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Exposure of Belt and Road Economies to China Trade Shocks*

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Abstract

This paper uses international trade data to assess the degree of exposure of Belt and Road economies to China trade shocks. It finds that the growth of China's trade following its internal transformation and accession to the WTO significantly impacted the export performance of Belt and Road economies in the period 2000-2015. The increase in China's imports significantly boosted the exports of these economies. However, this effect was attenuated by increased competition from China in export markets. The effects of China's demand shocks were stronger in more upstream industries, while those of competition shocks were stronger in industries that produce goods that are closer to final use. The effects of competition shocks were also relatively stronger in countries that are relatively poorer and geographically closer to China. Building on these findings, the paper documents the current degree of exposure of Belt and Road economies to China trade shocks.

Keywords: Belt and Road Initiative; China; Trade shocks

JEL Classification: F1

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1 Introduction

In recent decades, China has become a major player in global trade. Between 1995 and 2015, its share of world exports grew from about 4% to over 15%. At the same time, China's share in world imports of agricultural and mining products rose from less than 2% to more than 10%. China is also a major importer of manufactured inputs used in the production of its own exports. As emphasized by Autor et al. (2013), the rising importance of China's trade over this period reflected several intertwined developments: (i) the transition to a market-oriented economy, which involved the rural-urban migration of more than 150 million workers (Chen et al., 2010); (ii) increased access to foreign technologies, capital goods and intermediate inputs (Hsieh and Klenow, 2009); (iii) the fact that multinationals were increasingly allowed to operate in the country (Naughton, 2007); and (iv) the accession to the WTO in 2001 giving China most-favored nation status among WTO members (Branstetter and Lardy, 2006). The growth in China's trade was therefore largely the result of internal supply shocks following extensive policy reforms and falling global trade barriers.

The Belt and Road Initiative (B&R) proposed by China in 2013 seeks to deepen connectivity and cooperation on a transcontinental scale, notably by improving infrastructure and strengthening trade and investment links. As noted by the World Bank (2019), the initiative has two main components, each involving significant infrastructure investments: the Silk Road Economic Belt and the New Maritime Silk Road. The first links China to Central and South Asia and onward to Europe. The second links China to the nations of South East Asia, the Gulf countries, East and North Africa, and on to Europe. These investments and enhanced cooperation are expected to significantly reduce trade costs between China and the participating countries.¹

This paper uses international trade data to assess the degree of exposure of B&R economies to China trade shocks. It first documents the main trade partners of China in recent decades, devoting especial attention to trade relationships between China and B&R economies. It proceeds by examining econometrically the extent to which competition and demand shocks associated with China's trade growth significantly impacted industry-level exports of B&R economies in the period

¹As noted by the World Bank (2019), the B&R initiative has been presented by China as an open arrangement in which all countries are welcome to participate, and an official list of participating countries does not yet exist. To define the set of economies included in this study, we followed the geographical approach adopted in World Bank (2019), in which B&R economies are identified on the basis of their location with respect to the six overland corridors of the Silk Road Economic Belt and the 21st Century Maritime Silk Road as defined by China. Table A1 in the Appendix reports the list of B&R economies considered. Most of these countries have signed collaboration agreements with China in the context of the initiative.

2000-2015. While accounting for pre-trends in the industry-level exports of B&R economies, this analysis documents their average response to China trade shocks, as well as heterogeneous impacts by industry and country. Building on this econometric evidence, the paper then characterizes the current degree of exposure of each B&R economy to cross-industry supply and demand shocks that are likely to arise from further integration with China.

The analysis of trade flow data reveals that in recent decades Chinese exports became less concentrated geographically. Although the share of exports to the United States remained little changed between 1995 and 2015 (at about 20% in both year), the relative importance of other major destinations, notably Hong Kong and Japan, declined considerably at the expense of other markets, including Mexico, United Kingdom, India and Vietnam. B&R economies accounted for about a third of China's export revenue. While they have been more important for China as export markets than as sources of imports, in recent years the share of imports originated in B&R economies has observed an upward trend, rising from about 25% in 1995 to nearly 30% in 2015. China is an important trade partner for many B&R economies, especially as a source of imports.

The econometric analysis reveals that industry-level exports of B&R economies were significantly impacted by China's trade shocks. The analysis focuses on the period 2000-2015, so as to account for pre-trends in the exports of B&R economies and capture the swift expansion of Chinese trade that followed its accession to the WTO in 2001. It treats different industries in each B&R economy subject to differential trade shocks according to initial patterns of similarity with China's product-level exports and imports. In light of the internal and global external factors driving China's growing trade, I instrument the growth in China's exports and imports using its export and import growth to other major trading patterns, following Autor et al. (2013, 2014). The results reveal that, during this period, growing Chinese imports significantly boosted the exports of B&R economies. However, this effect was attenuated by increased competition from China in export markets. The effects of China's demand shocks were stronger in more upstream industries, while those of competition shocks were stronger in sectors that produce goods which are closer to final use. The effects of competition shocks were also relatively stronger in countries that are relatively poorer and geographically closer to China.

Building on these econometric results, the paper documents the current degree of exposure of Belt and Road economies to China trade shocks. The analysis of trade data from 2015 reveals that several B&R economies exhibit a relatively high degree of exposure to competition shocks associated with further integration with China. This is the case of Hong Kong, Vietnam, Malaysia,

Philippines, Thailand and Indonesia, which source a relatively large share of imports from China and have an export structure that is closer to that of China. These countries are also relatively more exposed to competition from China in third country export markets. To the extent that heterogeneity in export structure reflects the underlying production structure, these economies are relatively more exposed to import competition from China in several industries. Further integration with China will likely involve stronger competitive pressures in final goods markets, which may also have important implications for factor market adjustment (notably labor markets).

Several B&R economies—including Mongolia, Hong Kong, Iran, Oman, Turkmenistan and Yemen—are highly exposed to demand shocks from China. A large share of exports from these economies is to the Chinese market, and the export structure of these countries displays a high degree of similarity with China’s overall import demand. China is also an important destination for Lao, Uzbekistan, Myanmar and Iraq, although the export structure of these economies is quite different from the structure of China’s overall import demand. Finally, Malaysia, Philippines and Singapore export a sizable share of exports to China and have an export structure that is relatively close to the structure of Chinese multilateral imports, suggesting that these economies are also strongly exposed to China’s demand shocks.

This paper adds to a growing literature seeking to assess the implications China’s transformation and increased integration in the world economy on economic outcomes in other countries. In a series of influential papers, Autor et al. (2013, 2014, 2015) estimate the impacts of increased Chinese import competition on labor markets in the United States. Autor et al. (2013) emphasize that US local labor markets are differentially exposed to Chinese import competition because of initial heterogeneity in their production structure, and argue the transition of China to a market economy—and the consequent rise of its productivity and trade flows—can be regarded as an exogenous trade shock to those local labor markets. Although the rise of China also represented a global demand shock (manifested in the rise of China’s imports), Autor et al. (2013) note that such demand shock was relatively unimportant for the United States. This is because the increase in US imports from China was much stronger than the rise in US exports to China, leading to sizable bilateral trade imbalances.

However, this point does not apply generally across the world economy. Indeed, a growing body of literature shows that China’s growing imports contributed to boost the exports of several countries and regions (Costa et al., 2016; Ahn and Duval, 2017; Feenstra and Sasahara, 2018; Feenstra et al., 2019). Building on these insights, this paper examines econometrically the het-

erogeneous impacts of supply and demand shocks associated with China's trade dynamics for sectoral exports of B&R economies. Exposure to competition shocks are measured with trade flow data by detailed product category and capture both the degree of exposure to Chinese competition in the domestic and in third markets. Exposure to the global demand shocks associated with China's rise is measured in an analogous way, exploiting the fact that some B&R economies initially exported more of what China buys than others. By focusing on both supply and demand shocks, the analysis also accounts for intermediate inputs that are used in production of Chinese exports.

The remainder of the paper is organized as follows. Section 2 describes the data employed and documents the evolution of China's bilateral trade relationships. Section 3 develops and implements an econometric framework for examining the relative importance of supply and demand shocks associated with China's trade dynamics on exports of B&R economies. Section 4 documents the current degree of exposure of each B&R economy to supply and demand trade shocks associated with China's trade. Section 5 concludes the paper.

2 Data and descriptive statistics

2.1 Data

The analysis in this paper makes use of product-level bilateral trade data from BACI spanning the period 1995-2015. BACI is the world trade database developed by CEPII, building on original data provided by the COMTRADE database of the United Nations Statistical Division. BACI is constructed using an original procedure that reconciles the declarations of the exporter and the importer. This harmonization procedure makes it possible to extend considerably the number of countries for which trade data are available. BACI provides bilateral values and quantities of exports at the HS 6-digit product disaggregation for more than 200 countries since 1995.

CEPII developed original statistical procedures to reconcile data reported by almost 150 countries to the United Nations Statistics Division. First, as import values are reported CIF (cost, insurance and freight) while exports are reported FOB (free on board), CIF costs were estimated and removed from import values to compute FOB import values. Second, the reliability of country reporting was assessed based on the reporting distances among partners. These reporting qualities are used as weights in the reconciliation of each bilateral trade flow twice reported. Due to the use of this double information on each flow, BACI ends up covering a large set of countries

not reporting at a given level of the product classification. Gaulier and Zignago (2010) provide a detailed description of the BACI data set, which has been widely used in the literature, including in recent studies by Johnson (2012), Melitz and Toubal (2014) and Imbs and Mejean (2015).

2.2 The importance of B&R economies for China's trade

Between 1995 and 2015 Chinese exports became less concentrated geographically. Although the share of exports to the United States remained stable between 1995 and 2015 (about 20% in both years), the relative importance of other major destinations, notably Hong Kong and Japan, declined considerably over this period. As a result, the US became by far the major market for Chinese exports. The decline in the relative importance of exports to Hong Kong and Japan is reflected to a considerable extent in the rising share of exports to several other destinations, including Mexico, United Kingdom, India and Vietnam (see Figure A1 and Table A2 in the appendix). The overall importance of exports to B&R economies remained little changed between 1995 and 2015, when they accounted for about 36% of China's exports (see Panel A in Figure 1). However, the stability of the overall share hides important shifts in the relative importance of individual B&R economies for China's exports. Table 1 reveals that the share of exports to Hong Kong declined from 26% in 1995 to 12% in 2015. This fall was compensated for by an increase in the share of exports to several other B&R economies, including India, Vietnam, United Arab Emirates, Thailand, Turkey and the Czech Republic, leaving the overall share of exports to B&R economies little changed.

Figure A2 depicts the share of China's imports accounted for by each major source country. Like for exports, the strong decline in the relative importance of Japan and Hong Kong as trading partners is the most noteworthy shift observed during this period: the share China's imports sourced from Japan declined from 19% in 1995 to 9% in 2015, while that for Hong Kong, declined from 10% to 5% during the same period. By contrast, during this period Australia became a more important source for China's imports, accounting for 5% of imports in 2015 versus only 1% in 1995 (see Table A4). While still accounting for a relatively low share of imports, Saudi Arabia and Brazil also became important source countries for China in this period. Comparison of Panels A and B in Figure 1 shows that B&R economies have been more important for China as markets for exports than as sources of imports. In recent years, however, the share of imports originated in these economies observed an upward trend, increasing from about 25% in 1995 to about 30% in 2015. The evidence reported in Table 1 reveals that the relative decline of Hong Kong as source

of imports over this period was more than compensated for by the rise in importance of other B&R economies, including Saudi Arabia, Vietnam, Malaysia, Philippines and Iran.

3 Evidence on the impacts of China’s trade shocks on exports of B&R economies

This section examines econometrically the extent to which the multilateral exports of B&R economies were impacted by China’s trade growth during the period 2000-2015. The focus on this period is motivated by two reasons. First, it makes it possible account for pre-trends in the growth of industry-level exports of B&R economies. Second, it allows us to capture the swift expansion of Chinese trade that followed its accession to the WTO in 2001. The analysis seeks to quantify the importance of supply and demand shocks, and to assess the extent to which these effects were heterogeneous across industries and countries.

3.1 Methodology

The econometric analysis builds on Autor et al. (2013), who focus on the impact of increased Chinese import competition on local labor markets in the United States. Autor et al. (2013) emphasize that local labor markets in the United States were differentially exposed to Chinese import competition because of initial heterogeneity in production structure, and argue the transition of China to a market economy (and consequent rise of its productivity and trade flows) can be regarded as an exogenous trade shock to local labor markets. Although the rise of China also represented a global demand shock (manifested in the rise of China’s imports), Autor et al. (2013) note that such demand shock was relatively unimportant for the US. This is because the increase in US imports from China was much stronger than the rise in US exports to China.

Figure 2 shows that the overall trade deficit of B&R economies with China increased over this period: Panel A shows that the B&R trade deficit (computed as if B&R economies other than China were a single economy) rose from about 1.3% in 1995 to 4% in 2015; while Panel B indicates that the trade surplus of China with B&R economies fell between 2005 and 2010, but increased slightly again thereafter. However, as shown in Table A6 in the appendix, these aggregate patterns hide considerable heterogeneity across countries. Although the trade balance with China deteriorated considerably in Cambodia, Hong Kong, Vietnam, the Czech Republic, the Kyrgyz Republic and Tajikistan, it became increasingly positive in Mongolia, Oman and

Turkmenistan. This is yet another reason why the relative importance of supply and demand shocks associated with China's trade dynamics is likely to vary across B&R economies.

