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Kaleb Girma Abreha, Valérie Smeets and Frédéric Warzynski



AARHUS
UNIVERSITY

BUSINESS AND SOCIAL SCIENCES
DEPARTMENT OF ECONOMICS AND BUSINESS

Coping with the Crisis: Recent Evolution in Danish Firms’ International Trade Involvement, 2000-2010

Kaleb Girma Abreha*

Valérie Smeets†

Frédéric Warzynski‡

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Abstract

Using a highly disaggregated firm-product-destination level data from Denmark, we document salient features of Danish international production in the recent decade. These include systematic variation in export participation of firms across industries; positive correlation between the scope (number of products exported and markets served) and scale of exporting activities; considerable dominance of multi-product and multi-destination firms; existence of carry-along trade; the prevalence of core and peripheral products in exports; a small role of economy-wide entry and exit of firms and products, and a sizable role of firm-level adding and dropping of products and product-destination combinations as a margin of trade adjustment. Finally, we show that firms responded to the latest economic shock mainly by adjusting the scale of exports and imports. At the same time, changing their products and product-destination combinations helped them to mitigate the negative effects of the shock.

JEL Codes: F14; F6; L60

Keyword: Foreign trade; Trade collapse; Margins of Trade; Denmark

1 Introduction

Increased availability of micro level datasets has over the last twenty years shifted the focus of research in international trade from countries and industries to firms and products. This new line of research extends a previous wave of empirical papers starting in the mid-nineties that challenged the existing theories of international trade that focused on comparative advantage, increasing returns to scale and consumer love for variety. As summarized by [Bernard, Jensen, Redding, and Schott \(2007\)](#), these models failed to capture important empirical regularities, most notably firm heterogeneity. Several recent studies have shown that firms are rather different in several dimensions even in narrowly defined

*Department of Economics and Business, Aarhus University, E-mail: kgab@asb.dk (✉)

†Department of Economics and Business, Aarhus University, E-mail: vas@asb.dk

‡Department of Economics and Business, Aarhus University, E-mail: fwa@asb.dk

industries. The pioneering paper in the field, [Bernard and Jensen \(1995\)](#) showed that the fraction of firms active in export and import markets is rather small in US manufacturing. Additionally, these firms are systematically different from domestic firms in terms of size, productivity and input mix. That is, they are larger, more productive, more skill- and capital-intensive.¹ This inspired new trade theories (starting with [Bernard, Eaton, Jensen, and Kortum \(2003\)](#) and [Melitz \(2003\)](#)) that revolutionized this field of research.

More recently, researchers have documented additional stylized facts about exporters. First, both domestic and international productions are dominated by a few firms (see e.g. [Bernard, Jensen, Redding, and Schott \(2009\)](#); [Mayer and Ottaviano \(2008\)](#), and [Eriksson et al. \(2009\)](#)) and export sales are concentrated in a few products within firms ([Arkolakis and Muendler \(2010\)](#)). These empirical findings inspired the development of new models of multi-product firms, whose production activity can further be categorized into the production of core and peripheral products. (see e.g. [Bernard, Redding, and Schott \(2010\)](#), [Bernard, Redding, and Schott \(2011\)](#); [Eckel and Neary \(2010\)](#), and [Mayer, Melitz, and Ottaviano \(in press\)](#)).

Most of the theoretical models and empirical evidence primarily focus on the effects of permanent trade liberalization (or lower trade costs) on firm and aggregate outcomes. Micro level studies on shocks of the current economic crisis nature and firms' reaction are so far scarce. A recent study by [Gopinath and Neiman \(in press\)](#) document novel stylized facts on firm responses to the Argentine 2001-2002 crisis using transaction level data on imports, and develop theoretical model that captured the role of intensive and extensive margins at the firm level to explain aggregate outcomes such as import growth and total factor productivity. [Bricongne, Fontagné, Gaulier, Taglioni, and Vicard \(2012\)](#) analyze the effect of the recent crisis and find that large French firms responded mainly by lowering their export volume whereas small firms exit the export market or reduce the number of products exported and destinations served. Similarly, using Belgian data, [Behrens, Corcos, and Mion \(2013\)](#) found that the trade collapse resulted mainly from a decline in quantities and prices of existing export and import firm-product transactions, rather than from entry and exit of firms, products and trading partners. These studies demonstrate that analyses of trade adjustment mechanisms at the micro level are key to understand firms' behavior and globalization.

In this paper, we use a rich transaction level data from Denmark with the objective of documenting new stylized facts on the behavior of firms from a globalization perspective. First, we discuss the nature and extent of firm participation in trade; we document the

¹Interestingly, these defining characteristics are not restricted to the US only. Micro level studies from other countries such as Belgium—[Pisu \(2008\)](#) and [Muûls and Pisu \(2009\)](#); Chile—[Alvarez and López \(2005\)](#), [Kasahara and Lapham \(2013\)](#); Colombia—[Isgut \(2001\)](#); Denmark—[Eriksson, Smeets, and Warzynski \(2009\)](#); Germany—[Wagner \(2007\)](#), [Powell and Wagner \(2010\)](#), [Verardi and Wagner \(2012\)](#); Indonesia—[Amiti and Davis \(2012\)](#); Ireland—[Ruane and Sutherland \(2005\)](#), [Lawless \(2009\)](#); Italy—[Castellani, Serti, and Tomasi \(2010\)](#); Slovenia—[De Loecker \(2007\)](#); Spain—[Blanes-Cristóbal, Dovis, Milgram-Baleix, and Moro-Egido \(2008\)](#), [Máñez-Castillejo, Rochina-Barrachina, and Sanchis-Llopis \(2010\)](#), and Sweden—[Andersson, Löf, and Johansson \(2008\)](#) documented similar characteristics of firms active in international trade.

scope and scale of firm activities; we analyze within firm distribution of sales, and finally we assess the effects of the current economic crisis. We confirm considerable variation in the export participation of firms across industries. Second, despite changes in the degree of firm and product participation in the export sector over time, the correlation between the scope (number of products exported and markets served) and scale of exporting activities has remained positive as shown also by [Arkolakis and Muendler \(2010\)](#). Third, the export sector is characterized by overall dominance and growing importance of multi-product and multi-destination firms whose activities involve carry-along trade in line with [Bernard, Blanchard, Van Beveren, and Vandenbussche \(2012\)](#). Fourth, trade is also concentrated within firms, as the firms' export basket can be divided into a few core products and several peripheral products. Fifth, we document a small role of economy-wide entry and exit of firms and products, and a non-negligible role of firm-level adding and dropping of products and product-destination combinations as a margin of trade adjustment. Lastly, we show that firms responded to the latest economic shock mainly by adjusting the scale of exports and imports, while changing their products and product-destination combinations helped them mitigate the negative effects of the shock.

The rest of the paper is organized as follows. Section 2 presents the data source and description. Section 3 discusses salient macroeconomic aspects of Danish foreign trade. Section 4 presents stylized facts on exporting firms in detailed manner. Section 5 concludes.

2 Data Description

The datasets used in this paper are all provided by Statistics Denmark. We focus our analysis on the time period 2000-2010. We combine three different datasets and merge them relatively easily, as firms are identified by a common identification number (cvmnr). Our main source of information provides detailed records on the export and import transactions by the universe of Danish firms. It contains the value, weight and quantity of export and import transactions for each firm and destination/source market at 8-digit Combined Nomenclature.² After some data cleaning, there are about 4,453,231 and 5,043,224 export and import transactions at HS-6 digit respectively.

The second dataset contains firm-level accounting information for more than 160,000 firms per year and has been created using VAT statistics. We merge this dataset with the trade data in order to make sure that we are considering firms with real economic activity in Denmark. We also only consider firms with at least one employee. Tables [A.1 – A.7](#) shows the evolution of the number of firms over our period of analysis.

The third dataset contains information about the products portfolio of firms and describes which products firms make domestically. It is based on a survey of all firms in the manufacturing sector with at least 10 employees, this means that those data cover fewer firms than in the two other datasets. We have information at the firm-product level on the

²Combined Nomenclature (CN) is a Harmonized system with further subdivisions used in EU member countries.

value and quantity of production overtime. There are about 181,635 observations in this dataset. We then combined this dataset with the export and import transactions dataset giving rise to 836,582 and 307,442 observations respectively.

The firms are classified based on Statistical Classification of Economic Activities in the European Community (NACE). One difficulty that we have to face is that this industrial classification was revised twice during our period of analysis (in 2003 and 2007). While the first revision was relatively minor, the second one was substantial. Statistics Denmark made a considerable effort to define an exact key between the two classifications, and went backwards to redefine firms according to the new classification. In our analysis, we use the latest industrial classification (DB07, comparable to NACE Rev. 2).

