample covers 1996-2014, and does not require that a firm match to the CIP in order to be included. Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level, and log revenue and log number of products at the firm-market-year level. Full set of firm-product-year and market effects included in firm-product-market-year regressions. Full set of firm-year and market effects included in firm-market-year regressions. Omitted category is spells that last one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 14: Exit hazard: long sample

Market tenure	Firm-prod-mkt		Firm-mkt	
2 years	-0.15	$(0.00)^{**}$	-0.17	$(0.00)^{**}$
3 years	-0.21	$(0.00)^{**}$	-0.24	$(0.00)^{**}$
4 years	-0.24	$(0.00)^{**}$	-0.27	$(0.00)^{**}$
5 years	-0.26	$(0.00)^{**}$	-0.28	$(0.00)^{**}$
6 years	-0.25	$(0.00)^{**}$	-0.29	$(0.01)^{**}$
7+ years	-0.27	$(0.00)^{**}$	-0.29	$(0.00)^{**}$
	Fixed effects			
Firm-prod-yr	Yes		No	
Firm-yr	No		Yes	
Market	Yes		Yes	
N	582919		165375	
rsq	0.68		0.46	
rsq-adj	0.47		0.34	

Notes: Sample covers 1996-2014, and does not require that a firm match to the CIP in order to be included. Dependent variable is an indicator for exit in the next period. Full set of firm-product-year and market effects included at the firm-product-market-year level. Full set of firm-year and market effects included at the firm-market-year level. Omitted category is market tenure equal to one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 15: Dynamics of revenue, quantity, price, # products: Long sample, topcoding at 10

	Product rev.		Quantity		Price		Market rev.		# Products	
					Panel I					
Spell duration					Spell intercept					
2 years	0.53	(0.02)**	0.52	(0.02)**	0.01	(0.01)	0.43	(0.04)**	0.10	(0.01)**
3 years	0.78	(0.03)**	0.77	(0.03)**	0.01	(0.01)	0.86	(0.05)**	0.16	(0.01)**
4 years	0.91	(0.04)**	0.91	(0.04)**	0.00	(0.02)	0.90	(0.06)**	0.20	(0.01)**
5 years	1.10	(0.05)**	1.09	(0.05)**	0.01	(0.02)	1.15	(0.07)**	0.19	(0.02)**
6 years	1.23	(0.06)**	1.21	(0.06)**	0.02	(0.03)	1.17	(0.09)**	0.23	(0.02)**
7 years	1.18	(0.08)**	1.17	(0.08)**	0.01	(0.04)	1.21	(0.11)**	0.27	(0.03)**
8 years	1.36	(0.09)**	1.37	(0.09)**	-0.01	(0.04)	1.25	(0.12)**	0.25	(0.03)**
9 years	1.43	(0.12)**	1.48	(0.12)**	-0.04	(0.05)	1.50	(0.14)**	0.31	(0.03)**
10+ years	1.62	(0.05)**	1.59	(0.06)**	0.02	(0.02)	1.60	(0.06)**	0.30	(0.01)**
Market tenure					2-year spell					
2 years	-0.03	(0.02)	-0.02	(0.02)	-0.01	(0.01)	-0.02	(0.04)	-0.01	(0.01)
Market tenure					3-year spell					
2 years	0.42	(0.04)**	0.44	(0.04)**	-0.01	(0.02)	0.43	(0.06)**	0.09	(0.01)**
3 years	-0.01	(0.04)	-0.02	(0.04)	0.01	(0.02)	0.00	(0.06)	0.00	(0.01)
Market tenure					4-year spell					
2 years	0.56	(0.05)**	0.58	(0.05)**	-0.02	(0.02)	0.61	(0.08)**	0.12	(0.02)**
3 years	0.58	(0.05)**	0.60	(0.05)**	-0.02	(0.02)	0.59	(0.08)**	0.10	(0.02)**
4 years	0.06	(0.05)	0.05	(0.05)	0.02	(0.03)	0.19	(0.08)**	-0.01	(0.02)
Market tenure					5-year spell					
2 years	0.66	(0.06)**	0.66	(0.07)**	-0.01	(0.03)	0.73	(0.10)**	0.13	(0.02)**
3 years	0.72	(0.06)**	0.73	(0.07)**	-0.01	(0.03)	0.75	(0.10)**	0.17	(0.02)**
4 years	0.61	(0.06)**	0.62	(0.07)**	-0.01	(0.03)	0.64	(0.10)**	0.16	(0.02)**
5 years	-0.05	(0.07)	-0.02	(0.07)	-0.03	(0.03)	0.10	(0.10)	0.04	(0.02)*
Market tenure					6-year spell					
2 years	0.75	(0.08)**	0.75	(0.08)**	0.00	(0.03)	0.71	(0.12)**	0.20	(0.03)**
3 years	0.88	(0.08)**	0.93	(0.08)**	-0.04	(0.04)	0.86	(0.11)**	0.21	(0.03)**
4 years	0.84	(0.08)**	0.88	(0.08)**	-0.03	(0.03)	1.03	(0.11)**	0.21	(0.03)**
5 years	0.66	(0.08)**	0.66	(0.08)**	0.00	(0.03)	0.74	(0.12)**	0.14	(0.03)**
6 years	0.02	(0.08)	0.03	(0.09)	-0.01	(0.04)	0.08	(0.12)	-0.01	(0.03)
Market tenure					7 year spell					
2 years	0.85	(0.11)**	0.86	(0.11)**	0.00	(0.05)	0.90	(0.15)**	0.19	(0.04)**
3 years	1.00	(0.10)**	1.03	(0.11)**	-0.03	(0.05)	1.11	(0.15)**	0.25	(0.04)**
4 years	1.11	(0.11)**	1.16	(0.11)**	-0.04	(0.05)	1.22	(0.15)**	0.23	(0.04)**
5 years	1.02	(0.11)**	1.09	(0.11)**	-0.07	(0.05)	1.17	(0.15)**	0.25	(0.04)**
6 years	0.86	(0.11)**	0.87	(0.11)**	-0.01	(0.05)	1.05	(0.15)**	0.20	(0.04)**
7 years	0.19	(0.11)	0.22	(0.11)*	-0.03	(0.05)	0.36	(0.15)**	0.03	(0.04)
					Fixed effects					
Firm-prod-yr	Yes		Yes		Yes		No		No	
Firm-yr	No		No		No		Yes		Yes	
Market-yr	Yes		Yes		Yes		Yes		Yes	
N	449929		449929		449929		154341		154341	
rsq	0.77		0.83		0.89		0.65		0.55	
rsq-adj	0.60		0.71		0.82		0.57		0.46	

Notes: Sample covers 1996-2014, and does not require that a firm match to the CIP in order to be included. Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level, and log revenue and log number of products at the firm-market-year level. Full set of firm-product-year and market effects included in firm-product-market-year regressions. Full set of firm-year and market effects included in firm-market-year regressions. Omitted category is spells that last one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 16: Dynamics of revenue, quantity, price, # products: Long sample, topcoding at 10

	Product rev.		Quantity		Price		Market rev.		# Products	
Panel II										
Market tenure					8-year spell					
2 years	0.85	(0.12)**	0.84	(0.13)**	0.01	(0.05)	1.01	(0.15)**	0.15	(0.04)**
3 years	1.10	(0.12)**	1.13	(0.12)**	-0.03	(0.05)	1.39	(0.15)**	0.27	(0.04)**
4 years	1.24	(0.12)**	1.25	(0.12)**	-0.01	(0.06)	1.48	(0.15)**	0.24	(0.04)**
5 years	1.19	(0.12)**	1.24	(0.12)**	-0.05	(0.06)	1.46	(0.15)**	0.24	(0.04)**
6 years	1.07	(0.12)**	1.13	(0.12)**	-0.06	(0.06)	1.31	(0.15)**	0.19	(0.04)**
7 years	0.91	(0.12)**	0.97	(0.12)**	-0.06	(0.06)	1.25	(0.15)**	0.19	(0.04)**
8 years	0.19	(0.12)	0.23	(0.13)*	-0.04	(0.06)	0.44	(0.16)**	0.03	(0.04)
Market tenure					9 year spell					
2 years	0.94	(0.16)**	0.86	(0.17)**	0.07	(0.06)	0.97	(0.19)**	0.20	(0.05)**
3 years	1.38	(0.16)**	1.33	(0.16)**	0.06	(0.06)	1.45	(0.18)**	0.31	(0.05)**
4 years	1.44	(0.16)**	1.37	(0.16)**	0.06	(0.06)	1.53	(0.18)**	0.34	(0.05)**
5 years	1.41	(0.16)**	1.31	(0.16)**	0.10	(0.06)	1.57	(0.18)**	0.35	(0.05)**
6 years	1.41	(0.16)**	1.38	(0.16)**	0.03	(0.06)	1.57	(0.18)**	0.34	(0.05)**
7 years	1.29	(0.16)**	1.25	(0.16)**	0.04	(0.06)	1.44	(0.18)**	0.29	(0.05)**
8 years	1.04	(0.16)**	1.06	(0.16)**	-0.01	(0.07)	1.26	(0.19)**	0.22	(0.05)**
9 years	0.53	(0.16)**	0.46	(0.17)**	0.07	(0.07)	0.56	(0.19)**	0.06	(0.05)
Market tenure					10+ year spell					
2 years	0.84	(0.07)**	0.88	(0.07)**	-0.04	(0.03)	1.03	(0.07)**	0.22	(0.02)**
3 years	1.17	(0.07)**	1.21	(0.07)**	-0.03	(0.03)	1.41	(0.07)**	0.29	(0.02)**
4 years	1.35	(0.07)**	1.40	(0.07)**	-0.05	(0.03)	1.61	(0.07)**	0.34	(0.02)**
5 years	1.46	(0.07)**	1.50	(0.07)**	-0.05	(0.03)	1.73	(0.07)**	0.36	(0.02)**
6 years	1.51	(0.07)**	1.57	(0.07)**	-0.06	(0.03)**	1.77	(0.07)**	0.35	(0.02)**
7 years	1.51	(0.07)**	1.57	(0.07)**	-0.06	(0.03)*	1.84	(0.07)**	0.37	(0.02)**
8 years	1.54	(0.07)**	1.62	(0.07)**	-0.08	(0.03)**	1.88	(0.07)**	0.37	(0.02)**
9 years	1.56	(0.07)**	1.63	(0.07)**	-0.07	(0.03)**	1.94	(0.07)**	0.39	(0.02)**
10+ years	1.53	(0.06)**	1.62	(0.07)**	-0.09	(0.03)**	2.01	(0.06)**	0.40	(0.02)**
cens	3.96	(0.03)**	4.02	(0.03)**	-0.06	(0.01)**	4.28	(0.03)**	0.94	(0.01)**
					Fixed effects					
Firm-prod-yr	Yes		Yes		Yes		No		No	
Firm-yr	No		No		No		Yes		Yes	
Market-yr	Yes		Yes		Yes		Yes		Yes	
N	449929		449929		449929		154341		154341	
rsq	0.77		0.83		0.89		0.65		0.55	
rsq-adj	0.60		0.71		0.82		0.57		0.46	

Notes: Sample covers 1996-2014, and does not require that a firm match to the CIP in order to be included. Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level, and log revenue and log number of products at the firm-market-year level. Full set of firm-product-year and market effects included in firm-product-market-year regressions. Full set of firm-year and market effects included in firm-market-year regressions. Omitted category is spells that last one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 17: Exit hazard: Topcoding at 10, long sample

Market tenure	Firm-prod-mkt		Firm-mkt	
2 years	-0.15	(0.00)**	-0.17	(0.00)**
3 years	-0.21	(0.00)**	-0.24	(0.00)**
4 years	-0.24	(0.00)**	-0.27	(0.00)**
5 years	-0.26	(0.00)**	-0.28	(0.00)**
6 years	-0.25	(0.00)**	-0.29	(0.01)**
7 years	-0.28	(0.01)**	-0.31	(0.01)**
8 years	-0.27	(0.01)**	-0.30	(0.01)**
9 years	-0.27	(0.01)**	-0.30	(0.01)**
10+ years	-0.25	(0.00)**	-0.28	(0.00)**
	Fixed effects			
Firm-prod-yr	Yes		No	
Firm-yr	No		Yes	
Market	Yes		Yes	
N	582919		165375	
rsq	0.68		0.46	
rsq-adj	0.47		0.34	

Notes: Sample covers 1996-2014, and does not require that a firm match to the CIP in order to be included. Dependent variable is an indicator for exit in the next period. Full set of firm-product-year and market effects included at the firm-product-market-year level. Full set of firm-year and market effects included at the firm-market-year level. Omitted category is market tenure equal to one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 18: Dynamics of revenue, quantity, price, # products: firm-product-cohort/ firm-cohort fixed effects

	Product rev.		Quantity		Price		Market rev.		# Products	
Spell duration					Spell intercept					
2 years	0.53	(0.02)**	0.53	(0.02)**	-0.00	(0.01)	0.40	(0.04)**	0.10	(0.01)**
3 years	0.80	(0.03)**	0.79	(0.03)**	0.01	(0.02)	0.72	(0.06)**	0.15	(0.01)**
4 years	0.99	(0.04)**	1.00	(0.04)**	-0.01	(0.02)	0.81	(0.07)**	0.19	(0.02)**
5 years	1.15	(0.05)**	1.15	(0.06)**	0.00	(0.03)	1.11	(0.09)**	0.20	(0.02)**
6 years	1.17	(0.07)**	1.13	(0.07)**	0.04	(0.03)	1.11	(0.10)**	0.23	(0.02)**
7+ years	1.56	(0.04)**	1.55	(0.04)**	0.01	(0.02)	1.35	(0.06)**	0.30	(0.01)**
Market tenure					2-year spell					
2 years	-0.09	(0.03)**	-0.08	(0.03)**	-0.01	(0.01)	-0.10	(0.05)**	-0.01	(0.01)
Market tenure					3-year spell					
2 years	0.36	(0.04)**	0.36	(0.04)**	-0.00	(0.01)	0.39	(0.07)**	0.10	(0.02)**
3 years	-0.10	(0.04)**	-0.10	(0.05)**	0.00	(0.02)	-0.07	(0.07)	0.01	(0.02)
Market tenure					4-year spell					
2 years	0.43	(0.05)**	0.45	(0.05)**	-0.02	(0.03)	0.49	(0.08)**	0.11	(0.02)**
3 years	0.42	(0.06)**	0.47	(0.06)**	-0.05	(0.03)*	0.41	(0.09)**	0.12	(0.02)**
4 years	-0.14	(0.06)**	-0.12	(0.06)*	-0.02	(0.03)	-0.05	(0.09)	0.01	(0.02)
Market tenure					5-year spell					
2 years	0.54	(0.07)**	0.53	(0.07)**	0.01	(0.03)	0.58	(0.11)**	0.15	(0.03)**
3 years	0.58	(0.07)**	0.57	(0.07)**	0.01	(0.03)	0.53	(0.11)**	0.18	(0.03)**
4 years	0.48	(0.07)**	0.50	(0.08)**	-0.02	(0.04)	0.30	(0.11)**	0.19	(0.03)**
5 years	-0.06	(0.08)	-0.03	(0.08)	-0.02	(0.04)	-0.26	(0.12)**	0.06	(0.03)**
Market tenure					6-year spell					
2 years	0.68	(0.09)**	0.71	(0.09)**	-0.04	(0.04)	0.53	(0.13)**	0.19	(0.03)**
3 years	0.81	(0.09)**	0.89	(0.09)**	-0.07	(0.04)*	0.73	(0.13)**	0.21	(0.04)**
4 years	0.79	(0.09)**	0.84	(0.10)**	-0.06	(0.04)	0.81	(0.13)**	0.25	(0.03)**
5 years	0.67	(0.09)**	0.69	(0.10)**	-0.02	(0.04)	0.49	(0.13)**	0.17	(0.04)**
6 years	0.06	(0.10)	0.09	(0.11)	-0.03	(0.05)	-0.12	(0.14)	0.04	(0.04)
Market tenure					7+ year spell					
2 years	0.77	(0.05)**	0.79	(0.05)**	-0.03	(0.02)	0.85	(0.06)**	0.19	(0.02)**
3 years	1.06	(0.05)**	1.09	(0.05)**	-0.03	(0.02)	1.13	(0.06)**	0.26	(0.02)**
4 years	1.20	(0.05)**	1.23	(0.06)**	-0.03	(0.02)	1.23	(0.06)**	0.31	(0.02)**
5 years	1.25	(0.06)**	1.28	(0.06)**	-0.03	(0.02)	1.30	(0.06)**	0.32	(0.02)**
6 years	1.21	(0.06)**	1.24	(0.06)**	-0.03	(0.03)	1.29	(0.06)**	0.32	(0.02)**
7+ years	1.10	(0.06)**	1.15	(0.06)**	-0.04	(0.03)	1.24	(0.06)**	0.31	(0.02)**
					Fixed effects					
Firm-prod-yr	Yes		Yes		Yes		No		No	
Firm-yr	No		No		No		Yes		Yes	
Market	Yes		Yes		Yes		Yes		Yes	
Firm-prod-cohort	Yes		Yes		Yes		No		No	
Firm-cohort	No		No		No		Yes		Yes	
N	207422		207422		207422		102599		102599	
rsq	0.74		0.80		0.87		0.69		0.62	
rsq-adj	0.65		0.74		0.83		0.63		0.55	

Notes: Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level, and log revenue and log number of products at the firm-market-year level. Full set of firm-product-year, market and firm-product-cohort effects included in firm-product-market-year regressions. Full set of firm-year, market and firm-cohort effects included in firm-market-year regressions. Stata command used is reghdfe. Omitted category is spells that last one year. Spells that are both right- and left-censored are dropped due to collinearity with firm-product-cohort or firm-cohort effects as appropriate. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 19: Exit hazard: firm-product-cohort/firm-cohort fixed effects

Market tenure	Firm-prod-mkt		Firm-mkt	
2 years	-0.10	$(0.00)^{**}$	-0.13	$(0.01)^{**}$
3 years	-0.14	$(0.01)^{**}$	-0.18	$(0.01)^{**}$
4 years	-0.17	$(0.01)^{**}$	-0.20	$(0.01)^{**}$
5 years	-0.18	$(0.01)^{**}$	-0.23	$(0.01)^{**}$
6 years	-0.19	$(0.01)^{**}$	-0.24	$(0.01)^{**}$
7+ years	-0.21	$(0.02)^{**}$	-0.26	$(0.02)^{**}$
	Fixed effects			
Firm-prod-yr	Yes		No	
Firm-yr	No		Yes	
Market	Yes		Yes	
Firm-prod-cohort	Yes		No	
Firm-cohort	No		Yes	
N	253829		91115	
rsq	0.61		0.48	
rsq-adj	0.48		0.38	

Notes: Dependent variable is an indicator for exit in the next period. Full set of firm-product-year, market and firm-product-cohort effects included at the firm-product-market-year level. Full set of firm-year, market and firm-cohort effects included at the firm-market-year level. Stata command used is reghdfe. Omitted category is market tenure equal to one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 20: Dynamics of revenue, quantity, price, # products: Normalizing by year-1 values

	Product rev.		Quantity		Price		Market rev.		# Products	
Market tenure						2-year spell				
2 years	0.03	(0.02)	-0.00	(0.02)	0.00	(0.01)	-0.01	(0.04)	0.00	(0.01)
Market tenure						3-year spell				
2 years	0.43	(0.03)**	0.42	(0.03)**	-0.01	(0.02)	0.42	(0.05)**	0.10	(0.01)**
3 years	0.02	(0.04)	-0.01	(0.04)	0.02	(0.02)	0.04	(0.06)	0.01	(0.01)
Market tenure						4-year spell				
2 years	0.55	(0.04)**	0.56	(0.04)**	-0.02	(0.02)	0.50	(0.06)**	0.13	(0.02)**
3 years	0.58	(0.05)**	0.62	(0.05)**	-0.05	(0.03)**	0.45	(0.07)**	0.12	(0.02)**
4 years	0.03	(0.05)*	0.03	(0.06)	-0.01	(0.03)	0.08	(0.07)	0.02	(0.02)
Market tenure						5-year spell				
2 years	0.65	(0.06)**	0.64	(0.06)**	-0.00	(0.03)	0.68	(0.08)**	0.13	(0.02)**
3 years	0.72	(0.06)**	0.74	(0.06)**	-0.02	(0.03)	0.67	(0.09)**	0.17	(0.02)**
4 years	0.61	(0.07)**	0.65	(0.07)**	-0.03	(0.03)	0.49	(0.09)**	0.17	(0.02)**
5 years	0.08	(0.07)	0.10	(0.08)	-0.03	(0.04)	0.03	(0.10)	0.04	(0.02)
Market tenure						6-year spell				
2 years	0.72	(0.07)**	0.76	(0.07)**	-0.05	(0.04)	0.52	(0.10)**	0.19	(0.03)**
3 years	0.84	(0.08)**	0.89	(0.08)**	-0.06	(0.04)	0.77	(0.11)**	0.19	(0.03)**
4 years	0.79	(0.08)**	0.82	(0.08)**	-0.04	(0.04)	0.85	(0.11)**	0.23	(0.03)**
5 years	0.66	(0.08)**	0.67	(0.09)**	-0.00	(0.04)	0.59	(0.12)**	0.14	(0.03)**
6 years	0.09	(0.09)	0.09	(0.10)	-0.02	(0.04)	0.06	(0.12)	0.02	(0.03)
Market tenure						7+ year spell				
2 years	0.77	(0.04)**	0.79	(0.04)**	-0.02	(0.02)	0.81	(0.04)**	0.19	(0.01)**
3 years	1.05	(0.04)**	1.06	(0.05)**	-0.02	(0.02)	1.08	(0.05)**	0.26	(0.01)**
4 years	1.16	(0.05)**	1.16	(0.05)**	-0.01	(0.02)	1.18	(0.05)**	0.30	(0.01)**
5 years	1.19	(0.05)**	1.20	(0.05)**	-0.02	(0.02)	1.26	(0.05)**	0.31	(0.02)**
6 years	1.14	(0.05)**	1.14	(0.05)**	-0.01	(0.02)	1.23	(0.05)**	0.30	(0.02)**
7+ years	1.03	(0.04)**	1.06	(0.04)**	-0.03	(0.02)	1.21	(0.04)**	0.32	(0.01)**
cens	0.67	(0.03)**	0.51	(0.03)**	0.16	(0.01)**	0.48	(0.02)**	0.18	(0.01)
						Fixed effects				
Firm-prod-yr	Yes		Yes		Yes		No		No	
Firm-yr	No		No		No		Yes		Yes	
Market	Yes		Yes		Yes		Yes		Yes	
N	312952		312952		312952		113912		113912	
rsq	0.40		0.40		0.38		0.25		0.27	
rsq-adj	-0.07		-0.076		-0.09		0.09		0.11	

Notes: Dependent variable is in turn log revenue, log quantity and log unit value normalized by value at the beginning of the relevant spell at the firm-product-market-year level, and log revenue and log number of products normalized by value at the beginning of the relevant spell at the firm-market-year level. Full set of firm-product-year and market effects included in firm-product-market-year regressions. Full set of firm-year and market effects included in firm-market-year regressions. Omitted category is first year of a spell. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 21: Dynamics of revenue, quantity, price, # products: Number of markets at start of spell

	Panel I: Spells where firm sells to 1-3 markets at the beginning of the spell									
	Product rev.		Quantity		Price		Market rev.		# Products	
Spell duration					Spell intercept					
2 years	0.80	(0.17)**	0.84	(0.18)**	-0.04	(0.08)	0.83	(0.16)**	0.12	(0.04)**
3 years	0.75	(0.29)**	0.80	(0.31)**	-0.05	(0.14)	1.02	(0.24)**	0.16	(0.05)**
4 years	1.37	(0.41)**	1.26	(0.44)**	0.11	(0.14)	1.50	(0.29)**	0.15	(0.06)**
5 years	1.03	(0.44)**	1.10	(0.49)**	-0.07	(0.22)	2.01	(0.43)**	0.24	(0.10)**
6 years	0.60	(0.60)	0.97	(0.64)	-0.37	(0.29)	1.25	(0.47)**	0.24	(0.13)*
7+ years	1.63	(0.37)**	1.62	(0.35)**	0.00	(0.14)	1.96	(0.24)**	0.29	(0.05)**
Market tenure					2-year spell					
2 years	-0.02	(0.23)	-0.02	(0.23)	0.00	(0.10)	0.30	(0.21)	-0.02	(0.05)
Market tenure					3-year spell					
2 years	0.81	(0.35)**	0.77	(0.38)**	0.04	(0.18)	1.11	(0.32)**	0.12	(0.07)*
3 years	0.21	(0.36)	0.30	(0.39)	-0.09	(0.17)	-0.20	(0.31)	-0.06	(0.08)
Market tenure					4-year spell					
2 years	0.44	(0.52)	0.45	(0.56)	-0.01	(0.18)	0.98	(0.39)**	0.17	(0.09)*
3 years	0.58	(0.49)	1.04	(0.52)**	-0.46	(0.20)**	0.91	(0.37)**	0.12	(0.09)
4 years	-0.13	(0.52)	-0.10	(0.55)	-0.02	(0.19)	0.82	(0.41)**	0.02	(0.09)
Market tenure					5-year spell					
2 years	1.12	(0.63)*	1.01	(0.70)	0.12	(0.28)	0.31	(0.58)	-0.01	(0.14)
3 years	1.30	(0.58)**	1.02	(0.66)	0.27	(0.30)	0.75	(0.56)	0.10	(0.13)
4 years	1.01	(0.62)	0.73	(0.65)	0.28	(0.30)	0.74	(0.54)	0.16	(0.13)
5 years	0.26	(0.69)	0.30	(0.69)	-0.04	(0.32)	-0.71	(0.60)	-0.18	(0.13)
Market tenure					6-year spell					
2 years	0.57	(0.76)	0.30	(0.81)	0.27	(0.37)	1.52	(0.60)**	0.27	(0.15)*
3 years	0.62	(0.77)	0.72	(0.78)	-0.10	(0.41)	1.42	(0.66)**	0.25	(0.17)
4 years	1.16	(0.75)	0.55	(0.79)	0.61	(0.34)*	1.73	(0.62)**	0.18	(0.17)
5 years	1.14	(0.73)	0.81	(0.75)	0.33	(0.33)	1.04	(0.66)**	0.00	(0.16)
6 years	0.53	(0.81)	0.18	(0.84)	0.35	(0.33)	-0.33	(0.69)	-0.22	(0.16)
Market tenure					7+ year spell					
2 years	1.18	(0.42)**	1.18	(0.41)**	0.00	(0.17)	1.22	(0.34)**	0.20	(0.07)**
3 years	1.36	(0.42)**	1.31	(0.41)**	0.04	(0.16)	1.48	(0.33)**	0.20	(0.08)**
4 years	1.66	(0.47)**	1.53	(0.43)**	0.13	(0.20)	1.75	(0.33)**	0.29	(0.08)**
5 years	1.72	(0.47)**	1.66	(0.42)**	0.06	(0.19)	1.79	(0.33)**	0.23	(0.08)**
6 years	1.56	(0.49)**	1.40	(0.45)**	0.15	(0.21)	1.57	(0.34)**	0.18	(0.09)**
7+ years	1.74	(0.42)**	1.54	(0.40)**	0.20	(0.17)	1.77	(0.30)**	0.30	(0.07)**
					Fixed effects					
Firm-prod-yr	Yes		Yes		Yes		No		No	
Firm-yr	No		No		No		Yes		Yes	
Market	Yes		Yes		Yes		Yes		Yes	
N	312952		312952		312952		113912		113912	
rsq	0.76		0.82		0.90		0.65		0.56	
rsq-adj	0.58		0.69		0.82		0.58		0.47	

Notes: Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level, and log revenue and log number of products at the firm-market-year level. All trajectories are interacted with indicator for >=4 markets at start of spell. This panel reports trajectories for spells where firm sold to 1-3 markets at the beginning of the spell. Full set of firm-product-year and market effects included in firm-product-market-year regressions. Full set of firm-year and market effects included in firm-market-year regressions. Omitted category is spells that last one year where the firm exports to 1-3 markets at the start of the spell. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 22: Dynamics of revenue, quantity, price, # products: Number of markets at start of spell

	Product rev.		Quantity		Price		Market rev.		# Products	
		Panel II: Spells where firm sells to 4+ markets at the beginning of the spell								
>=4 mkts	0.10	(0.12)	0.07	(0.12)	0.03	(0.06)	0.27	(0.10)**	-0.11	(0.03)**
Spell duration					Spell intercept					
2 years	0.51	(0.02)**	0.51	(0.02)**	-0.01	(0.01)	0.38	(0.04)**	0.09	(0.01)**
3 years	0.76	(0.03)**	0.76	(0.04)**	0.00	(0.02)	0.72	(0.06)**	0.15	(0.01)**
4 years	0.95	(0.05)**	0.95	(0.05)**	0.00	(0.02)	0.80	(0.07)**	0.18	(0.02)**
5 years	1.07	(0.06)**	1.08	(0.07)**	-0.01	(0.03)	1.04	(0.09)**	0.18	(0.02)**
6 years	1.13	(0.08)**	1.09	(0.08)**	0.04	(0.04)	1.14	(0.11)**	0.25	(0.03)**
7+ years	1.39	(0.05)**	1.38	(0.05)**	0.00	(0.02)	1.28	(0.06)**	0.28	(0.01)**
Market tenure					2-year spell					
2 years	-0.03	(0.03)	-0.03	(0.03)	0.00	(0.02)	-0.05	(0.05)	-0.01	(0.01)
Market tenure					3-year spell					
2 years	0.43	(0.05)**	0.44	(0.05)**	-0.01	(0.02)	0.45	(0.07)**	0.11	(0.02)**
3 years	-0.05	(0.05)	-0.05	(0.05)	0.00	(0.02)	0.03	(0.07)	0.01	(0.02)
Market tenure					4-year spell					
2 years	0.53	(0.06)**	0.56	(0.07)**	-0.02	(0.03)	0.58	(0.10)**	0.13	(0.02)**
3 years	0.54	(0.06)**	0.59	(0.07)**	-0.05	(0.03)	0.54	(0.10)**	0.12	(0.02)**
4 years	-0.03	(0.07)	-0.01	(0.07)	-0.01	(0.03)	0.14	(0.10)	0.01	(0.02)
Market tenure					5-year spell					
2 years	0.63	(0.09)**	0.61	(0.09)**	0.01	(0.04)	0.72	(0.12)**	0.16	(0.03)**
3 years	0.69	(0.09)**	0.69	(0.09)**	0.01	(0.04)	0.73	(0.12)**	0.19	(0.03)**
4 years	0.57	(0.09)**	0.61	(0.09)**	-0.04	(0.04)	0.56	(0.12)**	0.18	(0.03)**
5 years	-0.02	(0.09)	0.01	(0.09)	-0.02	(0.04)	0.08	(0.13)	0.05	(0.03)
Market tenure					6-year spell					
2 years	0.74	(0.11)**	0.78	(0.11)**	-0.04	(0.05)	0.63	(0.15)**	0.20	(0.04)**
3 years	0.88	(0.11)**	0.95	(0.11)**	-0.07	(0.05)	0.87	(0.14)**	0.21	(0.04)**
4 years	0.85	(0.11)**	0.93	(0.11)**	-0.08	(0.05)*	0.98	(0.14)**	0.24	(0.04)**
5 years	0.71	(0.11)**	0.75	(0.11)**	-0.04	(0.05)	0.73	(0.15)**	0.15	(0.04)**
6 years	0.11	(0.11)	0.14	(0.12)	-0.03	(0.05)	0.13	(0.15)	0.01	(0.04)
Market tenure					7+ year spell					
2 years	0.85	(0.06)**	0.87	(0.06)**	-0.03	(0.03)	0.99	(0.07)**	0.21	(0.02)**
3 years	1.16	(0.06)**	1.19	(0.06)**	-0.04	(0.03)	1.33	(0.07)**	0.28	(0.02)**
4 years	1.30	(0.06)**	1.33	(0.07)**	-0.03	(0.03)	1.48	(0.07)**	0.32	(0.02)**
5 years	1.32	(0.06)**	1.36	(0.07)**	-0.04	(0.03)	1.58	(0.07)**	0.33	(0.02)**
6 years	1.29	(0.06)**	1.32	(0.07)**	-0.03	(0.03)	1.57	(0.07)**	0.33	(0.02)**
7+ years	1.27	(0.06)**	1.35	(0.06)**	-0.08	(0.03)**	1.62	(0.06)**	0.33	(0.02)**
cens	3.75	(0.12)**	3.76	(0.13)**	-0.01	(0.06)	4.22	(0.10)**	0.81	(0.03)**
Fixed effects										
Firm-prod-yr	Yes		Yes		Yes		No		No	
Firm-yr	No		No		No		Yes		Yes	
Market	Yes		Yes		Yes		Yes		Yes	
N	312952		312952		312952		113912		113912	
rsq	0.76		0.82		0.90		0.65		0.56	
rsq-adj	0.58		0.69		0.82		0.58		0.47	

Notes: Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level, and log revenue and log number of products at the firm-market-year level. All trajectories are interacted with indicator for >=4 markets at start of spell. This panel reports trajectories for spells where firm sold to 4+ markets at the beginning of the spell. Full set of firm-product-year and market effects included in firm-product-market-year regressions. Full set of firm-year and market effects included in firm-market-year regressions. Omitted category is spells that last one year where the firm exports to 1-3 markets at the start of the spell. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 23: Exit hazard: Number of markets at start of spell

Market tenure	Firm-prod-mkt		Firm-mkt	
	1-3 markets on entry			
2 years	-0.22	(0.03)**	-0.17	(0.02)**
3 years	-0.32	(0.03)**	-0.30	(0.02)**
4 years	-0.35	(0.03)**	-0.34	(0.02)**
5 years	-0.43	(0.04)**	-0.35	(0.03)**
6 years	-0.43	(0.05)**	-0.33	(0.03)**
7+ years	-0.32	(0.03)**	-0.32	(0.02)**
	4+ markets on entry			
>=4 mkts	-0.04	(0.02)	-0.03	(0.02)
2 years	-0.13	(0.00)**	-0.16	(0.00)**
3 years	-0.20	(0.00)**	-0.22	(0.01)**
4 years	-0.23	(0.00)**	-0.24	(0.01)**
5 years	-0.24	(0.01)**	-0.27	(0.01)**
6 years	-0.24	(0.01)**	-0.27	(0.01)**
7+ years	-0.23	(0.01)**	-0.26	(0.01)**
	Fixed effects			
Firm-prod-yr	Yes		No	
Firm-yr	No		Yes	
Market	Yes		Yes	
N	381452		103297	
rsq	0.70		0.47	
rsq-adj	0.47		0.34	

Notes: Dependent variable is an indicator for exit in the next period. Full set of firm-product-year and market effects included at the firm-product-market-year level. Full set of firm-year and market effects included at the firm-market-year level. Omitted category is market tenure of one year where the firm exports to 1-3 markets at the start of the spell. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 24: Dynamics of revenue, quantity, price: First vs subsequent products

	Product rev.		Quantity		Price	
	Panel I: First products					
Spell duration	Spell intercept					
2 years	0.45	(0.04)**	0.45	(0.04)**	0.00	(0.02)
3 years	0.80	(0.05)**	0.80	(0.06)**	0.00	(0.03)
4 years	0.91	(0.08)**	0.81	(0.08)**	0.00	(0.04)
5 years	1.12	(0.10)**	1.12	(0.10)**	-0.00	(0.05)
6 years	1.08	(0.11)**	1.06	(0.12)**	0.02	(0.05)
7+ years	1.45	(0.07)**	1.44	(0.07)**	0.01	(0.03)
Market tenure	2-year spell					
2 years	-0.01	(0.05)	0.01	(0.05)	-0.03	(0.03)
Market tenure	3-year spell					
2 years	0.43	(0.07)**	0.44	(0.07)**	-0.01	(0.04)
3 years	-0.06	(0.07)	-0.05	(0.08)	-0.01	(0.04)
Market tenure	4-year spell					
2 years	0.62	(0.10)**	0.64	(0.10)**	-0.03	(0.05)
3 years	0.66	(0.10)**	0.73	(0.10)**	-0.07	(0.05)
4 years	0.07	(0.10)	0.08	(0.10)	-0.01	(0.05)
Market tenure	5-year spell					
2 years	0.67	(0.13)**	0.70	(0.13)**	-0.04	(0.06)
3 years	0.67	(0.13)**	0.67	(0.13)**	-0.00	(0.06)
4 years	0.58	(0.13)**	0.63	(0.14)**	-0.05	(0.07)
5 years	-0.03	(0.13)	-0.01	(0.14)	-0.03	(0.07)
Market tenure	6-year spell					
2 years	0.80	(0.16)**	0.80	(0.16)**	-0.00	(0.06)
3 years	0.97	(0.16)**	1.02	(0.16)**	-0.05	(0.07)
4 years	0.92	(0.16)**	0.94	(0.16)**	-0.03	(0.06)
5 years	0.70	(0.15)**	0.74	(0.16)**	-0.04	(0.06)
6 years	0.10	(0.16)	0.15	(0.17)	-0.05	(0.07)
Market tenure	7+ year spell					
2 years	0.93	(0.09)**	0.97	(0.09)**	-0.04	(0.04)
3 years	1.26	(0.09)**	1.31	(0.09)**	-0.05	(0.04)
4 years	1.41	(0.09)**	1.44	(0.09)**	-0.03	(0.04)
5 years	1.41	(0.09)**	1.43	(0.09)**	-0.02	(0.04)
6 years	1.35	(0.09)**	1.39	(0.09)**	-0.04	(0.04)
7+ years	1.32	(0.08)**	1.38	(0.08)**	-0.07	(0.03)*
	Fixed effects					
Firm-prod-yr	Yes		Yes		Yes	
Market	Yes		Yes		Yes	
N	312952		312952		312952	
rsq	0.76		0.82		0.90	
rsq-adj	0.58		0.69		0.82	

