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Authoritarian and Democratic Diffusion in Post-Communist Regions*

Abstract

There is a rich body of theorizing on the diffusion of democracy across space and time. There is also an emerging scholarship on authoritarian diffusion. The dynamics of the *interaction* between external democratic and autocratic diffusion processes and their effects on national and sub-national political regime outcomes have received scant attention in the literature. Do democratic diffusion processes help counter external authoritarian influences? And, in contexts where external diffusion of democratic influences is weak, do we observe greater susceptibility to diffusion from regional autocracies that might in turn reinforce authoritarian practices and institutions in “recipient” states? To address these questions, we perform analysis of data from two original under-utilized datasets—a dataset on EU aid to Russia’s regions; and a dataset with statistics on trade among post-Soviet states. We find that EU aid has the effect of countering external authoritarian influences that work through Soviet-era inter-regional economic ties.

Introduction

What are the transnational mechanisms of the development and reproduction of authoritarian regimes? There is a rich body of theorizing on the diffusion of *democratic* norms, institutions, and practices across space and time, arguably accounting for the pronounced patterns of clustering of regime types in Europe and Eurasia (Brinks & Coppedge, 2006; Kopstein & Reilly, 2000; Lankina & Getachew, 2006; O'Loughlin et al., 1998). By contrast, scholarship on the mechanisms of authoritarian diffusion is in its infancy. A small number of studies have recently called attention to external aspects of autocratic diffusion, which may shape or reinforce regional constellations of regime types (Ambrosio, 2010; Cameron & Orenstein, 2012; Koesel & Bunce, 2013; Obydenkova & Libman, 2014; Plantan, 2014). The dynamics of the *interaction* between external democratic and autocratic diffusion processes and their effects on national and sub-national political regime outcomes have received scant attention in this emerging body of scholarship. Do democratic diffusion processes help limit and counter external authoritarian influences? And, in contexts where external diffusion of democratic influences is weak, do we observe greater susceptibility to diffusion from regional autocracies that might reinforce authoritarian practices and institutions in “recipient” states? To address these questions, we perform analysis of data from two original under-utilized datasets—a comprehensive dataset on EU aid to Russia’s regions; and a dataset with statistics on regional trade, socio-economic indices, and democracy variations.

We find that not only does EU aid enhance regional democracy, as had been previously demonstrated (Lankina & Getachew, 2006, 2008; Obydenkova, 2008, 2012), but also, and most importantly for this paper, it has the effect of countering external autocratic influences that work through Soviet-era inter-regional economic ties. We find that regions featuring extensive economic ties with neighboring post-soviet autocracies are more likely to

score lower on assessments of the quality of regional democracy. We also find however that EU aid serves to mitigate these autocratic influences. Regions that have been relatively insulated from EU attempts to shape regional politics are likely to score lower on democracy ratings as compared to those that in the 1990s and 2000s have been recipients of comparatively large volumes of EU aid.

In terms of the channels of the transmission of democratic and autocratic influences, we find that civil society is an important conduit for democratic influences: EU aid to non-governmental organizations helps promote regional political pluralism and establish checks on regional regimes. Conversely, soviet-era trade and industrial ties between Russian regions and post-soviet neighboring autocracies appear to reproduce soviet-era political-economic networks and power structures, which may be corrosive to democracy. These patterns of autocratic diffusion-through-trade may in turn help reinforce and reproduce patterns of authoritarian clustering in the region. Importantly, the paper finds that EU aid significantly mitigates the negative regime effects of economic ties with autocracies.

Our paper is structured as follows. In the next section, we discuss the theoretical and empirical literature on democratic and authoritarian diffusion. Next, we describe our data and methods and present results of statistical analysis. The final section concludes with a discussion of the implications of our findings for understanding the contending processes of authoritarian and democratic diffusion in Europe and Eurasia.

Theorizing External Democratic and Authoritarian Diffusion

The emergence of pronounced spatial variations in political regime types in post-Communist Europe has spurred rich theorizing on democratic diffusion processes (Beissinger, 2007; Brinks & Coppedge, 2006; Elkins & Simmons, 2005; Fordham & Asal, 2007; Gleditsch & Ward, 2006; Kopstein & Reilly, 2000; Lankina & Getachew, 2006; O'Loughlin, et al., 1998; Obydenkova & Libman, 2015a, 2015b). Democratic diffusion studies provided an important corrective to scholarship that sought to explain emerging variations in post-communist democratic trajectories with reference to variables largely divorced from the geographic-spatial contexts in which particular states, regions, or localities were embedded.

The mammoth presence of the EU as the neighborhood's most important normative power inevitably conditioned scholars to focus on democratic forms of diffusion (Bunce & Wolchik, 2011; Dimitrova & Pridham, 2004; Kopstein & Reilly, 2000; Lankina, Hudalla, & Wollmann, 2008; Levitsky & Way, 2010; Pridham, 1994; Schimmelfennig, 2002; Schimmelfennig & Sedelmeier, 2005; Vachudova, 2005; Whitehead, 2001; Zielonka & Pravda, 2001). A mere glance at the political map of Europe suffices to note that space and geographic proximity *did* matter for extending carrots in the form of prospective EU membership. Scholars have noted that the policy of incentivizing the development of democratic institutions and practices (Kelley, 2006) has been manifested also in instruments like the European Neighborhood Policy designed to engage eastern neighbors—and the sub-national regions within neighboring states (Gel'man & Lankina, 2008; Lankina, 2005; Lankina & Getachew, 2006, 2008; Obydenkova, 2008, 2012)—without actually “letting them in,” at least in the short term (Kelley, 2006; Korosteleva, Natorski, & Simão, 2013; Langbein & Börzel, 2013; Smith, 2005). These forms of planned and deliberate EU assistance have been variously conceptualized in terms of leverage, conditionality, and targeted democracy promotion.

A number of studies have shown that geography not only matters for the choice to extend the above forms of EU engagement in its neighborhood, but also in terms of the intensity of the more spontaneous forms of diffusion, as would be the case with citizen-to-citizen interactions, business exchanges, or cultural ties. These forms of diffusion happen “without any collaboration, imposition, or otherwise programmed effort on the part of any of the actors” (Elkins and Simmons 2005: 6, cited in Ambrosio 2010); they have been conceptualized in terms of *flows* (Kopstein & Reilly, 2000), *socialization* (Kelley, 2006) or *linkage* (Levitsky & Way, 2006, 2010).

An emerging body of scholarship has problematized the scholarly preoccupation with democratic forms of diffusion in Europe—targeted or spontaneous—suggesting that similar insights could be applied to explain spatial patterns of clustering of Europe’s authoritarian regimes or states in the grey area between democracies and full-blown autocracies. As Thomas Ambrosio notes, “. . . international pull toward democratization is only half-understood because it does not account for a countervailing pull from authoritarian regimes” (Ambrosio, 2007). Emerging scholarship on authoritarian diffusion has focused on both the more “spontaneous” forms of autocratic influence, as would be the case with diffusion through trade (Libman & Obydenkova, 2014; Obydenkova & Libman, 2012, 2015a); and on the more targeted regime strategies to “resist” (Koesel & Bunce, 2013) what are presented as western attempts to foment regime change or regional instability under the guise of democracy promotion (Ademmer & Börzel, 2013; Allen & Gershman, 2006; Ambrosio, 2007, 2010; Brunell, 2006; Carothers, 2006; Diamond, 2008; Finkel & Brudny, 2012a; Koesel & Bunce, 2013; Plantan, 2014; Silitski, 2009, 2010; Walker & Kelly, 2007; Way, 2010; Wilson & Popescu, 2009; Wilson, 2009).