Building on these insights, this section examines econometrically the heterogeneous impacts of supply and demand shocks associated with China's trade dynamics on the exports of B&R economies. To measure supply (or competition) shocks associated with China's rising global exports, the analysis makes use of trade flow data by detailed product category and exploits differences across B&R economies in the degree of exposure to such shocks within each sector. Specifically, it interacts the change in log exports of China in sector i in period t with the export similarity index between China and B&R economy j in sector i in 1995. The sector is defined at the 3-digit level, while the similarity index is computed as in Finger and Kreinin (1979) using product-level data at the 6-digit level. This index takes values between zero and one, and the higher its value the closer is the product distribution of exports within sector i in the two countries.

The export similarity index between China and B&R economy j in sector i in 1995 is defined as:

$$SX_{cji95} = \sum_{p \subset i} \min[X_p(c), X_p(j)] \quad (1)$$

where $X_p(c)$ is the share of product p in China's total exports in 1995 and $X_p(j)$ is the share of product p in total exports of B&R economy j in the same year. If the distribution of the product-level exports of China and B&R economy j within sector i are identical, the index will take a value of 1. If they are totally dissimilar (for each $X_p(c) > 0$ and $X_p(j) = 0$, and vice versa) the index will take on a value of zero.

Formally, the China supply shock faced by B&R economy j in sector i in period t is defined as:

$$\Delta Supply_{cjit} = \Delta \log X_{cit} * SX_{cji95} \quad (2)$$

where X_{cit} denotes multilateral exports of China in sector i in year t , and SX_{cji95} the export similarity index between China and B&R economy j in sector i in 1995. Exposure to the global demand shocks associated with China's rising imports is measured in an analogous way, exploiting the fact that some countries initially exported relatively more of what China buys within each

sector. Formally, the demand shock faced by B&R economies is defined as:

$$\Delta Demand_{cjit} = \Delta \log M_{cit} * SM_{cji95} \quad (3)$$

where M_{cit} denotes multilateral imports of China in sector i in year t , and SM_{cji95} the similarity index between China's imports and the exports of B&R economy j in sector i in 1995. In the estimation sample, the average value for SX_{cji95} is 0.0009, while the mean value for SM_{cji95} is 0.0008.

The analysis then proceeds by examining the extent to which these country-sector specific supply and demand shocks impacted the multilateral exports of B&R economies in each sector. The following econometric model is estimated:

$$\Delta \log X_{jit} = \beta \Delta Supply_{cjit} + \phi \Delta Demand_{cjit} + \gamma_{jt} + \lambda_{ji} + \epsilon_{ijt} \quad (4)$$

where, X_{jit} denotes multilateral exports of B&R economy j in sector i in period t , γ_{jt} is a country-period effect, λ_{ji} is a country-sector effect and ϵ_{ijt} is the error term. The parameters of interest are therefore identified from variation over time in Chinese multilateral exports and imports in each 3-digit sector interacted with the initial degree of exposure of each B&R economy to such dynamics within the corresponding sector.

The key identifying assumption is that, from the perspective of each B&R economy, the evolution of China's multilateral exports and imports is largely exogenous to the economy in question. This assumption is plausible in light of the internal and global external factors driving China's trade growth during this period. However, one might be concerned that supply and demand shocks in some B&R economies over this period might also influence China's trade growth. In line with Autor et al. (2013, 2014), I use changes in sectoral Chinese exports and imports to the top 10 destinations and source countries (excluding B&R economies) are used as instruments for the change in China's multilateral exports within each sector. For robustness, alternative instruments based on different sets of destinations and source countries (always excluding B&R economies) are also considered. This instrumental variables approach requires that shocks to import demand and export supply these other markets are not the main driver of the growth in China's trade observed in this period. As emphasized by Autor et al. (2013, 2014), this assumption is plausible given that the growth in China's trade during this period was largely the result of internal supply shocks driven by extensive policy reform and falling trade barriers. Indeed, China's

productivity growth in manufacturing during this period was much more rapid than in other major economy, and accounted for three quarters of the global growth in manufacturing value added that was observed in low- and middle-income nations (Autor et al., 2013).

Importantly, these variables capture not only the effect of Chinese import competition in the domestic market (via imports) but also effects in third markets. By focusing on both supply and demand shocks, the analysis also accounts for intermediate inputs used in the production of Chinese exports. Autor et al. (2013) note that firms may produce inputs in one country, export them to a second country for further processing, and so on, until the final good is delivered to consumers. China is often the final link in the supply chain reflecting its comparative advantage in labor-intensive assembly. Although the empirical approach outlined above is not designed to explicitly account for value chains within product categories, it partly captures exposure of B&R economies to intermediate-goods trade (via supply and demand shocks across products).² The analysis below also examines the heterogeneity of effects by industry, depending on its positioning along the value chain – notably its upstreamness and number of stages in production, using the measures proposed by Antràs et al. (2012).

The econometric analysis considers changes in trade flows over three 5-year periods: 2000-2005, 2005-2010 and 2010-2015. This makes it possible to use the period 1995-2000 in specifications that account for pre-trends in the growth of exports of B&R economies. The model is estimated using the pooled panel by country-sector-period. Standard errors are clustered by B&R economy. Table A7 in the Appendix reports summary statistics on the main variables used in the regression analysis.

3.2 Main results

Table 2 reports the econometric estimates on average impacts of supply and demand shocks associated with China’s trade dynamics on the multilateral exports of B&R economies. Column (1) reports the OLS results, columns (2) and (3) the first stage estimates, and column (4) the corresponding 2SLS estimates. The results in column (1) suggest that China’s supply (or competition shocks) had a negative impact on the multilateral exports of B&R economies: the coefficient of

²In this regard, it is important to note that, while China may be the last link in global production chains for some products, its contribution to value added across the various sectors is relatively large. Koopman et al. (2010) estimate that value added in China accounted for 63 percent of its gross exports across all sectors. Using more detailed data, Kee and Tang (2016) show that the substitution of domestic for imported materials by individual processing exporters caused China’s domestic content in exports to increase from 65 to 70 percent in the period 2000-2007.

interest is negative and statistically significant at the 1% level. In other words, the rise of China's exports in sectors where the exports patterns were initially more similar to those of B&R economies had a negative impact on export growth in B&R economies. By contrast, demand shocks associated with the rise of China's imports impacted positively the overall growth of their exports. The magnitude of the coefficient on demand shocks is considerably larger than that on supply shocks, suggesting that the overall net impact of China trade shocks on the exports of B&R economies during the period 2000-2015 was positive.

A potential concern about the OLS estimates is that supply and demand shocks in some B&R economies over this period might also influence China's trade growth. To address this concern, I use changes in Chinese exports to the top 10 destinations excluding B&R economies (or imports from the top 10 sources excluding B&R economies) interacted with the initial similarity index as instruments for the change in China's multilateral exports (also interacted with the initial similarity index). As discussed above, this instrumental variables approach requires that shocks to import demand and export supply these other markets are not the main cause of the growth in China's trade observed in this period. This assumption is plausible since China's trade dynamics during this period was largely the result of internal supply shocks driven by extensive policy reform and falling trade barriers (Autor et al., 2013, 2014). Indeed, China's productivity growth in manufacturing in this period was much more rapid than in other major economy, and accounted for three quarters of the global growth in manufacturing value added that was observed in low- and middle-income nations. The results in columns (2) and (3) reveal that these instruments are a strongly correlated with the overall supply and demand shocks. They also suggest that supply and demand shocks are only weakly correlated with each other, thereby providing a source of variation for identifying their independent effects. Since the first stage coefficients of interest are close to unity (and the others are close to zero), the 2SLS estimates in column (4) are not too dissimilar from those in column (1).

3.3 Robustness checks

In this section, we verify the extent to which the baseline results are robust to a number of alternative specifications. The baseline specifications in Table 2 use the year 1995 for measuring the initial exposure to supply and demand shocks of each country-industry. The use of a pre-sample year is in line with the analysis of Autor et al. (2013) and seeks avoid that the measures of initial exposure change endogenously with China's trade growth. For robustness, however, this

section uses different years for computing the similarity indices. In Table A8 in the Appendix, the similarity indices are based in the year 2000, rather than 1995. Table A9 considers instead the first year of each 5-year period for computing the similarity indices (that is, the years 2000, 2005 and 2010). In both cases, the IV results in column (4) are qualitative similar.

Another concern about the baseline analysis is that the estimates might be influenced by pre-trends in the exports of B&R economies. To account for this concern, the specifications in Table 3 include lagged values of the dependent variable among the regressors. This specification is in line with that adopted in Dix-Carneiro and Kovak (2017), and is made possible by the fact that the sample period of the econometric analysis starts in 2000, while the trade data from BACI are available since 1995. We can therefore use the period 1995-2000 to control for pre-trends in 2000-2005, the period 2000-2005 to control for pre-trends in 2005-2010, and so on. Reassuringly, the estimates in Table 3 reveal that the baseline results remain very similar when controlling for pre-trends in the exports of B&R economies.

Table 4 verifies if the instrumental variable estimates are robust to the use of a different set of destinations and source countries in constructing instruments for China's overall trade growth. Instead of considering only the top 10 destinations and source countries (excluding B&R economies), the estimates in Table 4 consider all other destinations and source countries of China. Since the growth in China's trade during this period was largely the result of internal supply shocks driven by extensive policy reform and falling trade barriers (Autor et al., 2013, 2014), the set of countries used to construct the instrument should not significantly alter the results. Reassuringly, the estimates remain indeed qualitatively and quantitatively very similar. In Tables A10 and A11, we further consider, respectively, the top 20 and top 40 destinations and source countries. Again, the estimates remain very similar.

The baseline specification uses similarity indices to capture the exposure of each country-industry pair to supply and demand shocks associated with China's trade dynamics. This measure has two advantages. First, it uses the full product detail at the 6-digit level to measure the similarity of the export and import structures, but can be aggregated to the industry-level, thus avoiding a large number of zeros in the trade flow data. Second, it makes it possible to distinguish between the similarity with China's initial export and import structure, which is important for separately identifying competition and demand shocks. Notwithstanding these advantages, Table A12 considers a simpler measure for capturing the exposure of each country-sector to China's trade dynamics: the export share of the 3-digit sector in total exports of each B&R economy in

1995. Reassuringly, the results are qualitatively similar, although the effects of demand shocks in the IV specification are less precisely estimated.³

3.4 Heterogeneity across industries

With the fragmentation of production across national boundaries, firms may produce inputs in one country, export them to a second country for further processing, and so on, until the final good is delivered to consumers. During the period of analysis China was often the final link in the supply chain reflecting its comparative advantage in labor-intensive assembly (Autor et al., 2013). Although the empirical strategy in this paper was not designed to explicitly account for supply chains within 6-digit product categories, it partly captures the exposure of BR economies to intermediate-goods trade (through competition and demand shocks across products). Given China’s dominance in labor-intensive assembly, the magnitude of the effects of its trade shocks on the exports of B&R economies might be expected to differ across industries, depending on how much the corresponding products are close to final use.

To examine this hypothesis, we adopt the measures of ”upstreamness” and ”number of stages in production” developed by Antràs et al. (2012) using US data for 2002. The first measure captures the average distance from final use, while the second captures the average number of stages of production. Using a concordance made available online by Antràs et al. (2012), I first converted these measures to the HS 6-digit level. Then, I aggregated them to the 3-digit level, using China’s export shares in each 6-digit product category in 1995. I also examined the robustness of the results using instead China’s product-level imports in 1995 as weights. I then divided the estimation sample in two groups, depending on whether the level of upstreamness (or number of stages) in the 3-digit industry was above or below the median.

Consistent with the hypothesis discussed above, the econometric results in Table 5 reveal that the effects of China’s competition and demand shocks on the exports of B&R economies tend to be significantly stronger in industries that are relatively closer to final use. The magnitude of the estimates in Panel B, which considers industries with upstreamness below the median, is similar to that in the baseline analysis. By contrast, the estimates in Panel A reveal that for more upstream industries, the effects of competition shocks are statistically insignificant from zero, while those of demand shocks are considerably smaller and less precisely estimated. Table 6

³The magnitude of the point estimates also differs, as would be expected in light of the differences in the initial values of the export share relative to the similarity indices.

further examines heterogeneity of effects depending on the number of stages in production. In this case, the estimates do not reveal marked differences across industries depending on the number of stages. Taken together, these estimates suggest that the effects of China's trade dynamics on the export performance of B&R economies depend more on China's position in the value chain than on the overall degree of fragmentation of the production process in the industry. The robustness of these findings is further supported by the estimates in Tables A13 and A14, which use China's import shares at the 6-digit level in 1995 to aggregate the measures of "upstreamness" and "number of stages" to the 3-digit level.