Notes: Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level. All trajectories are interacted with indicator for whether the spell is the firm's first product in the market, or a subsequent product. This panel reports trajectories for first products. Full set of firm-product-year and market effects included in all regressions. Omitted category is spells that last one year. Robust standard errors are calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 25: Dynamics of revenue, quantity, price: First vs subsequent products

	Product rev.		Quantity		Price	
	Panel II: Subsequent products					
Spell duration	Spell intercept					
2 years	0.55	(0.03)**	0.56	(0.03)**	-0.01	(0.01)
3 years	0.73	(0.04)**	0.73	(0.04)**	-0.01	(0.02)
4 years	0.98	(0.06)**	0.98	(0.06)**	-0.00	(0.03)
5 years	1.03	(0.08)**	1.05	(0.08)**	-0.02	(0.04)
6 years	1.18	(0.10)**	1.14	(0.11)**	0.05	(0.05)
7+ years	1.34	(0.06)**	1.34	(0.07)**	-0.00	(0.03)
Market tenure	2-year spell					
2 years	-0.04	(0.04)	-0.05	(0.04)	0.01	(0.02)
Market tenure	3-year spell					
2 years	0.45	(0.06)**	0.45	(0.06)**	-0.01	(0.03)
3 years	-0.04	(0.06)	-0.05	(0.06)	0.01	(0.03)
Market tenure	4-year spell					
2 years	0.47	(0.08)**	0.49	(0.08)**	-0.02	(0.04)
3 years	0.46	(0.08)**	0.50	(0.08)**	-0.04	(0.04)
4 years	-0.10	(0.08)	-0.08	(0.08)	-0.01	(0.04)
Market tenure	5-year spell					
2 years	0.60	(0.11)**	0.55	(0.11)**	0.05	(0.05)
3 years	0.72	(0.11)**	0.70	(0.11)**	0.02	(0.05)
4 years	0.56	(0.11)**	0.58	(0.11)**	-0.03	(0.05)
5 years	-0.01	(0.11)	0.01	(0.11)	-0.02	(0.05)
Market tenure	6-year spell					
2 years	0.69	(0.14)**	0.76	(0.15)**	-0.07	(0.06)
3 years	0.79	(0.14)**	0.89	(0.15)**	-0.09	(0.06)
4 years	0.78	(0.14)**	0.90	(0.15)**	-0.11	(0.06)*
5 years	0.71	(0.14)**	0.74	(0.15)**	-0.03	(0.06)
6 years	0.12	(0.15)	0.12	(0.15)	0.00	(0.07)
Market tenure	7+ year spell					
2 years	0.77	(0.08)**	0.79	(0.08)**	-0.02	(0.04)
3 years	1.06	(0.08)**	1.07	(0.09)**	-0.02	(0.04)
4 years	1.20	(0.08)**	1.23	(0.09)**	-0.03	(0.04)
5 years	1.25	(0.08)**	1.29	(0.09)**	-0.04	(0.04)
6 years	1.23	(0.09)**	1.25	(0.09)**	-0.02	(0.04)
7+ years	1.20	(0.08)**	1.28	(0.08)**	-0.08	(0.03)**
cens	3.66	(0.03)**	3.70	(0.03)**	-0.04	(0.01)
	Fixed effects					
Firm-prod-yr	Yes		Yes		Yes	
Market	Yes		Yes		Yes	
N	312952		312952		312952	
rsq	0.76		0.82		0.90	
rsq-adj	0.58		0.69		0.82	

Notes: Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level. All trajectories are interacted with indicator for whether the spell is the firm's first product in the market, or a subsequent product. This panel reports trajectories for subsequent products. Full set of firm-product-year and market effects included in all regressions. Omitted category is spells that last one year. Robust standard errors are calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 26: Exit hazard: First vs subsequent products

Market tenure	Firm-prod-mkt	
	First products	
2 years	-0.14	(0.00)**
3 years	-0.20	(0.01)**
4 years	-0.23	(0.01)**
5 years	-0.26	(0.01)**
6 years	-0.25	(0.01)**
7+ years	-0.24	(0.01)**
	Subseq. products	
2 years	-0.13	(0.00)**
3 years	-0.20	(0.00)**
4 years	-0.24	(0.01)**
5 years	-0.24	(0.01)**
6 years	-0.23	(0.01)**
7+ years	-0.23	(0.01)**
	Fixed effects	
Firm-prod-yr	Yes	
Market	Yes	
N	381452	
rsq	0.70	
rsq-adj	0.47	

Notes: Dependent variable is an indicator for exit in the next period. Full set of firm-product-year and market effects included at the firm-product-market-year level. Full set of firm-year and market effects included at the firm-market-year level. Omitted category is market tenure equal to one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 27: Dynamics of revenue, quantity, price, # products: First vs subsequent spells

	Product rev.		Quantity		Price		Market rev.		# Products	
	Panel I: First spells									
Spell duration	Spell intercept									
2 years	0.52	(0.03)**	0.53	(0.03)**	-0.01	(0.01)	0.40	(0.05)**	0.10	(0.01)**
3 years	0.79	(0.04)**	0.78	(0.04)**	0.01	(0.02)	0.75	(0.06)**	0.15	(0.01)**
4 years	0.96	(0.05)**	0.95	(0.05)**	0.00	(0.03)	0.89	(0.08)**	0.18	(0.02)**
5 years	1.08	(0.07)**	1.09	(0.07)**	-0.01	(0.03)	1.12	(0.10)**	0.19	(0.02)**
6 years	1.15	(0.08)**	1.10	(0.09)**	0.04	(0.04)	1.13	(0.11)**	0.23	(0.03)**
7+ years	1.45	(0.05)**	1.46	(0.05)**	-0.01	(0.02)	1.34	(0.06)**	0.28	(0.01)**
Market tenure	2-year spell									
2 years	-0.01	(0.03)	-0.01	(0.03)	0.00	(0.02)	0.00	(0.06)	-0.01	†
Market tenure	3-year spell									
2 years	0.45	(0.05)**	0.47	(0.05)**	-0.02	(0.02)	0.51	(0.08)**	0.11	†
3 years	-0.05	(0.05)	-0.03	(0.05)	-0.01	(0.03)	0.01	(0.08)	0.00	†
Market tenure	4-year spell									
2 years	0.58	(0.07)**	0.60	(0.07)**	-0.03	(0.03)	0.61	(0.10)**	0.13	†
3 years	0.59	(0.07)**	0.64	(0.07)**	-0.05	(0.03)	0.56	(0.10)**	0.12	†
4 years	0.02	(0.07)	0.04	(0.07)	-0.02	(0.03)	0.19	(0.11)	0.00	†
Market tenure	5-year spell									
2 years	0.68	(0.09)**	0.68	(0.10)**	0.00	(0.04)	0.74	(0.13)**	0.16	†
3 years	0.78	(0.09)**	0.76	(0.09)**	0.02	(0.04)	0.75	(0.13)**	0.18	†
4 years	0.63	(0.09)**	0.66	(0.10)**	-0.04	(0.04)	0.62	(0.13)**	0.18	†
5 years	0.05	(0.09)	0.08	(0.10)	-0.02	(0.04)	0.02	(0.14)	0.04	†
Market tenure	6-year spell									
2 years	0.79	(0.11)**	0.84	(0.12)**	-0.05	(0.05)	0.70	(0.15)**	0.22	†
3 years	0.89	(0.11)**	0.98	(0.12)**	-0.09	(0.05)*	0.94	(0.15)**	0.22	†
4 years	0.88	(0.11)**	0.96	(0.12)**	-0.08	(0.05)*	1.07	(0.15)**	0.24	†
5 years	0.75	(0.11)**	0.80	(0.12)**	-0.05	(0.05)	0.82	(0.15)**	0.16	†
6 years	0.14	(0.11)	0.16	(0.12)	-0.02	(0.05)	0.14	(0.15)	0.01	†
Market tenure	7+ year spell									
2 years	0.85	(0.07)**	0.87	(0.07)**	-0.02	(0.03)	1.05	(0.07)**	0.21	†
3 years	1.17	(0.07)**	1.19	(0.07)**	-0.02	(0.03)	1.37	(0.07)**	0.28	†
4 years	1.32	(0.07)**	1.35	(0.07)**	-0.03	(0.03)	1.52	(0.07)**	0.32	†
5 years	1.34	(0.07)**	1.37	(0.07)**	-0.03	(0.03)	1.60	(0.07)**	0.33	†
6 years	1.29	(0.07)**	1.33	(0.07)**	-0.04	(0.03)	1.59	(0.07)**	0.33	†
7+ years	1.28	(0.06)	1.34	(0.06)**	-0.06	(0.03)**	1.62	(0.07)**	0.33	
cens	3.69	(0.03)**	3.73	(0.03)**	-0.04	(0.01)**	3.97	(0.03)**	0.91	(0.01)**
	Fixed effects									
Firm-prod-yr	Yes		Yes		Yes		No		No	
Firm-yr	No		No		No		Yes		Yes	
Market	Yes		Yes		Yes		Yes		Yes	
N	312952		312952		312952		113912		113912	
rsq	0.76		0.82		0.90		0.65		0.56	
rsq-adj	0.58		0.69		0.82		0.58		0.47	

Notes: Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level, and log revenue and log number of products at the firm-market-year level. All trajectories are interacted with indicator for first or subsequent spell. This panel reports trajectories for first spells. Full set of firm-product-year and market effects included in firm-product-market-year regressions. Full set of firm-year and market effects included in firm-market-year regressions. Omitted category is spells that last one year where the firm exports to 1-3 markets at the start of the spell. Robust standard errors calculated. ** significant at 5%, * significant at 10%. † indicates that standard errors on relevant combinations of parameter estimates were not calculated due to a coding error. Updated versions of this Appendix will include standard errors. Source: CSO and authors' calculations.

Table 28: Dynamics of revenue, quantity, price, # products: First vs subsequent spells

	Product rev.		Quantity		Price		Market rev.		# Products	
				Panel II: Subsequent spells						
subseq	0.15	(0.03)**	0.15	(0.03)**	0.00	(0.02)	-0.01	(0.05)	-0.01	(0.01)
Spell duration					Spell intercept					
2 years	0.45	(0.05)**	0.46	(0.06)**	0.00	(0.03)	0.40	(0.08)**	0.10	(0.02)**
3 years	0.60	(0.08)**	0.68	(0.08)**	-0.07	(0.04)	0.75	(0.11)**	0.15	(0.03)**
4 years	0.93	(0.11)**	0.94	(0.11)**	-0.01	(0.05)	0.67	(0.16)**	0.18	(0.04)**
5 years	1.05	(0.15)**	1.06	(0.15)**	-0.02	(0.07)	1.00	(0.21)**	0.16	(0.05)**
6 years	1.12	(0.26)**	1.13	(0.26)**	-0.01	(0.11)	1.44	(0.26)**	0.37	(0.08)**
7+ years	1.08	(0.13)**	1.00	(0.13)**	0.08	(0.06)	1.24	(0.14)**	0.27	(0.03)**
Market tenure					2-year spell					
2 years	-0.07	(0.07)	-0.06	(0.07)	-0.01	(0.03)	-0.09	(0.10)	0.00	†
Market tenure					3-year spell					
2 years	0.39	(0.10)**	0.36	(0.11)**	0.03	(0.05)	0.37	(0.15)**	0.11	†
3 years	0.00	(0.10)	-0.05	(0.11)	0.06	(0.05)	0.04	(0.15)	0.02	†
Market tenure					4-year spell					
2 years	0.35	(0.15)**	0.35	(0.15)**	0.00	(0.07)	0.60	(0.22)**	0.15	†
3 years	0.42	(0.15)**	0.49	(0.15)**	-0.07	(0.07)	0.56	(0.21)**	0.12	†
4 years	-0.14	(0.15)	-0.17	(0.15)	0.03	(0.08)	0.09	(0.21)	0.03	†
Market tenure					5-year spell					
2 years	0.37	(0.21)*	0.29	(0.22)	0.07	(0.10)	0.55	(0.30)*	0.12	†
3 years	0.31	(0.21)	0.36	(0.22)*	-0.04	(0.10)	0.65	(0.29)**	0.20	†
4 years	0.35	(0.22)	0.38	(0.22)*	-0.03	(0.10)	0.36	(0.30)	0.18	†
5 years	-0.28	(0.22)	-0.26	(0.23)	-0.02	(0.10)	0.13	(0.30)	0.05	†
Market tenure					6-year spell					
2 years	0.36	(0.34)	0.30	(0.36)	0.07	(0.15)	0.52	(0.35)	0.13	†
3 years	0.84	(0.34)	0.77	(0.35)**	0.07	(0.14)	0.46	(0.39)	0.10	†
4 years	0.64	(0.34)*	0.67	(0.35)*	-0.03	(0.13)	0.58	(0.38)	0.17	†
5 years	0.46	(0.34)	0.45	(0.34)	0.01	(0.15)	-0.02	(0.41)	0.03	†
6 years	0.07	(0.36)	0.12	(0.36)	-0.05	(0.15)	-0.36	(0.43)	-0.04	†
Market tenure					7+ year spell					
2 years	0.89	(0.17)**	0.95	(0.18)**	-0.06	(0.07)	0.78	(0.17)**	0.20	†
3 years	1.16	(0.17)**	1.30	(0.17)**	-0.13	(0.07)*	1.21	(0.17)**	0.26	†
4 years	1.29	(0.17)**	1.33	(0.17)**	-0.03	(0.07)	1.32	(0.17)**	0.29	†
5 years	1.36	(0.17)**	1.45	(0.17)**	-0.09	(0.07)	1.50	(0.17)**	0.30	†
6 years	1.32	(0.17)**	1.33	(0.17)**	-0.01	(0.07)	1.37	(0.17)**	0.26	†
7+ years	1.16	(0.16)**	1.26	(0.16)**	-0.10	(0.07)	1.33	(0.16)**	0.25	†
					Fixed effects					
Firm-prod-yr	Yes		Yes		Yes		No		No	
Firm-yr	No		No		No		Yes		Yes	
Market	Yes		Yes		Yes		Yes		Yes	
N	312952		312952		312952		113912		113912	
rsq	0.76		0.82		0.90		0.65		0.56	
rsq-adj	0.58		0.69		0.82		0.58		0.47	

Notes: Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level, and log revenue and log number of products at the firm-market-year level. All trajectories are interacted with indicator for first or subsequent spell. This panel reports trajectories for subsequent spells. Full set of firm-product-year and market effects included in firm-product-market-year regressions. Full set of firm-year and market effects included in firm-market-year regressions. Omitted category is spells that last one year where the firm exports to 1-3 markets at the start of the spell. Robust standard errors calculated. ** significant at 5%, * significant at 10%. † indicates that standard errors on relevant combinations of parameter estimates were not calculated due to a coding error. Updated versions of this Appendix will include standard errors. Source: CSO and authors' calculations.

Table 29: Exit hazard: First vs subsequent spells

Market tenure	Firm-prod-mkt		Firm-mkt	
	First spells			
2 years	-0.15	(0.00)**	-0.18	(0.01)**
3 years	-0.22	(0.00)**	-0.25	(0.01)**
4 years	-0.27	(0.01)**	-0.28	(0.01)**
5 years	-0.28	(0.01)**	-0.30	(0.01)**
6 years	-0.28	(0.01)**	-0.30	(0.01)**
7+ years	-0.27	(0.01)**	-0.30	(0.01)**
	Subsequent spells			
subseq	-0.07	(0.00)**	-0.08	(0.01)**
2 years	-0.10	(0.01)**	-0.11	(0.01)**
3 years	-0.15	(0.01)**	-0.17	(0.01)**
4 years	-0.18	(0.01)**	-0.20	(0.01)**
5 years	-0.19	(0.01)**	-0.22	(0.01)**
6 years	-0.19	(0.01)**	-0.23	(0.01)**
7+ years	-0.18	(0.01)**	-0.19	(0.01)**
	Fixed effects			
Firm-prod-yr	Yes		No	
Firm-yr	No		Yes	
Market	Yes		Yes	
N	381452		103297	
rsq	0.70		0.47	
rsq-adj	0.47		0.34	

Notes: Dependent variable is an indicator for exit in the next period. Full set of firm-product-year and market effects included at the firm-product-market-year level. Full set of firm-year and market effects included at the firm-market-year level. Omitted category is market tenure of one year in a first spell. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 30: Dynamics of revenue, quantity, price, # products: Domestic-owned firms

	Product rev.		Quantity		Price		Market rev.		# Products	
Spell duration	Spell intercept									
2 years	0.52	(0.04)**	0.54	(0.04)**	-0.02	(0.02)	0.49	(0.06)**	0.13	(0.01)**
3 years	0.75	(0.06)**	0.76	(0.06)**	-0.02	(0.03)	0.79	(0.08)**	0.15	(0.02)**
4 years	0.95	(0.08)**	0.92	(0.08)**	0.02	(0.03)	0.93	(0.10)**	0.15	(0.03)**
5 years	1.05	(0.10)**	1.05	(0.11)**	0.00	(0.05)	1.30	(0.14)**	0.20	(0.04)**
6 years	1.07	(0.14)**	1.02	(0.15)**	0.05	(0.06)	1.13	(0.17)**	0.24	(0.04)**
7+ years	1.32	(0.08)**	1.34	(0.08)**	-0.02	(0.03)	1.42	(0.08)**	0.35	(0.02)**
Market tenure	2-year spell									
2 years	-0.02	(0.05)	-0.01	(0.05)	-0.02	(0.02)	0.00	(0.08)	-0.01	(0.02)
Market tenure	3-year spell									
2 years	0.36	(0.08)**	0.36	(0.08)**	0.00	(0.03)	0.52	(0.11)**	0.13	(0.03)**
3 years	-0.13	(0.08)	-0.12	(0.08)	-0.01	(0.03)	-0.03	(0.11)	0.00	(0.03)
Market tenure	4-year spell									
2 years	0.47	(0.10)**	0.52	(0.11)**	-0.05	(0.04)	0.48	(0.15)**	0.16	(0.04)**
3 years	0.39	(0.10)**	0.48	(0.11)**	-0.09	(0.04)**	0.35	(0.15)**	0.14	(0.04)**
4 years	-0.13	(0.11)	-0.11	(0.11)	-0.02	(0.04)	0.06	(0.15)	0.00	(0.04)
Market tenure	5-year spell									
2 years	0.62	(0.13)**	0.63	(0.14)**	-0.01	(0.06)	0.61	(0.18)**	0.18	(0.05)**
3 years	0.71	(0.14)**	0.71	(0.14)**	0.00	(0.06)	0.74	(0.18)**	0.22	(0.05)**
4 years	0.57	(0.14)**	0.61	(0.14)**	-0.04	(0.06)	0.40	(0.18)**	0.19	(0.05)**
5 years	0.04	(0.14)	0.09	(0.15)	-0.05	(0.06)	-0.02	(0.19)	0.04	(0.05)
Market tenure	6-year spell									
2 years	0.68	(0.18)**	0.67	(0.19)**	0.00	(0.08)	0.79	(0.22)**	0.19	(0.06)**
3 years	0.77	(0.18)**	0.80	(0.19)**	-0.03	(0.07)	0.93	(0.23)**	0.23	(0.06)**
4 years	0.83	(0.18)**	0.91	(0.19)**	-0.08	(0.07)	0.98	(0.23)**	0.24	(0.06)**
5 years	0.53	(0.18)**	0.63	(0.19)**	-0.10	(0.07)	0.72	(0.23)**	0.15	(0.06)**
6 years	0.09	(0.18)	0.14	(0.20)	-0.05	(0.08)	0.06	(0.23)	0.02	(0.06)
Market tenure	7+ year spell									
2 years	0.84	(0.10)**	0.84	(0.10)**	0.00	(0.04)	0.91	(0.10)**	0.21	(0.03)**
3 years	1.03	(0.10)**	1.02	(0.10)**	0.01	(0.04)	1.22	(0.10)**	0.26	(0.03)**
4 years	1.15	(0.10)**	1.17	(0.11)**	-0.02	(0.04)	1.34	(0.10)**	0.30	(0.03)**
5 years	1.19	(0.10)**	1.22	(0.11)**	-0.03	(0.04)	1.37	(0.10)**	0.30	(0.03)**
6 years	1.13	(0.10)**	1.17	(0.11)**	-0.04	(0.04)	1.33	(0.10)**	0.29	(0.03)**
7+ years	1.07	(0.10)**	1.14	(0.10)**	-0.07	(0.04)**	1.30	(0.09)**	0.29	(0.03)**
cens	3.42	(0.05)**	3.50	(0.05)**	-0.08	(0.02)**	3.85	(0.05)**	0.99	(0.01)**
	Fixed effects									
Firm-prod-yr	Yes		Yes		Yes		No		No	
Firm-yr	No		No		No		Yes		Yes	
Market	Yes		Yes		Yes		Yes		Yes	
N	120235		120235		120235		50082		50082	
rsq	0.81		0.89		0.94		0.71		0.62	
rsq-adj	0.60		0.77		0.88		0.60		0.47	

Notes: Domestic-owned firms only. Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level, and log revenue and log number of products at the firm-market-year level. Full set of firm-product-year and market effects included in firm-product-market-year regressions. Full set of firm-year and market effects included in firm-market-year regressions. Omitted category is spells that last one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 31: Exit hazard: Domestic-owned firms

Market tenure	Firm-prod-mkt		Firm-mkt	
2 years	-0.14	(0.01)**	-0.15	(0.01)**
3 years	-0.21	(0.01)**	-0.22	(0.01)**
4 years	-0.25	(0.01)**	-0.26	(0.01)**
5 years	-0.25	(0.01)**	-0.27	(0.01)**
6 years	-0.23	(0.01)**	-0.26	(0.01)**
7+ years	-0.23	(0.01)**	-0.26	(0.01)**
	Fixed effects			
Firm-prod-yr	Yes		No	
Firm-yr	No		Yes	
Market	Yes		Yes	
N	152589		49317	
rsq	0.74		0.53	
rsq-adj	0.45		0.32	

Notes: Domestic-owned firms only. Dependent variable is an indicator for exit in the next period. Full set of firm-product-year and market effects included at the firm-product-market-year level. Full set of firm-year and market effects included at the firm-market-year level. Omitted category is market tenure equal to one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 32: Dynamics of revenue, quantity, price, # products: Foreign-owned firms

	Product rev.		Quantity		Price		Market rev.		# Products	
Spell duration					Spell intercept					
2 years	0.52	(0.03)**	0.51	(0.03)**	0.00	(0.02)	0.37	(0.06)**	0.07	(0.01)**
3 years	0.78	(0.04)**	0.77	(0.04)**	0.00	(0.02)	0.75	(0.07)**	0.15	(0.02)**
4 years	0.97	(0.06)**	0.98	(0.06)**	-0.01	(0.03)	0.79	(0.09)**	0.20	(0.02)**
5 years	1.11	(0.08)**	1.12	(0.08)**	-0.01	(0.04)	0.96	(0.12)**	0.17	(0.03)**
6 years	1.18	(0.09)**	1.15	(0.10)**	0.03	(0.04)	1.19	(0.14)**	0.25	(0.04)**
7+ years	1.45	(0.06)**	1.44	(0.06)**	0.01	(0.03)	1.27	(0.07)**	0.22	(0.02)**
Market tenure					2-year spell					
2 years	-0.03	(0.04)	-0.03	(0.04)**	0.01	(0.02)	-0.05	(0.07)	0.00	(0.01)
Market tenure					3-year spell					
2 years	0.47	(0.05)**	0.48	(0.06)**	-0.01	(0.03)	0.44	(0.10)**	0.10	(0.02)**
3 years	-0.02	(0.06)	-0.03	(0.06)	0.01	(0.03)	0.05	(0.09)	0.02	(0.02)
Market tenure					4-year spell					
2 years	0.56	(0.08)**	0.56	(0.08)**	-0.01	(0.04)	0.68	(0.12)**	0.12	(0.03)**
3 years	0.61	(0.08)**	0.65	(0.08)**	-0.03	(0.04)	0.69	(0.12)**	0.11	(0.03)**
4 years	0.02	(0.08)	0.03	(0.08)	-0.01	(0.04)	0.26	(0.12)**	0.01	(0.03)
Market tenure					5-year spell					
2 years	0.64	(0.11)**	0.62	(0.11)**	0.02	(0.05)	0.79	(0.15)**	0.14	(0.04)**
3 years	0.70	(0.11)**	0.69	(0.11)**	0.01	(0.05)	0.76	(0.16)**	0.16	(0.04)**
4 years	0.58	(0.11)**	0.62	(0.11)**	-0.04	(0.05)	0.73	(0.16)**	0.18	(0.04)**
5 years	-0.03	(0.11)	-0.03	(0.11)	-0.01	(0.05)	0.13	(0.16)	0.06	(0.04)
Market tenure					6-year spell					
2 years	0.78	(0.13)**	0.84	(0.13)**	-0.06	(0.06)	0.62	(0.18)**	0.22	(0.05)**
3 years	0.92	(0.13)**	1.02	(0.13)**	-0.09	(0.06)	0.87	(0.18)**	0.19	(0.05)**
4 years	0.85	(0.13)**	0.92	(0.14)**	-0.07	(0.06)	1.06	(0.18)**	0.23	(0.05)**
5 years	0.78	(0.13)**	0.79	(0.13)**	-0.01	(0.06)	0.76	(0.19)**	0.14	(0.05)**
6 years	0.13	(0.13)	0.14	(0.14)	-0.01	(0.06)	0.17	(0.19)	0.00	(0.05)
Market tenure					7+ year spell					
2 years	0.85	(0.08)**	0.89	(0.08)**	-0.04	(0.03)	1.06	(0.08)**	0.21	(0.02)**
3 years	1.22	(0.08)**	1.27	(0.08)**	-0.06	(0.03)	1.43	(0.09)**	0.29	(0.02)**
4 years	1.38	(0.08)**	1.41	(0.08)**	-0.04	(0.03)	1.60	(0.09)**	0.33	(0.02)**
5 years	1.40	(0.08)**	1.43	(0.08)**	-0.04	(0.04)	1.74	(0.09)**	0.35	(0.02)**
6 years	1.38	(0.08)**	1.40	(0.08)**	-0.03	(0.04)	1.75	(0.09)**	0.34	(0.02)**
7+ years	1.38	(0.07)**	1.45	(0.07)**	-0.07	(0.03)**	1.84	(0.08)**	0.36	(0.02)**
cens	3.73	(0.04)**	3.75	(0.04)**	-0.01	(0.02)	4.01	(0.04)**	0.84	(0.01)**
					Fixed effects					
Firm-prod-yr	Yes		Yes		Yes		No		No	
Firm-yr	No		No		No		Yes		Yes	
Market	Yes		Yes		Yes		Yes		Yes	
N	192717		192717		192717		63830		63830	
rsq	0.75		0.78		0.86		0.61		0.52	
rsq-adj	0.59		0.64		0.77		0.57		0.48	

Notes: Foreign-owned firms only. Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level, and log revenue and log number of products at the firm-market-year level. Full set of firm-product-year and market effects included in firm-product-market-year regressions. Full set of firm-year and market effects included in firm-market-year regressions. Omitted category is spells that last one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 33: Exit hazard: Foreign-owned firms

Market tenure	Firm-prod-mkt		Firm-mkt	
2 years	-0.13	(0.00)**	-0.15	(0.01)**
3 years	-0.19	(0.00)**	-0.21	(0.01)**
4 years	-0.23	(0.01)**	-0.23	(0.01)**
5 years	-0.24	(0.01)**	-0.26	(0.01)**
6 years	-0.24	(0.01)**	-0.26	(0.01)**
7+ years	-0.23	(0.01)**	-0.26	(0.01)**
	Fixed effects			
Firm-prod-yr	Yes		No	
Firm-yr	No		Yes	
Market	Yes		Yes	
N	228863		53980	
rsq	0.67		0.42	
rsq-adj	0.48		0.35	

Notes: Foreign-owned firms only. Dependent variable is an indicator for exit in the next period. Full set of firm-product-year and market effects included at the firm-product-market-year level. Full set of firm-year and market effects included at the firm-market-year level. Omitted category is market tenure equal to one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 34: Dynamics of revenue, quantity, price, # products: Firm size at start of spell I

	Product rev.		Quantity		Price		Market rev.		# Products	
	Panel I: Spells where firm has <30 employees at the beginning of the spell									
Spell duration					Spell intercept					
2 years	0.40	(0.06)**	0.44	(0.06)**	-0.04	(0.03)	0.41	(0.08)**	0.13	(0.02)**
3 years	0.59	(0.09)**	0.63	(0.09)**	-0.04	(0.05)	0.74	(0.11)**	0.17	(0.03)**
4 years	0.59	(0.14)**	0.66	(0.13)**	-0.06	(0.07)	0.60	(0.14)**	0.23	(0.03)**
5 years	0.88	(0.20)**	0.97	(0.20)**	-0.09	(0.08)	1.12	(0.20)**	0.28	(0.04)**
6 years	1.12	(0.21)**	1.01	(0.23)**	0.12	(0.09)	0.75	(0.27)**	0.23	(0.06)**
7+ years	0.98	(0.14)**	1.03	(0.15)**	-0.04	(0.06)	1.06	(0.12)**	0.30	(0.03)**
Market tenure					2-year spell					
2 years	-0.01	(0.08)	0.00	(0.08)	-0.01	(0.04)	-0.03	(0.11)	-0.04	(0.02)*
Market tenure					3-year spell					
2 years	0.30	(0.12)**	0.29	(0.12)**	0.01	(0.06)	0.54	(0.14)**	0.11	(0.04)**
3 years	-0.06	(0.13)	-0.07	(0.13)	0.02	(0.06)	-0.10	(0.14)	-0.03	(0.04)
Market tenure					4-year spell					
2 years	0.50	(0.18)**	0.58	(0.18)**	-0.08	(0.08)	0.54	(0.19)**	0.09	(0.05)*
3 years	0.64	(0.18)**	0.69	(0.18)**	-0.05	(0.09)	0.35	(0.20)*	0.05	(0.05)
4 years	0.20	(0.19)	0.11	(0.19)	0.09	(0.09)	0.17	(0.20)	-0.08	(0.05)
Market tenure					5-year spell					
2 years	0.68	(0.26)**	0.62	(0.26)**	0.06	(0.11)	0.59	(0.26)**	0.10	(0.06)
3 years	0.57	(0.26)**	0.40	(0.26)	0.17	(0.11)	0.57	(0.26)**	0.08	(0.07)
4 years	0.62	(0.25)**	0.52	(0.26)**	0.10	(0.11)	0.48	(0.26)*	0.12	(0.06)**
5 years	0.17	(0.26)	0.13	(0.27)	0.05	(0.11)	-0.26	(0.28)	-0.06	(0.06)
Market tenure					6-year spell					
2 years	0.59	(0.28)**	0.68	(0.31)**	-0.09	(0.12)	1.15	(0.33)**	0.26	(0.08)**
3 years	0.64	(0.28)**	0.81	(0.31)**	-0.16	(0.11)	1.06	(0.34)**	0.21	(0.08)**
4 years	0.48	(0.28)*	0.58	(0.31)*	-0.10	(0.11)	0.99	(0.35)**	0.16	(0.09)*
5 years	0.27	(0.29)	0.37	(0.32)	-0.09	(0.11)	0.92	(0.35)**	0.10	(0.08)
6 years	-0.29	(0.30)	-0.19	(0.32)	-0.10	(0.13)	0.01	(0.36)	-0.02	(0.09)
Market tenure					7+ year spell					
2 years	1.05	(0.18)**	1.01	(0.19)**	0.04	(0.08)	0.95	(0.15)**	0.22	(0.04)**
3 years	1.06	(0.18)**	1.02	(0.19)**	0.05	(0.08)	1.16	(0.15)**	0.22	(0.04)**
4 years	1.25	(0.18)**	1.24	(0.19)**	0.01	(0.08)	1.25	(0.15)**	0.27	(0.04)**
5 years	1.37	(0.18)**	1.40	(0.19)**	-0.03	(0.08)	1.34	(0.15)**	0.26	(0.04)**
6 years	1.25	(0.19)**	1.29	(0.20)**	-0.04	(0.08)	1.24	(0.15)**	0.25	(0.04)**
7+ years	1.29	(0.17)**	1.31	(0.18)**	-0.02	(0.07)	1.17	(0.14)**	0.22	(0.04)**
					Fixed effects					
Firm-prod-yr	Yes		Yes		Yes		No		No	
Firm-yr	No		No		No		Yes		Yes	
Market	Yes		Yes		Yes		Yes		Yes	
N	312952		312952		312952		113912		113912	
rsq	0.76		0.82		0.90		0.66		0.56	
rsq-adj	0.58		0.69		0.82		0.58		0.47	

Notes: Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level, and log revenue and log number of products at the firm-market-year level. All trajectories are interacted with indicator for >=30 employees at start of spell. This panel reports trajectories for spells where firm has less than 30 employees at the beginning of the spell. Full set of firm-product-year and market effects included in firm-product-market-year regressions. Full set of firm-year and market effects included in firm-market-year regressions. Omitted category is spells that last one year where the firm has <30 employees at the start of the spell. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 35: Dynamics of revenue, quantity, price, # products: Firm size at start of spell I

	Product rev.		Quantity		Price		Market rev.		# Products	
	Panel II: Spells where firm has 30+ employees at the beginning of the spell									
>=30 emp	-0.50	(0.06)**	-0.50	(0.06)**	0.00	(0.03)	-0.83	(0.07)**	-0.14	(0.02)**
Spell duration					Spell intercept					
2 years	0.53	(0.02)**	0.53	(0.03)**	0.00	(0.01)	0.40	(0.05)**	0.09	(0.01)**
3 years	0.78	(0.04)**	0.78	(0.04)**	0.00	(0.02)	0.76	(0.06)**	0.15	(0.01)**
4 years	0.99	(0.05)**	0.99	(0.05)**	0.01	(0.02)	0.90	(0.08)**	0.18	(0.02)**
5 years	1.09	(0.07)**	1.09	(0.07)**	0.00	(0.03)	1.10	(0.10)**	0.17	(0.02)**
6 years	1.13	(0.08)**	1.10	(0.09)**	0.03	(0.04)	1.24	(0.11)**	0.25	(0.03)**
7+ years	1.43	(0.05)**	1.42	(0.05)**	0.01	(0.02)	1.38	(0.06)**	0.28	(0.02)**
Market tenure					2-year spell					
2 years	-0.03	(0.03)	-0.03	(0.03)	0.00	(0.02)	-0.02	(0.06)	0.00	(0.01)
Market tenure					3-year spell					
2 years	0.45	(0.05)**	0.47	(0.05)**	-0.01	(0.02)	0.46	(0.08)**	0.11	(0.02)**
3 years	-0.05	(0.05)	-0.05	(0.05)	0.00	(0.02)	0.05	(0.08)	0.02	(0.02)
Market tenure					4-year spell					
2 years	0.54	(0.07)**	0.55	(0.07)**	-0.02	(0.03)	0.61	(0.11)**	0.14	(0.03)**
3 years	0.54	(0.07)**	0.59	(0.07)**	-0.06	(0.03)*	0.61	(0.11)**	0.13	(0.03)**
4 years	-0.05	(0.07)	-0.02	(0.07)	-0.02	(0.03)	0.18	(0.11)*	0.03	(0.03)
Market tenure					5-year spell					
2 years	0.62	(0.09)**	0.62	(0.09)**	0.01	(0.04)	0.72	(0.13)**	0.16	(0.03)**
3 years	0.72	(0.09)**	0.72	(0.09)**	-0.01	(0.04)	0.76	(0.13)**	0.20	(0.03)**
4 years	0.57	(0.09)**	0.62	(0.09)**	-0.05	(0.04)	0.60	(0.14)**	0.20	(0.03)**
5 years	-0.02	(0.09)	0.00	(0.10)	-0.03	(0.04)	0.11	(0.14)	0.07	(0.03)**
Market tenure					6-year spell					
2 years	0.75	(0.11)**	0.79	(0.12)**	-0.04	(0.05)	0.57	(0.16)**	0.19	(0.04)**
3 years	0.90	(0.11)**	0.96	(0.12)**	-0.06	(0.05)	0.85	(0.16)**	0.21	(0.04)**
4 years	0.89	(0.11)**	0.96	(0.12)**	-0.07	(0.05)	1.02	(0.15)**	0.25	(0.04)**
5 years	0.76	(0.11)**	0.79	(0.12)**	-0.03	(0.05)	0.70	(0.16)**	0.15	(0.04)**
6 years	0.16	(0.12)	0.18	(0.12)**	-0.02	(0.05)	0.11	(0.16)	0.00	(0.04)
Market tenure					7+ year spell					
2 years	0.84	(0.06)**	0.87	(0.07)**	-0.03	(0.03)	1.02	(0.07)**	0.21	(0.02)**
3 years	1.17	(0.07)**	1.21	(0.07)**	-0.04	(0.03)	1.38	(0.07)**	0.29	(0.02)**
4 years	1.32	(0.07)**	1.35	(0.07)**	-0.04	(0.03)	1.55	(0.07)**	0.32	(0.02)**
5 years	1.33	(0.07)**	1.37	(0.07)**	-0.03	(0.03)	1.64	(0.08)**	0.34	(0.02)**
6 years	1.30	(0.07)**	1.33	(0.07)**	-0.03	(0.03)	1.64	(0.08)**	0.33	(0.02)**
7+ years	1.28	(0.06)**	1.36	(0.06)**	-0.08	(0.03)**	1.70	(0.07)**	0.35	(0.02)**
cens	3.70	(0.03)**	3.74	(0.03)**	-0.04	(0.01)**	4.09	(0.03)**	0.93	(0.01)**
					Fixed effects					
Firm-prod-yr	Yes		Yes		Yes		No		No	
Firm-yr	No		No		No		Yes		Yes	
Market	Yes		Yes		Yes		Yes		Yes	
N	312952		312952		312952		113912		113912	
rsq	0.76		0.82		0.90		0.66		0.56	
rsq-adj	0.58		0.69		0.82		0.58		0.47	

