Economic Integration and the Transmission of Democracy*

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Abstract

In this paper, we study the effects of economic integration with democratic partners on democracy. We assemble a large country-level panel dataset from 1960 to 2015, and exploit improvements in air, relative to sea, transportation to derive a time-varying instrument for economic integration. We find that economic integration with democracies increases countries' democracy scores, whereas the impact of economic integration with non-democracies is muted. Results are stronger when democratic partners have a longer history of democracy, grow faster, spend more on public goods, are culturally closer, and export higher quality goods. The effects we document are driven by imports, rather than exports, and by integration with democratic partners that account for a larger share of a country's trade in institutionally intensive, cultural, and consumer goods, as well as in goods that involve more face-to-face interactions and entail higher levels of bilateral trust. These patterns are consistent with economic integration favoring the transmission of democracy by signaling the (actual or perceived) desirability of democratic institutions. Alternative mechanisms—including human capital accumulation and economic growth—cannot, alone, explain our findings.

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1 Introduction

Several papers have documented that exposure to domestic democratic institutions increases support for democracy (Besley and Persson, 2019; Fuchs-Schündeln and Schündeln, 2015; Giuliano and Nunn, 2013; Persson and Tabellini, 2009), especially when the country is economically and socially successful (Acemoglu et al., 2023).[1] Yet, less is known about the extent to which democracy can travel across countries, through economic integration. Individuals living in autocratic regimes cannot directly observe the properties of democratic institutions in their own country. For them, economic integration with democratic partners might act, at least in part, as a substitute for exposure to own democracy.

Was this process at play during the post-1960 surge in globalization, which coincided with the spread of democracy across the world (Figure 1)? Did economic integration with democratic partners change people's attitudes and promote the transmission of democracy across countries? As globalization is slowing down and countries are increasingly trading with partners that share their institutional and geopolitical stance (Aiyar et al., 2023), these issues have become particularly pressing.

In this paper, we examine the effects of economic integration with democratic and non-democratic partners on democracy, using a large panel dataset of countries from 1960 to 2015. We measure economic integration with trade in goods, but we view the latter as a proxy for a broader notion of economic exchange, which also includes the flow of capital, people, and ideas. To identify the causal effect of economic integration with democracies, we build on Feyrer (2019), and construct an instrument that exploits the rise in the importance of air, relative to sea, transportation since 1960. We then estimate regressions that absorb country-specific, time-invariant differences and shocks common to all countries.

Our instrumental variable strategy relies on the fact that, because of their geographic location, different country-pairs were differentially affected by technological change in air transportation that led to a drastic increase in the share of air freight (Hummels, 2007). To formalize this intuition, we estimate a time-varying gravity equation (Anderson and Van Wincoop, 2003; Chaney, 2018) that allows the elasticity of trade with respect to sea and air distance between countries to change over time. We then use the estimated elasticities to predict bilateral trade flows between 1960 and 2015, which we aggregate at the country level to obtain instruments for trade with democratic and non-democratic partners.

Estimating 2SLS regressions, we find that economic integration with democratic partners has a positive and large effect on countries' *Polity2* democracy score. According to

[1] A large literature has analyzed the forces that contribute to the development of democracy (Acemoglu and Robinson, 2006; Barro, 1999; Lipset, 1959; Murtin and Wacziarg, 2014; Przeworski et al., 2000) as well as the effect that the latter has on economic growth (Acemoglu et al., 2019; Barro, 1996; Papaioannou and Siourounis, 2008; Rodrik and Wacziarg, 2005).

our preferred specification, increasing economic integration with democratic partners over a 5-year period by 80% (or, its inter-quartile range) raises the *Polity2* score by around 4 points. This is equivalent to the gap between Malaysia and Canada in 2010, or that between Turkey and Senegal in 2015. Instead, we do not detect any impact of economic integration with non-democracies. To examine the effect timing, we exploit two separate sources of variation. First, estimating event studies around the first large increase in predicted economic integration with democracies, we observe a gradual, but persistent improvement in baseline autocracies' democracy score. Second, we study the effects of (instrumented) democratization episodes in autocratic partners on own democracy, and find no evidence of democratic spillovers.

The time-varying instrument makes it possible to control for unobserved country- and time-specific factors potentially correlated with changes in both trade openness and democracy. Moreover, relative improvements in air transportation technology are likely exogenous to any single country, and since the instrument rests on variation that is solely induced by geography, it is free from reverse causation. The main identification assumption behind our strategy is that countries that experienced larger gains in air distance, relative to sea distance, with democratic partners were not already undergoing faster democratization. Although we cannot directly test such assumption, we perform a large battery of robustness checks to bolster the confidence in our results.

First, to address the concern that economic integration predicted by improvements in air transportation coincided with regional democratization trends, in our preferred specification, we control for lagged democratization waves occurring in a country's neighbors, similar to Acemoglu et al. (2019). Second, we document that results are unchanged when interacting year dummies with several country-specific characteristics (including baseline democracy) to allow for differential trends. Third, we show that neither the baseline level nor the pre-1960 history of democracy is correlated with predicted integration with democracies. Fourth, we replicate the analysis excluding countries that experienced swift episodes of integration or democratization (e.g., members of the European Union or the former Soviet Union bloc) as well as excluding trade with selected partners (e.g., the US or China). Finally, we verify that results are robust to using alternative versions of the instrument and measuring democracy in different ways.

Our preferred interpretation of results is that economic integration with democracies favors the transmission of democracy from more to less democratic countries. Consistent with this idea, we show that democratization is more likely to occur when countries trade with democratic partners that have a longer experience with democracy themselves, and may thus act as "role models" for their less democratic partners. This explanation is also in line with

the effect timing described above, namely that the first large trade shock with democratic partners is followed by persistent improvements in baseline autocracies' institutions, and that democratization episodes in formerly autocratic partners have no impact on own democracy. Moreover, our results are driven by trade with democratic partners that grow faster and spend more on public goods. Supporting the notion that cultural similarity facilitates the transmission of norms, the effects are also larger when trade occurs with democracies that are culturally closer.

Next, we disentangle whether the transmission of democracy occurs through imports or exports (or, both). On the one hand, imports might signal the (perceived or actual) desirability of democracy by making available to citizens of autocratic countries valuable goods that cannot be produced there (or in other autocratic partners). On the other hand, by conducting business in democratic countries, exporters of autocratic regimes might familiarize with the rule of law, property rights, and, more broadly, democratic institutions. Our evidence is more consistent with the former channel: we find that imports, and not exports, foster the spread of democracy across countries. Furthermore, the effect of integration with democracies is driven by partners that export higher quality goods and that account for a larger share of a country's trade in institutionally intensive, cultural, and consumer goods and in products that entail more bilateral trust and more face-to-face interactions. These are precisely the types of goods that can signal the positive characteristics of democracy and embed democratic values.

Together, our findings resonate with the idea that economic integration with democracies changes the perceived desirability of democracy among less democratic partners, especially when democracies deliver. In a longer version of the paper (Tabellini and Magistretti, 2022), we further corroborate this interpretation using survey data and providing evidence that individuals growing up when their country was becoming more integrated with democracies are, at the time of the survey, more supportive of democracy.[2]

We consider additional mechanisms that might complement our preferred one. We provide evidence against the possibility that trade with democracies fosters democratization by favoring economic development and human capital accumulation, by changing the relative strength of the middle class, or by increasing income inequality. In the longer working paper version (Tabellini and Magistretti, 2022), we also show that neither higher pressure from democratic partners nor increased probability of signing preferential trade agreements (PTAs) can explain our results.

Since the instrument exploits variation induced by the differential change in air, relative to sea, transportation, one may wonder whether results are due not only to trade in goods,

[2]For the longer working paper version, see https://www.nber.org/papers/w30055.

but also to other components of economic integration. In the last part of the paper, we consider this possibility. First, we focus on an important variable—migration—for which, as for trade, bilateral flows are systematically recorded over time. We re-estimate the gravity equation used to predict trade, and derive an equivalent instrument for migration. Then, we augment our baseline specification by controlling for this variable. Reassuringly, the effect of trade with democracies remains in line with that of our main analysis, while that of migration is negative and not statistically significant.

Given that bilateral flows are consistently available only for migration, we cannot implement this exercise for other variables. To explore the potential influence of other dimensions of economic integration, we use a somewhat less direct strategy, and show that predicted trade with democracies is uncorrelated with migration, foreign direct investment (FDI), students abroad, book translations, and the presence of large US corporations. Likewise, we do not find any meaningful relationship between these variables and instrumented trade with democracies. Exploiting a discontinuity in air distance to predict when countries are connected through direct flights as in Campante and Yanagizawa-Drott (2018), we also provide suggestive evidence that our results cannot be mainly explained by business travels.

These patterns, together with the analysis described above, suggest that trade in goods plays an important role in the transmission of democracy across countries. At the same time, most non-trade variables considered in our work are measured with noise, and may have independent effects on democracy that are not captured in our analysis. Moreover, we cannot—nor want to—rule out the possibility that forces other than the ones we can test for might be correlated with the instrument and influence the evolution of ideology and institutions. For these reasons, we view trade in goods as a proxy for a broader notion of international exchange that also includes the flow of capital, people, and ideas.

This paper is related to works on the importance of experience with own democracy for the stability and the well-functioning of the latter (Acemoglu et al., 2023; Besley and Persson, 2019; Fuchs-Schündeln and Schündeln, 2015; Persson and Tabellini, 2009). Our results indicate that, even though citizens cannot always observe democracy in their own country, they might accumulate democratic capital through economic integration with other (democratic) countries.

By showing that economic integration can promote the transmission of democracy across countries, we complement the literature that has examined how political preferences and ideology spread within (Bazzi et al., 2023a,b) and between (Barsbai et al., 2017; Spilimbergo, 2009) countries through migration. More broadly, our results are relevant to the literature in the social sciences that has studied how inter-group contact affects attitudes and beliefs (Allport, 1954; Paluck et al., 2019; Pettigrew and Tropp, 2006). Within economics, many

papers have documented that, depending on the specific conditions, interactions between groups, such as immigrants and natives, can either worsen or ameliorate cross-group relations (Andries et al., 2023; Bursztyn et al., 2023; Lowe, 2021). Most closely related to our findings, Stegmann (2019) has shown that visits of friends and relatives from Western Germany increased demand for regime change among individuals living in Eastern Germany during the Cold War.

Our results also speak to papers studying the relationship between trade and institutions. Costinot (2009) and Nunn (2007) show that countries with sounder institutions tend to specialize in the production of institutionally intensive goods, i.e., whose production requires stronger enforcement of property rights. Acemoglu et al. (2005) and Puga and Trefler (2014) document that, by altering the economic power of different groups in the society, trade can trigger institutional change, and that the direction of the latter depends on the groups that benefit from trade. Levchenko (2007) shows that trade can promote or hinder democratization depending on the similarity of the institutions of trade partners.[3] Liu and Ornelas (2014) find that free trade agreements increase the longevity of democracy by lowering protectionist rents and elites' incentives to seek power. We complement these papers by shedding light on a different channel through which trade can lead to institutional change: namely, the transmission of democracy from more to less democratic partners. In this respect, our findings contribute to a vast literature that, since at least Grossman and Helpman (1991), has shown that the trade-induced spread of ideas can foster economic growth (Grossman and Helpman, 2015; Sampson, 2016).[4]

Finally, from a methodological standpoint, our work builds on Feyrer (2019) to derive a time-varying instrument for trade. A similar approach is used in Pascali (2017), who leverages variation induced by the introduction of steam technology in shipping. Both Feyrer (2019) and Pascali (2017) use time-varying instruments obtained from gravity equations to estimate the "gains from trade", as first done by Frankel and Romer (1999) in a cross-sectional, time-invariant setting. We complement these works by focusing on institutional change, rather than economic growth.[5]

[3]Consistent with the ambiguous effects of trade on institutions documented in these papers, Rigobon and Rodrik (2005) and López-Córdova and Meissner (2008) find, respectively, a negative and a positive relationship between trade openness and democracy.

[4]Relatedly, Buera et al. (2011) show that countries learn from the experience of their neighbors and that policymakers update their beliefs about the desirability of different policies based on other countries' performance.

[5]Aksoy et al. (2018) use a version of the instrument developed by Feyrer (2019) to estimate the effects of skill composition of trade on political approval across countries. Barjamovic et al. (2019) estimate structural gravity equations to examine the effects of long-distance trade during the Bronze Age.

2 Data

This section describes the key variables used in the analysis. Appendix B provides further details on definitions, sources, and samples.

Actual and predicted trade. We use bilateral trade flows from the IMF Direction of Trade Statistics. For each exporter-importer pair, in each year, there are four measures of trade, namely exports and imports reported by both countries. Following the literature (Baldwin and Taglioni, 2007), we consider the average of these four measures. We also rely on industry level data from UN Comtrade to study the effects of different types of goods (see Appendix B.3). We use air and sea distances to derive an instrument for trade. Air distance between each country-pair is the great circle distance between the most important cities in a country, reported by the CEPII (Mayer and Zignago, 2011). We calculate sea distances by first identifying the main commercial port for each country, and then collecting data on the sea-routes between ports of each pair of countries from the website vesseldistance.org.[6]

Democracy score. We measure democracy using the *Polity2* score from the Polity5 project. The index, which is widely used in the literature (Besley and Persson, 2019; Burke and Leigh, 2010; Fuchs-Schündeln and Schündeln, 2015), ranges from -10 to 10, with more positive values capturing stronger democratic institutions. We also define an indicator variable for countries with a *Polity2* score strictly positive, which we use both as an alternative outcome and to define democratic and non-democratic trade partners. The analysis is conducted on an unbalanced sample of 116 countries for the period from 1960 to 2015 (Table B.2). As a robustness check, we also use the democracy index from Freedom House, available from 1975 onwards.

Summary statistics. Table A.1 reports summary statistics for the main variables used in the analysis—for the full sample (Panel A), and separately for baseline autocracies (Panel B) and baseline democracies (Panel C).[7] In the full sample, the *Polity2* score is, on average, 2.06, but exhibits large variation both across countries in a given period and within countries over time. The average trade-to-GDP ratio is .3. Trade with democracies accounts for almost 80% of total trade, though large variation exists across countries and over time. Trade with democracies declines since the 2000s, with the steady integration of China with the rest of the world.

[6]The website vesseldistance.org was last accessed in July 2014. For Canada, we compute sea distances as the shortest sea-route from the main port on either the East or the West coast. We consider three ports for the US (on the East Coast, the West Coast, and the gulf of Mexico), and Russia (on the Baltic Sea, the Black Sea, and the Pacific Ocean). See Table B.1 for more details. Landlocked countries are not included in the analysis, since there is no sea distance between them.

[7]We define as autocracies (resp., democracies) countries with $Polity2 < 1$ (resp., $Polity2 > 0$).

3 Empirical Strategy

3.1 Baseline Estimating Equation

Using 5-year intervals to account for the gradual diffusion of technology across countries and over time, we estimate:

$$y_{it} = \gamma_i + \lambda_t + \beta^D \log(T_{it}^{demo}) + \beta^A \log(T_{it}^{auto}) + W_{it} + \epsilon_{it} \quad (1)$$

where y_{it} is the democracy score of country i in year t, and T_{it}^{demo} (resp., T_{it}^{auto}) is trade with democracies (resp., autocracies) over GDP. To account for the possibility that trade with democracies coincided with regional democratization trends, we include a measure of lagged democratization waves occurring in a country's influence set in the previous year, W_{it}.[8] All regressions control for country and year fixed effects, γ_i and λ_t. Standard errors are clustered at the country level.

3.2 Instrument for Economic Integration

Even when controlling for country and year fixed effects, an OLS regression of democracy on economic integration may be biased for several reasons. First, political reforms, including democratic transitions, are often followed by economic liberalizations (Giavazzi and Tabellini, 2005; Giuliano et al., 2013). If countries embarked upon democratization before, or at the same time, they started to trade more with democratic partners, we would over-estimate the effect of trade with democracies. Second, the patterns of specialization are influenced by the quality of institutions (Costinot, 2009; Nunn, 2007), and, because of comparative advantage, autocratic countries might trade more with democratic partners. This would introduce downward bias in OLS. Third, changes in democracy may be correlated with a host of other factors—such as income growth or human capital accumulation—that are also related to changes in economic integration.

To address these and similar concerns, we construct an instrument for economic integration that exploits the rise in the importance of air, relative to sea, transportation. Our strategy builds on recent work by Feyrer (2019), and rests on the following intuition. Improvements in air shipping occurring since the mid-1960s, especially the adoption of the jet

[8] Following Acemoglu et al. (2019), we construct this variable as follows. First, we divide the world in 6 regions; then, within each region and for each country i, we define the share of countries other than i with a *Polity2* score strictly positive during year t and that were in the same institutional group as i at baseline (where an institutional group is either democratic, for *Polity2* > 0, or autocratic, for *Polity2* < 1). In our preferred specification, we lag this measure by one year, to reduce endogeneity concerns. Results are unchanged when using the contemporaneous version or 2, 3, 4, or 5-year lags.

engine, have reshaped the geography of international trade, leading to a dramatic increase in the share of air freight (Hummels, 2007). For instance, the trade costs incurred when shipping goods by air were 10 times lower in 2004 than in 1955. The reduction in sea transportation costs over the same period was instead much more limited. This resulted in an unprecedented surge in the share of goods traveling by air—from less than 10% prior to 1960 to more than 50% by 2004, for the US.[9]

These patterns affected different country-pairs differently, depending on their geographic location. Specifically, the trade surge induced by improvements in air transportation is lower for country-pairs for which air and sea distances are fairly similar (e.g., Japan and China) than for countries for which the two distances are very different (e.g., Japan and France).

3.2.1 The Gravity Step: Deriving Predicted Trade

We estimate a time-varying gravity equation (Anderson and Van Wincoop, 2003; Chaney, 2018) with both air and sea distances, allowing the elasticity of trade with respect to each distance to change every five years between 1960 and 2015. Similar to Feyrer (2019), we model the bilateral resistance term, τ_{ijp}, as follows:

$$\ln(\tau_{ijp}) = \beta_p^{sea} \ln(seadist_{ij}) + \beta_p^{air} \ln(airdist_{ij}) \tag{2}$$

where $seadist_{ij}$ and $airdist_{ij}$ are sea and air distances between countries i and j. Coefficients on distances in expression (2) vary across time-periods p, capturing the differential effect over time of technological change in air relative to sea transportation discussed above. We allow p to have a frequency lower than t (in particular, 5 years), since improvements in technology take time to be developed and diffuse.

Replacing expression (2) in a standard gravity equation, bilateral trade flows between countries i and j in year t can be expressed as:

$$\ln(trade_{ijt}) = \chi_{ij} + \varphi_{it} + \psi_{jt} + \beta_p^{sea} \ln(seadist_{ij}) + \beta_p^{air} \ln(airdist_{ij}) + u_{ijt} \tag{3}$$

Country-pair fixed effects (χ_{ij}) absorb any constant bilateral characteristic between countries, such as common language, colonial relationship, and common border. The inclusion of country-year fixed effects (φ_{it} and ψ_{jt}) controls for any country-time specific variation that may affect bilateral trade and confound the effect of geographic distance, such as the construction of a new port or a cargo airport.[10] Our preferred instrument is obtained by es-

[9] Detailed statistics for most countries other than the US going back in time are not available.

[10] Controlling for this battery of fixed effects is consistent with the suggestions in Baldwin and Taglioni (2007) and Head and Mayer (2014). We follow Baldwin and Taglioni (2007) also in calculating $\log(trade_{ijt})$ as the average of the log of the two

timating equation (3) with OLS. However, results are similar when using the Poisson Pseudo Maximum Likelihood (PPML) estimator, which reduces concerns of potential inconsistency in the estimation of multiplicative models in log-linearized form, and addresses the issue that OLS estimates may be biased due to many zeros in bilateral trade flows (Silva and Tenreyro, 2006).

After estimating equation (3), we take the exponential of predicted bilateral log trade, and sum it over all partners j of country i. In formulas:

$$\begin{aligned} \widehat{trade}_{it} &= \sum_{j \neq i} \omega_{ij} \exp\left(\ln \widehat{trade}_{ijt}\right) \\ &= \sum_{j \neq i} \omega_{ij} \left[e^{\hat{\beta}_p^{sea}(\ln seadist_{ij}) + \hat{\beta}_p^{air}(\ln airdist_{ij})} \right] \end{aligned} \tag{4}$$

To predict economic integration with democratic and non-democratic partners, we sum bilateral trade flows in equation (4) separately for partners of either institutional type. In the baseline specification, we define a partner as democratic if its 5-year lagged *Polity2* score is strictly positive. In Appendix C, we replicate the analysis using the *Polity2* score at baseline to classify the institutions of trade partners.

By omitting the estimated fixed effects from equation (3) in the summation in (4), we increase confidence that the instrument only captures variation in economic integration induced by changes in the importance of air relative to sea transportation. Yet, this comes at the cost of potentially reducing the predictive power of the instrument. For this reason, when aggregating bilateral predicted trade flows in (4), we weigh by the average trade share between countries i and j, relative to total trade of country i during the first 5-year period for which trade data is available, ω_{ij}.

Even though we construct bilateral trade weights using the first 5 years of data available for each country-pair in our sample, one may still be worried about endogeneity. Specifically, our estimates would be biased if countries already trading more with democratic partners at baseline: *i*) would have become more democratic anyway; and, *ii*) experienced a larger decline in air—relative to sea—distance precisely with such partners. To address this concern, in Appendix C, we verify that results are unchanged when using weights that depend only on country j's baseline characteristics—such as trade over GDP, population, and share of trade relative to world trade—and to aggregating bilateral predicted flows without weights.

flows between i and j (instead of the log of the mean), and by expressing trade in current US dollars, while controlling for time fixed-effects (instead of deflating by the US CPI).

3.2.2 Estimated Trade Elasticities

Figure 2 plots OLS coefficients (with 95% confidence intervals) from equation (3). The elasticity of trade with respect to sea distance (red, dashed line) remains flat between 1960 and 2015, while that with respect to air distance (blue, solid line) becomes more negative over time. That is, as technological progress makes air transportation cheaper, the importance of air distance (relative to sea distance) rises. Table A.2, column 1, reports the corresponding formal estimates. In column 2, we present results obtained with PPML. Reassuringly, the patterns of the estimated elasticities are similar across models.[11]

Equation (3) exploits variation induced by improvements in air (relative to sea) transportation technologies. Thus, one would expect trade elasticities with respect to sea and air distances to diverge more for goods that are more likely to travel by air. In Appendix B.3.1, we derive a measure of air intensity for each 3-digit SITC industry. Then, in Figure A.1, we replicate Figure 2 separately for goods in each quartile of the distribution of air intensity. The steepest divergence in trade elasticities appears for goods that are in the top two quartiles (Panels A and B). The pattern is instead less pronounced for goods in the third quartile (Panel C), and disappears altogether for goods in the bottom quartile (Panel D).

