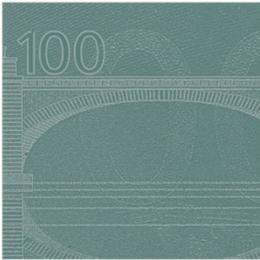
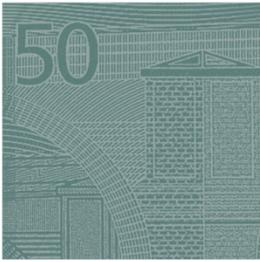
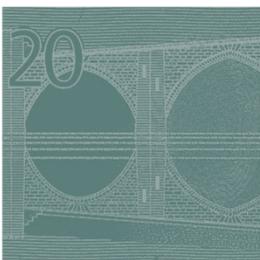
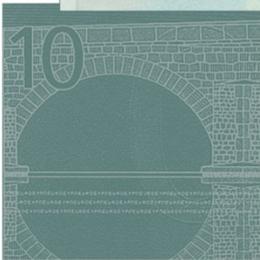




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MAPPING COMPETITIVE PRESSURE BETWEEN CHINA AND EU COUNTRIES

Konstantins Benkovskis, Maria Silgoner, Katharina Steiner, Julia Wörz

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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). The three workstreams are headed respectively by Chiara Osbat (ECB), Giovanni Lombardo (ECB) and Konstantins Benkovskis (Bank of Latvia); Antoine Berthou (Banque de France) and Paloma López-García (ECB); João Amador (Banco de Portugal) and Frauke Skudelny (ECB). Julia Fritz (ECB) is responsible for the CompNet Secretariat.

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Address	Kaiserstrasse 29, 60311 Frankfurt am Main, Germany
Postal address	Postfach 16 03 19, 60066 Frankfurt am Main, Germany
Telephone	+49 69 1344 0
Fax	+49 69 1344 6000
Internet	http://www.ecb.int/home/html/researcher_compnet.en.html http://www.ecb.europa.eu

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ABSTRACT

China's impressive export growth over past decades has raised concerns that European producers might be driven out of their traditional markets by cheap Chinese products. Further, the more subdued global demand that has been seen in recent years will lead to intensified competition over existing consumer markets. Hence, we see a growing need for in-depth knowledge regarding the competitiveness of European exporters. This policy brief offers a comprehensive analysis of how European exporters – particularly exporters from central, eastern and south-eastern Europe – performed in the 2000s relative to China, which has been the world's number one exporter since 2008. While we find that Chinese and European producers coexisted in a large number of product markets during that period, the results also point to a gradual increase in the number of product markets that are being discovered by Chinese exporters and then abandoned by European exporters, particularly exporters from smaller countries and those on the periphery of the EU. At the same time, incidences of European exporters entering a market that is not yet served by China have become far less common, with Germany being the sole exception in this regard. Thus, we conclude that European exporters should be encouraged not only to enter new markets in order to withstand competition from China, but also to maintain their presence in existing export markets, especially in times of economic turbulence – i.e. when demand conditions are cyclically weak. After all, research in this field has shown that it is easier to revive established trade links after a downturn than to establish new trade links.



INTRODUCTION

When it comes to exports, China has become a major competitor for both advanced and developing economies alike. In fact, since 2008 China has been the world's number one exporter, with its share of world exports more than tripling between 1995 and 2010 to stand at 12%. In light of these changes in the global goods market, this policy brief looks at how well European producers withstood Chinese competition in third markets between 1995 and 2010, and to what extent they were pushed out of specific market segments. Such evidence is important, as competition over export destinations will intensify further in the current era of more moderate global demand dynamics. The purpose of this brief is to highlight contested market segments at the country level and to identify the role of existing trade relationships (as opposed to newly established trade links) as drivers of export growth.