3 Macro aspects of Danish foreign trade

As pointed out in a recent report from the [WTO \(2012\)](#), describing the trade performance of a country revolves around three central elements. The first element is the country's volume of trade. This feature is a good indicator of a country's openness and integration to the global value chain. It is greatly influenced by trade barriers, macroeconomic policies, and natural factors like geographical proximity to major trade centers, sea access and the like. The second element deals with what the country actually trades. It refers to the pattern of trade. What a country trades varies according to its resource endowments, its technological progress, and its domestic economic policy measures. It could be a good indicator of the potential sources for and actual gains from trade. The last element emphasizes a country's trading partners. This shows technological sophistications of a country's trade and highlights the potential gains from trade. It demonstrates among other things the role of geographical factors, level of technological sophistications, resource endowment, historical relations and trade agreements etc.

How much does Denmark trade?

Given that Denmark is a small country, there is heavy reliance on the world market as a source and an outlet for domestic economic activities. One indicator of this dependence is the ratio of exports and imports of goods and services to GDP. [Figure 1](#) shows rising export and import to GDP ratios, as the economy becomes more globalized. It is also shown that the relative importance of exports is greater than that of imports. One noticeable feature is the substantial decline in these measures of openness during the current economic crisis 2008-2009.

To gain additional insight into the trade collapse of 2008-2009, monthly volume of exports and imports is depicted in [Figure 2](#). We can observe that exports collapsed from September 2008 to February 2009; while imports collapsed on a longer period (from October 2008 to May 2009).

Which products does Denmark trade?

We can gain some additional insight about the structure of Danish trade by looking at the sectoral composition of imports and exports. Figure 3 shows the share of each industry in the total exports and imports for 2000 and 2010. It demonstrates significant variation across industries in terms of contribution to the overall exports. A greater fraction of exports comes from food, machinery, electrical and optimal equipment, chemicals, and furniture industries. Despite changes in their relative importance, most of the leading export industries in 2000 constituted the main exports in 2010 as well. Pharmaceuticals, machinery and transport equipment saw their respective share growing in ten years, while food declined slightly, but remained the most important exporting industry. Similarly, on the imports side, food products, electrical and optimal equipment, machinery and chemical products constitute the major importing industries. Most of the major importing industries experienced an increase in their relative share over the period, except petroleum products, electronic products and a slight decline for chemical products. It also indicates that highly exporting industries are more likely to be highly importing as well, providing evidence to high incidence of intra industry trade.

Another interesting dimension to consider is the distribution of trade based on the nature of products traded.³ Figure 4A portrays the share of capital, consumption, and intermediate goods overtime. Trade in intermediate goods constitutes the greatest share, and particularly so on the export side and for the manufacturing sector. We also notice the declining importance of consumption goods in exports, and a relatively stable share in imports. Further, capital goods are more important import items except for the manufacturing sector.

With whom does Denmark trade?

Regarding the geographic orientation of foreign trade, Figure 5 shows the shares of selected trade partners and the corresponding change in their relevance overtime. Export and import trade is concentrated in major OECD countries. Germany, Sweden, Great Britain, Norway and USA constitute the main export destinations and import sources for Danish firms. It is also evident that some countries are more important in terms of being export destination than being import source, and vice versa. For instance, Germany is the most important export destination, and an even more important import source. Such a feature of trade is also evident in the case of Sweden, Netherlands, Italy and China. Additionally, the declining importance of partners such as Germany, Great Britain, France and Italy, and the growing importance of China especially on the import trade are worth noting.

More generally, it was shown that the macroeconomic aspects of foreign trade have not undergone major structural changes in terms of its geographic and sectoral orientations, or in terms of the nature of the products traded. Several studies showed both theoretically

³Product grouping based on their end use is made by matching HS with BEC classification of goods.

and empirically that aggregate outcomes result from firms' reactions to domestic and global economic forces. To this end, a systematic analysis of firm behavior is required for a complete understanding of the nature and determinants of trade. The following section provides stylized facts on the nature of foreign trade with greater emphasis on exporting firms.

4 Firm Participation in International Trade

This section documents the salient features of firms in their nature of export participation in more details. It provides several stylized facts.

Finding 1 : There is substantial variation in the extent of export participation among firms across industries.

Table 1 is constructed after combining the trade statistics with the production dataset of firms in the manufacturing sector. It shows the industry-wise proportion of firms active in export markets. We can see substantial heterogeneity in the degree of firm participation across industries. For example, firms producing wearing apparels, chemicals and pharmaceuticals have a considerably larger participation rate in export. This is partly due to the presence of few firms active in those particular industries. In contrast, firms engaged in the production of fabricated metals, non-metallic products and printing and publishing have a relatively lower export participation rate.

Finding 2 : Despite a decreasing number of firms exporting, the number of market destinations served, the number of products exported and the export value per firm have increased.

Table 2A shows that more than 14,000 Danish firms export more than 4,500 products to more than 200 countries. These represent more than 100,000 product–destination combinations. The number of firms that serve the export market has shown a small decline. During the crisis, the decline was even more magnified. A decline in the number of firms serving export markets is accompanied by a relative rise in the export volume of the average exporting firm as shown in Table 2B. Similarly, the export value per product line and destination marginally increased despite an increase in the overall number of products exported and destination markets served. Another notable feature is the presence of few firms reaching above 100 countries, exporting more than a thousand different types of products, and with more than 2,000 product-destination combinations. This feature is suggestive of the pivotal role few firms play in the export trade.

The evolution of the number and scale of exporting and importing firms is shown in Figure 6A. It shows that importing is much more common than exporting. We can also see that fewer and declining number of exporting firms are associated with greater and increasing volume of exports by the average exporting firm, suggesting greater role of intensive margin in the export sector. The average import value at the firm level has

been decreasing over time, while the number of importing firms experienced a dramatic increase, with a sharp decline in 2009 following the crisis.

Coming to export and import transactions, Figure 6B shows that number of export transaction is greater than that of imports. This is suggestive of firms serving greater number of markets with greater number of products. This pattern is associated with smaller scale of the export transactions compared to that of imports. This is another manifestation of a more concentrated import side of the foreign trade. We also observe that the average value of both types of transaction declined gradually over the period.

Finding 3 : Firms producing more products and reaching more export destinations have become more prevalent and more important.

Combining product and destination scope of firm activities, Tables 3A and 3B show that among exporters, those exporting only one product to only one market destination constitute the larger group (around a quarter of all exporting firms), albeit the share is declining over time. On the other hand, firms shipping more than one product and serving more than one market have become more prevalent in terms of value. As shown in finding 2, the median firm is multi-product and multi-destination. In terms of contribution to total export shipments, multi-product and multi-destination firms are overwhelmingly dominant constituting more than 80% of the shipments, and with growing importance.

Finding 4 : The uneven distribution of sales within firms indicates that firms rely on core and peripheral products for exports.

Another interesting finding is degree of concentration of firms' exporting activities. Table 4 highlights within firm distribution of export sales at the product-level. It clearly demonstrates a highly uneven distribution of exports within multi-product firms. This pattern is consistent with models of international trade where there is a product ladder within firms. Thus, there exists strong evidence on the existence of core and peripheral products in the export portfolio of firms.

Finding 5 : The average number of products exported exceeds the average number of products produced indicating the existence of carry-along trade.

In Table 5, we compare the number of products firms produce and the reported number of exported products. First, we observe that the average number of products that firms produce, export and import has increased overtime. The change is much greater in the case of exporting and importing activities. Second, although the median firm produced the same number of products during the time period except 2009-2010, the number of products exported and imported by the median exporter and importer increased significantly. Third, the mean and median number of products exported exceeds that of produced implying that firms export products they do not actually produce. Bernard et al. (2012) called this aspect of firm exporting activities carry-along trade. Also, the number of imported products is, on average, well above that of the exported ones, substantiating the evidence of carry-along trade. Lastly, we can see that during the trade collapse of 2008-2009, firms

mostly reduced the number of products they imported while the number of goods exported and produced domestically remained relatively stable.

Finding 6 : Economy-wide entry and exit of firms or products plays a small role as a margin of trade adjustment.

The overall pattern of trade in Denmark is that both exports and imports have increased a lot during the last decade. During the recent crisis, both exports and imports contracted by about 16% and 23% between 2008 and 2009. The aggregate growth can be decomposed into intensive and extensive margins to identify the driving mechanisms behind such performance. Defining the intensive margin as the change in the export volume of existing firms/products/product-destination combinations and extensive margins as entry and exit of firms/products and product-destination combinations into and out of the export sector during the time period, the change in exports can be disaggregated as follows:

$$\Delta E_t = \sum_{i \in C_t} (E_{i,t} - E_{i,t-1}) + \sum_{i \in N_t} E_{i,t} - \sum_{i \in X_t} E_{i,t-1} \quad (1)$$

where E_{it} refers to i 's firm, product or product-destination export at time t , entering/added (N), exiting/dropped (X) or continuing (C). A similar approach is used to decompose the growth rate of imports.

Tables 6A and 6B show the dominant role of the intensive margin for both exporting and importing activities. Interestingly, economy-wide product churning helped to mitigate import contraction during the period of economic crisis. These features indicate that even though there are entering and exiting firms and products, the main drivers of trade are mainly incumbent firms, products and product-destination relationships. This is consistent with findings 3 and 4 that demonstrate the pivotal role of few multi-product firms exporting mainly core products, to several export destinations.