3.2.3 Identifying Assumption and Instrument Validity

Appendix D.1 reports first stage regressions and verifies that the instruments for trade with democracies and autocracies are strongly correlated with the corresponding actual counterparts (Table D.1 and Figure D.1). In Figure 3, we visually inspect the patterns of predicted economic integration with democracies by plotting its average 5-year change from 1960 to 2015. Eastern Europe and Russia experienced the largest gains, but the instrument predicts large increases in integration with democracies also for many African countries, South East Asia, and the Middle East. At the same time, there is substantial variation within the same region, and the instrument predicts low levels of integration with democracies for a number of countries in Latin America and Africa as well as for China, India, Mexico, and Australia.

The variation underlying the instrument, namely relative improvements in air transportation technology, is likely exogenous to any single country.[12] Moreover, since the instrument relies on variation that is solely induced by geography, it is free from reverse causation. Fi-

[11] Standard errors in 2SLS regressions are adjusted to take into account the estimation procedure involved in building the instruments for economic integration. We use the numerical procedure described in footnote 15 in Frankel and Romer (1999) and footnote 18 in Pascali (2017). Specifically, we add the term $\left(\frac{\partial \hat{\beta}^{demo}}{\partial \hat{\beta}^{gravity}}\right) \hat{\Omega} \left(\frac{\partial \hat{\beta}^{demo}}{\partial \hat{\beta}^{gravity}}\right)'$ to the variance-covariance matrix of the 2SLS regressions, where $\hat{\beta}^{demo}$ is the vector of estimated coefficients of the regression of interest (equation (1)), $\hat{\beta}^{gravity}$ is the vector of the estimated coefficients of the gravity regression (equation (3)), and $\hat{\Omega}$ is the estimated variance-covariance matrix of the gravity regression.

[12] Possible exceptions might be countries that play an important role in the aerospace industry, such as the US and France. However, results are unchanged when predicting trade omitting these (and other) partners.

nally, the time-varying nature of the instrument allows us to absorb any country-specific, time-invariant factor and any shock common to all countries that might be correlated with both economic integration and democracy.

One remaining concern is that countries for which the instrument predicts larger economic integration with democracies were already on differential trends for institutional change. For instance, one may be worried that less democratic or more peripheral countries were more likely to get connected to democracies because of improvements in air transportation, and that these countries were already undergoing a process of democratization. Moreover, due to the unbalanced nature of the sample, one may be concerned that countries entering later in our analysis did so precisely when becoming more democratic, and that they are also predicted to experience faster integration because of their geography.

Although we cannot directly test the identifying assumption, we perform several robustness checks, summarized below and discussed in detail in Appendix C, to probe the validity of the instrument. To address the concern of selected entry into the sample, we interact year dummies with the number of years a country is in the sample. Furthermore, to deal with concerns of differential trends, we interact year dummies with several baseline country characteristics—such as democracy, trade exposure, economic structure (including the share of GDP accruing to different sectors), and measures of economic development and geographic remoteness. We also verify that results are robust to dropping groups of countries that underwent particularly fast episodes of political and economic liberalizations (e.g., member countries of the European Union), and to constructing trade excluding partners like the US and China. Finally, we show that neither the baseline level nor the historical evolution (up to 1960) of a country's democracy predicts economic integration with democracies in subsequent years.

We conclude this section by emphasizing that the instrument exploits variation induced by improvements in air transportation (interacted with geography). Hence, one may wonder if our results can be attributed solely to trade in goods or if they are also due to the movement of other factors. We return to this point in Section 6, where we seek to unbundle the various components of economic integration. We show that results are robust to controlling for instrumented migration, derived from a time-varying gravity equation akin to that used in equation (3) for trade. Moreover, we verify that there is no relationship between the instrument and several other dimensions of economic integration, including migration, FDI, students abroad, the number of book translations, and the presence of large US corporations. Similarly, we provide evidence that these variables are uncorrelated with instrumented trade. However, as noted above, we cannot—nor want to—rule out the possibility that other forms of economic integration also contribute to institutional change. For this reason, we prefer to

view trade in goods as a proxy for a broader notion of international exchange that includes also the flow of people, capital, and ideas.

4 Economic Integration and Democracy

Main results. Table 1 presents results for the effects of economic integration with democratic and non-democratic partners on democracy. Both OLS (column 1) and 2SLS (column 3) coefficients on trade with democracies are positive and statistically significant, and remain stable when controlling for lagged democratization waves (columns 2 and 4).[13] 2SLS estimates are quantitatively large: according to our preferred specification (column 4), an 80% increase in economic integration with democracies (about the inter-quantile range in our sample) raises the *Polity2* score of a country by 4 points. This corresponds to the difference in the democracy score between Malaysia and Canada in 2010, or that between Turkey and Senegal in 2015.

Turning to economic integration with autocracies, the OLS coefficient is negative and statistically significant, while the 2SLS one is quantitatively small (and positive) and imprecisely estimated. One possible explanation for the asymmetric effect of economic integration on democracy—positive when partners are democratic and muted when partners are autocratic—is that citizens of less democratic countries are not fully aware of the defining features of democracy. When exposed to the institutions of another autocratic regime, they may thus not update their beliefs about the (perceived or actual) desirability of democracy. This updating process is instead likely to occur only when individuals living in autocratic regimes are exposed for the first time to democratic institutions.

In columns 5 and 6 of Table 1, we split the sample in baseline non-democracies and democracies, respectively, defining a country democratic if its *Polity2* score is strictly positive. Due to the smaller sample sizes, the SW F-stats become lower than in our preferred specification, suggesting that results should be interpreted with some caution. However, the picture that emerges is clear: integration with democratic partners has a large and positive effect only among baseline autocracies.

Summary of robustness checks. Results are robust to a large number of checks, which are presented in detail in Appendix C. First, we document that baseline levels of democracy are uncorrelated with subsequent changes in predicted economic integration with democ-

[13]The F-stats for each separate first stage (reported at the bottom of the table) confirm the strength of each instrument already shown in Table D.1. For completeness, we also report the Kleibergen-Paap (KP) F-stat for the joint significance of all instruments. However, the threshold values used for 2SLS regressions with one instrument do not apply to the case of multiple endogenous regressors and, in fact, no critical values exist for the KP F-stat in the case of multiple instruments and non-homoskedastic errors (Andrews et al., 2019). Figure A.2 displays the graphical analogue of column 4, plotting the relationship between trade with democracies and *Polity2*.

racies (Figures C.1, C.2, and C.3). Second, we verify that results are robust to interacting period dummies with several baseline or time-invariant country characteristics (Table C.1).[14] Third, we check that results are unchanged when dropping countries that experienced fast episodes of political and economic liberalizations, such as members of the European Union or former members of the Soviet Union (Table C.2). Fourth, we construct trade excluding the US, China, or countries involved in the development and the production of air transportation technologies (Table C.3). Finally, we document that results are robust to measuring democracy in different ways (Table C.4), as well as using different versions of the instrument, defining trade partners' institutions using baseline *Polity2* score, and estimating regressions at yearly frequency (Table C.5).

Comparing OLS and 2SLS coefficients. 2SLS coefficients are an order of magnitude larger than OLS ones. One interpretation is that patterns of comparative advantage bias OLS estimates downwards, since autocracies tend to produce non-institutionally intensive goods and are more likely to trade with democracies (Costinot, 2009; Levchenko, 2007; Nunn, 2007).[15] A second explanation is that the instrument identifies a local average treatment effect (LATE) for countries that became more integrated with democracies due to global technological advances in air shipping, and that had higher margins to improve democracy because of integration with democratic partners.

Consistent with the latter idea, Figure 3 shows that the instrument predicts larger variation for countries at low or intermediate levels of democracy, which are likely to have higher potential gains in terms of democratization (relative to more established democracies). Moreover, improvements in air transportation might have provided less integrated and non-democratic countries with the opportunity to interact in non-primary-commodity-based goods markets with faraway democracies for the first time.

A related possibility is that the instrument isolates variation in trade in goods that are more conducive to the transmission of democratic values. To explore this possibility, in Appendix B.3.1, we leverage industry-level data, and classify goods in the following categories: institutionally intensive goods; cultural goods; consumer goods; technologically advanced goods (that entail frequent interactions, Lall, 2000); and, differentiated products (that involve higher levels of bilateral trust, Guiso et al., 2009).

Then, in Figure A.3, we plot the probability that a good of the type specified on the x-axis is also an air intensive good. To calculate this probability, we proceed as follows. First, for each type of good and 3-digit SITC industry, we create a dummy that takes value one if

[14] Among other controls, we include interactions between year dummies and the number of years that a country is in the sample. This is particularly important to rule out the possibility that our findings are driven by countries on differential trends for democratization that entered the sample in a way that is spuriously correlated with predicted economic integration.

[15] OLS estimates may be downward biased also due to measurement error in trade. However, this is unlikely to be the only explanation for the difference between OLS and 2SLS coefficients.

the industry is of that good type (e.g., institutionally intensive) and air intensive. Next, we compute the weighed mean of this variable, with weights corresponding to the average share of global trade in each industry over world trade for the 1962–2015 period. The resulting probability can thus be interpreted as the share of 3-digit industries in each good type that are also air intensive.[16]

The first bar from the left indicates that 70% of institutionally intensive industries are also air intensive according to our definition. The figure also reveals that all cultural products and 56% of consumer goods belong to air intensive industries (second and third bars from the left). Finally, the last two bars from the left document that goods that entail a high degree of face-to-face interactions and that are differentiated disproportionately travel by air (75% and 68%, respectively). This evidence is consistent with the idea that goods that are more likely to embed democratic values, that are bought by final consumers, and that entail a high degree of interactions and bilateral trust are more likely to travel via air. Since these are precisely the types of goods that one might expect to embed democratic values and signal the quality—actual or perceived—of democracy, these patterns might help explain why 2SLS estimates are an order of magnitude larger than OLS ones.

In Section 6, we consider a complementary interpretation for the discrepancy between 2SLS and OLS coefficients: namely, that the instrument captures not only trade in goods, but also the flow of other factors.

Effect timing. We conclude this section by exploring the timing of the effects of economic integration with democracies estimated in Table 1. In Appendix D, we perform two related exercises. First, we examine the dynamics behind trade-induced improvements in democracy (Appendix D.2). We create a dummy equal to one for the first period in which predicted economic integration with democracies is above the median for each country—a proxy for the first large (predicted) "integration shock" with democracies. Then, we replicate the analysis in an event study design, reporting results in Figure D.2. Reassuringly, there are no differential trends before the first large increase in predicted integration with democracies. Instead, after the shock, coefficients gradually increase over time. Even though the point estimate is never statistically significant, it indicates that, within 10 years from the shock, the *Polity2* score increases by about 1.7 points. This effect is not only large, but also persistent: 25 years after the first large trade shock with democracies, the *Polity2* score is more than 2 points higher than prior to the shock. These patterns are entirely driven by baseline autocracies (Figure D.2, Panel C).

Second, we test if the democratization of trade partners influences the trajectory of

[16]Note that industry level data is available starting from 1962. Results are unchanged when calculating the probability without weights (or using weights defined at baseline or at endline).

institutional change in initially autocratic countries (Appendix D.3). Following the logic in Acemoglu et al. (2019), we predict a partner's democratization using democratization waves occurring in its region. Then, for each country, we create a weighed average of the (predicted) switches among its baseline autocratic partners, with weights equal to the initial trade shares between the country and each partner. Estimating 2SLS panel regressions, we do not detect any democratization spillover following the transition of formerly large autocratic trade partners (Table D.2).[17] These findings, together with those in Figure D.2, suggest that autocratic countries learn mostly from established democracies, where democratic values are more deep-rooted.

5 Mechanisms

Our interpretation of results in Section 4 is that economic integration with democracies favors the transmission of democratic values from more to less democratic countries and this, in turn, leads to improvements in countries' democracy. In Section 5.1, we provide evidence in support of this channel. In Section 5.2, we document that alternative mechanisms are unlikely to explain our findings.

5.1 Trade with Democracies and the Transmission of Democracy

Democratic partners as role models. One implication of our proposed mechanism is that the transmission of democracy should be stronger when democratic partners are taken as role models and when they (are perceived to) deliver. This is because both citizens and elites of non-democracies may update their beliefs about the desirability of democracy upwards especially when they observe that democratic countries are more successful.[18] To test this idea, in Table 2, we replicate our preferred specification (Table 1, column 4) splitting democratic partners depending on their characteristics.

In column 1, we consider separately economic integration with democratic partners that have baseline domestic democratic capital (i.e., the historical experience of a country with its own democracy, as in Persson and Tabellini, 2009) above and below the median.[19] Consistent with our conjecture, and in line with the effect timing described above, results are driven

[17] We exclude partners within the same region. This reduces concerns that a democratization shock in a partner may be correlated with broader factors influencing the institutions of all countries in the same region (e.g., the Arab Spring). Since autocratic countries have several partners switching to democracy even within relatively narrow time windows, we are unable to implement a proper event study design, as instead in Figure D.2. See Appendix D.3 for more details.

[18] Buera et al. (2011) provide evidence of a similar mechanism in the context of economic policies.

[19] We always define the median based on the set of democratic partners of a given country in a given year. For predicted trade, consistent with the instrument (see Section 3.2), we lag the set of democratic partners and their characteristics by 5 years.

by partners with higher democratic capital, where democratic values are likely to be more entrenched and deep-rooted.

In column 2, we define democratic partners as "good" if they record a growth rate of real GDP per capita above the median of all democratic partners of a given country up to a given year. In column 3, we instead define as good democratic partners those with government spending over GDP above the median. Our estimates indicate that integration with democracies favors democratization only when partners do relatively well economically and spend more on public goods.[20] This resonates with findings in Acemoglu et al. (2023) for exposure to own democracy, and suggests that successful economic performance and public goods provision (within a country and among its partners) are important factors in driving support for democracy.

In column 4, we test the role of cultural similarity, splitting democratic partners as culturally close and far, using the measure of genetic distance from Spolaore and Wacziarg (2009). In line with a process of (cultural or institutional) transmission, the coefficient on economic integration with democracies is quantitatively large and statistically significant only for culturally similar democratic partners.[21]

Imports vs exports. Next, we examine whether the effects of trade with democracies operate through imports or exports (or, both). On the one hand, exporters of autocratic countries may familiarize with democratic institutions, such as secure property rights and the rule of law, when conducting business and interacting with importers of democratic partners. On the other hand, citizens of autocratic countries may update their prior about the desirability of democracy by observing imported goods that signal the (actual or perceived) qualities of the latter. In Appendix D.4, we leverage industry level data to derive separate instruments for imports and exports. Then, we replicate our preferred specification by splitting trade with democracies between imports and exports (while controlling for total trade with autocracies). Results in Table 3 indicate that only imports, and not exports, are associated with the increase in a country's democracy score (column 1). These patterns become stronger when focusing on baseline autocracies (column 2).[22]

Trade in (specific types of) goods. The transmission of democracy through imports should happen especially when trade involves goods that are more likely to signal the quality of democratic institutions. We corroborate this idea in different ways. First, in column

[20]The number of observations in column 2 is lower than in the baseline specification, since for a handful of countries actual or predicted trade with good or bad partners is equal to zero. Likewise, the number of observations in column 3 is lower than in other columns because data on government spending (taken from the IMF) is not available for all countries in all years.

[21]Data on genetic distance is missing for Belgium and Luxembourg (which constitutes a single country-entity before 2000 in the rest of our analysis), Serbia, and Yemen.

[22]Columns 3 and 4 replicate columns 1 and 2 using the alternative instruments for imports and exports described in Appendix D.4. We do not report results for baseline democracies, since we were unable to obtain a meaningful first stage for this sample.

5 of Table 2, we find that the effects of trade with democracies are driven by partners whose exports have unit values above the median (relative to the other democratic partners of a given country in a given year). Next, we test if the effects are stronger when democratic partners account for a larger share of a country's trade in goods that might be more conducive to the transmission of democratic values. We consider: institutionally intensive goods; cultural goods; consumer (as opposed to producer) goods; differentiated products; and, goods that are more technologically advanced.[23] For each category, we calculate the baseline trade share between each country pair, relative to total trade of the country in that specific good. Then, as in Table 2, we split democratic partners above and below the median of such trade share for each good category.

Table 4 documents that the effects are driven by partners that account for a larger share of a country's trade in institutionally intensive (column 1), cultural (column 2), and consumer (column 3) goods. This is consistent with the transmission of democracy occurring through the exchange of goods that: are more likely to embed democratic values, convey cultural norms, and are purchased by final consumers (rather than used as intermediate inputs by a country's producers). Table 4 also indicates that results are driven by trade with partners that are more important for the exchange of technologically advanced (column 4) and differentiated (column 5) goods. This is additional evidence that trade favors the flow of democratic capital from more to less democratic countries. Indeed, more differentiated goods require more bilateral trust (Guiso et al., 2009), whereas technologically advanced goods involve high levels of face-to-face interactions (Lall, 2000; Söderlund, 2023).[24]

While results in Table 4 are consistent with our proposed mechanism, it is important to discuss a few caveats. First, since good categories are not mutually exclusive, there might be substantial overlap between them. Note that, even if this were to be the case, our estimates would still shed light on the bundle of goods' characteristics that are conducive to the transmission of democratic values through trade. To inspect the extent of overlap between goods, in Appendix B.3.2, we present the conditional probability that a good of one type is also of another type (Table B.3). Although there is significant overlap across categories, this is not always the case: almost all cultural products are institutionally intensive, differentiated, and consumer goods. Yet, only 54% of them are technologically advanced. Similarly, although 70% of consumer goods are also institutionally intensive, only 8% of them are cultural goods, and only 16% of them are technologically advanced. Similar patterns are evident for other goods as well. This does not imply that we can isolate the effects of each of the good

[23] See Appendix B.3.1 for more details on the classification of good types (including high unit value goods).

[24] We cannot rule out the possibility that results for technologically advanced products are also driven by the fact that these goods have a high unit value. Their quality, rather than the higher degree of interpersonal interaction, may thus explain our findings.

types considered in Table 4. At the same time, it increases our confidence that the different columns of Table 4 are not merely picking the same set of goods over and over.

A second potential concern may be that democratic partners that are above the median for country i (in a given good type) are also above the median for all other countries. If these partners are also growing faster or spending more on public goods, we may be attributing to their type of trade the effect of other characteristics (see also results in Table 2). We address this issue by expressing the trade shares relative to total trade of partner j, rather than total trade of country i in good type x. Reassuringly, results are unchanged (Table A.3).[25]

Taking stock. Summing up, this section suggests that economic integration with democracies promotes the transmission of democracy from more to less democratic countries. Consistent with this interpretation, results are driven by trade with democratic partners that can be taken as role models and that are culturally closer. Our findings also indicate that the process of institutional transmission operates through the exchange of goods that can signal the (perceived or actual) qualities of democracy. First, imports, rather than exports, are associated with improvements in (autocratic) countries' democracy. Second, trade with democracies fosters democratization only when democratic partners export higher unit value goods and account for a larger share in a country's trade in goods that are more likely to embed democratic values and convey social norms, are bought (and observed) by final consumers, and entail higher levels of face-to-face interactions and bilateral trust.

In a longer version of the paper (Tabellini and Magistretti, 2022), we present additional results in support of the transmission mechanism using data from the Integrated Value Survey (IVS) to measure individuals' attitudes towards democracy. Following the literature (see Giuliano and Spilimbergo, 2022, for a recent review), we conjecture that exposure to economic integration with democracies might have a larger effect on preferences during the formative years of an individual (e.g., 18-25). Then, building on this intuition and implementing a design similar to that in Giuliano and Spilimbergo (2023) and Saka et al. (2022) among others, we exploit within country, cross-cohort variation in exposure to economic integration with democracies. We find that individuals who grew up when their country was becoming more integrated with democracies are more supportive of democracy at the time of the survey, as compared to other individuals (within the same country and in the same survey year) who grew up during periods of lower integration with democracies.[26]

[25] Results are also very similar when expressing bilateral trade shares relative to total trade of partner j in good x (Table A.4).

[26] For more details, see the working paper available at this link: https://www.nber.org/papers/w30055.

5.2 Alternative Channels

In this section, we discuss alternative mechanisms. Note that these forces are not necessarily in contrast with (and in fact might complement) our preferred channel of transmission. However, this analysis suggests that, alone, they cannot explain our findings.

Economic growth and human capital accumulation. An alternative mechanism to our transmission channel is that economic integration with democratic partners fosters growth (Donaldson, 2015), and this—rather than the exposure to partners' institutions—improves democracy. This idea is consistent with the "modernization hypothesis", and resonates with the branch of the literature that posits a causal nexus from economic growth to democracy (Barro, 1999; Lipset, 1959).

In columns 2 to 4 of Table 5, we replicate the baseline specification (reported in column 1) by controlling for 5-year lagged (log of) GDP, population, and GDP per capita, respectively. 2SLS coefficients on economic integration with democratic and non-democratic partners remain very similar to those in our preferred specification, reported in column 1 to ease comparisons.[27] Columns 5 and 6 confirm these patterns instrumenting the level and the growth rate of GDP per capita with the measure of commodity prices from Burke and Leigh (2010).

A related possibility is that trade with democratic partners increases citizens' level of education, which, in turn, promotes democratization (Glaeser et al., 2007). Even though it is *ex-ante* unclear whether economic integration with democracies fosters the accumulation of human capital, we nonetheless consider this potential mechanism. In column 7, we replace the *Polity2* score with the average number of years of schooling as dependent variable.[28] If anything, economic integration with democracies is associated with lower educational attainment. This pattern is in line with results in Atkin (2016) and Blanchard and Olney (2017), and suggests that economic integration may induce (especially less developed) countries to specialize in the production of unskilled-intensive goods.

Redistribution of resources and income inequality. A second alternative channel for our findings may be that integration with democracies benefits groups that are more supportive of democracy, which, in turn, mobilize resources to promote democratization (Acemoglu et al., 2005; Puga and Trefler, 2014). If redistribution of resources were a key mechanism, one would expect results to be stronger for countries with lower rents from natural resources, and with a higher share of GDP accruing to services and manufacturing.

[27] We refrain from interpreting the coefficients on GDP and population since, even when using a 5-year lag, they may not be exogenous to changes in democracy (Acemoglu et al., 2019).

[28] Data for years of schooling is from Barro and Lee (2013) and is not available consistently for all countries in the main analysis. See Table B.1 for more details.

This is because, there, the elites should be less likely to benefit from trade, while the middle class may be better positioned to gain as the economy becomes more integrated with the rest of the (democratic) world.

To test this idea, in Figure A.4, we split the sample in countries with baseline rents from natural resources and value added from manufacturing and services (all expressed as a share of GDP) above (dark-colored bars) and below (light-colored bars) the median, respectively.[29] The effects of economic integration with democracies are quantitatively larger in countries with rents from natural resources above the median (first set of bars). They are instead similar in countries with higher and lower GDP share in manufacturing (second set of bars). Economic integration has a larger effect in countries with a higher service share at baseline, but estimates are imprecisely estimated in both samples (third set of bars). These findings are not consistent with economic integration making more powerful groups that are more likely to benefit from democratization.