This policy brief draws on two published ECB CompNet working papers: Silgoner et al. (2013) and Benkovskis et al. (2013). Silgoner et al. (2013) compare the export performance of ten highly export-oriented EU Member States in central, eastern and south-eastern Europe (the “CESEE-10”¹) with that of China in western Europe (the “EU-15”²). Benkovskis et al. (2013) adopt a broader approach, looking at 25 EU Member States and comparing their individual global export performances with that of China on the basis of trade flows at the most detailed product level. Their findings include traditional export market shares and trade growth at the intensive and extensive margins, as well as changes in the number of joint trade links, using a novel approach covering the period from 1995 to 2010. See the aforementioned ECB working papers for further details.

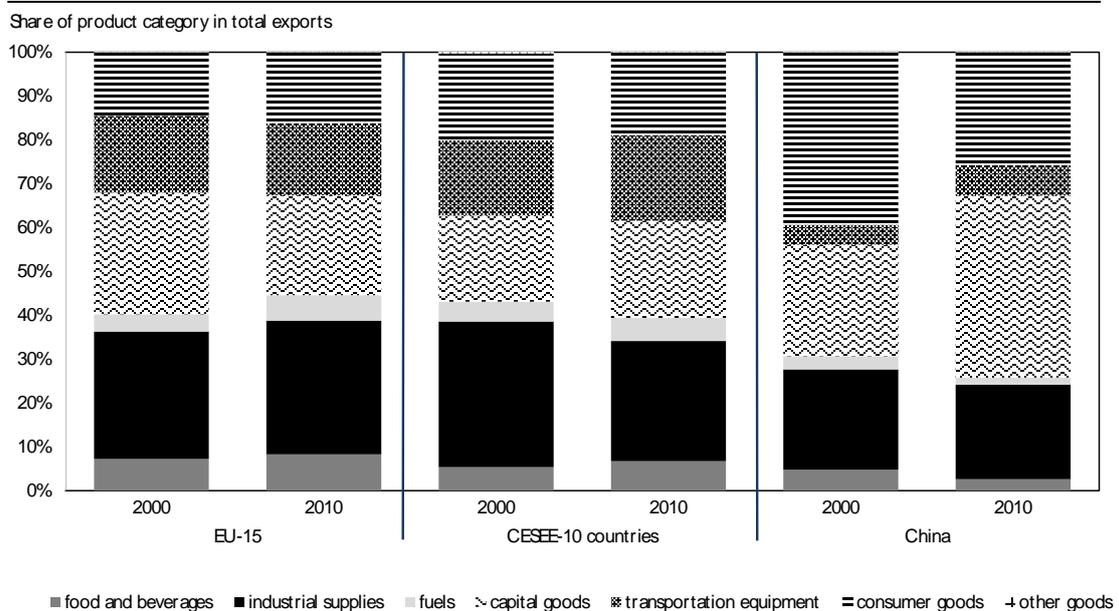
¹ Bulgaria (BG), the Czech Republic (CZ), Estonia (EE), Latvia (LV), Lithuania (LT), Hungary (HU), Poland (PL), Romania (RO), Slovenia (SI) and Slovakia (SK) – i.e. the ten central and eastern European countries that joined the EU in 2004 and 2007.

² Belgium (BE), Denmark (DK), Germany (DE), Ireland (IE), Greece (GR), Spain (ES), France (FR), Italy (IT), Luxembourg (LU), the Netherlands (NL), Austria (AT), Portugal (PT), Finland (FI), Sweden (SE) and the United Kingdom (UK) – i.e. the 15 countries that joined the EU before 2004.

I HAS “FISHING IN THE SAME POOL” LED TO THE CROWDING-OUT OF EXPORTERS?