3.5 Heterogeneity across countries

The effects of China's demand and competition shocks on the exports of B&R economies might also be expected to differ across B&R economies. This section examines the heterogeneity of effects along two important attributes: distance to China and income per capita. The impacts of competition shocks on the exports of B&R economies might be expected to be stronger among countries that are relatively close to China from a geographic standpoint. These effects could also be expected to be more pronounced among low-income countries that have a comparative advantage in labor intensive products. The results in Tables 7 and 8 reveal that this is indeed the case. The estimates in Table 7 show that the effects of competition shocks tend to be stronger among B&R economies that are in closer geographical proximity to China. The results in Table 8 shows that these effects also tend to be relatively stronger among countries with low levels of income per capita. By contrast, the magnitude of the effects of China's demand shocks does not appear to vary systematically with these attributes.

4 Current degree of exposure of B&R economies to China's trade dynamics

The econometric analysis presented above made it possible to estimate the extent to which the exports of B&R economies were impacted by supply and demand shocks associated with China's trade dynamics in the period 2000-2015. Building on this analysis, this section provides descriptive statistics to document the current degree of exposure of each B&R economy to: (1) import competition from China; (2) competition from China in third export markets; and (3) demand shocks from China. This analysis makes it possible to draw inferences about the likely impacts of

further integration with China on the trade patterns of these economies.

A first step towards assessing these various dimensions of exposure to China's trade dynamics is to document how important are trade relationships with China for each B&R economy. Figure 3 depicts the relative importance of China for the exports and imports of each B&R economy. It reveals that China is an important trade partner for many B&R economies. Indeed, for most B&R economies, China is more important as a source of imports than as a destination market for exports. This is clearly the case for Tajikistan, Kyrgyzstan, Bangladesh, Cambodia and Timor-Leste. There are also several B&R economies, including Mongolia, Turkmenistan, Oman, Yemen and Lao for which China is more important as export destination than as source country.

To assess the extent to which B&R economies are exposed to import competition from China, it is important to examine not only how important China is as a source of imports, but also the degree to which China's specialization pattern is similar to that of the country in question. If a B&R economy sources a significant share of imports from China and has a similar production structure, competition shocks would be expected to be stronger. In contrast, if China is either not an important source of imports, or the two countries produce and export markedly different sets of products, competitive pressures would be expected to be weaker. As in the previous section, the degree of similarity in specialization patterns relative to China is measured by the export similarity index proposed by Finger and Kreinin (1979), using detailed product-level data at the 6-digit level. As described above, this index takes values between zero and one, and the higher its value the closest is the product distribution of exports in the two countries.

The evidence in Figure 4 reveals that several B&R economies for which China is an important source of imports have a specialization structure that differs considerably from that of China. These include Tajikistan, Myanmar, Kyrgyzstan, Bangladesh, Mongolia and Iran. To the extent that differences in export structure reflect underlying differences in production structures across countries, these countries are only weakly exposed to Chinese import competition in their own markets, even though they source a large share of imports from China. Mutual gains from further integration with these countries are likely to derive mainly from further exploitation of the corresponding comparative advantages. By contrast there are several other B&R economies that source a relatively large share of imports from China and have an export structure that is more similar to that of China. These include, most notably, Vietnam, Thailand, Malaysia, Philippines, India, Singapore and Indonesia. These countries are therefore likely to be relatively more exposed to import competition from China in their own markets in several industries. Further

integration with these countries would likely involve stronger competitive pressures in final goods markets, which may have important implications for the adjustment of factor markets (notably labor markets).

To assess the extent to which B&R economies are exposed to competition from China in third-country export markets, Figure 5 depicts the relationship between an export similarity index computed at the product-destination level and an export similarity index calculated at the product-level. A relatively high value for both these measures would suggest that not only the B&R economy produces and exports a basket of goods that is similar to that of China, but also that it sells those products in the same export destinations. The evidence in Figure 5 suggest that the degree to which B&R economies are exposed to competition from China in third-country markets is relatively higher in Vietnam, Thailand, Malaysia, Philippines, India and Singapore. If Chinese exports become relatively more expensive (e.g. due to increases in labor costs or exchange rate movements), these countries would likely gain market share in their corresponding export markets.

Finally, Figure 6 provides evidence on the extent to which B&R economy is exposed to fluctuations in China's import demand. To make this assessment, it is important to consider not only if China is an important export destination for B&R economies, but also the extent to which the structure of Chinese import demand is similar to the structure of the B&R economy's exports. While the first indicator gives a direct measure of the current degree of exposure to changes in Chinese import demand, the second contains useful information on the potential for increasing further such demand. The results in Figure 6 suggest that Mongolia, Hong Kong, Iran, Oman, Yemen and Turkmenistan are highly exposed to demand shocks from China. China is also an important destination market for Lao, Uzbekistan and Myanmar, though the export structure of these countries exhibits important differences relative to the structure of China's overall import demand. Finally, there are several B&R economies for which China is an important destination market and have an export structure that is relatively closer to the structure of Chinese multilateral imports. This is especially the case of Malaysia, Philippines, Thailand and Singapore.

5 Concluding remarks

This paper characterized the recent dynamics of China's bilateral trade relationships, and assessed the implications of China trade shocks for the export performance of B&R economies. Between

1995 and 2015, B&R economies accounted for about a third of China’s export revenue. They have been more important for China as export markets than as sources of Chinese imports (although the share of imports originated in B&R economies trended upward in recent years). China is an important trade partner for many B&R economies, especially as a source of imports. The econometric analysis revealed that the growth of China’s trade following its internal transformation and accession to the WTO significantly impacted the export performance of B&R economies. During the period 2000-2015, the growth in China’s imports significantly boosted the exports of these economies. However, this effect was attenuated by increased competition from China in export markets. The effects of China’s demand shocks were stronger in more upstream industries, while those of competition shocks were more pronounced in industries that produce goods that are closer to final use. The effects of competition shocks were also relatively stronger in economies with relatively low income levels and that are geographically closer to China.

Although one must be cautious in extrapolating from historical data, the econometric results suggest that the trade similarity indices contain useful information for capturing the current degree of exposure of B&R economies to China trade shocks. While deeper economic integration typically generates gains at the country-level, it also imposes adjustment costs within countries. These costs are associated with reallocations of workers across sectors, regions and occupations triggered by sector-specific competition and demand trade shocks. Countries more exposed to competition shocks from China are likely to face stronger adjustment costs. Policies to deal with these trade shocks may include general inclusive policies, such as social security and labor policies (including education and training). Trade-specific adjustment programs may play a complementary role (IMF, World Bank and WTO, 2017). While this paper aimed to provide a general overview of the exposure of each B&R economy to supply and demand shocks associated with further integration with China, more definite conclusions require complementary analysis based on production and employment data, along with a deeper assessment of country-specific institutions.

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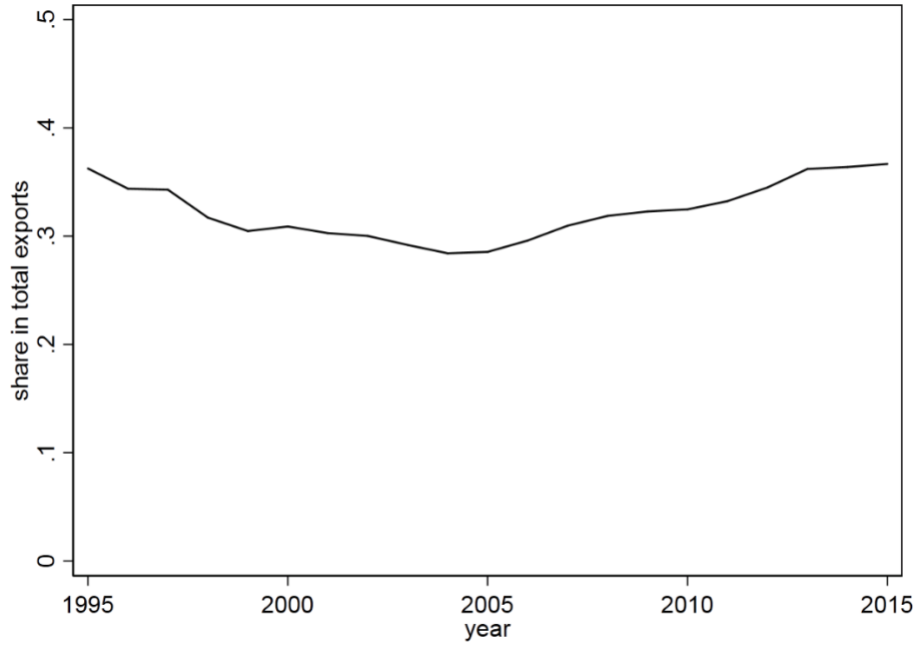
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Figure 1. Relative importance of trade flows with B&R economies, 1995-2015

A. China's exports to B&R economies (share of total)



B. China's imports from B&R economies (share of total)

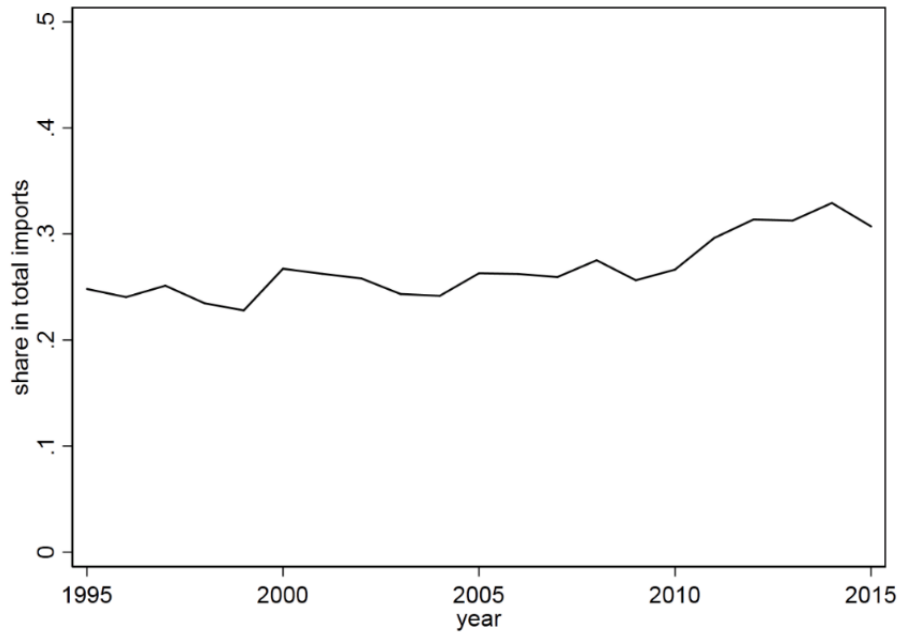
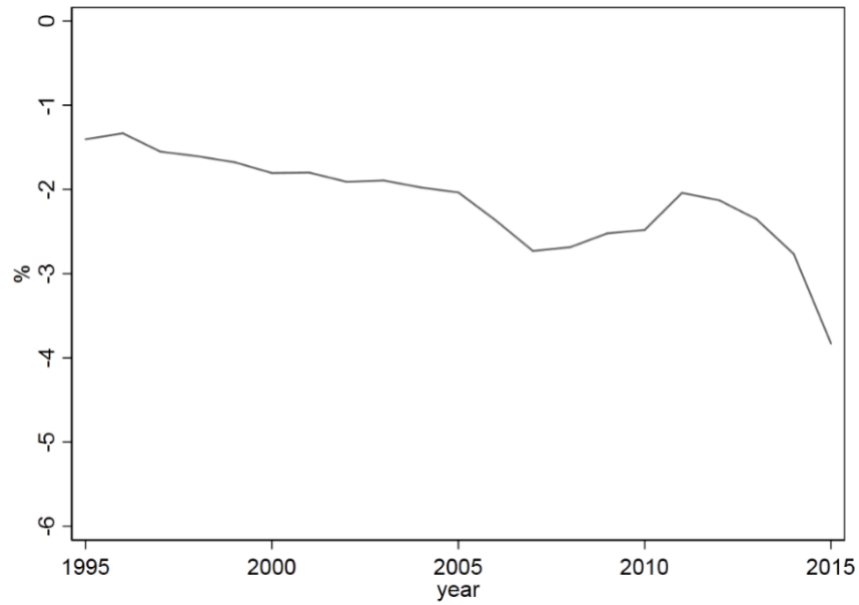
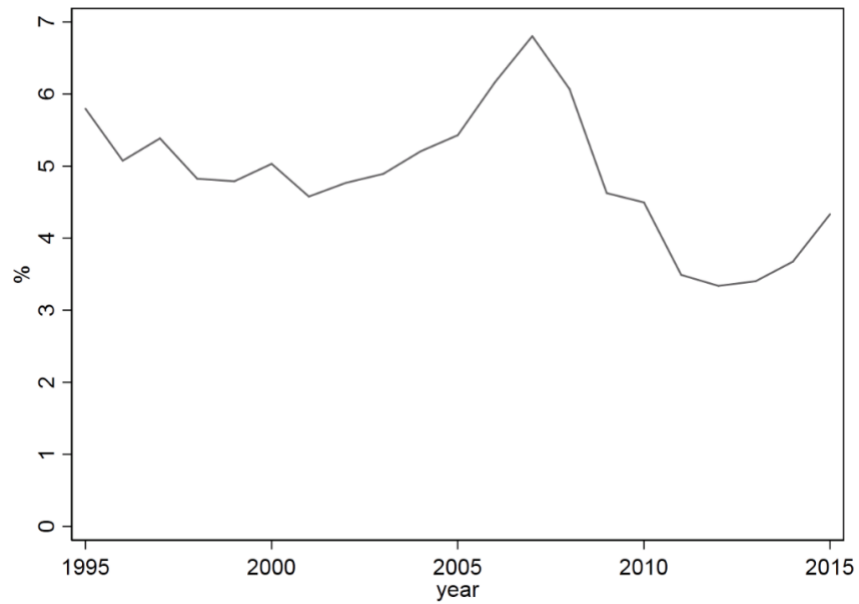