The above literature on authoritarian diffusion is a welcome departure from earlier scholarship premised on teleological notions of a steady march of democracy from the West

to the East. Yet, this literature, eager as it is to problematize the notion of democratic diffusion, has likewise suffered from a one-sided preoccupation with spatial dynamics of the spread and consolidation of authoritarianism (but see Ambrosio, 2010; Wilson & Popescu, 2009). Furthermore, the theoretical and empirical treatments of authoritarian diffusion in Europe and Eurasia have overwhelmingly focused on just two autocracies—Russia and China—as active agents of authoritarian diffusion or democratic resistance (Allison, 2013; Finkel & Brudny, 2012b; Koesel & Bunce, 2013; Plantan, 2014; Silitski, 2009; Wilson & Popescu, 2009; Wilson, 2009). Authoritarian diffusion is seen as a one-way process (but see Gel'man and Lankina 2008) whereby the more powerful autocrats like Russia or China undermine democracy or reinforce authoritarian practices through exercising economic or other forms of leverage in weaker neighborhood states or simply by having a “prestige” effect whereby lesser powers are likely to emulate their policies, institutions, and practices (Ambrosio, 2008; Cameron & Orenstein, 2012; Fordham & Asal, 2007; Wilson & Popescu, 2009). Yet, a near-exclusive focus on Russia or China as regional authoritarian states shaping patterns of authoritarian diffusion obscures the importance of lesser autocracies. The latter may not have fashioned targeted strategies of authoritarian diffusion, but may be nonetheless reinforcing authoritarian trends in neighboring states and regions via more spontaneous forms of diffusion or through socialization in sub-regional institutional and political alliances (Allison, 2008; Collins, 2009; Darden, 2010).

Any analysis of external democratic and authoritarian diffusion processes would be of course also incomplete without factoring in the domestic influences on the spread of authoritarian tendencies, or, alternatively, democratic resilience within particular states. A large body of scholarship on Russia has precisely explored such *within-nation* processes by comparing political regime development in Russia's sub-national regions (Gel'man & Ross, 2010; Gelman, Ryzhenkov, Brie, Ovchinnikov, & Semenov, 2003; Hale, 2006; Lankina,

Libman, & Obydenkova, 2016; McFaul, Petrov, & Riabov, 2004; McMann, 2006; Stoner-Weiss, 1997). For instance, in-depth research has been conducted into how the Kremlin under Putin's rule undermined sub-national proto-democratic institutions and electoral competition (Golosov, 2011; Panov & Ross, 2013; Reddaway & Orttung, 2005a; Reuter & Remington, 2009); and how it has tended to reward regional elites for delivering a pro-Kremlin vote rather than for good governance or economic performance (Reuter & Buckley, 2015; Reuter & Robertson, 2012; Rochlitz, 2014). Scholars have also analyzed how regional authorities tend to emulate the practices of neighboring regions in ways that may further erode democratic institutions (Gel'man & Lankina, 2008; Moraski & Reisinger, 2014). We concur that longer-term structural variations and the more contingent factors like center-regional elite and party-political dynamics have an important bearing on political regime variations in Russia's regions. In our statistical analysis, we seek to capture the effect of key variables conventionally employed in research into domestic influences on regional democratic variations. Yet, we also demonstrate that additional—external—drivers of sub-national authoritarianism and democratic diffusion are at work.

We do so by empirically addressing a number of pertinent research questions. The first question is about the effect of interaction between authoritarian and democratic diffusion on regime outcomes in “recipient” states. The second question is whether authoritarian diffusion transcends major regional powers and may be also characteristic of lesser regional players like Central Asian states or Azerbaijan. The third question relates to the potential of EU democratic diffusion in Eastern Neighborhood states unlikely to become EU members in the foreseeable future to counteract authoritarian diffusion processes in Europe. Finally, the fourth question relates to the channels through which the respective actors might influence democratic variations in “recipient” states or regions.

Our study begins to address these theoretically-important and policy-relevant questions. We utilize a comprehensive dataset of EU projects carried out in Russia's regions assembled by Tomila Lankina (The Lankina EU Aid Dataset). The total number of projects in the dataset is over 1,000. To our knowledge, this remains the only source of systematic data on the sub-national component of EU aid to post-soviet states. The data cover the years 1990 to 2003, and contain vast amount of detail on funding amounts, project aims and objectives, the key European partner involved in the project, the key implementing local partner on the ground, whether the Russian federal government had been involved in the project, and any other foreign and other local partners involved. The dataset allows to obtain a detailed picture of the EU's strategic aims and objectives in states with limited membership prospects; what types of projects it actually ends up carrying out; what kinds of partners and regions it tends to reward; and the spatial dimension of this aid activity.

The nature of the projects and their stated aims vary, ranging from projects to support the modernization of regional bureaucracies, to support for ethnic minority group song-and-dance ensembles, to funding to environmental awareness NGOs, to sponsorship of cross-border cooperation initiatives involving local mayors and councilors. Consistent with earlier scholarship on the domestic effects of cooperation with democratic nations and supra-national actors (Pevehouse & Russett, 2006; Pevehouse, 2002), we consider EU aid as a general proxy for the extent of socialization with EU counterparts that in turn promotes democratic values that the EU holds dear. Furthermore, in EU documents, even the more "technical" projects like those aimed at raising bureaucratic competence in the regions tend to be framed in terms of the wider strategic objectives of advancing market economies and "pluralistic democratic

societies.”¹ Implicit in this approach are ideas akin to those developed by Karl Deutsch several decades ago, in the context of post-World War II reconstruction. Deutsch saw contact and interactions—including social interactions—among Europeans as conducive to the development of trust and a core set of shared values (Deutsch, 1954). Because our data allow us to distinguish among project beneficiaries (for instance, regional officials, NGOs), we are able to gauge the extent of socialization in EU values of these distinct sets of regional actors.²

The cut-off point for our EU aid data, 2004, coincided with an important policy shift in EU’s relations with eastern neighbors whereby Russia and EU renegotiated their relationship to pursue the so-called “four spaces.” The year 2004 also marks the beginning of Russia’s steady descent into authoritarianism and Vladimir Putin’s imposition of a centralist architecture on Russia’s federal polity (Lankina, 2009; Reddaway & Orttung, 2005b). The implications of these changes in Russia’s relations with the EU and in its federal architecture were greater centralization of domestic policy making and greater monitoring of activities of EU actors. By 2004 however, some regions will have experienced nearly fifteen years of exposure to EU projects—some to a considerable extent—and the trappings that come from such exposure in the form of support for institutional development, training, equipment, know-how, skills, interaction with European partners abroad, and frequent travels to European partner localities. Project activity thus likely captures both the targeted dimension of the

¹ See for instance, an EU Press Release on the aims and objectives of the Technical Assistance to the Commonwealth of Independent States (TACIS) program:
http://europa.eu/rapid/press-release_MEMO-92-54_en.htm (accessed 30 September 2015).