It is also possible that integration with democracies increases income inequality, leading to democratization as citizens demand redistribution. To examine this possibility, we replicate our preferred specification using different proxies for the income distribution as dependent variables. Relying on data from the World Inequality Database and following the literature (Autor et al., 2008), we calculate the ratio of the log of income at different percentiles of the (pre-tax) income distribution (see Table B.1 for more details). We report results in Table A.6, considering the ratio of the (log of the) following income percentiles: *i*) 5th to 90th (column 1); *ii*) 5th to 50th (column 2); *iii*) 10th to 90th (column 3); *iv*) 10th to 50th (column 4); and, *v*) 50th to 90th (columnn 5). In all cases, the coefficient on integration with democracies is small and imprecisely estimated.[30]

Pressure from trade partners and preferential trade agreements. In the Online Appendix of Tabellini and Magistretti (2022), we consider two additional channels. First, using data on the number of CIA or KGB interventions as well as on countries' political alignment, we provide evidence against the idea that results are driven by more established democracies exerting pressure on their autocratic partners to democratize. Second, we show that integration with democratic partners does not induce countries to sign more preferential trade agreements (PTAs), which might have independent effects on democracy (Liu and Ornelas, 2014).[31]

[29] Formal estimates are reported in Table A.5. Especially for manufacturing and services as a share of GDP, the SW F-stats are lower than in the baseline specification, suggesting that results should be interpreted with caution.

[30] Results, not reported for brevity, are very similar when considering the ratio of other income percentiles, and when measuring inequality using the share of income accruing to the top 1, 5, or 10% of the distribution.

[31] For more details, see Online Appendix D9 here: https://data.nber.org/data-appendix/w30055/w30055.appendix.pdf.

6 Unbundling Economic Integration

The previous analysis indicates that trade in (specific types of) goods contributes to the transmission of democracy across countries. Yet, since the instrument exploits variation driven by changes in air transportation, one may wonder if our estimates also capture the effects of other dimensions of economic integration besides trade in goods. Moreover, the connections created by trade in goods might promote other forms of exchange—such as migration, business travels, and FDI—that amplify the direct effects of trade on democracy. None of these additional forces would undermine the validity of our results: as noted above, we consider trade in goods as a proxy for a broader notion of economic integration through which democratic values can travel across countries. This observation notwithstanding, we now explore whether our measure of predicted economic integration picks up forces other than trade in goods. We emphasize that the evidence presented next should be viewed as suggestive rather than definitive.

Ideally, one would replicate the baseline specification by controlling for the non-trade components of integration, using instruments derived through a gravity approach like the one adopted for trade in goods in Section 3.2. We perform this exercise for migration, as this is the only variable for which the required bilateral flows are consistently available. We present results in Table 6.[32] First, we verify that restricting the sample to observations for which migration data is available (column 2) leaves our baseline results (reported in column 1 to ease comparisons) unchanged. Next, we replace trade with migration, total (column 3) and separately with democratic and non-democratic countries (column 4). Coefficients are either negative or quantitatively small; they are also imprecisely estimated.

Then, we augment our preferred specification by simultaneously including trade and migration (columns 5 and 6). Coefficients on migration are negative and standard errors are large. Instead, the point estimate on trade with democracies remains positive and large, albeit less precisely estimated, especially in column 6, where it is no longer statistically significant at conventional levels. Yet, the drop in precision is likely due to the very demanding nature of this specification, which simultaneously includes three (column 5) or four (column 6) endogenous variables and corresponding instruments.

Results in Table 6 indicate that the instrument is unlikely to pick up variation associated with migration. This is informative, given that many papers have documented that migrants

[32]Figure A.5 plots coefficients estimated from a gravity equation identical to that used for trade in goods, where we replace trade with migration. Migration data is available every 5 years from 1965 to 2015 (see Table B.1 for more details). For this reason, the gravity equation cannot be estimated for earlier years. Table A.7, which reports first stage estimates for instrumented migration analogous to what we do in Table D.1 for trade, confirms that actual and predicted migration are strongly correlated. For consistency with the rest of the analysis, we define migration as the log of the number of migrants scaled by population. When constructing the instrument, as for trade, we lag population by 5 years. Results are unchanged when measuring migration as the log of migrants (with or without a separate control for country population).

favor the transmission of culture and institutions between and within countries (Barsbai et al., 2017; Bazzi et al., 2023a,b; Giuliano and Tabellini, 2020; Rapoport et al., 2020). At the same time, data limitations prevent us from directly testing the relevance of other factors. To partly address this issue, we complement the previous analysis using a less direct strategy, which, however, can be applied to many other dimensions of economic integration.

In Table 7, we estimate our preferred specification using different outcomes. In Panel A, we consider as main regressors predicted trade with democracies and autocracies. In Panel B, we estimate 2SLS regressions that instrument actual trade with democracies and autocracies with the corresponding predicted variables.[33] In columns 1 to 3, the dependent variable is the log of the number of in- and out-migrants to and from a country, scaled by population. Coefficients on (predicted and actual) trade with democracies are imprecisely estimated and quantitatively small. We find it reassuring that these patterns are consistent with those obtained in Table 6, where we documented that there is no relationship between (instrumented) migration and democracy.[34] Next, we turn to the flow of students (columns 4 to 6), which might be conducive to the process of democratization (Spilimbergo, 2009), FDI (column 7), and foreign book translations (column 8)—a proxy for idea flows across countries (Abramitzky and Sin, 2014).[35] In all cases, coefficients on (actual or predicted) trade with democracies are quantitatively small and imprecisely estimated.

Table 7 suggests that migration, students abroad, FDI, and book translations are not driving our results. Business linkages are another important factor related to air travel that might influence the spread of democracy across countries. Even though we cannot directly measure this force, in Table A.8, we explore whether the instrument picks up the impact of business linkages. Building on Campante and Yanagizawa-Drott (2018), we exploit the fact that no direct flight can take place above the cutoff of 6,000 miles. This creates a discontinuity in air (and business) linkages across countries. In column 1, we split trade with democracies between partners that have an air distance above and below 6,000 miles. Coefficients are imprecisely estimated, and the first stage F-statistics are lower than in our baseline specification. For this reason, results should be interpreted with caution. Yet, our estimates indicate that, if anything, the effects of trade with democracies are driven by far-away partners. Albeit only suggestive, this is consistent with the interpretation that business

[33]The analysis in Panel A is effectively the analogue of the first stage regressions for trade in goods reported in Table D.1.

[34]These patterns indicate that cross-country migration induced by differential changes in air (relative to sea) transportation does not trigger institutional change. They should not be interpreted as implying that migration is irrelevant for cultural or institutional transmission. Results (not reported for brevity) are similar when using other definitions of migration and when considering separately in- and out-migration.

[35]Data on the number of students abroad is always missing for Belgium and Luxembourg, Myanmar, and Serbia. It is also present with gaps for other countries. In most cases, FDI data (taken from the World Bank World Development Indicators) exists only at the country, rather than at the country-pair, level. For this reason, we cannot separate FDIs to or from democracies and non-democracies. Results, unreported for brevity but available in Tabellini and Magistretti (2022), are unchanged when considering separately books written: *i*) in English; *ii*) in languages spoken in democratic countries; and, *iii*) on different topics.

travels cannot be the main force behind our findings. In columns 2 to 4, we corroborate this idea by considering the relationship between the presence of large US corporations and predicted (Panel B) and instrumented (Panel C) trade. The dependent variable is a dummy equal to one in the year of entry of McDonald's (column 2), Coca Cola (column 3), and IBM (column 4).[36] Coefficients are unstable, quantitatively small, and never statistically significant.

Together with the analysis presented in Section 5.1, the evidence provided in this section suggests that trade in specific types of goods plays an important role for the transmission of democracy, and that other forms of economic integration are unlikely to, alone, fully explain our findings. However, several of the non-trade variables considered in this section are available only for a subset of countries and years, are measured with noise, and may have independent effects on democracy that are not captured in our analysis. In other cases, such as tourism and temporary migration, systematic data simply does not exist for enough countries and years. Thus, we prefer to view trade in goods as a proxy for a broader notion of international exchange that also includes the flow of capital, people, and ideas.

7 Conclusions

In this paper, we study the effects of economic integration with democratic partners on democracy between 1960 and 2015—a period characterized by both globalization and the spread of democracy across countries. Building on Feyrer (2019), we exploit improvements in air (relative to sea) transportation to predict economic integration. We find that economic integration with democracies increases democracy, while the impact of economic integration with non-democracies is muted. Our evidence suggests that economic integration can favor the transmission of democracy by signaling the (actual or perceived) desirability of democratic institutions.

Our study period was characterized by sustained economic growth in most Western democracies. In this context, it might have been easier for democratic partners, especially the most successful ones, to emerge as role models. Since the early 2000s, inequality has increased and growth has declined in many Western democracies, while China has emerged as a key (non-democratic) player in the global economy. Future work could examine whether integration with China slowed down the process of democratization around the world, as the country represented an alternative model to the Western, democratic one.

Our results indicate that the exchange of goods with democratic partners plays a role in

[36] Data on the presence of McDonald's, Coca Cola, and IBM across countries is taken from https://www.hbs.edu/businesshistory/courses/teaching-resources/historical-data-visualization/data-and-sources. See also Table B.1.

fostering the transmission of democracy. However, more evidence is needed to quantify the relevance of other factors possibly correlated with trade—such as idea flows, the diffusion of foreign media and culture, and inter-personal contact through tourism, migration, and business travels. We hope that our analysis will motivate future work in this direction.

At a time when economic integration is slowing down and trade is becoming increasingly fragmented along institutional and geopolitical blocs, these issues have important implications for the future of democracy.

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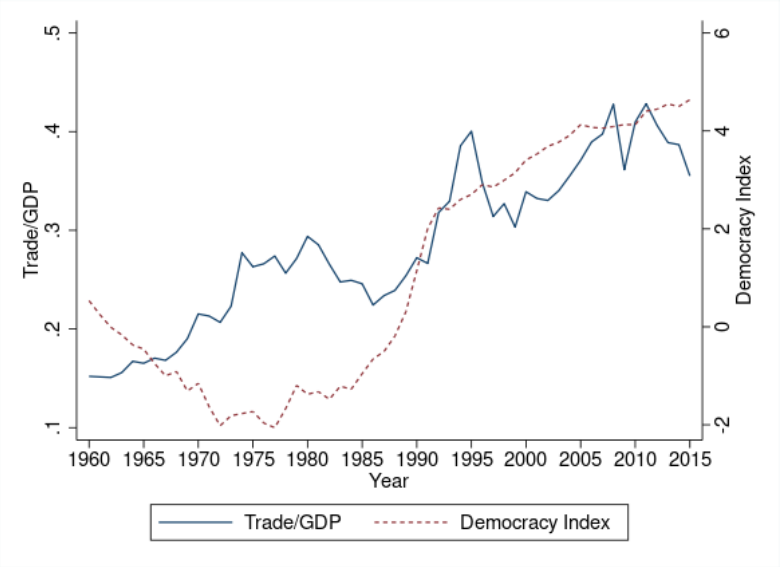
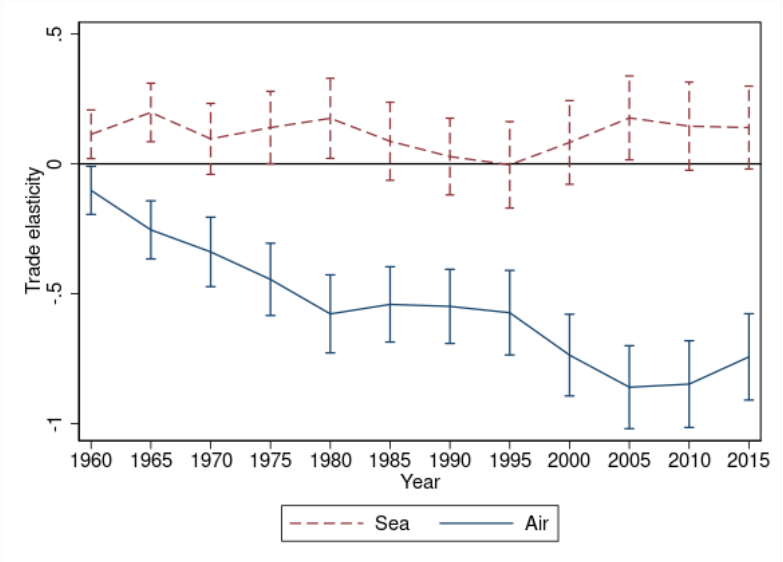
Figures and Tables

Figure 1. Economic Integration and Democracy: Aggregate Trends



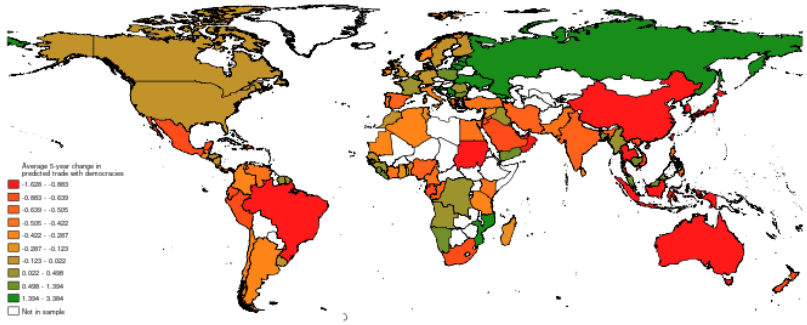
Notes: The figure plots the average trade-to-GDP ratio (blue solid line) and *Polity2* democracy score (red dotted line, secondary y-axis) across countries between 1960 and 2015. See Table B.1 for more details on the variables plotted.

Figure 2. Gravity Equation Coefficients



Notes: The figure plots OLS coefficients (with corresponding 95% confidence intervals) on the log of sea (red, dotted line) and air (blue, solid line) distances interacted with 5-year period dummies from the gravity equation (3). Regressions are estimated at the calendar-year, country-pair level from 1955 to 2015. The 1955 coefficients are not estimated because of collinearity with fixed effects. Standard errors are clustered at the country-pair, calendar-year level. See Table A.2 for formal estimates.

Figure 3. Average Change in Predicted Trade with Democracies



Notes: The figure plots the deciles of the average 5-year change in the log of predicted trade with democracies over 5-year lagged GDP for the countries in our sample (except for Belgium and Luxembourg, which constitute a single country-entity before 2000). Values are standardized by subtracting the mean and dividing by the standard deviation.

Table 1. Economic Integration and Democracy

Dep. variable:	Polity2					
	OLS (1)	OLS (2)	2SLS (3)	2SLS (4)	2SLS (5)	2SLS (6)
Log(Trade democracy/GDP)	1.743***	1.249**	4.576**	4.977**	6.522**	-3.241
	(0.558)	(0.551)	(2.158)	(2.111)	(2.756)	(5.948)
Log(Trade autocracy/GDP)	-0.574**	-0.451*	0.163	0.933	0.793	-0.053
	(0.278)	(0.261)	(1.135)	(1.051)	(1.204)	(2.037)
Sample	Full	Full	Full	Full	Baseline autocracy	Baseline democracy
Observations	1,192	1,192	1,192	1,192	602	590
Clusters	116	116	116	116	60	56
Democratization waves		X		X	X	X
Country FE	X	X	X	X	X	X
Year FE	X	X	X	X	X	X
K-P F-stat			5.312	6.249	3.940	2.406
F-stat (Demo Trade)			12.18	13.78	8.919	5.665
F-stat (Auto Trade)			16.75	19.35	13.85	6.163
Dep. variable mean	2.060	2.060	2.060	2.060	-2.339	6.549

Notes: The table reports OLS (columns 1 and 2) and 2SLS (columns 3 to 6) coefficients on the log of trade-to-GDP ratio with democratic and non-democratic partners estimated in equation (1). The dependent variable is the *Polity2* democracy score, which ranges from -10 (full autocracy) to 10 (full democracy). Regressions are estimated on 5-year periods, from 1960 to 2015, and always control for country and period fixed effects. All columns, except for columns 1 and 3, also control for lagged democratization waves. Columns 5 and 6 restrict the sample to countries with *Polity2* score at baseline strictly lower than 1 and strictly greater than zero, respectively. Standard errors, clustered at the country level, in parentheses. Standardized beta coefficients are reported in square brackets. KP F-stat is the Kleibergen-Paap F-stat for joint significance of instruments. F-stat (Demo Trade) and F-stat (Auto Trade) refer to the Sanderson-Windmeijer F-stats for joint significance of the instruments in the two separate first-stage regressions. Significance levels: *** p< 0.01, ** p< 0.05, * p< 0.1.

Table 2. Trade with Democracies, Split by Partners' Characteristics

Dep. variable:	Polity2				
	2SLS (1)	2SLS (2)	2SLS (3)	2SLS (4)	2SLS (5)
Log(Above median trade democracy/GDP)	2.929***	3.387**	4.785***	2.972**	4.928***
	(1.048)	(1.479)	(1.737)	(1.267)	(1.536)
Log(Below median trade democracy/GDP)	1.252	1.067	0.545	0.552	0.367
	(0.879)	(2.591)	(1.189)	(1.408)	(0.817)
Log(Trade autocracy/GDP)	0.725	0.226	-0.173	0.986	0.043
	(1.070)	(1.240)	(1.237)	(1.054)	(1.079)
Split variable	1960 democratic capital	Up to current year growth	Government expenditure	Genetic proximity	Unit value exports
Observations	1,192	1,178	1,024	1,170	1,192
Clusters	116	116	116	113	116
Democratization waves	X	X	X	X	X
Country FE	X	X	X	X	X
Year FE	X	X	X	X	X
K-P F-stat	3.985	1.684	4.253	5.769	4.626
F-stat (Above Median Demo Trade)	34.74	8.366	17.39	17.57	20.43
F-stat (Below Median Demo Trade)	30.65	6.117	29.41	25.42	25.47
F-stat (Auto Trade)	12.65	11.38	14.28	20.59	15.77

Notes: The table replicates column 4 of Table 1 by splitting democratic partners as above and below the median of: *i*) baseline domestic democratic capital from Persson and Tabellini (2009) in column 1; *ii*) growth rate of GDP per capita up to the current year, from 1960, in column 2; *iii*) government spending over GDP in column 3; *iv*) the index of weighed genetic proximity from Spolaore and Wacziarg (2009) in column 4; *v*) the unit value of exports. When defining predicted trade in each sub-sample, we consider the sample of democratic partners 5 years before (consistent with the timing used to define democratic and non-democratic partners for the instruments used in the main analysis). All regressions control for country and year fixed effects and for lagged democratization waves. Standard errors, clustered at the country level, in parentheses. KP F-stat is the Kleibergen-Paap F stat for joint significance of instruments. F-stat (Above Median Demo Trade), F-stat (Below Median Demo Trade), and F-stat (Auto Trade) refer to the Sanderson-Windmeijer F-stats for joint significance of the instruments in the three separate first-stage regressions. Significance levels: *** p< 0.01, ** p< 0.05, * p< 0.1.

Table 3. Imports, Exports, and Democracy

Dep. variable:	Polity2			
	2SLS (1)	2SLS (2)	2SLS (3)	2SLS (4)
Log(Import democracy/GDP)	3.974*	6.548***	3.709*	6.590***
	(2.061)	(2.216)	(2.011)	(2.085)
Log(Export democracy/GDP)	-0.548	-1.702	-0.235	-1.746
	(1.226)	(1.176)	(1.214)	(1.085)
Log(Trade autocracy/GDP)	1.276	1.834	1.264	1.843
	(0.892)	(1.503)	(0.898)	(1.513)
Sample	Full	Baseline autocracy	Full	Baseline autocracy
Observations	1,114	573	1,114	573
Clusters	115	59	115	59
Democratization waves	X	X	X	X
Country FE	X	X	X	X
Year FE	X	X	X	X
K-P F-stat	6.089	3.337	6.060	3.311
F-stat (Demo Import)	27.97	21.68	27.01	23.91
F-stat (Demo Export)	11.67	14.84	11.18	17.67
F-stat (Auto Trade)	23.73	8.628	23.70	8.654
Dep. variable mean	1.973	-2.276	1.973	-2.276

Notes: The table replicates column 4 of Table 1 for the full sample (columns 1 and 3) and for baseline autocracies (columns 2 and 4), replacing total trade with democracies with imports from and exports to democracies. Predicted trade from industry level data for Serbia (needed to construct instruments for imports and exports) can be derived for a single time period; for this reason the country drops out from the regressions. In columns 1 and 2, the instruments for imports and exports with democracies are constructed as described in equations (10) and (11) in Appendix D.4. In columns 3 and 4, the instruments are derived using the alternative strategy described in Appendix D.4 (see also footnote 62). Standard errors, clustered at the country level, in parentheses. KP F-stat is the Kleibergen-Paap F-stat for joint significance of instruments. F-stat (Demo Import), F-stat (Demo Export), and F-stat (Auto Trade) refer to the Sanderson-Windmeijer F-stats for joint significance of the instruments in the three separate first-stage regressions. Significance levels: *** p< 0.01, ** p< 0.05, * p< 0.1.

Table 4. Trade with Democracies, Split by Good Categories

Dep. variable:	Polity2				
	2SLS (1)	2SLS (2)	2SLS (3)	2SLS (4)	2SLS (5)
Log(Above median trade democracy/GDP)	5.988***	3.412*	3.947*	4.433**	5.783**
	(2.250)	(2.002)	(2.088)	(1.938)	(2.828)
Log(Below median trade democracy/GDP)	-1.219	2.192	0.678	0.611	-0.970
	(1.311)	(1.851)	(1.120)	(1.029)	(1.627)
Log(Trade autocracy/GDP)	1.051	0.557	0.899	0.885	0.898
	(1.101)	(0.986)	(1.044)	(1.063)	(1.107)
Split variable	Institutionally intensive goods	Cultural goods	Consumer goods	Interaction goods	Differentiated goods
Observations	1,188	1,192	1,186	1,191	1,187
Clusters	116	116	116	116	116
Democratization waves	X	X	X	X	X
Country FE	X	X	X	X	X
Year FE	X	X	X	X	X
K-P F-stat	4.751	3.949	4.569	3.968	2.787
F-stat (Above Median Demo Trade)	14.51	13.60	13.76	13.92	9.209
F-stat (Below Median Demo Trade)	21.63	28.75	32.43	22.95	7.971
F-stat (Auto Trade)	26.27	22.20	21.61	22.10	22.52

Notes: The table replicates column 4 of Table 1 by splitting democratic partners on the basis of the share of bilateral trade in specific types of goods over the country's type-specific total trade (see also Section 5.1 for more details). We consider: *i*) institutionally-intensive goods (column 1); *ii*) cultural goods (column 2); *iii*) consumer goods (column 3); *iv*) high-interaction goods (column 4); and, *v*) differentiated goods (column 5). See Appendix B.3.1 for more details on the definition of each type of good. When defining predicted trade in each sub-sample, we consider the sample of democratic partners 5 years before (consistent with the timing used to define democratic and non-democratic partners for the instruments used in the main analysis). All regressions control for country and year fixed effects and for (lagged) democratization waves. Standard errors, clustered at the country level, in parentheses. KP F-stat is the Kleibergen-Paap F stat for joint significance of instruments. F-stat (Above Median Demo Trade), F-stat (Below Median Demo Trade), and F-stat (Auto Trade) refer to the Sanderson-Windmeijer F-stats for joint significance of the instruments in the three separate first-stage regressions. Significance levels: *** p< 0.01, ** p< 0.05, * p< 0.1.