While for most EU exporters (especially CESEE-10 countries), China continues to play only a minor role as an export destination, the euro area has become an important export destination for China over the last few decades, just as important as the United States (based on UN Comtrade data). This makes China an increasingly critical competitor as a supplier of goods, especially for less developed EU countries. This is particularly important when you consider that exports from China and CESEE-10 countries have been expanding and shrinking in tandem in individual market segments, albeit at different speeds. For example, for most CESEE-10 countries and China, the relative importance of exporting consumer goods and industrial supplies decreased in the 2000s, whereas the relative importance of exporting capital goods and transportation equipment increased (see Chart 2), reflecting competitiveness gains in the latter.³ Generally, the CESEE-10 countries appear to be standing up well to competition from China, having lost the competitive battle in only a few individual market segments, such as textiles and footwear. In contrast, the EU-15 countries have seen their exports of capital goods and transportation equipment crowded out by Chinese exports, as these exports have declined.

CHART I: SECTORAL COMPOSITION OF EXPORTS, 2000 AND 2010



Source: UN Comtrade.

³ Based on analysis of indicators of revealed comparative advantage (see Silgoner et al., 2013).

To assess the pattern of competitive pressure between EU Member States and China, we use highly disaggregated trade data⁴ - covering more than five thousand product categories - on individual bilateral trade links. Using a new tool – dynamic trade link analysis (see Silgoner et al., 2013) we can assess whether a specific goods market was served by two given competitors (China and an EU country) throughout the period under review, or whether one or both of the competitors withdrew from the market at some point. With this information, we can identify changing patterns in terms of the diversification of trade and the emergence of new trade links – i.e. sources of future export growth. Thus, for each EU country competing with China, we can identify one of the following distinct types of competitive pressure.

- *No competition*: An EU Member State exports to a product market that is not served by China.
- *Existing competition*: An EU Member State and China export to the same market.
- *Conquest of new markets*: An EU Member State starts exporting to a new destination that is not served by China.
- *New competition*: An EU Member State enters a market where China is already active, or vice versa, or both enter the same new market.
- *Crowding-out*: An EU Member State leaves a market where China is active or has become active, or vice versa.
- *Withdrawal from unpromising markets*: An EU Member State leaves a market where China is not active, or both exporters leave.

To control for country size, we express each case as a percentage of total trade links to countries in respect of which the individual EU countries have exporter status.⁵ The results of this comparison of the bilateral trade links of EU Member States and China are as follows.

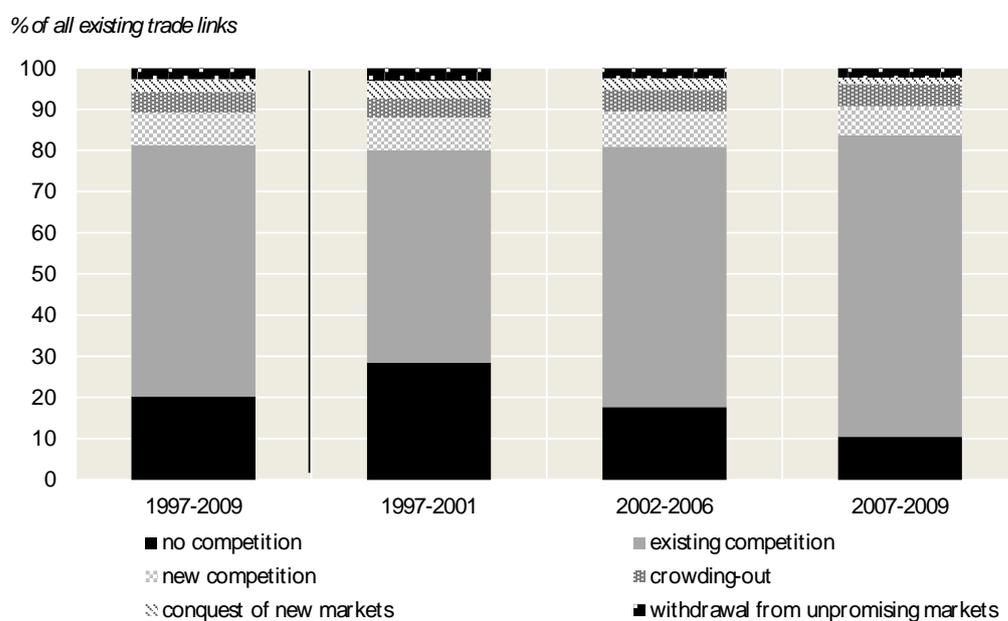
⁴ Data source: UN Comtrade at the six-digit Harmonized Commodity Description and Coding System (HS) level over the period 1995–2010, covering 5,132 products traded bilaterally between each exporter and importer worldwide. To avoid breaks related to data reclassifications in 2002 and 2007, data are based on the initial 1996 HS classification. Nevertheless, discontinuities in the time series cannot be ruled out (see Silgoner et al., 2013).