Figure 2. Trade balances between China and B&R economies

A. Trade balance of B&R economies with China (% of GDP)

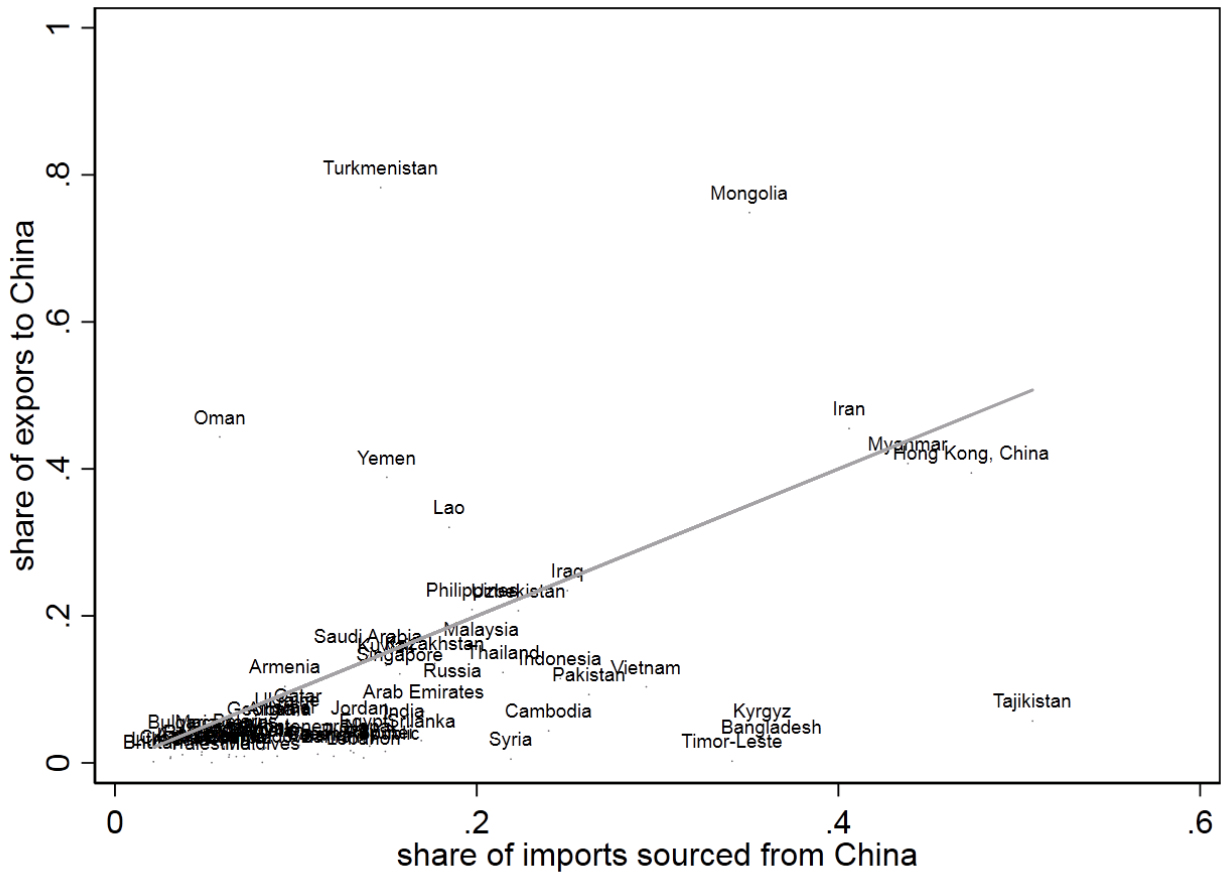


B. Trade balance of China with B&R economies (% of Chinese GDP)



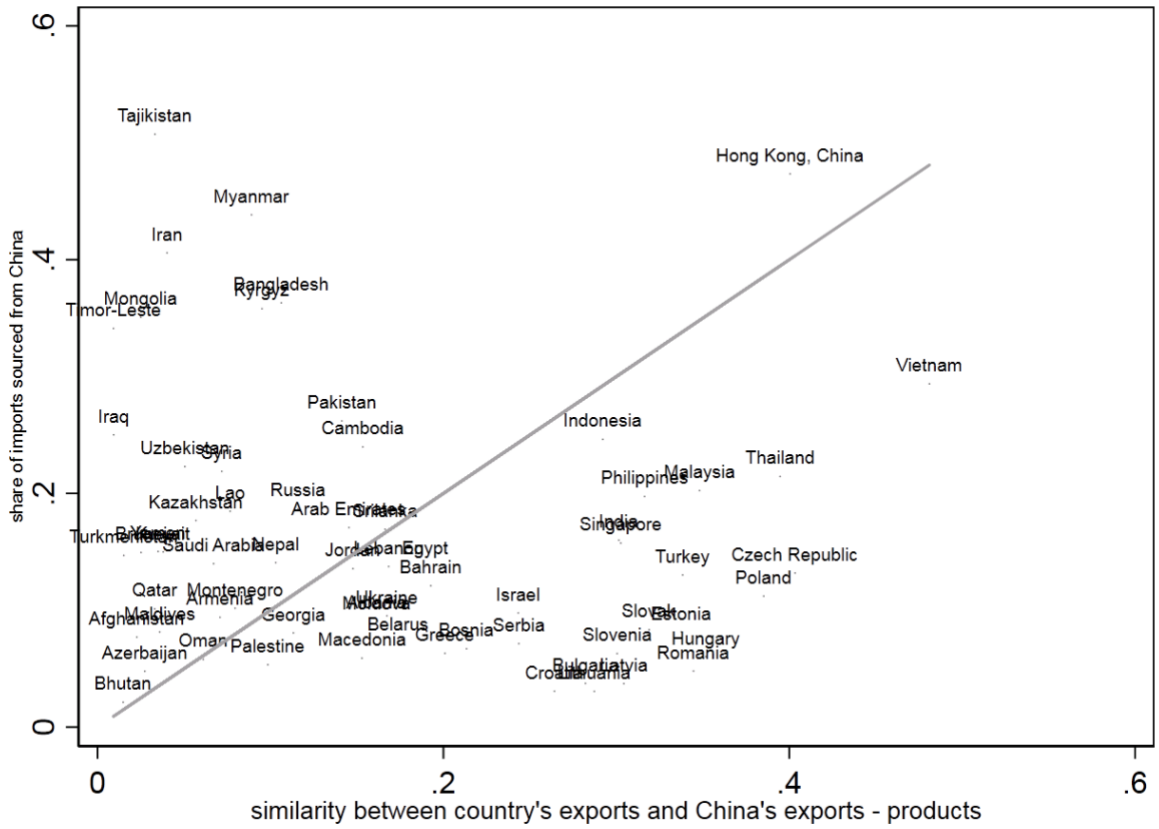
Notes: Panel A is based on trade and GDP data aggregated across B&R economies. Panel B is based on trade data aggregated across B&R economies and GDP data for China.

Figure 3. Relative importance of China for trade of B&R economies, 2015



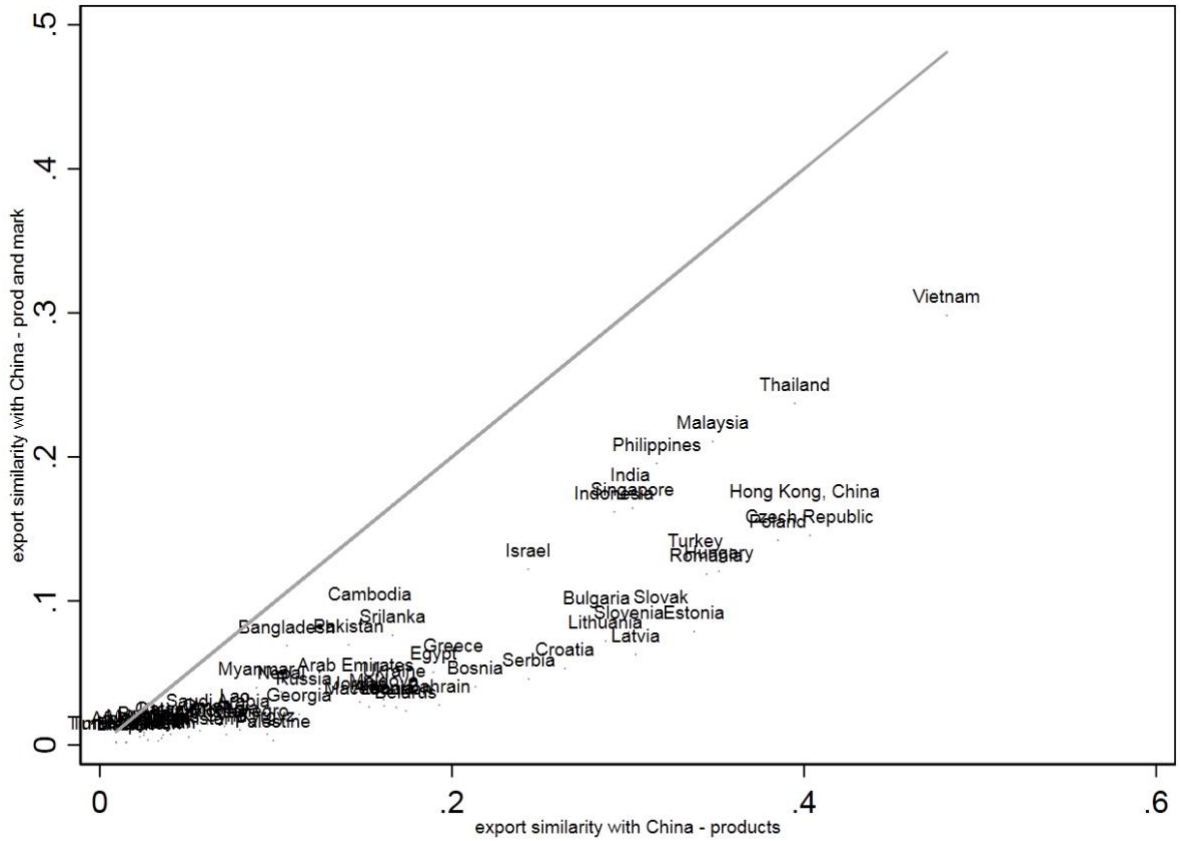
Notes: For each B&R economy, the figure depicts the share of exports to China in total exports (vertical axis) and the share of imports sourced from China in total imports (horizontal axis), both in 2015.

Figure 4. Exposure to import competition from China, 2015



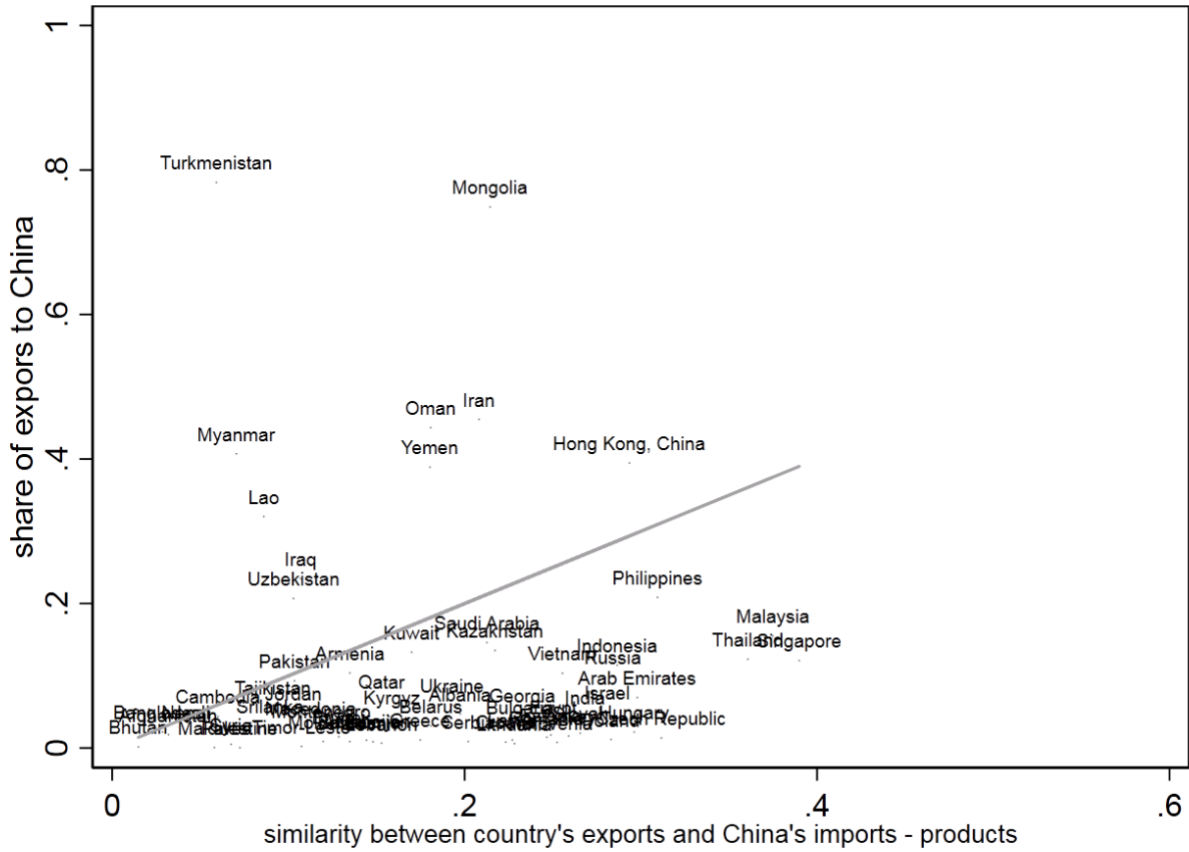
Notes: For each B&R economy, the figure depicts the share of the share of imports sourced from China in total imports (vertical axis) and the export similarity index between the country's exports and China's exports (horizontal axis), both in 2015. The export similarity index was calculated with exports data by product category (HS 6-digit level).

