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On domestic demand and export performance in the euro area countries: does export concentration matter?

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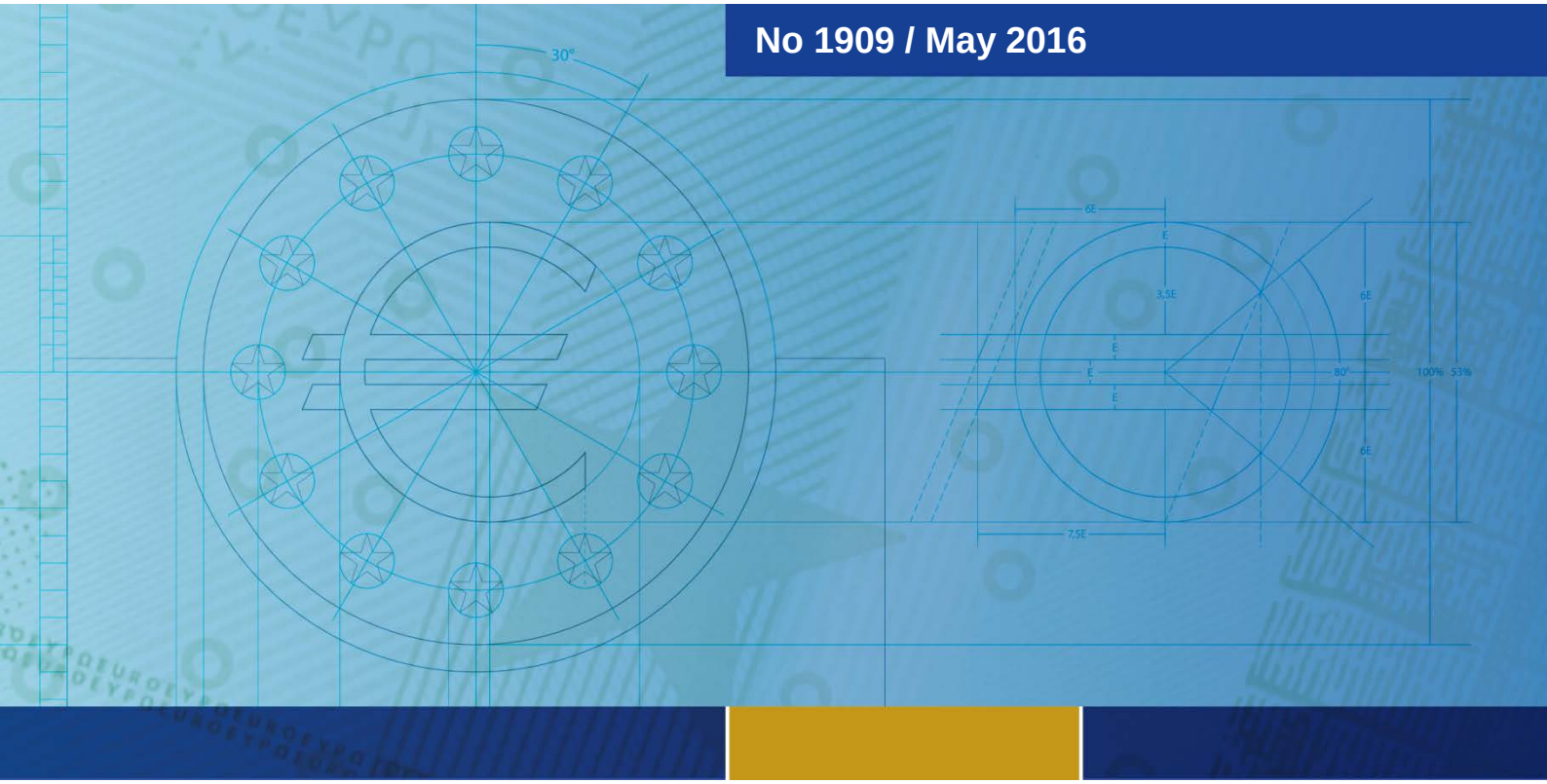


Abstract

During economic downturns, weak domestic demand developments seem to be an additional driver of exports, as firms increase their efforts to serve markets abroad to compensate the fall in domestic sales. This may constitute an additional mechanism adjustment for the euro area countries where real exchange rate variations are limited by the common currency itself and the present low inflation environment. However, this substitution effect between domestic and foreign sales could be different across euro area members. This paper uses panel data techniques to assess the role of the export structure in explaining these differences. Building a novel indicator for product concentration, the results suggest that domestic demand developments are more relevant to explain exports in countries with a lower product concentration index (that is, more diversified exports). This contributes to explain why euro area countries under stress registered different economic performance during the most recent years.