² For a detailed discussion of the aims and objectives of EU aid provision to Russia, see (Lankina, 2005; Lankina & Getachew, 2006)

diffusion of EU influences through aid and the more spontaneous aspects of democratic diffusion insofar as aid fosters the development of linkages among ordinary citizens.

No such comparable data exist for the targeted aspect of authoritarian diffusion in the Eurasian region. In any case, barring the relatively recent systematic attempts to project an authoritarian brand of soft power by regional autocracies like Russia, few other post-soviet states have, or would be financially in a position to, pursue sustained efforts to influence democracy in neighboring countries equivalent to those of the EU. Even the powerful autocracies like Russia and China are not concerned with aggressively propagating particular ideologies, but are more concerned with curbing democracy promotion that they see as a threat to their regime survival (Ambrosio, 2007). The channels of influence of these states on their neighbors are likely to be through a form of demonstration effect whereby actors that regularly interact with one another end up emulating the practices, modes of behavior and value orientations of their counterparts in business, administrative bureaucracies, or the political sphere (Ambrosio, 2010; Cameron & Orenstein, 2012). Recent studies have demonstrated the intensity of labor migration, trade links and economic interdependence among post-soviet states (Cameron & Orenstein, 2012; Lankina & Niemczyk, 2015). Cameron and Orenstein (2012) note that the Russian market is crucial for national economies of all but three post-Soviet states, namely the global oil- and gas-exporting states of Azerbaijan and Turkmenistan, as well as Georgia. For instance, 25-45 percent of exports of Belarus, Ukraine and Moldova; and 8-25 percent of exports from Armenia, Kyrgyzstan, Latvia and Lithuania are targeted at the Russian market.³ These trade dependencies have been explained with reference to soviet-era patterns of industrial location and supply, whereby

³ Trade structure as of 2013; in 2014-15, trade between Ukraine and Russia declined dramatically.

particular republics specialized on the production of industrial goods or commodities utilized by specific industries in other parts of the Soviet Union. The importance of such links has been poignantly demonstrated in the recent conflict between Russia and Ukraine following Ukraine's expressed desire to join the Association Agreement with EU and subsequent abstention from signing the agreement in November 2013. Aside from Russia's usual threats to raise prices for gas supplied to Ukraine, Russia also resorted to economic blackmail that affected, inter alia, trade in consumer goods like confectionary and other food products. At the same time, in what is also a legacy of Soviet-era industrial networks, Russia has until recently relied on Ukraine to supply important parts for its military-industrial complex.

In the next, statistical analysis, section of the paper, we employ the EU aid and post-soviet trade data, to analyze the interaction between EU influences and those of post-soviet neighboring states, on Russia's sub-national democratic variations.

Based on the above theoretical discussion, we articulate our hypotheses as follows:

General effects:

H1: Geographic proximity to autocracies will have a negative effect on democracy in Russia's regions.

H2: EU aid will have a positive effect on democracy in Russia's regions

H3: Trade with the countries of the former Soviet Union (FSU) will have a negative effect on democracy in Russia's regions

H4: EU aid will counteract the negative effect of FSU trade on regional democracy

Specific channels of EU influence on regional democracy:

H5: EU aid will positively affect regional democracy through its influence on regional authorities

H6: EU aid will positively affect regional democracy through its influence on municipal authorities

H7: EU aid will positively affect regional democracy through its influence on civil society actors (NGOs)

Statistical analysis

Data and measures

For our dependent variable, regional democratic variations, we employ the index of regional democracy originally developed by Nikolay Petrov and Aleksey Titkov, who at the time the index was developed were scholars at the Moscow Carnegie Center (Petrov & Titkov, 2013).⁴ The index is a composite measure of regional political regime variations that is both based on subjective expert assessments, and systematic data on electoral competition that they refer to as “instrumental” measures and that are conventionally employed in studies of cross-national democratic variations (Lankina & Getachew, 2012; Vanhanen, 2000). The “instrumental” criteria are measures like effective number of candidates in governor elections; the share of votes obtained by the winning candidate in governor elections; the rate of governor turnover; and recorded instances of electoral misconduct. As Petrov and Titkov readily admit, considering the known issue of potential subjectivity and bias in expert assessments, it is important to combine both the “subjective” and the “instrumental” measures in generating the composite index. As a further check on the validity of their measure, they cross-validate the “subjective” assessments with the “instrumental” measures, obtaining significant correlations between scores based on the two types of assessments, which are particularly strong for some sub-indicators.⁵ In what provides further reassurances of the validity of the democracy

⁴ Petrov and Titkov are currently affiliated with the Social Sciences Faculty of the Higher School of Economics in Moscow. Details on the sub-indicators of the index are provided in SA IV.

⁵ The strongest correlations are observed for participation in federal elections; and regional electoral misconduct. Data and discussion of the indices are available from: *Sotsial'nyy atlas*

measures employed in our analysis, there is a strong degree of correspondence between Petrov and Titkov's assessments and those of scholars who have relied on other measures of regional democratic variations. For instance, consistent with Petrov and Titkov's findings, in both the studies that use "objective" measures of electoral competition and in qualitative scholarship relying on more "subjective" assessments, the "ethnic" republics have tended to feature strongly as regions that tend to have low levels of political competition and that are particularly likely to falsify votes in regional and federal elections (Hale, 2007; Lukinova, Myagkov, & Ordeshook, 2011; Myagkov, Ordeshook, & Shakin, 2009; Saikkonen, 2015).⁶ Likewise, again, consistent with Petrov and Titkov's indices, among the "Russian" *oblasti*, some regions like Samara, Nizhegorodskaiia and St. Petersburg have been described as having comparatively more democratic political regime features (Lankina & Getachew, 2006; McMann, 2006; Remington, 2011; Stoner-Weiss, 1997).

The Petrov and Titkov score consists of ten sub-indicators, each assessed on a 5-point scale. The individual components of the index are then summed up to obtain a composite score, with higher values of the score corresponding to higher levels of regional democracy. The index is constructed in a way that allows to capture both the procedural elements of democracy (such as electoral freedoms) and its substantive aspects (political pluralism); overall, the logic behind the choice of sub-indicators for the score corresponds to conceptions

rossiyskikh regionov: Integral'nye indeksy

http://atlas.socpol.ru/indexes/index_democr.shtml#methods (accessed 4 December 2015).

⁶ Karelia, though is a notable exception to this trend.

of liberal democracy (Bollen, 1993).⁷ The democracy measure that we employ is a moving average score covering the years 2000-2004.⁸

We capture authoritarian diffusion by analyzing trade links between the regions of Russia and post-soviet states. Specifically, we employ the share of trade (export and import) with former Soviet states (FSU) in the total trade turnover of Russia's regions. There are two reasons why trade could act as a mechanism of regime diffusion. First, trade relations are associated with learning—both across elites and societies. In Eurasia, international trade transactions frequently require active participation of public officials who help to overcome legal and administrative barriers and to ensure the credibility of potential local business partners. We therefore anticipate that more intensive trade ties lead to more intensive exchanges among elite members of a given Russian region and the FSU country this region trades with. Because of widespread informal contacts between the political elites of trading states and regions, regional elites are likely to adapt practices and norms prevalent in the non-democratic FSU states (Obydenkova & Libman, 2012). Second, the heavily politicized nature

¹ The index also includes a measure for municipal independence, as well as sub-indicators of economic liberalization and corruption. When we recalculate the index without the sub-indicators of economic liberalization and corruption, we obtain results similar to those obtained in the baseline estimation.