⁵ In other words, we exclude cases where the EU Member State is inactive and focus on cases where a trade link was already in existence or was newly created during the review period. For instance, Germany has exporter status in 62% of all product market combinations, while Latvia serves just 5% of the 374,636 product markets. Given the short lifespan of many new trade links (see Besedeš and Prusa, 2011), we only count new trade links that survive for at least two years.

Competition between China and the CESEE-10 in the EU-15 market

In the EU-15 market, we found that in 2009, 86% of all product markets were served by China, a CESEE-10 country or both. More than half of all trade links were subject to direct competition – i.e. the majority of European product markets were served by both the CESEE-10 and China (see Chart 2). In the most contested product groups (capital goods and transportation equipment), this increases to 70%. What is more, this figure has risen over time, indicating strong and stiffening direct competition, as both CESEE-10 and China have entered in their respective previous export domains.

CHART 2: TYPES OF COMPETITIVE PRESSURE BETWEEN THE CESEE-10 AND CHINA IN THE EU-15 MARKET



Source: Comext and authors' calculations.

As a consequence of increasing bilateral competition, the number of western European product markets where CESEE-10 countries face no competition from China (or enjoy monopoly power, ignoring competitors other than China) is shrinking. Today, there are not many areas where China does not compete with CESEE-10 countries. At the same time, the number of markets served by China alone, without any competition from CESEE-10 countries, has increased slightly, as China has been entering entirely new markets more frequently than the CESEE-10 – above all markets for capital goods and transportation equipment. Although the number of EU-15 product markets where China has crowded out a CESEE-10 country is comparatively small, such incidences have become more frequent over time, rising from 4.6% of active CESEE-10 trade links in the mid-1990s to 5.4% in the period 2007-09. In general, however, the number of lost trade links (i.e. situations where a country leaves a market entirely) is very small.

Thus, we find no evidence of widespread crowding-out as a result of competition from China in the EU-15 market.

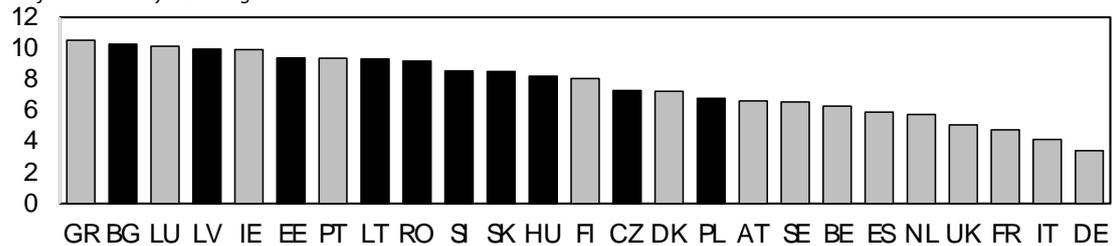
Competition between China and EU countries in the global market

A similar picture emerges if one analyses the sample of 25 EU Member States and their competitive position vis-à-vis China in the world market. On average, EU countries and China are direct competitors in 56% of all active trade links. The percentage of trade links where EU countries are not exposed to any competition from China is relatively small (at just 14% of all active trade links) and decreased by as much as 10 percentage points between 2001 and 2009. There are only a few countries where that percentage is higher than the average for the EU: Germany (which has the largest percentage at 26%), Italy, France, the Netherlands, the United Kingdom, Belgium, Spain, Slovenia, Austria and Poland.