Finding 7 : Firm-level product or product-destination switching activity plays a non-negligible role as a margin of trade adjustment.

A small role of entry and exit of firms or products at the country level is consistent with previous studies that show that new entrant into the export market are small and therefore constitute a small share of exports. What is new to a particular firm is also less likely to be new for the economy, and even if it is new, its share is mostly small. Following Gopinath and Neiman (in press), we define the margin of adjustment at the firm level, and distinguish between the decision of firms to adjust the quantity of each variety (the sub-intensive margin) or whether to terminate existing product-destinations relationships (sub-extensive margin). Table 7A shows that the sub-intensive margin is the most important adjustment mechanism and played a very important role in explaining the overall trade adjustment during the crisis. The extensive margin at the firm level plays a smaller role on average but is still relatively important for some periods, in particular during the recovery period. A similar feature is found for imports in Table 7B.

Finding 8 : The contribution of newly served export destinations and exported products is small.

Following the approach by Amador and Opromolla (2013), export growth is decomposed as follows.⁴ First, export growth is decomposed using whether firm i at time t is entering (N), exiting (X) or continuing (C) firm.

$$\Delta E_t = \sum_{i \in N_t} \Delta E_{i,t} + \sum_{i \in X_t} \Delta E_{i,t} + \sum_{i \in C_t} \Delta E_{i,t} \quad (2)$$

Further, exports by continuing exporters depend on whether destination j is newly added (AD), continued (CD) or dropped (DD). That is,

$$\sum_{i \in C_t} \Delta E_{i,t} = \sum_{i \in C_t} \left[\sum_{j \in AD_t} \Delta E_{j,i,t} + \sum_{j \in DD_t} \Delta E_{j,i,t} + \sum_{j \in CD_t} \Delta E_{j,i,t} \right] \quad (3)$$

Lastly, export changes to newly added and continued destinations further depends on whether the exported product k is new product (NP) or old (OP), and newly added (AP), dropped (DP) or continued (CP) respectively.

$$\sum_{j \in CD_t} \Delta E_{j,i,t} = \sum_{j \in CD_t} \left[\sum_{k \in AP_t} \Delta E_{k,j,i,t} + \sum_{k \in DP_t} \Delta E_{k,j,i,t} + \sum_{k \in CP_t} \Delta E_{k,j,i,t} \right] \quad (4)$$

$$\sum_{j \in AD_t} \Delta E_{j,i,t} = \sum_{j \in AD_t} \left[\sum_{k \in OP_t} \Delta E_{k,j,i,t} + \sum_{k \in NP_t} \Delta E_{k,j,i,t} \right] \quad (5)$$

It is shown in Table 8A that continuing firms, and hence the intensive margin, are more important than firms entering (net of exiting firms) in the export sector. For these continuing firms, continued destinations are more important than newly served (net of dropped) export markets. For continued destinations, most of the change in exports comes from the change in the export value of previously exported products, in line with the findings in Table 7A. Applying the same approach to imports gave rise to a similar pattern, except that adding and dropping imported products from continued sources helped them mitigate the negative effects of the current economic crisis.

5 Conclusion

With the objective of investigating the microeconomic foundations of trade, this paper uses a highly rich dataset from Denmark to document a few stylized facts regarding the nature of firm participation in international trade. These findings corroborate previous results from the empirical literature in international trade, but also contribute to our understanding of how firms adjust their behavior during a period of economic crisis. We find

⁴The only difference is that Amador and Opromolla (2013) use midpoint growth rate.

that there are cross-industry variations in the extent of export participation of firms, and that the scales of export value per firm, product and destination have increased overtime. Additionally, firms producing more products and reaching more export destinations have become more prevalent, and the uneven within firm distribution of sales provides evidence of the existence of core and peripheral products in the export bundle of firms. We also show that firms export products that they do not actually produce indicating the existence of carry-along trade. As another indication of the pivotal role of few firms and uneven distribution of sales within firms, the decomposition of export and import growth rates showed that economy-wide entry and exit of firms or products play a small role as a margin of trade adjustment, and so do new market destinations and traded products. However, firm-level product or product-destinations switching activities played a non-negligible role as margins of trade adjustment. In fact, it helped firms mitigate the negative effects of the current economic shock.

References

- Alvarez, R., & López, R. A. (2005). Exporting and performance: Evidence from Chilean plants. *Canadian Journal of Economics*, 38(4), 1384–1400.
- Amador, J., & Opromolla, L. D. (2013). Product and destination mix in export markets. *Review of World Economics*, 149(1), 23–53.
- Amiti, M., & Davis, D. R. (2012). Trade, firms, and wages: Theory and evidence. *Review of Economic Studies*, 79(1), 1–36.
- Andersson, M., Lööf, H., & Johansson, S. (2008). Productivity and international trade: Firm level evidence from a small open economy. *Review of World Economics*, 144(4), 774–801.
- Arkolakis, C., & Muendler, M. A. (2010). The extensive margin of exporting products: A firm-level analysis. *NBER Working Paper #16641*.
- Behrens, K., Corcos, G., & Mion, G. (2013). Trade crisis? What trade crisis? *Review of Economics and Statistics*, 95(2), 702–709.
- Bernard, A. B., Blanchard, E. J., Van Beveren, I., & Vandenbussche, H. Y. (2012). Carry-along trade. *NBER Working Paper #18246*.
- Bernard, A. B., Eaton, J., Jensen, J. B., & Kortum, S. (2003). Plants and productivity in international trade. *American Economic Review*, 93(4), 1268–1290.
- Bernard, A. B., & Jensen, J. B. (1995). Exporters, jobs, and wages in US manufacturing: 1976–1987. *Brookings Papers on Economic Activity. Microeconomics*, 1995, 67–119.
- Bernard, A. B., Jensen, J. B., Redding, S. J., & Schott, P. K. (2007). Firms in international trade. *Journal of Economic Perspectives*, 21(3), 105–130.
- Bernard, A. B., Jensen, J. B., Redding, S. J., & Schott, P. K. (2009). The margins of US trade. *American Economic Review*, 99(2), 487–493.
- Bernard, A. B., Redding, S. J., & Schott, P. K. (2010). Multiple-product firms and product switching. *American Economic Review*, 100(1), 70–97.
- Bernard, A. B., Redding, S. J., & Schott, P. K. (2011). Multiproduct firms and trade liberalization. *Quarterly Journal of Economics*, 126(3), 1271–1318.
- Blanes-Cristóbal, J. V., DAVIS, M., Milgram-Baleix, J., & Moro-Egido, A. I. (2008). Do sunk exporting costs differ among markets? Evidence from Spanish manufacturing firms. *Economics Letters*, 101(2), 110–112.
- Bricongne, J. C., Fontagné, L., Gaulier, G., Taglioni, D., & Vicard, V. (2012). Firms and the global crisis: French exports in the turmoil. *Journal of International Economics*, 87(1), 134–146.
- Castellani, D., Serti, F., & Tomasi, C. (2010). Firms in international trade: Importers' and exporters' heterogeneity in Italian manufacturing industry. *World Economy*, 33(3), 424–457.
- De Loecker, J. (2007). Do exports generate higher productivity? Evidence from Slovenia. *Journal of International Economics*, 73(1), 69–98.
- Eckel, C., & Neary, J. P. (2010). Multi-product firms and flexible manufacturing in the

- global economy. *Review of Economic Studies*, 77(1), 188–217.
- Eriksson, T., Smeets, V., & Warzynski, F. (2009). Small open economy firms in international trade: Evidence from Danish transactions-level data. *Nationaløkonomisk tidsskrift*, 147(2), 175.
- Gopinath, G., & Neiman, B. (in press). Trade adjustment and productivity in large crises. *American Economic Review*.
- Isgut, A. (2001). What’s different about exporters? Evidence from Colombian manufacturing. *Journal of Development Studies*, 37(5), 57–82.
- Kasahara, H., & Lapham, B. (2013). Productivity and the decision to import and export: Theory and evidence. *Journal of International Economics*, 89(2), 297–316.
- Lawless, M. (2009). Firm export dynamics and the geography of trade. *Journal of International Economics*, 77(2), 245–254.
- Máñez-Castillejo, J. A., Rochina-Barrachina, M. E., & Sanchis-Llopis, J. A. (2010). Does firm size affect self-selection and learning-by-exporting? *World Economy*, 33(3), 315–346.
- Mayer, T., Melitz, M. J., & Ottaviano, G. I. (in press). Market size, competition, and the product mix of exporters. *American Economic Review*.
- Mayer, T., & Ottaviano, G. I. (2008). The happy few: The internationalisation of European firms. *Intereconomics*, 43(3), 135–148.
- Melitz, M. J. (2003). The impact of trade on intra-industry reallocations and aggregate industry productivity. *Econometrica*, 71(6), 1695–1725.
- Muûls, M., & Pisu, M. (2009). Imports and exports at the level of the firm: Evidence from Belgium. *World Economy*, 32(5), 692–734.
- Pisu, M. (2008). Export destinations and learning-by-exporting: Evidence from Belgium. *National Bank of Belgium Working Paper #140*.
- Powell, D., & Wagner, J. (2010). The exporter productivity premium along the productivity distribution: First evidence from a quantile regression approach for fixed effects panel data models. *IZA Discussion Paper #5112*.
- Ruane, F., & Sutherland, J. (2005). Export performance and destination characteristics of Irish manufacturing industry. *Review of World Economics*, 141(3), 442–459.
- Verardi, V., & Wagner, J. (2012). Productivity premia for German manufacturing firms exporting to the Euro-area and beyond: First evidence from robust fixed effects estimations. *World Economy*, 35(6), 694–712.
- Wagner, J. (2007). Exports and productivity: a survey of the evidence from firm-level data. *World Economy*, 30(1), 60–82.
- WTO. (2012). *A practical guide to trade policy analysis*. UNCTAD/WTO.