⁸ This time frame is most appropriate for our analysis since it precedes Vladimir Putin's major re-centralization drive—the abolishment of gubernatorial elections in 2004; centralist municipal reforms; and other initiatives that had the effect of undermining, albeit short of completely obliterating, political pluralism in the hitherto more democratic regions. Available evidence suggests however that regional political regime variations, which emerged during the 1990s, often persisted over the period covered in our study (Petrov & Titkov, 2013).

of external trade in Eurasia provides regional incumbents with an additional tool of control over regional economies. By withdrawing their support, governors can effectively undermine business transactions between companies operating in their region and the partner FSU country. As a result, companies in regions in which trade with FSU states is important in economic terms, are more likely to be interested in obtaining support of the governors—and exchanging it for political loyalty. (On the importance of economic control for the survival of Russian sub-national autocracies, see McMann, 2006).⁹ Note that unlike EU assistance, which is often conditional on good democratic performance, the impact of FSU trade on political regimes in the regions of Russia is mostly unintentional. The way FSU countries conduct their foreign trade relations in Eurasia may thus have an indirect effect on strengthening autocracy in Russia's regions.

Trade data are obtained from Russia's official statistical compilations. In our analysis, FSU refers to countries formerly part of the Soviet Union, excluding the Baltic states of Latvia, Estonia, and Lithuania, which are now in the EU. Our analysis also excludes Belarus, which has a customs arrangement with Russia within the framework of the Russia-Belarus Union; thus, our analysis largely captures trade between Russia's regions and Central Asian (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan) and Caucasus states (Armenia, Azerbaijan, Georgia), as well as Ukraine. There is substantial variation in the share of Russia's regional trade with FSU countries—ranging literally from zero to over 60 percent of a given region's total trade turnover.

⁹ Because of strong soviet-era technological complementarities, post-soviet businesses are frequently unable to replace their soviet-era trade partners with those from other countries and continue production without supply or demand from the FSU.

As our proxy for the EU's democratic diffusion effect, we employ the measure of total volume of EU aid provided to a particular region in millions of Euros in the period between 1991 and 2004. In our cross-sectional regressions, the FSU trade indicator is averaged over a five-year-period, while EU aid is aggregated for the period 1991-2004. Employing these measures allows us to evaluate the long-term implications of EU aid for countering post-soviet authoritarian diffusion. Trade between Russia's regions and FSU states is grounded in long-term ties, sometimes stretching over decades. The inter-elite contacts, which, as noted above, play an important role in authoritarian diffusion, in many cases also go back to the soviet era—indeed both the post-soviet countries and Russia's sub-national regions in the period of our investigation often had members of the old soviet *nomenklatura* at the helm of power. Thus, in order to exercise a moderating effect on the hypothetical authoritarian diffusion mechanism, the EU influence should be lasting and long-term; short-term aid flows may be insufficient to substantially affect regional regime variations. In one of our robustness checks we also employ the measure of cumulative EU aid for 2000-2004.

Aside from the main explanatory variables and their interaction terms, we also include a set of control variables capturing additional influences on politics in Russia's regions. In particular, we control for income per capita, urbanization and education. Education is proxied by the share of regional population with university education, since in Russia secondary schooling covers virtually the entire population. These three covariates are employed based on the logic of classic modernization theorizing (Lipset, 1959). We also control for regional oil and gas extraction to account for the possibility of a "resource curse" effect, which might be salient given Russia's resource-driven economy (Ross, 2001). Furthermore, we create a dummy variable for regions with the status of republics. The republics are regions with territorially-concentrated ethnic minority populations, which traditionally enjoyed higher status in the Soviet Union's and in post-soviet Russia's ethno-federal hierarchy. As noted by a

number of scholars, the republics had been instrumental in creating powerful political machines ensuring the reproduction of communist-era and early post-communist period regional structures of power and patronage (Golosov, 2011; Hale, 2007; Matsuzato, 2004). We also include a measure of the share of ethnic Russians in the regional population. This variable captures preference heterogeneity in Russia's regions. In addition, we employ the measure of geographical distance between the regional capital and the City of Moscow in kilometers. More distant regions may be more difficult to control for the federal center; this in turn might facilitate the reproduction of powerful regional political machines.¹⁰

Summary statistics for the above variables are reported in the Supplementary Appendix (SA) IV. We obtained the data for the socio-economic control variables from Russian official statistical compilations. The time-varying control variables are averaged over the period 2000-2004. Data for the regional share of ethnic Russians and education are obtained from the 2000 census. In the regressions, we include Russia's regions as our observations, with the exceptions of Chechnya, for which reliable data are unavailable for the period under investigation; and regions with autonomous *okrug* status, that is, those which are constituent units of other regions for which data are also patchy;¹¹ Therefore, our sample includes seventy nine regions.

¹⁰ In the robustness checks reported in the SA I, we also add a number of further variables, which do not influence our main results.

¹¹ We include Chukotka, which is the only autonomous region which has a status corresponding to an *oblast*.

Main results

We start with a brief examination of the descriptive statistics for our data.¹² Table 1 splits the sample into four groups according to the median of the FSU trade and EU assistance measures. We report the democracy score, FSU trade share and EU assistance for each of the sub-samples. One can see that the group of regions with the highest democracy score is that where EU assistance had been above the median, while FSU trade share had been below the median. This group also includes regions like Karelia and Perm, which have frequently been discussed as being comparatively democratic. The lowest democracy score, conversely, is observed among regions with highest FSU trade levels and the lowest EU assistance levels. The results are consistent with our hypothesis that democratic diffusion could mitigate authoritarian diffusion.

Table 1 about here

In the next step, we regress the variable of sub-national democracy in Russia's regions on the proxy of authoritarian diffusion, on the variable of democratic diffusion from the EU, as well as the interaction term of these two variables. We thereby seek to ascertain whether the democratic diffusion variable is able to moderate the effect of authoritarian diffusion.

In Table 2, Model 1, we regress the democracy score on both of the baseline variables; Model 2 adds the interaction term. As expected, FSU trade has a negative and significant impact on democracy levels; EU aid has a positive and significant effect. The most interesting result is, however, obtained in Model 2: the interaction term is significant and positive. Thus, EU aid has the effect of undermining the negative effects of FSU trade. When we plot the

¹² SA IV also reports the values of our key variables for all regions in the sample.

marginal effect of FSU trade on regional democracy for various values of EU aid, the results become even more pronounced (Figure 1). For low values of EU aid, FSU trade has a strong and negative impact on democracy. It does decrease in absolute value if EU aid goes up and eventually becomes insignificant (the zero is within confidence intervals). The insignificant effect, however, is observed for relatively few regions with very large volumes of EU aid: the cities of Moscow and St. Petersburg, Republic of Karelia, as well as the Kemerovo, Nizhny Novgorod, Novosibirsk, and Sverdlovsk *oblasti*. The figure also suggests that—hypothetically—for extremely high EU aid values, FSU trade would have a significant and positive effect on the democracy score. However, there are no regions in our sample for which EU aid is large enough to make the marginal effect of FSU trade positive and significant: even for the region with the highest EU aid volumes, the effect of FSU trade is still insignificant. Thus, for the actual sample that we employ, the positive effect of FSU trade on democracy is never observed; for most regions, EU aid appears to have the effect of merely decreasing the negative democratic effects of FSU trade, but short of rendering it entirely insignificant.