Notes: Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level, and log revenue and log number of products at the firm-market-year level. All trajectories are interacted with indicator for >=30 employees at start of spell. This panel reports trajectories for spells where firm has 30+ employees at the beginning of the spell. Full set of firm-product-year and market effects included in firm-product-market-year regressions. Full set of firm-year and market effects included in firm-market-year regressions. Omitted category is spells that last one year where the firm has <30 employees at the start of the spell. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 36: Exit hazard: Firm size at start of spell I

Market tenure	Firm-prod-mkt		Firm-mkt	
	<30 employees on entry			
2 years	-0.14	(0.01)**	-0.15	(0.01)**
3 years	-0.22	(0.01)**	-0.23	(0.01)**
4 years	-0.25	(0.01)**	-0.26	(0.01)**
5 years	-0.26	(0.02)**	-0.27	(0.01)**
6 years	-0.24	(0.02)**	-0.27	(0.02)**
7+ years	-0.25	(0.02)**	-0.26	(0.01)**
	30+ employees on entry			
30+ employees	-0.02	(0.01)	0.00	(0.01)
2 years	-0.13	(0.00)**	-0.16	(0.01)**
3 years	-0.20	(0.00)**	-0.22	(0.01)**
4 years	-0.23	(0.00)**	-0.25	(0.01)**
5 years	-0.24	(0.01)**	-0.27	(0.01)**
6 years	-0.24	(0.01)**	-0.27	(0.01)**
7+ years	-0.23	(0.01)**	-0.26	(0.01)**
	Fixed effects			
Firm-prod-yr	Yes		No	
Firm-yr	No		Yes	
Market	Yes		Yes	
N	381452		103297	
rsq	0.70		0.47	
rsq-adj	0.47		0.34	

Notes: Dependent variable is an indicator for exit in the next period. Full set of firm-product-year and market effects included at the firm-product-market-year level. Full set of firm-year and market effects included at the firm-market-year level. Omitted category is market tenure of one year where the firm has <30 employees at the start of the spell. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 37: Dynamics of revenue, quantity, price, # products: Firm size at start of spell II

	Product rev.		Quantity		Price		Market rev.		# Products	
	Panel I: Spells where firm has <250 employees at the beginning of the spell									
Spell duration	Spell intercept									
2 years	0.50	(0.03)**	0.52	(0.03)**	-0.02	(0.01)*	0.40	(0.05)**	0.10	(0.01)**
3 years	0.71	(0.04)**	0.72	(0.04)**	-0.01	(0.02)	0.71	(0.06)**	0.17	(0.01)**
4 years	0.93	(0.05)**	0.92	(0.06)**	0.01	(0.03)	0.75	(0.08)**	0.17	(0.02)**
5 years	1.06	(0.08)**	1.08	(0.08)**	-0.02	(0.04)	1.07	(0.10)**	0.20	(0.02)**
6 years	1.03	(0.09)**	0.95	(0.09)**	0.08	(0.04)*	1.03	(0.12)**	0.25	(0.03)**
7+ years	1.30	(0.06)**	1.28	(0.06)**	0.02	(0.02)	1.23	(0.06)**	0.29	(0.02)**
Market tenure	2-year spell									
2 years	-0.06	(0.04)	-0.06	(0.04)	0.00	(0.02)	-0.04	(0.06)	-0.01	(0.01)
Market tenure	3-year spell									
2 years	0.37	(0.05)**	0.40	(0.06)**	-0.02	(0.03)	0.45	(0.08)**	0.09	(0.02)**
3 years	-0.09	(0.05)*	-0.07	(0.06)	-0.02	(0.03)	-0.04	(0.08)	-0.01	(0.02)
Market tenure	4-year spell									
2 years	0.46	(0.07)**	0.50	(0.08)**	-0.04	(0.03)	0.55	(0.10)**	0.14	(0.03)**
3 years	0.44	(0.07)**	0.51	(0.08)**	-0.07	(0.04)*	0.47	(0.10)**	0.11	(0.03)**
4 years	-0.08	(0.08)*	-0.05	(0.08)	-0.03	(0.04)	0.12	(0.10)	0.01	(0.03)
Market tenure	5-year spell									
2 years	0.55	(0.10)**	0.54	(0.10)**	0.01	(0.05)	0.65	(0.13)**	0.14	(0.03)**
3 years	0.59	(0.10)**	0.60	(0.10)**	-0.01	(0.05)	0.69	(0.13)**	0.18	(0.03)**
4 years	0.44	(0.10)**	0.47	(0.10)**	-0.04	(0.05)	0.53	(0.13)**	0.18	(0.03)**
5 years	-0.08	(0.10)	-0.04	(0.11)	-0.04	(0.05)	-0.04	(0.14)	0.04	(0.03)
Market tenure	6-year spell									
2 years	0.72	(0.12)**	0.82	(0.13)**	-0.10	(0.05)*	0.71	(0.16)**	0.18	(0.04)**
3 years	0.81	(0.12)**	0.97	(0.13)**	-0.16	(0.06)**	0.92	(0.16)**	0.19	(0.05)**
4 years	0.83	(0.12)**	0.96	(0.13)**	-0.13	(0.05)**	1.05	(0.16)**	0.22	(0.05)**
5 years	0.55	(0.12)**	0.66	(0.13)**	-0.12	(0.05)**	0.70	(0.17)**	0.12	(0.05)**
6 years	0.04	(0.13)	0.14	(0.13)	-0.10	(0.06)*	0.04	(0.17)	-0.04	(0.04)
Market tenure	7+ year spell									
2 years	0.75	(0.07)**	0.78	(0.07)**	-0.04	(0.03)	0.93	(0.07)**	0.21	(0.02)**
3 years	1.02	(0.07)**	1.07	(0.08)**	-0.05	(0.03)*	1.22	(0.07)**	0.25	(0.02)**
4 years	1.12	(0.07)**	1.18	(0.08)**	-0.06	(0.03)**	1.37	(0.07)**	0.30	(0.02)**
5 years	1.16	(0.07)**	1.23	(0.08)**	-0.08	(0.03)**	1.45	(0.07)**	0.29	(0.02)**
6 years	1.12	(0.07)**	1.21	(0.08)**	-0.09	(0.03)**	1.45	(0.08)**	0.29	(0.02)**
7+ years	1.07	(0.07)**	1.18	(0.07)**	-0.12	(0.03)**	1.44	(0.07)**	0.27	(0.02)**
	Fixed effects									
Firm-prod-yr	Yes	Yes	Yes	No	No					
Firm-yr	No	No	No	Yes	Yes					
Market	Yes	Yes	Yes	Yes	Yes					
N	312952	312952	312952	113912	113912					
rsq	0.77	0.90	0.83	0.66	0.56					
rsq-adj	0.58	0.82	0.69	0.58	0.47					

Notes: Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level, and log revenue and log number of products at the firm-market-year level. All trajectories are interacted with indicator for >=250 employees at start of spell. This panel reports trajectories for spells where firm has less than 250 employees at the beginning of the spell. Full set of firm-product-year and market effects included in firm-product-market-year regressions. Full set of firm-year and market effects included in firm-market-year regressions. Omitted category is spells that last one year where the firm has <250 employees at the start of the spell. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 38: Dynamics of revenue, quantity, price, # products: Firm size at start of spell II

	Product rev.		Quantity		Price		Market rev.		# Products	
Panel II: Spells where firm has 250+ employees at the beginning of the spell										
>=250 emp	-0.80	(0.05)**	-0.73	(0.05)**	-0.07	(0.02)**	-1.37	(0.07)**	-0.28	(0.02)**
Spell duration					Spell intercept					
2 years	0.55	(0.04)**	0.52	(0.04)**	0.03	(0.02)	0.44	(0.09)**	0.10	(0.02)**
3 years	0.84	(0.06)**	0.83	(0.06)**	0.01	(0.03)	0.91	(0.12)**	0.11	(0.03)**
4 years	1.01	(0.09)**	1.03	(0.09)**	-0.02	(0.04)	1.15	(0.15)**	0.23	(0.03)**
5 years	1.10	(0.11)**	1.10	(0.11)**	0.00	(0.05)	1.19	(0.21)**	0.17	(0.05)**
6 years	1.31	(0.14)**	1.34	(0.15)**	-0.03	(0.06)	1.56	(0.21)**	0.26	(0.05)**
7+ years	1.58	(0.09)**	1.59	(0.09)**	-0.01	(0.04)	1.64	(0.11)**	0.26	(0.03)**
Market tenure					2-year spell					
2 years	0.02	(0.05)	0.02	(0.05)	0.00	(0.03)	-0.01	(0.12)	0.01	(0.02)
Market tenure					3-year spell					
2 years	0.54	(0.08)**	0.53	(0.08)**	0.01	(0.04)	0.57	(0.16)**	0.17	(0.04)**
3 years	0.02	(0.08)	-0.02	(0.08)	0.04	(0.04)	0.18	(0.16)	0.06	(0.04)
Market tenure					4-year spell					
2 years	0.64	(0.12)**	0.63	(0.12)**	0.01	(0.06)	0.74	(0.20)**	0.12	(0.05)**
3 years	0.70	(0.12)**	0.73	(0.12)**	-0.03	(0.06)	0.82	(0.20)**	0.14	(0.05)**
4 years	0.06	(0.12)	0.04	(0.12)	0.02	(0.06)	0.37	(0.21)*	0.01	(0.05)
Market tenure					5-year spell					
2 years	0.75	(0.15)**	0.72	(0.16)**	0.02	(0.07)	0.84	(0.27)**	0.19	(0.07)**
3 years	0.87	(0.15)**	0.84	(0.15)**	0.04	(0.07)	0.83	(0.27)**	0.17	(0.07)**
4 years	0.78	(0.15)**	0.82	(0.16)**	-0.04	(0.07)	0.70	(0.27)**	0.18	(0.07)**
5 years	0.07	(0.15)	0.07	(0.16)	0.00	(0.07)	0.30	(0.27)	0.06	(0.07)
Market tenure					6-year spell					
2 years	0.76	(0.20)**	0.70	(0.20)**	0.05	(0.09)	0.58	(0.28)**	0.27	(0.07)**
3 years	0.97	(0.20)**	0.90	(0.20)**	0.07	(0.08)	0.82	(0.28)**	0.26	(0.07)**
4 years	0.87	(0.20)**	0.85	(0.20)**	0.02	(0.08)	0.96	(0.28)**	0.28	(0.07)**
5 years	0.95	(0.19)**	0.86	(0.20)**	0.09	(0.08)	0.89	(0.29)**	0.21	(0.08)**
6 years	0.24	(0.20)	0.14	(0.21)	0.10	(0.09)	0.28	(0.29)	0.11	(0.07)
Market tenure					7+ year spell					
2 years	0.99	(0.11)**	1.00	(0.11)**	-0.01	(0.05)	1.16	(0.13)**	0.21	(0.03)**
3 years	1.34	(0.11)**	1.35	(0.11)**	-0.01	(0.05)	1.64	(0.14)**	0.34	(0.03)**
4 years	1.55	(0.11)**	1.54	(0.11)**	0.01	(0.05)	1.82	(0.14)**	0.35	(0.04)**
5 years	1.56	(0.11)**	1.54	(0.11)**	0.02	(0.05)	1.94	(0.14)**	0.40	(0.04)**
6 years	1.52	(0.11)**	1.47	(0.12)**	0.05	(0.05)	1.91	(0.14)**	0.40	(0.04)**
7+ years	1.55	(0.10)**	1.56	(0.10)**	-0.01	(0.05)	2.06	(0.13)**	0.47	(0.03)**
cens	4.15	(0.05)**	4.15	(0.05)**	0.00	(0.02)	4.98	(0.06)**	1.11	(0.01)**
Fixed effects										
Firm-prod-yr	Yes		Yes		Yes		No		No	
Firm-yr	No		No		No		Yes		Yes	
Market	Yes		Yes		Yes		Yes		Yes	
N	312952		312952		312952		113912		113912	
rsq	0.77		0.90		0.83		0.66		0.56	
rsq-adj	0.58		0.82		0.69		0.58		0.47	

Notes: Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level, and log revenue and log number of products at the firm-market-year level. All trajectories are interacted with indicator for >=250 employees at start of spell. This panel reports trajectories for spells where firm has 250+ employees at the beginning of the spell. Full set of firm-product-year and market effects included in firm-product-market-year regressions. Full set of firm-year and market effects included in firm-market-year regressions. Omitted category is spells that last one year where the firm has <250 employees at the start of the spell. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 39: Exit hazard: Firm size at start of spell II

Market tenure	Firm-prod-mkt		Firm-mkt	
	<250 employees on entry			
2 years	-0.14	(0.00)**	-0.16	(0.01)**
3 years	-0.21	(0.01)**	-0.22	(0.01)**
4 years	-0.25	(0.01)**	-0.26	(0.01)**
5 years	-0.26	(0.01)**	-0.27	(0.01)**
6 years	-0.24	(0.01)**	-0.28	(0.01)**
7+ years	-0.24	(0.01)**	-0.27	(0.01)**
	250+ employees on entry			
250+ employees	0.01	(0.01)	-0.01	(0.01)
2 years	-0.13	(0.01)**	-0.15	(0.01)**
3 years	-0.19	(0.01)**	-0.22	(0.01)**
4 years	-0.22	(0.01)**	-0.22	(0.01)**
5 years	-0.23	(0.01)**	-0.26	(0.01)**
6 years	-0.24	(0.01)**	-0.25	(0.01)**
7+ years	-0.22	(0.01)**	-0.24	(0.01)**
	Fixed effects			
Firm-prod-yr	Yes		No	
Firm-yr	No		Yes	
Market	Yes		Yes	
N	381452		103297	
rsq	0.70		0.47	
rsq-adj	0.47		0.34	

Notes: Dependent variable is an indicator for exit in the next period. Full set of firm-product-year and market effects included at the firm-product-market-year level. Full set of firm-year and market effects included at the firm-market-year level. Omitted category is market tenure of one year where the firm has <250 employees at the start of the spell. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 40: Dynamics of revenue, quantity, price, # products: Firm size at start of spell III

	Product rev.		Quantity		Price		Market rev.		# Products	
Panel I: Spells where firm has <500 employees at the beginning of the spell										
Spell duration	Spell intercept									
2 years	0.53	(0.03)**	0.54	(0.03)**	-0.01	(0.01)	0.40	(0.04)**	0.10	(0.01)**
3 years	0.76	(0.04)**	0.77	(0.04)**	-0.01	(0.02)	0.75	(0.06)**	0.16	(0.01)**
4 years	0.98	(0.05)**	0.97	(0.05)**	0.01	(0.02)	0.83	(0.07)**	0.18	(0.02)**
5 years	1.11	(0.07)**	1.11	(0.07)**	0.00	(0.03)	1.09	(0.09)**	0.20	(0.02)**
6 years	1.10	(0.08)**	1.05	(0.09)**	0.05	(0.04)	1.12	(0.11)**	0.25	(0.03)**
7+ years	1.33	(0.05)**	1.33	(0.05)**	0.00	(0.02)	1.26	(0.06)**	0.28	(0.01)**
Market tenure	2-year spell									
2 years	-0.05	(0.03)	-0.05	(0.03)	0.00	(0.02)	-0.04	(0.05)	-0.01	(0.01)
Market tenure	3-year spell									
2 years	0.40	(0.05)**	0.41	(0.05)**	-0.01	(0.02)	0.47	(0.08)**	0.10	(0.02)**
3 years	-0.10	(0.05)**	-0.09	(0.05)*	-0.01	(0.02)	-0.01	(0.08)	0.01	(0.02)
Market tenure	4-year spell									
2 years	0.48	(0.07)**	0.52	(0.07)**	-0.04	(0.03)	0.53	(0.10)**	0.12	(0.02)**
3 years	0.49	(0.07)**	0.55	(0.07)**	-0.06	(0.03)	0.53	(0.10)**	0.13	(0.02)**
4 years	-0.10	(0.07)	-0.09	(0.07)	-0.02	(0.03)	0.11	(0.10)	0.01	(0.02)
Market tenure	5-year spell									
2 years	0.53	(0.09)**	0.53	(0.10)**	0.00	(0.04)	0.68	(0.12)**	0.14	(0.03)**
3 years	0.61	(0.09)**	0.62	(0.09)**	-0.01	(0.04)	0.70	(0.12)**	0.18	(0.03)**
4 years	0.45	(0.09)**	0.49	(0.10)**	-0.04	(0.04)	0.54	(0.13)**	0.18	(0.03)**
5 years	-0.11	(0.09)	-0.07	(0.10)	-0.04	(0.04)	-0.01	(0.13)	0.04	(0.03)
Market tenure	6-year spell									
2 years	0.73	(0.11)**	0.78	(0.12)**	-0.05	(0.05)	0.71	(0.15)**	0.21	(0.04)**
3 years	0.87	(0.11)**	0.97	(0.12)**	-0.11	(0.05)**	0.90	(0.15)**	0.20	(0.04)**
4 years	0.85	(0.11)**	0.95	(0.12)**	-0.10	(0.05)*	1.02	(0.15)**	0.22	(0.04)**
5 years	0.65	(0.11)**	0.73	(0.12)**	-0.08	(0.05)	0.72	(0.15)**	0.14	(0.04)**
6 years	0.03	(0.12)	0.08	(0.12)	-0.05	(0.05)	0.05	(0.15)	-0.01	(0.04)
Market tenure	7+ year spell									
2 years	0.78	(0.07)**	0.80	(0.07)**	-0.03	(0.03)	0.95	(0.07)**	0.20	(0.02)**
3 years	1.09	(0.07)**	1.12	(0.07)**	-0.02	(0.03)	1.27	(0.07)**	0.26	(0.02)**
4 years	1.22	(0.07)**	1.24	(0.07)**	-0.02	(0.03)	1.42	(0.07)**	0.30	(0.02)**
5 years	1.23	(0.07)**	1.29	(0.07)**	-0.06	(0.03)**	1.47	(0.07)**	0.30	(0.02)**
6 years	1.19	(0.07)**	1.25	(0.07)**	-0.06	(0.03)**	1.47	(0.07)**	0.29	(0.02)**
7+ years	1.11	(0.06)**	1.20	(0.06)**	-0.09	(0.03)**	1.44	(0.06)**	0.27	(0.02)**
	Fixed effects									
Firm-prod-yr	Yes		Yes		Yes		No		No	
Firm-yr	No		No		No		Yes		Yes	
Market	Yes		Yes		Yes		Yes		Yes	
N	312952		312952		312952		113912		113912	
rsq	0.76		0.83		0.90		0.66		0.56	
rsq-adj	0.58		0.69		0.82		0.58		0.47	

Notes: Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level, and log revenue and log number of products at the firm-market-year level. All trajectories are interacted with indicator for >=500 employees at start of spell. This panel reports trajectories for spells where firm has less than 500 employees at the beginning of the spell. Full set of firm-product-year and market effects included in firm-product-market-year regressions. Full set of firm-year and market effects included in firm-market-year regressions. Omitted category is spells that last one year where the firm has <500 employees at the start of the spell. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 41: Dynamics of revenue, quantity, price, # products: Firm size at start of spell III

	Product rev.		Quantity		Price		Market rev.		# Products	
	Panel II: Spells where firm has 500+ employees at the beginning of the spell									
>=500 emp	-0.84	(0.06)**	-0.75	(0.06)**	-0.09	(0.03)**	-1.63	(0.09)**	-0.30	(0.02)**
Spell duration	Spell intercept									
2 years	0.48	(0.05)**	0.46	(0.06)**	0.01	(0.03)	0.47	(0.14)**	0.09	(0.03)**
3 years	0.79	(0.08)**	0.77	(0.08)**	0.02	(0.04)	0.79	(0.18)**	0.09	(0.04)**
4 years	0.90	(0.12)**	0.94	(0.12)**	-0.04	(0.06)	1.03	(0.24)**	0.24	(0.05)**
5 years	0.90	(0.16)**	0.96	(0.16)**	-0.06	(0.07)	1.12	(0.31)**	0.12	(0.07)**
6 years	1.26	(0.21)**	1.28	(0.21)**	-0.02	(0.09)	1.54	(0.30)**	0.28	(0.07)**
7+ years	1.65	(0.12)**	1.63	(0.12)**	0.02	(0.05)	1.81	(0.17)**	0.29	(0.04)**
Market tenure	2-year spell									
2 years	0.06	(0.07)	0.05	(0.07)	0.01	(0.04)	0.09	(0.17)	0.04	(0.04)
Market tenure	3-year spell									
2 years	0.57	(0.10)**	0.57	(0.11)**	0.01	(0.05)	0.56	(0.25)**	0.18	(0.05)**
3 years	0.12	(0.11)	0.08	(0.11)	0.04	(0.06)	0.23	(0.24)	0.02	(0.05)
Market tenure	4-year spell									
2 years	0.68	(0.16)**	0.65	(0.16)**	0.03	(0.08)	0.93	(0.31)**	0.15	(0.07)**
3 years	0.71	(0.15)**	0.73	(0.15)**	-0.03	(0.08)	0.68	(0.31)**	0.04	(0.07)
4 years	0.20	(0.16)	0.21	(0.16)	-0.01	(0.08)	0.58	(0.31)*	-0.03	(0.07)
Market tenure	5-year spell									
2 years	1.04	(0.21)**	0.98	(0.22)**	0.06	(0.09)	0.98	(0.40)**	0.26	(0.09)**
3 years	1.03	(0.22)**	0.95	(0.22)**	0.08	(0.09)	0.97	(0.41)**	0.17	(0.10)*
4 years	1.03	(0.22)**	1.06	(0.22)**	-0.04	(0.10)	0.95	(0.41)**	0.24	(0.10)**
5 years	0.30	(0.21)	0.25	(0.23)	0.05	(0.10)	0.54	(0.41)	0.12	(0.09)
Market tenure	6-year spell									
2 years	0.74	(0.28)**	0.76	(0.29)**	-0.02	(0.12)	0.43	(0.39)	0.18	(0.10)*
3 years	0.84	(0.29)**	0.79	(0.29)**	0.05	(0.11)	0.88	(0.41)**	0.24	(0.11)**
4 years	0.74	(0.28)**	0.74	(0.29)**	0.00	(0.12)	1.04	(0.40)**	0.32	(0.10)**
5 years	0.82	(0.28)**	0.71	(0.28)**	0.11	(0.11)	0.86	(0.43)**	0.16	(0.10)
6 years	0.31	(0.29)	0.26	(0.29)	0.04	(0.13)	0.39	(0.43)	0.09	(0.10)
Market tenure	7+ year spell									
2 years	1.05	(0.15)**	1.08	(0.15)**	-0.03	(0.07)	1.29	(0.19)**	0.26	(0.05)**
3 years	1.30	(0.15)**	1.38	(0.15)**	-0.08	(0.07)	1.77	(0.20)**	0.39	(0.05)**
4 years	1.50	(0.15)**	1.57	(0.15)**	-0.07	(0.07)	1.93	(0.21)**	0.42	(0.05)**
5 years	1.55	(0.15)**	1.51	(0.16)**	0.03	(0.07)	2.20	(0.21)**	0.48	(0.05)**
6 years	1.50	(0.15)**	1.46	(0.16)**	0.04	(0.07)	2.10	(0.21)**	0.49	(0.05)**
7+ years	1.69	(0.14)**	1.71	(0.14)**	-0.03	(0.06)	2.46	(0.18)**	0.63	(0.05)**
cens	4.32	(0.06)**	4.28	(0.06)**	0.03	(0.03)	5.39	(0.09)**	1.17	(0.02)**
	Fixed effects									
Firm-prod-yr	\multicolumn{2}{c}{Yes}	\multicolumn{2}{c}{Yes}	\multicolumn{2}{c}{Yes}	\multicolumn{2}{c}{No}	\multicolumn{2}{c}{No}				
Firm-yr	\multicolumn{2}{c}{No}	\multicolumn{2}{c}{No}	\multicolumn{2}{c}{No}	\multicolumn{2}{c}{Yes}	\multicolumn{2}{c}{Yes}				
Market	\multicolumn{2}{c}{Yes}	\multicolumn{2}{c}{Yes}	\multicolumn{2}{c}{Yes}	\multicolumn{2}{c}{Yes}	\multicolumn{2}{c}{Yes}				
N	\multicolumn{2}{c}{312952}	\multicolumn{2}{c}{312952}	\multicolumn{2}{c}{312952}	\multicolumn{2}{c}{113912}	\multicolumn{2}{c}{113912}				
rsq	\multicolumn{2}{c}{0.76}	\multicolumn{2}{c}{0.83}	\multicolumn{2}{c}{0.90}	\multicolumn{2}{c}{0.66}	\multicolumn{2}{c}{0.56}				
rsq-adj	\multicolumn{2}{c}{0.58}	\multicolumn{2}{c}{0.69}	\multicolumn{2}{c}{0.82}	\multicolumn{2}{c}{0.58}	\multicolumn{2}{c}{0.47}				

Notes: Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level, and log revenue and log number of products at the firm-market-year level. All trajectories are interacted with indicator for >=500 employees at start of spell. This panel reports trajectories for spells where firm has 500+ employees at the beginning of the spell. Full set of firm-product-year and market effects included in firm-product-market-year regressions. Full set of firm-year and market effects included in firm-market-year regressions. Omitted category is spells that last one year where the firm has <500 employees at the start of the spell. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 42: Exit hazard: Firm size at start of spell III

Market tenure	Firm-prod-mkt		Firm-mkt	
	<500 employees on entry			
2 years	-0.14	(0.00)**	-0.16	(0.01)**
3 years	-0.20	(0.00)**	-0.22	(0.01)**
4 years	-0.24	(0.01)**	-0.25	(0.01)**
5 years	-0.25	(0.01)**	-0.27	(0.01)**
6 years	-0.24	(0.01)**	-0.27	(0.01)**
7+ years	-0.24	(0.01)**	-0.26	(0.01)**
	500+ employees on entry			
500+ employees	0.01	(0.01)	0.01	(0.01)
2 years	-0.12	(0.01)**	-0.16	(0.01)**
3 years	-0.19	(0.01)**	-0.25	(0.02)**
4 years	-0.22	(0.01)**	-0.25	(0.02)**
5 years	-0.23	(0.01)**	-0.27	(0.02)**
6 years	-0.25	(0.01)**	-0.27	(0.02)**
7+ years	-0.23	(0.01)**	-0.26	(0.01)**
	Fixed effects			
Firm-prod-yr	Yes		No	
Firm-yr	No		Yes	
Market	Yes		Yes	
N	381452		103297	
rsq	0.70		0.47	
rsq-adj	0.47		0.34	

Notes: Dependent variable is an indicator for exit in the next period. Full set of firm-product-year and market effects included at the firm-product-market-year level. Full set of firm-year and market effects included at the firm-market-year level. Omitted category is market tenure of one year where the firm has <500 employees at the start of the spell. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 43: Dynamics of revenue, quantity, price, # products: Consumer food

	Product rev.		Quantity		Price		Market rev.		# Products	
Spell duration					Spell intercept					
2 years	0.48	(0.06)**	0.50	(0.06)**	-0.01	(0.02)	0.50	(0.12)**	0.13	(0.03)**
3 years	0.72	(0.09)**	0.74	(0.09)**	-0.02	(0.03)	0.94	(0.16)**	0.06	(0.04)
4 years	0.78	(0.12)**	0.84	(0.11)**	-0.06	(0.04)	0.93	(0.21)**	0.08	(0.06)
5 years	0.78	(0.14)**	0.80	(0.14)**	-0.02	(0.04)	0.57	(0.31)*	0.12	(0.08)
6 years	1.12	(0.19)**	1.09	(0.19)**	0.04	(0.06)	1.01	(0.25)**	0.21	(0.08)**
7+ years	1.27	(0.10)**	1.24	(0.10)**	0.02	(0.03)	1.24	(0.14)**	0.26	(0.04)**
Market tenure					2-year spell					
2 years	-0.04	(0.08)	-0.07	(0.08)	0.03	(0.03)	0.11	(0.14)	-0.01	(0.04)
Market tenure					3-year spell					
2 years	0.46	(0.11)**	0.47	(0.11)**	-0.01	(0.04)	0.17	(0.21)	0.13	(0.06)**
3 years	-0.15	(0.12)	-0.16	(0.12)	0.02	(0.04)	-0.18	(0.20)	0.01	(0.06)
Market tenure					4-year spell					
2 years	0.59	(0.16)**	0.59	(0.15)**	0.00	(0.05)	0.22	(0.27)	0.12	(0.07)
3 years	0.49	(0.15)**	0.48	(0.15)**	0.01	(0.05)	0.55	(0.26)**	0.15	(0.08)*
4 years	-0.16	(0.16)	-0.21	(0.16)	0.05	(0.05)	0.16	(0.28)	0.05	(0.08)
Market tenure					5-year spell					
2 years	0.75	(0.19)**	0.77	(0.19)**	-0.01	(0.06)	0.70	(0.39)*	0.22	(0.11)**
3 years	0.90	(0.19)**	0.91	(0.19)**	-0.01	(0.05)	0.76	(0.38)**	0.17	(0.11)
4 years	0.73	(0.19)**	0.78	(0.19)**	-0.05	(0.06)	0.78	(0.40)**	0.15	(0.11)
5 years	-0.14	(0.20)	-0.11	(0.20)	-0.03	(0.06)	0.20	(0.38)	0.01	(0.10)
Market tenure					6-year spell					
2 years	0.64	(0.25)**	0.72	(0.25)**	-0.08	(0.08)	0.20	(0.32)	0.17	(0.10)*
3 years	0.74	(0.25)**	0.79	(0.25)**	-0.05	(0.08)	0.46	(0.36)	0.16	(0.11)
4 years	0.81	(0.25)**	0.85	(0.25)**	-0.04	(0.08)	0.70	(0.34)**	0.14	(0.10)
5 years	0.53	(0.26)**	0.62	(0.25)**	-0.09	(0.08)	0.48	(0.33)	0.14	(0.11)
6 years	-0.09	(0.27)	-0.04	(0.27)	-0.05	(0.08)	0.00	(0.37)	0.05	(0.11)
Market tenure					7+ year spell					
2 years	0.78	(0.12)**	0.78	(0.12)**	0.00	(0.04)	0.90	(0.16)**	0.18	(0.05)**
3 years	1.13	(0.12)**	1.16	(0.12)**	-0.03	(0.04)	1.36	(0.16)**	0.27	(0.05)**
4 years	1.28	(0.12)**	1.33	(0.12)**	-0.04	(0.04)	1.43	(0.16)**	0.31	(0.05)**
5 years	1.31	(0.12)**	1.38	(0.12)**	-0.07	(0.04)*	1.53	(0.16)**	0.33	(0.05)**
6 years	1.28	(0.13)**	1.33	(0.12)**	-0.05	(0.04)	1.45	(0.17)**	0.33	(0.05)**
7+ years	1.27	(0.11)**	1.33	(0.11)**	-0.06	(0.04)*	1.57	(0.15)**	0.33	(0.05)**
cens	3.65	(0.06)**	3.61	(0.06)**	0.04	(0.02)**	4.07	(0.09)**	0.97	(0.02)**
					Fixed effects					
Firm-prod-yr	Yes		Yes		Yes		No		No	
Firm-yr	No		No		No		Yes		Yes	
Market	Yes		Yes		Yes		Yes		Yes	
N	49005		49005		49005		15614		15614	
rsq	0.77		0.80		0.88		0.70		0.63	
rsq-adj	0.61		0.65		0.79		0.64		0.56	

Notes: Consumer food firms only. Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level, and log revenue and log number of products at the firm-market-year level. Full set of firm-product-year and market effects included in firm-product-market-year regressions. Full set of firm-year and market effects included in firm-market-year regressions. Omitted category is spells that last one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 44: Exit hazard: Consumer food

Market tenure	Firm-prod-mkt		Firm-mkt	
2 years	-0.14	(0.01)**	-0.14	(0.01)**
3 years	-0.21	(0.01)**	-0.22	(0.02)**
4 years	-0.24	(0.01)**	-0.24	(0.02)**
5 years	-0.24	(0.01)**	-0.25	(0.02)**
6 years	-0.24	(0.01)**	-0.25	(0.02)**
7+ years	-0.24	(0.01)**	-0.22	(0.02)**
	Fixed effects			
Firm-prod-yr	Yes		No	
Firm-yr	No		Yes	
Market	Yes		Yes	
N	58119		12816	
rsq	0.67		0.46	
rsq-adj	0.44		0.32	

Notes: Consumer food firms only. Dependent variable is an indicator for exit in the next period. Full set of firm-product-year and market effects included at the firm-product-market-year level. Full set of firm-year and market effects included at the firm-market-year level. Omitted category is market tenure equal to one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 45: Dynamics of revenue, quantity, price, # products: Consumer non-food non-durables

	Product rev.		Quantity		Price		Market rev.		# Products	
Spell duration					Spell intercept					
2 years	0.64	(0.06)**	0.68	(0.06)**	-0.03	(0.04)	0.43	(0.09)**	0.10	(0.02)**
3 years	0.96	(0.09)**	0.98	(0.09)**	-0.02	(0.05)	0.82	(0.12)**	0.18	(0.03)**
4 years	0.98	(0.12)**	1.01	(0.12)**	-0.02	(0.07)	0.98	(0.17)**	0.13	(0.04)**
5 years	1.38	(0.16)**	1.38	(0.15)**	0.01	(0.08)	1.39	(0.19)**	0.27	(0.05)**
6 years	1.41	(0.19)**	1.54	(0.19)**	-0.14	(0.09)	1.45	(0.22)**	0.30	(0.07)**
7+ years	1.49	(0.12)**	1.46	(0.12)**	0.02	(0.06)	1.33	(0.13)**	0.28	(0.03)**
Market tenure					2-year spell					
2 years	-0.08	(0.08)	-0.10	(0.08)	0.02	(0.04)	-0.08	(0.11)	0.00	(0.02)
Market tenure					3-year spell					
2 years	0.47	(0.11)**	0.46	(0.12)**	0.01	(0.06)	0.54	(0.15)**	0.11	(0.03)**
3 years	-0.12	(0.11)	-0.18	(0.12)	0.06	(0.06)	0.06	(0.15)	0.00	(0.04)
Market tenure					4-year spell					
2 years	0.65	(0.16)**	0.62	(0.15)**	0.03	(0.09)	0.42	(0.23)*	0.17	(0.05)**
3 years	0.69	(0.16)**	0.68	(0.16)**	0.02	(0.09)	0.46	(0.22)**	0.15	(0.05)**
4 years	0.13	(0.16)	0.09	(0.16)	0.04	(0.09)	0.11	(0.23)	0.03	(0.05)
Market tenure					5-year spell					
2 years	0.48	(0.21)**	0.42	(0.21)**	0.06	(0.11)	0.47	(0.24)*	0.11	(0.06)**
3 years	0.57	(0.21)**	0.60	(0.21)**	-0.02	(0.11)	0.51	(0.26)**	0.11	(0.07)**
4 years	0.19	(0.22)	0.26	(0.22)	-0.07	(0.11)	0.22	(0.25)	0.07	(0.06)
5 years	-0.32	(0.21)	-0.27	(0.21)	-0.05	(0.11)	-0.30	(0.26)**	-0.08	(0.06)
Market tenure					6-year spell					
2 years	0.99	(0.27)**	0.88	(0.26)**	0.11	(0.12)	0.84	(0.31)**	0.26	(0.10)**
3 years	0.96	(0.26)**	0.86	(0.26)**	0.10	(0.12)	0.76	(0.31)**	0.23	(0.10)**
4 years	0.88	(0.26)**	0.91	(0.25)**	-0.04	(0.12)	1.02	(0.32)**	0.30	(0.11)**
5 years	0.74	(0.25)**	0.63	(0.25)**	0.11	(0.12)	0.94	(0.30)**	0.20	(0.11)**
6 years	0.09	(0.25)	-0.23	(0.26)	0.31	(0.13)**	-0.05	(0.33)	0.10	(0.10)
Market tenure					7+ year spell					
2 years	0.76	(0.15)**	0.73	(0.15)**	0.03	(0.07)	1.00	(0.15)**	0.18	(0.04)**
3 years	1.10	(0.15)**	1.11	(0.15)**	-0.01	(0.07)	1.27	(0.15)**	0.21	(0.04)**
4 years	1.16	(0.15)**	1.22	(0.15)**	-0.06	(0.07)	1.34	(0.15)**	0.25	(0.04)**
5 years	1.21	(0.15)**	1.27	(0.15)**	-0.05	(0.08)	1.47	(0.16)**	0.28	(0.04)**
6 years	1.10	(0.15)**	1.15	(0.15)**	-0.05	(0.08)	1.50	(0.16)**	0.23	(0.04)**
7+ years	1.20	(0.14)**	1.27	(0.14)**	-0.07	(0.07)	1.50	(0.14)**	0.21	(0.03)**
cens	3.60	(0.08)**	3.56	(0.08)**	0.04	(0.04)**	3.71	(0.08)**	0.72	(0.02)**
					Fixed effects					
Firm-prod-yr	Yes		Yes		Yes		No		No	
Firm-yr	No		No		No		Yes		Yes	
Market	Yes		Yes		Yes		Yes		Yes	
N	46249		46249		46249		20291		20291	
rsq	0.77		0.78		0.82		0.69		0.53	
rsq-adj	0.62		0.64		0.69		0.62		0.42	