Table 5. Controlling for Income Effects and Human Capital Accumulation

Dep. variable:	Polity2						Avg. years of schooling
	2SLS (1)	2SLS (2)	2SLS (3)	2SLS (4)	2SLS (5)	2SLS (6)	2SLS (7)
Log(Trade democracy/GDP)	4.977**	5.330**	5.399**	4.855**	6.905**	4.577**	-1.638*
	(2.111)	(2.311)	(2.341)	(2.038)	(3.332)	(2.134)	(0.830)
Log(Trade autocracy/GDP)	0.933	0.964	0.773	0.909	0.666	0.308	-0.146
	(1.051)	(1.116)	(1.333)	(1.184)	(1.396)	(0.997)	(0.247)
Log(GDP_{t-5})		0.132	0.045				
		(0.574)	(0.623)				
Log(Population$_{t-5}$)			0.824				
			(1.877)				
Log(GDP per capita$_{t-5}$)				-0.053			
				(0.659)			
Log(GDP per capita$_t$)					1.852		
					(2.192)		
GDP growth per capita$_t$						-5.084	
						(5.568)	
Observations	1,192	1,192	1,192	1,192	881	881	1,067
Clusters	116	116	116	116	113	113	102
Democratization waves	X	X	X	X	X	X	X
Country FE	X	X	X	X	X	X	X
Year FE	X	X	X	X	X	X	X
K-P F-stat	6.249	5.069	4.701	4.438	2.107	3.807	3.295
F-stat (Demo Trade)	13.78	13.17	13.97	13.47	9.526	16.24	6.878
F-stat (Auto Trade)	19.35	13.87	11.81	10.33	6.517	18.47	14.71
F-stat (GDP per capita)					10.73		
F-stat (GDP growth per capita)						12.28	
Dep. variable mean	2.060	2.060	2.060	2.060	1.194	1.194	6.652

Notes: The table replicates column 4 of Table 1 in column 1. Columns 2 to 4 add, respectively, the log of the 5-year lagged: *i*) GDP; *ii*) population; *iii*) GDP per capita. Columns 5 and 6 control for the log of GDP per capita and GDP per capita growth rate, respectively. Both variables are instrumented using the Commodity Export Price Index as defined in Burke and Leigh (2010). See Table B.1 for more details on the latter variable. Column 7 replicates column 1 using as dependent variable the average years of schooling from Barro and Lee (2013). Standard errors, clustered at the country level, in parentheses. KP F-stat is the Kleibergen-Paap F stat for joint significance of instruments. F-stat (Demo Trade), F-stat (Auto Trade), F-stat (GDP per capita), and F-stat (GDP growth per capita) refer to the Sanderson-Windmeijer F-stats for joint significance of the instruments in the separate first-stage regressions. Significance levels: *** p< 0.01, ** p< 0.05, * p< 0.1.

Table 6. Trade and Democracy: Controlling for Migration

Dep. variable:	*Polity2*					
	2SLS (1)	2SLS (2)	2SLS (3)	2SLS (4)	2SLS (5)	2SLS (6)
Log(Trade demo/GDP)	4.977**	5.043**			4.805*	5.278
	(2.111)	(2.423)			(2.544)	(3.547)
Log(Trade auto/GDP)	0.933	1.228			0.680	1.131
	(1.051)	(1.130)			(1.297)	(1.326)
Log(Migration/Pop.)			-0.275		-2.157	
			(1.213)		(2.008)	
Log(Migration demo/Pop.)				-0.706		-2.912
				(1.469)		(3.074)
Log(Migration auto/Pop.)				0.057		-0.451
				(0.360)		(0.386)
Observations	1,192	1,118	1,118	1,118	1,118	1,118
Clusters	116	113	113	113	113	113
Country FE	X	X	X	X	X	X
Year FE	X	X	X	X	X	X
Democratization waves	X	X	X	X	X	X
K-P F-stat	6.249	6.781	19.82	4.373	2.973	0.927
SW F-stat (Demo Trade)	13.78	13.75			15.23	5.284
SW F-stat (Auto Trade)	19.35	21.07			10.17	7.849
SW F-stat (Demo Migration)				8.739		3.863
SW F-stat (Auto Migration)				44.88		48.52
SW F-stat (Migration)			19.82		9.621	

Notes: The table replicates column 4 of Table 1 controlling for instrumented migration. Migration is defined as the average of in- and out-migration between any country pair in each 5-year period, and is then aggregated to the country 5-year period level. The variable is then scaled by country population, and logged. See also Table B.1 for more details. Predicted migration is obtained through a gravity approach like the one adopted for trade described in Section 3.2.2 (see also Section 6). Column 2 replicates the baseline specification (reported in column 1 to ease comparisons) restricting the sample to observations for which migration data is available. In columns 3 and 4, trade is replaced with migration, total and separately with democratic and non-democratic countries. Columns 5 and 6 augment the preferred specification by including respectively total migration and migration with autocracies and democracies separately. Standard errors, clustered at the country level, in parentheses. KP F-stat is the Kleibergen-Paap F-stat for joint significance of instruments. F-stat (Demo Trade), F-stat (Auto Trade), F-Stat (Demo Migration), F-Stat (Auto Migration) and F-Stat(Migration) refer to the Sanderson-Windmeijer F-stats for joint significance of the instruments in the various separate first-stage regressions. Significance levels: *** p< 0.01, ** p< 0.05, * p< 0.1.

Table 7. Unbundling Economic Integration

Dep. variable:	Log(Migration/Pop.)			Students abroad/Pop.			Log(FDI/GDP)	Log(book translations)
	All	Demo	Auto	All	Demo	Auto	All	All
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A. OLS								
Log(Predicted Trade demo/GDP_{t-5})	0.069	0.098	-0.270*	0.004	-0.011	0.015*	0.002	-0.007
	(0.095)	(0.090)	(0.139)	(0.010)	(0.010)	(0.008)	(0.004)	(0.234)
Log(Predicted Trade auto/GDP_{t-5})	-0.090**	-0.057	0.061	-0.008	-0.003	-0.005	-0.003	-0.112
	(0.038)	(0.047)	(0.071)	(0.006)	(0.004)	(0.004)	(0.002)	(0.163)
Panel B. 2SLS								
Log(Trade demo/GDP)	0.064	0.347	-1.305	-0.021	-0.073	0.058	0.003	-0.843
	(0.541)	(0.462)	(0.810)	(0.050)	(0.051)	(0.039)	(0.044)	(1.447)
Log(Trade auto/GDP)	-0.417**	-0.268	0.310	-0.025	-0.006	-0.019	-0.013	-0.496
	(0.172)	(0.214)	(0.362)	(0.021)	(0.016)	(0.014)	(0.014)	(0.599)
K-P F-stat	6.781	6.781	6.781	7.248	7.505	7.505	2.782	3.024
SW F-stat (Demo Trade)	13.75	13.75	13.75	15.31	15.99	15.99	5.960	7.164
SW F-stat (Auto Trade)	21.07	21.07	21.07	25.61	24.99	24.99	17.41	6.656
Observations	1,118	1,118	1,118	825	826	826	992	495
Clusters	113	113	113	112	112	112	115	86
Democratization waves	X	X	X	X	X	X	X	X
Country FE	X	X	X	X	X	X	X	X
Year FE	X	X	X	X	X	X	X	X

Notes: The table replicates column 4 of Table 1 considering different outcomes, and using reduced form OLS regressions in Panel A and 2SLS regressions in Panel B. In column 1, the dependent variable is the log of the number of in- and out-migrants over country population in each 5-year period from 1965 to 2015. Columns 2 and 3 separate migration from or to democratic and non-democratic countries, respectively. The dependent variable is: the number of students abroad over (sending) country population from Spilimbergo (2009) between 1960 and 2015 to any country, to democracies, and to autocracies (columns 4 to 6); the log of FDIs over GDP (column 7); and, the log of the number of book translations (column 8). See Table B.1 for more details on variables' definitions. Standard errors, clustered at the country level, in parentheses. KP F-stat is the Kleibergen-Paap F-stat for joint significance of instruments. F-stat (Demo Trade) and F-stat (Auto Trade) refer to the Sanderson-Windmeijer F-stats for joint significance of the instruments in the two separate first-stage regressions. Significance levels: *** p< 0.01, ** p< 0.05, * p< 0.1.

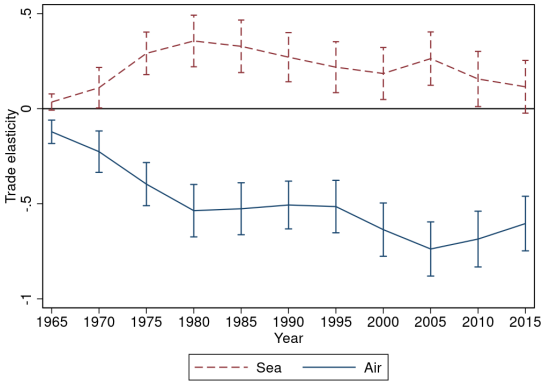
Appendix

Table of Contents

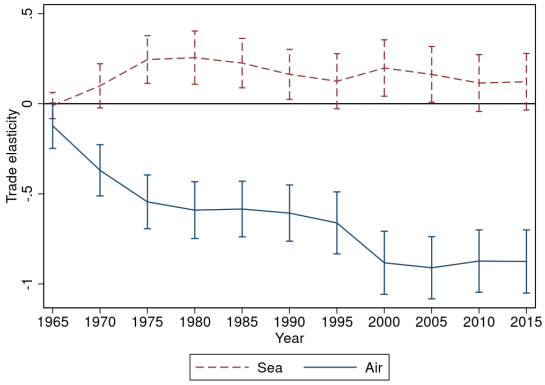
A Additional Tables and Figures

Figure A.1. Gravity Equation Coefficients, by Quartile of Air Intensity

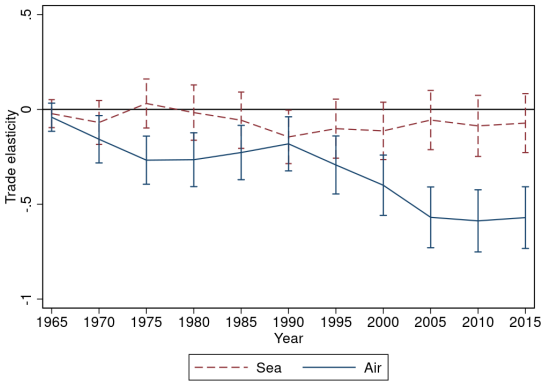
Panel A. 75^{th} + Percentile



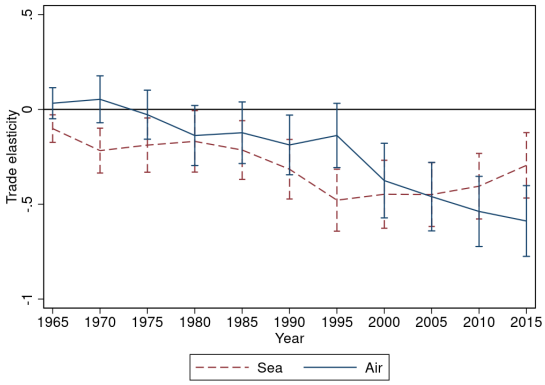
Panel B. $50^{th} - 75^{th}$ Percentiles



Panel C. $25^{th} - 50^{th}$ Percentiles

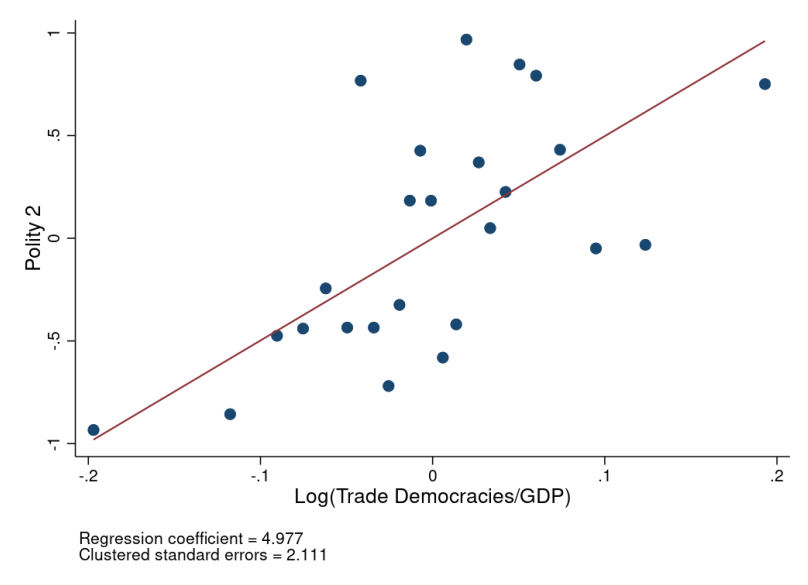


Panel D. 25^{th} - Percentile



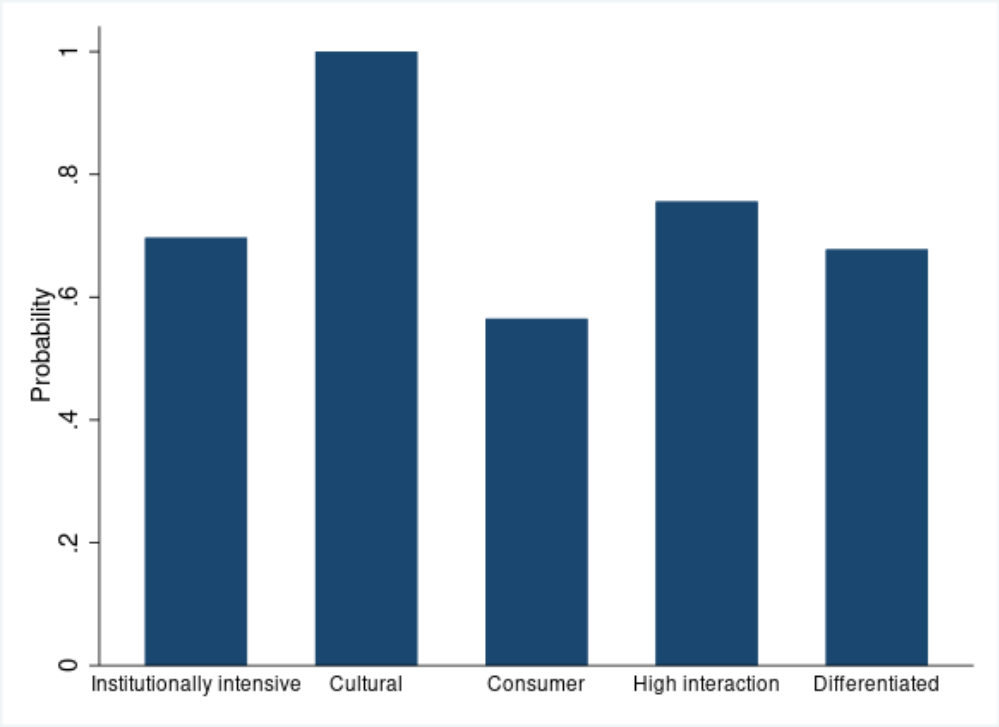
Notes: The figure replicates Figure 2 separately for goods in each quartile (from top in Panel A to bottom in Panel D) of the distribution of air intensity. See Appendix B.3.1 for more details on the definition of air intensive industries. Specifically, each panel plots OLS coefficients (with corresponding 95% confidence intervals) on the log of sea (red, dotted line) and air (blue, solid line) distances interacted with 5-year period dummies from the gravity equation (3). Regressions are estimated (separately for each quartile of the distribution of air intensity) at the calendar-year, country-pair level from 1962 to 2015. The estimation sample is shorter (1962-2015 vs 1955-2015) than in the full data, because 1962 is the first year for which industry level data, needed to construct the quartiles of air intensity, becomes available. The 1962 coefficients are not estimated because of collinearity with fixed effects. Standard errors are clustered at the country-pair, calendar-year level.

Figure A.2. Economic Integration with Democracies and Democracy



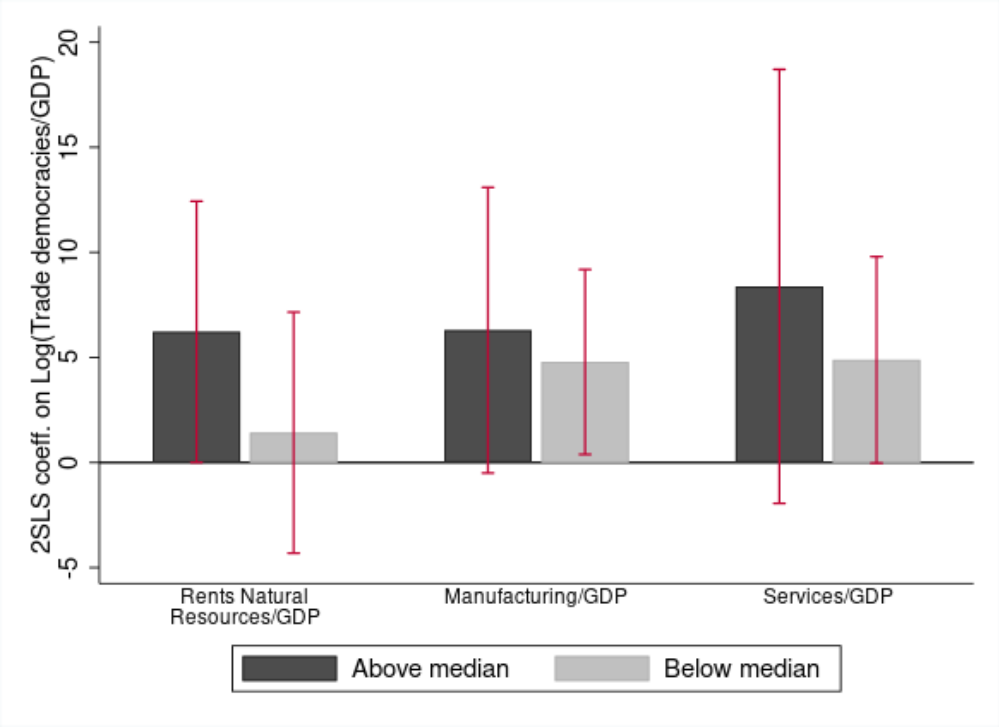
Notes: The y-axis (resp., x-axis) reports a country's *Polity2* score (resp., the log of trade with democracies to GDP ratio). The scatterplot pools observations into 25 bins. Each point in the scatter diagram represents the residuals of the two variables, after partialling out country and year fixed effects, lagged democratization waves, and the log of (instrumented) trade with autocracies to GDP ratio. The red line refers to the slope of the 2SLS coefficient, which is also reported in the notes (with associated standard errors, clustered at the country level).

Figure A.3. Share of Air Intensive Goods, by Type



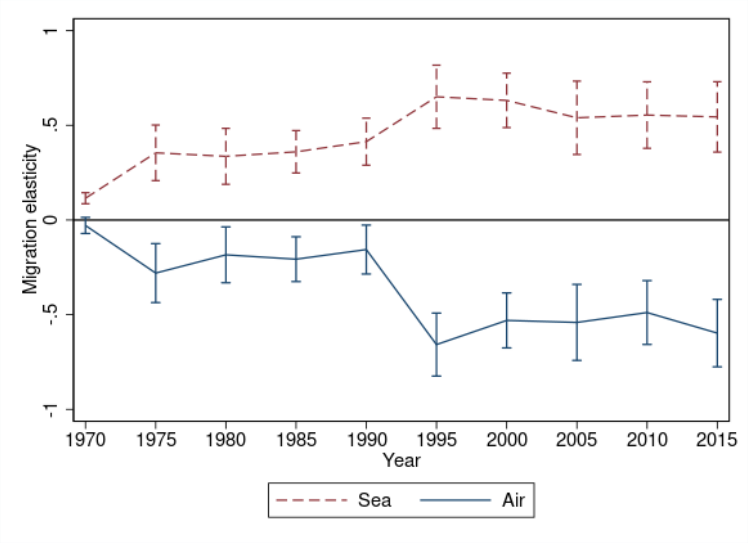
Notes: The figure plots the probability that industries in each of the good categories reported on the x-axis are also "air intensive". See Appendix B.3 for more details on the definition of good types.

Figure A.4. Effects of Trade with Democracies, by Baseline Country Characteristics



Notes: The figure plots 2SLS coefficients (with corresponding 95% confidence intervals) for the effects of the log of trade with democracies over GDP on the *Polity2* democracy score, after partialling out the log of trade with autocracies over GDP, lagged democratization waves, and country and time fixed effects. Dark (resp., light) grey bars refer to regressions estimated on the sample of countries with baseline values of each variable reported on the x-axis above (resp., below) the sample median. Standard errors are clustered at the country level.

Figure A.5. Migration Gravity Equation Coefficients



Notes: The figure plots OLS coefficients (with corresponding 95% confidence intervals) on the log of sea (red, dotted line) and air (blue, solid line) distances interacted with 5-year period dummies from the gravity equation (3). Regressions are estimated at the country-pair 5-year period level from 1965 to 2015. The 1965 coefficients are not estimated because of collinearity with fixed effects. Standard errors are clustered at the country-pair, calendar-year level.

Table A.1. Summary Statistics

Variables	Mean	Median	St. Dev.	Min	Max	Obs
Panel A: Full Sample						
Polity2	2.060	5	7.281	-10	10	1,192
Dummy *Polity2*	0.589	1	0.492	0	1	1,192
Trade/GDP	0.301	0.216	0.676	0.010	18.625	1,192
Trade with democracies/GDP	0.238	0.178	0.575	0.007	16.863	1,192
Trade with autocracies/GDP	0.057	0.028	0.143	0	3.627	1,192
Democratization waves	0.514	0.500	0.371	0	1	1,192
Years of Schooling	6.652	6.507	3.239	0.509	13.275	1,067
Panel B: Baseline Democracies						
Polity2	6.549	9	5.067	-9	10	590
Dummy *Polity2*	0.881	1	0.324	0	1	590
Trade/GDP	0.236	0.202	0.147	0.030	0.923	590
Trade with democracies/GDP	0.199	0.170	0.127	0.021	0.772	590
Trade with autocracies/GDP	0.032	0.022	0.037	0	0.310	590
Democratization waves	0.759	0.909	0.262	0	1	590
Years of Schooling	8.116	8.322	2.984	0.535	13.275	545
Panel C: Baseline Autocracies						
Polity2	-2.339	-5	6.382	-10	10	602
Dummy *Polity2*	0.302	0	0.460	0	1	602
Trade/GDP	0.364	0.232	0.936	0.010	18.625	602
Trade with democracies/GDP	0.277	0.189	0.797	0.007	16.863	602
Trade with autocracies/GDP	0.081	0.040	0.196	0.001	3.627	602
Democratization waves	0.274	0.143	0.298	0	1	602
Years of Schooling	5.124	4.778	2.755	0.509	12.766	522

Notes: See Table B.1 for definition and source of each variable.