Keywords: Exports, domestic demand pressures, external adjustment.
JEL classification: C22, E03, F10

Non-technical summary

Usually export developments in the euro area are mainly driven by foreign demand and price competitiveness indicators. Recently, several empirical results claim that an additional channel could have emerged during the European crises. Domestic firms substitute sales between domestic and foreign markets, particularly when domestic demand is depressed. This increase of exports could therefore reduce the costs of an economic adjustment process, contributing also to a faster improvement of external accounts.

This may constitute an additional mechanism adjustment for the euro area where real exchange rate variations are limited by the common currency itself and the present low inflation environment. Nevertheless, this negative empirical relationship between exports and domestic demand developments varies across economies, helping to explain why the external adjustment has been substantially different in some stressed euro area countries. This paper explores the role of the export structure in terms of product concentration in explaining these differentiated reactions of exports to domestic developments.

The analysis is conducted building a novel concentration export indicator covering both goods and services and applying dynamic panel data techniques to a traditional export equation model. The sample considers a period running from 1997 to 2014 and 12 euro area economies.

In line with findings from previous literature, the paper points first to a negative relationship between export performance and domestic demand developments. Moreover, this effect seems to be larger and more significant during economic downturns. A possible explanation for this asymmetry is the presence of uncertainty and sunk costs, which would prevent firms from exiting foreign markets when domestic activity starts to recover.

The main finding of the paper is that countries where exports are more concentrated in certain products tend to be less sensitive to this substitution effect between sales to domestic and foreign markets. The underlying intuition is the following: if a country is particularly focused on exporting a certain raw material, very specific industrial goods or specific types of financial, tourism or transport services, export developments are more linked to external demand and less sensitive to fluctuations of domestic demand. The idea is that domestic demand for these products is proportionately much smaller than production and exports, such that its fluctuation is not relevant to sales abroad. A very simple example is an oil-exporting country, whose world market share does not depend on its domestic consumption of oil.

These results help explain the differences in the adjustment processes witnessed in certain stressed countries of the euro area. Greece emerges as a notable case, with its high concentration of exports in some products while also being the one euro area country whose exports did not gain market share.

1. Introduction

Recent studies point to a negative relationship between exports' market shares and domestic demand pressure in the euro area countries, which represent an additional adjustment channel given the real exchange rate rigidity implied by the low inflation environment in a common currency area [Esteves and Rua (2013, 2015), Belke et al. (2014, 2015) and Bobeica et al. (2015)]. This paper explores the role of the export structure in terms of product concentration in explaining the differentiated reaction to domestic developments.

The relationship between domestic demand and exports from a macroeconomic perspective builds on the seminal paper by Ball et al. (1966) for the case of the UK. This framework has found support in recent microeconomic theory and empirical evidence – see for example Vannoorenberghe (2012) for French firms and Altomonte, et al. (2013) for a dataset covering four European countries – France, Germany, Italy and UK. A survey of the literature rationalising the negative effect of domestic demand on exports performance is presented in Esteves and Rua (2013, 2015), which also presents an application for the Portuguese economy, emphasizing that this negative relationship is stronger and more significant when domestic demand is declining. An explanation for this asymmetry is the presence of uncertainty and sunk costs for entering in the foreign market – following the literature on investment under uncertainty [see, for example, Impullitti et al. (2012)]. In periods of economic stress, firms are more willing to pay the sunk cost for entering a new market abroad, the so-called survival-driven exports [see Belke et al. (2014)]. Belke et al. (2014, 2015) investigate the relationship between domestic conditions and exports for several individual euro area countries. Using a non-linear smooth transition regression model, they find different results across countries.[4] Bobeica et al. (2015) explore this type of relationship using a quarterly panel dataset for 11 of the 12 former euro area countries (Greece is excluded given the lack of long-time span quarterly data), extending for the euro area the results presented for the Portuguese economy in Esteves and Rua (2013, 2015), i.e. a negative and asymmetric relationship between sales for domestic and foreign markets.