Notes: Consumer non-food non-durables firms only. Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level, and log revenue and log number of products at the firm-market-year level. Full set of firm-product-year and market effects included in firm-product-market-year regressions. Full set of firm-year and market effects included in firm-market-year regressions. Omitted category is spells that last one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 46: Exit hazard: Consumer non-food non-durables

Market tenure	Firm-prod-mkt		Firm-mkt	
2 years	-0.13	(0.01)**	-0.14	(0.01)**
3 years	-0.18	(0.01)**	-0.17	(0.01)**
4 years	-0.22	(0.01)**	-0.24	(0.01)**
5 years	-0.22	(0.01)**	-0.24	(0.01)**
6 years	-0.21	(0.01)**	-0.23	(0.02)**
7+ years	-0.21	(0.01)**	-0.20	(0.01)**
	Fixed effects			
Firm-prod-yr	Yes		No	
Firm-yr	No		Yes	
Market	Yes		Yes	
N	56301		18768	
rsq	0.71		0.49	
rsq-adj	0.49		0.36	

Notes: Consumer non-food non-durables firms only. Dependent variable is an indicator for exit in the next period. Full set of firm-product-year and market effects included at the firm-product-market-year level. Full set of firm-year and market effects included at the firm-market-year level. Omitted category is market tenure equal to one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 47: Dynamics of revenue, quantity, price, # products: Consumer durables

	Product rev.		Quantity		Price		Market rev.		# Products	
Spell duration					Spell intercept					
2 years	0.28	(0.14)**	0.37	(0.15)**	-0.09	(0.07)	0.68	(0.24)**	0.13	(0.06)**
3 years	0.56	(0.24)**	0.63	(0.25)**	-0.07	(0.12)	0.74	(0.34)**	0.16	(0.07)**
4 years	1.16	(0.35)**	1.13	(0.36)**	0.04	(0.16)	1.48	(0.35)**	0.27	(0.10)**
5 years	1.17	(0.50)**	1.02	(0.53)**	0.15	(0.20)	1.24	(0.53)**	0.18	(0.11)
6 years	0.89	(0.60)	0.71	(0.62)	0.19	(0.32)	0.77	(0.70)	0.48	(0.20)**
7+ years	1.80	(0.45)**	1.97	(0.48)**	-0.17	(0.17)	1.44	(0.35)**	0.37	(0.08)**
Market tenure					2-year spell					
2 years	0.23	(0.17)	0.25	(0.18)	-0.01	(0.08	0.05	(0.29)	-0.04	(0.07)
Market tenure					3-year spell					
2 years	0.59	(0.30)*	0.64	(0.32)**	-0.05	(0.14)	0.37	(0.44)	-0.03	(0.09)
3 years	0.11	(0.32)	0.20	(0.33)	-0.10	(0.15)	0.15	(0.44)	-0.05	(0.09)
Market tenure					4-year spell					
2 years	-0.14	(0.46)	0.23	(0.47)	-0.37	(0.20)*	0.24	(0.42)	0.15	(0.14)
3 years	0.64	(0.44)	0.75	(0.45)*	-0.11	(0.18)	-0.31	(0.47)	0.15	(0.13)
4 years	-0.16	(0.42)	-0.09	(0.44)	-0.06	(0.19)	-0.57	(0.46)	-0.14	(0.12)
Market tenure					5-year spell					
2 years	0.32	(0.66)	0.50	(0.69)	-0.18	(0.29)	0.59	(0.73)	0.14	(0.17)
3 years	-0.06	(0.62)	0.39	(0.65)	-0.45	(0.27)*	0.61	(0.67)	0.30	(0.15)**
4 years	0.84	(0.59)	0.83	(0.63)	0.00	(0.26)	0.96	(0.65)	0.34	(0.16)**
5 years	0.02	(0.59)	0.15	(0.63)	-0.12	(0.24)	0.46	(0.63)	0.08	(0.16)
Market tenure					6-year spell					
2 years	0.19	(0.79)	0.42	(0.81)	-0.22	(0.50)	1.36	(0.94)	0.17	(0.26)
3 years	1.16	(0.79)	1.48	(0.84)*	-0.31	(0.39)	1.86	(0.75)**	0.26	(0.25)
4 years	1.05	(0.73)	1.44	(0.82)*	-0.40	(0.39)	1.95	(0.81)**	0.09	(0.25)
5 years	0.85	(0.68)	1.04	(0.72)	-0.19	(0.34)	1.21	(0.90)	0.14	(0.24)
6 years	-0.06	(0.78)	0.26	(0.77)	-0.32	(0.36)	0.88	(0.91)	-0.08	(0.24)
Market tenure					7+ year spell					
2 years	0.43	(0.52)	0.44	(0.55)	0.00	(0.22)	0.34	(0.41)	0.23	(0.11)**
3 years	0.41	(0.54)	0.43	(0.57)	-0.02	(0.19)	0.78	(0.41)*	0.28	(0.11)**
4 years	0.74	(0.55)	0.76	(0.58)	-0.02	(0.21)	1.17	(0.39)**	0.31	(0.11)**
5 years	0.79	(0.55)	0.62	(0.59)	0.16	(0.21)	1.41	(0.41)**	0.36	(0.11)**
6 years	1.05	(0.55)*	0.89	(0.58)	0.16	(0.22)	1.53	(0.43)**	0.30	(0.11)**
7+ years	0.82	(0.50)*	0.84	(0.52)	-0.02	(0.19)	1.51	(0.38)**	0.31	(0.11)**
cens	3.59	(0.21)**	3.78	(0.22)**	-0.19	(0.09)**	4.61	(0.19)**	0.98	(0.06)**
					Fixed effects					
Firm-prod-yr	Yes		Yes		Yes		No		No	
Firm-yr	No		No		No		Yes		Yes	
Market	Yes		Yes		Yes		Yes		Yes	
N	11501		11501		11501		4561		4561	
rsq	0.82		0.90		0.85		0.76		0.61	
rsq-adj	0.55		0.76		0.63		0.64		0.42	

Notes: Consumer durables firms only. Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level, and log revenue and log number of products at the firm-market-year level. Full set of firm-product-year and market effects included in firm-product-market-year regressions. Full set of firm-year and market effects included in firm-market-year regressions. Omitted category is spells that last one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 48: Exit hazard: Consumer non-food non-durables

Market tenure	Firm-prod-mkt		Firm-mkt	
2 years	-0.13	(0.02)**	-0.15	(0.03)**
3 years	-0.21	(0.03)**	-0.20	(0.03)**
4 years	-0.20	(0.03)**	-0.22	(0.03)**
5 years	-0.25	(0.04)**	-0.20	(0.04)**
6 years	-0.25	(0.04)**	-0.24	(0.04)**
7+ years	-0.24	(0.03)**	-0.24	(0.04)**
	Fixed effects			
Firm-prod-yr	Yes		No	
Firm-yr	No		Yes	
Market	Yes		Yes	
N	15605		4392	
rsq	0.75		0.56	
rsq-adj	0.43		0.30	

Notes: Consumer durables firms only. Dependent variable is an indicator for exit in the next period. Full set of firm-product-year and market effects included at the firm-product-market-year level. Full set of firm-year and market effects included at the firm-market-year level. Omitted category is market tenure equal to one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 49: Dynamics of revenue, quantity, price, # products: Intermediates

	Product rev.		Quantity		Price		Market rev.		# Products	
Spell duration	Spell intercept									
2 years	0.56	(0.05)**	0.54	(0.05)**	0.02	(0.02)	0.38	(0.08)**	0.10	(0.02)**
3 years	0.78	(0.07)**	0.78	(0.07)**	0.00	(0.03)	0.76	(0.10)**	0.16	(0.02)**
4 years	1.07	(0.10)**	1.04	(0.10)**	0.03	(0.05)	0.81	(0.12)**	0.19	(0.03)**
5 years	1.15	(0.13)**	1.17	(0.13)**	-0.03	(0.06)	1.26	(0.16)**	0.21	(0.03)**
6 years	1.19	(0.17)**	1.09	(0.17)**	0.10	(0.07)	1.20	(0.20)**	0.24	(0.05)**
7+ years	1.45	(0.10)**	1.47	(0.10)**	-0.03	(0.05)	1.37	(0.10)**	0.26	(0.03)**
Market tenure	2-year spell									
2 years	0.01	(0.06)	0.02	(0.06)	-0.01	(0.03)	0.13	(0.10)	0.00	(0.02)
Market tenure	3-year spell									
2 years	0.44	(0.09)**	0.43	(0.09)**	0.01	(0.04)	0.62	(0.13)**	0.12	(0.03)**
3 years	-0.05	(0.09)	-0.05	(0.10)	0.00	(0.05)	0.05	(0.13)	0.02	(0.03)
Market tenure	4-year spell									
2 years	0.52	(0.13)**	0.55	(0.13)**	-0.03	(0.06)	0.70	(0.17)**	0.13	(0.04)**
3 years	0.49	(0.13)**	0.59	(0.13)**	-0.10	(0.07)	0.62	(0.17)**	0.10	(0.04)**
4 years	-0.08	(0.14)	-0.06	(0.14)	-0.02	(0.07)	0.28	(0.17)*	0.01	(0.04)
Market tenure	5-year spell									
2 years	0.66	(0.18)**	0.58	(0.18)**	0.08	(0.08)	1.01	(0.22)**	0.15	(0.05)**
3 years	0.84	(0.17)**	0.79	(0.18)**	0.05	(0.08)	0.95	(0.22)**	0.23	(0.05)**
4 years	0.70	(0.17)**	0.69	(0.18)**	0.01	(0.08)	0.70	(0.22)**	0.21	(0.05)**
5 years	0.19	(0.18)	0.13	(0.18)	0.05	(0.08)	0.08	(0.24)	0.06	(0.05)
Market tenure	6-year spell									
2 years	0.95	(0.22)**	0.99	(0.23)**	-0.04	(0.10)	0.85	(0.26)**	0.20	(0.06)**
3 years	1.19	(0.22)**	1.31	(0.23)**	-0.12	(0.10)	1.24	(0.25)**	0.19	(0.07)**
4 years	0.94	(0.22)**	0.98	(0.23)**	-0.04	(0.09)	1.18	(0.27)**	0.20	(0.06)**
5 years	0.78	(0.22)**	0.85	(0.23)**	-0.07	(0.10)	0.78	(0.27)**	0.10	(0.06)*
6 years	0.11	(0.23)	0.20	(0.24)	-0.10	(0.10)	0.19	(0.27)	-0.06	(0.06)
Market tenure	7+ year spell									
2 years	0.91	(0.13)**	0.89	(0.13)**	0.01	(0.06)	1.09	(0.12)**	0.22	(0.03)**
3 years	1.17	(0.13)**	1.14	(0.13)**	0.03	(0.06)	1.42	(0.12)**	0.30	(0.03)**
4 years	1.45	(0.13)**	1.41	(0.13)**	0.04	(0.06)	1.68	(0.12)**	0.33	(0.03)**
5 years	1.44	(0.13)**	1.44	(0.13)**	0.00	(0.06)	1.63	(0.13)**	0.31	(0.03)**
6 years	1.39	(0.13)**	1.37	(0.14)**	0.02	(0.06)	1.66	(0.13)**	0.31	(0.03)**
7+ years	1.20	(0.12)**	1.25	(0.13)**	-0.05	(0.06)	1.71	(0.12)**	0.29	(0.03)**
cens	3.87	(0.07)**	-0.05	(0.03)**	-0.05	(0.03)	4.19	(0.06)**	0.84	(0.01)**
	Fixed effects									
Firm-prod-yr	Yes		Yes		Yes		No		No	
Firm-yr	No		No		No		Yes		Yes	
Market	Yes		Yes		Yes		Yes		Yes	
N	90145		90145		90145		35663		35663	
rsq	0.78		0.91		0.84		0.65		0.54	
rsq-adj	0.55		0.82		0.68		0.55		0.41	

Notes: Intermediates firms only. Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level, and log revenue and log number of products at the firm-market-year level. Full set of firm-product-year and market effects included in firm-product-market-year regressions. Full set of firm-year and market effects included in firm-market-year regressions. Omitted category is spells that last one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 50: Exit hazard: Intermediates

Market tenure	Firm-prod-mkt		Firm-mkt	
2 years	-0.14	(0.01)**	-0.16	(0.01)**
3 years	-0.20	(0.01)**	-0.22	(0.01)**
4 years	-0.25	(0.01)**	-0.24	(0.01)**
5 years	-0.25	(0.01)**	-0.27	(0.01)**
6 years	-0.24	(0.01)**	-0.27	(0.01)**
7+ years	-0.23	(0.01)**	-0.26	(0.01)**
	Fixed effects			
Firm-prod-yr	Yes		No	
Firm-yr	No		Yes	
Market	Yes		Yes	
N	108031		33055	
rsq	0.72		0.48	
rsq-adj	0.45		0.32	

Notes: Intermediates firms only. Dependent variable is an indicator for exit in the next period. Full set of firm-product-year and market effects included at the firm-product-market-year level. Full set of firm-year and market effects included at the firm-market-year level. Omitted category is market tenure equal to one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 51: Dynamics of revenue, quantity, price, # products: Capital goods

Spell duration	Product rev.		Quantity		Price		Market rev.		# Products	
	Spell intercept									
2 years	0.43	(0.04)**	0.43	(0.04)**	0.00	(0.02)	0.35	(0.07)**	0.08	(0.02)**
3 years	0.67	(0.05)**	0.66	(0.06)**	0.00	(0.03)	0.59	(0.10)**	0.12	(0.02)**
4 years	0.87	(0.08)**	0.86	(0.08)**	0.02	(0.04)	0.69	(0.12)**	0.24	(0.03)**
5 years	1.00	(0.10)**	1.02	(0.11)**	-0.03	(0.05)	0.84	(0.15)**	0.15	(0.04)**
6 years	1.00	(0.12)**	0.97	(0.13)**	0.03	(0.06)	0.95	(0.18)**	0.22	(0.05)**
7+ years	1.27	(0.08)**	1.25	(0.09)**	0.02	(0.04)	1.17	(0.09)**	0.25	(0.02)**
Market tenure	2-year spell									
2 years	-0.04	(0.05)	-0.02	(0.05)	-0.02	(0.03)	-0.19	(0.09)**	0.00	(0.02)
Market tenure	3-year spell									
2 years	0.39	(0.07)**	0.41	(0.07)**	-0.02	(0.04)	0.38	(0.13)**	0.12	(0.03)**
3 years	0.01	(0.07)	0.03	(0.07)	-0.01	(0.04)	0.01	(0.13)	0.02	(0.03)
Market tenure	4-year spell									
2 years	0.51	(0.10)**	0.55	(0.10)**	-0.04	(0.05)	0.84	(0.16)**	0.11	(0.04)**
3 years	0.50	(0.10)**	0.58	(0.10)**	-0.08	(0.05)	0.75	(0.16)**	0.11	(0.04)**
4 years	0.00	(0.10)	0.07	(0.11)	-0.07	(0.05)	0.31	(0.17)*	0.01	(0.04)
Market tenure	5-year spell									
2 years	0.62	(0.14)**	0.65	(0.14)**	-0.02	(0.07)	0.64	(0.20)**	0.16	(0.05)**
3 years	0.56	(0.14)**	0.53	(0.14)**	0.03	(0.07)	0.70	(0.21)**	0.17	(0.05)**
4 years	0.50	(0.14)**	0.54	(0.15)**	-0.04	(0.07)	0.69	(0.21)**	0.24	(0.05)**
5 years	-0.02	(0.14)	0.02	(0.15)	-0.04	(0.07)	0.24	(0.21)	0.14	(0.05)**
Market tenure	6-year spell									
2 years	0.58	(0.17)**	0.65	(0.18)**	-0.06	(0.08)	0.54	(0.24)**	0.20	(0.06)**
3 years	0.66	(0.17)**	0.73	(0.17)**	-0.07	(0.08)	0.75	(0.24)**	0.21	(0.07)**
4 years	0.74	(0.17)**	0.82	(0.17)**	-0.08	(0.07)	0.97	(0.23)**	0.28	(0.06)**
5 years	0.71	(0.17)**	0.73	(0.18)**	-0.02	(0.07)	0.77	(0.25)**	0.16	(0.07)**
6 years	0.24	(0.17)	0.29	(0.18)	-0.05	(0.08)	0.23	(0.24)	0.01	(0.06)
Market tenure	7+ year spell									
2 years	0.91	(0.10)**	1.00	(0.11)**	-0.08	(0.04)*	1.03	(0.11)**	0.24	(0.03)**
3 years	1.21	(0.10)**	1.31	(0.11)**	-0.10	(0.05)**	1.31	(0.11)**	0.30	(0.03)**
4 years	1.30	(0.11)**	1.36	(0.11)**	-0.06	(0.05)	1.48	(0.11)**	0.35	(0.03)**
5 years	1.33	(0.11)**	1.37	(0.11)**	-0.04	(0.05)	1.66	(0.12)**	0.37	(0.03)**
6 years	1.29	(0.11)**	1.35	(0.11)**	-0.06	(0.05)	1.57	(0.12)**	0.39	(0.03)**
7+ years	1.36	(0.10)**	1.45	(0.11)**	-0.09	(0.04)**	1.61	(0.10)**	0.43	(0.03)**
cens	3.45	(0.06)**	3.60	(0.06)**	-0.14	(0.03)**	3.67	(0.06)**	0.97	(0.01)**
	Fixed effects									
Firm-prod-yr	Yes		Yes		Yes		No		No	
Firm-yr	No		No		No		Yes		Yes	
Market	Yes		Yes		Yes		Yes		Yes	
N	111161		111161		111161		35508		35508	
rsq	0.74		0.75		0.84		0.61		0.57	
rsq-adj	0.58		0.59		0.74		0.55		0.50	

Notes: Capital goods firms only. Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level, and log revenue and log number of products at the firm-market-year level. Full set of firm-product-year and market effects included in firm-product-market-year regressions. Full set of firm-year and market effects included in firm-market-year regressions. Omitted category is spells that last one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 52: Exit hazard: Capital goods

Market tenure	Firm-prod-mkt		Firm-mkt	
2 years	-0.12	(0.00)**	-0.16	(0.01)**
3 years	-0.19	(0.01)**	-0.23	(0.01)**
4 years	-0.22	(0.01)**	-0.25	(0.01)**
5 years	-0.23	(0.01)**	-0.27	(0.01)**
6 years	-0.23	(0.01)**	-0.26	(0.01)**
7+ years	-0.22	(0.01)**	-0.28	(0.01)**
	Fixed effects			
Firm-prod-yr	Yes		No	
Market	Yes		Yes	
N	137319		32047	
rsq	0.68		0.45	
rsq-adj	0.49		0.36	

Notes: Capital goods firms only. Dependent variable is an indicator for exit in the next period. Full set of firm-product-year and market effects included at the firm-product-market-year level. Full set of firm-year and market effects included at the firm-market-year level. Omitted category is market tenure equal to one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 53: Dynamics of revenue, quantity, price: Rauch homogeneous

	Product rev.		Quantity		Price	
Spell duration	Spell intercept					
2 years	0.63	(0.11)**	0.59	(0.11)**	0.04	(0.03)
3 years	0.94	(0.16)**	0.91	(0.17)**	0.03	(0.05)
4 years	1.01	(0.20)**	1.02	(0.20)**	-0.01	(0.06)
5 years	1.10	(0.25)**	0.99	(0.25)**	0.11	(0.07)
6 years	1.50	(0.38)**	1.51	(0.39)**	-0.01	(0.10)
7+ years	1.52	(0.17)**	1.47	(0.17)**	0.05	(0.05)
Market tenure	2-year spell					
2 years	0.04	(0.13)	0.05	(0.14)	-0.01	(0.04)
Market tenure	3-year spell					
2 years	0.46	(0.20)**	0.45	(0.21)**	0.01	(0.06)
3 years	-0.36	(0.21)*	-0.33	(0.22)**	-0.02	(0.06)
Market tenure	4-year spell					
2 years	0.79	(0.27)**	0.78	(0.27)**	0.01	(0.07)
3 years	0.69	(0.25)**	0.65	(0.26)**	0.04	(0.07)
4 years	-0.25	(0.27)	-0.36	(0.27)	0.11	(0.07)
Market tenure	5-year spell					
2 years	0.98	(0.31)**	1.03	(0.31)**	-0.05	(0.08)
3 years	1.04	(0.32)**	1.11	(0.32)**	-0.08	(0.09)
4 years	0.87	(0.32)**	0.95	(0.32)**	-0.08	(0.09)
5 years	-0.28	(0.34)	-0.23	(0.34)	-0.05	(0.10
Market tenure	6-year spell					
2 years	0.98	(0.45)**	1.05	(0.47)**	-0.07	(0.13)
3 years	1.18	(0.47)**	1.18	(0.48)**	0.00	(0.12)
4 years	1.30	(0.46)**	1.25	(0.48)**	0.04	(0.13)
5 years	0.96	(0.47)**	1.02	(0.47)**	-0.07	(0.14)
6 years	0.26	(0.49)	0.20	(0.50)	0.06	(0.15)
Market tenure	7+ year spell					
2 years	0.70	(0.22)**	0.64	(0.22)**	0.06	(0.06)
3 years	1.11	(0.21)**	1.06	(0.22)**	0.05	(0.05)
4 years	1.26	(0.22)**	1.25	(0.22)**	0.01	(0.06)
5 years	1.43	(0.22)**	1.45	(0.22)**	-0.02	(0.06)
6 years	1.51	(0.22)**	1.56	(0.22)**	-0.05	(0.06)
7+ years	1.28	(0.20)**	1.29	(0.20)**	-0.01	(0.05)
cens	3.59	(0.11)**	3.54	(0.11)**	0.05	(0.03)
	Fixed effects					
Firm-prod-yr	Yes		Yes		Yes	
Market	Yes		Yes		Yes	
N	14441		14441		14441	
rsq	0.76		0.88		0.78	
rsq-adj	0.57		0.78		0.61	

Notes: Rauch homogeneous products only. Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level. Full set of firm-product-year and market effects included in firm-product-market-year regressions. Full set of firm-year and market effects included in firm-market-year regressions. Omitted category is spells that last one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 54: Exit hazard: Rauch homogenous

Market tenure	Firm-prod-mkt	
2 years	-0.12	$(0.02)^{**}$
3 years	-0.20	$(0.02)^{**}$
4 years	-0.23	$(0.02)^{**}$
5 years	-0.20	$(0.02)^{**}$
6 years	-0.22	$(0.03)^{**}$
7+ years	-0.20	$(0.02)^{**}$
	Fixed effects	
Firm-prod-yr	Yes	
Market	Yes	
N	15016	
rsq	0.71	
rsq-adj	0.48	

Notes: Rauch homogeneous products only. Dependent variable is an indicator for exit in the next period. Full set of firm-product-year and market effects included at the firm-product-market-year level. Full set of firm-year and market effects included at the firm-market-year level. Omitted category is market tenure equal to one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 55: Dynamics of revenue, quantity, price: Rauch reference priced

	Product rev.		Quantity		Price	
Spell duration	Spell intercept					
2 years	0.54	(0.07)**	0.50	(0.07)**	0.04	(0.03)
3 years	0.84	(0.11)**	0.84	(0.11)**	0.00	(0.05)
4 years	0.93	(0.14)**	0.91	(0.14)**	0.02	(0.07)
5 years	1.00	(0.18)**	0.95	(0.18)**	0.05	(0.08)
6 years	1.62	(0.24)**	1.53	(0.24)**	0.09	(0.08)
7+ years	1.43	(0.12)**	1.39	(0.12)**	0.04	(0.05)
Market tenure	2-year spell					
2 years	0.00	(0.09)	0.04	(0.09)	-0.04	(0.04)
Market tenure	3-year spell					
2 years	0.32	(0.13)**	0.34	(0.13)**	-0.02	(0.05)
3 years	-0.24	(0.14)*	-0.23	(0.14)*	-0.01	(0.06)
Market tenure	4-year spell					
2 years	0.62	(0.19)**	0.67	(0.18)**	-0.04	(0.08)
3 years	0.47	(0.18)**	0.50	(0.18)**	-0.03	(0.08)
4 years	-0.11	(0.19)	-0.10	(0.19)	0.00	(0.09)
Market tenure	5-year spell					
2 years	0.55	(0.26)**	0.52	(0.25)**	0.03	(0.11)
3 years	0.71	(0.24)**	0.74	(0.23)**	-0.03	(0.10)
4 years	0.51	(0.26)**	0.56	(0.25)**	-0.05	(0.10)
5 years	-0.11	(0.25)	0.01	(0.25)	-0.13	(0.10)
Market tenure	6-year spell					
2 years	0.53	(0.33)	0.56	(0.33)*	-0.03	(0.11)
3 years	0.83	(0.32)**	0.88	(0.32)**	-0.05	(0.10)
4 years	0.66	(0.32)**	0.77	(0.32)**	-0.11	(0.10)
5 years	0.48	(0.32)	0.58	(0.31)*	-0.10	(0.11)
6 years	-0.33	(0.31)	-0.26	(0.31)	-0.06	(0.11)
Market tenure	7+ year spell					
2 years	0.82	(0.15)**	0.85	(0.15)**	-0.03	(0.06)
3 years	1.07	(0.15)**	1.07	(0.15)**	0.00	(0.06)
4 years	1.19	(0.15)**	1.20	(0.15)**	-0.01	(0.06)
5 years	1.18	(0.15)**	1.27	(0.15)**	-0.09	(0.06)*
6 years	1.16	(0.15)**	1.20	(0.15)**	-0.03	(0.06)
7+ years	1.15	(0.14)**	1.21	(0.14)**	-0.06	(0.06)
cens	3.68	(0.08)**	3.70	(0.08)**	-0.02	(0.03)
	Fixed effects					
Firm-prod-yr	Yes		Yes		Yes	
Market	Yes		Yes		Yes	
N	45488		45488		45488	
rsq	0.81		0.86		0.94	
rsq-adj	0.62		0.71		0.87	

Notes: Rauch reference priced products only. Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level. Full set of firm-product-year and market effects included in firm-product-market-year regressions. Full set of firm-year and market effects included in firm-market-year regressions. Omitted category is spells that last one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 56: Exit hazard: Rauch reference priced

Market tenure	Firm-prod-mkt	
2 years	-0.14	$(0.01)^{**}$
3 years	-0.20	$(0.01)^{**}$
4 years	-0.23	$(0.01)^{**}$
5 years	-0.26	$(0.01)^{**}$
6 years	-0.23	$(0.02)^{**}$
7+ years	-0.22	$(0.01)^{**}$
	Fixed effects	
Firm-prod-yr	Yes	
Market	Yes	
N	52084	
rsq	0.72	
rsq-adj	0.47	

Notes: Rauch reference priced products only. Dependent variable is an indicator for exit in the next period. Full set of firm-product-year and market effects included at the firm-product-market-year level. Full set of firm-year and market effects included at the firm-market-year level. Omitted category is market tenure equal to one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 57: Dynamics of revenue, quantity, price: Rauch differentiated

Spell duration	Product rev.		Quantity		Price	
	Spell intercept					
2 years	0.53	(0.03)**	0.54	(0.03)**	-0.01	(0.01)
3 years	0.74	(0.04)**	0.74	(0.04)**	-0.01	(0.02)
4 years	0.98	(0.06)**	0.98	(0.06)**	0.00	(0.03)
5 years	1.11	(0.08)**	1.13	(0.08)**	-0.03	(0.04)
6 years	1.07	(0.09)**	1.06	(0.10)**	0.01	(0.04)
7+ years	1.44	(0.06)**	1.45	(0.06)**	-0.01	(0.03)
Market tenure	2-year spell					
2 years	-0.03	(0.04)	-0.03	(0.04)	0.00	(0.02)
Market tenure	3-year spell					
2 years	0.47	(0.05)**	0.48	(0.05)**	-0.01	(0.03)
3 years	0.00	(0.05)	0.00	(0.06)	0.00	(0.03)
Market tenure	4-year spell					
2 years	0.50	(0.08)**	0.52	(0.08)**	-0.02	(0.04)
3 years	0.56	(0.08)**	0.62	(0.08)**	-0.06	(0.04)*
4 years	-0.02	(0.08)	0.02	(0.08)	-0.04	(0.04)
Market tenure	5-year spell					
2 years	0.60	(0.10)**	0.58	(0.10)**	0.03	(0.05)
3 years	0.68	(0.10)**	0.66	(0.10)**	0.01	(0.05)
4 years	0.53	(0.10)**	0.57	(0.10)**	-0.05	(0.05)
5 years	-0.05	(0.10)	-0.04	(0.11)	-0.01	(0.05)
Market tenure	6-year spell					
2 years	0.77	(0.13)**	0.82	(0.13)**	-0.05	(0.06)
3 years	0.88	(0.13)**	0.92	(0.13)**	-0.05	(0.06)
4 years	0.89	(0.13)**	0.94	(0.13)**	-0.04	(0.06)
5 years	0.74	(0.13)**	0.76	(0.13)**	-0.01	(0.05)
6 years	0.21	(0.13)	0.21	(0.14)	0.00	(0.06)
Market tenure	7+ year spell					
2 years	0.81	(0.08)**	0.84	(0.08)**	-0.03	(0.03)
3 years	1.14	(0.08)**	1.20	(0.08)**	-0.06	(0.03)*
4 years	1.28	(0.08)**	1.30	(0.08)**	-0.03	(0.03)
5 years	1.31	(0.08)**	1.33	(0.08)**	-0.02	(0.04)
6 years	1.26	(0.08)**	1.29	(0.08)**	-0.03	(0.04)
7+ years	1.26	(0.07)**	1.36	(0.08)**	-0.09	(0.03)**
cens	3.62	(0.04)**	3.68	(0.04)**	-0.06	(0.02)**
	Fixed effects					
Firm-prod-yr	Yes		Yes		Yes	
Market	Yes		Yes		Yes	
N	218148		218148		218148	
rsq	0.76		0.81		0.88	
rsq-adj	0.58		0.66		0.78	

Notes: Rauch differentiated products only. Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level. Full set of firm-product-year and market effects included in firm-product-market-year regressions. Full set of firm-year and market effects included in firm-market-year regressions. Omitted category is spells that last one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 58: Exit hazard: Rauch differentiated

Market tenure	Firm-prod-mkt	
2 years	-0.13	$(0.00)^{**}$
3 years	-0.20	$(0.00)^{**}$
4 years	-0.24	$(0.01)^{**}$
5 years	-0.24	$(0.01)^{**}$
6 years	-0.25	$(0.01)^{**}$
7+ years	-0.24	$(0.01)^{**}$
	Fixed effects	
Firm-prod-yr	Yes	
Market	Yes	
N	252255	
rsq	0.70	
rsq-adj	0.47	

Notes: Rauch differentiated products only. Dependent variable is an indicator for exit in the next period. Full set of firm-product-year and market effects included at the firm-product-market-year level. Full set of firm-year and market effects included at the firm-market-year level. Omitted category is market tenure equal to one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 59: Dynamics of revenue, quantity, price: Dropping unit value outliers

Spell duration	Product rev.		Quantity		Price	
	Spell intercept					
2 years	0.52	(0.02)**	0.52	(0.02)**	-0.01	(0.01)
3 years	0.77	(0.04)**	0.77	(0.04)**	0.00	(0.02)
4 years	0.95	(0.05)**	0.96	(0.05)**	-0.01	(0.02)
5 years	1.07	(0.07)**	1.08	(0.07)**	-0.02	(0.03)
6 years	1.13	(0.08)**	1.10	(0.08)**	0.03	(0.04)
7+ years	1.40	(0.05)**	1.40	(0.05)**	0.00	(0.02)
Market tenure	2-year spell					
2 years	0.09	(0.03)**	0.10	(0.03)**	-0.01	(0.01)
Market tenure	3-year spell					
2 years	0.58	(0.05)**	0.58	(0.05)**	0.01	(0.02)
3 years	0.05	(0.05)	0.05	(0.05)	-0.01	(0.02)
Market tenure	4-year spell					
2 years	0.66	(0.07)**	0.66	(0.07)**	0.00	(0.03)
3 years	0.68	(0.07)**	0.71	(0.07)**	-0.03	(0.03)
4 years	0.09	(0.07)	0.10	(0.07)	-0.02	(0.03)
Market tenure	5-year spell					
2 years	0.71	(0.09)**	0.71	(0.09)**	0.01	(0.04)
3 years	0.85	(0.09)**	0.85	(0.09)**	0.00	(0.04)
4 years	0.69	(0.09)**	0.72	(0.09)**	-0.03	(0.04)
5 years	0.13	(0.09)	0.15	(0.09)	-0.02	(0.04)
Market tenure	6-year spell					
2 years	0.82	(0.11)**	0.85	(0.12)**	-0.03	(0.04)
3 years	0.98	(0.11)**	1.04	(0.12)**	-0.05	(0.04)
4 years	0.95	(0.11)**	1.04	(0.12)**	-0.09	(0.04)**
5 years	0.82	(0.11)**	0.88	(0.11)**	-0.05	(0.04)
6 years	0.25	(0.11)**	0.27	(0.12)**	-0.02	(0.05)
Market tenure	7+ year spell					
2 years	0.93	(0.06)**	0.94	(0.07)**	-0.01	(0.03)
3 years	1.27	(0.06)**	1.30	(0.07)**	-0.03	(0.03)
4 years	1.39	(0.06)**	1.41	(0.07)**	-0.03	(0.03)
5 years	1.43	(0.07)**	1.46	(0.07)**	-0.03	(0.03)
6 years	1.40	(0.07)**	1.44	(0.07)**	-0.04	(0.03)
7+ years	1.37	(0.06)**	1.43	(0.06)**	-0.06	(0.02)**
cens	3.73	(0.03)**	3.76	(0.03)**	-0.03	(0.01)**
	Fixed effects					
Firm-prod-yr	Yes		Yes		Yes	
Market	Yes		Yes		Yes	
N	290803		290803		290803	
rsq	0.78		0.84		0.91	
rsq-adj	0.60		0.71		0.84	

Notes: Observations where the log change in unit value since the previous period exceeds 1 in absolute value are dropped. Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level. Full set of firm-product-year and market effects included in firm-product-market-year regressions. Full set of firm-year and market effects included in firm-market-year regressions. Omitted category is spells that last one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 60: Dynamics of revenue, quantity, price, # products: Intrastat vs Extrastat markets

	Product rev.		Quantity		Price		Market rev.		# Products	
	Panel I: Intrastat markets									
Spell duration	Spell intercept									
2 years	0.56	(0.04)**	0.57	(0.04)**	-0.01	(0.02)	0.51	(0.07)**	0.11	(0.02)**
3 years	0.81	(0.05)**	0.85	(0.05)**	-0.03	(0.02)	0.95	(0.10)**	0.16	(0.02)**
4 years	1.00	(0.07)**	1.02	(0.07)**	-0.02	(0.03)	1.00	(0.12)**	0.16	(0.03)**
5 years	1.22	(0.09)**	1.23	(0.09)**	-0.01	(0.04)	1.43	(0.14)**	0.24	(0.03)**
6 years	1.17	(0.11)**	1.13	(0.12)**	0.04	(0.04)	1.09	(0.17)**	0.28	(0.04)**
7+ years	1.58	(0.06)**	1.58	(0.06)**	0.00	(0.03)	1.66	(0.08)**	0.31	(0.02)**
Market tenure	2-year spell									
2 years	-0.08	(0.04)*	-0.07	(0.05)	-0.01	(0.02)	-0.10	(0.09)	-0.01	(0.02)
Market tenure	3-year spell									
2 years	0.42	(0.06)**	0.45	(0.07)**	-0.02	(0.03)	0.58	(0.12)**	0.10	(0.03)**
3 years	-0.12	(0.07)*	-0.13	(0.07)*	0.01	(0.03)	-0.01	(0.12)	-0.02	(0.03)
Market tenure	4-year spell									
2 years	0.60	(0.09)**	0.64	(0.09)**	-0.04	(0.04)	0.74	(0.16)**	0.15	(0.04)**
3 years	0.61	(0.09)**	0.67	(0.09)**	-0.06	(0.04)	0.61	(0.16)**	0.11	(0.04)**
4 years	-0.04	(0.09)	-0.03	(0.10)	-0.01	(0.04)	0.19	(0.16)	-0.02	(0.04)
Market tenure	5-year spell									
2 years	0.67	(0.11)**	0.70	(0.12)**	-0.03	(0.05)	0.66	(0.19)**	0.12	(0.05)**
3 years	0.70	(0.12)**	0.74	(0.12)**	-0.04	(0.05)	0.72	(0.19)**	0.14	(0.05)**
4 years	0.58	(0.12)**	0.67	(0.12)**	-0.09	(0.05)*	0.58	(0.19)**	0.21	(0.05)**
5 years	-0.05	(0.12)	0.02	(0.12)	-0.07	(0.05)	0.11	(0.20)	0.06	(0.05)
Market tenure	6-year spell									
2 years	0.80	(0.15)**	0.89	(0.15)**	-0.09	(0.06)	0.75	(0.22)**	0.19	(0.06)**
3 years	0.97	(0.15)**	1.07	(0.15)**	-0.10	(0.06)*	1.00	(0.23)**	0.16	(0.06)**
4 years	0.88	(0.15)**	1.00	(0.16)**	-0.12	(0.06)**	1.20	(0.22)**	0.21	(0.06)**
5 years	0.74	(0.14)**	0.83	(0.15)**	-0.09	(0.06)	1.01	(0.23)**	0.13	(0.06)**
6 years	0.20	(0.15)	0.24	(0.16)	-0.04	(0.06)	0.19	(0.23)	-0.02	(0.06)
Market tenure	7+ year spell									
2 years	0.83	(0.08)**	0.89	(0.08)**	-0.06	(0.03)**	0.95	(0.09)**	0.18	(0.03)**
3 years	1.15	(0.08)**	1.20	(0.08)**	-0.05	(0.03)	1.28	(0.09)**	0.21	(0.03)**
4 years	1.26	(0.08)**	1.32	(0.08)**	-0.05	(0.03)*	1.42	(0.09)**	0.24	(0.03)**
5 years	1.33	(0.08)**	1.39	(0.08)**	-0.06	(0.03)*	1.54	(0.09)**	0.27	(0.03)**
6 years	1.33	(0.08)**	1.39	(0.08)**	-0.06	(0.03)*	1.56	(0.10)**	0.26	(0.03)**
7+ years	1.35	(0.07)**	1.48	(0.07)**	-0.13	(0.03)**	1.63	(0.08)**	0.32	(0.02)**
cens	3.79	(0.04)**	3.89	(0.04)**	-0.10	(0.02)**	4.19	(0.05)**	0.90	(0.01)**
	Fixed effects									
Firm-prod-yr	Yes		Yes		Yes		No		No	
Firm-yr	No		No		No		Yes		Yes	
Market	Yes		Yes		Yes		Yes		Yes	
N	312952		312952		312952		113912		113912	
rsq	0.76		0.82		0.90		0.65		0.56	
rsq-adj	0.58		0.69		0.82		0.58		0.47	