Models 3-5 provide a number of important robustness checks. The rationales for these tests are as follows. First, it is possible that the effect of aid on political regimes depends not only on the trade partner, but also on the industrial structure of trade, which could influence the likelihood and importance of inter-elite contacts and elite capture of trade. Unfortunately, Russian official statistical compilations do not report the industrial breakdown of FSU and non-FSU trade; but, information on the industrial breakdown of trade volumes in general is available. We are therefore able to control for the shares of various industries in the overall structure of trade. The results (Model 3) remain robust.

Model 4 engages with a more important problem. Our analysis is based on the premise that trade with FSU states can be seen as a proxy for authoritarian diffusion. The political

regimes of FSU states are heterogeneous, however. While many were consolidated autocracies during the period of our investigation, some could have qualified as having more competitive regimes, though none would be accurately described as a consolidated democracy. The most obvious examples in this range of cases are Ukraine and Moldova, where political competition had been at a much higher level than in Belarus or in authoritarian Central Asian states like Uzbekistan or Kazakhstan. Ukraine, though, in this period was ruled by Leonid Kuchma who had been criticized for promoting autocratic tendencies (Way, 2005). Georgia could have been added to this group as well from 2003, after the Rose Revolution. Armenia is also occasionally considered to be a country featuring relatively more advanced levels of democracy, particularly when one compares it to Central Asia's autocracies like Uzbekistan or Kazakhstan. Unlike Georgia, Moldova, and Ukraine however, because of a record of low political elite turnover, it exhibits more similarities to the hegemonic authoritarian model established in Russia, Belarus and some other post-soviet states (Furman, 2010).¹³ Since our main argument rests on the fact that FSU trade can promote authoritarian diffusion, we need to isolate the effect of trade with consolidated autocracies— Azerbaijan and the authoritarian states of Central Asia.¹⁴

¹³ Another post-soviet country, Kyrgyzstan, experienced a “color revolution” in 2005, that is, outside the period covered in our analysis. SA V reports the average Freedom House and Polity IV scores of post-soviet countries during the period of our investigation. In both the data sources, Armenia, Moldova, Georgia and Ukraine feature as former USSR states (excluding the Baltic states) with highest democracy scores.

¹⁴ Hypothetically, an attractive option would have been to explore the *relative level* of democracy in an FSU country compared to the Russian region it trades with. However, our regional democracy score was developed as a comparative measure of democracy in Russia's

The Russian federal statistics agency does not provide country breakdowns for regional trade data; it only reports the measure of the difference between post-soviet trade and trade with other countries. However, country breakdowns for trade may be obtained from other sources. Some regional statistical bureaus publish these data. For some of Russia's regions this information may be available from the offices of the Federal Customs Service, though the reporting standards appear to vary by federal district. Some information may be also obtained from occasional reports published by regional governments and from scholarly publications. Unfortunately, this information is collected in a very unsystematic manner. There is typically no consistent time series data. Some regions do not provide any information at all. Furthermore, frequently, regions list only their main trade partners, while failing to report other trade partners. Based on the heterogeneous sources available, we collected data on the share of regional trade with Ukraine in the total trade turnover of regions (exports plus imports). Ukraine is the largest post-soviet country and has been among Russia's key trade partners, at least, until the recent Russia-Ukraine conflict. The data are reported in SA IV and are to our knowledge the first systematic attempt to gather such regional trade data for Russia's regions.¹⁵

regions, that is, we may not directly match it with a score for cross-country comparisons, for instance, with a Freedom House score; the "most democratic" Russian region is certainly less democratic than an average EU member state. Furthermore, as Gervasoni (2010) points out, sub-national regimes are also conceptually different from national regimes: they may resort to different mechanisms of societal control, for instance, leveraging national fiscal transfers; they also follow different developmental logics, so direct comparisons between sub-national regimes and national regimes, again, could be misleading.

¹⁵ SA II also provides detailed information on how the dataset was compiled.

We could potentially employ two alternative strategies in utilizing these data. Because the Ukraine trade data come from various sources and are for different time periods, it may be difficult to accurately estimate the share of post-soviet trade with Ukraine—we may end up subtracting two incomparable variables from each other. Hence, first, we can simply drop regions with a record of large trade volumes with Ukraine and check whether our results still hold. If trade with Ukraine is modest enough, it should not have a major impact on regional regimes. For this purpose, we estimate our model (Model 4) for all of Russia's regions, in which the trade share of Ukraine is below 20 percent. The results for our main variable FSU trade hold, suggesting that they are driven by countries others than Ukraine. In SA II, we also employ the—imperfect—alternative strategy whereby we control for the share of trade with Ukraine. Again, the main findings reported above remain robust after isolating the impact of trade with Ukraine.

The three other trade partners that we singled out as having comparatively more democratic political regimes, namely Georgia, Armenia and Moldova, are less problematic for us than is Ukraine in terms of data analysis. In the 2000-2004 period covered in our study, Moldova was in an extremely poor economic shape; not a single Russian region reported substantial trade volumes with this country. The same applies to Armenia. Both countries, unlike Ukraine or Georgia, also lack common borders with Russia. Georgia, which does share borders with Russia, also remained an insignificant trade partner, even for neighboring Russia's regions. For instance, in Stavropol *krai*, in 2000-2004, the share of trade with Georgia in the overall regional trade volume was a mere 8.1 percent. There is, however, one region that constitutes an exception: Northern Ossetia reported Georgia as a predominant trade partner. This is due to the republic's geographic location: it is convenient to cross the Caucasian Mountains separating Russia from Georgia at the North Ossetian-Georgian border. The trade statistics, however, are largely driven by trade flows that go via the un-recognized

break-away entity of South Ossetia. Before the 2008 Russo-Georgia War, South Ossetia functioned as a large semi-formal trade hub, with its large Ergneti whole-sale market serving as “the most flourishing trading entrepôt in the Caucasus” (De Waal, 2010: 199); most likely, the data we have capture the semi-formal aspect of trade. In Model 5, we drop Northern Ossetia, but our results still hold. Thus, we have reasons to believe that the authoritarian diffusion effect that we report is driven in particular by trade with non-democratic post-soviet countries, especially Azerbaijan and Central Asian states.

In SA II, we report results with controls for regional trade with another important authoritarian external trade partner, China. We rely on the same approach to create this variable as we did for Ukraine. Specifically, we screened all the publicly available regional statistical compilations; customs services reports; and regional government data. We thereby obtain unique and important data that, to our knowledge has not been gathered and analyzed by other scholars. China plays an important role in the trade relations of some of Russia’s regions: thus, more than 75 percent of trade of the Far Eastern Amur *oblast* and Tyva is with China. Regional governors have an impact on trade with the Asian neighbor in that, for instance, they often lobby for the selection of their regions to house customs offices and infrastructure like bridges and roads, thereby “channeling” trade with China to their regions; in some cases governors also have strong personal business ties with China.¹⁶ At the same time, trade with China is not rooted in long-term historical ties comparable to those connecting Russia to FSU states. In many cases, regional trade links with China started developing only after the collapse of the Soviet Union. Russia’s federal authorities may also impose stricter monitoring of trade flows with China than they would with regard to trade

¹⁶ Author interview with a Russian expert on the economy of the Far East, conducted online on 28 September 2015.

with FSU states for security or other reasons related to Russia's foreign policy in its Asian neighborhood. These factors might explain why trade with China does not have a significant impact on regional democracy in our analysis. Our main results remain robust when we control for this variable.