Figure 5. Exposure to competition from China in third export markets, 2015



Notes: For each B&R economy, the figure depicts export similarity indices between the country's exports and China's exports in 2015. The export similarity index in the vertical axis calculated with exports data by destination and product category (HS 6-digit level). The export similarity index in the vertical axis calculated with exports data by product category (HS 6-digit level).

Figure 6. Exposure to demand shocks from China, 2015



Notes: For each B&R economy, the figure depicts the share of the share of exports China in total exports (vertical axis) and the export similarity index between the country's exports and China's imports (horizontal axis), both in 2015. The similarity index was calculated with trade data by product category (HS 6-digit level).

Table 1. Trade flows of China with B&R economies, 1995 and 2015

	1995		2015	
	share	rank	share	rank
A. Exports				
Hong Kong, China	0,261	1	0,115	1
India	0,004	9	0,025	2
Vietnam	0,003	11	0,021	3
Singapore	0,018	2	0,020	4
Thailand	0,010	3	0,017	5
United Arab Emirates	0,005	7	0,016	6
Malaysia	0,008	5	0,015	7
Russia	0,008	4	0,015	8
Indonesia	0,008	6	0,014	9
Turkey	0,003	14	0,010	10
Saudi Arabia	0,004	10	0,010	11
Poland	0,003	13	0,009	12
Czech Rep.	0,001	20	0,008	13
Iran	0,001	19	0,008	14
Philippines	0,005	8	0,006	15
B. Imports				
Hong Kong, China	0,104	1	0,043	1
Malaysia	0,020	4	0,031	2
Russia	0,026	2	0,024	3
Singapore	0,023	3	0,024	4
Thailand	0,014	6	0,022	5
Saudi Arabia	0,004	8	0,021	6
Vietnam	0,003	11	0,015	7
Indonesia	0,019	5	0,015	8
Philippines	0,002	14	0,013	9
Oman	0,004	7	0,012	10
Iran	0,002	17	0,011	11
India	0,004	9	0,009	12
Iraq	0,000	51	0,009	13
United Arab Emirates	0,001	22	0,008	14
Turkmenistan	0,000	42	0,006	15

Table 2. Impacts of China shocks on exports of B&R economies, 2000-2015

	(1)	(2)	(3)	(4)
	OLS	2SLS		
		1st stage		2nd stage
	$\Delta \log X_{jit}$	$\Delta \text{Supply}_{cjit}$	$\Delta \text{Demand}_{cjit}$	$\Delta \log X_{jit}$
$\Delta \text{Supply}_{cjit}$	-15.01*** (5.124)			-12.82** (5.553)
$\Delta \text{Demand}_{cjit}$	42.76*** (8.507)			37.04*** (10.21)
$\Delta \text{Supply}_{cjit}$ (top 10 destinations)		0.834*** (0.00939)	0.176*** (0.0268)	
$\Delta \text{Demand}_{cjit}$ (top 10 sources)		-0.00619 (0.00787)	0.576*** (0.0303)	
Country-industry effects	Yes	Yes	Yes	Yes
Country-period effects	Yes	Yes	Yes	Yes
Observations	31,952	31,952	31,952	31,952
R-squared	0.280	0.987	0.901	0.001
F-statistic		310.85	60.57	

Notes: The table reports the effects of China supply and demand trade shocks on the exports of B&R economies over the period 2000-2015, considering 5-year intervals and 3-dig industries. The similarity indexes for each country and industry were computed with 6-dig trade data for the year 1995. Column (1) reports the OLS estimates, columns (2) and (3) the first stage estimates and column (4) the IV estimates. Robust standard errors clustered by country in parenthesis, *** p<0.01, ** p<0.05, * p<0.1

Table 3. Impacts of China shocks on exports of B&R economies, 2000-2015, controlling for pre-trends in exports

	(1)	(2)	(3)	(4)
	OLS	2SLS		
		1st stage		2nd stage
	$\Delta \log X_{jit}$	$\Delta \text{Supply}_{cjit}$	$\Delta \text{Demand}_{cjit}$	$\Delta \log X_{jit}$
$\Delta \text{Supply}_{cjit}$	-11.73** (5.211)			-11.70** (5.619)
$\Delta \text{Demand}_{cjit}$	32.75*** (7.764)			31.98*** (9.010)
$\Delta \log X_{jit-1}$	-0.450*** (0.00837)	-1.10e-08 (1.03e-06)	-6.50e-06** (2.97e-06)	-0.450*** (0.0127)
$\Delta \text{Supply}_{cjit}$ (top 10 destinations)		0.834*** (0.0349)	0.176 (0.118)	
$\Delta \text{Demand}_{cjit}$ (top 10 sources)		-0.00619 (0.0206)	0.576*** (0.0911)	
Country-industry effects	Yes	Yes	Yes	Yes
Country-period effects	Yes	Yes	Yes	Yes
Observations	31,952	31,952	31,952	31,952
R-squared	0.441	0.987	0.901	0.224
F-statistic		332.88	128.20	

Notes: The table reports the effects of China supply and demand trade shocks on the exports of B&R economies over the period 2000-2015, considering 5-year intervals and 3-dig industries. The similarity indexes for each country and industry were computed with 6-dig trade data for the year 1995. Column (1) reports the OLS estimates, columns (2) and (3) the first stage estimates and column (4) the IV estimates. Robust standard errors clustered by country in parenthesis, *** p<0.01, ** p<0.05, * p<0.1

Table 4. Robustness: 2000-2015, controlling for pre-trends in exports, alternative instrument

	(1)	(2)	(3)	(4)
	OLS	2SLS		
		1st stage		2nd stage
	$\Delta \log X_{jit}$	$\Delta \text{Supply}_{cjit}$	$\Delta \text{Demand}_{cjit}$	$\Delta \log X_{jit}$
$\Delta \text{Supply}_{cjit}$	-11.73** (5.211)			-10.58* (5.542)
$\Delta \text{Demand}_{cjit}$	32.75*** (7.764)			30.95*** (8.220)
$\Delta \log X_{jit-1}$	-0.450*** (0.00837)	-8.96e-07 (7.96e-07)	-2.78e-06* (1.51e-06)	-0.450*** (0.0127)
$\Delta \text{Supply}_{cjit}$ (all destinations, except B&R)		0.864*** (0.0239)	0.0238 (0.0442)	
$\Delta \text{Demand}_{cjit}$ (all sources, except B&R)		0.0110 (0.0186)	0.802*** (0.0575)	
Country-industry effects	Yes	Yes	Yes	Yes
Country-period effects	Yes	Yes	Yes	Yes
Observations	31,952	31,952	31,952	31,952
R-squared	0.441	0.993	0.969	0.224
F-statistic		948.28	98.09	

Notes: The table reports the effects of China supply and demand trade shocks on the exports of B&R economies over the period 2000-2015, considering 5-year intervals and 3-dig industries. The similarity indexes for each country and industry were computed with 6-dig trade data for the year 1995. Column (1) reports the OLS estimates, columns (2) and (3) the first stage estimates and column (4) the IV estimates. Robust standard errors clustered by country in parenthesis, *** p<0.01, ** p<0.05, * p<0.1

Table 5. Heterogeneity by industry, 2000-2015, upstreamness

	(1)	(2)	(3)	(4)
	OLS		2SLS	
		1st stage		2nd stage
	$\Delta \log X_{jit}$	$\Delta \text{Supply}_{cjit}$	$\Delta \text{Demand}_{cjit}$	$\Delta \log X_{jit}$
A. Upstreamness above median				
$\Delta \text{Supply}_{cjit}$	12.27 (10.05)			3.556 (10.01)
$\Delta \text{Demand}_{cjit}$	18.96** (9.285)			22.86* (12.15)
$\Delta \log X_{jit-1}$	-0.452*** (0.0120)	4.86e-07 (9.67e-07)	-5.35e-06 (3.55e-06)	-0.452*** (0.0159)
$\Delta \text{Supply}_{cjit}$ (top 10 destinations)		0.868*** (0.0201)	0.652*** (0.105)	
$\Delta \text{Demand}_{cjit}$ (top 10 sources)		-0.0288 (0.0205)	0.490*** (0.0579)	
Country-industry effects	Yes	Yes	Yes	Yes
Country-period effects	Yes	Yes	Yes	Yes
Observations	16,178	16,178	16,178	16,178
R-squared	0.438	0.966	0.927	0.226
F-statistic		989.39	174.15	
B. Upstreamness below median				
$\Delta \text{Supply}_{cjit}$	-14.50*** (3.958)			-12.17** (5.733)
$\Delta \text{Demand}_{cjit}$	47.45*** (6.167)			44.52*** (7.663)
$\Delta \log X_{jit-1}$	-0.449*** (0.0125)	-1.32e-07 (1.18e-06)	6.39e-08 (1.30e-06)	-0.449*** (0.0131)
$\Delta \text{Supply}_{cjit}$ (top 10 destinations)		0.799*** (0.0269)	-0.0163 (0.0123)	
$\Delta \text{Demand}_{cjit}$ (top 10 sources)		0.0970*** (0.0307)	0.916*** (0.0248)	
Country-industry effects	Yes	Yes	Yes	Yes
Country-period effects	Yes	Yes	Yes	Yes
Observations	15,774	15,774	15,774	15,774
R-squared	0.460	0.992	0.979	0.224
F-statistic		417.21	490.39	

Notes: The table reports the effects of China supply and demand trade shocks on the exports of B&R economies over the period 2000-2015, considering 5-year intervals and 3-dig industries. The similarity indexes for each country and industry were computed with 6-dig trade data for the year 1995. Panel A considers industries with upstreamness measures above the median, while Panel B considers industries with upstreamness measures below median. Upstreamness measures calculated at the 3-dig level, based on original measures at the 6-digit level weighted by China's exports in 1995. Column (1) reports the OLS estimates, columns (2) and (3) the first stage estimates and column (4) the IV estimates. Robust standard errors clustered by country in parenthesis, *** p<0.01, ** p<0.05, * p<0.1

Table 6. Heterogeneity by industry, 2000-2015, number of stages in production

	(1)	(2)	(3)	(4)
	OLS	2SLS		
		1st stage		2nd stage
	$\Delta \log X_{jit}$	$\Delta \text{Supply}_{cjit}$	$\Delta \text{Demand}_{cjit}$	$\Delta \log X_{jit}$
A. Number of stages in production above median				
$\Delta \text{Supply}_{cjit}$	-10.14*			-9.705*
	(5.223)			(5.628)
$\Delta \text{Demand}_{cjit}$	34.22***			31.94***
	(8.611)			(10.91)
$\Delta \log X_{jit-1}$	-0.439***	-2.04e-06	-1.16e-05**	-0.439***
	(0.00979)	(1.71e-06)	(5.40e-06)	(0.0157)
$\Delta \text{Supply}_{cjit}$ (top 10 destinations)		0.810***	0.177	
		(0.0239)	(0.122)	
$\Delta \text{Demand}_{cjit}$ (top 10 sources)		-0.0228	0.534***	
		(0.0147)	(0.0851)	
Country-industry effects	Yes	Yes	Yes	Yes
Country-period effects	Yes	Yes	Yes	Yes
Observations	16,367	16,367	16,367	16,367
R-squared	0.440	0.988	0.897	0.219
F-statistic		432.14	74.84	
B. Number of stages in production below median				
$\Delta \text{Supply}_{cjit}$	-11.98			-16.47
	(10.38)			(11.04)
$\Delta \text{Demand}_{cjit}$	28.20**			34.93***
	(10.78)			(11.62)
$\Delta \log X_{jit-1}$	-0.465***	1.94e-06**	-1.67e-07	-0.465***
	(0.0138)	(7.41e-07)	(1.95e-06)	(0.0145)
$\Delta \text{Supply}_{cjit}$ (top 10 destinations)		0.873***	0.00424	
		(0.0221)	(0.0228)	
$\Delta \text{Demand}_{cjit}$ (top 10 sources)		0.0956***	0.950***	
		(0.0260)	(0.0578)	
Country-industry effects	Yes	Yes	Yes	Yes
Country-period effects	Yes	Yes	Yes	Yes
Observations	15,585	15,585	15,585	15,585
R-squared	0.451	0.992	0.965	0.232
F-statistic		15.585	324.0	