The main idea of this paper is to explore why this relationship may differ across countries. In fact, despite being significant for the average of the euro area countries, some differences may emerge between the various euro area countries. This work suggests that this link between exports and domestic demand is weaker when exports are more concentrated, i.e. when the country is more specialized in exporting a restricted set of products. This could explain some important differences concerning the recent adjustment process in some countries under stress.

The remainder of the paper is organized as follows. Section 2 presents the panel data model used and the data definitions and sources. Section 3 presents an initial exercise that tries to illustrate how this relationship between exports and domestic demand could diverge across euro area countries, motivating the objective of the paper. Section 4 presents the main results of the model, while section 5 synthesizes the main conclusions.

2. The model and the data

An annual panel data model is used to explore why the substitution between sales to domestic and foreign markets might differ across countries. In line with Esteves and Rua (2013, 2015) and Bobeica et al. (2015)

[4] As a common result, four countries (France, Italy, Portugal and Spain) exhibit a substitutive relationship between domestic demand and exports during business cycle troughs, while for Greece this type of substitution is not found for any stage of the cycle.

the model assumes that exports' market shares for each country i at period t (the difference between exports ($X_{t,i}$) and external demand ($D_{t,i}$)) is explained by its own evolution in the previous year, and the present and past developments of the real exchange rate ($E_{t,i}$) and domestic demand ($DD_{t,i}$).

$$\Delta X_{t,i} - \Delta D_{t,i} = \alpha_i + \beta\left(\Delta X_{t-1,i} - \Delta D_{t-1,i}\right) + \sum_{j=0}^{1} \varphi_j \, \Delta E_{t-j,i} + \sum_{j=0}^{1} \omega_j \, \Delta DD_{t-j,i} \qquad (1)$$

The model considers all the variables measured in log first differences, allowing for a maximum of one lag and not trying to explore any long-run relationship between the variables. Using this model, the paper contribute to explain why the relationship between domestic demand and export performance (i.e. the coefficient ω) may be different across countries, allowing for the export structure to influence this coefficient.

Concerning a possible long-run relationship, it should be mentioned that it is not clear from a theoretical point of view what would be its expected sign or magnitude. Moreover, both Esteves and Rua (2013, 2015) and Bobeica et al. (2015) do not obtain a significant coefficient when including domestic demand in a long-run correction mechanism along real exchange rate for explaining the evolution of exports' market shares. In addition, the short sample availability when working with annual figures and the presence of some possible structural breaks would hinder the estimation of a long run relationship. Nevertheless, some additional tests concerning the role of this possible long-run relationship are produced. The same kind of robustness analysis is provided concerning some possible structural breaks related to the introduction of the euro currency.

All the estimation results are obtained using the usual fixed effects estimator, and keeping only the coefficients that are statistically significant. The presence of the lagged endogenous variable might suggest the use of the Arellano and Bond (1991) procedure. However, this method has been developed for panels with a short time dimension and a very large number of cross-section observations. When the number of periods is large and the cross section is small, the use of this alternative estimator may lead to a loss of efficiency, while the fixed effects estimator becomes consistent (see Nickell (1981) and Alvarez and Arellano (2003)). Nevertheless, the estimations were replicated using the Arellano and Bond procedure.

The data covers the period from 1997 up to 2014 and are obtained from Ameco - the annual macro-economic database of the European Commission. Exports are measured in volumes, including both goods and services. The foreign demand indicator is a geometric weighted average of the import volumes of the main trading partners (see Hubrich and Karlsson (2010)). Domestic demand is retrieved also from this database, referring to domestic demand including stocks. Finally, real exchange rates are based on the unit labour cost in the total economy vis-à-vis 37 industrial countries.[5]

[5] The use of alternative indicators based on CPI or GDP deflators does not seem to influence the results [Esteves and Rua (2013, 2015) and Bobeica et al. (2015)].

3. An initial illustrative exercise

In order to motivate the objective of the paper an initial exercise was done covering the former 12 euro countries. Given the annual periodicity, it is assumed that the substitution effect between domestic and foreign markets sales occurs contemporaneously. The results are the following: [6]

$$\underset{}{\Delta X_{t,i} - \Delta D_{t,i}} \quad \underset{(4.47)^{***}}{= 0.002} \quad \underset{(5.28)^{***}}{+ 0.255(\Delta X_{t-1,i} - \Delta D_{t-1,i})} \quad \underset{(6.45)^{***}}{- 0.400\Delta E_{t,i}} \quad \underset{(1.24)}{- 0.089\Delta DD_{t,i}} \tag{2}$$

Observations = 216 (12 countries during 18 periods)
Parameters = 19 (3 variables plus constant, 11 specific effects and 4 dummies)
t-ratios in parentheses: ***p<0.01, **p<0.05,*p<0.10.
R^2 =0.498

The results point to some inertia concerning the evolution of exports' market shares given the importance of its autoregressive term, and to a strong significance of the contemporary real exchange rate. In this initial exercise, the coefficient of domestic demand has the expected sign but is clearly less significant than the ones previously obtained [Bobeica et al. (2015)].