Table A.2. Gravity Equation Coefficients

Dep. variable:	Log(Trade)	Trade
	OLS	PPML
	(1)	(2)
Log(Air distance) x 1960	-0.102**	-0.134***
	(0.046)	(0.016)
Log(Air distance) x 1965	-0.254***	-0.313***
	(0.056)	(0.046)
Log(Air distance) x 1970	-0.339***	-0.418***
	(0.067)	(0.061)
Log(Air distance) x 1975	-0.445***	-0.453***
	(0.070)	(0.067)
Log(Air distance) x 1980	-0.577***	-0.449***
	(0.075)	(0.066)
Log(Air distance) x 1985	-0.541***	-0.489***
	(0.072)	(0.069)
Log(Air distance) x 1990	-0.548***	-0.528***
	(0.071)	(0.070)
Log(Air distance) x 1995	-0.573***	-0.540***
	(0.081)	(0.071)
Log(Air distance) x 2000	-0.736***	-0.557***
	(0.079)	(0.072)
Log(Air distance) x 2005	-0.859***	-0.570***
	(0.080)	(0.074)
Log(Air distance) x 2010	-0.848***	-0.537***
	(0.084)	(0.073)
Log(Air distance) x 2015	-0.743***	-0.521***
	(0.083)	(0.073)
Log(Sea distance) x 1960	0.114**	0.149***
	(0.047)	(0.031)
Log(Sea distance) x 1965	0.198***	0.240***
	(0.056)	(0.064)
Log(Sea distance) x 1970	0.096	0.287***
	(0.068)	(0.085)
Log(Sea distance) x 1975	0.140**	0.313***
	(0.070)	(0.095)
Log(Sea distance) x 1980	0.175**	0.257***
	(0.077)	(0.091)
Log(Sea distance) x 1985	0.087	0.260***
	(0.075)	(0.093)
Log(Sea distance) x 1990	0.028	0.291***
	(0.074)	(0.094)
Log(Sea distance) x 1995	-0.004	0.295***
	(0.083)	(0.096)
Log(Sea distance) x 2000	0.082	0.289***
	(0.081)	(0.097)
Log(Sea distance) x 2005	0.177**	0.296***
	(0.081)	(0.100)
Log(Sea distance) x 2010	0.145*	0.262***
	(0.085)	(0.100)
Log(Sea distance) x 2015	0.140*	0.265***
	(0.080)	(0.100)
Observations	407,321	558,247
Country-Year FE	X	X
Country pair FE	X	X

Notes: The table reports coefficients on the log of sea and air distances interacted with 5-year period dummies from the gravity equation (3), omitting the interaction with the 1955 dummy (first year in the estimating sample). Columns 1 and 2 present, respectively, OLS and Pseudo Poisson Maximum Likelihood (PPML) estimates. The dependent variable is the log of bilateral trade between country i and country j in each calendar year in column 1, and bilateral trade (not logged) in column 2. All regressions include country-year and country-pair fixed effects. Standard errors, clustered at the country-pair and year level, in parentheses. Significance levels: *** p< 0.01, ** p< 0.05, * p< 0.1.

Table A.3. Split by Good Categories: Robustness/1

Dep. variable:	*Polity2*				
	2SLS (1)	2SLS (2)	2SLS (3)	2SLS (4)	2SLS (5)
Log(Above median trade democracy/GDP)	4.827**	4.468*	3.969**	4.031**	4.462**
	(2.224)	(2.466)	(1.591)	(1.860)	(2.044)
Log(Below median trade democracy/GDP)	-0.100	0.504	-0.630	1.351	0.097
	(1.252)	(1.750)	(1.030)	(1.133)	(0.894)
Log(Trade autocracy/GDP)	1.051	0.879	1.093	0.690	0.974
	(1.106)	(1.083)	(0.954)	(1.111)	(1.029)
Split variable	Institutionally intensive goods	Cultural goods	Consumer goods	Interaction goods	Differentiated goods
Observations	1,192	1,192	1,189	1,192	1,191
Clusters	116	116	116	116	116
Democratization waves	X	X	X	X	X
Country FE	X	X	X	X	X
Year FE	X	X	X	X	X
K-P F-stat	5.509	4.374	5.784	4.811	4.677
F-stat (Above Median Demo Trade)	16.54	11.96	19.91	17.10	15.27
F-stat (Below Median Demo Trade)	27.12	30.56	43.72	8.789	41.78
F-stat (Auto Trade)	29.14	23.81	20.82	23.48	27.67

Notes: The table replicates Table 4 by expressing the trade shares (used to perform the split of democratic partners) relative to total trade of partner j, rather than total trade of country i in good type x. All regressions control for country and year fixed effects and for lagged democratization waves. Standard errors, clustered at the country level, in parentheses. KP F-stat is the Kleibergen-Paap F stat for joint significance of instruments. F-stat (Above Median Demo Trade), F-stat (Below Median Demo Trade), and F-stat (Auto Trade) refer to the Sanderson-Windmeijer F-stats for joint significance of the instruments in the three separate first-stage regressions. Significance levels: *** p< 0.01, ** p< 0.05, * p< 0.1.

Table A.4. Split by Good Categories: Robustness/2

Dep. variable:	*Polity2*				
	2SLS (1)	2SLS (2)	2SLS (3)	2SLS (4)	2SLS (5)
Log(Above median trade democracy/GDP)	4.715**	4.424*	4.055**	4.025*	4.672**
	(2.202)	(2.600)	(1.616)	(2.033)	(2.030)
Log(Below median trade democracy/GDP)	-0.075	0.455	-0.938	1.221	-0.367
	(1.154)	(1.990)	(1.119)	(1.312)	(0.980)
Log(Trade autocracy/GDP)	1.112	0.918	1.044	0.680	1.100
	(1.105)	(1.084)	(0.969)	(1.053)	(1.038)
Split variable	Institutionally intensive goods	Cultural goods	Consumer goods	Interaction goods	Differentiated goods
Observations	1,192	1,192	1,189	1,191	1,191
Clusters	116	116	116	116	116
Democratization waves	X	X	X	X	X
Country FE	X	X	X	X	X
Year FE	X	X	X	X	X
K-P F-stat	4.628	5.023	5.784	4.894	4.722
F-stat (Above Median Demo Trade)	14.94	12.52	18.70	14.31	15.45
F-stat (Below Median Demo Trade)	45.17	30.94	30.44	20.20	46.35
F-stat (Auto Trade)	26.73	25.36	20.18	30.26	30.48

Notes: The table replicates Table 4 by expressing the trade shares (used to perform the split of democratic partners) relative to total trade of partner j in good type x, rather than total trade of country i in good type x. All regressions control for country and year fixed effects and for lagged democratization waves. Standard errors, clustered at the country level, in parentheses. KP F-stat is the Kleibergen-Paap F stat for joint significance of instruments. F-stat (Above Median Demo Trade), F-stat (Below Median Demo Trade), and F-stat (Auto Trade) refer to the Sanderson-Windmeijer F-stats for joint significance of the instruments in the three separate first-stage regressions. Significance levels: *** p< 0.01, ** p< 0.05, * p< 0.1.

Table A.5. Economic Integration and Democracy: Heterogeneous Effects

Dep. variable:	Polity2					
	2SLS (1)	2SLS (2)	2SLS (3)	2SLS (4)	2SLS (5)	2SLS (6)
	Above Median			Below Median		
Log(Trade democracy/GDP)	6.066*	6.187*	8.310	1.982	5.021**	4.847*
	(3.236)	(3.370)	(5.056)	(2.565)	(2.168)	(2.459)
Log(Trade autocracy/GDP)	2.493	-0.184	2.175	-0.292	0.470	0.023
	(1.846)	(1.851)	(2.332)	(0.961)	(1.766)	(1.240)
Observations	580	622	611	612	570	581
Clusters	58	56	57	58	56	57
Democratization waves	X	X	X	X	X	X
Country FE	X	X	X	X	X	X
Year FE	X	X	X	X	X	X
Split Variable	Rents Natural Resources/GDP	Manufacturing/GDP	Services/GDP	Rents Natural Resources/GDP	Manufacturing/GDP	Services/GDP
K-P F-stat	5.430	2.497	2.215	3.899	4.165	3.724
F-stat (Demo Trade)	6.860	8.207	4.328	16.80	8.095	8.349
F-stat (Auto Trade)	17.16	6.513	6.158	8.312	8.984	16.82

Notes: The table replicates column 4 of Table 1, splitting the sample between countries above and below the median for baseline share of GDP in: *i*) rents from natural resources (columns 1 and 4); *ii*) manufacturing (columns 2 and 5); *iii*) services (columns 3 and 6). Standard errors, clustered at the country level, in parentheses. KP F-stat is the Kleibergen-Paap F stat for joint significance of instruments. F-stat (Demo Trade) and F-stat (Auto Trade) refer to the Sanderson-Windmeijer F-stats for joint significance of the instruments in the two separate first-stage regressions. Significance levels: *** p< 0.01, ** p< 0.05, * p< 0.1.

Table A.6. Economic Integration and Inequality

Dep. variable:	Ratio of log income percentiles				
	$5^{th}/90^{th}$	$5^{th}/50^{th}$	$10^{th}/90^{th}$	$10^{th}/50^{th}$	$50^{th}/90^{th}$
	2SLS	2SLS	2SLS	2SLS	2SLS
	(1)	(2)	(3)	(4)	(5)
Log(Trade democracy/GDP)	0.020	0.009	0.014	0.004	0.006
	(0.037)	(0.013)	(0.032)	(0.009)	(0.019)
Log(Trade autocracy/GDP)	-0.025	-0.014**	-0.017	-0.008*	-0.008
	(0.017)	(0.006)	(0.014)	(0.004)	(0.009)
Observations	850	850	850	850	850
Clusters	109	109	109	109	109
Democratization waves	X	X	X	X	X
Country FE	X	X	X	X	X
Year FE	X	X	X	X	X
K-P F-stat	5.163	5.163	5.163	5.163	5.163
F-stat (Demo Trade)	9.224	9.224	9.224	9.224	9.224
F-stat (Auto Trade)	16.40	16.40	16.40	16.40	16.40

Notes: The table replicates the specification of column 4 of Table 1, using as dependent variable the ratio of the log of the income percentiles reported at the top of each column. For more details see Table B.1. Standard errors, clustered at the country level, in parentheses. KP F-stat is the Kleibergen-Paap F-stat for joint significance of instruments. F-stat (Demo Trade) and F-stat (Auto Trade) refer to the Sanderson-Windmeijer F-stats for joint significance of the instruments in the two separate first-stage regressions. Significance levels: *** p< 0.01, ** p< 0.05, * p< 0.1.

Table A.7. First Stage: Actual and Predicted Migration

Dep. variable:	Log(Migrants/Pop.)					
Partners:	All		Democracies		Autocracies	
	(1)	(2)	(3)	(4)	(5)	(6)
Log(Predicted migration/Pop.)	0.399***	0.405***				
	(0.150)	(0.153)				
Log(Predicted migration democracy/Pop.)			0.324***	0.325***	0.286**	0.268**
			(0.109)	(0.110)	(0.133)	(0.127)
Log(Predicted migration autocracy/Pop.)			0.004	0.006	0.650***	0.572***
			(0.033)	(0.035)	(0.082)	(0.085)
Observations	1,118	1,118	1,118	1,118	1,118	1,118
Clusters	113	113	113	113	113	113
Democratization waves		X		X		X
Country FE	X	X	X	X	X	X
Year FE	X	X	X	X	X	X

Notes: The table reports first stage coefficients for a regression of the log of the number of migrants (scaled by country population) with all countries (columns 1-2), and separately with democracies (columns 3-4) and autocracies (columns 5-6) against the corresponding instruments. Predicted migration is computed as described in Section 6. When constructing the instrument, democratic (resp., autocratic) partners are defined as countries with a 5-year lagged *Polity2* score strictly positive (resp., strictly smaller than 1). Predicted migration is scaled by a 5-year lag in population. See Table B.1 for more details on the definition and the source of the variables. All regressions control for country and 5-year period fixed effects. Columns 2, 4 and 6 further control for lagged democratization waves. Standard errors, clustered at the country level, in parentheses. Significance levels: *** p< 0.01, ** p< 0.05, * p< 0.1.

Table A.8. Suggestive Evidence Against Business Linkages

Dep. variable:		Entry of:		
	Polity2	McDonald's	Coca Cola	IBM
	(1)	(2)	(3)	(4)
Panel A. 2SLS				
Log(Trade democracy far/GDP)	3.481			
	(2.602)			
Log(Trade democracy close/GDP)	1.536			
	(0.949)			
Log(Trade autocracy/GDP)	-0.499			
	(1.714)			
Panel B. OLS				
Log(Predicted trade democracy/GDP$_{t-5}$)		0.008	-0.001	0.026
		(0.014)	(0.012)	(0.018)
Log(Predicted trade autocracy/GDP$_{t-5}$)		0.003	-0.010	0.001
		(0.008)	(0.006)	(0.010)
Panel C. 2SLS				
Log(Trade democracy/GDP)		0.059	-0.061	0.179
		(0.074)	(0.064)	(0.136)
Log(Trade autocracy/GDP)		0.010	-0.038	-0.010
		(0.036)	(0.030)	(0.046)
Observations	1,185	1,078	987	1,015
Clusters	116	116	106	108
Democratization waves	X	X	X	X
Country FE	X	X	X	X
Year FE	X	X	X	X
K-P F-stat	0.928	6.303	5.388	4.323
F-stat (Demo Trade far)	3.975			
F-stat (Demo Trade close)	9.458			
F-stat (Demo Trade)		13.86	13.41	9.112
F-stat (Auto Trade)	5.442	21.51	16.75	20.65
Dep. variable mean	2.070	0.068	0.027	0.070

Notes: Column 1 of this table replicates column 4 of Table 1 splitting trade with democracies between democratic partners with an air distance above ("far") and below ("close") 6,000 miles. Columns 2 to 4 replicate column 4 of Table 1 using as dependent variable a dummy equal to one in the year of entry of: *i*) McDonald's; *ii*) Coca Cola; and, *iii*) IBM (see also Table B.1 for more details on the source and definition of these variables). Panel A presents 2SLS coefficients for column 1. Panel B presents coefficients of the reduced form regressions of the various outcomes against log predicted trade (over 5-year lagged GDP) with democracies and autocracies. Panel C presents 2SLS coefficients. All regressions control for country and period fixed effects and for lagged democratization waves. Standard errors, clustered at the country level, in parentheses. KP F-stat is the Kleibergen-Paap F-stat for joint significance of instruments. F-stat (Demo Trade far), F-stat (Demo Trade close), F-stat (Demo Trade), and F-stat (Auto Trade) refer to the Sanderson-Windmeijer F-stats for joint significance of the instruments in the separate first-stage regressions. Significance levels: *** p< 0.01, ** p< 0.05, * p< 0.1.

B Data Appendix

B.1 Main Variables

Table B.1. Variables' Description

Variable	Description	Source
Panel A. Outcomes		
Polity2	Regime authority spectrum on a 21-point scale ranging from -10 (full autocracy) to +10 (full democracy).	Polity5 Project: Regime Authority Characteristics and Transitions Datasets, accessible at https://www.systemicpeace.org
Dummy Polity2	Dummy equal to one if *Polity2* is strictly positive.	Authors' calculation from Polity5 Project: Regime Authority Characteristics and Transitions Datasets
Freedom House	Average of the *Political rights* and *Civil liberties* indicators from the Freedom House Freedom in the World Report. Both components range from 1 to 7 and are coded so that higher values indicate greater political rights and civil liberties, respectively.	Freedom House Freedom in the World Report, available at https://freedomhouse.org
Dummy Freedom House	Dummy equal to one if the Freedom House score is strictly greater than three.	Authors' calculation from Freedom House Freedom in the World Report
Executive constraints	Extent of institutionalized constraints on the decision-making powers of chief executives, whether individuals or collectivities. The variable ranges from 1 (unlimited authority) to 7 (executive parity or subordination). That is, higher values reflect more stringent constraints on the executive.	Polity5 Project: Regime Authority Characteristics and Transitions Datasets
Average years of schooling	Average years of schooling attained. The number of years of schooling for the population aged 15 and above in a given country is constructed as the weighed sum of the number of years of schooling of a given age group in a given year, with weights reflecting the population share of each age group in population 15 and above.	Barro and Lee (2013)
Migration	Sum of bilateral migration flows for each origin and destination, calculated as the simple average of in- and out-migration from and to every other country. To increase the temporal coverage of the data, bilateral migration estimates in Abel (2018) are obtained by combining migration stock data from Özden et al. (2011), from 1965 to 2000, with migration stock data from the United Nations' Trends in international migration stock—the 2015 revision (from 2005 to 2015). Migration flows are estimated at five-year frequency.	Authors' calculations from Abel (2018) using demographic data from the 2015 World Population Prospects
Students abroad	Number of students abroad as a share of total population in the sending country. The number of students in democratic and autocratic host countries is taken from Spilimbergo (2009), who uses the *Polity2* index from the Polity IV project (an earlier version relative to that used in our main analysis). Democratic (resp., autocratic) countries are defined as those with a *Polity2* index strictly greater than zero (resp., strictly lower than one).	Spilimbergo (2009)

Foreign Direct Investment	Direct investment equity flows in each country, defined as the sum of equity capital, reinvestment of earnings, and other capital. Data, in current US dollars and based on IMF Balance of Payments database, available from 1970 to 2000. In the analysis, the variable is defined as the logarithm of one plus the simple average of net inflows and outflows.	Authors' calculation from World Bank World Development Indicators, available at https://databank.worldbank.org
Log(X pctile)/Log(Z pctile)	Ratio of the log of income at different percentiles of the income distribution. Income is defined as pre-tax national income, and is divided equally among spouses. The population considered includes all adults who are 20 or older.	Authors' calculations from the World Inequality Database, accessible at: https://wid.world/data
McDonald's Coca Cola IBM	Dummies equal to one for the first year of entry of McDonald's, Cocal Cola, and IBM.	Historical Data & Sources from Harvard Business School, available at https://www.hbs.edu
Panel B. Main Regressors		
Trade democracy Trade autocracy	Trade with democratic (resp., autocratic) partners in a given year. It is derived by aggregating bilateral trade flows for a given country in a given year over all democratic (resp., autocratic) trade partners for which is possible to estimate predicted trade (bilateral trade flows are in turn computed as the simple average of the two directed trade flows involving a pair of countries). Democratic (resp., autocratic) partners are defined as countries with *Polity2* index strictly greater than 0 (resp., strictly lower than 1). In the analysis, both trade with democratic and trade with autocratic partners are scaled by GDP, and then logged.	Authors' calculations from the IMF Direction of Trade Statistics, available at https://data.imf.org
Predicted trade democracy Predicted trade autocracy	Predicted trade with democratic (resp., autocratic) partners in a given year. It is obtained by estimating gravity equations that rely on bilateral air and sea distances between each country pair. Air distances are calculated following the great circle formula, which uses latitudes and longitudes of the most important city (in terms of population) or of its official capital. Sea distances are the shortest maritime distances between the two main commercial ports for each pair of countries, expect for Canada, for which we take the shortest sea-route from either Halifax or Vancouver; the US, for which we consider New York, New Orleans, and San Francisco; and Russia, for which we consider Novorossiysk, Saint Petersburg, and Vladivostok. See the main text (Section 3.2.1) for more details on the construction of predicted trade. Democratic (resp., autocratic) partners are defined as countries with a 5-year lagged *Polity2* index strictly greater than 0 (resp., strictly lower than 1). For the analysis, both predicted trade with democratic and predicted trade with autocratic partners are scaled by 5-year lagged GDP, and then logged.	Authors' calculations from IMF Direction of Trade Statistics. Air distances are from CEPII (Mayer and Zignago, 2011). Sea distances are from vesseldistance.org (last accessed in July 2014)
Democratization waves	The variable is constructed following the approach in Acemoglu et al. (2019). First, we divide the world in 6 regions (using the World Bank's classification); then, within each region and for each country i, we define the share of countries other than i with a *Polity2* score strictly positive during year t and that were in the same institutional group as i at baseline (where an institutional group is either democratic, for *Polity2* > 0, or autocratic, for *Polity2* < 1). For the analysis, this measure is lagged by one year, though results are unchanged when using alternative lags. As for actual and predicted trade, in the survey level analysis, we calculate the average of this variable over the entire impressionable years window.	Authors' calculations from Acemoglu et al. (2019)

Predicted migration (with all partners and with democracies and autocracies separately)	Predicted migration is obtained as for trade by estimating gravity equations described in Section 3.2.1. Bilateral migration flows in Abel (2018) are estimated from stocks available at five-year intervals and are defined as changes between the beginning and end of each five-year period. Migration stocks data from Özden et al. (2011) are complemented with United Nations Population Division's data from 2015. For each country-pair, migration is defined as the average of in- and out-migration in a given five-year period. Gravity equations are estimated at the country-pair five-year period level and observations are restricted to those used in the trade sample. Mirroring predicted trade, bilateral predicted migration is weighed by the average share of migration with country j relative to country i overall migration during the first 5 available years after 1965. Finally, actual and predicted migration are aggregated for each country in each five-year period by summing over all partner countries. Democratic (resp., autocratic) partners are defined as countries with a 5-year lagged *Polity2* index strictly greater than 0 (resp., strictly lower than 1). Predicted migration is scaled by 5-year lagged population, and then logged.	Authors' calculations from Abel (2018) using demographic data from the 2015 World Population Prospects and Penn World Table version 9.1
WTD	Weighed sum over baseline autocratic partners j (excluding those within the same region of country i) of a dummy equal to one if partner j switched from autocracy to democracy in the previous period. Weights correspond to bilateral trade shares at baseline, where the denominator is total trade of country i with its baseline autocratic partners j in regions other than that of country i. In 5-year regressions, the variable is computed as the average of actual switches in partners over the previous 5 years. For more details, see Appendix D.3, which also describes the procedure to construct the instrument used corresponding to actual WTD.	Authors' calculations from: IMF Direction of Trade Statistics and Polity5 Project: Regime Authority Characteristics and Transitions Datasets
First trade shock with democracies	Dummy equal to one for the first year in which the change in the log of predicted trade with democracies over GDP is above the median of its distribution for each country. For more details, see Appendix D.2, which also describes an alternative dummy measure, constructed by taking as a reference the median computed over all countries and years in the sample.	Authors' calculations from IMF Direction of Trade Statistics, CEPII, and vesseldistance.org (last accessed in July 2014)
Log(Import democracy/GDP) Log(Export democracy/GDP)	Imports from (resp., exports to) democratic partners in a given year. Imports (resp., exports) are calculated as the simple average of the two directed trade flows corresponding to imports (resp., exports) for each country-pair. These are then aggregated at the country-year level by summing the flows over all democratic partners for which it is possible to estimate predicted trade. For more details, see the notes for "Trade democracy" at the top of Panel B of this table. In the analysis, both imports and exports with democratic partners are scaled by GDP, and then logged. For more details, see Appendix D.4, which also describes the procedure to construct predicted imports from (resp., exports to) democracies.	Authors' calculations from the UN Comtrade dataset, available at https://comtradeplus.un.org/
GDP	GDP is gross domestic product calculated from the output side. In the analysis, it is used: *i*) at current prices to scale variables, such as actual and predicted trade defined above and FDI; and, *ii*) in real terms at current PPPs as an additional control defined as either the log of GDP or the log of GDP per capita.	Authors' calculations from Penn World Table version 9.1 available at https://www.rug.nl
Population	Population in millions.	Penn World Table version 9.1
Panel C. Additional Variables		
Domestic democratic capital	Measure that increases as members of society gain experience with democracy. It depends on the historical path experienced by the country as it grows in years of democracy, and depreciates geometrically in years of autocracy. See also Persson and Tabellini (2009) for more details.	Persson and Tabellini (2009)
Per capita GDP growth rate	Yearly growth rate of output-side real GDP per capita at current PPPs in million of 2005 US dollars.	Authors' calculations from Penn World Table version 9.1