Notes: The table reports the effects of China supply and demand trade shocks on the exports of B&R economies over the period 2000-2015, considering 5-year intervals and 3-dig industries. The similarity indexes for each country and industry were computed with 6-dig trade data for the year 1995. Panel A considers industries with measures of the number of stages in production above the median, while Panel B considers industries with measures of the number of stages in production below median. The measures of stages in production were calculated at the 3-dig level, based on original measures at the 6-digit level weighted by China's exports in 1995. Column (1) reports the OLS estimates, columns (2) and (3) the first stage estimates and column (4) the IV estimates. Robust standard errors clustered by country in parenthesis, *** p<0.01, ** p<0.05, * p<0.1

Table 7. Heterogeneity by country, 2000-2015, distance to China

	(1)	(2)	(3)	(4)
	OLS		2SLS	
		1st stage		2nd stage
	$\Delta \log X_{jit}$	$\Delta \text{Supply}_{cjit}$	$\Delta \text{Demand}_{cjit}$	$\Delta \log X_{jit}$
A. Distance to China above median				
$\Delta \text{Supply}_{cjit}$	3.470 (8.910)			1.967 (7.360)
$\Delta \text{Demand}_{cjit}$	30.83*** (8.421)			34.33** (13.85)
$\Delta \log X_{jit-1}$	-0.428*** (0.0136)	6.39e-07 (1.31e-06)	-4.45e-06 (3.72e-06)	-0.428*** (0.0189)
$\Delta \text{Supply}_{cjit}$ (top 10 destinations)		0.808*** (0.0314)	0.160 (0.160)	
$\Delta \text{Demand}_{cjit}$ (top 10 sources)		-0.00136 (0.0218)	0.630*** (0.129)	
Country-industry effects	Yes	Yes	Yes	Yes
Country-period effects	Yes	Yes	Yes	Yes
Observations	15,227	15,227	15,227	15,227
R-squared	0.488	0.984	0.910	0.214
F-statistic		348.39	31.58	
B. Distance to China below median				
$\Delta \text{Supply}_{cjit}$	-21.44** (7.854)			-19.57** (7.671)
$\Delta \text{Demand}_{cjit}$	35.52*** (10.37)			29.46** (11.16)
$\Delta \log X_{jit-1}$	-0.461*** (0.00985)	-1.93e-07 (1.14e-06)	-7.55e-06* (4.42e-06)	-0.461*** (0.0163)
$\Delta \text{Supply}_{cjit}$ (top 10 destinations)		0.851*** (0.0388)	0.196 (0.126)	
$\Delta \text{Demand}_{cjit}$ (top 10 sources)		-0.0121 (0.0369)	0.517*** (0.109)	
Country-industry effects	Yes	Yes	Yes	Yes
Country-period effects	Yes	Yes	Yes	Yes
Observations	16,725	16,725	16,725	16,725
R-squared	0.416	0.990	0.894	0.229
F-statistic		401.43	212.67	

Notes: The table reports the effects of China supply and demand trade shocks on the exports of B&R economies over the period 2000-2015, considering 5-year intervals and 3-dig industries. The similarity indexes for each country and industry were computed with 6-dig trade data for the year 1995. Panel A considers B&R economies with distance to China above the median, while Panel B considers those with distance to China below the median. Column (1) reports the OLS estimates, columns (2) and (3) the first stage estimates and column (4) the IV estimates. Robust standard errors clustered by country in parenthesis, *** p<0.01, ** p<0.05, * p<0.1

Table 8. Heterogeneity by country, 2000-2015, GDPpc

	(1)	(2)	(3)	(4)
	OLS	2SLS		
		1st stage		2nd stage
	$\Delta \log X_{jit}$	$\Delta \text{Supply}_{cjit}$	$\Delta \text{Demand}_{cjit}$	$\Delta \log X_{jit}$
A. GDPpc above median				
$\Delta \text{Supply}_{cjit}$	-4.753 (6.363)			-4.991 (6.449)
$\Delta \text{Demand}_{cjit}$	28.15*** (6.701)			30.16*** (5.660)
$\Delta \log X_{jit-1}$	-0.436*** (0.0180)	1.33e-06 (2.04e-06)	-8.12e-06 (7.05e-06)	-0.436*** (0.0210)
$\Delta \text{Supply}_{cjit}$ (top 10 destinations)		0.842*** (0.0350)	0.188 (0.124)	
$\Delta \text{Demand}_{cjit}$ (top 10 sources)		0.00292 (0.0255)	0.606*** (0.132)	
Country-industry effects	Yes	Yes	Yes	Yes
Country-period effects	Yes	Yes	Yes	Yes
Observations	15,795	15,795	15,795	15,795
R-squared	0.443	0.986	0.909	0.215
F-statistic		391.34	122.64	
B. GDPpc below median				
$\Delta \text{Supply}_{cjit}$	-22.82*** (6.751)			-22.62*** (7.878)
$\Delta \text{Demand}_{cjit}$	39.44** (15.05)			31.62 (25.79)
$\Delta \log X_{jit-1}$	-0.455*** (0.0102)	-9.44e-07 (1.29e-06)	-6.84e-06** (2.70e-06)	-0.455*** (0.0158)
$\Delta \text{Supply}_{cjit}$ (top 10 destinations)		0.817*** (0.0287)	0.145 (0.151)	
$\Delta \text{Demand}_{cjit}$ (top 10 sources)		-0.0255 (0.0219)	0.517*** (0.0986)	
Country-industry effects	Yes	Yes	Yes	Yes
Country-period effects	Yes	Yes	Yes	Yes
Observations	16,157	16,157	16,157	16,157
R-squared	0.440	0.990	0.886	0.227
F-statistic		492.31	86.14	

Notes: The table reports the effects of China supply and demand trade shocks on the exports of B&R economies over the period 2000-2015, considering 5-year intervals and 3-dig industries. The similarity indexes for each country and industry were computed with 6-dig trade data for the year 1995. Panel A considers B&R economies with initial GDPpc above the median, while Panel B considers those with GDPpc below the median. The measures of stages in production were calculated at the 3-dig level, based on original measures at the 6-digit level weighted by China's exports in 1995. Column (1) reports the OLS estimates, columns (2) and (3) the first stage estimates and column (4) the IV estimates. Robust standard errors clustered by country in parenthesis, *** p<0.01, ** p<0.05, * p<0.1

ONLINE APPENDIX (NOT FOR PUBLICATION)**Table A1. B&R economies**

	ISO Code	World Bank Region
Brunei Darussalam	BRN	EAP
China	CHN	EAP
Cambodia	KHM	EAP
Hong Kong SAR, China	HKG	EAP
Indonesia	IDN	EAP
Lao PDR	LAO	EAP
Malaysia	MYS	EAP
Mongolia	MNG	EAP
Myanmar	MMR	EAP
Philippines	PHL	EAP
Singapore	SGP	EAP
Thailand	THA	EAP
Timor-Leste	TLS	EAP
Vietnam	VNM	EAP
Afghanistan	AFG	SAR
Bangladesh	BGD	SAR
Bhutan	BTN	SAR
India	IND	SAR
Maldives	MDV	SAR
Nepal	NPL	SAR
Pakistan	PAK	SAR
Sri Lanka	LKA	SAR
Bahrain	BHR	MENA
Egypt, Arab Rep.	EGY	MENA
Iran, Islamic Rep.	IRN	MENA
Iraq	IRQ	MENA
Israel	ISR	MENA
Jordan	JOR	MENA
Kuwait	KWT	MENA
Lebanon	LBN	MENA
Oman	OMN	MENA
Palestine (West Bank and Gaza)	PSE	MENA
Qatar	QAT	MENA
Saudi Arabia	SAU	MENA
Syrian Arab Republic	SYR	MENA
United Arab Emirates	ARE	MENA
Yemen, Rep.	YEM	MENA

Table A1. B&R economies (continued)

Albania	ALB	ECA
Armenia	ARM	ECA
Azerbaijan	AZE	ECA
Belarus	BLR	ECA
Bosnia and Herzegovina	BIH	ECA
Bulgaria	BGR	ECA
Croatia	HRV	ECA
Czech Republic	CZE	ECA
Estonia	EST	ECA
Greece	GRC	ECA
Georgia	GEO	ECA
Hungary	HUN	ECA
Kazakhstan	KAZ	ECA
Kyrgyz Republic	KGZ	ECA
Latvia	LVA	ECA
Lithuania	LTU	ECA
Macedonia, FYR	MKD	ECA
Moldova	MDA	ECA
Montenegro	MNE	ECA
Poland	POL	ECA
Romania	ROM	ECA
Russian Federation	RUS	ECA
Serbia	SRB	ECA
Slovak Republic	SVK	ECA
Slovenia	SVN	ECA
Tajikistan	TJK	ECA
Turkey	TUR	ECA
Turkmenistan	TKM	ECA
Ukraine	UKR	ECA
Uzbekistan	UZB	ECA

Table A2. Main export destinations of China, 1995 and 2015

	1995		2015	
	share	rank	share	rank
USA	0,197	2	0,193	1
Hong Kong, China	0,261	1	0,115	2
Japan	0,166	3	0,064	3
Germany	0,050	4	0,041	4
Rep. of Korea	0,035	5	0,038	5
Mexico	0,002	39	0,027	6
United Kingdom	0,015	9	0,026	7
India	0,004	23	0,025	8
Vietnam	0,003	27	0,021	9
Canada	0,015	10	0,021	10
France	0,024	6	0,021	11
Singapore	0,018	8	0,020	12
Australia	0,013	12	0,019	13
Netherlands	0,012	13	0,017	14
Thailand	0,010	15	0,017	15

Table A3: Exports of China to B&R economies, 1995 and 2015

	1995		2015	
	share	rank	share	rank
Hong Kong , China	0.261	1	0.115	1
India	0.004	9	0.025	2
Vietnam	0.003	11	0.021	3
Singapore	0.018	2	0.020	4
Thailand	0.010	3	0.017	5
United Arab Emirates	0.005	7	0.016	6
Malaysia	0.008	5	0.015	7
Russia	0.008	4	0.015	8
Indonesia	0.008	6	0.014	9
Turkey	0.003	14	0.010	10
Saudi Arabia	0.004	10	0.010	11
Poland	0.003	13	0.009	12
Czech Rep.	0.001	20	0.008	13
Iran	0.001	19	0.008	14
Philippines	0.005	8	0.006	15
Bangladesh	0.002	18	0.006	16
Pakistan	0.003	12	0.005	17
Egypt	0.002	16	0.004	18
Myanmar	0.003	15	0.004	19
Iraq	0.000	60	0.003	20
Slovakia	0.000	34	0.002	21
Israel	0.001	21	0.002	22
Kazakhstan	0.000	31	0.002	23
Hungary	0.001	23	0.002	24
Kuwait	0.001	28	0.002	25
Ukraine	0.000	32	0.002	26
Cambodia	0.000	37	0.002	27
Sri Lanka	0.001	22	0.001	28
Qatar	0.000	50	0.001	29
Romania	0.001	27	0.001	30
Greece	0.002	17	0.001	31
Jordan	0.001	26	0.001	32
Lebanon	0.001	25	0.001	33
Uzbekistan	0.000	39	0.001	34
Belarus	0.000	49	0.001	35
Oman	0.000	38	0.001	36
Tajikistan	0.000	45	0.001	37
Slovenia	0.000	35	0.001	38
Kyrgyzstan	0.000	30	0.001	39
Bahrain	0.000	46	0.001	40
Mongolia	0.000	33	0.001	41
Serbia	-	-	0.001	42
Yemen	0.000	29	0.001	43
Estonia	0.000	47	0.001	44

Lao	0.000	40	0.001	45
Bulgaria	0.000	43	0.000	46
Syria	0.001	24	0.000	47
Nepal	0.000	36	0.000	48
Lithuania	0.000	54	0.000	49
Turkmenistan	0.000	51	0.000	50
Croatia	0.000	41	0.000	51
Georgia	0.000	59	0.000	52
Bosnia Herzegovina	0.000	62	0.000	53
Afghanistan	0.000	48	0.000	54
Brunei Darussalam	0.000	42	0.000	55
Latvia	0.000	53	0.000	56
Azerbaijan	0.000	56	0.000	57
Macedonia	0.000	52	0.000	58
Albania	0.000	44	0.000	59
Rep. of Moldova	0.000	57	0.000	60
Armenia	0.000	58	0.000	61
State of Palestine	-	-	0.000	62
Montenegro	-	-	0.000	63
Maldives	0.000	55	0.000	64
Timor-Leste	-	-	0.000	65
Bhutan	0.000	61	0.000	66