One illustrative and very simple exercise was carried-out to increase the intuition of the paper. If the coefficient and its significance depend clearly on the countries included in the sample, it could be interpreted as a signal that the coefficient could be different across the economies. After several experiments, the previous estimation was replicated excluding Ireland and Greece:

$$\underset{}{\Delta X_{t,i} - \Delta D_{t,i}} \quad \underset{(4.84)^{***}}{= 0.003} \quad \underset{(2.67)^{***}}{+ 0.194(\Delta X_{t-1,i} - \Delta D_{t-1,i})} \quad \underset{(5.13)^{***}}{- 0.306\Delta E_{t,i}} \quad \underset{(2.79)^{***}}{- 0.237\Delta DD_{t,i}} \tag{3}$$

Observations = 180 (10 countries during 18 periods)
Parameters = 14 (3 variables plus constant, 9 specific effects and 4 dummies)
t-ratios in parentheses: ***p<0.01, **p<0.05,*p<0.10.
R^2 =0.370

The results allow a stronger significance of the domestic demand coefficient. After this initial estimation, another illustrative exercise is computed. Specifically, regression 2 was replicated several times, (i) excluding one country at a time from the sample; (ii) including each country excluded from this partial

[6] The results include dummy variables for Greece, in 1997 and 1999, Ireland in 2010 and Finland 2009. Those dummies are selected considering the highest residuals in an initial estimation (out of a range defined by ± 3.0 standard deviations). Greek figures registered a huge market share gain for exports of around 10 per cent in each year, which was exclusively related with the service sector that grew more than 40 per cent both in 1997 and 1999. Irish exports' shares declined surprisingly in 2010, at a time when they were performing better given its particular specialization in chemical and other medical products that were less affected by the international crisis. Finnish market shares decreased around 10 per cent in 2009, reflecting the product specialization in high-tech products that were particularly affected by the collapse on international trade but also the strong decline of NOKIA activity. Nonetheless, the inclusion of these dummies does not change qualitatively the results, in particular the non-significance of the term associated with domestic demand.

sample, i.e. Ireland and Greece. The results for the domestic demand coefficient and its statistical significance are shown in Table 1.

Table 1 – Gains (losses) of including (excluding) each one of the countries in the baseline

		coefficient	t-value
Benchmark		-0,237	-2,79
excluding			
	Portugal	-0,150	-3,14
	Netherlands	-0,224	-2,45
	Belgium	-0,227	-2,61
	France	-0,227	-2,54
	Austria	-0,234	-2,66
	Italy	-0,249	-2,70
	Germany	-0,255	-2,94
	Luxemburg	-0,260	-2,87
	Finland	-0,267	-2,99
	Spain	-0,286	-3,03
including			
	Ireland	-0,143	-1,74
	Greece	-0,130	-1,47

It seems clear that the relevance of domestic demand pressures on exports may differ across countries. On the one hand, including just one of the two excluded countries (Greece or Ireland) will be sufficient to jeopardize the overall results, as the domestic demand coefficient continues to be negative but not significant. On the other hand, concerning the remaining countries included in the baseline, excluding each one alternately does not significantly affect the results. Nevertheless, Portugal's inclusion increases substantially the size of the coefficient associated with domestic demand (from -0.15 to -0.24). The results are not very sensitive to the exclusion of each one of the other countries. The coefficient is always significant and ranges between -0.22 and -0.28.