Table 1: Export participation of firms by industry in manufacturing sector with at least 10 employees

Industry	2000		2007		2008		2009		2010	
	# Firms	% Exporters	# Firms	% Exporters	# Firms	% Exporters	# Firms	% Exporters	# Firms	% Exporters
Food	311	73.3%	292	79.5%	301	77.1%	296	77.7%	311	81.0%
Beverages	21	81.0%	21	61.9%	19	73.7%	17	64.7%	19	68.4%
Textiles	108	86.1%	77	90.9%	84	81.0%	84	84.5%	76	82.9%
Wearing apparel	124	94.4%	50	90.0%	52	94.2%	46	91.3%	40	95.0%
Wood products	220	54.6%	163	61.4%	174	60.9%	167	53.3%	152	55.9%
paper products	108	82.4%	73	87.7%	80	85.0%	77	90.9%	70	87.1%
Printing and publishing	347	40.6%	234	56.0%	246	56.1%	191	57.1%	173	57.2%
Chemicals	115	90.4%	97	94.9%	103	93.2%	95	93.7%	94	93.6%
Pharmaceuticals	25	92.0%	23	95.7%	23	87.0%	24	83.3%	22	86.4%
Rubber and plastic	272	80.2%	230	88.3%	245	87.4%	241	88.4%	223	91.9%
Non-metallic	178	54.5%	156	59.6%	163	54.0%	162	53.7%	147	55.1%
Basic metals	86	84.9%	53	81.1%	55	78.2%	54	77.8%	46	84.8%
Fabricated metals	777	49.3%	729	55.3%	796	51.6%	820	49.3%	786	52.4%
Electronics	217	88.5%	170	87.1%	171	87.7%	181	89.0%	164	90.9%
Electrical equipment	162	77.2%	140	82.9%	144	79.9%	148	81.1%	147	87.8%
Machinery and equipment	691	80.3%	585	85.5%	600	87.8%	604	84.9%	586	86.4%
Motor Vehicles	94	74.5%	72	73.6%	78	74.4%	75	77.3%	68	80.9%
Other transport equipment	51	84.3%	34	82.4%	39	82.1%	36	80.6%	35	82.9%
Furniture	372	74.5%	228	75.0%	227	73.6%	211	74.4%	189	77.3%
Other manufacturing	130	80.0%	95	67.4%	110	66.4%	111	66.7%	103	71.8%
Total manufacturing	4,409	69.6%	3,522	73.6%	3,710	71.9%	3,640	71.1%	3,424	73.6%

Table 2A: Summary on exporting firms, exported products and export destinations

	2000	2007	2008	2009	2010
# Exporting Firms	14,516	14,782	14,459	13,971	14,240
# Destinations: Economy-wide	219	227	229	228	230
# Destinations: Per firm, median	2	2	2	2	2
# Destinations: Per firm, maximum	130	145	135	144	152
# Exported products: Economy-wide	4,510	4,665	4,638	4,601	4,568
# Exported products: Per firm, median	3	4	4	4	3
# Exported products: Per firm, maximum	478	1,513	1,447	1,291	1,449
# Exported product-destinations: Economy-wide	80,892	108,829	108,583	106,410	110,826
# Exported product-destinations: Per firm, median	4	5	5	4	5
# Exported product-destinations: Per firm, maximum	2,257	8,179	8,274	7,813	9,383

Table 2B: Summary on export value in DKK (log scale)

	2000	2007	2008	2009	2010
Export value per firm					
Mean	16.9	17.1	17.1	17.0	17.0
Median	13.0	12.9	12.9	12.8	12.9
Maximum	23.3	23.4	23.4	23.2	23.4
Export value per product					
Mean	18.1	18.2	18.2	18.1	18.1
Median	15.0	15.2	15.2	15.0	15.1
Maximum	23.7	23.8	23.9	23.5	23.6
Export value per destination					
Mean	21.1	21.2	21.2	21.1	21.1
Median	17.4	17.4	17.2	17.2	17.3
Maximum	24.7	24.8	24.8	24.7	24.7

Table 3A: Product and destination scope of exporting firms, 2000

# Products	Share of exporting firms							Value share of exporting firms						
	# Destinations							# Destinations						
	1	2	3	4	5	5+	All	1	2	3	4	5	5+	All
1	25.5	2.9	1.1	0.5	0.3	0.9	31.2	0.7	0.2	0.2	1.3	0.0	2.4	5.0
2	5.7	6.0	1.6	0.6	0.4	1.4	15.6	0.3	1.0	0.2	0.1	0.1	3.7	5.3
3	2.5	2.9	2.1	0.8	0.5	1.6	10.5	0.1	0.2	0.3	0.2	0.1	1.4	2.3
4	1.2	1.6	1.4	0.9	0.4	1.6	7.1	0.1	0.1	0.1	0.2	0.1	1.6	2.2
5	0.6	0.9	0.8	0.6	0.5	1.7	5.0	0.0	0.1	0.3	0.1	0.2	2.0	2.7
5+	1.6	2.2	2.5	2.3	2.0	19.9	30.6	0.2	0.3	0.6	1.2	0.6	79.6	82.6
All	36.9	16.4	9.5	5.7	4.2	27.2	100	1.5	1.9	1.7	3.1	1.1	90.7	100

Table 3B: Product and destination scope of exporting firms, 2010

# Products	Share of exporting firms							Value share of exporting firms						
	# Destinations							# Destinations						
	1	2	3	4	5	5+	All	1	2	3	4	5	5+	All
1	23.3	2.0	0.5	0.3	0.2	0.5	26.7	1.2	0.4	0.1	0.1	0.4	2.2	4.6
2	6.3	5.3	1.2	0.4	0.2	0.8	14.2	0.1	0.3	0.3	0.1	0.0	1.0	1.9
3	2.9	3.1	1.6	0.5	0.3	1.0	9.5	0.2	0.2	0.2	0.1	0.1	1.1	1.8
4	1.5	1.9	1.4	0.8	0.4	1.1	7.0	0.0	0.1	0.1	0.1	0.2	1.0	1.6
5	0.9	1.2	1.0	0.7	0.4	1.3	5.4	0.0	0.1	0.1	0.1	0.1	1.2	1.5
5+	2.2	3.4	3.6	3.2	2.3	22.5	37.2	0.4	0.4	0.7	1.5	1.2	84.6	88.6
All	37.0	16.9	9.4	5.9	3.7	27.2	100	2.0	1.4	1.5	2.1	1.9	91.0	100

Table 4: Concentration of exports for selected years

Scope	2000			2008			2009			2010		
	Top 1	Top 2	Top 3	Top 1	Top 2	Top 3	Top 1	Top 2	Top 3	Top 1	Top 2	Top 3
1	100	–	–	100	–	–	100	–	–	100	–	–
2	78.5	100	–	77.8	100	–	78.7	100	–	78.4	100	–
3	71.0	91.5	100	70.2	91.3	100	69.7	91.4	100	70.6	91.6	100
4	67.1	86.7	95.6	64.8	85.5	95.4	65.3	86.0	95.6	66.1	86.3	95.8
5	65.8	84.3	93.0	62.8	82.7	92.2	63.5	83.2	92.6	63.0	83.3	92.8
5+	46.9	63.3	72.1	41.9	57.3	65.8	41.9	57.2	65.6	42.1	57.4	66.0
Mean	53.2	68.1	75.3	46.2	60.9	68.3	46.4	60.8	68.3	46.5	61.0	68.5