Table A4: Main import sources of China, 1995 and 2015

	1995		2015	
	share	rank	share	rank
Korea	0.078	5	0.104	1
USA	0.109	3	0.101	2
Japan	0.194	1	0.091	3
Germany	0.053	6	0.062	4
Australia	0.012	17	0.049	5
Hong Kong, China	0.104	4	0.043	6
Malaysia	0.020	12	0.031	7
Brazil	0.011	18	0.028	8
Russian Federation	0.026	7	0.024	9
Singapore	0.023	10	0.024	10
Thailand	0.014	15	0.022	11
United Kingdom	0.013	16	0.022	12
Saudi Arabia	0.004	27	0.021	13
France	0.023	9	0.016	14
Switzerland	0.007	23	0.016	15

Table A5: Imports of China from B&R economies, 1995 and 2015

	1995		2015	
	share	rank	share	rank
Hong Kong, China	0.104	1	0.043	1
Malaysia	0.020	4	0.031	2
Russia	0.026	2	0.024	3
Singapore	0.023	3	0.024	4
Thailand	0.014	6	0.022	5
Saudi Arabia	0.004	8	0.021	6
Vietnam	0.003	11	0.015	7
Indonesia	0.019	5	0.015	8
Philippines	0.002	14	0.013	9
Oman	0.004	7	0.012	10
Iran	0.002	17	0.011	11
India	0.004	9	0.009	12
Iraq	0.000	51	0.009	13
United Arab Emirates	0.001	22	0.008	14
Turkmenistan	0.000	42	0.006	15
Kuwait	0.001	21	0.005	16
Kazakhstan	0.002	13	0.004	17
Qatar	0.001	27	0.004	18
Myanmar	0.001	24	0.004	19
Mongolia	0.001	23	0.003	20
Israel	0.001	26	0.003	21
Turkey	0.001	19	0.002	22
Ukraine	0.003	10	0.002	23
Pakistan	0.002	16	0.002	24
Poland	0.001	25	0.002	25
Hungary	0.000	30	0.002	26
Czech Rep.	0.001	18	0.002	27
Slovakia	0.000	32	0.001	28
Lao	0.000	41	0.001	29
Uzbekistan	0.001	28	0.001	30
Romania	0.002	15	0.001	31
Egypt	0.000	39	0.001	32
Belarus	0.000	34	0.001	33
Yemen	0.002	12	0.001	34
Bangladesh	0.000	29	0.001	35
Bulgaria	0.000	35	0.001	36
Cambodia	0.000	44	0.001	37
Jordan	0.000	36	0.000	38
Sri Lanka	0.000	47	0.000	39
Greece	0.000	33	0.000	40
Estonia	0.000	46	0.000	41
Slovenia	0.000	43	0.000	42
Azerbaijan	0.000	45	0.000	43

Armenia	0.000	56	0.000	44
Macedonia	0.000	59	0.000	45
Lithuania	0.000	49	0.000	46
Georgia	0.000	55	0.000	47
Latvia	0.000	38	0.000	48
Serbia	-	-	0.000	49
Bahrain	0.000	37	0.000	50
Croatia	0.000	31	0.000	51
Brunei Darussalam	0.000	58	0.000	52
Albania	-	-	0.000	53
Kyrgyzstan	0.001	20	0.000	54
Tajikistan	0.000	40	0.000	55
Bosnia Herzegovina	-	-	0.000	56
Rep. of Moldova	0.000	50	0.000	57
Nepal	0.000	53	0.000	58
Lebanon	0.000	52	0.000	59
Afghanistan	0.000	54	0.000	60
Montenegro	-	-	0.000	61
Syria	0.000	48	0.000	62
Timor-Leste	-	-	0.000	63
State of Palestine	-	-	0.000	64
Bhutan	0.000	60	0.000	65
Maldives	0.000	57	0.000	66

Table A6. Trade balance with China (% of GDP)

	1995	2000	2005	2010	2015
Brunei Darussalam	-0,72	0,69	1,40	1,70	-3,72
Cambodia	-1,26	-3,76	-8,09	-11,37	-16,46
Hong Kong SAR, China	-27,30	-34,86	-58,80	-74,25	-70,73
Indonesia	0,35	0,80	0,59	-0,36	-1,84
Lao PDR	-2,23	-1,82	-3,26	1,51	0,09
Malaysia	0,94	1,20	1,49	2,46	1,31
Mongolia	2,21	-4,78	8,28	12,10	20,93
Myanmar		-4,79	-6,79	-4,79	-6,95
Philippines	-0,95	0,34	7,07	3,60	0,37
Singapore	-0,92	-2,19	-2,02	-2,49	-5,56
Thailand	-0,13	0,20	0,22	0,64	-3,11
Timor-Leste			-0,44	-4,49	-7,29
Vietnam	-1,87	-1,34	-5,06	-11,12	-15,84
Afghanistan			-0,79	-2,18	-2,90
Bangladesh	-0,72	-1,60	-2,86	-5,63	-6,72
Bhutan	-0,06	-0,44	-0,48	-0,78	-0,47
India	-0,11	-0,09	-0,17	-1,10	-2,23
Maldives	-0,35	-0,28	-1,65	-1,87	-4,92
Nepal	-1,14	-2,88	-2,15	-4,06	-4,27
Pakistan	-0,62	-0,19	-1,85	-2,13	-3,50
Sri Lanka	-1,20	-1,67	-2,54	-2,08	-3,97
Bahrain	0,05	-0,51	-2,13	-4,16	-4,67
Egypt, Arab Rep.	-0,65	-0,79	-1,54	-2,04	-2,91
Iran, Islamic Rep.	-0,05	0,71	1,45	1,67	-0,86
Iraq			-0,04	1,44	1,88
Israel	-0,08	-0,20	-0,75	-0,92	-0,87
Jordan	-1,41	-1,92	-6,51	-5,23	-6,62
Kuwait	0,02	0,13	0,37	3,62	1,70
Lebanon	-1,17	-1,61	-3,37	-4,23	-4,83
Oman	3,40	16,02	13,71	14,91	18,48
Palestine (West Bank and Gaza)		-0,14	-0,48	-1,43	-2,03
Qatar	0,86	1,96	0,01	0,65	0,99
Saudi Arabia	-0,24	0,27	2,45	3,45	0,50
Syrian Arab Republic	-1,25	-0,89	-2,87		
United Arab Emirates	-1,47	-1,62	-2,88	-5,92	-7,48
Yemen, Rep.	4,63	4,92	10,33	3,39	-1,27
Albania	-0,60	-0,54	-2,37	-1,57	-2,53
Armenia	-0,05	-0,02	-0,54	-3,82	-1,28
Azerbaijan	0,05	-0,33	-1,38	-1,13	-0,65
Belarus	0,07	0,91	0,54	-1,95	-2,21
Bosnia and Herzegovina	-0,01	0,00	-1,25	-2,46	-3,48
Bulgaria	-0,11	-0,53	-2,09	-0,70	-0,63
Croatia	-0,06	-0,40	-1,83	-2,33	-1,12
Czech Republic	-0,12	-0,98	-2,54	-6,52	-8,86
Estonia	-0,24	-2,55	-4,07	-3,81	-4,47
Greece	-0,23	-0,56	-0,85	-1,18	-1,37

Georgia	-0,01	-0,09	-0,76	-2,58	-3,53
Hungary	-0,26	-1,92	-2,93	-4,01	-2,62
Kazakhstan	1,08	2,80	2,07	4,07	-0,04
Kyrgyz Republic	2,19	-3,26	-13,08	-29,81	-24,21
Latvia	0,19	-0,40	-1,00	-1,30	-1,53
Lithuania	-0,01	-0,67	-1,45	-1,57	-1,70
Macedonia, FYR	-0,10	-0,38	-1,63	-2,06	-2,42
Moldova	-0,01	0,47	-3,50	-5,29	-5,28
Montenegro				-2,89	-5,51
Poland	-0,31	-0,75	-1,51	-2,99	-4,10
Romania	0,36	-0,22	-1,43	-1,68	-1,33
Russian Federation	0,37	1,28	0,46	-0,91	-0,24
Serbia			-1,92	-2,40	-3,16
Slovak Republic	-0,14	-0,50	-1,31	-2,64	-5,16
Slovenia	-0,23	-0,58	-1,44	-2,87	-3,47
Tajikistan	-0,41	0,38	-5,58	-23,41	-22,26
Turkey	-0,24	-0,44	-1,23	-1,78	-2,54
Turkmenistan	-0,14	-0,32	-0,88	1,83	17,28
Ukraine	0,70	1,58	-1,59	-2,54	-1,42
Uzbekistan	0,15	-0,20	1,43	0,26	-1,53

Notes: Data come from BACI and the World Development Indicators.

Table A7. Summary statistics, regression variables, 2000-2015

	Mean	St. Dev
$\Delta \log X_{jit}$	0.416	1.638
$\Delta \text{Supply}_{cjit}$	0.00048	0.0019
$\Delta \text{Demand}_{cjit}$	0.00041	0.0018
$\Delta \text{Supply}_{cjit}$ (top 10 destinations)	0.00041	0.002
$\Delta \text{Demand}_{cjit}$ (top 10 sources)	0.0004	0.002
Observations	31953	

Notes: The table reports summary statistics of the regression data for the period 2000-2015, considering 5-year intervals and 3-dig industries. The similarity indexes for each country and industry were computed with 6-dig trade data for the year 2000.

Table A8. Robustness: 2000-2015, similarity index in 2000

	(1)	(2)	(3)	(4)
	OLS	2SLS		
	$\Delta \log X_{jit}$	1st stage		2nd stage
		$\Delta \text{Supply}_{cjit}$	$\Delta \text{Demand}_{cjit}$	$\Delta \log X_{jit}$
$\Delta \text{Supply}_{cjit}$	-9.543 (6.450)			-10.69** (4.563)
$\Delta \text{Demand}_{cjit}$	10.82*** (4.015)			11.99*** (4.311)
$\Delta \text{Supply}_{cjit}$ (top 10 destinations)		0.881*** (0.0421)	0.0124 (0.0172)	
$\Delta \text{Demand}_{cjit}$ (top 10 sources)		0.00542 (0.00938)	0.878*** (0.0109)	
Country-industry effects	Yes	Yes	Yes	Yes
Country-period effects	Yes	Yes	Yes	Yes
Observations	31,952	31,952	31,952	31,952
R-squared	0.280	0.990	0.958	0.000
F-statistic		374.90	3227.93	

Notes: The table reports the effects of China supply and demand trade shocks on the exports of B&R economies over the period 2000-2015, considering 5-year intervals and 3-dig industries. The similarity indexes for each country and industry were computed with 6-dig trade data for the year 2000. Column (1) reports the OLS estimates, columns (2) and (3) the first stage estimates and column (4) the IV estimates. Robust standard errors clustered by country in parenthesis, *** p<0.01, ** p<0.05, * p<0.1

Table A9. Impacts of China shocks on exports of B&R economies, 2000-2015, updated similarity index

	(1)	(2)	(3)	(4)
	OLS	2SLS		
	$\Delta \log X_{jit}$	1st stage		2nd stage
		$\Delta \text{Supply}_{cjit}$	$\Delta \text{Demand}_{cjit}$	$\Delta \log X_{jit}$
$\Delta \text{Supply}_{cjit}$	-14.39* (7.641)			-12.01** (5.505)
$\Delta \text{Demand}_{cjit}$	17.37*** (4.841)			15.58*** (4.548)
$\Delta \text{Supply}_{cjit}$ (top 10 destinations)		0.928*** (0.0147)	-0.0268 (0.0199)	
$\Delta \text{Demand}_{cjit}$ (top 10 sources)		0.0368*** (0.00985)	1.077*** (0.0677)	
Country-industry effects	Yes	Yes	Yes	Yes
Country-period effects	Yes	Yes	Yes	Yes
Observations	31,952	31,952	31,952	31,952
R-squared	0.280	0.994	0.978	0.000
F-statistic		2436.17	202.55	

Notes: The table reports the effects of China supply and demand trade shocks on the exports of B&R economies over the period 2000-2015, considering 5-year intervals and 3-dig industries. The similarity indexes for each country and industry were computed with 6-dig trade data for the beginning of each 5-year period (i.e. for the years 2000, 2005 and 2010). Column (1) reports the OLS estimates, columns (2) and (3) the first stage estimates and column (4) the IV estimates. Robust standard errors clustered by country in parenthesis, *** p<0.01, ** p<0.05, * p<0.1

Table A10. Robustness: 2000-2015, controlling for pre-trends in exports, alternative instrument

	(1)	(2)	(3)	(4)
	OLS		2SLS	
		1st stage		2nd stage
	$\Delta \log X_{jit}$	$\Delta \text{Supply}_{cjit}$	$\Delta \text{Demand}_{cjit}$	$\Delta \log X_{jit}$
$\Delta \text{Supply}_{cjit}$	-11.73** (5.211)			-11.68** (5.626)
$\Delta \text{Demand}_{cjit}$	32.75*** (7.764)			31.57*** (8.852)
$\Delta \log X_{jit-1}$	-0.450*** (0.00837)	-5.28e-07 (1.04e-06)	-6.31e-06** (2.60e-06)	-0.450*** (0.0127)
$\Delta \text{Supply}_{cjit}$ (top 20 destinations, except B&R)		0.824*** (0.0381)	0.144 (0.106)	
$\Delta \text{Demand}_{cjit}$ (top 20 sources, except B&R)		-0.00306 (0.0237)	0.632*** (0.0872)	
Country-industry effects	Yes	Yes	Yes	Yes
Country-period effects	Yes	Yes	Yes	Yes
Observations	31,952	31,952	31,952	31,952
R-squared	0.441	0.988	0.923	0.224
F-statistic		333.3	162.17	