This seems to confirm the findings presented in Bobeica et al. (2015), as the overall result seems to be sensitive only to a few number of countries. Nevertheless, the understanding of these countries' differences could be very important for economic policy discussion, namely to understand their different behaviour during the recent adjustment programmes.[7]

4. Does export concentration matter?

This paper raises the hypothesis that these results may be driven by differences within the euro area economies concerning their export specialization. In particular, this paper tests if a high product concentration of exports will reduce this trade-off between sales to domestic and foreign markets. The assumption tested only covers the export structure by sectors, not accounting for the concentration at firm level, both within each sector (a firm could represent 100% of the sector) or across different sectors

[7] Since 2007, exports market shares increased by 20% in Portugal, 17% in Ireland and 8% in Spain, while for Greece this external performance indicator declined 3%. It should be mentioned that differences may reflect different specialization in markets with different dynamics. This effect is taken into account by the usual constant market share exercise which is not addressed in this paper. Cheptea et al. (2014) shows that this kind of effect did not affect the relative evolution of exports' market shares between these countries. The same conclusion is reached by Vondra (2014) for a sample that includes also the services sector.

(a firm could export different products). This would imply another approach, using microdata, that is out of the scope of this paper, but could be a suggestion for future work.

For instance, if a country is particularly oriented to export some raw material, a very specific industrial good or some specific types of financial, tourism or transport services, export developments are more linked to external demand, being less sensitive to fluctuations of domestic demand. The idea is that domestic demand for these products is proportionately much smaller than production and exports such that its fluctuation is not relevant to affect sales abroad. One very intuitive example concerns an oil producing country: certainly its shares of the world market will not depend on its domestic consumption of oil.[8]

It is possible to consider a very simple and illustrative example. Assuming an economy where there is a basket of n products consumed in the same quantity, $c_i = C/n$, $i=1, 2, \cdots, n$. Domestic firms produce these goods and some of them are already involved in exporting activities. Figure 1 illustrates this example.

It is assumed that only firms that are already exporters are able to reallocate sales from domestic to foreign markets instantaneously (blue bars). Two extreme conditions may occur when a negative shock occur on consumption.

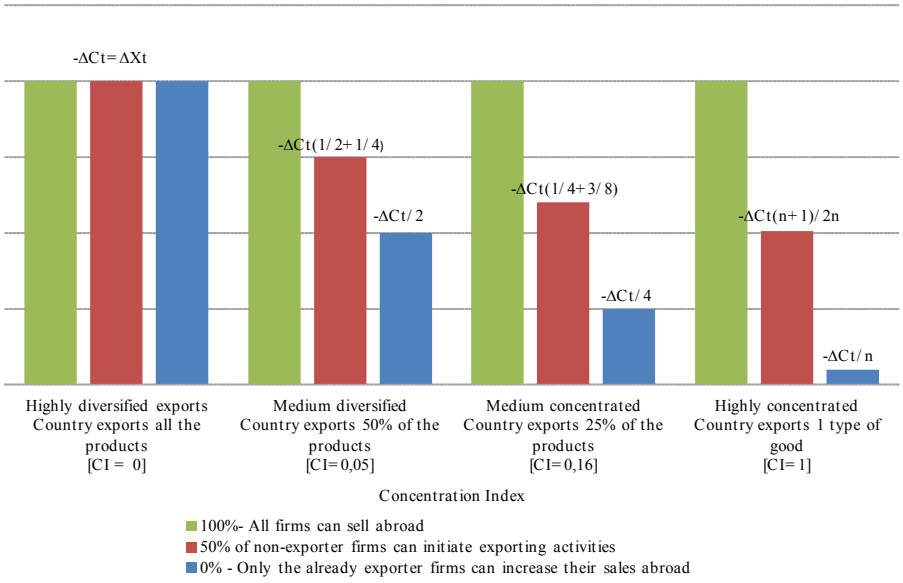
Firstly, the country is able to export all the n products in the same quantity. In this case the concentration of exports is zero, and the increase of exports will be equal to the decline of consumption: $\Delta x_i=-\Delta c_i$, $\Delta X=-\Delta C$. Secondly, it can be assumed that exports are fully concentrated in one k product. As this sector is the only with exporter firms, the concentration is total and the overall reaction of exports will be clearly lower $\Delta X=\Delta X_k=-\Delta c_k=-\Delta C/n$. This example (blue bars) considers two intermediate cases related with the concentration index, where firms export 50% (CI = 0.05) and 25% (CI = 0.16) of the products.

The red bars depict an intermediate case, where a fraction of firms are able to become exporters immediately (i.e. we depict the case where 50% of the non-exporter firms can switch to become exporters). This assumption will only reduce the link connecting the concentration and the substitution between domestic and foreign markets, as the negative relationship continues to persist.

