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Factors of trade in Europe

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ABSTRACT

We analyze how a set of determinants affect trade among European countries over the period 1992–2008. The factors encompass variables from the areas of geography, culture, institutions, infrastructure, and trade direction. Trade is analyzed for four types of goods: primary goods, parts and components, capital goods, and consumer goods. For each type of good we also distinguish its definition in terms of flows, intensive margin, and extensive margin. Methodologically, we first derive country-pair fixed effects over all possible pairs of export–import partners, and in the second stage we relate fixed effects with a set of influential factors. We show (i) the intuitive and varying effects of geographical, cultural, and institutional factors; (ii) the beneficial effects of soft and hard infrastructure; and (iii) the key importance of trade between old and new EU members.

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1. Introduction, motivation and literature

How barriers to trade, trade arrangements, and specific determinants impact trade flows among countries and country growth has long been a focus of research; since the literature is expansive, see, for example, these surveys: Agosin et al. (2012), Baier and Bergstrand (2004), Egger and Egger (2005), Singh (2010), and Wang et al. (2010). In this paper we focus on analyzing a set of determinants that are hypothesized to exhibit a lasting effect on trade among European countries. We analyze trade during 1992–2008; this period is truly significant because it spans both European integration and the transformation of Central and Eastern European (CEE) countries and because it ends in the wake of a financial and economic crisis. How trade was affected by physical as well as institutional factors during this exceptional period is the topic of this paper. We show (i) the intuitive and varying effects of geographical, cultural, and institutional factors; (ii) the beneficial effects of soft and hard infrastructure; and (iii) the key importance of trade between old and new members of the European Union (EU).

The period under research is unique and its account helps to understand the nature of the trade patterns that generated the data analyzed. Following the collapse of the Iron Curtain, many of the former command CEE economies in 1991 quickly eliminated the dubious structure of the trade links within Comecon (Bös, 1993). With unprecedented speed these transformation economies began reorienting their international trade toward the European Community (EC) that in 1993 became the EU. An important step in the process of EU integration was taken in 1992 when the Maastricht Treaty was accepted by EU members (Baun, 1995). The deepening of EU integration thus coincided with the process of economic and social transformation in the CEE countries. The transition period of changing CEE trade patterns was short and by 1995–1996 the international trade of the former command economies was redirected toward the EU (Gros and Gonciarz, 1996). The EU integration process then took on a new form of EU widening: after embarking on the uneasy path of economic transformation, many CEE countries applied for EU membership in 1995–1996 and from 1998 to 1999 underwent a lengthy and thorough screening process toward EU accession (Manning, 2004); some CEE countries followed at later dates. The first round of CEE countries joined the EU in 2004, followed by a second round in 2007.

EU integration impacted international trade between the old and new EU members even before actual enlargement. First, association agreements signed in the early 1990s were found to have a positive and significant impact on trade flows between transformation and EU countries (Egger and Larch, 2011). Second, despite existing economic differences among countries, the new EU members quickly became an important part of the EU-wide manufacturing and distribution network. Further, lowering the fixed cost of trade during European integration had prompted trade to increase (Frensch, 2010).[1] Last but not least, new EU members experienced substantial inflows of foreign direct investment (FDI) from the EU that produced beneficial spillovers and affected trade (Hanousek et al., 2011).

The EU is a functioning free trade area and strong tariff reduction in the EU has been shown to be trade-creating (Eicher and Henn, 2011). New EU members were accepted to the free trade area after their accession in 2004 and 2007 but, as argued earlier, they were already removing trade barriers before and during the accession process (Egger and Larch, 2011). From this perspective, we analyze a set of countries that impose no barriers on trade in terms of tariffs among themselves and for this reason the data are not contaminated by differences in tax/tariff regimes or customs rules. The establishment of the Schengen area in 1995 and its subsequent widening did not eliminate national borders in a political sense. However, the absence of national borders in terms of trade-related customs controls and ease of transportation helped to lower bilateral trade resistance; Hornok (2011) showed that improvements in timeliness have significantly contributed to the EU's trade cost-reducing effect.

[1] The substantial intensity of trade between new and old EU countries is in contrast with the low (intra-day) synchronization between their stock markets (Égert and Kočenda, 2011) given the fact that the intensity of international trade is argued to play an important role in this respect (Chinn and Forbes, 2004).