Notes: The table reports the effects of China supply and demand trade shocks on the exports of B&R economies over the period 2000-2015, considering 5-year intervals and 3-dig industries. The similarity indexes for each country and industry were computed with 6-dig trade data for the year 1995. Column (1) reports the OLS estimates, columns (2) and (3) the first stage estimates and column (4) the IV estimates. Robust standard errors clustered by country in parenthesis, *** p<0.01, ** p<0.05, * p<0.1

Table A11. Robustness: 2000-2015, controlling for pre-trends in exports, alternative instrument

	(1)	(2)	(3)	(4)
	OLS	2SLS		
		1st stage		2nd stage
	$\Delta \log X_{jit}$	$\Delta \text{Supply}_{cjit}$	$\Delta \text{Demand}_{cjit}$	$\Delta \log X_{jit}$
$\Delta \text{Supply}_{cjit}$	-11.73** (5.211)			-11.14* (5.617)
$\Delta \text{Demand}_{cjit}$	32.75*** (7.764)			31.87*** (8.986)
$\Delta \log X_{jit-1}$	-0.450*** (0.00837)	-1.02e-06 (8.63e-07)	-5.08e-06** (2.17e-06)	-0.450*** (0.0127)
$\Delta \text{Supply}_{cjit}$ (top 40 destinations, except B&R)		0.860*** (0.0286)	0.105 (0.0821)	
$\Delta \text{Demand}_{cjit}$ (top 40 sources, except B&R)		-0.00676 (0.0245)	0.715*** (0.0768)	
Country-industry effects	Yes	Yes	Yes	Yes
Country-period effects	Yes	Yes	Yes	Yes
Observations	31,952	31,952	31,952	31,952
R-squared	0.441	0.992	0.946	0.224
F-statistic		641.33	164.28	

Notes: The table reports the effects of China supply and demand trade shocks on the exports of B&R economies over the period 2000-2015, considering 5-year intervals and 3-dig industries. The similarity indexes for each country and industry were computed with 6-dig trade data for the year 1995. Column (1) reports the OLS estimates, columns (2) and (3) the first stage estimates and column (4) the IV estimates. Robust standard errors clustered by country in parenthesis, *** p<0.01, ** p<0.05, * p<0.1

Table A12. Robustness: 2000-2015, controlling for pre-trends in exports, alternative exposure measure (export share in 1995)

	(1)	(2)	(3)	(4)
	OLS	2SLS		
		1st stage		2nd stage
	$\Delta \log X_{jit}$	$\Delta \text{Supply}_{cjit}$	$\Delta \text{Demand}_{cjit}$	$\Delta \log X_{jit}$
$\Delta \text{Supply}_{cjit}$	-0.813 (0.513)			-0.734** (0.322)
$\Delta \text{Demand}_{cjit}$	1.589** (0.638)			1.112 (0.804)
$\Delta \log X_{jit-1}$	-0.450*** (0.00835)	-8.20e-07 (1.75e-05)	3.69e-05 (3.93e-05)	-0.450*** (0.0127)
$\Delta \text{Supply}_{cjit}$ (top 10 destinations)		0.859*** (0.0135)	0.502*** (0.0721)	
$\Delta \text{Demand}_{cjit}$ (top 10 sources)		-0.0782*** (0.0185)	0.394*** (0.0252)	
Country-industry effects	Yes	Yes	Yes	Yes
Country-period effects	Yes	Yes	Yes	Yes
Observations	31,952	31,952	31,952	31,952
R-squared	0.441	0.959	0.947	0.224
F-statistic		1818.05	386.44	

Notes: The table reports the effects of China supply and demand trade shocks on the exports of B&R economies over the period 2000-2015, considering 5-year intervals and 3-dig industries. Instead of the similarity indexes, the exposure measure is the share of exports in the 3-dig sector in total exports, computed using trade data for the year 1995. Column (1) reports the OLS estimates, columns (2) and (3) the first stage estimates and column (4) the IV estimates. Robust standard errors clustered by country in parenthesis, *** p<0.01, ** p<0.05, * p<0.1

Table A13. Heterogeneity by industry, 2000-2015, upstreamness (aggregated using import weights)

	(1)	(2)	(3)	(4)
	OLS	2SLS		
	$\Delta \log X_{jit}$	1st stage		2nd stage
		$\Delta \text{Supply}_{cjit}$	$\Delta \text{Demand}_{cjit}$	$\Delta \log X_{jit}$
A. Upstreamness above median				
$\Delta \text{Supply}_{cjit}$	13.31 (12.16)			4.737 (10.02)
$\Delta \text{Demand}_{cjit}$	19.70* (10.32)			23.45* (12.12)
$\Delta \log X_{jit-1}$	-0.451*** (0.0125)	4.25e-07 (1.09e-06)	-4.98e-06 (3.46e-06)	-0.451*** (0.0158)
$\Delta \text{Supply}_{cjit}$ (top 10 destinations)		0.867*** (0.0186)	0.652*** (0.116)	
$\Delta \text{Demand}_{cjit}$ (top 10 sources)		-0.0289** (0.0124)	0.491*** (0.0599)	
Country-industry effects	Yes	Yes	Yes	Yes
Country-period effects	Yes	Yes	Yes	Yes
Observations	16,172	16,172	16,172	16,172
R-squared	0.436	0.966	0.927	0.226
F-statistic		1032.29	185.04	
A. Upstreamness below median				
$\Delta \text{Supply}_{cjit}$	-14.80*** (3.691)			-12.56** (5.710)
$\Delta \text{Demand}_{cjit}$	46.93*** (6.075)			44.49*** (7.473)
$\Delta \log X_{jit-1}$	-0.451*** (0.0116)	-1.37e-07 (1.21e-06)	-8.05e-07 (1.59e-06)	-0.451*** (0.0125)
$\Delta \text{Supply}_{cjit}$ (top 10 destinations)		0.799*** (0.0212)	-0.0151 (0.0117)	
$\Delta \text{Demand}_{cjit}$ (top 10 sources)		0.0967*** (0.0270)	0.911*** (0.0248)	
Country-industry effects	Yes	Yes	Yes	Yes
Country-period effects	Yes	Yes	Yes	Yes
Observations	15,780	15,780	15,780	15,780
R-squared	0.462	0.992	0.978	0.226
F-statistic		579.93	483.37	

Notes: The table reports the effects of China supply and demand trade shocks on the exports of B&R economies over the period 2000-2015, considering 5-year intervals and 3-dig industries. The similarity indexes for each country and industry were computed with 6-digit trade data for the year 1995. Panel A considers industries with upstreamness measures above the median, while Panel B considers industries with upstreamness measures below median. Upstreamness measures calculated at the 3-dig level, based on original measures at the 6-digit level weighted by China's imports in 1995. Column (1) reports the OLS estimates, columns (2) and (3) the first stage estimates and column (4) the IV estimates. Robust standard errors clustered by country in parenthesis, *** p<0.01, ** p<0.05, * p<0.1

Table A14. Heterogeneity by industry, 2000-2015, number of stages in production (aggregated using imports weights)

	(1)	(2)	(3)	(4)
	OLS		2SLS	
		1st stage		2nd stage
	$\Delta \log X_{jit}$	$\Delta \text{Supply}_{cjit}$	$\Delta \text{Demand}_{cjit}$	$\Delta \log X_{jit}$
A. Number of stages in production above median				
$\Delta \text{Supply}_{cjit}$	-10.51* (5.469)			-10.02* (5.614)
$\Delta \text{Demand}_{cjit}$	33.83*** (7.768)			31.41*** (10.96)
$\Delta \log X_{jit-1}$	-0.442*** (0.00970)	-2.05e-06 (1.53e-06)	-1.16e-05** (4.78e-06)	-0.442*** (0.0154)
$\Delta \text{Supply}_{cjit}$ (top 10 destinations)		0.810*** (0.0290)	0.177 (0.150)	
$\Delta \text{Demand}_{cjit}$ (top 10 sources)		-0.0228 (0.0305)	0.534*** (0.108)	
Country-industry effects	Yes	Yes	Yes	Yes
Country-period effects	Yes	Yes	Yes	Yes
Observations	16,178	16,178	16,178	16,178
R-squared	0.442	0.988	0.897	0.222
F-statistic		398.4	83.45	
B. Number of stages in production below median				
$\Delta \text{Supply}_{cjit}$	-11.76 (10.02)			-16.27 (11.01)
$\Delta \text{Demand}_{cjit}$	29.61** (11.63)			36.71*** (11.73)
$\Delta \log X_{jit-1}$	-0.462*** (0.0135)	1.87e-06** (7.90e-07)	-2.36e-07 (2.11e-06)	-0.462*** (0.0143)
$\Delta \text{Supply}_{cjit}$ (top 10 destinations)		0.873*** (0.0220)	0.00422 (0.0221)	
$\Delta \text{Demand}_{cjit}$ (top 10 sources)		0.0951*** (0.0256)	0.949*** (0.0531)	
Country-industry effects	Yes	Yes	Yes	Yes
Country-period effects	Yes	Yes	Yes	Yes
Observations	15,774	15,774	15,774	15,774
R-squared	0.450	0.992	0.965	0.229
F-statistic		973.77	391.78	

Notes: The table reports the effects of China supply and demand trade shocks on the exports of B&R economies over the period 2000-2015, considering 5-year intervals and 3-dig industries. The similarity indexes for each country and industry were computed with 6-dig trade data for the year 1995. Panel A considers industries with measures of the number of stages in production above the median, while Panel B considers industries with measures of the number of stages in production below median. The measures of stages in production were calculated at the 3-dig level, based on original measures at the 6-digit level weighted by China's imports in 1995. Column (1) reports the OLS estimates, columns (2) and (3) the first stage estimates and column (4) the IV estimates. Robust standard errors clustered by country in parenthesis, *** p<0.01, ** p<0.05, * p<0.1

Figure A1: Main export destinations, 1995-2015

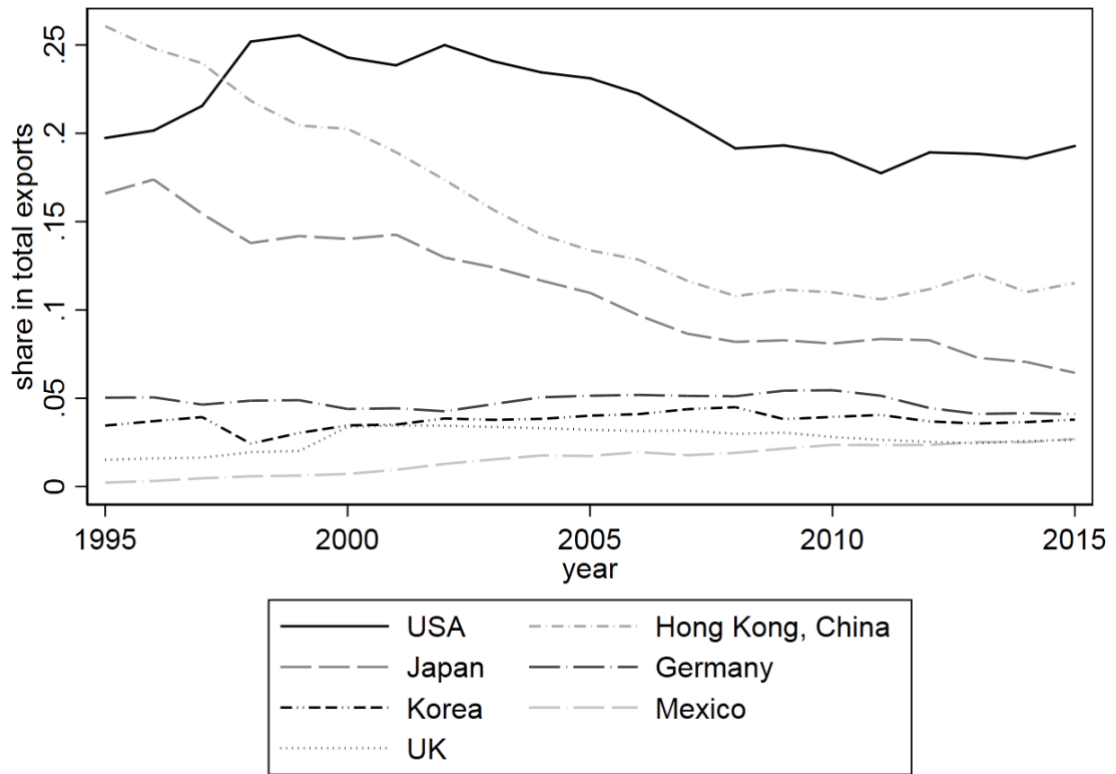


Figure A2: Main import sources, 1995-2015