Finally, the green bars illustrate another extreme example. All the domestic firms are able to become exporters when facing a shock on domestic demand. In this case, the substitution is always total as the concentration index does not measure any structural feature of the economy given that in any moment it could become equal to zero or to one.

[8] This point was touched upon in Gnimassoun (2015) – a paper focusing on adjustments paths in sub-Saharan countries – when mentioning that the channel proposed in Esteves and Rua (2013) is unlikely to occur in countries that are primarily exporters of commodities, as the domestic consumption of those products is generally insignificant.

Figure 1 - Increase in exports when domestic demand falls deppending on the degree of concentration and the ability of firms to initiate export activities



4.1 A concentration index for exports of goods and services

There is no a concentration index for exports covering both goods and services. The United Nations Conference on Trade and Development (UNCTAD) regularly computes an export concentration index for goods. Therefore the approach pursued is the construction of an overall index for measuring exports concentration, covering both goods and services for the 12 former euro area countries. In line with the UNCTAD approach, a Herfindahl-Hirschman index covering goods and services for the period from 1997 to 2013 is computed as follows:

$$CI = \frac{\sum_{i=1}^{n} s_i^2 - \frac{1}{n}}{1 - \frac{1}{n}} \qquad (4)$$

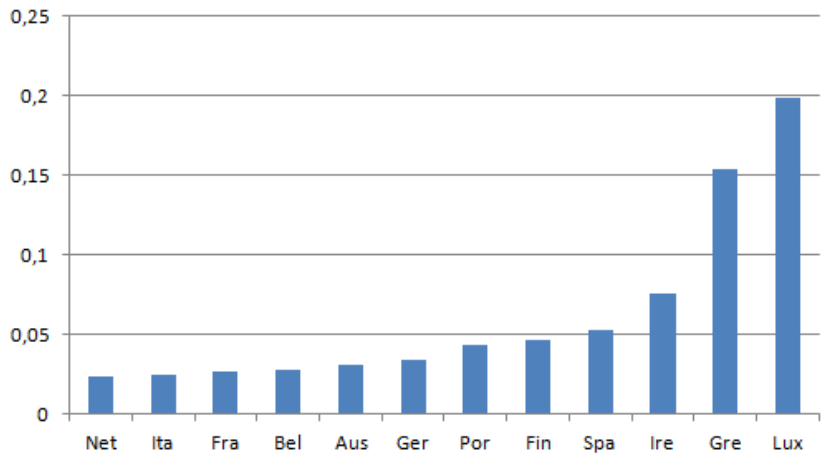
where s_i represents each sector' share of the total exports and n is the number of sectors considered. This index varies between zero (no concentration) and one (total concentration).

Concerning goods exports, information using the Harmonized System (HS) classification at two digits was obtained from the UNCTAD database, covering 65 products. The data for services exports was also obtained from UNCTAD, covering 11 sectors for all the countries considered.[9] Taking into consideration that the results depend on the disaggregation level and given the lack of additional disaggregated data

[9] In some few cases it was necessary to extrapolate values for a sector in a specific year because the information was not available. All the information is available upon request.

for services, the two-digit STCI was chosen in order to achieve a balance between the number of goods and services selected. Figure 2 presents the average results.

Figure 2 - Herfindahl–Hirschman Concentration Index
goods and services, average 1997-2013



Luxembourg and Greece emerge clearly as the two countries with highest exports concentration. The result is not surprising for Luxembourg, a country where more than 60 per cent of exports comprise financial and other business services. As regards Greece, exports of tourism and transport services account for 44 per cent of overall exports. Moreover, in goods exports the concentration of Greek exports is also very high and is increasing, with oil products representing around 40 per cent of merchandise exports in 2013 (only 8 per cent in 1997).

Across the other countries, the other two with weaker evidence of substitution between sales to domestic and foreign markets are the ones with a higher concentration of exports. Ireland has high specialization in some products (chemical and pharmaceutical products represent around 45% of merchandise exports) but also in some business services (for example, computer and information services represent more than 20% in overall exports). In Finland the high concentration index is explained by the goods sector, but has been decreasing reflecting the collapse of the telecommunications sector.[10] Nevertheless, with the exception of Greece and Luxembourg the differences do not seem very large across the other countries.

[10] The weight of the telecommunications apparels on total goods exports decreased from more than 20 per cent in 2000 to just 1 per cent in 2013.