Table 5: Number of products produced and traded by firms in manufacturing sector

Year	Production			Export			Import		
	Mean	Median	Max.	Mean	Median	Max.	Mean	Median	Max.
2000	2.9	2	180	10.7	5	218	17.3	8	431
2001	2.9	2	170	11.1	6	220	17.9	9	379
2002	3.0	2	161	13.3	6	333	20.7	10	396
2003	3.0	2	172	13.9	7	307	20.8	10	374
2004	3.0	2	139	13.4	7	308	21.3	11	398
2005	3.0	2	127	13.1	6	330	21.5	11	432
2006	3.1	2	124	15.0	8	503	22.8	12	438
2007	2.9	2	122	15.6	8	533	23.8	12	478
2008	2.9	2	109	14.9	8	522	23.2	12	491
2009	2.9	1	104	15.2	7	635	21.5	10	455
2010	2.9	1	108	14.9	7	667	23.3	11	485

Table 6A: Economy-wide decomposition of export growth, base year=1995

Year	Growth	Firm		Product		Product-destination	
		Intensive	Extensive	Intensive	Extensive	Intensive	Extensive
2000 – 2001	0.78	2.80	-2.02	0.30	0.49	0.81	-0.02
2001 – 2002	4.12	3.24	0.88	4.12	0.00	2.76	1.36
2002 – 2003	-3.56	-3.82	0.26	-3.64	0.08	-3.84	0.28
2003 – 2004	3.27	3.55	-0.28	3.75	-0.48	3.40	-0.14
2004 – 2005	5.76	7.43	-1.67	5.17	0.59	5.07	0.69
2005 – 2006	7.65	7.51	0.14	7.62	0.03	6.60	1.05
2006 – 2007	-0.84	0.45	-1.29	0.40	-1.24	-0.05	-0.79
2007 – 2008	0.80	2.01	-1.22	0.77	0.02	0.4	0.40
2008 – 2009	-15.98	-15.31	-0.67	-15.80	-0.19	-15.38	-0.60
2009 – 2010	7.19	6.87	0.32	7.15	0.04	8.40	-1.22

Table 6B: Economy-wide decomposition of import growth, base year=1995

Year	Growth	Firm		Product		Product-destination	
		Intensive	Extensive	Intensive	Extensive	Intensive	Extensive
2000 – 2001	-0.19	0.28	-0.46	-0.22	0.03	-0.42	0.23
2001 – 2002	1.74	2.33	-0.59	2.24	-0.49	0.66	1.08
2002 – 2003	-6.75	-7.12	0.38	-6.74	-0.01	-5.46	-1.29
2003 – 2004	6.10	5.79	0.31	6.52	-0.43	6.10	0.00
2004 – 2005	9.76	8.93	0.84	9.79	-0.03	8.95	0.82
2005 – 2006	11.02	11.69	-0.68	11.12	-0.1	10.81	0.21
2006 – 2007	1.92	2.99	-1.07	3.22	-1.3	2.72	-0.80
2007 – 2008	-1.69	-0.42	-1.26	-1.85	0.17	-2.42	0.74
2008 – 2009	-23.01	-21.20	-1.80	-23.27	0.27	-22.44	-0.56
2009 – 2010	7.50	7.21	0.29	7.15	-0.20	8.19	-0.68

Table 7A: Firm-level decomposition of export growth, base year=1995

Year	Growth	Firm-product			Firm-product-destination		
		Sub-intensive	Sub-extensive	Extensive	Sub-intensive	Sub-extensive	Extensive
2000 – 2001	0.78	2.54	0.26	-2.02	1.50	1.30	-2.02
2001 – 2002	4.12	1.99	1.25	0.88	1.30	1.94	0.88
2002 – 2003	-3.56	-4.31	0.50	0.26	-4.76	0.94	0.26
2003 – 2004	3.27	3.53	0.02	-0.28	2.22	1.33	-0.28
2004 – 2005	5.76	6.92	0.51	-1.67	6.83	0.60	-1.67
2005 – 2006	7.65	6.47	1.04	0.14	5.37	2.14	0.14
2006 – 2007	-0.84	0.75	-0.30	-1.29	0.93	-0.48	-1.29
2007 – 2008	0.80	3.08	-1.07	-1.22	0.80	1.22	-1.22
2008 – 2009	-15.98	-15.91	0.60	-0.67	-13.88	-1.43	-0.67
2009 – 2010	7.19	4.60	2.27	0.32	3.67	3.20	0.32

Table 7B: Firm-level decomposition of import growth, base year=1995

Year	Growth	Firm-product			Firm-product-destination		
		Sub-intensive	Sub-extensive	Extensive	Sub-intensive	Sub-extensive	Extensive
2000 – 2001	-0.19	-0.13	0.41	-0.46	-0.68	0.96	-0.46
2001 – 2002	1.74	1.68	0.65	-0.59	0.14	2.19	-0.59
2002 – 2003	-6.75	-6.12	-1.00	0.38	-6.95	-0.17	0.38
2003 – 2004	6.10	5.25	0.54	0.31	4.09	1.70	0.31
2004 – 2005	9.76	9.85	-0.92	0.84	7.52	1.41	0.84
2005 – 2006	11.02	8.82	2.87	-0.68	8.77	2.92	-0.68
2006 – 2007	1.92	3.58	-0.59	-1.07	3.84	-0.84	-1.07
2007 – 2008	-1.69	-1.59	-1.17	-1.26	-2.95	2.53	-1.26
2008 – 2009	-23.01	-20.77	-0.43	-1.80	-19.39	-1.81	-1.80
2009 – 2010	7.50	6.21	1.00	0.29	5.72	1.49	0.29

Table 8A: Decomposition of export growth: destination and product margins, base year=1995

Year	Growth	Firms			Continuing firms			Products		
		Entering	Continuing	Exting	Added dest.	Continued dest.	Dropped dest.	Added prod.	Continued prod.	Dropped prod.
2000 – 2001	0.78	2.25	2.80	4.27	0.38	2.76	0.34	0.22	2.60	0.06
2001 – 2002	4.12	4.01	3.24	3.13	0.00	3.24	0.00	4.49	3.36	4.62
2002 – 2003	-3.56	3.85	-3.82	3.60	0.00	-3.82	0.00	0.08	-3.83	0.07
2003 – 2004	3.27	2.40	3.55	2.68	0.01	3.56	0.07	0.02	3.59	0.06
2004 – 2005	5.76	2.43	7.43	4.10	0.00	7.41	0.00	0.80	6.66	0.06
2005 – 2006	7.65	2.03	7.51	1.88	0.00	7.53	0.02	0.05	7.49	0.01
2006 – 2007	-0.84	1.05	0.45	2.34	0.00	0.45	0.00	4.77	1.51	5.83
2007 – 2008	0.80	1.01	2.01	2.23	0.00	2.01	0.00	0.13	1.49	0.05
2008 – 2009	-15.98	1.07	-15.31	1.75	0.00	-15.31	0.00	0.01	-15.13	0.19
2009 – 2010	7.19	1.74	6.87	1.42	0.00	6.87	0.00	5.46	6.85	5.45

Table 8B: Decomposition of import growth: destination and product margins, base year=1995

Year	Growth	Firms			Continuing firms			Products		
		Entering	Continuing	Exting	Added dest.	Continued dest.	Dropped dest.	Added prod.	Continued prod.	Dropped prod.
2000 – 2001	-0.19	3.29	0.28	3.76	0.06	0.27	0.05	0.05	0.28	0.07
2001 – 2002	1.74	3.38	2.33	3.96	0.00	2.33	0.00	5.97	2.72	6.36
2002 – 2003	-6.75	2.95	-7.12	2.57	0.00	-7.12	0.00	0.03	-7.13	0.03
2003 – 2004	6.10	3.26	5.79	2.95	0.01	5.87	0.09	0.05	6.05	0.23
2004 – 2005	9.76	4.96	8.93	4.13	0.16	8.77	0.00	0.01	8.82	0.05
2005 – 2006	11.02	2.39	11.69	3.06	0.00	11.83	0.14	0.02	12.39	0.58
2006 – 2007	1.92	2.35	2.99	3.42	0.00	2.99	0.00	8.42	3.92	9.34
2007 – 2008	-1.69	1.38	-0.42	2.64	0.68	-1.11	0.00	0.22	-1.28	0.05
2008 – 2009	-23.01	1.28	-21.20	3.08	0.00	-21.20	0.00	0.28	-21.47	0.01
2009 – 2010	7.50	2.46	7.21	2.17	0.00	7.21	0.00	0.48	7.66	0.93