Notes: Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level, and log revenue and log number of products at the firm-market-year level. All trajectories are interacted with indicator for whether the destination market is in Intrastat or Extrastat. This panel reports trajectories for Intrastat export spells. Full set of firm-product-year and market effects included in firm-product-market-year regressions. Full set of firm-year and market effects included in firm-market-year regressions. Omitted category is intrastat spells that last one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 61: Dynamics of revenue, quantity, price, # products: Intrastat vs Extrastat markets

	Product rev.		Quantity		Price		Market rev.		# Products	
				Panel II: Extrastat markets						
Spell duration					Spell intercept					
2 years	0.49	(0.03)**	0.50	(0.03)**	0.00	(0.02)	0.36	(0.05)**	0.09	(0.01)**
3 years	0.73	(0.05)**	0.72	(0.05)**	0.02	(0.02)	0.66	(0.07)**	0.15	(0.02)**
4 years	0.93	(0.07)**	0.92	(0.06)**	0.01	(0.03)	0.77	(0.09)**	0.19	(0.02)**
5 years	0.97	(0.09)**	0.99	(0.09)**	-0.02	(0.05)	0.92	(0.11)**	0.16	(0.03)**
6 years	1.12	(0.11)**	1.10	(0.11)**	0.02	(0.05)	1.24	(0.13)**	0.23	(0.03)**
7+ years	1.22	(0.08)**	1.23	(0.08)**	0.00	(0.03)	1.12	(0.07)**	0.25	(0.02)**
Market tenure					2-year spell					
2 years	0.00	(0.04)	0.00	(0.04)	0.00	(0.02)	0.01	(0.06)	0.00	(0.01)
Market tenure					3-year spell					
2 years	0.45	(0.06)**	0.45	(0.06)**	0.00	(0.03)	0.43	(0.09)**	0.12	(0.02)**
3 years	0.01	(0.06)	0.01	(0.06)	0.00	(0.03)	0.04	(0.09)	0.02	(0.02)
Market tenure					4-year spell					
2 years	0.49	(0.09)**	0.50	(0.09)**	-0.01	(0.04)	0.54	(0.12)**	0.12	(0.03)**
3 years	0.50	(0.09)**	0.56	(0.09)**	-0.06	(0.05)	0.55	(0.12)**	0.13	(0.03)**
4 years	-0.01	(0.09)	0.01	(0.09)	-0.02	(0.05)	0.19	(0.12)	0.02	(0.03)
Market tenure					5-year spell					
2 years	0.59	(0.13)**	0.54	(0.13)**	0.05	(0.06)	0.74	(0.15)**	0.17	(0.04)**
3 years	0.71	(0.12)**	0.66	(0.12)**	0.05	(0.06)	0.76	(0.15)**	0.21	(0.04)**
4 years	0.57	(0.12)**	0.56	(0.13)**	0.01	(0.06)	0.60	(0.15)**	0.17	(0.04)**
5 years	0.02	(0.13)	0.00	(0.13)	0.02	(0.06)	0.02	(0.15)	0.04	(0.04)
Market tenure					6-year spell					
2 years	0.69	(0.15)**	0.68	(0.15)**	0.00	(0.07)	0.63	(0.18)**	0.22	(0.05)**
3 years	0.79	(0.15)**	0.84	(0.15)**	-0.05	(0.07)	0.83	(0.17)**	0.25	(0.05)**
4 years	0.82	(0.15)**	0.85	(0.15)**	-0.03	(0.07)	0.91	(0.18)**	0.25	(0.05)**
5 years	0.69	(0.15)**	0.68	(0.15)**	0.01	(0.07)	0.58	(0.18)**	0.16	(0.05)**
6 years	0.04	(0.16)	0.05	(0.16)	-0.01	(0.07)	0.06	(0.18)	0.02	(0.05)
Market tenure					7+ year spell					
2 years	0.89	(0.10)**	0.87	(0.10)**	0.02	(0.04)	1.06	(0.09)**	0.24	(0.02)**
3 years	1.17	(0.10)**	1.20	(0.10)**	-0.02	(0.04)	1.41	(0.09)**	0.34	(0.02)**
4 years	1.37	(0.10)**	1.38	(0.10)**	-0.01	(0.04)	1.58	(0.09)**	0.38	(0.02)**
5 years	1.36	(0.10)**	1.37	(0.10)**	-0.01	(0.05)	1.66	(0.09)**	0.38	(0.03)**
6 years	1.26	(0.10)**	1.26	(0.10)**	0.00	(0.05)	1.61	(0.09)**	0.38	(0.03)**
7+ years	1.18	(0.09)**	1.18	(0.09)**	0.00	(0.04)	1.64	(0.08)**	0.34	(0.02)**
cens	3.54	(0.05)**	3.48	(0.05)**	0.06	(0.02)**	3.91	(0.04)**	0.92	(0.01)**
					Fixed effects					
Firm-prod-yr	Yes		Yes		Yes		No		No	
Firm-yr	No		No		No		Yes		Yes	
Market	Yes		Yes		Yes		Yes		Yes	
N	312952		312952		312952		113912		113912	
rsq	0.76		0.82		0.90		0.65		0.56	
rsq-adj	0.58		0.69		0.82		0.58		0.47	

Notes: Dependent variable is in turn log revenue, log quantity and log unit value at the firm-product-market-year level, and log revenue and log number of products at the firm-market-year level. All trajectories are interacted with indicator for whether the destination market is in Intrastat or Extrastat. This panel reports trajectories for Extrastat export spells. Full set of firm-product-year and market effects included in firm-product-market-year regressions. Full set of firm-year and market effects included in firm-market-year regressions. Omitted category is intrastat spells that last one year. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 62: Exit hazard: Intrastat vs Extrastat markets

Market tenure	Firm-prod-mkt		Firm-mkt	
	Intrastat			
2 years	-0.13	(0.00)**	-0.15	(0.01)**
3 years	-0.20	(0.01)**	-0.20	(0.01)**
4 years	-0.22	(0.01)**	-0.22	(0.01)**
5 years	-0.23	(0.01)**	-0.23	(0.01)**
6 years	-0.22	(0.01)**	-0.22	(0.01)**
7+ years	-0.22	(0.01)**	-0.22	(0.01)**
	Extrastat			
2 years	-0.14	(0.00)**	-0.16	(0.01)**
3 years	-0.20	(0.01)**	-0.23	(0.01)**
4 years	-0.25	(0.01)**	-0.27	(0.01)**
5 years	-0.27	(0.01)**	-0.29	(0.01)**
6 years	-0.26	(0.01)**	-0.30	(0.01)**
7+ years	-0.25	(0.01)**	-0.29	(0.01)**
	Fixed effects			
Firm-prod-yr	Yes		No	
Firm-yr	No		Yes	
Market	Yes		Yes	
N	381452		103297	
rsq	0.70		0.47	
rsq-adj	0.47		0.34	

Notes: Dependent variable is an indicator for exit in the next period. Full set of firm-product-year and market effects included at the firm-product-market-year level. Full set of firm-year and market effects included at the firm-market-year level. Omitted category is market tenure of one year in an Intrastat market. Robust standard errors calculated. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 63: Cross-sectional relationship between quantity and price and gravity variables

	Quantity		Price	
Distance	-0.88	(0.02)**	0.02	(0.00)**
Destination GDP	0.46	(0.00)**	-0.00	(0.00)**
Destination GDP per capita	0.09	(0.01)**	0.03	(0.00)**
Remoteness	1.88	(0.06)**	-0.06	(0.02)**
Constant	-0.49	(1.55)**	4.53	(0.54)**
	Fixed effects			
Firm-product-year	Yes		Yes	
N	370684		370684	
rsq	0.77		0.89	
rsq-adj	0.62		0.83	

Notes: Dependent variable is in turn log quantity and log unit value at the firm-product-market-year level. Gravity variables are from CEPII. Remoteness is calculated as the distance-weighted average of partner GDP. All independent variables are in logs. Full set of product-market-year effects are included. Standard errors are clustered at the product-market-year level. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 64: Dynamics of quantity, price: Not controlling for spell length

	Quantity		Price	
Market tenure	All spells			
2 years	0.82	(0.03)**	-0.01	(0.01)
3 years	1.27	(0.04)**	-0.01	(0.01)
4 years	1.59	(0.05)**	-0.01	(0.02)
5 years	1.77	(0.05)**	-0.00	(0.02)
6 years	1.99	(0.06)**	-0.01	(0.02)
7+ years	2.37	(0.08)**	-0.07	(0.02)**
cens	2.92	(0.13)**	-0.03	(0.03)
	Fixed effects			
Firm-product-year	Yes		Yes	
Product-market-year	Yes		No	
N	131905		265194	
rsq	0.81		0.85	
rsq-adj	0.68		0.82	

Notes: The specifications in this table are the baseline specifications of Berman et al (2015). The sample includes all spells for which the entry date is observed, and all spells that are both right- and left-censored. Dependent variable is in turn log quantity and log unit value at the firm-product-market-year level. Full set of firm-product-year effects are included in both quantity and price regressions. Product-market-year effects are included in the quantity regressions. Omitted category is first year of the spell. Standard errors are clustered at the firm level. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 65: Dynamics of quantity, price: Not controlling for firm-level heterogeneity

	Quantity		Price	
Market tenure	7+ year spells only			
2 years	0.87	(0.09)**	0.03	(0.05)
3 years	1.20	(0.10)**	0.07	(0.05)
4 years	1.30	(0.12)**	0.12	(0.06)**
5 years	1.49	(0.13)**	0.10	(0.07)
6 years	1.47	(0.15)**	0.11	(0.08)
7+ years	1.58	(0.18)**	0.10	(0.10)
cens	2.03	(0.17)**	0.14	(0.10)
	Fixed effects			
Product-market-year	Yes		Yes	
N	71545		71545	
rsq	0.80		0.87	
rsq-adj	0.40		0.61	

Notes: The specifications in this table are the baseline specifications of Piveteau (2016). The sample includes only spells that last 7 or more years. Dependent variable is in turn log quantity and log unit value at the firm-product-market-year level. Full set of product-market-year effects are included. Omitted category is first year of the spell. Standard errors are clustered at the firm-product-market level. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

Table 66: Firm-product prices and firm-product age, not controlling for costs or selection

	Unweighted		Weighted	
5-9 yrs	0.18	(0.05)**	0.15	(0.11)
10+ yrs	0.13	(0.06)**	0.15	(0.11)
exit	-0.03	(0.03)	-0.10	(0.09)
Constant	2.42	(0.02)**	1.96	(0.06)**
	Fixed effects			
Product-year	Yes		Yes	
N	49713		49616	
rsq	0.85		0.89	
rsq-adj	0.80		0.85	

Notes: The specifications in this table are intended to mimic those of Foster, Haltiwanger and Syverson (2008). Dependent variable is log unit value at the firm-product-year level from PRODCOM, concorded over time using the method of Pierce and Schott (2012). Age is calculated at the firm-product level. Omitted category is 1-4 years. Exit is an indicator for firm-product-level spells that terminate in the next age bin. Full set of product-year effects are included. Weights in the weighted regression are employment. Standard errors are clustered at the firm level. ** significant at 5%, * significant at 10%. Source: CSO and authors' calculations.

6 Robustness figures: Reduced form empirical analysis

Figure 3: Dynamics of quantity: baseline vs market-year fixed effects
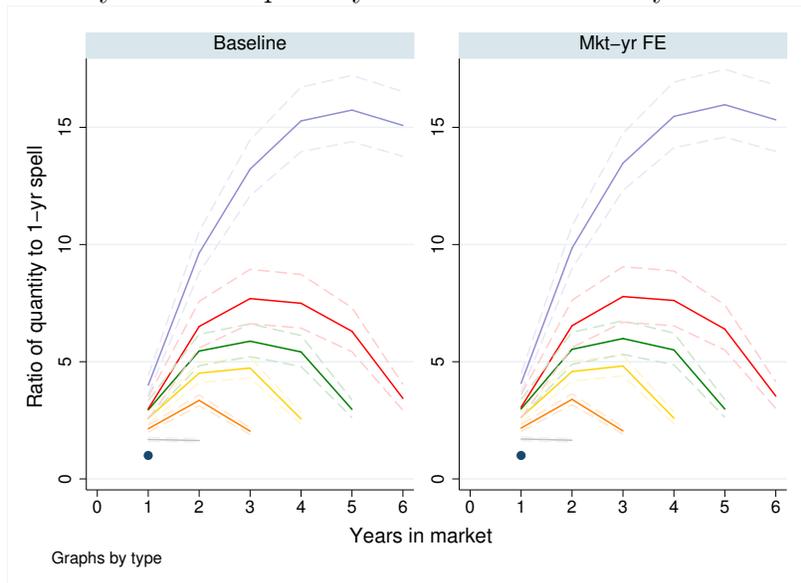
Graphs by type

Notes: Figure illustrates trajectories based on estimation of the baseline product quantity equation and the product quantity equation with market-year fixed effects. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.

Figure 4: Dynamics of prices: baseline vs market-year fixed effects
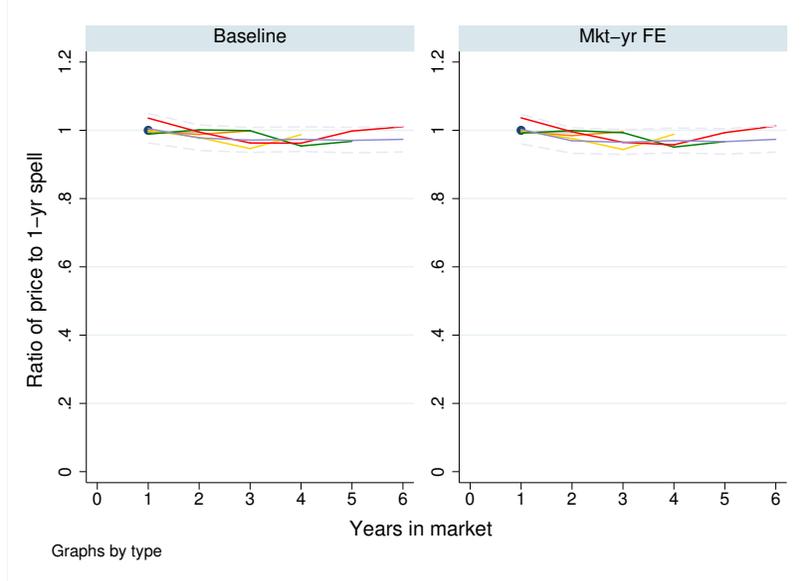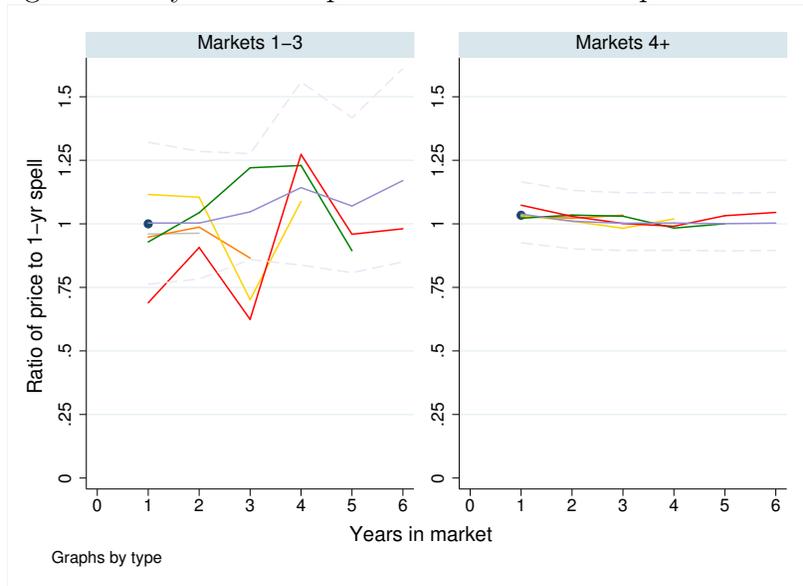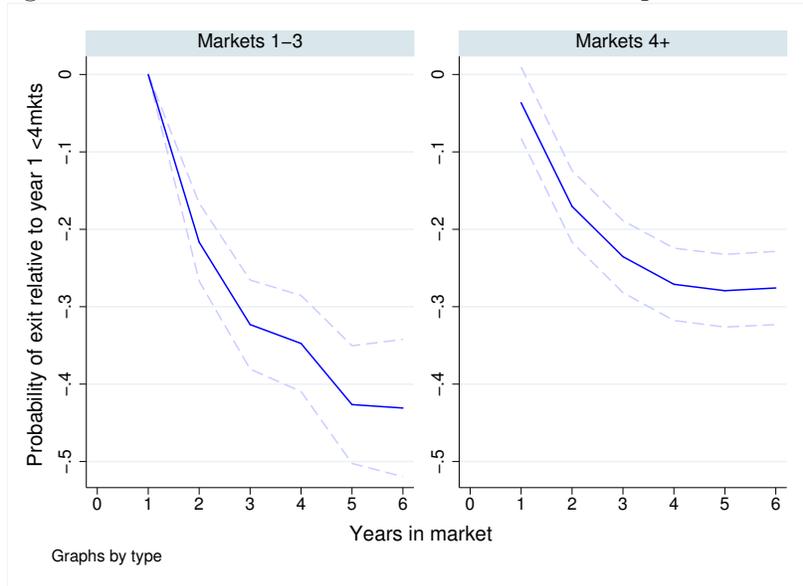

Notes: Figure illustrates trajectories based on estimation of the baseline product price equation and the product price equation with market-year fixed effects. Two standard deviation confidence intervals for price trajectory in 7+year spells reported in dotted lines. Source: CSO and authors' calculations.

Figure 5: Market exit hazard: baseline vs market-year fixed effects
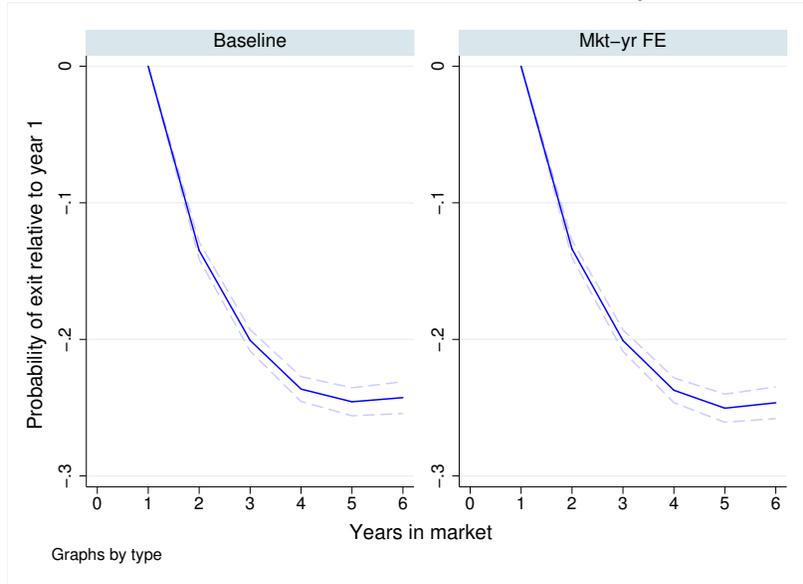
Notes: Figure illustrates market exit hazard based on estimation of the baseline firm-market exit equation and the firm-market exit equation with market-year fixed effects. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.

Figure 6: Dynamics of quantity: baseline vs product-market-year fixed effects
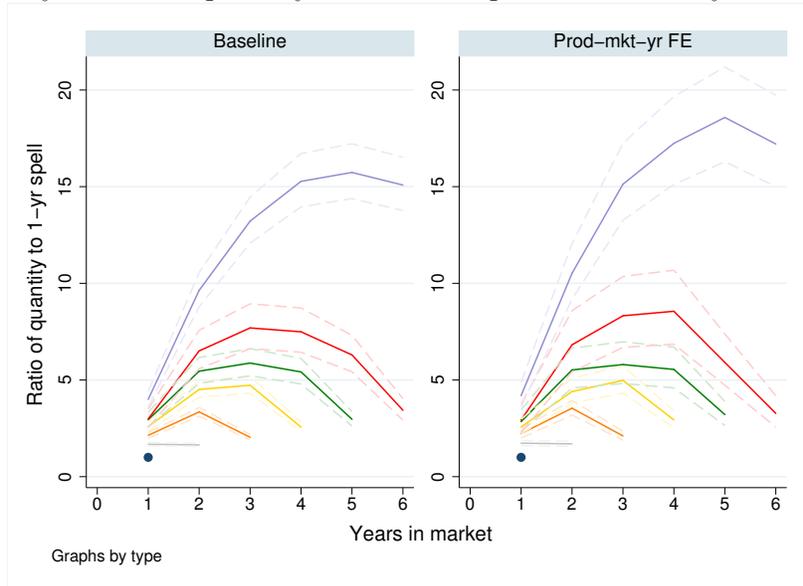
Notes: Figure illustrates trajectories based on estimation of the baseline product quantity equation and the product quantity equation with product-market-year fixed effects. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.
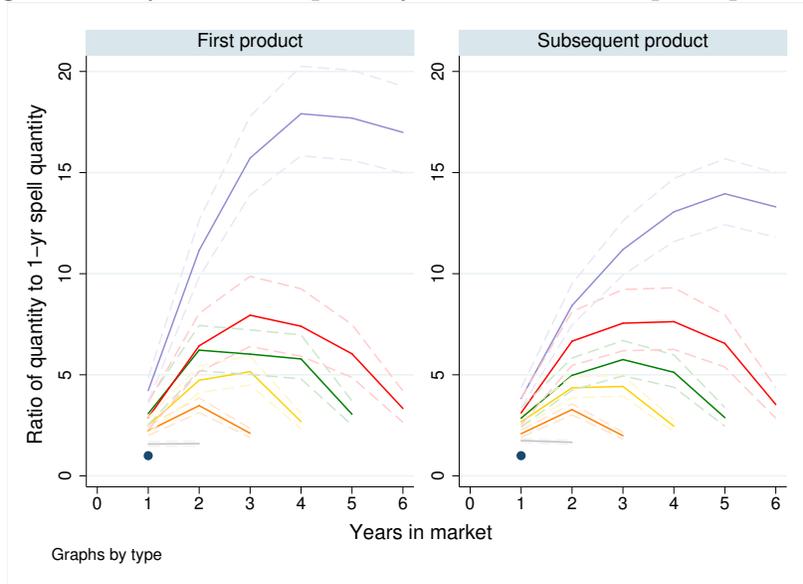
Figure 7: Dynamics of prices: baseline vs product-market-year fixed effects
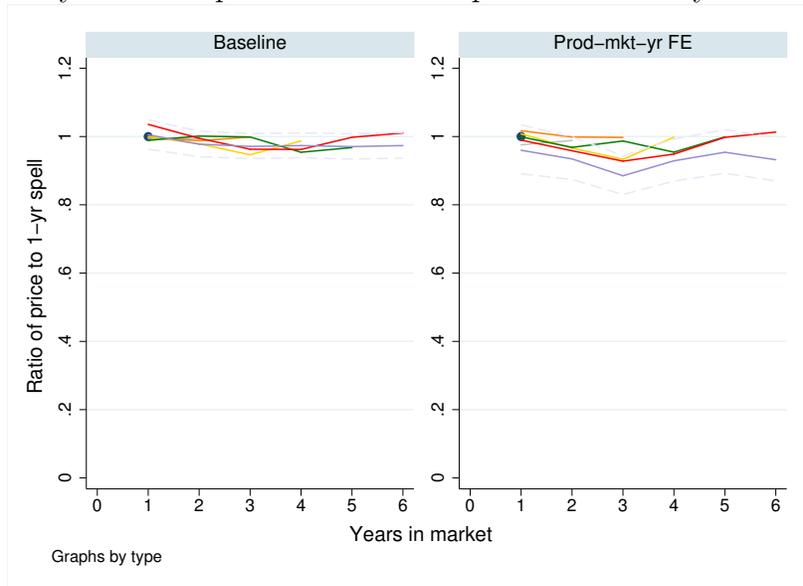
Notes: Figure illustrates trajectories based on estimation of the baseline product price equation and the product price equation with product-market-year fixed effects. Two standard deviation confidence intervals for price trajectory in 7+year spells reported in dotted lines. Source: CSO and authors' calculations.
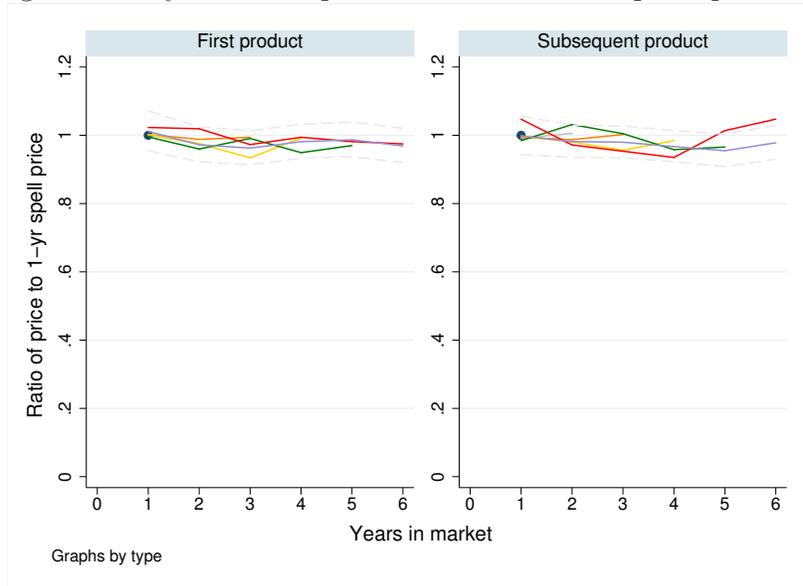
Figure 8: Product-market exit hazard: baseline vs product-market-year fixed effects
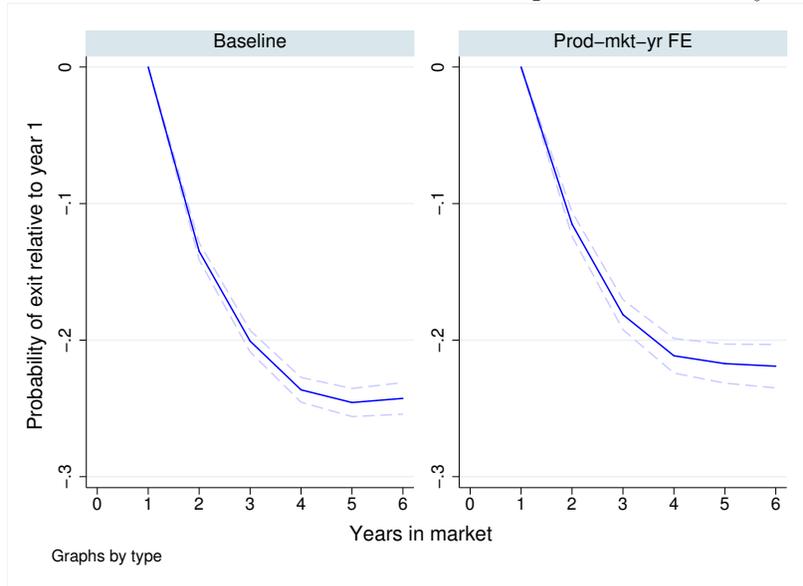
Notes: Figure illustrates product-market exit hazard based on estimation of the baseline firm-product-market exit equation and the firm-product-market exit equation with product-market-year fixed effects. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.
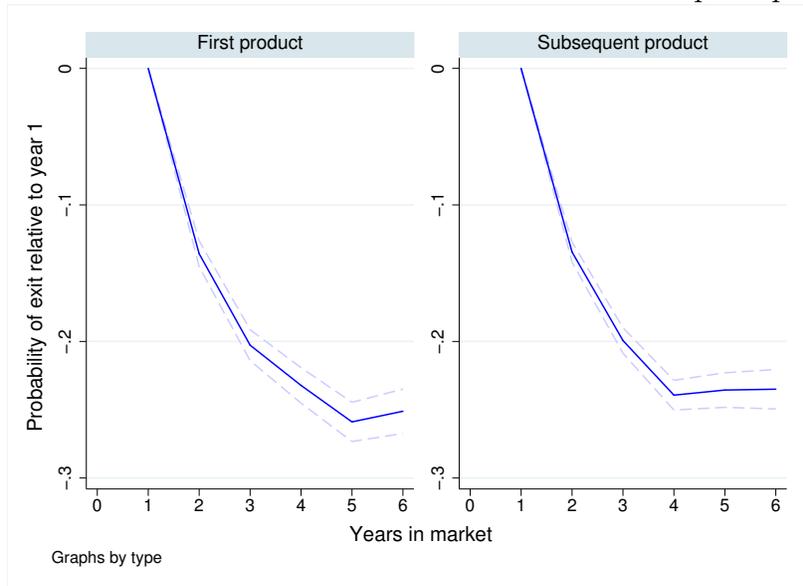
Figure 9: Dynamics of quantity: baseline vs alternative quantity measure
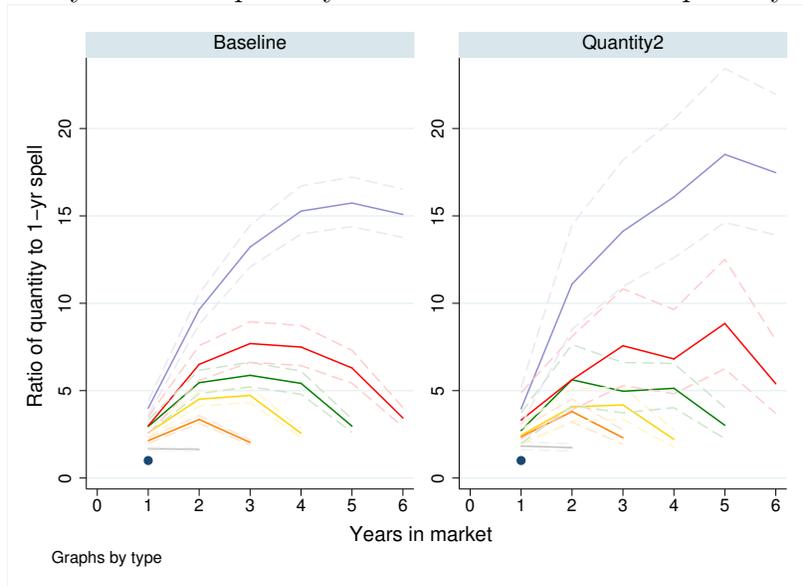
Notes: Figure illustrates trajectories based on estimation of the baseline product quantity equation and the product quantity equation estimated using an alternative measure of quantity. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.
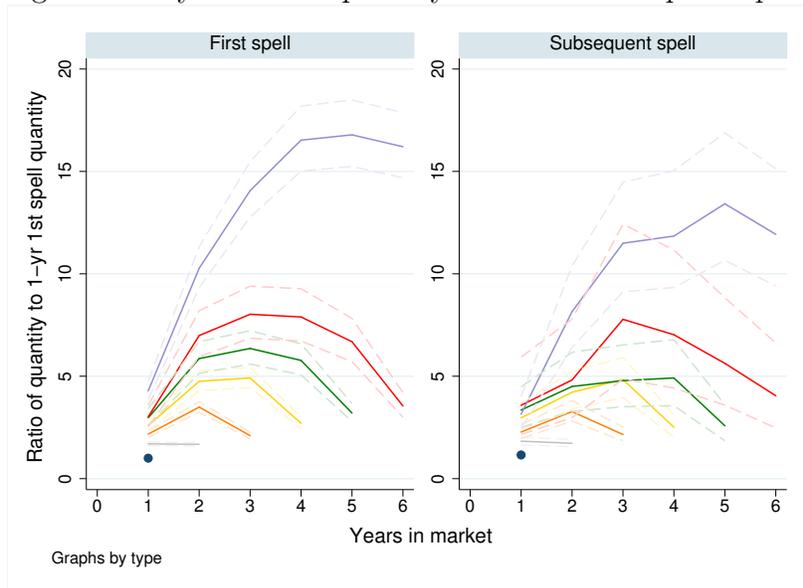
Figure 10: Dynamics of prices: baseline vs alternative quantity measure
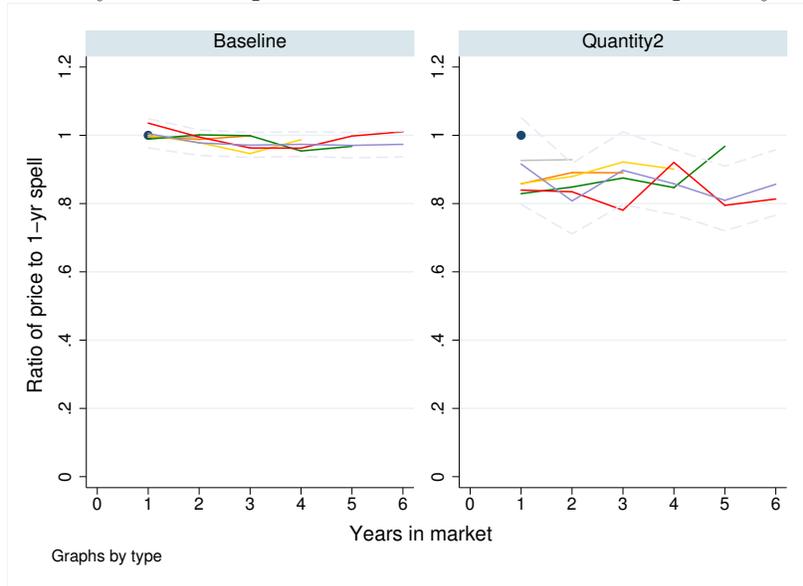
Notes: Figure illustrates trajectories based on estimation of the baseline product price equation and the product price equation estimated using prices calculated using an alternative measure of quantity. Two standard deviation confidence intervals for price trajectory in 7+year spells reported in dotted lines. Source: CSO and authors' calculations.

Figure 11: Dynamics of quantity: baseline sample vs long sample
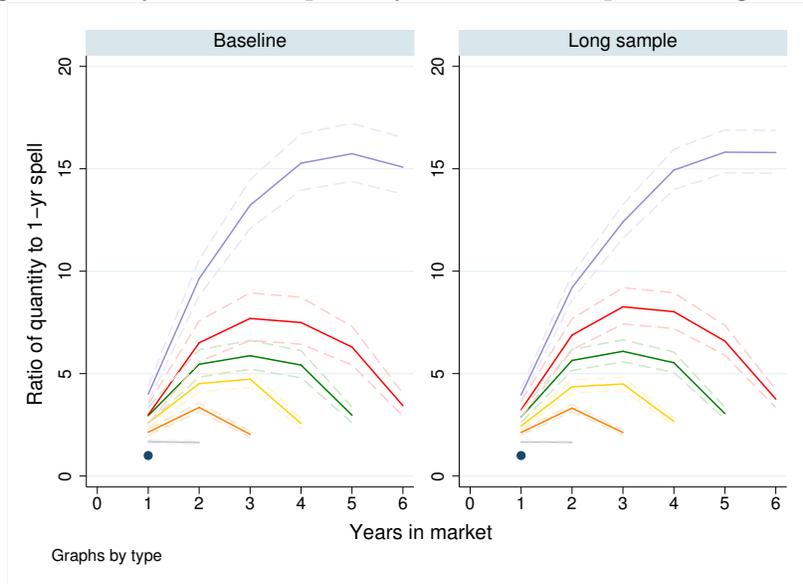
Notes: Figure illustrates trajectories based on estimation of the baseline product quantity equation on the baseline sample and the long sample 1996-2014 which is not matched to the Census of Industrial Production. Spell length and market tenure are topcoded at 7 in both cases. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.