Geographical measure of authoritarian diffusion

We also employ a different variable that captures potential authoritarian diffusion effects in the post-soviet space and that is associated with geographic location of Russia's regions. For this purpose, we employ a dummy variable for regions located at the borders to FSU states as our explanatory variable. It is plausible to hypothesize that the diffusion effect is particularly strong in regions adjacent to other post-Soviet countries. Two channels could in this case contribute to the diffusion effect. First, there may be intensive micro-level interactions, for instance, involving soviet-era diasporas, as well as small cross-border movements of goods and people, which contribute to the diffusion of norms and values. Second, political elites in border regions may engage in more active interactions with elites in neighboring post-soviet states than would be the case with more distant states. Many regional economic issues could be only resolved through cooperation with neighboring states/ regions, as would be the case with the maintenance of soviet-era shared infrastructure or environmental issues. Furthermore, the period of our investigation is characterized by active and institutionalized cross-border cooperation, which had been partly supported by the federal government (Golunov, 2005).

Empirically, we observe that border regions trade with FSU states much more than do the non-border regions: the average share of FSU trade in the border regions is 31 percent, as compared to 13 percent in the rest of the sample, and the difference is statistically significant. However, these patterns notwithstanding, the effect of geographic location on the level of

democracy in Russia's regions is strikingly different from that of trade. Table 3 replicates our regressions for this variable and we observe no significant results for either the FSU border trade dummy variable, or for the interaction term with EU aid. In Table 4, we report the results of models that contain further modifications: in line with the discussion above, we create a dummy variable for regions bordering an FSU country with a consolidated authoritarian regime (Belarus, Kazakhstan and Azerbaijan), but still find no significant border effect. This result clearly confirms the importance of the trade channel of authoritarian diffusion. In fact, while on average border regions trade more with FSU countries than those in the rest of the sample, there is still substantial heterogeneity in border region trade volumes with neighboring states. Specifically, the range of trade share with all post-Soviet countries in overall regional trade volumes for this group goes from 1 percent for Ingushetia and 3 percent for Pskov to 68 percent for Altai Krai; most likely, it is this variation that determines our results.

Tables 2-4 about here

Robustness tests

We perform a number of additional empirical tests, which we report in SA III. Here, we highlight the most important findings. First, we look at the effects of our key variables for individual dimensions of the democracy index. We observe significant effects of the interaction term EU aid and FSU trade with regard to five dimensions of the democracy index: economic liberalization; political pluralism; elite composition; civil society; and municipal autonomy. The latter three dimensions may be particularly important for understanding the specific mechanisms through which EU aid might help counteract the effects of authoritarian diffusion. Hypothetically, EU aid can be associated with two effects: it

may provide regional actors with additional sources of financing and support; and it may enable the socialization of regional politicians in EU democratic values. The first dimension of EU assistance may be particularly relevant for civil society development. At the same time, by socializing regional elites, the EU may encourage them to be more inclined to tolerate regional intra-elite pluralism. Likewise, given the EU's focus on democracy, we would expect regional administrations participating in EU aid projects to be more willing to accept municipal autonomy.

These conjectures are corroborated in further robustness checks. Instead of employing the volume of EU aid measure, we employ the alternative measure of number of EU-funded projects carried out in the regions.¹⁷ In particular, we look at the number of projects that the EU implemented in a particular region with the participation of different types of actors, namely NGOs, regional governments, municipal authorities and federal authorities. The EU's moderating effect is associated with two types of projects: those involving NGOs, and those with regional governments as key local partners. Projects involving federal and local governments do not appear to have the same effect. The results pertaining to projects featuring NGOs as key local partners are in line with the hypothetical, civil society channel of EU influence noted above. The effect of projects involving regional governments as key local partners is also in line with the elite socialization and circulation processes discussed above. The result with respect to municipalities is somewhat surprising, but may be explicable given the role that regional governors—who in many regions tend to serve as gatekeepers when it comes to authorizing political or economic activity (Golosov, 2011; Hale, 2015; Kynev, 2006;

¹⁷ EU projects are often low-budget, but may nevertheless make a substantial difference in resource-poor regional contexts as when for instance computer and broadband resources are provided to a financially struggling NGO.

Reuter & Remington, 2009; Sharafutdinova, 2011)—may play in authorizing and monitoring EU-funded municipal projects.

Finally, we also estimate the regressions for individual components of the democracy index that may be particularly relevant for the purposes of our study (civil society, municipal autonomy and elite composition) and specific types of EU projects. In analyzing the civil society dimension of aid, we observe that EU involvement weakens the negative effects of FSU trade in projects involving NGOs, that is, projects that directly target civil society actors; and regional governments—in the latter case the EU may affect the environment for the development of civil society. For the dimensions of elite composition and municipal autonomy, all types of EU projects appear to be relevant, except those that feature local governments as key project partners. For the municipal autonomy dimension, we observe a direct and positive effect of EU projects involving local governments as key local partners. The likely channel of influence of EU aid might be through the empowering and training of local administrations and municipal officials; however, EU aid appears to limit the negative effects of FSU trade only in projects involving federal and regional governments and NGOs as key implementing partners. It may be the case that FSU trade adversely affects the development of local autonomy precisely because of the role it plays as a power tool in the hands of regional governments: regional administrations, controlling access to FSU trade, can use it to limit the power of municipalities as well. Since in many post-Soviet states with which Russian regions trade, the municipal level of authority is substantially weaker than in Russia, mutual learning again might play an important role. EU involvement, however, appears to weaken the above negative effect of FSU trade on regional democracy.

Discussion

The preceding analysis has uncovered patterns of authoritarian diffusion in Russia's regions, conditioned by trade with post-Soviet states. We also analyzed the democratic impacts of EU aid. In line with earlier scholarship, we find that EU aid has a significant democratizing effect on regional regimes. What is novel in our analysis is that we establish that EU has the potential to counter regional authoritarianism that may be reinforced through trade with post-Soviet partners. We also identify some potential channels of the diffusion of authoritarian and democratic influences on regional democratic institutions and practices. We are able to do so because we disaggregate our regional democracy score into the various sub-indicators, and because we possess data on implementing partners for EU projects. In particular, we find that EU support for regional civil society actors might create conditions conducive to the development of checks on regional authoritarian trends. EU aid might also have the effect of socializing regional governors and other officials in ways that serve to increase regional pluralism. These effects in turn appear to mitigate the negative impact of FSU trade on regional democracy uncovered in our study.