CHART 3: CROWDING-OUT OF EU MEMBER STATES IN THE GLOBAL MARKET; AVERAGES FOR THE PERIOD 2001-09

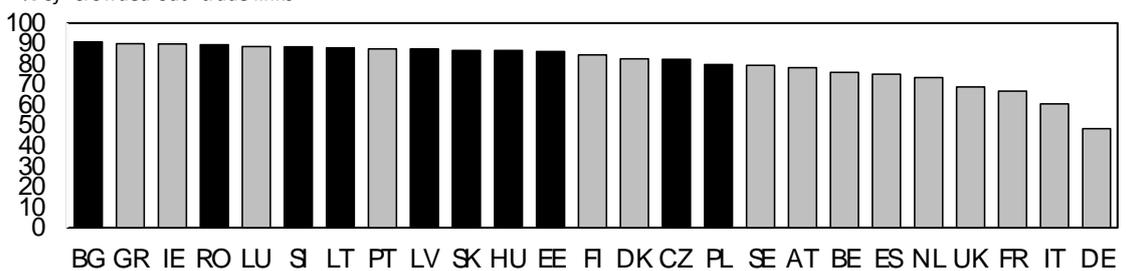
Crowding-out

% of each country's existing trade links



Crowding-out by China

% of "crowded-out" trade links



Source: UN COMTRADE and authors' calculations. Notes: See footnote 1 and 3 for country abbreviations. Black bars denote CESEE-10 countries; grey bars denote EU-15 countries.

But, how much have EU countries actually been kicked out of markets? Relatively little. In the period from 2001 to 2009, the EU-15 and the CESEE-10 experienced comparatively few incidences of what we call “crowding-out” (see Chart 3): on average, around 8% of all active trade links were lost and at the same time served or entered by the competitor. This figure has risen by 2 percentage points over time. Of the 25 EU Member States, the crowding-out rate was above average both for the CESEE-10 (where it stood at around 10% of all active trade links) and for a range of smaller EU Member States, whereas crowding-out was considerably less of

an issue for the largest EU countries, even after controlling for country size. However, when we look at the extent in which China was actually responsible for such crowding-out, we find that almost all of these 25 EU Member States have mostly been on the losing end. Bulgaria, for instance, withdrew from about 90% of the markets served by China. The exception was however Germany, where crowding-out from the world market was rare (at around 4.8% of existing trade links) and where incidences of China exiting a market that was entered or served by Germany were actually slightly higher than those where Germany exited a market that was served or entered by China.

2 THE ROLE OF EXISTING TRADE RELATIONSHIPS

Using this information about direct competition between EU countries and China, we look at whether overall export growth in each country hinged more on the deepening of existing trade relationships or on the establishment of new trade links. Again using highly disaggregated data on trade volumes for the 2000s and applying a methodology similar to that employed in Benkovskis (2012), we find that the deepening of existing trade relationships was the main driver of export growth in all cases. In contrast, the establishment of new trade links (i.e. the extensive margin of trade) played only a minor role and generally accounted for less than 1% of export growth in the 2000s.

The contribution made to export growth by newly established trade relationships was slightly higher in CESEE-10 countries than it was in EU-15 countries, a finding that is line with the literature (see, for example, Cheptea et al., 2010, or Besedeš and Prusa, 2011). This is not surprising, given that developing economies will not yet be trading with as many countries as more advanced economies. For China, the impact of newly established trade links is small or even slightly negative, suggesting that China's export diversification phase was completed more than a decade ago (see the related findings in Amiti and Freund, 2008, and Cheptea et al., 2010). This weakens claims that the country has progressively been flooding new markets.