Government expenditure	Non-interest government expenditure over GDP.	IMF Public Finance in Modern History Database (available at https://www.imf.org/external), Mauro et al. (2015)
Genetic proximity	One minus *Dominant Genetic Distance* from Spolaore and Wacziarg (2016). The latter is defined as the genetic distance between the plurality ethnic group of each country in a pair (i.e., the groups with the largest shares of each country's population).	Spolaore and Wacziarg (2016)
Commodity Price Index	Country-specific index of commodity export prices. The index is composed of 50 commodities (35 agricultural and 15 non-agricultural), which are aggregated using weights equal to the share of each commodity in the country's exports in 1995. It takes value equal to 100 in 2000. It is then logged and differenced, and interacted with the ratio of the 1995 commodity exports to GDP. Data available from 1960 to 2007.	Burke and Leigh (2010)
Share of GDP on rents from natural resources	Share of a country's GDP accruing to rents from natural resources (measured at baseline). Total natural resources rents are defined as the sum of rents from: oil, natural gas, coal, mineral, and forest. Natural resources rents are calculated as the difference between the price of a commodity and the average cost of producing it, estimating the price of units of specific commodities and subtracting estimates of average unit costs of extraction or harvesting costs. These unit rents are then multiplied by the physical quantities countries extract or harvest to determine the rents for each commodity as a share of gross domestic product (GDP).	World Bank World Development Indicators
Share of GDP on manufacturing	Share of a country's GDP coming from manufacturing (measured at baseline). Manufacturing refers to industries belonging to ISIC divisions 15-37. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs.	World Bank World Development Indicators
Share of GDP on services	Share of country's GDP coming from services (measured at baseline). Services correspond to ISIC divisions 50-99 and they include value added in wholesale and retail trade (including hotels and restaurants), transport, and government, financial, professional, and personal services such as education, health care, and real estate services. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs.	World Bank World Development Indicators
Telephone subscriptions	Number of fixed telephone subscriptions per 100 people (measured at baseline).	World Bank World Development Indicators
Urban population share	Urban population as % of total population (measured at baseline).	World Bank World Development Indicators

Notes: The table describes all variables used in the paper, reporting the corresponding source.

B.2 Sample: Countries and Years

Table B.2. Sample

Country	Number of periods	First year	Laste year
Albania	9	1975	2015
Algeria	11	1965	2015
Angola	9	1975	2015
Argentina	12	1960	2015
Australia	12	1960	2015
Bahrain	9	1975	2015
Bangladesh	9	1975	2015
Belgium	4	2000	2015
Belgium And Luxembourg	8	1960	1995
Benin	11	1965	2015
Brazil	12	1960	2015
Bulgaria	9	1975	2015
Cambodia	7	1975	2015
Cameroon	11	1965	2015
Canada	12	1960	2015
Cape Verde	9	1975	2015
Chile	12	1960	2015
China	12	1960	2015
Colombia	12	1960	2015
Comoros	9	1975	2015
Congo	11	1965	2015
Costa Rica	12	1960	2015
Croatia	5	1995	2015
Cyprus	12	1960	2015
Dem Rep Congo	12	1960	2015
Denmark	12	1960	2015
Djibouti	8	1980	2015
Dominican Rep	12	1960	2015
Ecuador	12	1960	2015
Egypt	12	1960	2015
El Salvador	12	1960	2015
Equatorial Guinea	10	1970	2015
Estonia	5	1995	2015
Fiji	10	1970	2015
Finland	12	1960	2015
France	12	1960	2015
Gabon	11	1965	2015
Gambia	11	1965	2015
Georgia	5	1995	2015
Germany	12	1960	2015
Ghana	12	1960	2015
Greece	12	1960	2015
Guatemala	12	1960	2015
Guinea	11	1965	2015
Guinea-Bissau	9	1975	2015
Haiti	11	1965	2015
Honduras	12	1960	2015
India	12	1960	2015
Indonesia	11	1965	2015
Iran	12	1960	2015
Iraq	8	1975	2015
Ireland	12	1960	2015
Israel	12	1960	2015
Italy	12	1960	2015
Ivory Coast	11	1965	2015
Jamaica	12	1960	2015
Japan	12	1960	2015
Jordan	12	1960	2015
Kenya	11	1965	2015
Korea South	12	1960	2015
Kuwait	8	1975	2015
Latvia	5	1995	2015
Lebanon	6	1975	2015
Liberia	10	1970	2015
Lithuania	5	1995	2015
Madagascar	11	1965	2015
Malaysia	10	1970	2015
Mauritania	11	1965	2015
Mauritius	10	1970	2015
Mexico	12	1960	2015
Morocco	12	1960	2015
Mozambique	9	1975	2015
Myanmar	10	1970	2015
Namibia	6	1990	2015
Netherlands	12	1960	2015
New Zealand	12	1960	2015
Nicaragua	12	1960	2015
Nigeria	12	1960	2015
Norway	12	1960	2015
Oman	9	1975	2015
Pakistan	12	1960	2015
Panama	12	1960	2015
Peru	12	1960	2015
Philippines	12	1960	2015
Poland	9	1975	2015
Portugal	12	1960	2015
Qatar	9	1975	2015
Romania	11	1965	2015
Russia	5	1995	2015
Saudi Arabia	9	1975	2015
Senegal	11	1965	2015
Serbia	5	1995	2015
Sierra Leone	10	1970	2015
Singapore	10	1970	2015
Slovenia	5	1995	2015
South Africa	12	1960	2015
Spain	12	1960	2015
Sri Lanka	12	1960	2015
Sudan	8	1975	2010
Suriname	9	1975	2015
Sweden	12	1960	2015
Syria	11	1965	2015
Tanzania	11	1965	2015
Thailand	12	1960	2015
Togo	11	1965	2015
Trinidad And Tobago	11	1965	2015
Tunisia	11	1965	2015
Turkey	12	1960	2015
Ukraine	5	1995	2015
United Arab Emirates	9	1975	2015
United Kingdom	12	1960	2015
United States	12	1960	2015
Uruguay	12	1960	2015
Venezuela	12	1960	2015
Vietnam	8	1980	2015
Yemen	5	1995	2015

B.3 Industry Level Data

In the paper, we complement the trade data from the IMF Direction of Trade Statistics with more granular data on trade at the industry level. Specifically, we use data from UN Comtrade, available starting from 1962, to classify goods in different categories. As for the data on total trade, for each exporter-importer pair, in each year, we get four measures of trade (i.e., imports and exports reported by both countries) for each 3-digit SITC Rev.1 industry.[37]

B.3.1 Classifying Industry Categories

Air intensive goods. To classify goods as air intensive, as in Feyrer (2019), we rely on data from the US Census Bureau. The dataset reports the value of US imports from and exports to the rest of the world traveling by air for each 6-digit Harmonized System (HS) industry and year between 2008 and 2020.[38] Since the HS classification changed in 2012, we focus on 2015—the last year in our sample.[39] Next, we map 6-digit HS to 4-digit SITC codes using the UN official crosswalks.[40] Whenever the match between HS and SITC codes is either of type "1:1" or of type "n:1" (that is, one or more HS codes correspond to a single SITC code), we attribute all trade to that SITC code. Instead, in the case of "1:n" or "n:n" matches (that is, more than one SITC code associated to one or more HS codes), we split each HS industry's trade equally across all SITC industries matched to it. After the conversion, we collapse the SITC codes from 4 to 3-digit, and derive total trade and total trade by air by taking the mean between imports and exports (for each industry).[41] Finally, for each industry, we compute the share of air trade, relative to total trade, and classify industries as "air intensive" if such shares are above the median.[42]

Institutionally intensive goods. To define goods as institutionally intensive, we follow the approach used by Nunn (2007), which relies on the goods' classification from Rauch (1999). In particular, Rauch (1999) divides 4-digit SITC Rev.2 industries as either homogeneous or differentiated. The latter category refers to industries where goods are neither sold on organized exchanges nor reference priced. Rauch (1999) uses a "liberal" and a "conservative" classification. Nunn (2007) focuses on the liberal classification and, using the 1987 I-O tables

[37] See https://comtradeplus.un.org/ for more details.

[38] We focus on the US because trade data by industry traveling via air is not systematically available for other countries.

[39] All results are unchanged if we use 2008, 2020, or the average between all years at our disposal (2008–2015 or 2008–2020).

[40] The crosswalk is available at https://unstats.un.org/unsd/classifications/Econ.

[41] This is the same approach used in the paper (and in the trade literature) to calculate total trade. See also Section 2.

[42] All results presented in the paper are robust to using alternative thresholds to define an industry as air intensive. Note that, as in Feyrer (2019), we assume that the share of trade traveling through air in each industry is the same across countries. We acknowledge that this is an imperfect assumption. See Feyrer (2019) for a more detailed discussion.

from the Bureau of Economic Analysis, computes the share of inputs of each industry that are neither sold on organized exchanges nor reference priced, relative to all inputs in that industry.

Since I-O tables are expressed using 5-digit SIC codes, and because no direct crosswalk exists between SIC and SITC codes, we first match the SIC classification to the corresponding (10-digit) HS codes. Then, as for air intensive goods, we map the HS codes to 3-digit SITC codes, and, following Nunn (2007), we compute the aforementioned share. We define an industry as institutionally intensive when these shares are above the median.[43] Intuitively, institutionally intensive goods require strong contract enforcement and high judicial quality (Nunn, 2007). For instance, according to our classification, road motor vehicles, watches, and air-crafts are examples of high institutionally intensive goods. Instead, petroleum, wool, and tobacco are industries that have a low degree of institutionally intensity.

Cultural goods. We define cultural goods using the 2009 UNESCO Framework for Cultural Statistics (UNESCO Institute for Statistics, 2009). This document includes the list of 6-digit HS industries (according to the 2007 version) that are classified as cultural goods by the UNESCO. We manually match these industries to the corresponding SITC codes in the industry level Comtrade dataset. Since no one-to-one matching between HS and SITC codes exists, the same 3-digit SITC code might be matched to both cultural and non-cultural goods. We define a 3-digit SITC industry as cultural if more than half of the HS industries (in the UNESCO Framework for Cultural Statistics) it is matched to are considered cultural goods. Examples of cultural goods are films, musical instruments, and works of art.

Consumer and producer goods. We define consumer goods using the 2002 Classification by Broad Economic Categories (United Nations, 2002). This source classifies BEC Rev.4 industries across the categories of the System of National Accounts (capital goods, intermediate goods, and consumption goods), with the exception of a few codes. We rely on crosswalks provided by the United Nations to match BEC Rev.4 codes to 4-digit SITC codes, and then collapse the data to 3-digit SITC codes. Whenever a BEC Rev.4 industry is not mapped to the System of National Accounts, we manually assign it based on the characteristics of the goods in that industry.[44] Next, we define as consumer goods the (3-digit) industries where the majority of corresponding 4-digit codes is of consumer type.[45] According to our classification, examples of consumer goods include cosmetics, clothing, and jewellery. Examples of producer goods are, instead, silk, organic chemicals, and clay.

High interaction goods. We define high interaction goods using the classification provided

[43] As for air intensive goods, all results presented in the paper are robust to using alternative thresholds to define an industry as institutionally intensive.

[44] Results are robust to excluding these cases.

[45] The same procedure can be used to define producer goods.

by Lall (2000), which divides industries in five categories (primary products, resource-based, low technology, medium technology, and high technology) based on the required degree of interaction. We consider as high interaction goods those that are either high technology or "automotive or engineering products".[46] Since the original industry classification from Lall (2000) is coded in 3-digit SITC Rev.2 codes, we use the crosswalk made available from the UN to match it to Comtrade data (which, as noted above, are expressed in 3-digit SITC Rev.1 codes). Whenever a SITC code is matched to both high and low interaction goods, we classify it as high interaction if more than half of the SITC Rev.2 industries it is matched to are considered high interaction goods.[47] Examples of high interaction goods are metalworking machinery, telecommunications apparatus, and pharmaceutical products.

Differentiated goods. To define differentiated goods, we follow Guiso et al. (2009), who, in turn, base their classification on that made available by Rauch (1999).[48] As in Guiso et al. (2009), we focus on goods where the liberal and conservative classifications coincide. As done for other types of goods, we collapse 4-digit SITC Rev.2 codes to 3-digit ones, defining differentiated only the industries where more than half of the 4-digit codes are differentiated. Finally, we map the Rev.2 to the Rev.1 classification in the Comtrade data using the UN crosswalk mentioned above. Examples of differentiated goods include wood, clothing, and office machines.

High unit value goods. We derive the trade unit value of goods for each country using the Trade Unit Values dataset by Berthou and Emlinger (2011), which provides data at the (6-digit HS code) industry level. For consistency with the classification of air intensive goods (described above), we focus on 2015. Since we are interested in export values, we only focus on exports, rather than on the average value of imports and exports. As the unit value of each industry varies across years and countries, we do not construct an industry level crosswalk; instead, we simply take the average of unit value across industries by country. Then, we use this variable to perform the splits described in Section 5.1 (Table 2, column 5).

B.3.2 Exploring the Overlap Between Good Types

Since the categories of goods defined in Appendix B.3.1 are not mutually exclusive, one may wonder the extent to which they overlap. In Section 4 of the main paper, we focus on the

[46] Automotive or engineering products are formally part of the medium technology group, but stand out for being particularly linkage-intensive (Lall, 2000). For this reason, we treat them as high interaction goods. Söderlund (2023) uses a similar classification, but defines as high interaction also all medium technology products. We prefer to be more "conservative", and focus on a smaller set of industries.

[47] In the few cases in which a code is matched to only two industries of opposite classification, we consider it as high interaction if the low intensive good belongs to the medium technology group.

[48] See the paragraph on the definition of institutionally intensive goods for more details on Rauch (1999)'s classification.

probability that goods of a given type also fall in the "high air intensive" category (see also Figure A.3). Here, instead, we consider the potential overlap between the other types of goods. This is important to interpret the results shown in Section 5.1 (Table 4), where we find that the effects of trade with democracies are driven by partners that account for a larger share of a country's trade in: institutionally intensive (column 1), cultural (column 2), consumer (column 3), technologically advanced (column 4), and differentiated (column 5) goods.[49]

In Table B.3, we report the probability that an industry belonging to a given classification (reported on the rows of the table) is also of another good type (reported on the columns of the table). To compute this conditional probability, we proceed as follows. First, we consider the 3-digit SITC industries that belong to the good category in each row. Then, for each of these industries, we define a dummy equal to one if it also belongs to the good type reported in each column. Then, we compute the weighed mean of each indicator variable at the good type level, with weights equal to the average share of each industry relative to global trade between 1962 and 2015.

Table B.3 reveals that some good types are strongly related to each other. For instance, cultural goods are always air intensive and differentiated. Yet, this pattern is driven by the fact that very few goods are classified as cultural goods.[50] Another example is that of high interaction goods: industries in this category have a 99.6% probability of being also institutionally intensive or differentiated goods. In addition, as explained in Appendix B.3.1, institutionally intensive and differentiated goods are closely linked, since they both originate from Rauch (1999)'s classification.

At the same time, there are cases of limited overlap. For instance, as it appears from column 4, except for cultural goods, all types of goods have little relation to consumer goods (always around 20% probability or less). Furthermore, even though 71% of consumer goods are also institutionally intensive, only 8% of them are cultural goods, and only 16% of them require high interactions. Likewise, while institutionally intensive and differentiated products are often also goods that entail a high degree of interactions, the conditional probabilities are well below 1 (at 61% and 57%, respectively).

To sum up, even if there are clear patterns of overlap across categories, Table B.3 also suggests that each category has specific characteristics that make it different from the other good types. Thus, while we cannot isolate the effects of each of the good types considered in Section 5.1, we believe that the different columns of Table 4 are not merely picking the same set of goods over and over.

[49] As explained in Appendix B.3.1, technologically advanced goods entail a higher degree of interactions (Lall, 2000; Söderlund, 2023), while differentiated goods require more bilateral trust (Guiso et al., 2009).

[50] Indeed, note that only a small share of air intensive or differentiated products are also cultural goods.

Table B.3. Overlap across Good Categories

	Air intensive	Institutionally intensive	Cultural	Consumer	High interaction	Differentiated
Air intensive	1	0.837	0.032	0.206	0.556	0.875
Institutionally intensive	0.697	1	0.026	0.216	0.611	0.909
Cultural	1	0.989	1	0.947	0.548	1
Consumer	0.565	0.709	0.082	1	0.159	0.587
High interaction	0.756	0.996	0.024	0.079	1	0.996
Differentiated	0.678	0.846	0.025	0.166	0.568	1

Notes: The table reports the conditional probability that industries that are of the type displayed in each row are also of the type reported in the corresponding column. See Appendix B.3.2 for more details.

C Robustness Checks

The main identification assumption behind our strategy is that countries that experienced larger declines in air, relative to sea, distance with democratic partners were not already becoming more democratic. Due to the unbalanced nature of our sample, it is complicated to formally test for pre-trends, since countries (and their characteristics) are observed for the first time when entering the sample. However, in Figures C.1, C.2, and C.3 we provide evidence that predicted integration with democracies is uncorrelated with the *Polity2* index, a dummy equal to one if *Polity2* is strictly positive, and a country's democratic capital, all measured at baseline. Formally, we regress the instrument for integration with democracies in each 5-year period against period dummies interacted with each of the three measures of democracy at baseline, after partialling out country and period fixed effects, and lagged democratization waves. We omit the interaction between baseline democracy and the 1960 year dummy, and plot the coefficient on all other interactions. Reassuringly, all coefficients are statistically insignificant and quantitatively small. Moreover, we do not observe consistent patterns indicating that baseline democracy might be associated with differential growth in predicted trade with democracies.

To further address the potential issue of differential trends, in Table C.1, we verify that results are robust to interacting several baseline or time invariant country characteristics with period dummies.[51] In column 1, we report our preferred specification to ease comparisons. In column 2, we interact period dummies with the number of years for which a country is present in the sample. This is important to rule out that our findings may be driven by countries that are on differential trends for democratization and that entered the sample in a way that is spuriously correlated with predicted economic integration. In columns 3, 4, and 5, we interact period dummies with baseline *Polity2*, domestic democratic capital from Persson and Tabellini (2009), and (log of) trade over GDP, respectively. In columns 6 to 8, we include different measures of baseline economic structure, proxied for by the share of GDP accruing to: *i*) rents from natural resources; *ii*) the manufacturing sector; and, *iii*) services. Finally, in columns 9 and 10, we interact year dummies with two proxies for (baseline) economic development: the number of fixed telephone subscriptions per 100 people (column 9); and, the urban population share (column 10). Reassuringly, in all cases, the point estimate for the effects of economic integration with democratic partners remains positive, statistically significant, and quantitatively close to that in our preferred specification.

A separate concern is that results may be driven by groups of countries that experienced swift episodes of economic and political liberalization. We tackle this potential issue in

[51] The number of countries and observations varies across columns due to constraints imposed by data availability.

Table C.2. In columns 2 and 3, we omit the UK and countries from the EU-14 and EU-27, respectively; in column 4, we exclude countries that were part of the former Soviet Union. Then, in column 5, we drop observations above (resp., below) the 99th (resp., 1st) percentile of trade with democracies. Reassuringly, results remain similar to those reported in our baseline specification (reported in column 1 to ease comparisons).

Yet another concern is that results may be driven by integration with particularly influential countries, or with countries that are deeply involved in the production and development of air transportation technologies. In Table C.3, we replicate the analysis defining trade without: *i*) the US (column 2); *ii*) China (column 3); *iii*) both the US and China (column 4); and, *iv*) France, the UK, Spain, the US, and Germany (column 5). Also in this case, the coefficient on trade with democracies remains positive, large, and statistically significant.

Next, in Table C.4, we replicate country level results with different definitions of democracy, reporting the baseline coefficient (Table 1, column 4) in column 1. In column 2, the dependent variable is a dummy for having a *Polity2* score strictly positive. In column 3, we rely on the 1 to 7 democracy score from Freedom House, and in column 4, we define a dummy if the latter score is strictly greater than 3.[52] In all cases, results remain in line with our preferred specification: economic integration with democratic partners has a positive and strong effect on a country's democracy score. In column 5, we consider the quality of constraints on the executive from the Polity5 project, which ranges from 1 to 7, with higher values reflecting more constraints. The coefficient on economic integration with democracies is again positive, quantitatively large, and statistically significant.[53]

Finally, in Table C.5, we present three additional sets of robustness checks. First, we document that results are robust to using different versions of the instrument. In columns 2 to 4, we construct the instrument by aggregating predicted bilateral trade flows from equation (4) using as weights baseline partners': *i*) population; and, *ii*) trade over GDP and world trade, respectively. In column 5, we use a version of the instrument that collapses predicted bilateral flows without any weight, while in column 6, we construct the instrument using coefficients obtained when estimating the gravity equation in Section 3.2 with PPML. Reassuringly, results remain quantitatively close to those from our preferred specification, which is reported in column 1 to ease comparisons.