4.2 Accounting for the effects of exports concentration

The results of the model using the interaction with the time average of the concentration indicator are the following:

$$\Delta X_{t,i} - \Delta D_{t,i} = \underset{(4.92)^{***}}{0.002} + \underset{(5.01)^{***}}{0.242}\left(\Delta X_{t-1,i} - \Delta D_{t-1,i}\right) - \underset{(5.69)^{***}}{0.398}\,\Delta E_{t,i} - \underset{(2.53)^{**}}{0.312}\,\Delta DD_{t,i} + \underset{(2.18)^{**}}{2.565}\,\Delta DD_{t,i}\,CI_{t,i} \quad (5)$$

Observations = 216 (12 countries during 18 periods)
Parameters = 20 (4 variables and constant, 11 specific effects plus 4 dummies)
t-ratios in parentheses: ***p<0.01, **p<0.05,*p<0.10.
R^2 =0.513

where $CI_{i,t}$ accounts for the export concentration index in goods and services. First of all, the inclusion of this variable allows the results to be recovered when all the countries are included, unlike the previous version of the model. The coefficients are clearly significant (at 1% and 5% for the cross-term) and their sign is as expected. In fact, the coefficient of domestic demand is negative, while the coefficient of the cross term is positive, implying that the coefficient between domestic demand and exports becomes less negative when exports are more concentrated.

An additional issue that was raised in the previous literature is the non-linearity. Esteves and Rua (2013, 2015) and Bobeica et al. (2015) present evidence that this relationship is stronger when domestic demand growth is weaker, presenting as a possible justification the presence of sunk costs to enter the foreign market. The experiment was conducted on the current model. Considering ΔDD^{+} (ΔDD^{-}) the domestic demand when it is growing above (below) its average. The results are the following:

$$\Delta X_{t,i} - \Delta D_{t,i} = \underset{(0.89)}{-0.001} + \underset{(3.85)^{***}}{0.227}\left(\Delta X_{t-1,i} - \Delta D_{t-1,i}\right) - \underset{(5.01)^{***}}{0.390}\,\Delta E_{t,i} - \underset{(2.88)^{***}}{0.517}\,\Delta DD^{-}_{t,i} + \underset{(4.31)^{***}}{6.231}\,\Delta DD^{-}_{t,i}\,CI_{t,i} \quad (5)$$

Observations = 216 (12 countries during 18 periods)
Parameters = 20 (4 variables and constant, 11 specific effects plus 4 dummies)
t-ratios in parentheses: ***p<0.01, **p<0.05,*p<0.10.
R^2 =0.518

The results show that the substitution between internal and external markets is clearly stronger when domestic demand developments are weak. It should be mentioned that the coefficients associated with the above-average domestic demand growth are not presented as they are not significant, unlike the strong significance (both at 1%) of the coefficients associated with weaker domestic demand growth. Overall, these results are in line with previous literature, but also highlight that exports structure could

have an important role in explaining different economic performance during the lower stages of the business cycle.

4.2.1 Additional robustness tests

This subsection presents some additional robustness checks on the previous model, investigating whether the results presented above are affected by the presence of structural breaks or by a long-run relation between export market shares and the real exchange rate.[11]

First of all, during the estimation period (1997-2014) there were important structural breaks that could have influenced the results presented, namely the introduction of the euro. Therefore, two additional estimations were made, starting in 1999 (definition of the euro conversion rates) and in 2002 (physical introduction of the euro). The results are presented in Table 2, evidencing that both the magnitude of the coefficients and their statistical significance are very similar in all three sample periods.

Table 2

	Baseline (equation 5)	Estimation since 1999	Estimation since 2002	Inclusion of a long-run relation between export market share and real exchange rate
$Constant$	-0.001 (0.89)	-0.001 (0.88)	0.005 (2.49)**	0.167 (1.23)
$\Delta X_{t-1} - \Delta D_{t-1}$	0.227 (3.85)***	0.240 (5.99)***	0.167 (2.75)***	0.195 (4.85)***
ΔE_t	-0.390 (5.01)***	-0.425 (5.12)***	-0.452 (4.71)***	-0.362 (4.89)***
ΔDD_t^-	-0.517 (2.88)***	-0.484 (2.47)**	-0.495 (2.29)**	-0.490 (2.21)**
$\Delta DD_t^- \Delta CI_t$	6.231 (4.31)***	6.319 (4.21)***	6.409 (4.34)***	5.806 (3.34)***
$X_{t-1} - D_{t-1}$	-	-	-	-0.229 (4.72)***
E_{t-1}	-	-	-	-0.115 (1.65)
R^2	0.518	0.506	0.428	0.563
Observations	216	192	156	216