Our analysis also suggests directions for future research. To our knowledge, the data on EU aid employed in the study constitute the most refined measures on EU engagement in the post-Soviet region that are available. Most scholars working with EU aid data—as indeed those analyzing global aid flows—employ national level aggregates of volumes of aid allocated without distinguishing between implementing partners or disaggregating aid data at the level of sub-national regions. Obtaining sub-national data capturing authoritarian diffusion processes presents even greater challenges. Authoritarian states are known to be more secretive than democracies and any officially published data are bound to be unreliable. For instance, it is well-known that Russia has been allocating vast amounts of funding to NGOs, media outlets, and religious groups in post-Soviet states as part of its “soft power” agenda.

There are however no systematic data on Russian or other regional autocracies' targeted activities of this kind that would be similar in scope to the EU data employed in the study. We are aware that our FSU trade data are at best an imperfect proxy for the "spontaneous" authoritarian diffusion processes analyzed in this paper. Nevertheless, our analysis constitutes an important step in the direction of systematically analyzing authoritarian diffusion processes, in which trade apparently plays a significant role. It complements qualitative analyses that have focused on the efforts of major authoritarian players like Russia and China to "diffusion proof" (Koesel & Bunce, 2013) against democracy; or case studies of authoritarian socialization processes (Allison, 2008; Collins, 2009). Furthermore, in what is different from other studies of authoritarian diffusion, our analysis shines the spotlight on the regional authoritarian effects-through-trade of such lesser regional autocracies like Central Asian dictatorships and Azerbaijan. Analyzing authoritarian diffusion processes employing alternative proxies of autocratic diffusion, and more precisely ascertaining how major and minor authoritarian players might influence regime dynamics in other states and regions, is an agenda for future research.

Table 1: Democracy, FSU trade and EU assistance

	EU assistance below the median	EU assistance above the median
FSU trade below the median	Average democracy score: 27.1 Average FSU trade: 4.5% Average EU assistance: 0.13 mln € Examples: Krasnodar, Primorsky	Average democracy score: 33.6 Average FSU trade: 5.8% Average EU assistance: 20.43 mln € Examples Karelia, Perm
FSU trade above the median	Average democracy score: 24.7 Average FSU trade: 31.3% Average EU assistance: 0.15 mln € Examples: Dagestan, Stavropol	Average democracy score: 30.8 Average FSU trade: 32.7% Average EU assistance: 11.50 mln € Examples: Ivanovo, Rostov

Table 2: Baseline results for FSU trade. Dependent variable: Democracy index, 2000-2004, OLS

	(1)	(2)	(3)	(4)	(5)
EU aid, cumulative	0.124*** (0.041)	0.091** (0.044)	0.083* (0.047)	0.089** (0.043)	0.087* (0.046)
FSU trade	-6.029** (2.677)	-8.100*** (2.964)	-5.132 (3.119)	-7.677** (3.722)	-8.052*** (2.966)
EU aid * FSU trade		0.187** (0.084)	0.173* (0.092)	0.192** (0.084)	0.190** (0.085)
Education	-29.792 (23.429)	-27.477 (23.625)	-22.224 (25.704)	-38.518 (29.696)	-23.687 (25.233)
Income per capita	0.111 (0.409)	0.129 (0.414)	0.135 (0.439)	0.378 (0.592)	0.074 (0.430)
Share of ethnic Russians	8.409* (4.922)	8.333 (5.048)	5.286 (5.625)	4.143 (7.510)	7.917 (5.187)
Dummy republic	0.866 (2.331)	0.924 (2.377)	0.058 (2.564)	-0.92 (3.278)	0.916 (2.395)
Distance from Moscow	-0.356* (0.197)	-0.432** (0.211)	-0.381 (0.253)	-0.591* (0.298)	-0.426** (0.211)
Oil and gas	0.005** (0.002)	0.005* (0.002)	0.004 (0.003)	0.067 (0.088)	0.005* (0.002)
Urbanization	12.775** (6.308)	12.931** (6.376)	15.471* (7.770)	11.471 (7.591)	13.540** (6.528)
Structure of foreign trade					
Share of agricultural products			2.552 (6.569)		
Share of energy			3.266 (4.789)		
Share of petrochemical products			9.614 (5.773)		
Share of wood products			10.236 (6.612)		
Share of metals			2.571 (5.516)		
Share of machinery			1.15 (5.548)		
Constant	19.129*** (6.289)	19.181*** (6.410)	14.935* (8.114)	25.675** (9.740)	18.670*** (6.449)
Observations	79	79	79	57	78
R-squared	0.495	0.505	0.539	0.465	0.49
Regions with share of Ukraine trade > 20% excluded				Yes	
Northern Ossetia excluded					Yes

Note: robust standard errors in parentheses. *** significant at 1%, ** significant at 5%, * significant at 10%.

Table 3: Baseline results for dummy, FSU border regions. Dependent variable: Democracy index, 2000-2004, OLS

	(1)	(2)	(3)	(4)
EU aid, cumulative	0.124*** (0.038)	0.120** (0.045)	0.116*** (0.038)	0.119*** (0.045)
Dummy FSU border	0.458 (1.347)	0.341 (1.477)		
Dummy FSU border with autocracies			2.253 (1.511)	2.358 (1.654)
EU aid * dummy FSU border		0.017 (0.046)		
EU aid * dummy FSU border with autocracies				-0.014 (0.047)
Education	-33.755 (23.562)	-33.22 (24.095)	-29.76 (24.562)	-29.846 (24.758)
Income per capita	0.259 (0.430)	0.266 (0.438)	0.245 (0.417)	0.236 (0.423)
Share of ethnic Russians	8.537 (5.121)	8.432 (5.222)	8.966* (4.684)	9.017* (4.712)
Dummy republic	1.596 (2.611)	1.569 (2.652)	2.243 (2.476)	2.254 (2.485)
Distance from Moscow	-0.243 (0.186)	-0.254 (0.197)	-0.226 (0.184)	-0.218 (0.193)
Oil and gas	0.005* (0.003)	0.005* (0.003)	0.003 (0.003)	0.003 (0.003)
Urbanization	15.576** (7.067)	15.591** (7.157)	17.082*** (6.279)	17.026*** (6.283)
Constant	15.554** (7.232)	15.579** (7.309)	13.112* (6.781)	13.114* (6.811)
Observations	79	79	79	79
R-squared	0.474	0.475	0.49	0.491

Note: see Table 2.