Second, we show that our results are unchanged when defining trade partners' institutions using baseline *Polity2*. As discussed in the main text, in our preferred specification, we classify trade partners using a 5-year lag in their *Polity2* score. One may be worried that even

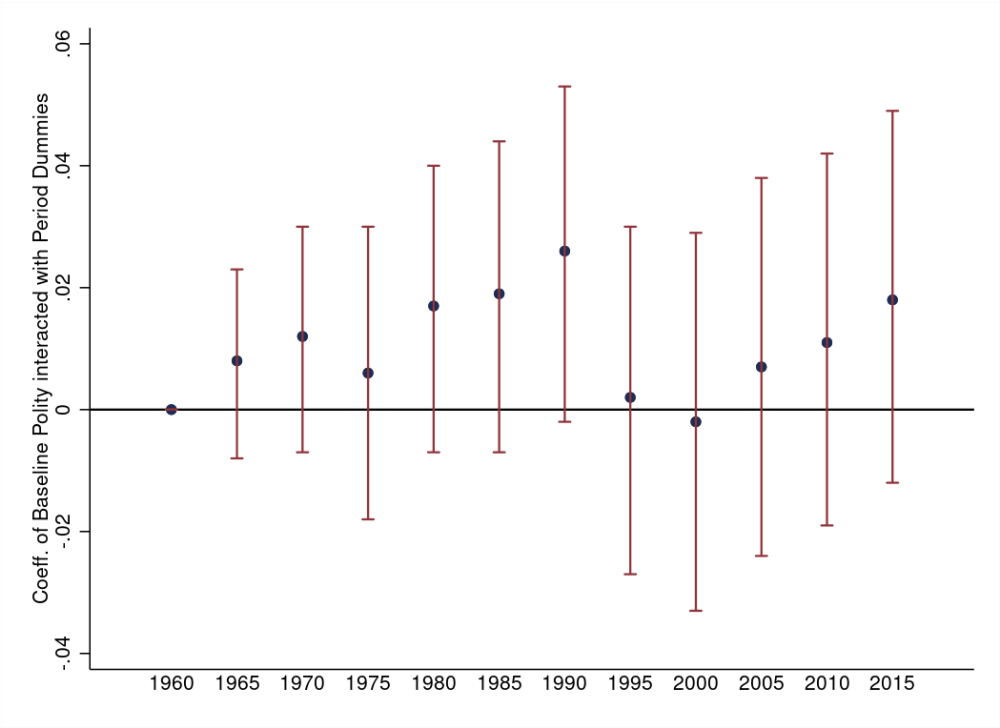
[52]The number of observations is lower in columns 3 and 4, because the Freedom House index is available from 1975.

[53]For the index of executive constraints, the level of statistical significance drops to 10%. The index of executive constraints is missing for some of the country-year observations for which *Polity2* is available. For this reason, the number of observations in column 5 is lower than in columns 1 and 2.

a 5-year lag in partners' institutions is not enough to address the concern of correlated shocks that change the democracy score of both a country and its trade partners. In column 7, we use baseline *Polity2* to define a partner as democratic or autocratic in the construction of the instrument. Reassuringly, results are almost identical to those in our preferred specification.

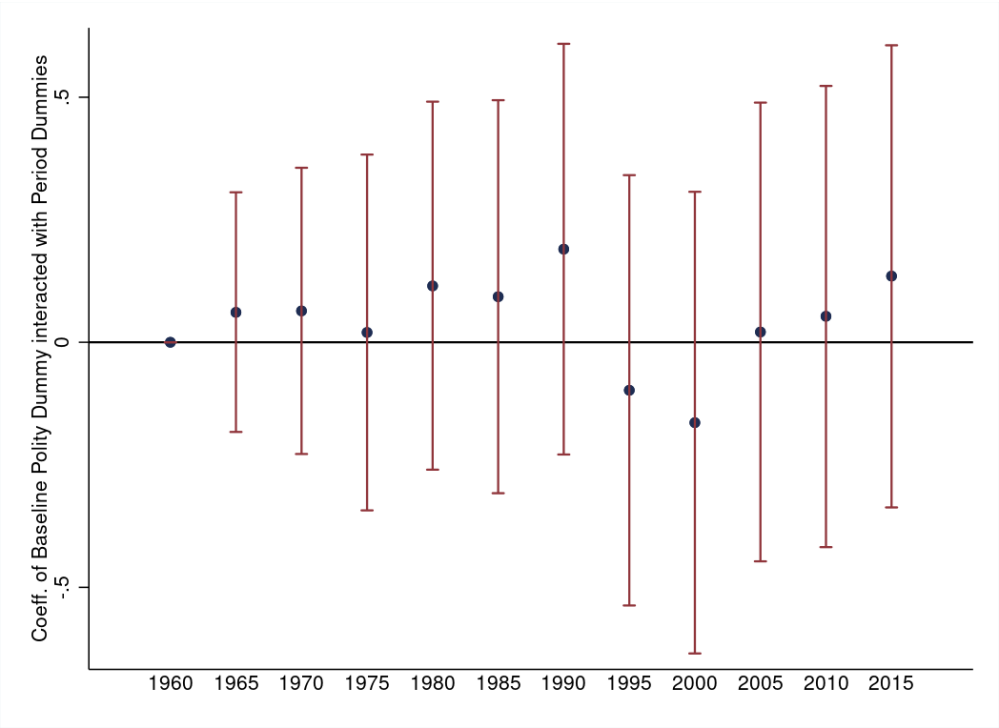
Third, in the paper, we consider 5-year periods to capture the gradual diffusion of technology and the slow-moving nature of institutions. For robustness, in column 8, we replicate the preferred specification with the baseline instrument exploiting yearly, rather than 5-year period, variation. Perhaps not surprisingly, results are in line with those reported in column 1.

Figure C.1. Predicted Trade with Democracies and Baseline *Polity2*



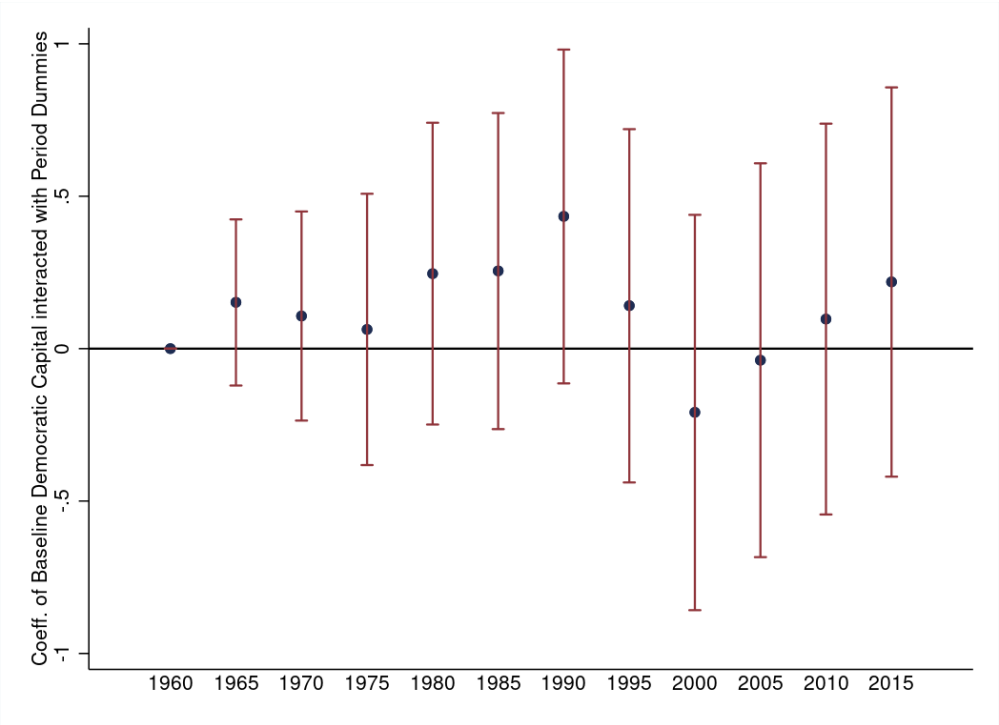
Notes: The figure plots coefficients (with 95% confidence intervals) on the interaction between period dummies and baseline *Polity2* score, in regressions that control for country and period fixed effects and lagged democratization waves. The dependent variable is the log of predicted trade with democracies relative to 5-year lagged GDP. The coefficient on the interaction with the 1960 year dummy is omitted. Standard errors are clustered at the country level.

Figure C.2. Predicted Trade with Democracies and Baseline *Polity2* Dummy



Notes: The figure plots coefficients (with 95% confidence intervals) on the interaction between period dummies and a dummy for having baseline *Polity2* score strictly positive, in regressions that control for country and period fixed effects and lagged democratization waves. The dependent variable is the log of predicted trade with democracies, scaled by 5-year lagged GDP. The coefficient on the interaction with the 1960 year dummy is omitted. Standard errors are clustered at the country level.

Figure C.3. Predicted Trade with Democracies and Baseline Democratic Capital



Notes: The figure plots coefficients (with 95% confidence intervals) on the interaction between period dummies and baseline democratic capital from Persson and Tabellini (2009), in regressions that control for country and period fixed effects and lagged democratization waves. The dependent variable is the log of predicted trade with democracies, scaled by 5-year lagged GDP. The coefficient on the interaction with the 1960 year dummy is omitted. Standard errors are clustered at the country level.

Table C.1. Democracy Score: Interacting Year Dummies with Baseline Characteristics

Dep. variable	Polity2									
	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Log(Trade Democracies/GDP)	4.977**	4.476*	4.383*	4.308*	5.651**	5.236**	4.583**	5.606**	5.106**	5.394**
	(2.111)	(2.298)	(2.284)	(2.221)	(2.949)	(2.198)	(1.965)	(2.455)	(2.168)	(2.570)
Log(Trade Autocracies/GDP)	0.933	0.534	-0.472	0.068	1.358	0.672	0.744	1.043	0.838	1.219
	(1.051)	(1.094)	(0.950)	(1.040)	(1.122)	(1.112)	(1.252)	(1.203)	(1.053)	(1.410)
Observations	1,192	1,192	1,192	1,179	1,192	1,184	1,155	1,173	1,184	1,184
Clusters	116	116	116	114	116	115	112	114	115	115
Country FE	X	X	X	X	X	X	X	X	X	X
Year FE	X	X	X	X	X	X	X	X	X	X
Democratization waves	X	X	X	X	X	X	X	X	X	X
Year Dummies by		Years in sample	Baseline *Polity2*	Baseline demo dapital	Baseline log(trade/GDP)	Baseline share rents natural resources	Baseline share GDP in manufacturing	Baseline share GDP in services	Telephone subscriptions	Urban population share
K-P F-stat	6.249	5.642	5.145	4.550	5.058	6.380	6.290	4.767	6.141	3.672
F-stat (Demo Trade)	13.78	12.43	12.28	11.63	9.129	13.51	16.04	11.87	13.19	8.786
F-stat (Auto Trade)	19.35	17.07	15.14	11.59	20.35	17.40	15.05	14.70	19.35	9.476
Dep. variable mean	2.060	2.060	2.060	1.998	2.060	2.008	2.016	2.105	2.008	2.008

Notes: The table replicates column 4 of Table 1 in column 1. Column 2 replicates column 1 by interacting period dummies with the number of years that a country was in the sample. Columns 3 to 10 replicate column 1 by interacting period dummies with baseline: *i*) *Polity2*; *ii*) domestic democratic capital from Persson and Tabellini (2009); *iii*) log of trade-to-GDP ratio; *iv*) share of GDP accruing to rents from natural resources; *v*) share of GDP accruing to the manufacturing sector; *vi*) share of GDP accruing to services; *vii*) number of fixed telephone subscriptions per 100 people; *viii*) urban population share. See Table B.1 for more details on variable definition and sources. Standard errors, clustered at the country level, in parentheses. KP F-stat is the Kleibergen-Paap F-stat for joint significance of instruments. F-stat (Demo Trade) and F-stat (Auto Trade) refer to the Sanderson-Windmeijer F-stats for joint significance of the instruments in the two separate first-stage regressions. Significance levels: *** p< 0.01, ** p< 0.05, * p< 0.1.

Table C.2. Dropping Specific Countries

Dep. variable:	Polity2				
	2SLS (1)	2SLS (2)	2SLS (3)	2SLS (4)	2SLS (5)
Log(Trade democracy/GDP)	4.977**	5.655**	4.570*	5.163**	5.411*
	(2.111)	(2.200)	(2.499)	(2.206)	(2.785)
Log(Trade autocracy/GDP)	0.933	0.308	0.478	0.951	1.263
	(1.051)	(1.221)	(1.271)	(1.072)	(1.144)
Observations	1,192	1,044	978	1,162	1,168
Clusters	116	103	94	110	116
Democratization waves	X	X	X	X	X
Country FE	X	X	X	X	X
Year FE	X	X	X	X	X
Sample	Baseline	Drop EU14+UK	Drop EU27+UK	Drop former USSR	Drop outliers
K-P F-stat	6.249	6.168	4.583	5.777	4.023
F-stat (Demo Trade)	13.78	12.69	9.070	12.79	9.449
F-stat (Auto Trade)	19.35	16.50	13.11	18.48	14.35
Dep. variable mean	2.060	1.109	0.788	1.933	2.150

Notes: The table replicates column 4 of Table 1 in column 1. Columns 2, 3, and 4 replicate column 1 by dropping: *i*) country members of the EU-14 and the UK; *ii*) country members of the EU-27 and the UK; and, *iii*) former country members of the Soviet Union. Column 5 drops observations with trade with democracies below (resp., above) the 1st (resp., 99th) percentile. Standard errors, clustered at the country level, in parentheses. KP F-stat is the Kleibergen-Paap F-stat for joint significance of instruments. F-stat (Demo Trade) and F-stat (Auto Trade) refer to the Sanderson-Windmeijer F-stats for joint significance of the instruments in the two separate first-stage regressions. Significance levels: *** p< 0.01, ** p< 0.05, * p< 0.1.

Table C.3. Omitting Specific Trade Partners

Dep. variable:	Polity2				
	2SLS (1)	2SLS (2)	2SLS (3)	2SLS (4)	2SLS (5)
Log(Trade democracy/GDP)	4.977**	4.831**	4.646**	4.505**	4.842**
	(2.111)	(1.984)	(2.002)	(1.894)	(1.868)
Log(Trade autocracy/GDP)	0.933	0.949	0.912	0.923	0.725
	(1.051)	(1.066)	(0.797)	(0.819)	(1.053)
Observations	1,192	1,180	1,180	1,168	1,131
Clusters	116	115	115	114	111
Democratization waves	X	X	X	X	X
Country FE	X	X	X	X	X
Year FE	X	X	X	X	X
K-P F-stat	6.249	5.769	6.267	5.870	7.452
F-stat (Demo Trade)	13.78	14.43	14.48	15.11	20.17
F-stat (Auto Trade)	19.35	18.61	21.34	19.70	20.41
Dep. variable mean	2.060	1.983	2.156	2.079	1.720

Notes: The table replicates column 4 of Table 1 in column 1. Columns 2 to 5 replicate column 1 by dropping trade with, respectively: *i*) the US (column 2); *ii*) China (column 3); *iii*) the US and China (column 4); and, *iv*) the US, France, Germany, UK, and Spain (column 5). Standard errors, clustered at the country level, in parentheses. KP F-stat is the Kleibergen-Paap F-stat for joint significance of instruments. F-stat (Demo Trade) and F-stat (Auto Trade) refer to the Sanderson-Windmeijer F-stats for joint significance of the instruments in the two separate first-stage regressions. Significance levels: *** p< 0.01, ** p< 0.05, * p< 0.1.

Table C.4. Alternative Measures of Democracy

Dep. variable:	Polity2	1[Polity2>0]	Freedom House	1[Freedom House>3]	Executive constraints
	2SLS	2SLS	2SLS	2SLS	2SLS
	(1)	(2)	(3)	(4)	(5)
Log(Trade democracy/GDP)	4.977**	0.402**	1.170**	0.505***	1.069*
	(2.111)	(0.160)	(0.488)	(0.187)	(0.636)
Log(Trade autocracy/GDP)	0.933	0.046	-0.114	-0.086	0.065
	(1.051)	(0.088)	(0.322)	(0.101)	(0.318)
Observations	1,192	1,192	982	982	1,156
Clusters	116	116	116	116	116
Democratization waves	X	X	X	X	X
Country FE	X	X	X	X	X
Year FE	X	X	X	X	X
K-P F-stat	6.249	6.249	9.019	9.019	6.656
F-stat (Demo Trade)	13.78	13.78	14.45	14.45	14.46
F-stat (Auto Trade)	19.35	19.35	18.28	18.28	19.83
Dep. variable mean	2.060	0.589	4.307	0.572	4.538

Notes: The table replicates column 4 of Table 1 in column 1. Columns 2 to 5 use as dependent variable: *i*) a dummy equal to one if *Polity2* is strictly positive; *ii*) the Freedom House index; *iii*) a dummy equal to one if the Freedom House index is strictly greater than 3; *iv*) the index of constraints on the executive (taken from the Polity5 project). The Freedom House index is available from 1975 onwards, explaining why the number of observations in columns 3 and 4 is lower than in the rest of the table. Standard errors, clustered at the country level, in parentheses. KP F-stat is the Kleibergen-Paap F-stat for joint significance of instruments. F-stat (Demo Trade) and F-stat (Auto Trade) refer to the Sanderson-Windmeijer F-stats for joint significance of the instruments in the two separate first-stage regressions. Significance levels: *** p< 0.01, ** p< 0.05, * p< 0.1.

Table C.5. Trade with Democracies and Democracy Score: Alternative Specifications

Dep. variable:	Polity2							
	2SLS (1)	2SLS (2)	2SLS (3)	2SLS (4)	2SLS (5)	2SLS (6)	2SLS (7)	2SLS (8)
Log(Trade democracy/GDP)	4.977**	4.597**	5.926**	4.686**	5.209**	4.986**	4.945**	4.685**
	(2.111)	(2.045)	(2.834)	(2.139)	(2.512)	(2.278)	(2.147)	(2.264)
Log(Trade autocracy/GDP)	0.933	-0.078	-0.381	0.646	0.346	0.478	0.687	0.579
	(1.051)	(0.715)	(0.780)	(0.715)	(0.714)	(1.231)	(1.299)	(1.052)
Observations	1,192	1,192	1,192	1,192	1,192	1,192	1,189	5,770
Clusters	116	116	116	116	116	116	116	116
Democratization waves	X	X	X	X	X	X	X	X
Country FE	X	X	X	X	X	X	X	X
Year FE	X	X	X	X	X	X	X	X
Baseline year for partners' democracy							X	
Instrument	Baseline	Population	Trade-GDP	Trade-to-world	No weights	Baseline	Baseline	Baseline
Gravity	OLS	OLS	OLS	OLS	OLS	PPML	OLS	OLS
K-P F-stat	6.249	7.576	5.161	6.368	5.959	5.831	6.485	6.753
F-stat (Demo Trade)	13.78	16.48	12.02	13.71	14.23	11.81	12.46	13.83
F-stat (Auto Trade)	19.35	49.72	61.67	46.93	57.62	17.12	12.40	25.26
Dep. variable mean	2.060	2.060	2.060	2.060	2.060	2.060	2.077	2.032

Notes: The table replicates column 4 of Table 1 in column 1. Columns 2 to 4 replicate column 1 using the instrument constructed by using as weights baseline partners': *i*) population; *ii*) trade-to-GDP ratio; and, *iii*) trade relative to world trade. Columns 5 and 6 replicate column 1 using the instrument obtained: *i*) without weights; and, *ii*) estimating the gravity equation with PPML. Columns 7 and 8 replicate column 1 by: *i*) defining predicted trade with democracies and autocracies using baseline (rather than 5-year lagged) *Polity2*; and, *ii*) estimating yearly (rather than 5-year) regressions. Standard errors, clustered at the country level, in parentheses. KP F-stat is the Kleibergen-Paap F-stat for joint significance of instruments. F-stat (Demo Trade) and F-stat (Auto Trade) refer to the Sanderson-Windmeijer F-stats for joint significance of the instruments in the two separate first-stage regressions. Significance levels: *** p< 0.01, ** p< 0.05, * p< 0.1.

D Additional Results

D.1 First Stage Regressions

In Table D.1, we present the relationship between actual and predicted trade. In columns 1 and 2, we regress the log of trade with democracies over GDP against the log of predicted trade with democratic and non-democratic partners, again scaled by GDP. In columns 3 and 4, we consider the log of trade with non-democratic partners. As explained before, the instruments are scaled by 5-year lagged GDP, and democratic partners are defined using a 5-year lag in the *Polity2* score. Columns 1 and 3 only include country and year fixed effects, while columns 2 and 4 further control for democratization waves.

Trade with democracies is strongly and positively correlated with its predicted counterpart. Instead, the coefficient on predicted trade with autocracies is close to zero, unstable, and imprecisely estimated. Likewise, trade with autocracies is strongly correlated with predicted trade with non-democratic partners and weakly (and negatively) correlated with the instrument for trade with democracies. Figure D.1 displays the graphical analogue of columns 2 and 4 in a residualized binscatterplot that partials out country and year fixed effects, democratization waves, and predicted trade with autocratic (resp., democratic) partners in Panel A (resp., Panel B).

D.2 Dynamics of Democratization Following Large Trade Shocks

In this section, we study the dynamics behind the effects of economic integration with democracies on countries' democracy scores documented in Table 1. We focus on the first instance in which the instrument predicts a "large" trade shock with democracies, and estimate event studies around this episode. To define the first large shock, for each country, we calculate the change in the log of predicted trade with democracies over GDP in any 5-year period from 1960 (or, the first year in which the country enters the sample) and 2015: $\Delta log(\widehat{T}_{it}^{demo})$. Then, we create a dummy equal to one for the first year in which $\Delta log(\widehat{T}_{it}^{demo})$ is above the median of its distribution for each country, Z_{it}. We take this as our measure of first (predicted) trade shock with democracies.[54]

Then, we estimate a regression of the form:

[54] Concretely, if $\Delta log(\widehat{T}_{it}^{demo})$ is above the median of the distribution of $\Delta log(\widehat{T}_{it}^{demo})$ for country i for the first time between 1965 and 1970, we set the dummy equal to one in 1970 (and zero in all other years).

$$y_{it} = \gamma_i + \lambda_t + \sum_{k=-3}^{+5} \beta_{t+k} Z_{i,t+k} + W_{it} + \epsilon_{it} \tag{5}$$

where y_{it} is *Polity2* of country i in year t; γ_i and λ_t are country and year fixed effects; and, W_{it} includes lagged democratization waves in country i's influence set during year t and a dummy identical to Z_{it} defined for $\Delta log(\widehat{T}_{it}^{auto})$. The main regressor of interest is the predicted trade shock dummy, Z_{it}. To examine the path of democracy before and after the shock, we include leads and lags, setting the coefficient on Z_{it-1} (i.e., the 5-year period before the shock) equal to zero.[55] Standard errors are clustered at the country level.

We plot the estimated β coefficients in Figure D.2 together with the corresponding 95% confidence intervals. Panel A considers the full sample, while Panels B and C include, respectively, baseline democracies and baseline autocracies. Reassuringly, there is no evidence of pre-trends. That is, democracy does not seem to evolve differentially before the first large trade shock of a country with its democratic partners (depicted by the black vertical bar).

After the shock, coefficients in the full sample (Panel A) become positive and gradually increase over time. This effect is driven by baseline autocracies (Panel C). Even though the point estimates are never statistically significant at conventional levels, the magnitude is economically large. In particular, coefficients in Panels A and C indicate that 15 years after the first large trade shock with democracies, the *Polity2* score of a country is about 1.7 points higher than before the shock. The effects of the trade shock are also highly persistent: even 25 years after the first large trade shock with democracies, *Polity2* is more than 2 points higher than prior to the shock.