t-ratios in parentheses: ***p<0.01, **p<0.05,*p<0.10

The other issue related to a possible long-run relationship explaining the evolution of exports that would justify the adoption of a dynamic panel error model.[12] Given the objective of the paper, the lack of theoretical support to include domestic demand in a long-run solution, and also the short sample with annual figures (16 periods), justified the use of a VAR panel as a baseline model. Nevertheless, an additional diagnostic test was done, considering a long-run relationship between exports' market shares and the real exchange rate – in line with the traditional export modelling strategy [see, for instance,

[11] An additional robustness check was performed. The estimation was repeated excluding each one of the countries to be sure that the results are not being affected by a specific country. The results are broadly the same, as both domestic demand coefficients are always strongly significant. All the results are available upon request.

[12] See, for instance, Belke and Dreger (2013) for a recent application of this modelling technique in the context of external account imbalances in the euro area countries.

Fagan et al (2001, 2005)]. The results are also reported in Table 2. The two long-term coefficients have the expected sign and the one associated with the adjustment speed to the ECM is particularly significant, which may suggest the relevance of a long-run solution. Nevertheless, the main conclusion is that, irrespective of the results of the several possible cointegration tests, the inclusion of a long-run relationship does not change the previous results, as the two coefficients associated with the domestic demand remain basically the same and continue to be strongly significant.

5. Conclusions

This paper reinforces some previous results concerning a negative relationship between domestic demand and export performance in the euro area countries, pointing to some substitution of firms' sales between domestic and foreign markets. Moreover, in line with previous literature, this substitution effect seems to be particularly important when domestic demand is depressed, constituting therefore an additional adjustment channel given the real exchange rate stickiness implied by the low inflation and the fixed exchange rate.

Despite the overall effect, this adjustment channel could be more important to some countries than to others. This paper tests for the role of exports concentration. The main conclusion is that countries where exports are more concentrated tend to be less sensitive to this substitution effect between sales to domestic and foreign markets.

This could be key to explaining differences concerning the adjustment progresses witnessed in some stressed countries. Greece is a noteworthy case as their exports exhibit a huge and increasing degree of concentration. Unlike other countries, the lack of responsiveness of Greek firms in redirecting sales from domestic to foreign markets did not lead to gains in exports' market shares nor to increase economic activity. Notwithstanding, the concentration index would just capture one of the characteristics of a country that can mitigate or reinforce the role of domestic demand developments in explaining exports. We leave for future research the analysis of other features, suggesting in particular the use of microdata at firm level.

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Competitiveness Research Network
This paper presents research conducted within the Competitiveness Research Network (CompNet). The network is composed of economists from the European System of Central Banks (ESCB) - i.e. the 29 national central banks of the European Union (EU) and the European Central Bank – a number of international organisations (World Bank, OECD, EU Commission) universities and think-tanks, as well as a number of non-European Central Banks (Argentina and Peru) and organisations (US International Trade Commission). The objective of CompNet is to develop a more consistent analytical framework for assessing competitiveness, one which allows for a better correspondence between determinants and outcomes. The research is carried out in three workstreams: 1) Aggregate Measures of Competitiveness; 2) Firm Level; 3) Global Value Chains CompNet is chaired by Filippo di Mauro (ECB). Workstream 1 is headed by Pavlos Karadeloglou (ECB) and Konstantins Benkovskis (Bank of Latvia); workstream 2 by Antoine Berthou (Banque de France) and Paloma Lopez-Garcia (ECB); workstream 3 by João Amador (Banco de Portugal) and Frauke Skudelny (ECB). Monika Herb (ECB) is responsible for the CompNet Secretariat. The refereeing process of CompNet papers is coordinated by a team composed of Filippo di Mauro (ECB), Konstantins Benkovskis (Bank of Latvia), João Amador (Banco de Portugal), Vincent Vicard (Banque de France) and Martina Lawless (Central Bank of Ireland). The paper is released in order to make the research of CompNet generally available, in preliminary form, to encourage comments and suggestions prior to final publication. The views expressed in the paper are the ones of the author(s) and do not necessarily reflect those of the ECB, the ESCB, and of other organisations associated with the Network.

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