Figure 12: Dynamics of prices: baseline sample vs long sample
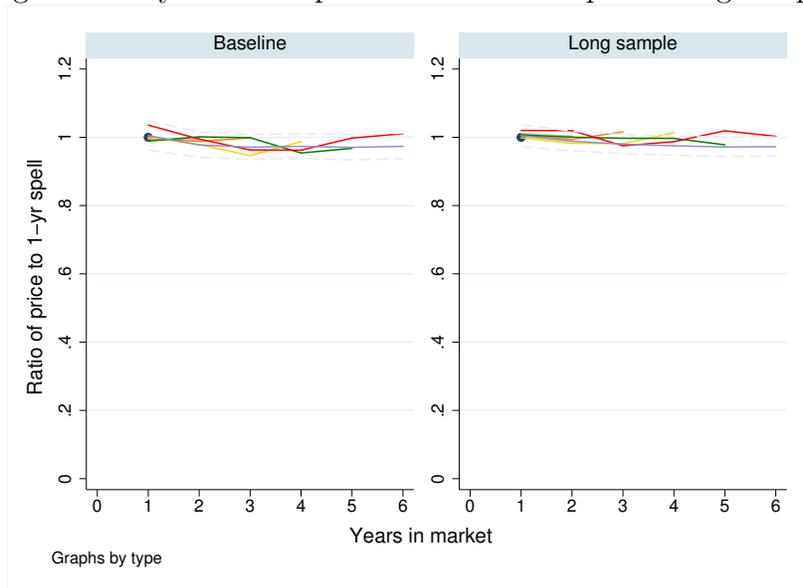
Notes: Figure illustrates trajectories based on estimation of the baseline product price equation on the baseline sample and the long sample 1996-2014 which is not matched to the Census of Industrial Production. Spell length and market tenure are topcoded at 7 in both cases. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.

Figure 13: Market exit hazard: baseline sample vs long sample
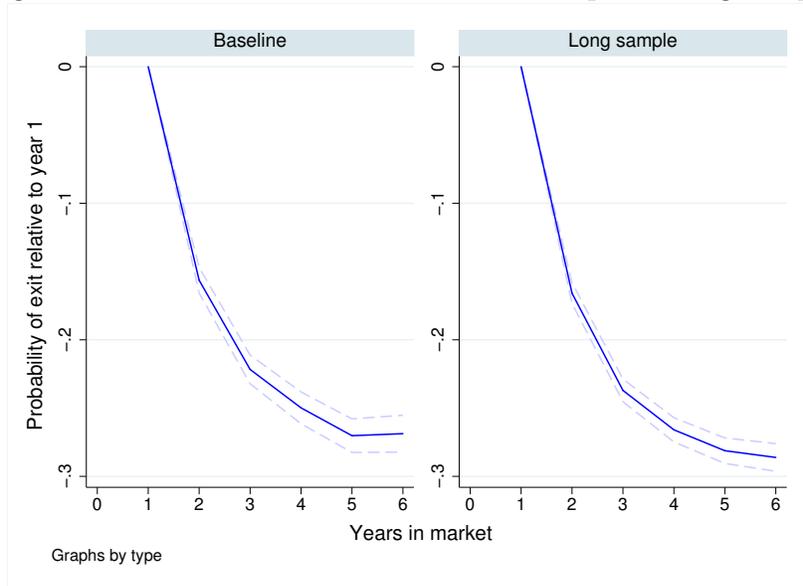
Notes: Figure illustrates market exit hazard based on estimation of the baseline firm-market exit equation on the bseline sample and the long sample 1996-2014 which is not matched to the Census of Industrial Production. Market tenure is topcoded at 7 in both cases. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.
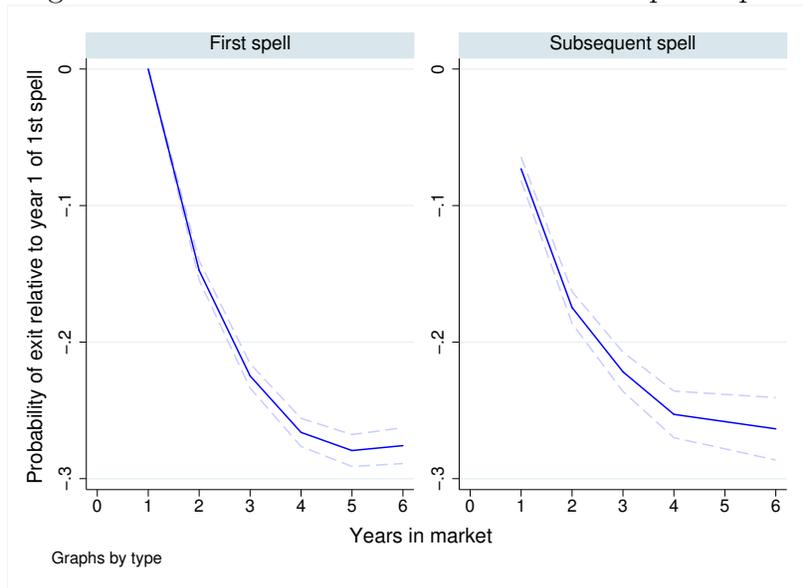
Figure 14: Dynamics of quantity: Long sample, topcoding at 10
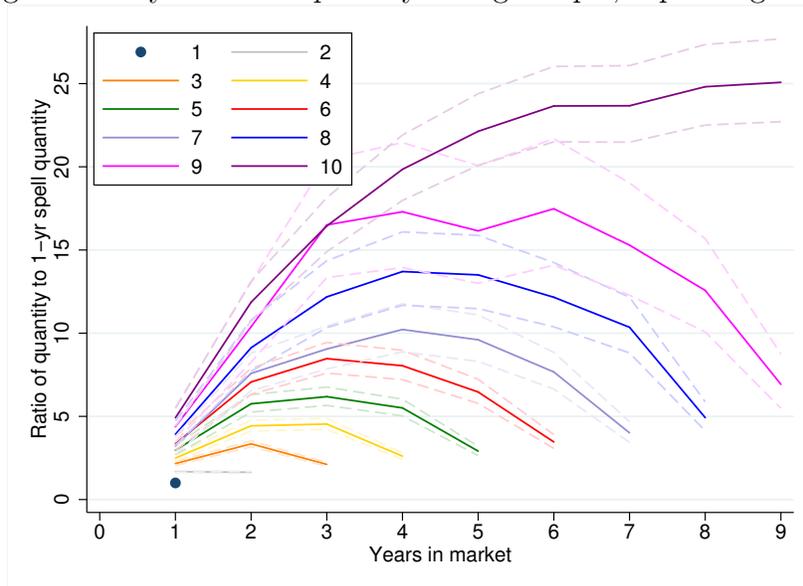
Notes: Figure illustrates trajectories based on estimation of the product quantity equation in the long sample 1996-2014 which is not matched to the Census of Industrial Production. Spell length and market tenure are topcoded at 10 years. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.

Figure 15: Dynamics of prices: Long sample, topcoding at 10
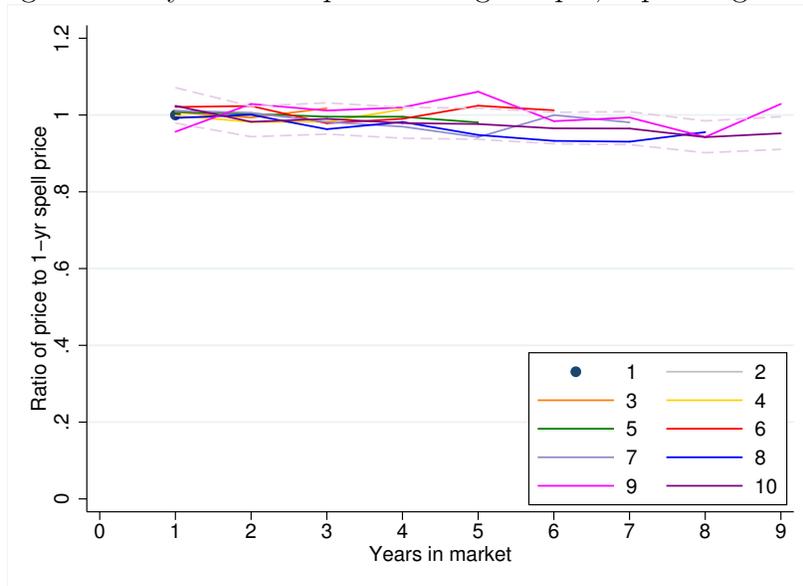
Notes: Figure illustrates trajectories based on estimation of the baseline product price equation in the long sample 1996-2014 which is not matched to the Census of Industrial Production. Spell length and market tenure are topcoded at 10 years. Two standard deviation confidence intervals for price trajectory in 7+year spells reported in dotted lines. Source: CSO and authors' calculations.

Figure 16: Market exit hazard: Long sample, topcoding at 10
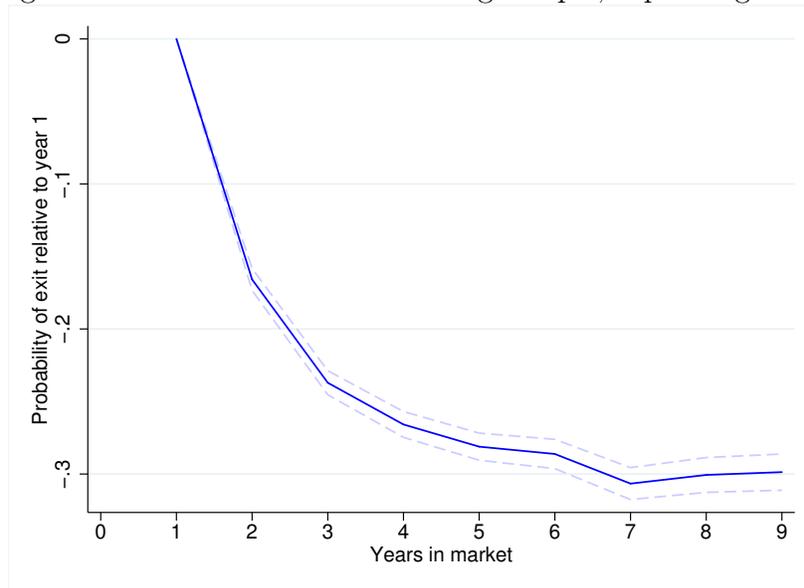

Notes: Figure illustrates market exit hazard based on estimation of the firm-market exit equation in the long sample 1996-2014 which is not matched to the Census of Industrial Production. Market tenure is topcoded at 10 years. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.
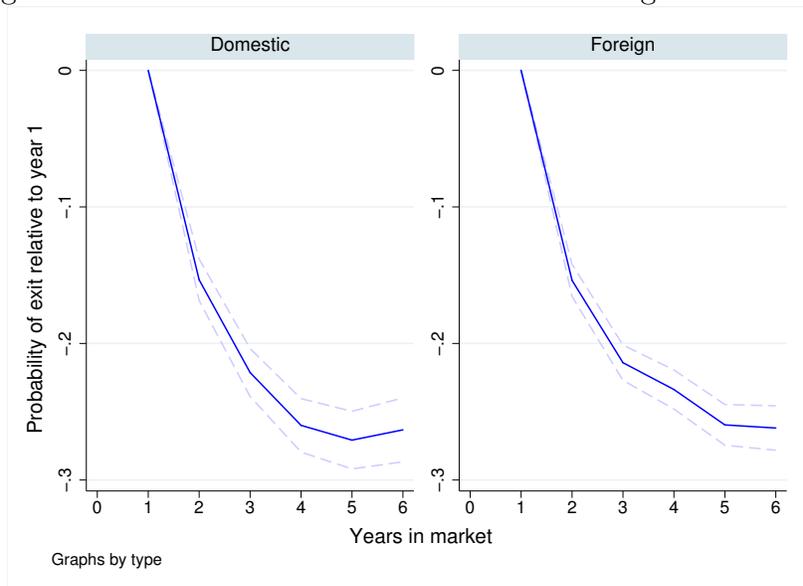
Figure 17: Dynamics of quantity: baseline vs firm-product-cohort fixed effects
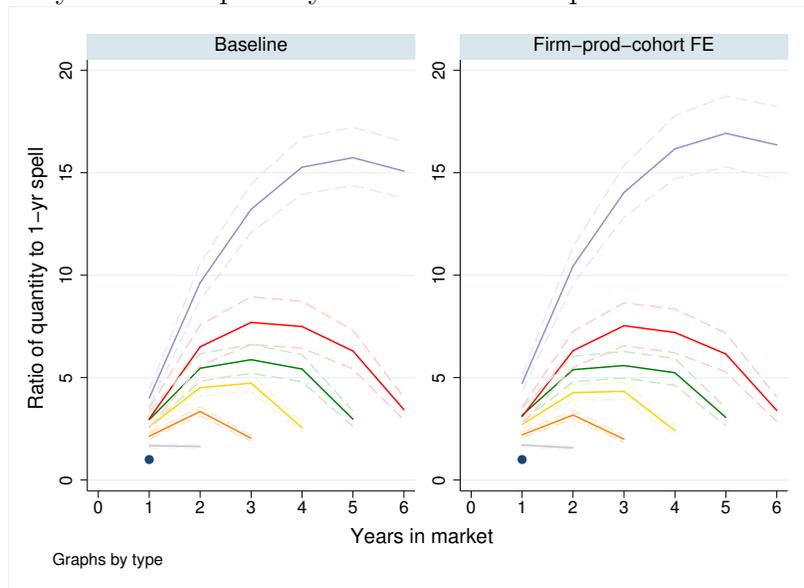
Notes: Figure illustrates trajectories based on estimation of the baseline product quantity equation and the product quantity equation with cohort-product-market fixed effects. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.

Figure 18: Dynamics of prices: baseline vs firm-product-cohort fixed effects
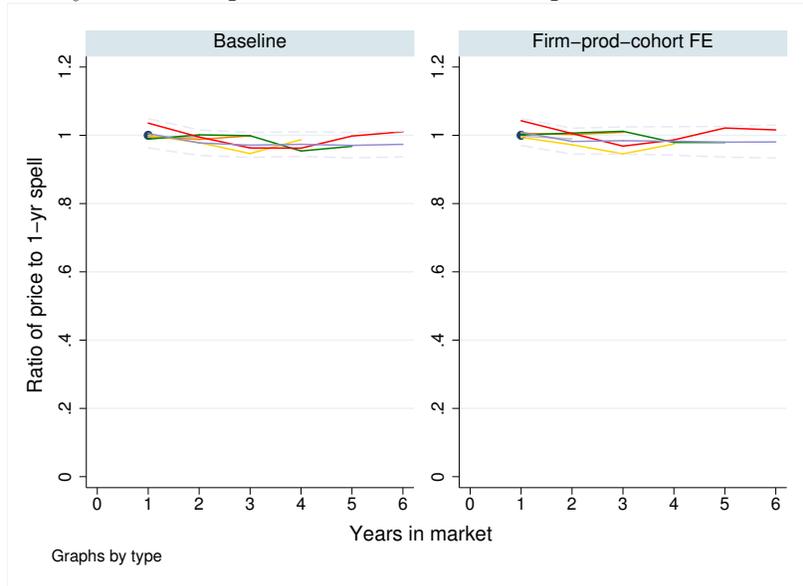
Notes: Figure illustrates trajectories based on estimation of the baseline product price equation and the product price equation with cohort-product-market fixed effects. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.

Figure 19: Market exit hazard: baseline vs firm-cohort fixed effects
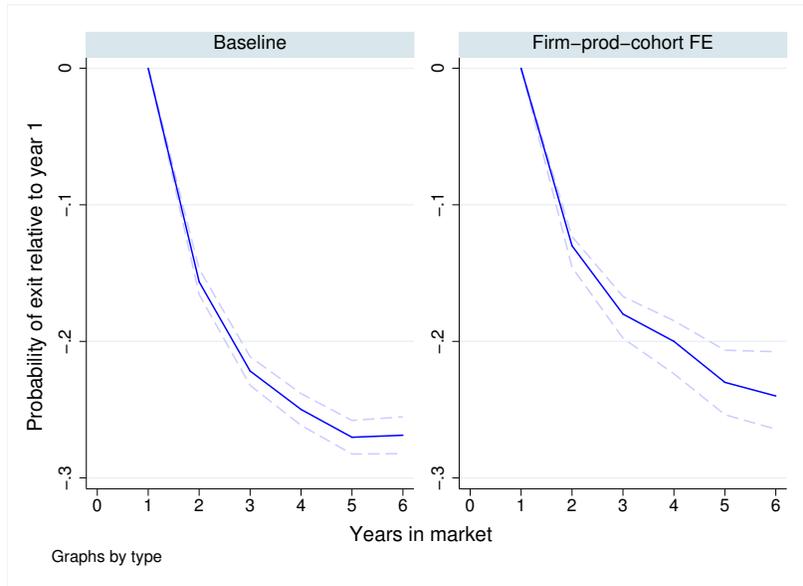
Notes: Figure illustrates market exit hazard based on estimation of the baseline firm-market exit equation and the firm-market exit equation with firm-cohort fixed effects. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.

Figure 20: Dynamics of quantity: baseline vs normalized by initial quantity
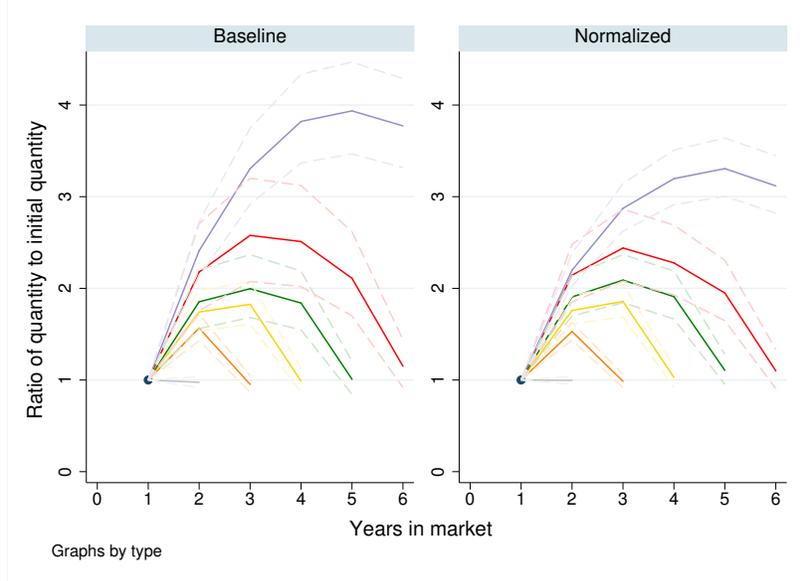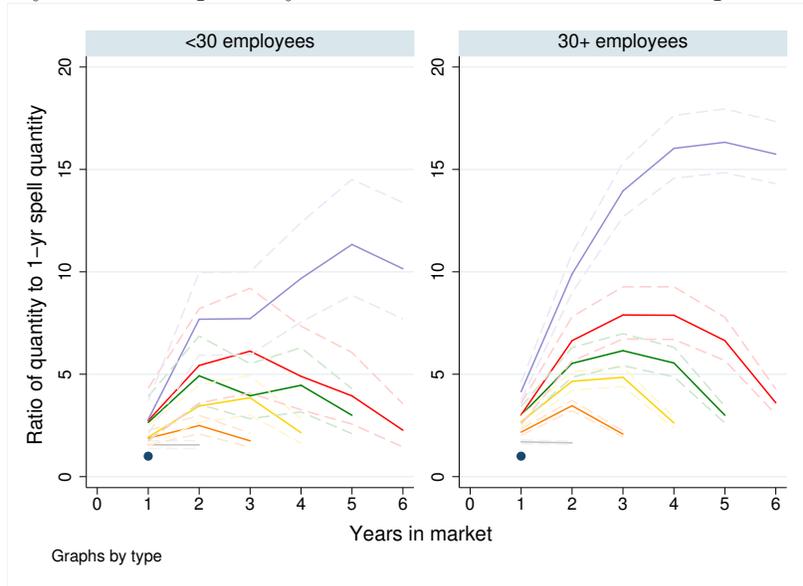

Notes: Figure illustrates trajectories without intercept based on estimation of the baseline product quantity equation and the product quantity equation where the dependent variable is log quantity less log initial quantity in the spell. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.

Figure 21: Dynamics of prices: baseline vs normalized by initial price
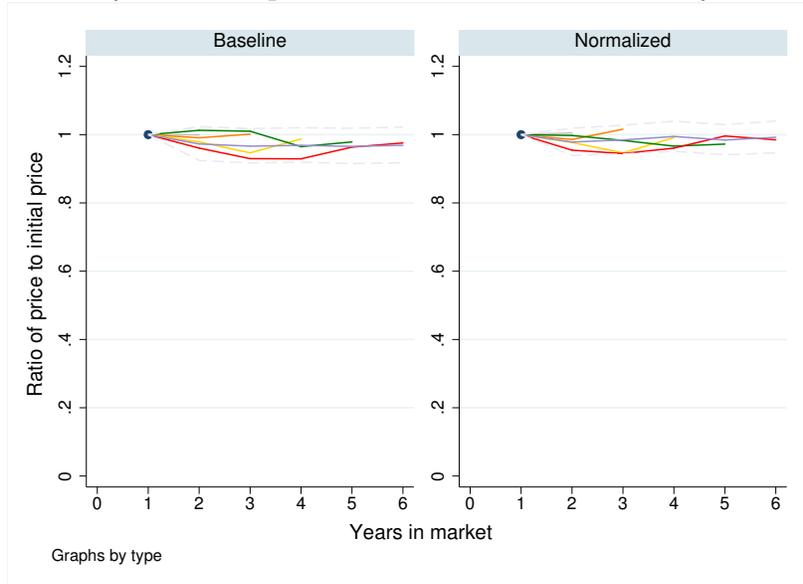
Notes: Figure illustrates trajectories without intercept based on estimation of the baseline product price equation and the product price equation where the dependent variable is log price less log initial price in the spell. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.

Figure 22: Dynamics of quantity: Initial vs subsequent markets
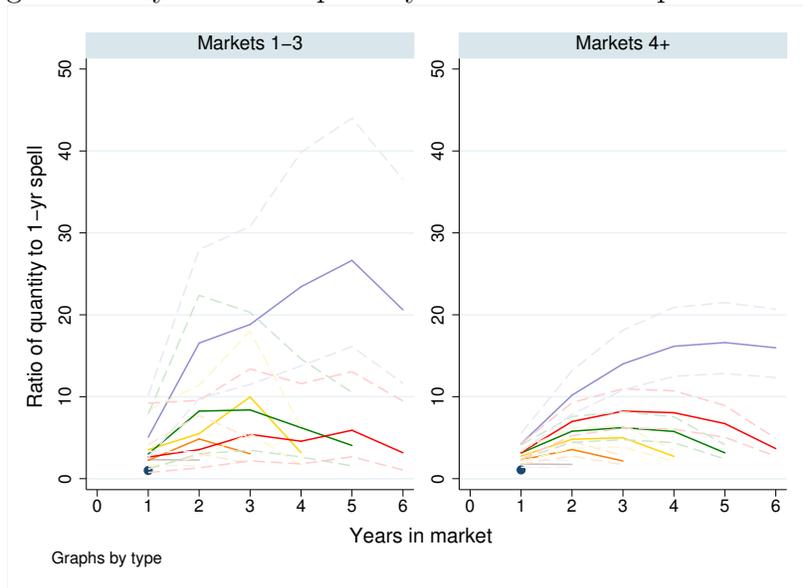
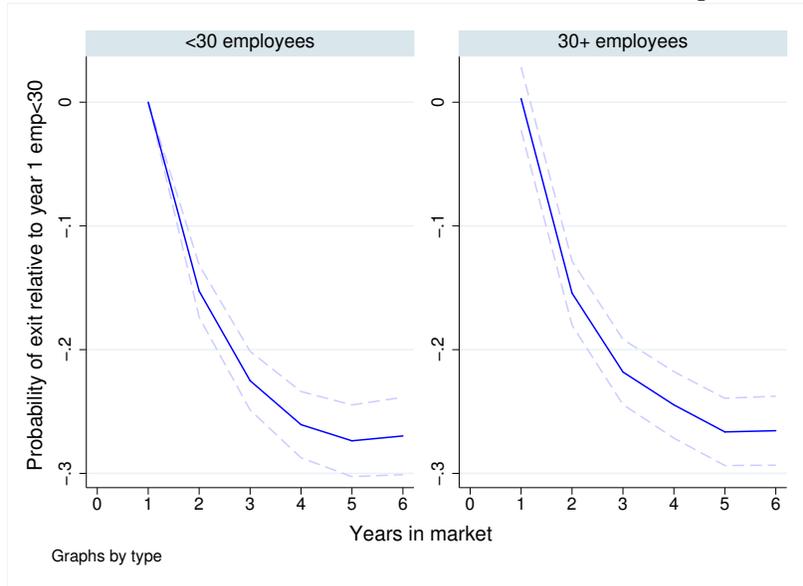

Notes: Figure illustrates trajectories based on estimation of the product quantity equation allowing trajectories to differ by the number of markets on entry. Quantity normalized to one in one-year spell for both initial and subsequent markets. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.
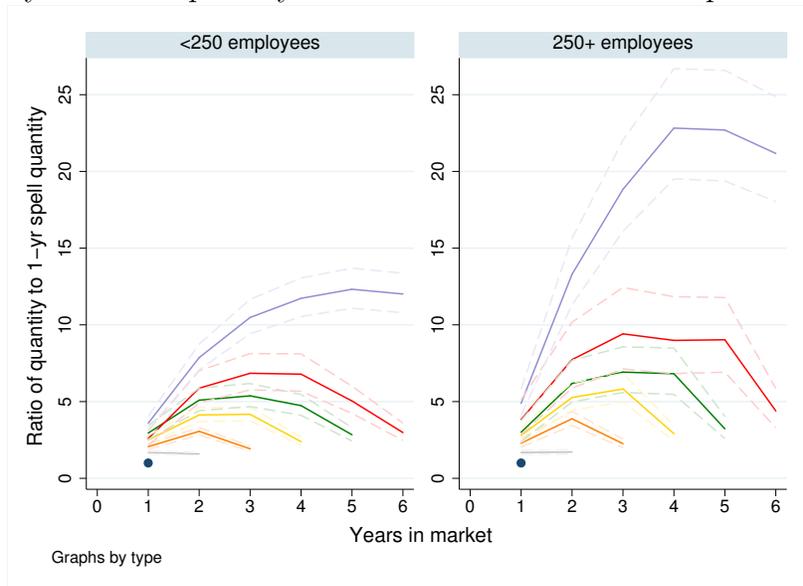
Figure 23: Dynamics of prices: Initial vs subsequent markets

Notes: Figure illustrates trajectories based on estimation of the product price equation allowing trajectories to differ by the number of markets on entry. Price normalized to one in one-year spell for both initial and subsequent markets. Two standard deviation confidence intervals for price trajectory in 7+year spells reported in dotted lines. Source: CSO and authors' calculations.
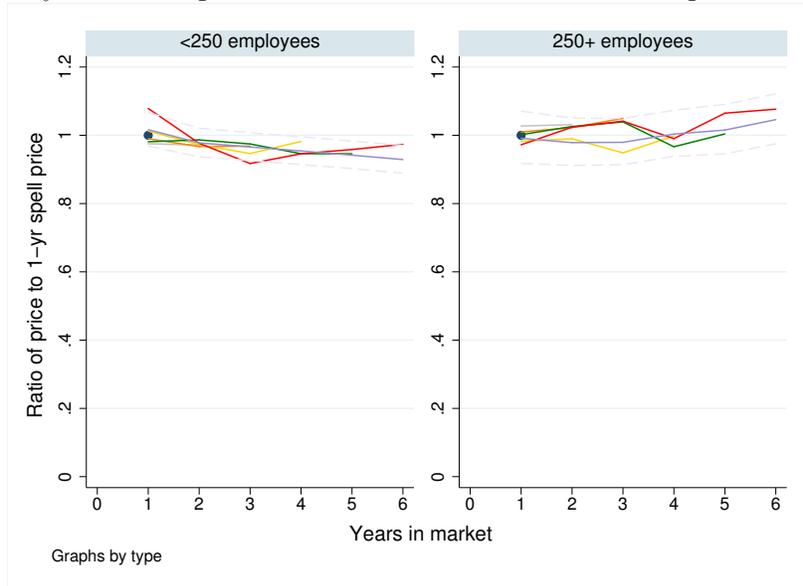
Figure 24: Market exit hazard: Initial vs subsequent markets

Notes: Figure illustrates market exit hazard based on estimation of the firm-market exit equation allowing trajectories to differ by the number of markets on entry. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.

Figure 25: Dynamics of quantity: Initial vs subsequent products

Notes: Figure illustrates trajectories based on estimation of the product quantity equation allowing trajectories to differ between first and subsequent products. Quantity normalized to one in 1-year spell for both first and subsequent products. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.

Figure 26: Dynamics of prices: Initial vs subsequent products

Notes: Figure illustrates trajectories based on estimation of the product price equation allowing trajectories to differ between first and subsequent products. Price normalized to one in 1-year spell for both first and subsequent products. Two standard deviation confidence intervals for price trajectory in 7+year spells reported in dotted lines. Source: CSO and authors' calculations.

Figure 27: Product-market exit hazard: Initial vs subsequent products

Notes: Figure illustrates product-market exit hazard based on estimation of the firm-product-market exit equation allowing trajectories to differ between first and subsequent products. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.

Figure 28: Dynamics of quantity: First vs subsequent spells
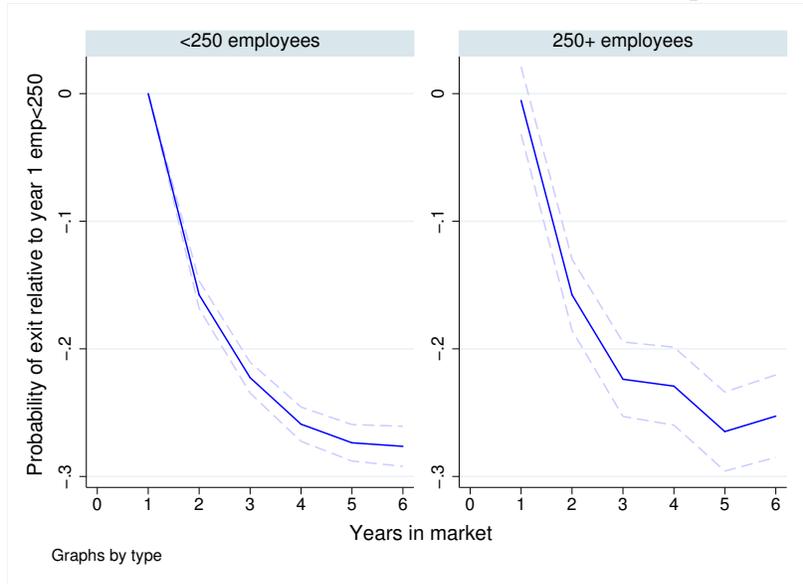
Notes: Figure illustrates trajectories based on estimation of the product quantity equation allowing trajectories to differ between first and subsequent spells. Quantity normalized to one in one-year spell for both first and subsequent spells. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.

Figure 29: Dynamics of prices: First vs subsequent spells
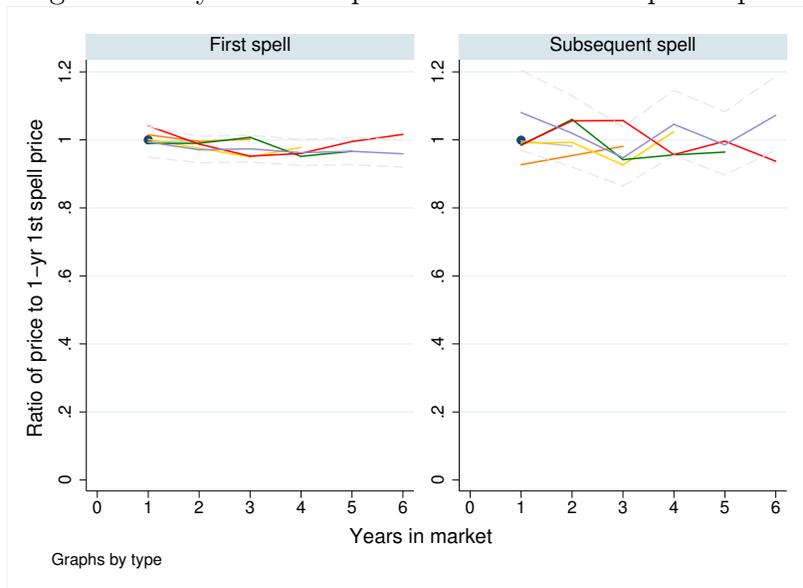
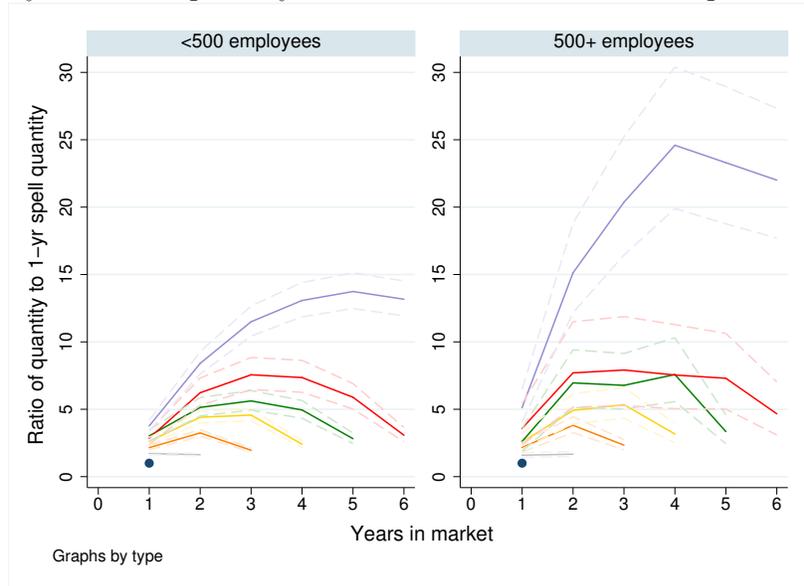Notes: Figure illustrates trajectories based on estimation of the product price equation allowing trajectories to differ between first and subsequent spells. Price normalized to one in one-year spell for both first and subsequent spells. Two standard deviation confidence intervals for price trajectory in 7+year spells reported in dotted lines. Source: CSO and authors' calculations.
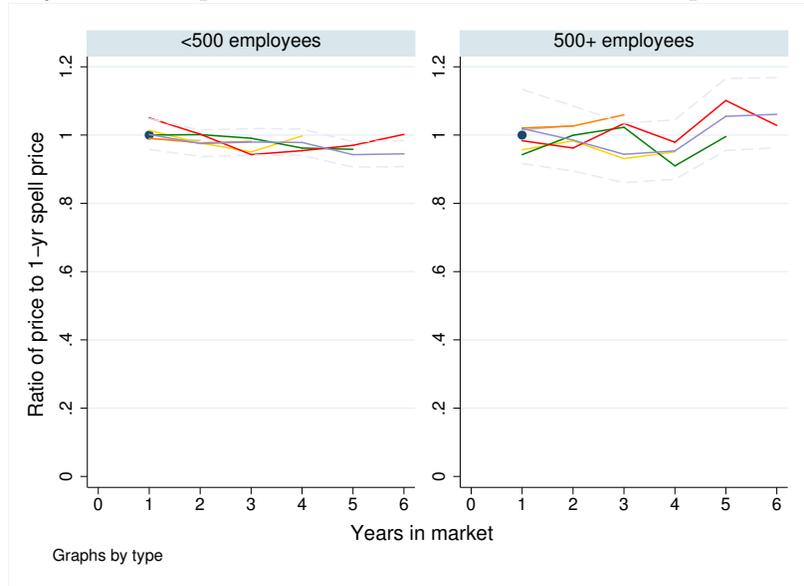
Figure 30: Market exit hazard: First vs subsequent spells

Notes: Figure illustrates market exit hazard based on estimation of the firm-market exit equation allowing trajectories to differ between first and subsequent spells. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.

Figure 31: Dynamics of quantity: Domestic vs foreign-owned firms
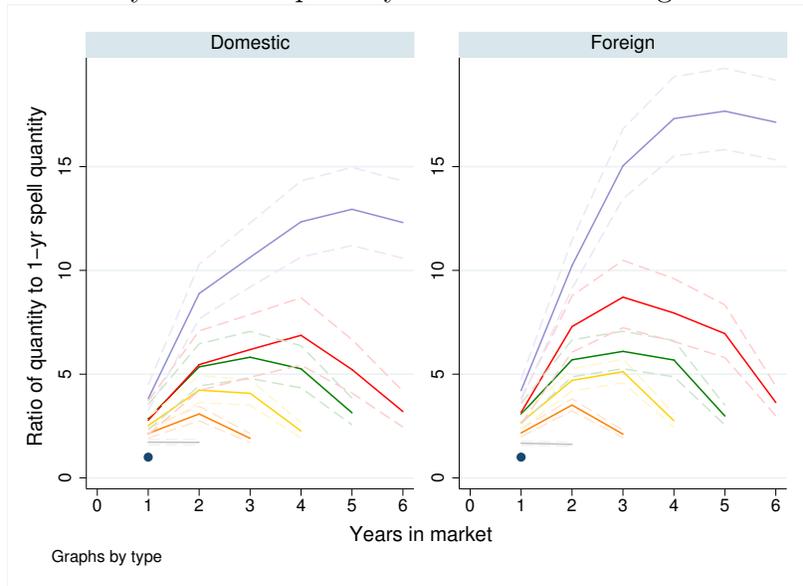
Notes: Figure illustrates trajectories based on estimation of the product quantity equation for domestic-owned firms and foreign-owned firms. Quantity normalized to one in one-year spell for both domestic and foreign-owned firms. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.