Figure 1: Exports and imports of goods and services as share of GDP

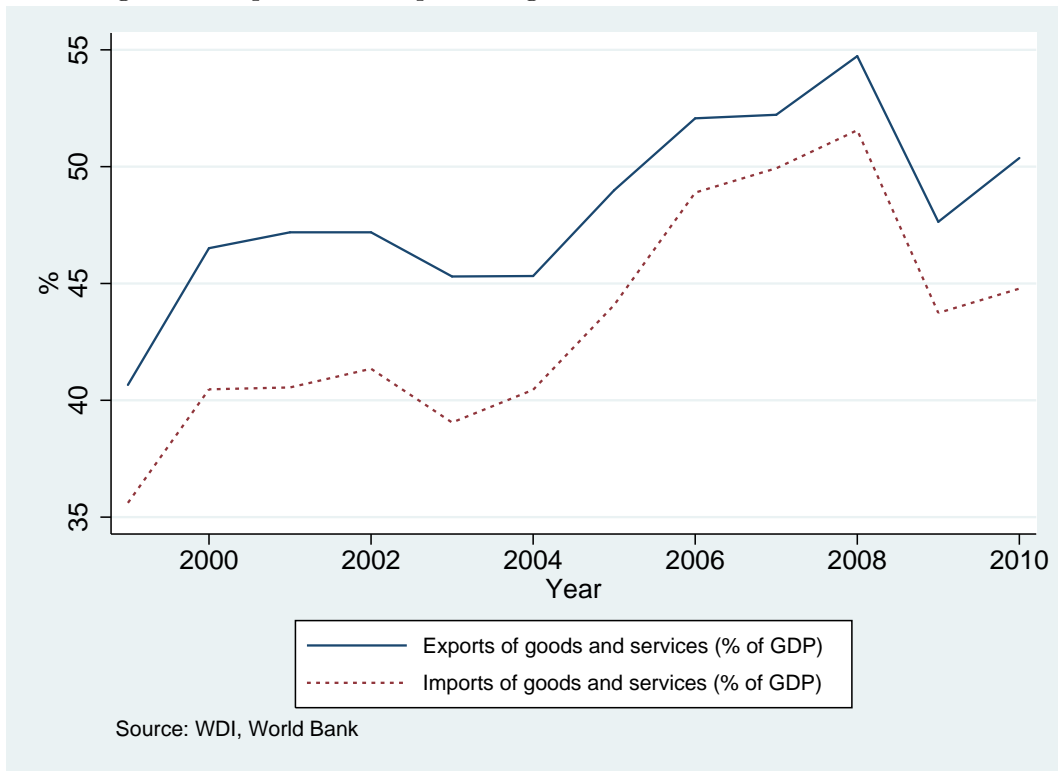


Figure 2: Exports and imports during trade collapse of 2008-2009 (Million DKK)

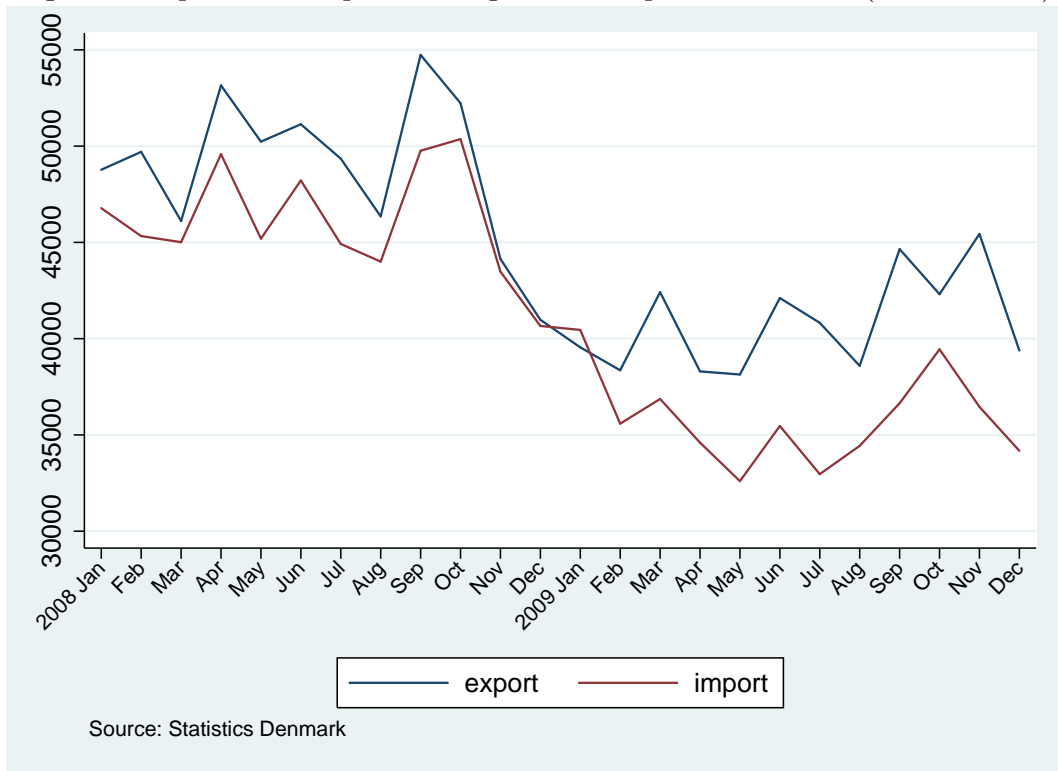


Figure 3: Industry-wise composition of exports and imports in the manufacturing sector