Overall, there are only a few notable exceptions where newly established trade relationships were important for overall trade growth. The introduction of the euro in 1999 and the subsequent changeover to euro banknotes and coins facilitated the establishment of new trade relationships. And similarly, the CESEE-10 countries have probably benefited from the trade-creating effects of EU enlargement in 2004 and 2007.

During the global financial crisis, trade contracted sharply worldwide. While the CESEE-10 countries have emerged comparatively unscathed, benefiting from the trade-creating effects of Bulgaria and Romania's accession to the EU in 2007, China has evidently been severely hit by

the crisis. As regards exports from Europe, the main result of the crisis has been a general decline in the quantities exported through established trade links. In terms of future growth, this is in fact a positive signal, as there is ample empirical evidence in the literature suggesting that it is easier to revive long-term trade relationships than to establish new ones. Generally, the high degree of economic integration within the EU appears to have had a cushioning effect in these adverse economic circumstances.

CONCLUSIONS

The impressive growth rates seen for Chinese exports – including exports to the European market – in the 1990s and 2000s have sparked fears that cheap Chinese products could squeeze China’s established European competitors out of specific market segments. This would be especially damaging for countries in central, eastern and south-eastern Europe, as export flows from CESEE-10 countries broadly mirror China’s export patterns, and as the western European market has traditionally been the most important export destination for the region.

As regards the European market, our analysis identifies rising competitive pressure from China for European competitors, but does not confirm the common hypothesis of widespread crowding-out. We find that eastern and south-eastern European producers have withstood Chinese competition in the European market relatively well. Interpreting these results, one could infer that the CESEE-10 countries have been effective in meeting the changing needs of the western European market owing to the strong regional, historical and economic links within Europe. These factors can be expected to have had a cushioning effect on the economies of the region during the crisis.

As regards the global market, there appears to be a significant potential for EU and Chinese suppliers to coexist in individual product markets. Maintaining this coexistence will, however, require constant fine-tuning of the export portfolio in terms of suppliers, customers, product characteristics and locational advantages. Moreover, especially for the CESEE region, the pressure of competing with China is considerably greater in the global market than it is in the European market. In this respect, country size matters, as large exporters are clearly in a better position than smaller countries – even in relative terms – when it comes to withstanding competition from China. In our view, this calls for a further deepening of Europe’s Single Market. Overall, our results point to the following policy conclusions:

- In light of the weaker trade growth seen in advanced markets, successful export policies will depend on the further diversification of production towards promising industries and continuous improvements in quality. Trade and industrial policies should focus on the sectors with the most potential for development, perhaps encouraging shifting resources towards smaller niche sectors with superior growth prospects, away from markets heavily tapped by large competitors such as China.
- Above all, while adjustments in trade volumes may be warranted along the business cycle, it is important to remain present in a market even in difficult times, as it is easier to revive existing trade links than to establish new ones. Given the large number of markets where EU and Chinese exporters coexist, the success of European exporters will depend on the high quality of products, an appropriate product mix and a high level of flexibility in order to react to changing demand patterns.

BIBLIOGRAPHY

Amiti, M. and Freund, C. (2008), “An Anatomy of China’s Export Growth”, mimeo, 31 January.

Benkovskis, K. (2012), “Competitiveness of Latvia’s exporters”, Latvijas Banka Working Paper 3/2012.

Benkovskis, K., Silgoner, M., Steiner, K. and Wörz, J. (2013), “Crowding-out or co-existence? The competitive position of EU members and China in global merchandise trade”, *Working Paper Series*, No. 1617, ECB.

Besedeš, T. and Prusa, T.J. (2011), “The Role of Extensive and Intensive Margins and Export Growth”, *Journal of Development Economics*, 96(2), 371-379.

Cheptea, A., Fontagné, L. and Zignago, S. (2010), “European Export Performance”, CEPII Working Paper 12.

Silgoner, M., Steiner, K., Wörz, J. and Schitter, C. (2013), “Fishing in the same pool? Export strengths and competitiveness of China and CESEE in the EU-15 market”, *Working Paper Series*, No 1559, ECB.