93

Figure 32: Dynamics of prices: Domestic vs foreign-owned firms
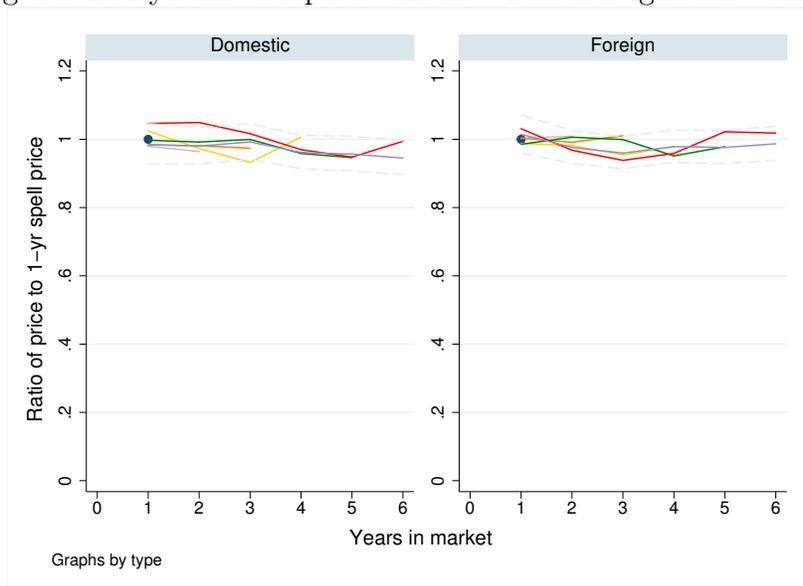
Notes: Figure illustrates trajectories based on estimation of the product price equation for domestic-owned firms and estimation foreign-owned firms. Price normalized to one in one-year spell for both domestic and foreign-owned firms. Two standard deviation confidence intervals for price trajectory in 7+year spells reported in dotted lines. Source: CSO and authors' calculations.

Figure 33: Market exit hazard: Domestic vs foreign-owned firms

Notes: Figure illustrates market exit hazard based on estimation of the firm-market exit equation for domestic-owned firms and foreign-owned firms. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.

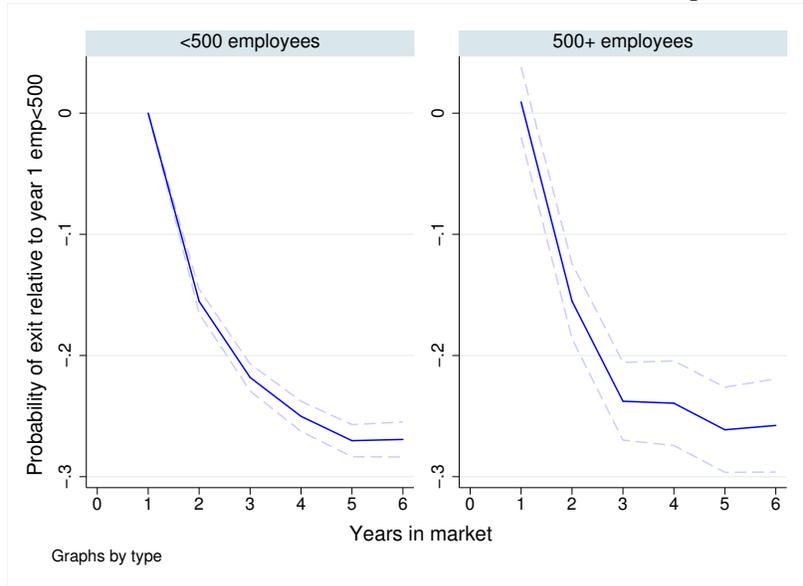Figure 34: Dynamics of quantity: Cut on firm size at start of spell: 30 employees

Notes: Figure illustrates trajectories based on estimation of the product quantity equation allowing trajectories to differ between spells where firm has <30 employees at the beginning of the spell, and spells where firm has 30+ employees at the beginning of the spell. Quantity normalized to one in one-year spell for both both types of spell. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.

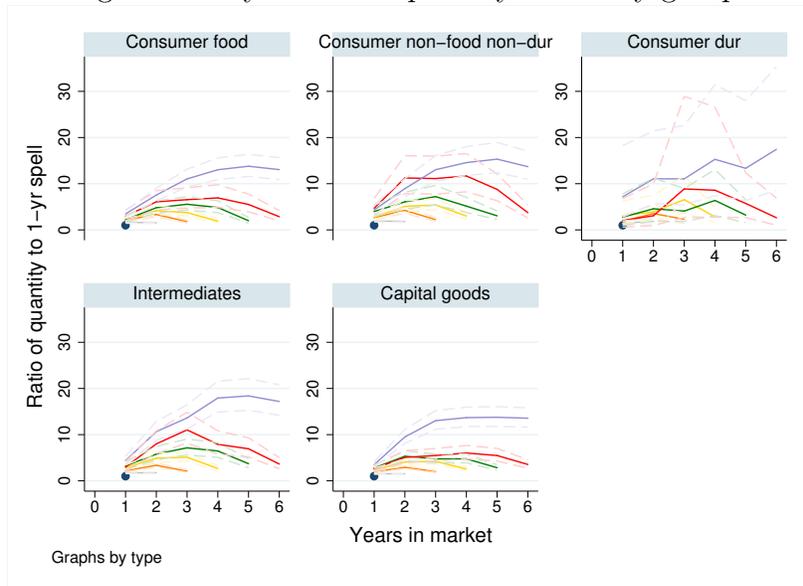Figure 35: Dynamics of prices: Cut on firm size at start of spell: 30 employees
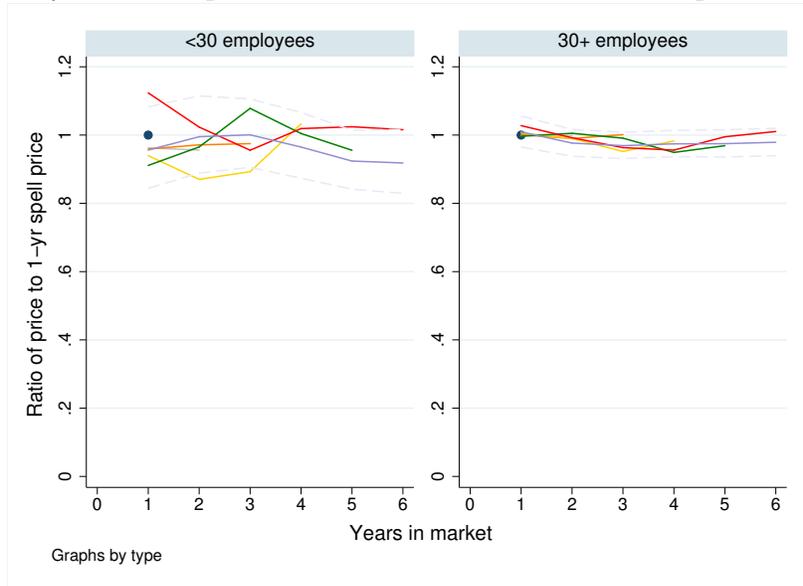
Notes: Figure illustrates trajectories based on estimation of the product price equation allowing trajectories to differ between spells where firm has <30 employees at the beginning of the spell, and spells where firm has 30+ employees at the beginning of the spell. Price normalized to one in one-year spell for both types of spell. Two standard deviation confidence intervals for price trajectory in 7+year spells reported in dotted lines. Source: CSO and authors' calculations.

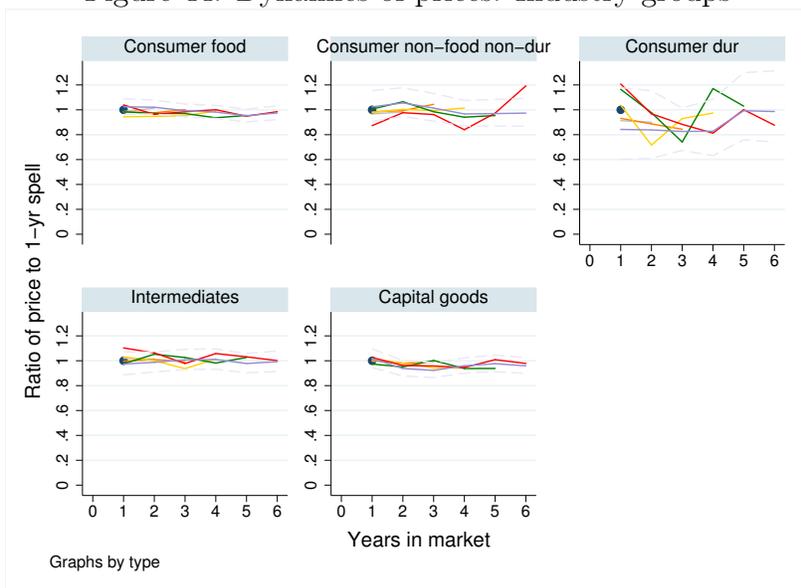Figure 36: Market exit hazard: Cut on firm size at start of spell: 30 employees

Notes: Figure illustrates market exit hazard based on estimation of the firm-market exit equation allowing trajectories to differ between spells where firm has <30 employees at the beginning of the spell, and spells where firm has 30+ employees at the beginning of the spell. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.
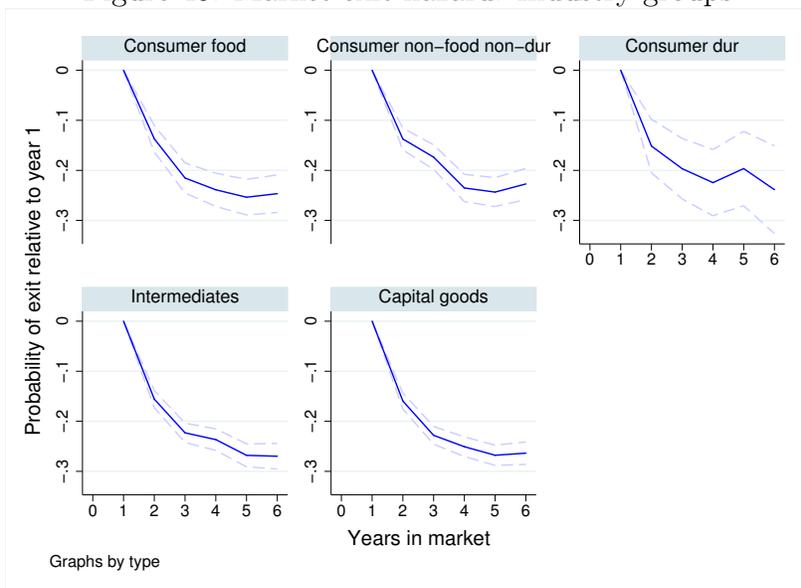

Figure 37: Dynamics of quantity: Cut on firm size at start of spell: 250 employees

Notes: Figure illustrates trajectories based on estimation of the product quantity equation allowing trajectories to differ between spells where firm has <250 employees at the beginning of the spell, and spells where firm has 250+ employees at the beginning of the spell. Quantity normalized to one in one-year spell for both both types of spell. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.
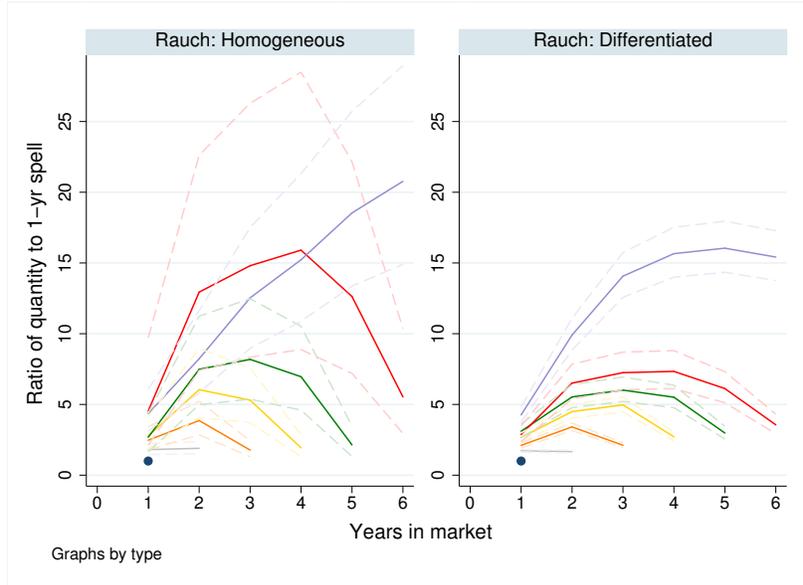
Figure 38: Dynamics of prices: Cut on firm size at start of spell: 250 employees

Notes: Figure illustrates trajectories based on estimation of the product price equation allowing trajectories to differ between spells where firm has <250 employees at the beginning of the spell, and spells where firm has 250+ employees at the beginning of the spell. Price normalized to one in one-year spell for both types of spell. Two standard deviation confidence intervals for price trajectory in 7+year spells reported in dotted lines. Source: CSO and authors' calculations.

Figure 39: Market exit hazard: Cut on firm size at start of spell: 250 employees


Notes: Figure illustrates market exit hazard based on estimation of the firm-market exit equation allowing trajectories to differ between spells where firm has <250 employees at the beginning of the spell, and spells where firm has 250+ employees at the beginning of the spell. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.
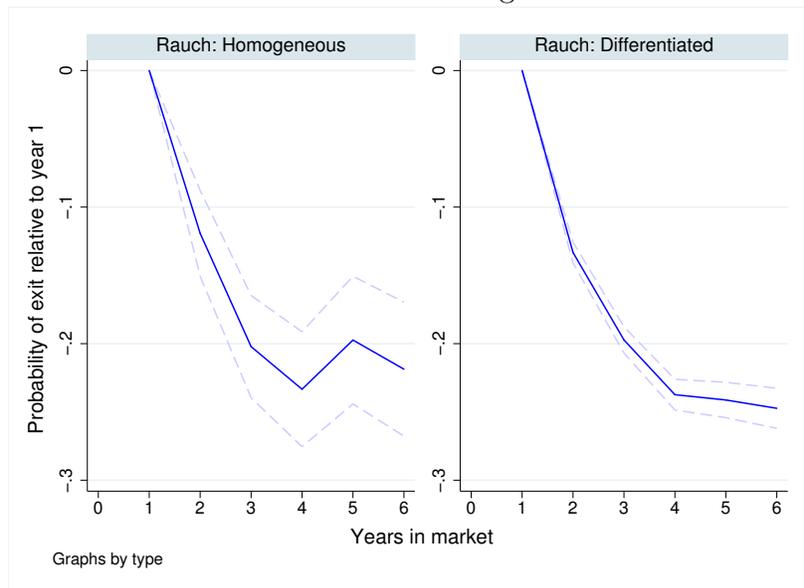
Figure 40: Dynamics of quantity: Cut on firm size at start of spell: 500 employees

Notes: Figure illustrates trajectories based on estimation of the product quantity equation allowing trajectories to differ between spells where firm has <500 employees at the beginning of the spell, and spells where firm has 500+ employees at the beginning of the spell. Quantity normalized to one in one-year spell for both both types of spell. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.
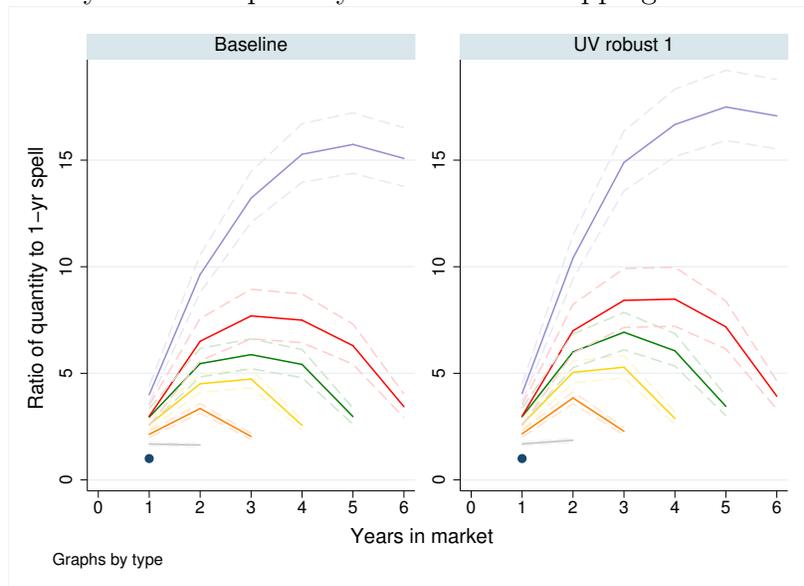
Figure 41: Dynamics of prices: Cut on firm size at start of spell: 500 employees

Notes: Figure illustrates trajectories based on estimation of the product price equation allowing trajectories to differ between spells where firm has <500 employees at the beginning of the spell, and spells where firm has 500+ employees at the beginning of the spell. Price normalized to one in one-year spell for both types of spell. Two standard deviation confidence intervals for price trajectory in 7+year spells reported in dotted lines. Source: CSO and authors' calculations.

Figure 42: Market exit hazard: Cut on firm size at start of spell: 500 employees

Notes: Figure illustrates market exit hazard based on estimation of the firm-market exit equation allowing trajectories to differ between spells where firm has <500 employees at the beginning of the spell, and spells where firm has 500+ employees at the beginning of the spell. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.

Figure 43: Dynamics of quantity: Industry groups

Notes: Figure illustrates trajectories based on estimation of the product quantity equation for different industry groups. Quantity normalized to one in one-year spell for all industries. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.

Figure 44: Dynamics of prices: Industry groups

Notes: Figure illustrates trajectories based on estimation of the product price equation for different industry groups. Price normalized to one in one-year spell for all industries. Two standard deviation confidence intervals for price trajectory in 7+year spells reported in dotted lines. Source: CSO and authors' calculations.

Figure 45: Market exit hazard: Industry groups

Notes: Figure illustrates market exit hazard based on estimation of the firm-market exit equation for different industry groups. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.

Figure 46: Dynamics of quantity: Homogeneous vs differentiated (Rauch)

Notes: Figure illustrates trajectories based on estimation of the product quantity equation for homogeneous products and differentiated products (as defined by the Rauch classification). Quantity normalized to one in one-year spell for both homogeneous and differentiated products. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.

Figure 47: Dynamics of prices: Homogeneous vs differentiated (Rauch)
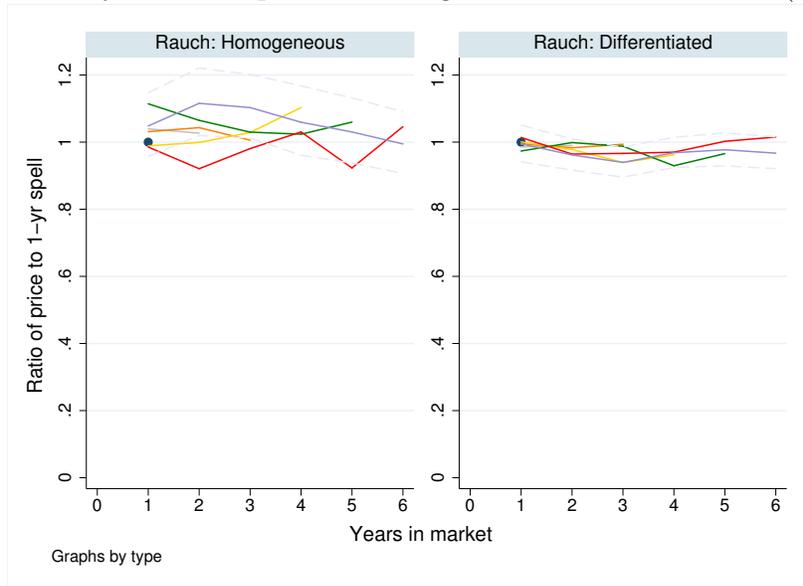
Notes: Figure illustrates trajectories based on estimation of the product price equation for homogeneous products and differentiated products (as defined by the Rauch classification). Price normalized to one in one-year spell for both homogeneous and differentiated products. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.

Figure 48: Product-market exit hazard: Homogeneous vs differentiated (Rauch)

Notes: Figure illustrates market exit hazard based on estimation of the firm-product-market exit equation for homogeneous products and differentiated products (as defined by the Rauch classification). Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.

Figure 49: Dynamics of quantity: Baseline vs dropping unit value outliers

Notes: Figure illustrates trajectories based on estimation of the product quantity equation using the full sample and dropping observations for which unit values are defined as outliers because of log change (since the previous year) that exceeds 1 in absolute value. Quantity normalized to one in one-year spell in both samples. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.

Figure 50: Dynamics of prices: Baseline vs dropping unit value outliers
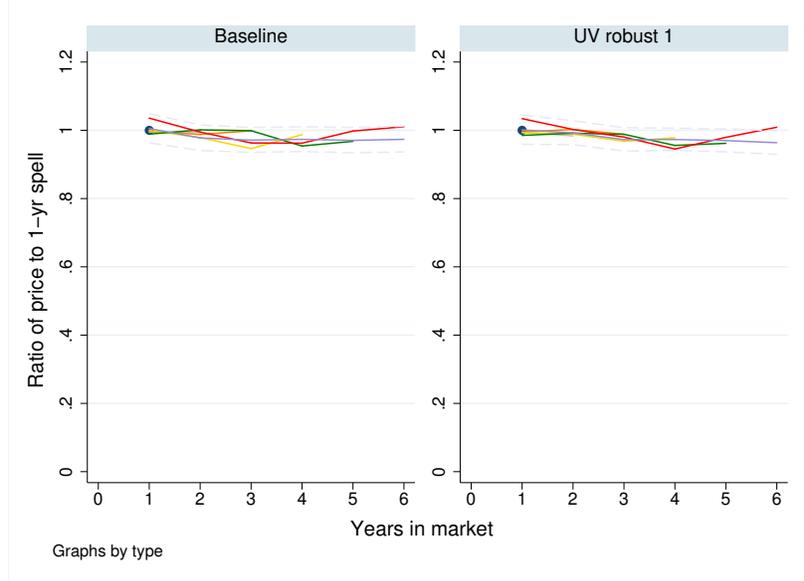
Notes: Figure illustrates trajectories based on estimation of the product price equation using the full sample and dropping observations for which unit values are defined as outliers because of log change (since the previous year) that exceeds 1 in absolute value. Price normalized to one in one-year spell in both samples. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.

Figure 51: Dynamics of quantity: Intrastat vs Extrastat markets
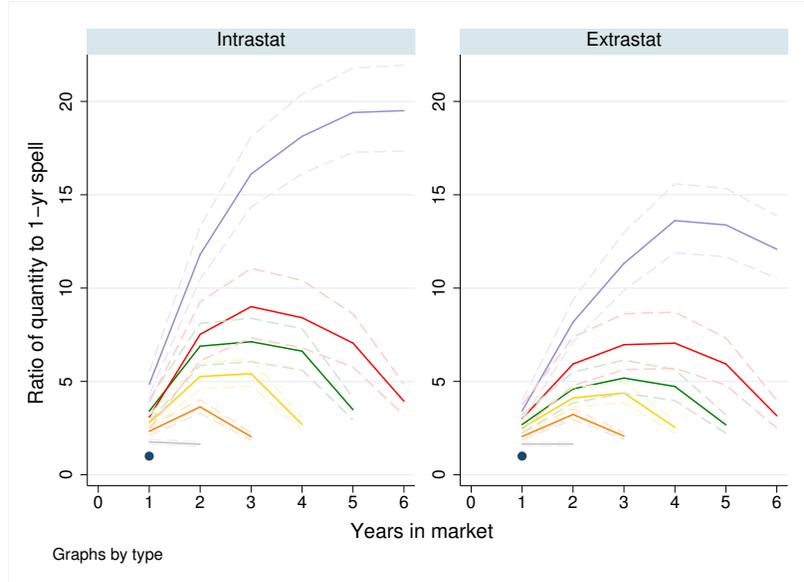
Notes: Figure illustrates trajectories based on estimation of the product quantity equation allowing for separate trajectories for Intrastat and Extrastat markets. Quantity normalized to one in one-year spell for both Intrastat and Extrastat markets. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.

Figure 52: Dynamics of prices: Intrastat vs Extrastat markets
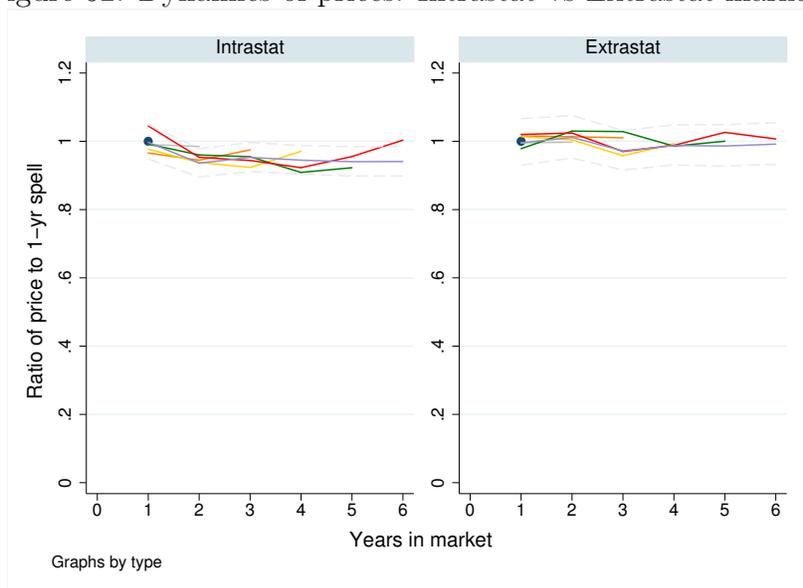
Notes: Figure illustrates trajectories based on estimation of the product price equation allowing for separate trajectories for Intrastat and Extrastat markets. Price normalized to one in one-year spell for both Intrastat and Extrastat markets. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.

Figure 53: Product-market exit hazard: Intrastat vs Extrastat markets
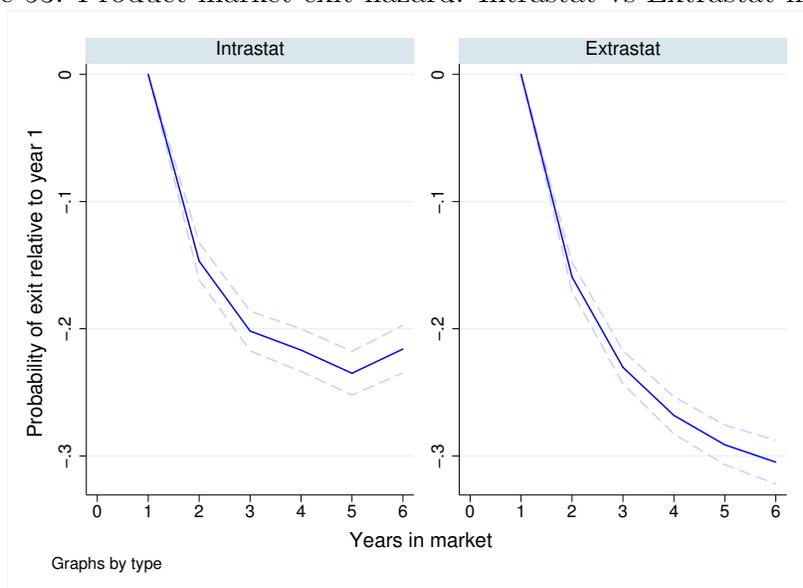
Notes: Figure illustrates market exit hazard based on estimation of the firm-product-market exit equation allowing for separate trajectories for Intrastat and Extrastat markets. Two standard deviation confidence intervals for all trajectories are reported in dotted lines. Source: CSO and authors' calculations.

7 Robustness tables: Structural estimation

Table 67: Data and model moments: $\alpha = 0$, quantity setting model

	Data				Model			
	Quantity		Price		Quantity		Price	
	moment	s.e.	moment	s.e.	Baseline	$\alpha = 0$, set q	Baseline	$\alpha = 0$, set q
$\ln\left(X_1^2/X_1^1\right)$	0.52	(0.02)	-0.01	(0.01)	0.43	0.49	0	0.08
$\ln\left(X_1^3/X_1^1\right)$	0.76	(0.04)	0.00	(0.02)	0.82	0.80	0	0.11
$\ln\left(X_1^4/X_1^1\right)$	0.95	(0.05)	0.00	(0.02)	0.99	0.91	0	0.12
$\ln\left(X_1^5/X_1^1\right)$	1.08	(0.07)	-0.01	(0.03)	1.04	1.03	0	0.12
$\ln\left(X_1^6/X_1^1\right)$	1.09	(0.08)	0.04	(0.03)	1.07	1.06	0	0.12
$\ln\left(X_1^7/X_1^1\right)$	1.39	(0.05)	0.01	(0.02)	1.40	1.34	0	0.12
$\ln\left(X_2^2/X_1^2\right)$	-0.03	(0.03)	0.00	(0.02)	0.10	0.06	0	-0.08
$\ln\left(X_2^3/X_1^3\right)$	0.45	(0.05)	-0.01	(0.02)	0.56	0.71	0	-0.01
$\ln\left(X_3^3/X_1^3\right)$	-0.05	(0.05)	0.00	(0.02)	-0.11	0.05	0	-0.12
$\ln\left(X_2^4/X_1^4\right)$	0.55	(0.06)	-0.02	(0.03)	0.71	0.87	0	-0.01
$\ln\left(X_3^4/X_1^4\right)$	0.60	(0.06)	-0.05	(0.03)*	0.66	0.65	0	-0.02
$\ln\left(X_4^4/X_1^4\right)$	-0.01	(0.07)	-0.01	(0.03)	-0.06	-0.09	0	-0.12
$\ln\left(X_2^5/X_1^5\right)$	0.62	(0.09)	0.01	(0.04)	0.74	0.99	0	-0.02
$\ln\left(X_3^5/X_1^5\right)$	0.69	(0.09)	0.01	(0.04)	0.84	0.82	0	-0.02
$\ln\left(X_4^5/X_1^5\right)$	0.61	(0.09)	-0.04	(0.04)	0.73	0.62	0	-0.02
$\ln\left(X_5^5/X_1^5\right)$	0.01	(0.09)	-0.02	(0.04)	0.00	-0.16	0	-0.12
$\ln\left(X_2^6/X_2^6\right)$	0.78	(0.11)	-0.04	(0.05)	0.77	1.11	0	-0.02
$\ln\left(X_3^6/X_1^6\right)$	0.95	(0.11)	-0.07	(0.05)	0.88	0.95	0	-0.02
$\ln\left(X_4^6/X_1^6\right)$	0.92	(0.11)	-0.07	(0.05)	0.90	0.83	0	-0.02
$\ln\left(X_5^6/X_1^6\right)$	0.75	(0.11)	-0.04	(0.05)	0.78	0.60	0	-0.03
$\ln\left(X_6^6/X_1^6\right)$	0.14	(0.11)	-0.02	(0.05)	0.08	-0.10	0	-0.12
$\ln\left(X_2^7/X_1^7\right)$	0.88	(0.06)	-0.03	(0.03)	0.94	1.28	0	-0.02
$\ln\left(X_3^7/X_1^7\right)$	1.20	(0.06)	-0.03	(0.03)	1.19	1.31	0	-0.02
$\ln\left(X_4^7/X_1^7\right)$	1.34	(0.06)	-0.03	(0.03)	1.26	1.34	0	-0.02
$\ln\left(X_5^7/X_1^7\right)$	1.37	(0.06)	-0.04	(0.03)	1.27	1.35	0	-0.02
$\ln\left(X_6^7/X_1^7\right)$	1.33	(0.07)	-0.03	(0.03)	1.26	1.32	0	-0.02
$exit_1$	0.46	(0.004)			0.42	0.38		
$exit_2 - exit_1$	-0.16	(0.005)			-0.19	-0.33		
$exit_3 - exit_1$	-0.22	(0.005)			-0.23	-0.34		
$exit_4 - exit_1$	-0.25	(0.006)			-0.25	-0.35		
$exit_5 - exit_1$	-0.27	(0.006)			-0.28	-0.35		
$exit_6 - exit_1$	-0.27	(0.007)			-0.29	-0.35		

Notes: Data quantity moments are from Column 2 of Table 4 in the paper. Data price moments are from Column 3 of Table 4 in the paper. Exit moments are from Column 2 of Table 5 in the paper. $exit_1$ refers to the intercept for the US market in this regression. Parameter estimates are reported in Table 7 in the paper.

Table 68: Expenditure on advertising and marketing in longest spells as a share of revenue: Baseline and alternative models

| | | Year | | | | | | |
Model	1	2	3	4	5	6	7
Baseline	0.33	0.34	0.28	0.24	0.23	0.23	0.23
$\alpha = 0$	0	0	0	0	0	0	0
no AC	0.38	0.37	0.35	0.35	0.35	0.35	0.35
$\gamma = 1$	0.46	0.43	0.39	0.39	0.39	0.39	0.39
$\rho = 0$	0.92	0.11	0.11	0.09	0.09	0.09	0.09
Full information	0.21	0.18	0.17	0.16	0.18	0.18	0.19
$\alpha = 0$, setq	0	0	0	0	0	0	0
Bayes	0.71	0.29	0.23	0.23	0.22	0.21	0.17

Notes: Share is calculated using total revenue and total expenditure on advertising and marketing in simulated spells lasting 7+ years. Parameter estimates and fit are reported in Table 7 in the paper.

Table 69: Share of informed participants by market tenure: Baseline and alternative models

| | | Year | | | | | | |
Model	1	2	3	4	5	6	7
Baseline	0.34	0.86	0.97	0.99	1.00	1.00	1.00
$\alpha = 0$	0.19	0.61	0.87	0.97	0.99	1.00	1
no AC	0.81	1.00	1	1	1	1	1
$\gamma = 1$	1	1	1	1	1	1	1
$\rho = 0$	0.15	0.67	0.88	0.96	0.99	1.00	1.00
Full information	1	1	1	1	1	1	1
$\alpha = 0$, setq	0.93	1.00	1	1	1	1	1
Bayes	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Notes: Share applies to all spells of given market tenure. Share is measured in the second 6-month period of the relevant year. Parameter estimates and fit are reported in Table 7 in the paper.

Table 70: Parameters and fit: Baseline and alternative values for θ

Model					Parameter						
	α	δ	ϕ	γ	ρ	σ_ν	σ_η	$\frac{F}{\mathbb{E}(R_1)}$	ω	θ	Fit
Baseline: $\theta = 2$	0.50	0.46	3.03	0.58	0.40	0.52	0.34	0.31	0.03	2	3.71
$\theta = 1.5$	0.43	0.49	7.35	0.56	0.44	0.51	0.43	0.57	0.03	1.5	4.37
$\theta = 3$	0.41	0.50	11.11	0.54	0.44	0.54	0.44	0.29	0.03	3	4.67
$\theta = 4$	0.43	0.50	8.78	0.54	0.46	0.52	0.43	0.21	0.03	4	4.58

Notes: Fit indicates the value of the criterion function $m'Vm$ where m is the difference between data moments and moments of the model conditional on the parameter vector, and V is a diagonal matrix with the vector of inverses of the standard errors of the data moments on the diagonal.

Table 71: Data and model moments: Baseline and alternative values for θ

	Data		Model			
	moment	s.e.	Baseline	$\theta = 1.5$	$\theta = 3$	$\theta = 4$
$\ln\left(Q_1^2/Q_1^1\right)$	0.52	(0.02)	0.43	0.44	0.44	0.43
$\ln\left(Q_1^3/Q_1^1\right)$	0.76	(0.04)	0.82	0.83	0.83	0.81
$\ln\left(Q_1^4/Q_1^1\right)$	0.95	(0.05)	0.99	1.00	1.02	0.99
$\ln\left(Q_1^5/Q_1^1\right)$	1.08	(0.07)	1.04	1.06	1.08	1.05
$\ln\left(Q_1^6/Q_1^1\right)$	1.09	(0.08)	1.07	1.08	1.11	1.08
$\ln\left(Q_1^7/Q_1^1\right)$	1.39	(0.05)	1.40	1.40	1.45	1.42
$\ln\left(Q_2^2/Q_1^2\right)$	-0.03	(0.03)	0.10	0.02	0.02	0.02
$\ln\left(Q_2^3/Q_1^3\right)$	0.45	(0.05)	0.56	0.64	0.64	0.64
$\ln\left(Q_3^3/Q_1^3\right)$	-0.05	(0.05)	-0.11	-0.10	-0.11	-0.12
$\ln\left(Q_2^4/Q_1^4\right)$	0.55	(0.06)	0.71	0.70	0.70	0.70
$\ln\left(Q_3^4/Q_1^4\right)$	0.60	(0.06)	0.66	0.75	0.75	0.75
$\ln\left(Q_4^4/Q_1^4\right)$	-0.01	(0.07)	-0.06	-0.04	-0.05	-0.07
$\ln\left(Q_2^5/Q_1^5\right)$	0.62	(0.09)	0.74	0.73	0.73	0.73
$\ln\left(Q_3^5/Q_1^5\right)$	0.69	(0.09)	0.84	0.84	0.84	0.84
$\ln\left(Q_4^5/Q_1^5\right)$	0.61	(0.09)	0.73	0.83	0.83	0.82
$\ln\left(Q_5^5/Q_1^5\right)$	0.01	(0.09)	0.00	0.04	0.02	0.00
$\ln\left(Q_2^6/Q_2^6\right)$	0.78	(0.11)	0.77	0.76	0.76	0.76
$\ln\left(Q_3^6/Q_1^6\right)$	0.95	(0.11)	0.88	0.88	0.88	0.87
$\ln\left(Q_4^6/Q_1^6\right)$	0.92	(0.11)	0.90	0.92	0.92	0.91
$\ln\left(Q_5^6/Q_1^6\right)$	0.75	(0.11)	0.78	0.88	0.88	0.88
$\ln\left(Q_6^6/Q_1^6\right)$	0.14	(0.11)	0.08	0.11	0.10	0.08
$\ln\left(Q_2^7/Q_1^7\right)$	0.88	(0.06)	0.94	0.87	0.87	0.88
$\ln\left(Q_3^7/Q_1^7\right)$	1.20	(0.06)	1.19	1.15	1.15	1.16
$\ln\left(Q_4^7/Q_1^7\right)$	1.34	(0.06)	1.26	1.23	1.23	1.25
$\ln\left(Q_5^7/Q_1^7\right)$	1.37	(0.06)	1.27	1.25	1.25	1.27
$\ln\left(Q_6^7/Q_1^7\right)$	1.33	(0.07)	1.26	1.25	1.25	1.27
$exit_1$	0.46	(0.004)	0.42	0.42	0.41	0.41
$exit_2 - exit_1$	-0.16	(0.005)	-0.19	-0.15	-0.14	-0.14
$exit_3 - exit_1$	-0.22	(0.005)	-0.23	-0.23	-0.22	-0.21
$exit_4 - exit_1$	-0.25	(0.006)	-0.25	-0.26	-0.25	-0.25
$exit_5 - exit_1$	-0.27	(0.006)	-0.28	-0.28	-0.28	-0.27
$exit_6 - exit_1$	-0.27	(0.007)	-0.29	-0.30	-0.29	-0.29

Notes: Quantity moments are based on Column 2 of Table 4 in the paper. Exit moments are based on Column 2 of Table 5 in the paper. $exit_1$ is the average 1-year exit rate across all spells in the data for which entry is not censored. Standard error for $exit_1$ is based on assuming the indicator for 1-year exit is binomially distributed. Parameter estimates are reported in Table 70.