Results in Figure D.2 are obtained defining the trade shock relative to the distribution of the instrument within each country. This implies that all countries are "treated". As a robustness check, we define the dummy Z_{it} comparing $\Delta log(\widehat{T}_{it}^{demo})$ to its distribution in the entire sample. In particular, we now define the dummy equal to one in the first year when $\Delta log(\widehat{T}_{it}^{demo})$ is above the median computed over all countries and years in our sample. That is, a country will be treated only if (in a given period) it experiences a shock that is sufficiently large, relative to that experienced by other countries. We report results in Figure D.3: the patterns are almost identical to those presented in Figure D.2 above.

To sum up, findings in this section indicate that the effects of trade with democracies seem to build up gradually over time, after the first large episode of integration with democratic partners. One interpretation is that a sufficiently large trade shock is needed for autocratic countries (and their citizens) to observe and appreciate the democratic values embedded in

[55] Since we are estimating equation (5) using 5-year intervals, coefficients will capture the relationship between *Polity2* and the trade shock from -15 to +25 years, relative to the shock.

goods exchanged with their democratic partners. This may also be the first instance in which autocracies interact in non-primary-commodity-based goods markets with faraway, already democratized partners. The first large trade shock might also coincide with the (first relevant increase in) interactions between individuals living in democratic and autocratic countries. This might further amplify the effects of trade in goods.

D.3 Testing for Democratization Spillovers

Our main results show that autocratic countries experience an improvement in their democracy score as they trade more with democracies (Table 1). In this section, we ask whether countries also learn from the democratic transition of their baseline autocratic partners. This process would be consistent with models of learning, where countries observe the choices of their neighbors (in this case, trade partners) when deciding which policies to implement (Buera et al., 2011). In such models, democratization spillovers would arise only if transitions were followed by higher than expected performance among neighboring countries. Moreover, it is possible that the transmission of democracy (through economic integration) occurs only when autocracies interact with countries where democratic values are sufficiently ingrained (or, using the terminology in Persson and Tabellini, 2009, democratic capital is large enough). This discussion suggests that the effects of democratic transitions among baseline autocratic partners on autocracies' own institutions are *ex-ante* ambiguous.

To test these ideas, we consider only baseline autocratic partners. We further exclude partners that are in the same region of country i. We impose this restriction to reduce concerns that a democratization shock in partner j may be correlated with broader factors influencing the institutions of all countries in the same region (e.g., the Arab Spring). Then, for each country pair $i-j$, we construct the bilateral trade share at baseline, $\omega_{ij} \equiv \frac{trade_{ij}}{trade_i}$, where $trade_{ij}$ is total trade of country i with its baseline autocratic partners j in regions other than that of country i.[56] Then, we define:

$$WTD_{it} = \sum_j \left(\omega_{ij} \times 1[Switch_{jt-1}]\right) \tag{6}$$

where $\omega_{ij} \equiv \frac{trade_{ij}}{trade_i}$ is defined above and $1[Switch_{jt-1}]$ is a dummy equal to one if country j switched from autocracy to democracy in year $t-1$.[57]

We estimate regressions identical to equation (1) in the main text, now using as main regressor WTD_{it}:

[56] As in the paper, we define "baseline" the first five years in which the countries i and j are observed.

[57] Note that we only consider baseline autocracies (that are not in the same region of country i). If partner j switches to democracy, then back to autocracy, and again back to democracy, the "multiple switches" are captured in WTD_{it}.

$$y_{it} = \gamma_i + \lambda_t + \beta WTD_{it} + W_{it} + \epsilon_{it} \tag{7}$$

where y_{it} is *Polity2* of country i in year t; γ_i and λ_t are country and year fixed effects; WTD_{it} is defined in equation (6); and, W_{it} includes lagged democratization waves in country i's influence set during year t.

To reduce concerns of correlated shocks across trade partners, we follow Acemoglu et al. (2019), and replace a democratization episode in a partner with an indicator equal to one if, in year t, there is a democratization wave in the country's region. More specifically, for each partner j, we compute the net share of countries that in its region experience a transition from autocracy to democracy in a given year. Then, we replace $1[Switch_{jt-1}]$ in equation (6) with a dummy equal to one if the net share just described is strictly positive. We use this predicted value for the switch of partner j in year $t-1$ in equation (6) to obtain a predicted (trade weighed) average of past switches occurring among country i's partners, $\widehat{WTD}_{it}$.[58]

We report 2SLS results in Table D.2.[59] Columns 1 to 3 estimate equation (7) using yearly frequencies; columns 4 to 6 replicate the analysis using 5-year intervals. In the latter case, we define WTD_{it} and $\widehat{WTD}_{it}$ as the average switches (actual and predicted) in partners over the previous 5 years. In columns 1 and 4, we consider the full sample. In columns 2 and 5 (resp., columns 3 and 6) we consider baseline democratic (resp., autocratic) countries.

In all cases, results are imprecisely estimated. While the coefficient is positive (except for column 4), standard errors are large. Moreover, the implied magnitude is rather small. For instance, the coefficient in column 6 implies that one standard deviation (2.2) increase in WTD_{it} raises the *Polity2* score by .19 points. Our preferred interpretation, consistent with the discussion presented in the main paper and with the event studies reported in Appendix D.2, is that it is not enough for a partner to switch in order for country i to "learn about democracy". Instead, we conjecture that, for learning (or transmission) to occur, experience with democracy (i.e., accumulation of democratic capital) is needed. As noted above, an alternative interpretation, not in contrast with the previous one, is that democratic transitions of formerly autocratic partners are not followed by (higher than expected) economic growth. For this reason, other autocratic countries do not update their priors about the desirability of democracy in a positive direction.

[58] Importantly, $\widehat{WTD}_{it}$ is uncorrelated with the measure of democratization waves occurring in a country's region. This is reassuring, because it suggests that democratization waves occurring in partners' regions are uncorrelated with those happening in the region of country i.

[59] We present the KP F-stat for weak instruments at the bottom of the table.

D.4 Instrumenting Imports and Exports

In Section 5.1 of the paper, we unpack the effects of trade with democracies between imports and exports (see also Table 3). To do so, we derive instruments for both quantities using the industry level dataset described in Appendix B.3. We proceed as follows. First, we estimate gravity equation (3) to get predicted trade between i and j in year t, $\widehat{trade}_{ijt}$. Next, we obtain predicted trade between i and j in industry x and year t, $\widehat{trade}_{ijxt}$, by interacting $\widehat{trade}_{ijt}$ with the baseline trade share between countries i and j in industry x, $\omega_{ijx} \equiv \frac{trade_{ijx}}{trade_{ij}}$.[60]

Then, we define predicted imports (of i from j) and exports (from i to j) in year t as:

$$\hat{I}_{ijt} = \sum_x \left(\alpha^I_{ix} \times \widehat{trade}_{ijxt} \right) \tag{8}$$

$$\hat{E}_{ijt} = \sum_x \left(\alpha^E_{ix} \times \widehat{trade}_{ijxt} \right) \tag{9}$$

where $\widehat{trade}_{ijxt}$ is predicted trade defined above, and $\alpha^I_{ix} \equiv \frac{I_{ix}}{I_i}$ (resp., $\alpha^E_{ix} \equiv \frac{E_{ix}}{E_i}$) is the share of imports (resp., exports) of country i in industry x relative to all imports (resp., exports) of i at baseline. Finally, we aggregate $\hat{I}_{ijt}$ and $\hat{E}_{ijt}$ by summing over all partners j's to get

$$\hat{I}_{it} = \sum_j \omega_{ij} \hat{I}_{ijt} \tag{10}$$

$$\hat{E}_{it} = \sum_j \omega_{ij} \hat{E}_{ijt} \tag{11}$$

where ω_{ij} is the bilateral trade share at baseline also used in the main paper to aggregate bilateral predicted trade (see equation (4) in Section 3.2). Since we are interested in deriving instruments for imports and exports with democratic partners, we aggregate predicted imports and exports in equations (10) and (11) over all democratic partners.[61] For both imports and exports, we also define an alternative instrument that interacts $\widehat{trade}_{ijxt}$ with $\tilde{\alpha}^I_{ix} \equiv \frac{I_{ix}}{I_x}$ and $\tilde{\alpha}^E_{ix} \equiv \frac{E_{ix}}{E_x}$, where the denominator refers to world imports and exports in industry x.

With the instruments just described, in Table 3, we present 2SLS results for a regression identical to equation (1) in the main text, where we replace trade with democracies with

[60] We consider 1-digit industries. As in the rest of the paper, we define baseline as the average of the first 5 years for which a country enters the sample. Since the industry level dataset differs from the aggregated trade data used in the main paper, for consistency, when predicting $\widehat{trade}_{ijt}$ in this specific exercise, we estimate the gravity equation on the industry level dataset (aggregating all industries together). Results are unchanged when using the IMF Direction of Statistics dataset to estimate the gravity equation, as done when predicting trade in the main analysis.

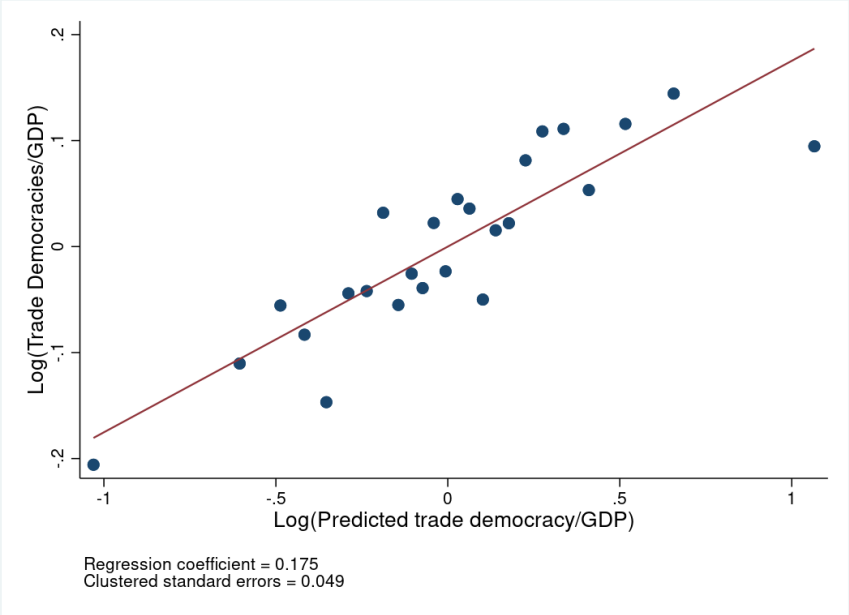
[61] As for total trade, we define a partner democratic if its 5-year lagged *Polity2* score is strictly positive.

imports from and exports to democracies (see Section 5.1 of the paper).[62]

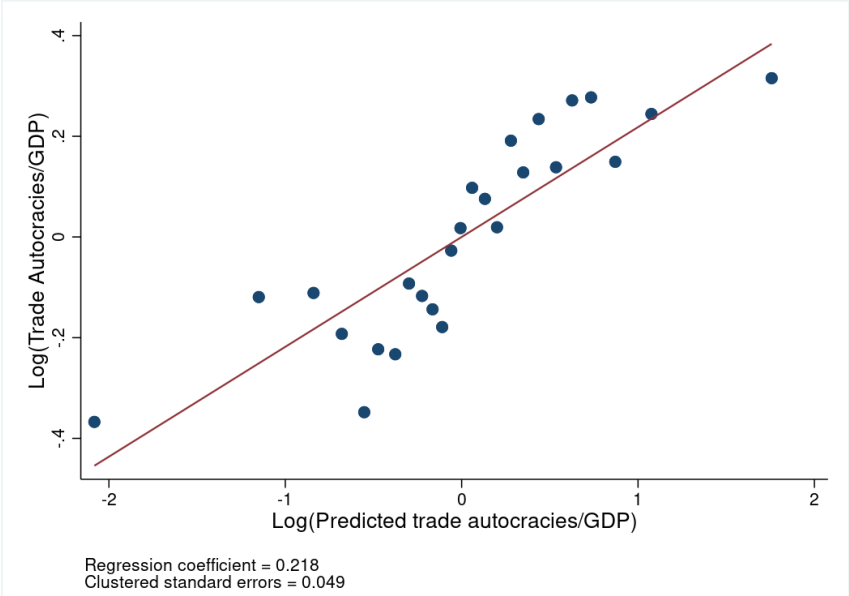
[62]Columns 1 and 2 (resp., columns 3 and 4) present results for imports and exports predicted using $\alpha^I_{ix} \equiv \frac{I_{ix}}{I_i}$ and $\alpha^E_{ix} \equiv \frac{E_{ix}}{E_i}$ (resp., $\tilde{\alpha}^I_{ix} \equiv \frac{I_{ix}}{I_x}$ and $\tilde{\alpha}^E_{ix} \equiv \frac{E_{ix}}{E_x}$). Note that predicted trade from industry level data for Serbia can be derived for a single time period; for this reason the country drops out from the regressions, once country and year fixed effects are controlled for.

Figure D.1. First Stage: Actual and Predicted Trade

Panel A. Trade with Democracies



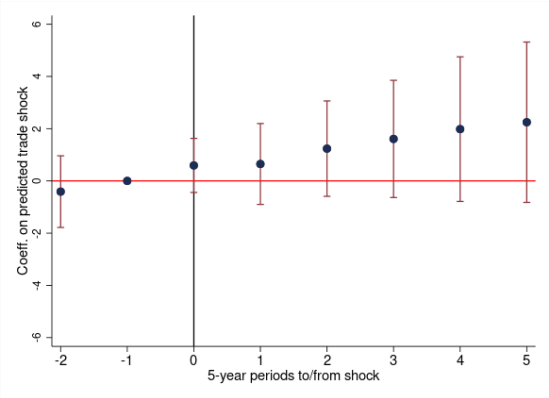
Panel B. Trade with Autocracies



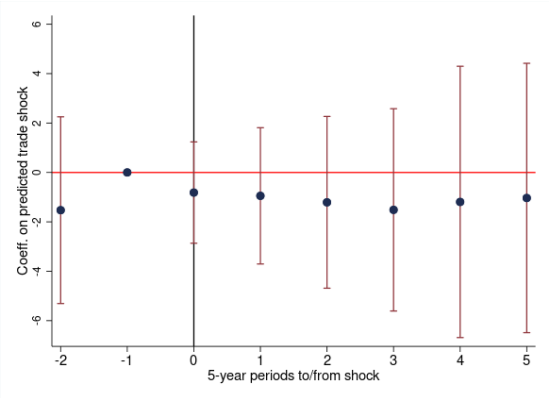
Notes: The y-axis (resp., x-axis) reports the actual (resp., predicted) trade with democratic (resp., autocratic) partners in Panel A (resp., Panel B). The scatterplot pools observations into 25 bins. Each point in the scatter diagram represents the residuals of the two variables, after partialling out country and year fixed effects, democratization waves, and predicted trade with autocratic (resp., democratic) partners in Panel A (resp., Panel B). The red line refers to the slope of the first stage coefficient, which is also reported in the notes (with associated standard errors, clustered at the country level).

Figure D.2. Effects of First Large Trade Shock with Democracies

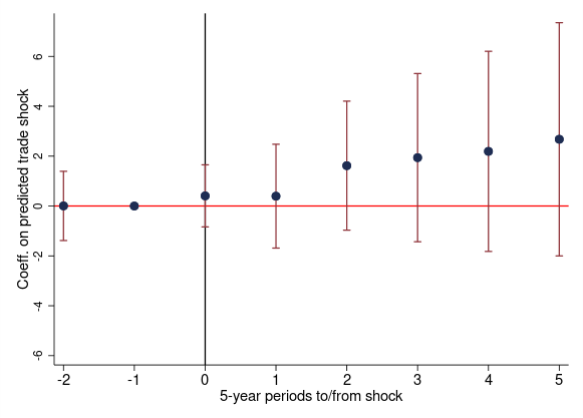
Panel A. Full Sample



Panel B. Baseline Democracies



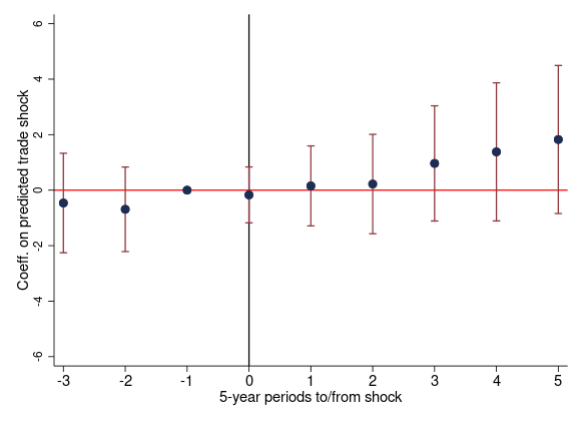
Panel C. Baseline Autocracies



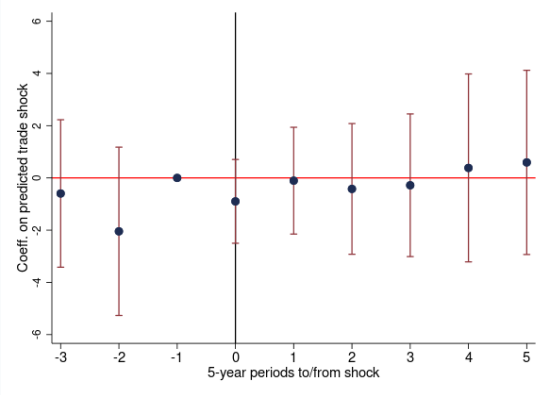
Notes: The figure plots coefficient (with corresponding 95% confidence intervals) on leads and lags of a dummy equal to one for the first year when the change in predicted trade with democracies is above the median of its distribution for each country. The dependent variable is the *Polity2* democracy score. Panel A covers the full sample, while Panels B and C include baseline democracies and autocracies, respectively. All regressions are estimated on 5-year periods, and control for: lagged democratization waves, country and year fixed effects, and a dummy for trade shocks with autocracies identical to the one defined for trade with democracies. The vertical line corresponds to the year of the shock (i.e., the first time that predicted trade with democracies is above the median for the country). The period before the shock is the omitted category. See the description in Appendix D.2 for more details. Standard errors are clustered at the country level.

Figure D.3. Effects of First Large Trade Shock: Robustness

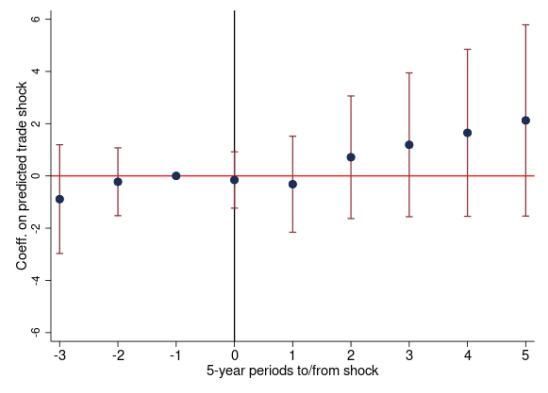
Panel A. Full Sample



Panel B. Baseline Democracies



Panel C. Baseline Autocracies



Notes: The figure plots coefficient (with corresponding 95% confidence intervals) on leads and lags of a dummy equal to one for the first year when the change in predicted trade with democracies is above the median of the distribution in the full sample of countries and years. The dependent variable is the *Polity2* democracy score. Panel A covers the full sample, while Panels B and C include baseline democracies and autocracies, respectively. All regressions are estimated on 5-year periods, and control for: lagged democratization waves, country and year fixed effects, and a dummy for trade shocks with autocracies identical to the one defined for trade with democracies. The vertical line corresponds to the year of the shock (i.e., the first time that predicted trade with democracies is above the median for the country). The period before the shock is the omitted category. See the description in Appendix D.2 for more details. Standard errors are clustered at the country level.

Table D.1. First Stage: Actual and Predicted Trade

Dep. variable:	Log(Trade/GDP)			
Partners:	Democracies		Autocracies	
	(1)	(2)	(3)	(4)
Log(Predicted trade democracy/GDP)	0.179***	0.175***	-0.170*	-0.170*
	(0.050)	(0.049)	(0.092)	(0.092)
Log(Predicted trade autocracy/GDP)	-0.001	0.009	0.218***	0.218***
	(0.025)	(0.025)	(0.050)	(0.049)
Observations	1,192	1,192	1,192	1,192
Clusters	116	116	116	116
Democratization waves		X		X
Country FE	X	X	X	X
Year FE	X	X	X	X

Notes: The table reports first stage coefficients for a regression of log actual trade with democracies (resp., autocracies) over GDP in columns 1 and 2 (resp., 3 and 4) against the corresponding instruments. Predicted trade is computed as described in Section 3.2. When constructing the instrument, democratic (resp., autocratic) partners are defined as countries with a 5-year lagged *Polity2* score strictly positive (resp., strictly smaller than 1). Predicted trade is scaled by a 5-year lag in GDP. All regressions control for country and 5-year period fixed effects. Columns 2 and 4 further control for lagged democratization waves. Standard errors, clustered at the country level, in parentheses. Significance levels: *** p< 0.01, ** p< 0.05, * p< 0.1.

Table D.2. Testing for Democratization Spillovers

Dep. variable:	Polity2					
	2SLS (1)	2SLS (2)	2SLS (3)	2SLS (4)	2SLS (5)	2SLS (6)
WTD	0.041	0.121	0.172	-0.051	0.010	0.098
	(0.147)	(0.451)	(0.140)	(0.218)	(0.326)	(0.354)
Observations	6,060	2,908	3,152	1,161	557	604
Clusters	116	56	60	116	56	60
Democratization wave	X	X	X	X	X	X
Country FE	X	X	X	X	X	X
Year FE	X	X	X	X	X	X
Sample	Full	Baseline democracy	Baseline autocracy	Full	Baseline democracy	Baseline autocracy
Frequency	1-year	1-year	1-year	5-years	5-years	5-years
K-P F-stat	23.46	4.292	17.42	45.67	22.32	21.88
Dep. variable mean	1.837	6.460	-2.428	1.901	6.526	-2.364

Notes: The table estimates 2SLS regressions using as dependent variable the *Polity2* democracy score. Columns 1 to 3 (resp., columns 4 to 6) estimate regressions using yearly (resp., 5-year) frequency. Columns 1 and 4 consider the full sample; columns 2 and 5 (resp., columns 3 and 6) replicate columns 1 and 4 restricting the sample to baseline democracies (resp., baseline autocracies). The main regressor of interest, WTD, is the share of partners of country i that switched from autocracy to democracy in the previous period. See equation (6) in Appendix D.3. It is instrumented using democratization waves in partners' regions, as explained in Appendix D.3. Standard errors, clustered at the country level, in parentheses. KP F-stat is the Kleibergen-Paap F-stat for weak instruments. Significance levels: *** p< 0.01, ** p< 0.05, * p< 0.1.