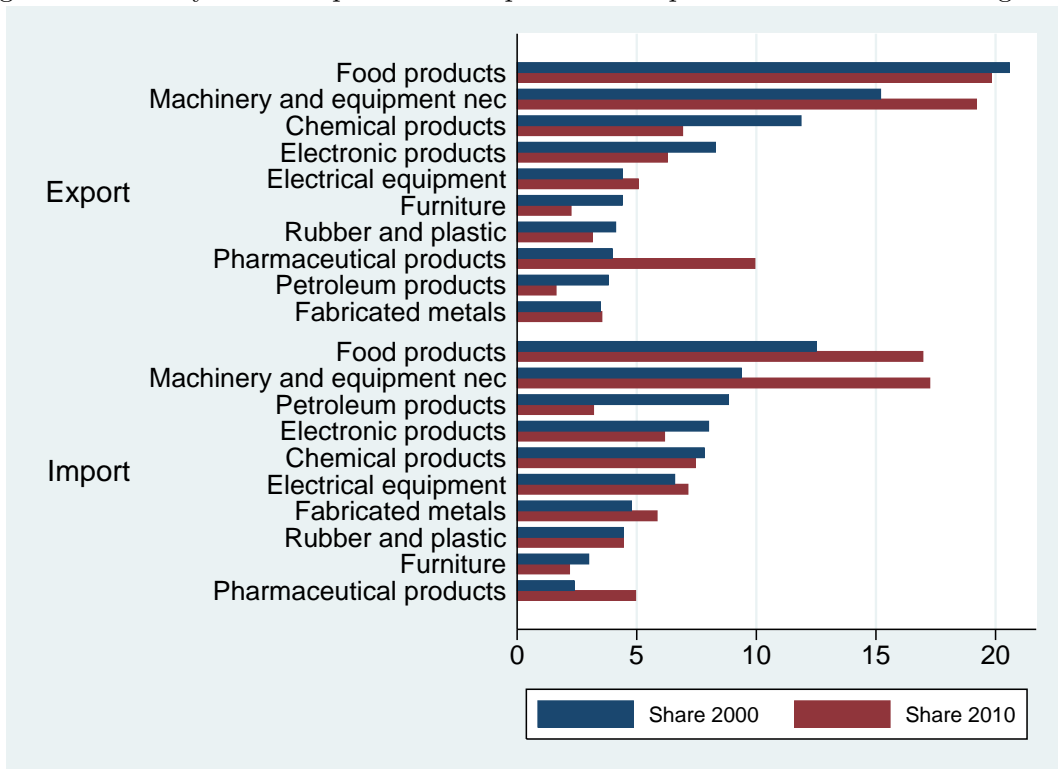


Figure 4A: Broad economic categories of exported products

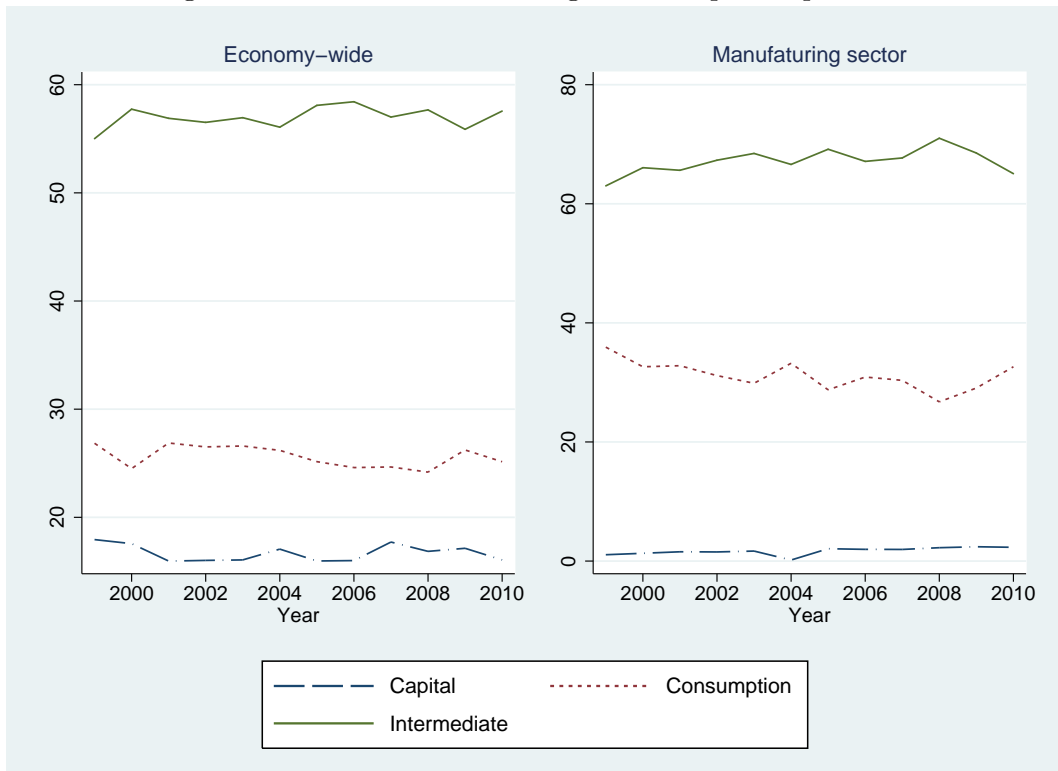


Figure 4B: Broad economic categories of imported products

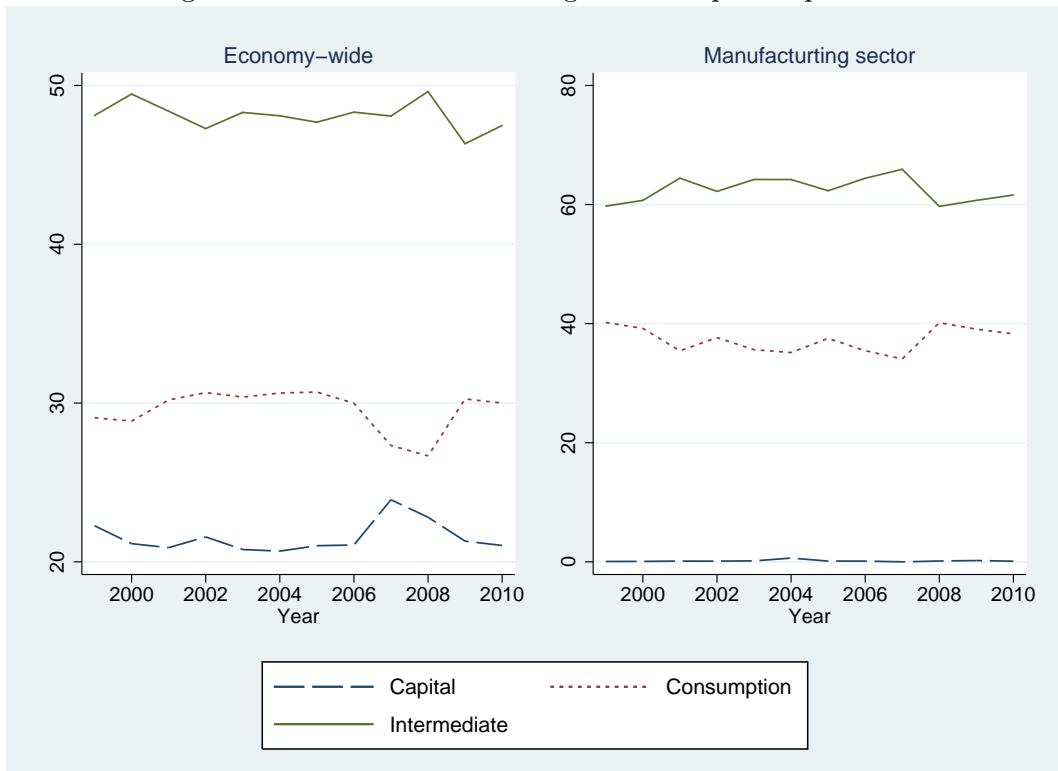


Figure 5: Trade shares of main trade partners

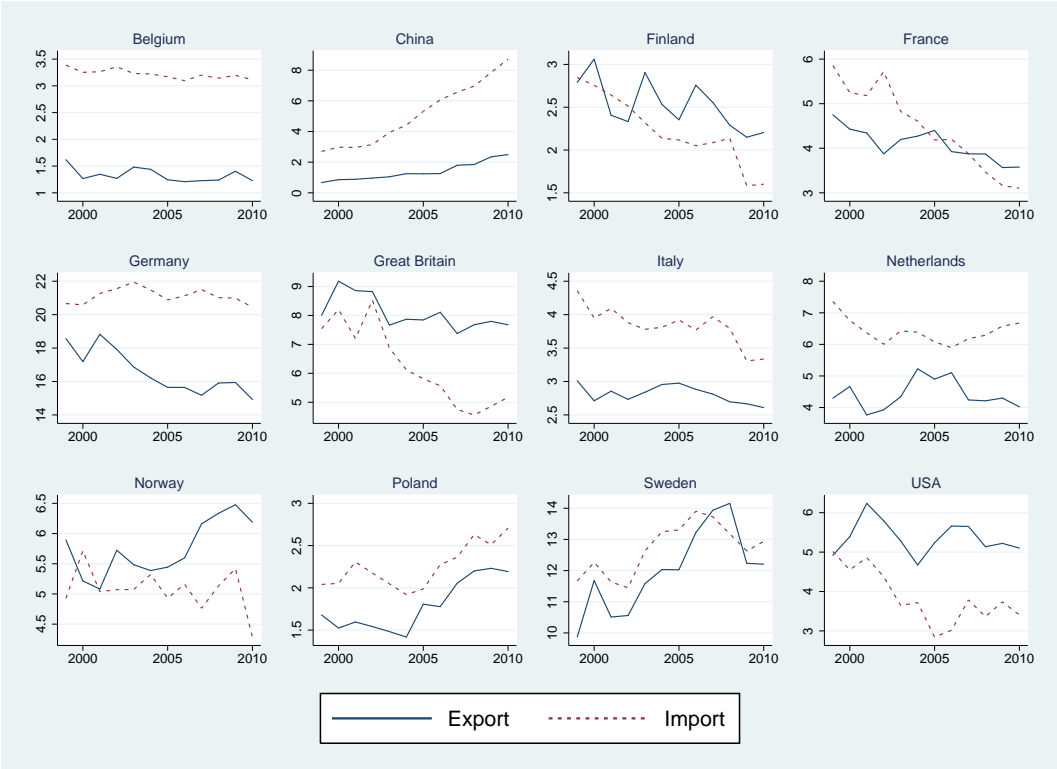


Figure 6A: Evolutions of exporting and importing firms

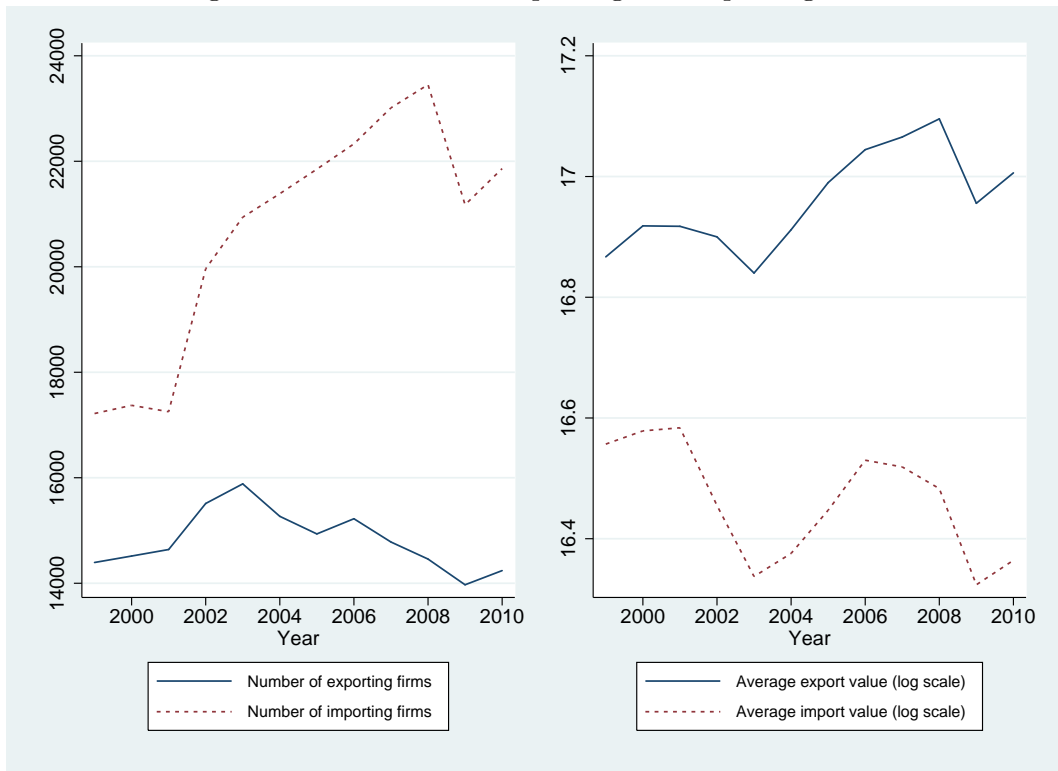


Figure 6B: Number and average value of export and import transactions

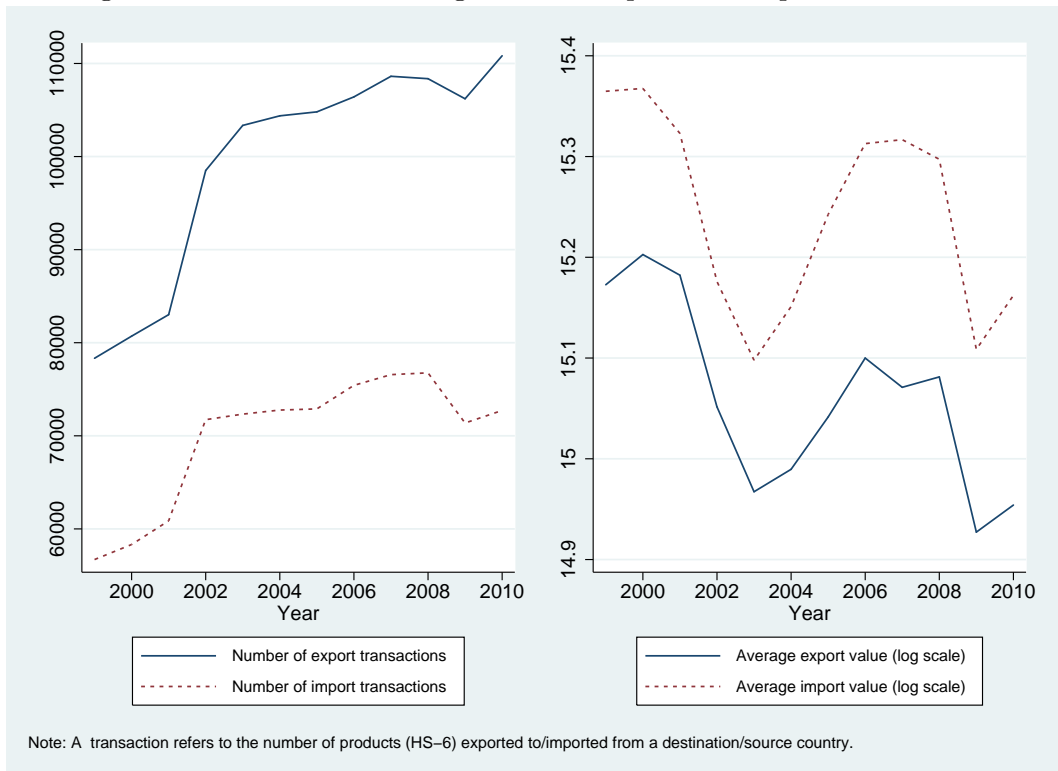


Table A.1: Economy-wide evolution of active firms in production

Year	Producers	Entering		Exiting		Net entry	
	# firms	# firms	% Sh. firms	# firms	% Sh. firms	# firms	% Sh. firms
2000	164,103	–	–	–	–	–	–
2001	162,842	24,100	14.8%	25,361	15.6%	-1,261	0.8%
2002	161,452	23,130	14.3%	24,520	15.2%	-1,390	0.9%
2003	159,414	23,501	14.7%	25,539	16.0%	-2,038	1.3%
2004	162,881	25,879	15.9%	22,412	13.8%	3,467	2.1%
2005	167,803	27,028	16.1%	22,106	13.2%	4,922	2.9%
2006	170,487	26,947	15.8%	24,263	14.2%	2,684	1.6%
2007	173,460	27,497	15.9%	24,524	14.1%	2,973	1.7%
2008	175,359	29,366	16.8%	27,467	15.7%	1,899	1.1%
2009	165,365	22,063	13.3%	32,057	19.4%	-9,994	6.0%
2010	164,919	23,526	14.3%	23,972	15.0%	-446	0.3%

Table A.2: Economy-wide evolution of exporting firms

Year	Exporters	Entering		Exiting		Net entry	
	# firms	# firms	% Sh. firms	# firms	% Sh. firms	# firms	% Sh. firms
2000	14,516	–	–	–	–	–	–
2001	14,640	3,013	20.6%	2,889	19.7%	124	0.9%
2002	15,512	3,511	22.6%	2,639	17.0%	872	5.6%
2003	15,884	3,318	20.9%	2,946	18.6%	372	2.3%
2004	15,269	2,766	18.1%	3,381	22.1%	-615	4.0%
2005	14,935	2,835	19.0%	3,169	21.2%	-334	2.2%
2006	15,223	3,109	20.4%	2,821	18.5%	288	1.9%
2007	14,782	2,740	18.5%	3,181	21.5%	-441	3.0%
2008	14,459	2,644	18.3%	2,967	20.5%	-323	2.2%
2009	13,971	2,547	18.2%	3,035	21.7%	-488	3.5%
2010	14,240	2,831	19.9%	2,562	18.0%	269	1.9%

Table A.3: Economy-wide evolution of importing firms

Year	Importers	Entering		Exiting		Net entry	
	# firms	# firms	% Sh. firms	# firms	% Sh. firms	# firms	% Sh. firms
2000	17,373	–	–	–	–	–	–
2001	17,252	3,452	20.0%	3,573	20.7%	-121	0.7%
2002	19,962	5,489	27.5%	2,779	13.9%	2,710	13.6%