Table 72: Parameters and fit: Baseline model fitted to restricted sets of moments

Moments	Parameter									Fit
	α	δ	ϕ	γ	ρ	σ_ν^2	σ_η^2	$\frac{F}{\mathbb{E}(R_1)}$	ω	
Baseline	0.50	0.46	3.03	0.58	0.40	0.52	0.34	0.31	0.03	3.71
no initial Q	0.32	0.26	14.35	0.57	0.90	1.78	1.13	0.01	0.07	714
no growth	0.61	0.59	2.50	0.58	0.34	0.48	0.27	0.34	0.05	52.81
no exit	0.61	0.82	6.15	0.49	0.45	0.98	0.33	0.05	0.40	106
no short spells	0.38	0.38	8.03	0.50	0.31	0.48	0.93	0.56	0.05	20.83

Notes: Estimates are based on matching a criterion function that sets the weight on relevant subsets of moments equal to zero. Fit indicates the value of the criterion function $m'Vm$ where m is the difference between data moments and moments of the model conditional on the parameter vector, and V is a diagonal matrix with the vector of inverses of the standard errors of the data moments on the diagonal. Fit takes account of all data moments (including those not targeted in the relevant row) and is thus comparable to the fit of the baseline model.

Table 73: Data and model moments: Baseline and restricted sets of moments

	Data		Model: Moments matched				
	moment	s.e.	Baseline	No initial Q	No growth	No exit	No short spells
$\ln\left(Q_1^2/Q_1^1\right)$	0.52	(0.02)	0.43	1.08	0.49	0.42	0.47
$\ln\left(Q_1^3/Q_1^1\right)$	0.76	(0.04)	0.82	2.62	0.81	0.72	0.82
$\ln\left(Q_1^4/Q_1^1\right)$	0.95	(0.05)	0.99	3.64	0.96	0.92	0.99
$\ln\left(Q_1^5/Q_1^1\right)$	1.08	(0.07)	1.04	4.20	1.06	1.10	1.11
$\ln\left(Q_1^6/Q_1^1\right)$	1.09	(0.08)	1.07	4.40	1.10	1.11	1.15
$\ln\left(Q_1^7/Q_1^1\right)$	1.39	(0.05)	1.40	4.46	1.37	1.47	1.32
$\ln\left(Q_2^2/Q_1^2\right)$	-0.03	(0.03)	0.10	0.05	0.36	-0.14	-0.11
$\ln\left(Q_2^3/Q_1^3\right)$	0.45	(0.05)	0.56	0.59	0.94	0.50	0.82
$\ln\left(Q_3^3/Q_1^3\right)$	-0.05	(0.05)	-0.11	-0.05	0.39	-0.13	-0.02
$\ln\left(Q_2^4/Q_1^4\right)$	0.55	(0.06)	0.71	0.73	1.02	0.59	0.90
$\ln\left(Q_3^4/Q_1^4\right)$	0.60	(0.06)	0.66	0.62	1.10	0.59	1.10
$\ln\left(Q_4^4/Q_1^4\right)$	-0.01	(0.07)	-0.06	-0.02	0.51	-0.01	0.06
$\ln\left(Q_2^5/Q_1^5\right)$	0.62	(0.09)	0.74	0.82	1.05	0.65	0.88
$\ln\left(Q_3^5/Q_1^5\right)$	0.69	(0.09)	0.84	0.75	1.16	0.66	1.12
$\ln\left(Q_4^5/Q_1^5\right)$	0.61	(0.09)	0.73	0.69	1.17	0.67	1.18
$\ln\left(Q_5^5/Q_1^5\right)$	0.01	(0.09)	0.00	0.00	0.59	0.10	0.14
$\ln\left(Q_2^6/Q_2^6\right)$	0.78	(0.11)	0.77	0.94	1.12	0.80	0.90
$\ln\left(Q_3^6/Q_1^6\right)$	0.95	(0.11)	0.88	1.01	1.24	0.86	1.12
$\ln\left(Q_4^6/Q_1^6\right)$	0.92	(0.11)	0.90	0.90	1.27	0.85	1.23
$\ln\left(Q_5^6/Q_1^6\right)$	0.75	(0.11)	0.78	0.76	1.25	0.85	1.22
$\ln\left(Q_6^6/Q_1^6\right)$	0.14	(0.11)	0.08	0.08	0.70	0.18	0.28
$\ln\left(Q_2^7/Q_1^7\right)$	0.88	(0.06)	0.94	0.89	1.32	0.91	0.90
$\ln\left(Q_3^7/Q_1^7\right)$	1.20	(0.06)	1.19	1.16	1.53	1.17	1.21
$\ln\left(Q_4^7/Q_1^7\right)$	1.34	(0.06)	1.26	1.27	1.57	1.35	1.31
$\ln\left(Q_5^7/Q_1^7\right)$	1.37	(0.06)	1.27	1.27	1.57	1.30	1.35
$\ln\left(Q_6^7/Q_1^7\right)$	1.33	(0.07)	1.26	1.19	1.57	1.34	1.37
$exit_1$	0.46	(0.004)	0.42	0.46	0.45	0.60	0.44
$exit_2 - exit_1$	-0.16	(0.005)	-0.19	-0.14	-0.14	0.13	-0.09
$exit_3 - exit_1$	-0.22	(0.005)	-0.23	-0.20	-0.21	0.11	-0.21
$exit_4 - exit_1$	-0.25	(0.006)	-0.25	-0.26	-0.25	0.10	-0.26
$exit_5 - exit_1$	-0.27	(0.006)	-0.28	-0.28	-0.27	0.10	-0.28
$exit_6 - exit_1$	-0.27	(0.007)	-0.29	-0.29	-0.29	0.08	-0.30

Notes: Quantity moments are based on Column 2 of Table 4 in the paper. Exit moments are based on Column 2 of Table 5 in the paper. $exit_1$ is the average 1-year exit rate across all spells in the data for which entry is not censored. Standard error for $exit_1$ is based on assuming the indicator for 1-year exit is binomially distributed. Parameter estimates are reported in Table 72.

8 Robustness figures: Structural estimation

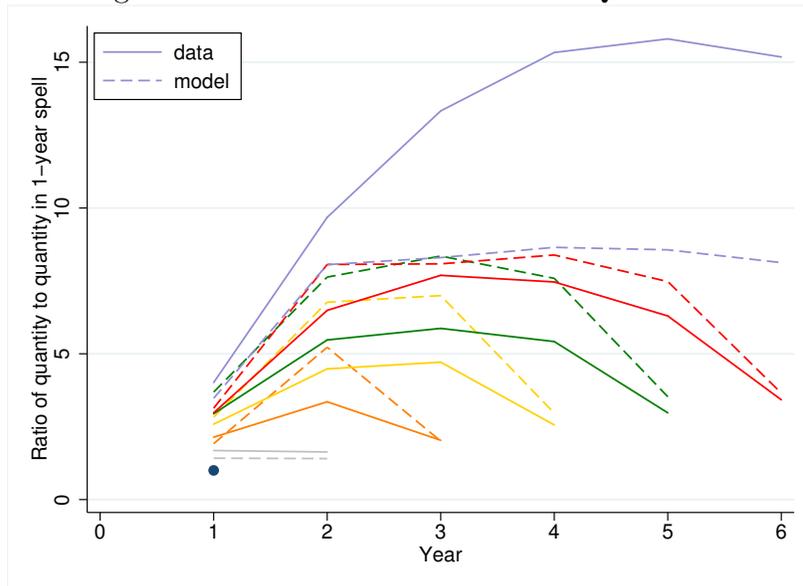Figure 54: Shutting down part-year effects in the baseline model: Quantities
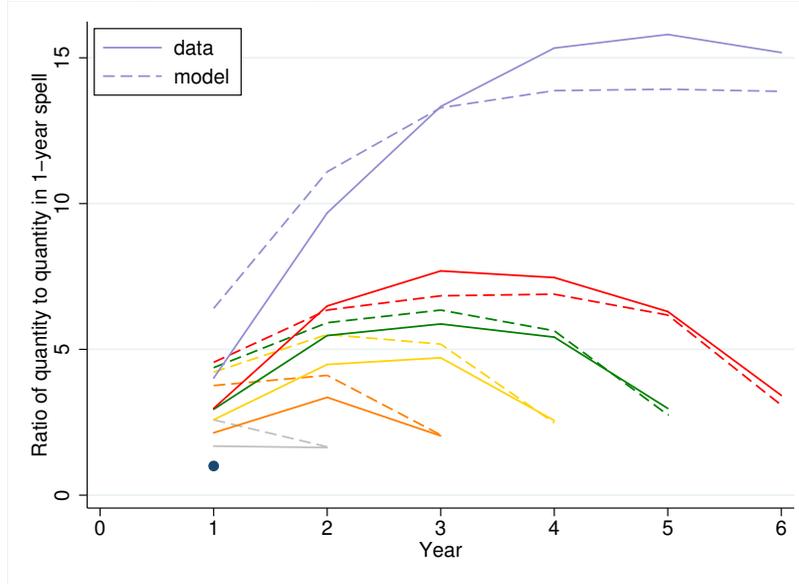
Notes: Figure shows data on evolution of quantities at the firm-product-market level with tenure, by spell length, and corresponding evolution for the baseline model with part-year effects shut down. All quantities expressed relative to quantity in a 1-year spell Source: CSO and authors' calculations.
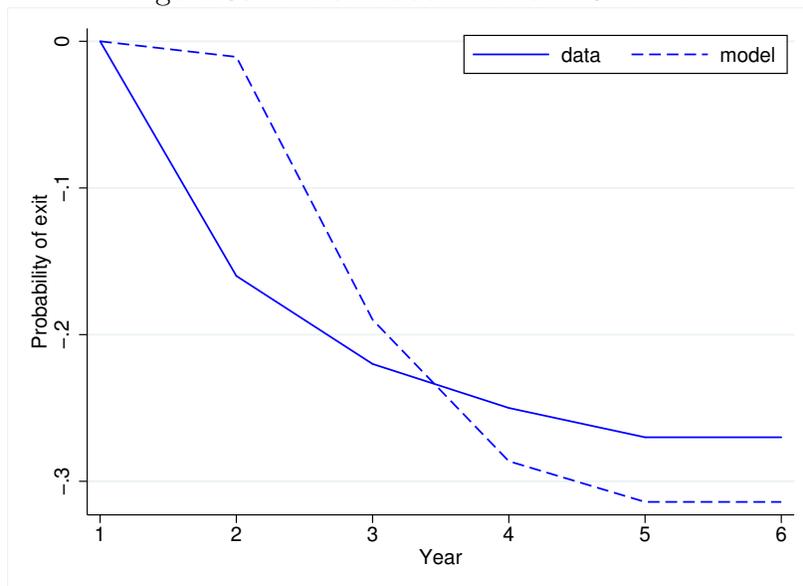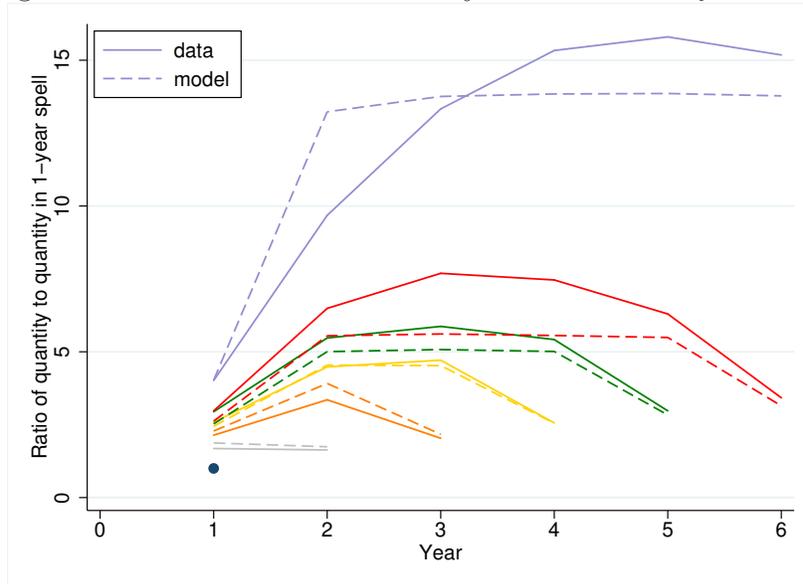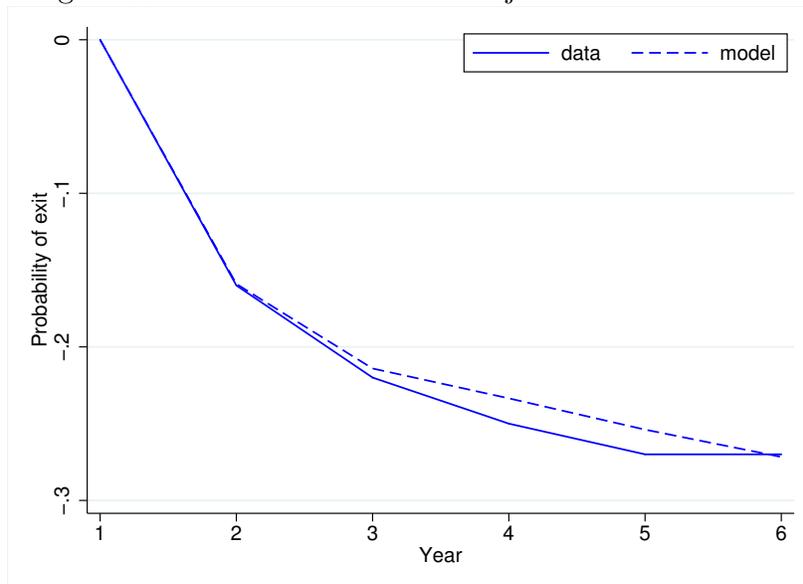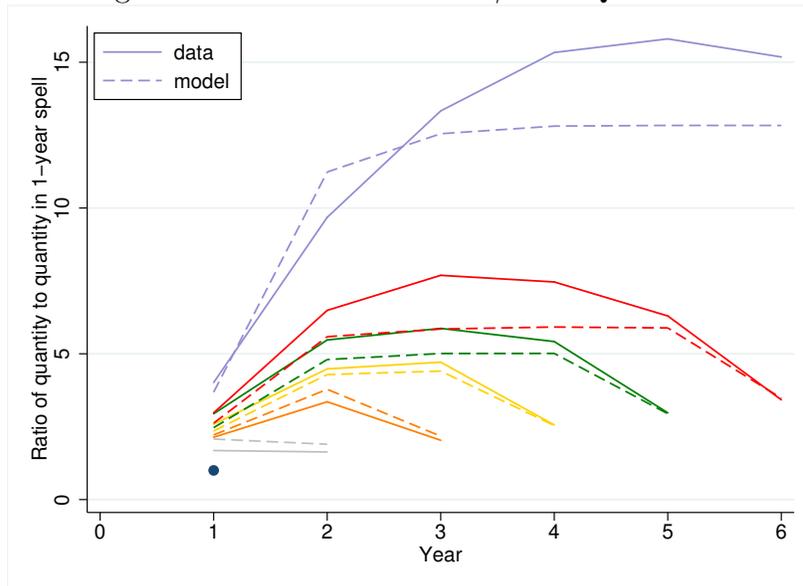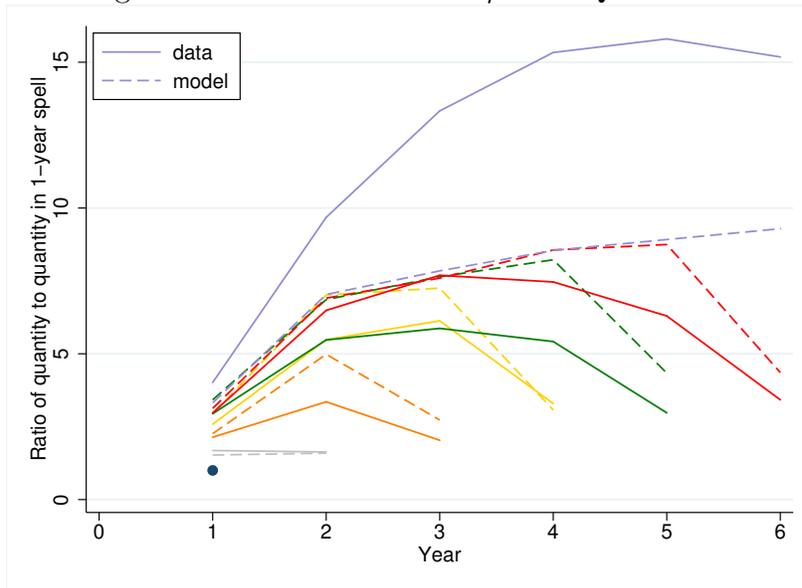
Figure 55: Shutting down part-year effects in the baseline model: Exit
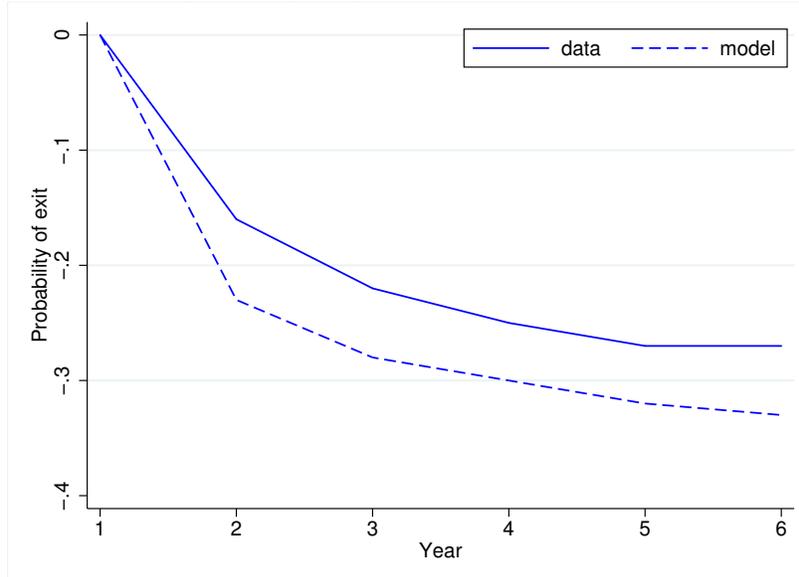
Notes: Figure shows data on reduction in probability of exit at the firm-market level relative to probability of exit in the first year in a market, and corresponding evolution for the baseline model shutting down part-year effects. Figure does not illustrate exit rate in year 1. Source: CSO and authors' calculations.

Figure 56: Fit of model with $\alpha = 0$: Quantities

Notes: Figure shows data on evolution of quantities at the firm-product-market level with tenure, by spell length, and corresponding evolution for the model where $\alpha = 0$. All quantities expressed relative to quantity in a 1-year spell Source: CSO and authors' calculations.

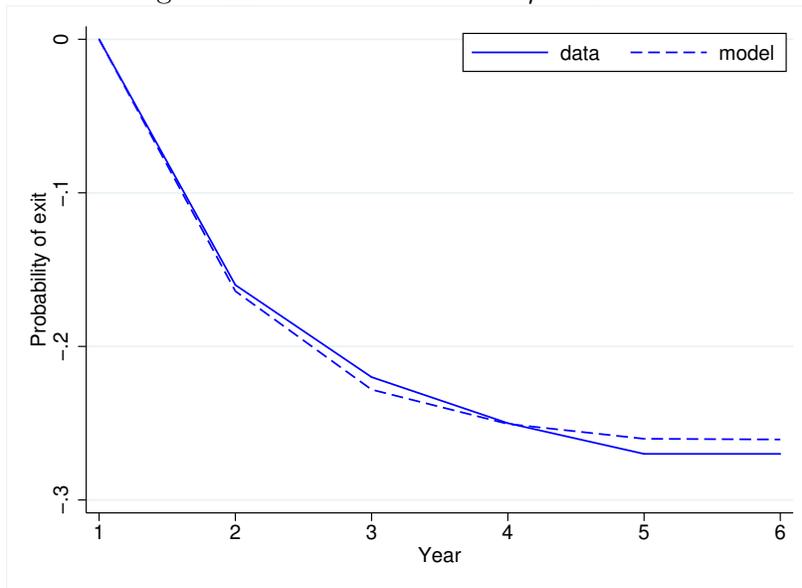Figure 57: Fit of model with $\alpha = 0$: Exit

Notes: Figure shows data on reduction in probability of exit at the firm-market level relative to probability of exit in the first year in a market, and corresponding evolution for the model where $\alpha = 0$. Figure does not illustrate exit rate in year 1. Source: CSO and authors' calculations.

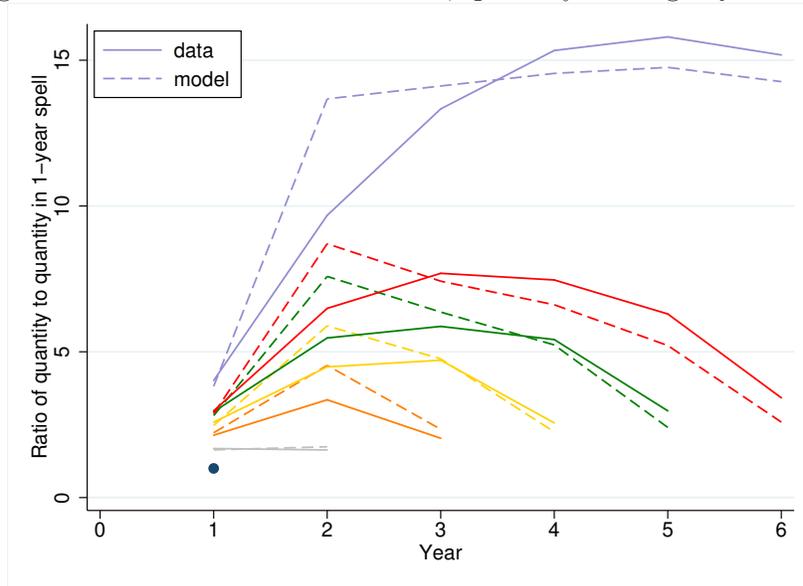Figure 58: Fit of model with no adjustment costs: Quantities

Notes: Figure shows data on evolution of quantities at the firm-product-market level with tenure, by spell length, and corresponding evolution for the model with no adjustment costs ($\phi = 0$). All quantities expressed relative to quantity in a 1-year spell Source: CSO and authors' calculations.

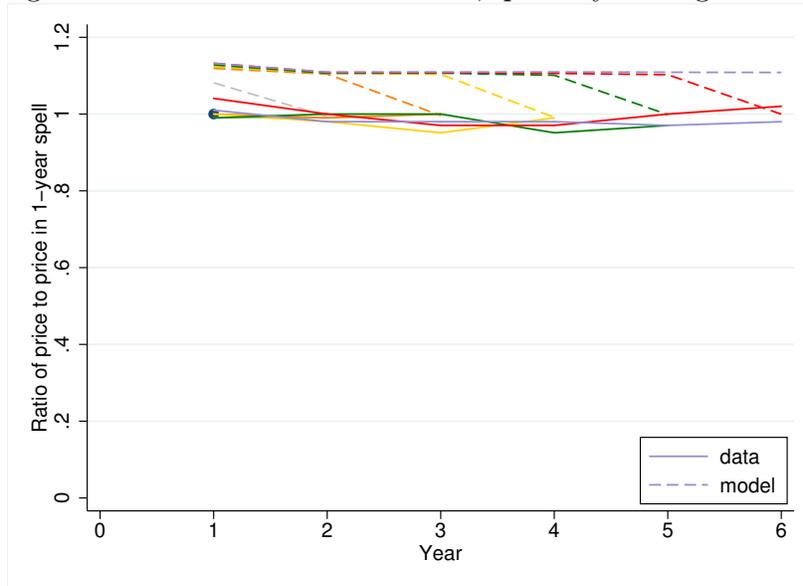Figure 59: Fit of model with no adjustment costs: Exit

Notes: Figure shows data on reduction in probability of exit at the firm-market level relative to probability of exit in the first year in a market, and corresponding evolution for the model with no adjustment costs ($\phi = 0$). Figure does not illustrate exit rate in year 1. Source: CSO and authors' calculations.

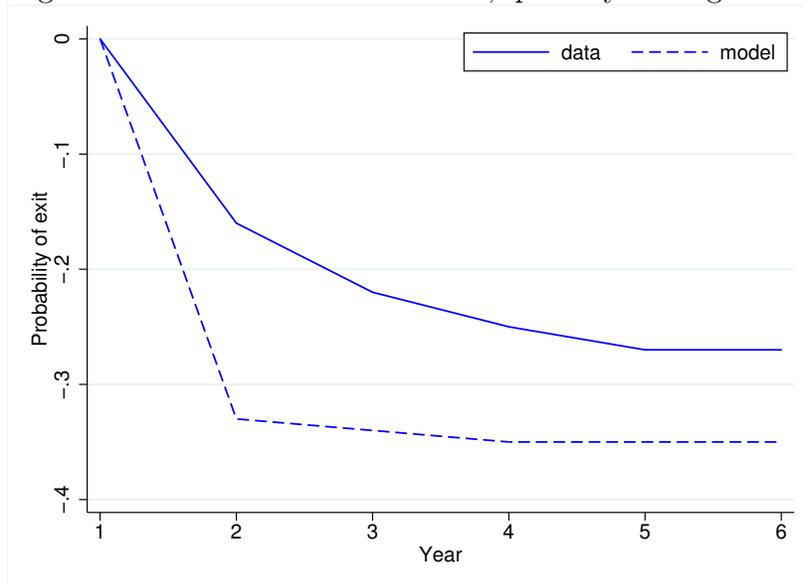Figure 60: Fit of model with $\gamma = 1$: Quantities

Notes: Figure shows data on evolution of quantities at the firm-product-market level with tenure, by spell length, and corresponding evolution for the model with $\gamma = 1$. All quantities expressed relative to quantity in a 1-year spell Source: CSO and authors' calculations.

Figure 61: Fit of model with $\gamma = 1$: Exit
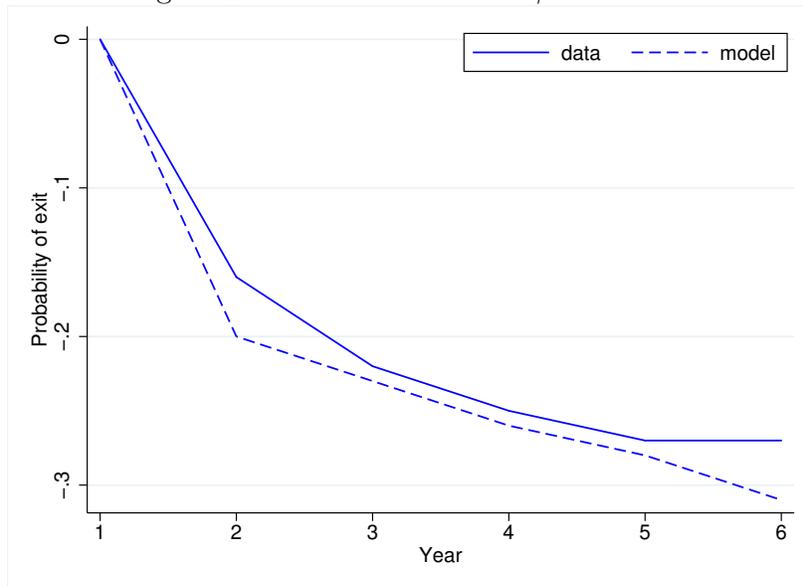
Notes: Figure shows data on reduction in probability of exit at the firm-market level relative to probability of exit in the first year in a market, and corresponding evolution for the model with $\gamma = 1$ Figure does not illustrate exit rate in year 1. Source: CSO and authors' calculations.

Figure 62: Fit of model with $\rho = 0$: Quantities

Notes: Figure shows data on evolution of quantities at the firm-product-market level with tenure, by spell length, and corresponding evolution for the model where $\rho = 0$. All quantities expressed relative to quantity in a 1-year spell Source: CSO and authors' calculations.

Figure 63: Fit of model with $\rho = 0$: Exit

Notes: Figure shows data on reduction in probability of exit at the firm-market level relative to probability of exit in the first year in a market, and corresponding evolution for the model where $\rho = 0$. Figure does not illustrate exit rate in year 1. Source: CSO and authors' calculations.

Figure 64: Fit of model with $\alpha = 0$, quantity setting: Quantities

Notes: Figure shows data on evolution of quantities at the firm-product-market level with tenure, by spell length, and corresponding evolution for the model with $\alpha = 0$ and quantity setting. All quantities expressed relative to quantity in 1-year spell Source: CSO and authors' calculations.

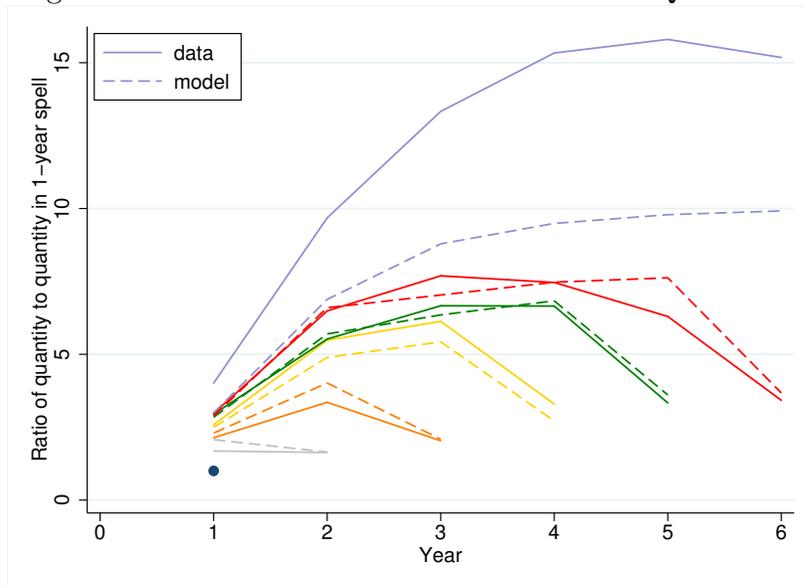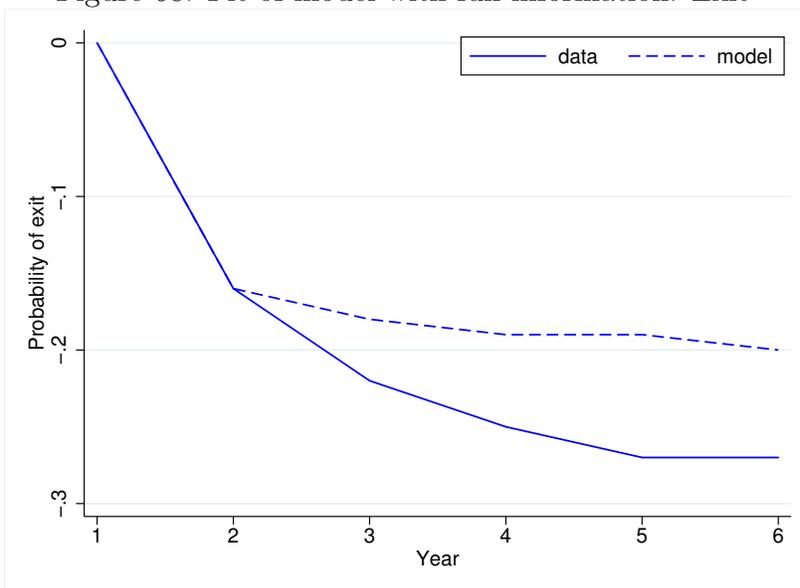Figure 65: Fit of model with $\alpha = 0$, quantity setting: Prices

Notes: Figure shows data on evolution of prices at the firm-product-market level with tenure, by spell length, and corresponding evolution for the model with $\alpha = 0$ and quantity setting. All prices expressed relative to price in 1-year spell Source: CSO and authors' calculations.

Figure 66: Fit of model with $\alpha = 0$, quantity setting: Exit

Notes: Figure shows data on reduction in probability of exit at the firm-market level relative to probability of exit in the first year in a market, and corresponding evolution for the model with $\alpha = 0$ and quantity setting. Figure does not illustrate exit rate in year 1. Source: CSO and authors' calculations.

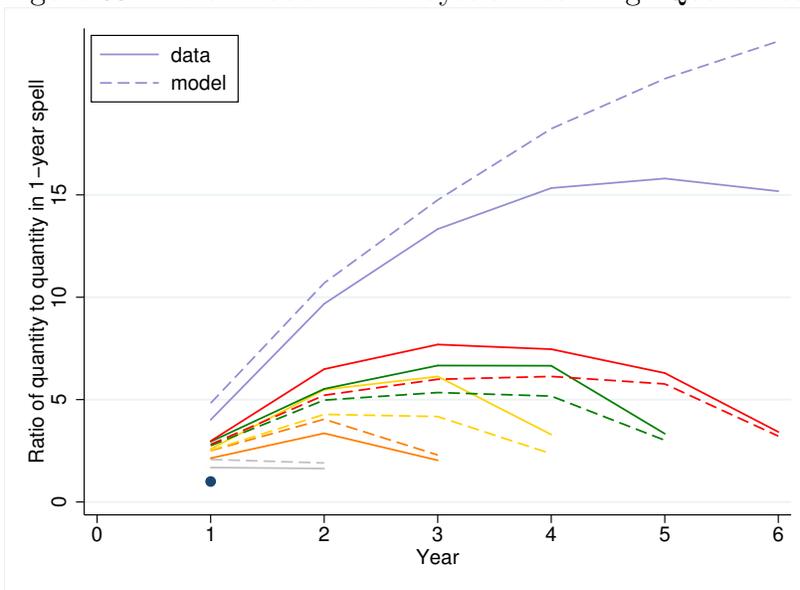## Figure 67: Fit of model with full information: Quantities

Notes: Figure shows data on evolution of quantities at the firm-product-market level with tenure, by spell length, and corresponding evolution for the model with full information. All quantities expressed relative to quantity in 1-year spell Source: CSO and authors' calculations.

116
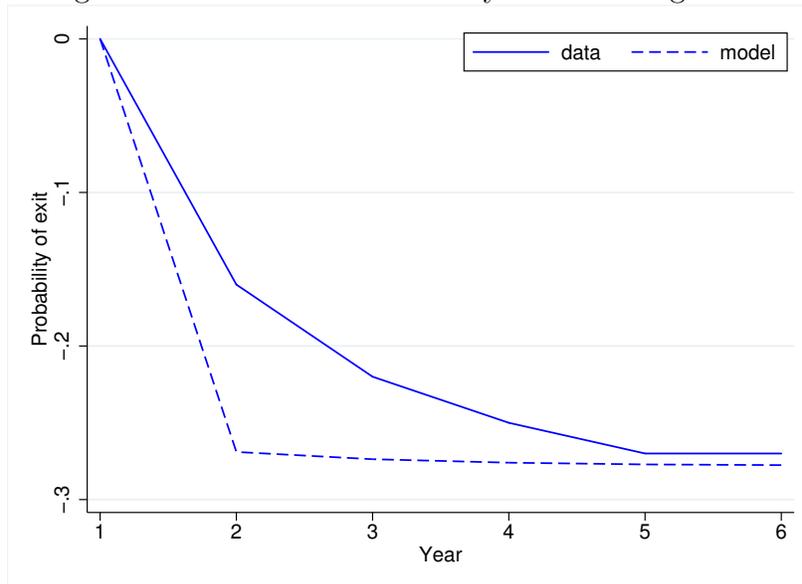
Figure 68: Fit of model with full information: Exit

Notes: Figure shows data on reduction in probability of exit at the firm-market level relative to probability of exit in the first year in a market, and corresponding evolution for the model with full information. Figure does not illustrate exit rate in year 1. Source: CSO and authors' calculations.

Figure 69: Fit of model with Bayesian learning: Quantities

Notes: Figure shows data on evolution of quantities at the firm-product-market level with tenure, by spell length, and corresponding evolution for the model with Bayesian learning. All quantities expressed relative to quantity in 1-year spell Source: CSO and authors' calculations.

Figure 70: Fit of model with Bayesian learning: Exit

Notes: Figure shows data on reduction in probability of exit at the firm-market level relative to probability of exit in the first year in a market, and corresponding evolution for the model with Bayesian learning. Figure does not illustrate exit rate in year 1. Source: CSO and authors' calculations.