2003	20,940	5,062	24.2%	4,084	19.5%	978	4.7%
2004	21,385	4,772	22.3%	4,327	20.2%	445	2.1%
2005	21,851	5,159	23.6%	4,693	21.5%	466	2.1%
2006	22,330	4,883	21.9%	4,404	19.7%	479	2.2%
2007	23,013	5,344	23.2%	4,661	20.3%	683	3.0%
2008	23,453	5,287	22.5%	4,847	20.7%	440	1.9%
2009	21,176	4,115	19.4%	6,392	30.2%	-2,277	10.8%
2010	21,861	5,250	24.0%	4,565	20.9%	685	3.1%

Table A.4: Evolution of active firms in production in the manufacturing sector

Year	Producers	Entering		Exiting		Net entry	
	# firms	# firms	% Sh. firms	# firms	% Sh. firms	# firms	% Sh. firms
2000	4,409	–	–	–	–	–	–
2001	4,332	394	9.1%	471	10.9%	-77	1.8%
2002	4,282	340	7.9%	390	9.1%	-50	1.2%
2003	4,195	320	7.6%	407	9.7%	-87	2.1%
2004	4,026	294	7.3%	463	11.5%	-169	4.2%
2005	3,857	241	6.2%	410	10.6%	-169	4.4%
2006	3,764	250	6.6%	343	9.1%	-93	2.5%
2007	3,522	320	9.1%	562	16.0%	-242	6.9%
2008	3,710	394	10.6%	206	5.6%	188	5.1%
2009	3,640	269	7.4%	339	9.3%	-70	1.9%
2010	3,424	210	6.1%	426	12.4%	-216	6.3%

Table A.5: Evolution of exporting firms in the manufacturing sector

Year	Exporters	Entering		Exiting		Net entry	
	# firms	# firms	% Sh. firms	# firms	% Sh. firms	# firms	% Sh. firms
2000	3,069	–	–	–	–	–	–
2001	3,038	373	12.3%	404	13.3%	-31	1.0%
2002	3,116	416	13.4%	338	10.8%	78	2.5%
2003	3,066	333	10.9%	383	12.5%	-50	1.6%
2004	2,922	283	9.7%	427	14.6%	-144	4.9%
2005	2,803	257	9.2%	376	13.4%	-119	4.2%
2006	2,810	305	10.9%	298	10.6%	7	0.2%
2007	2,591	276	10.7%	495	19.1%	-219	8.5%
2008	2,669	327	12.3%	249	9.3%	78	2.9%
2009	2,589	244	9.4%	324	12.5%	-80	3.1%
2010	2,521	257	10.2%	325	12.9%	-68	2.7%

Table A.6: Evolution of importing firms in the manufacturing sector

Year	Importers	Entering		Exiting		Net entry	
	# firms	# firms	% Sh. firms	# firms	% Sh. firms	# firms	% Sh. firms
2000	2,796	–	–	–	–	–	–
2001	2,795	388	13.9%	389	13.9%	-1	1.0%
2002	2,958	478	16.2%	315	10.6%	163	2.5%
2003	2,923	356	12.2%	391	13.4%	-35	1.6%
2004	2,828	326	11.5%	421	14.9%	-95	4.9%
2005	2,708	290	10.7%	410	15.1%	-120	4.2%
2006	2,704	298	11.0%	302	11.2%	-4	0.2%
2007	2,538	329	13.0%	495	19.5%	-166	8.5%
2008	2,638	349	13.2%	249	9.4%	100	2.9%
2009	2,482	235	9.5%	391	15.8%	-156	3.1%
2010	2,376	264	11.1%	370	15.6%	-106	2.7%

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