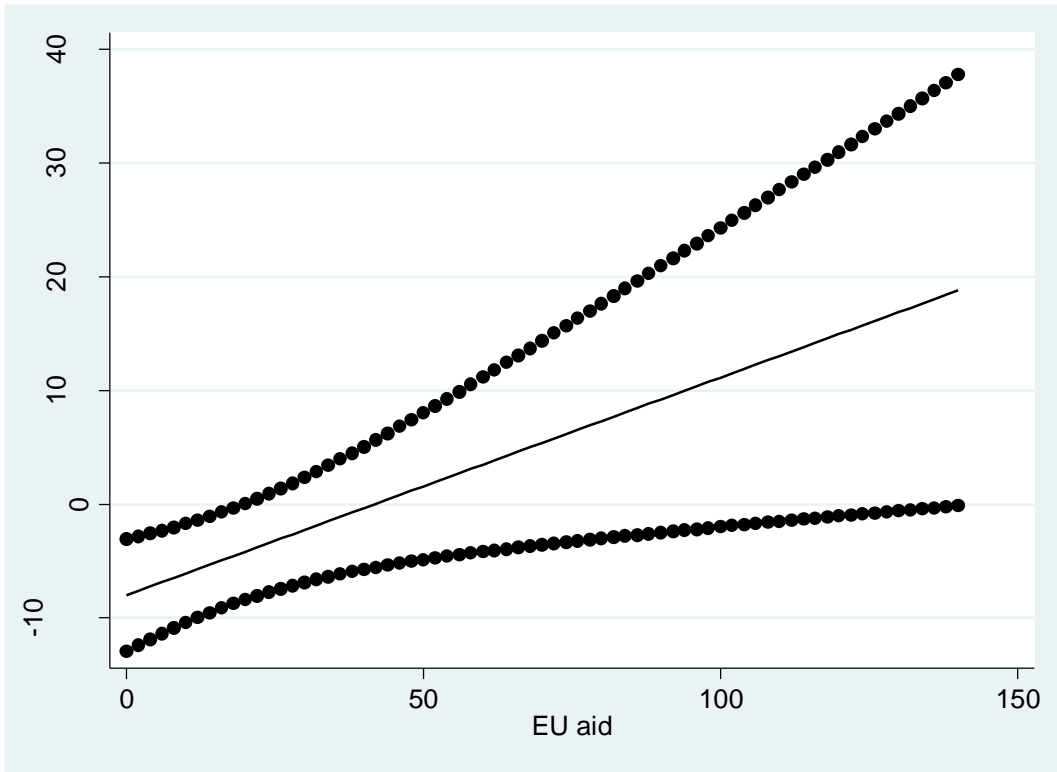


Figure 1: Marginal effects of FSU trade on democracy in Russia's regions conditional on EU aid, Model 2, Table 2

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SUPPLEMENTARY APPENDIX NOT FOR PUBLICATION

I. Additional econometric tests: control variables

The objective of these tests is to ascertain whether our main results for both trade and border region variables are robust to the inclusion of a number of additional controls. Specifically, we include the following variables:

- Dummy variable for Northern Caucasus republics. These regions have been strongly affected by the echoes of the Chechen war and often receive special treatment by the federal government in what some scholars have labeled the “internal abroad” phenomenon (Trenin 2011).
- Size of the region, as measured by territory and population. The rationale for including this variable is as follows. First, the magnitude of EU aid may be higher in more populous regions. Second, we expect larger regions to experience greater pressures to devolve more power to municipalities. Given that one of the sub-indicators of our democracy index captures municipal autonomy, it is important for us to incorporate regional size into our analysis.
- Dummy variable for regions with Muslim majority populations given that some scholars have hypothesized that there may be a negative association between Islam and democracy (Fish 2002).
- A proxy for trade openness. We measure the trade openness as the share of total exports and imports in regional GDP. This variable is conventionally employed in cross-national studies of development and democracy, though the findings as to the direction of its influence on these variables are ambiguous (Milner and Mukherjee 2010). It is particularly important for us to employ trade openness as a control variable since our main explanatory variable is the share of FSU trade in total regional trade volume.
- Regional dependence on federal fiscal transfers, as measured by the share of federal transfers in regional expenditures in 2000-2004. Gervasoni (2010) has shown how federal transfers might have detrimental effects on sub-national democracy. On the other hand, regional patterns of engagement in EU-funded projects might be affected by the degree of regional dependence on federal funding. The results of this regression do not contradict our findings.
- We also estimate a specification, where we exclude either the variable of share of ethnic Russians or the republic dummy variable, since these two variables are correlated and keeping them at the same time could cause multicollinearity problems.

SUPPLEMENTARY APPENDIX NOT FOR PUBLICATION

Table A1: Results for FSU trade, additional control variables. Dependent variable: Index of democracy, 2000-2004, OLS

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
EU aid, cumulative	0.096* (0.049)	0.093** (0.045)	0.083* (0.043)	0.085** (0.042)	0.089** (0.043)	0.081* (0.044)	0.083* (0.044)	0.097** (0.043)
FSU trade	-7.996*** (2.968)	-8.244*** (2.914)	-7.415** (3.032)	-7.564** (2.946)	-7.026*** (2.903)	-7.179** (3.122)	-7.391** (3.021)	-6.402** (3.204)
EU aid * FSU trade	0.191** (0.090)	0.186** (0.086)	0.201** (0.083)	0.178** (0.075)	0.164** (0.079)	0.203** (0.085)	0.201** (0.083)	0.150* (0.087)
Education	-36.045 (24.305)	-28.077 (23.709)	-28.419 (23.720)	-39.807 (29.299)	-34.81 (28.757)	-26.256 (24.006)	-27.594 (25.996)	-25.926 (22.254)
Income per capita	0.072 (0.493)	0.117 (0.429)	0.142 (0.418)	-0.019 (0.415)	-0.27 (0.363)	0.084 (0.428)	0.13 (0.445)	-0.056 (0.363)
Share of ethnic Russians		6.976** (3.165)	8.367 (5.196)	8.654* (4.934)	8.109* (4.829)	6.043 (5.509)	8.159 (5.760)	5.233 (5.353)
Dummy republic	-2.439 (1.547)		1.054 (2.481)	1.511 (2.473)	0.948 (2.373)	1.034 (2.479)	1.028 (2.484)	0.34 (2.425)
Distance from Moscow	-0.484** (0.202)	-0.440** (0.209)	-0.414* (0.211)	-0.281 (0.229)	-0.462* (0.247)	-0.439** (0.209)	-0.414* (0.212)	-0.171 (0.207)
Oil and gas	0.003 (0.002)	0.004* (0.002)	0.004* (0.002)	0.004* (0.002)	0.001 (0.002)	0.004* (0.002)	0.004* (0.002)	0.003 (0.002)
Urbanization	16.133** (6.964)	12.658* (6.454)	13.325** (6.325)	12.952** (6.125)	13.482** (6.327)	13.360** (6.071)	13.269** (6.333)	7.881 (6.035)
Openness to foreign trade			31.537 (27.350)	34.826 (26.205)	34.406 (25.599)	30.277 (27.275)	31.178 (27.936)	
Population				0.001 (0.001)	0.001 (0.001)			
Territory					3.347*** (1.204)			
Dummy Islamic region						-3.097 (2.665)		
Dummy Northern Caucasus							-0.293 (3.138)	
Fiscal transfers								-9.317** (4.315)
Constant	25.977*** (5.182)	20.833*** (4.845)	18.397*** (6.819)	19.335*** (6.748)	19.266*** (6.377)	20.319*** (7.222)	18.528*** (6.967)	27.230*** (6.947)
Observations	79	79	79	79	79	79	79	79
R-squared	0.479	0.504	0.509	0.523	0.565	0.52	0.509	0.534

Note: see Table 2.

Table A2: Results for dummy FSU border region, additional control variables. Dependent variable: Index of democracy, 2000-2004, OLS

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
EU aid, cumulative	(0.049) -0.269	(0.046) 0.031	(0.042) 0.303	(0.041) 0.104	(0.041) 0.399	(0.043) 0.414	(0.044) 0.389	(0.044) 0.438
Dummy FSU border	(1.379) 0.032	(1.361) 0.02	(1.447) 0.034	(1.450) 0.032	(1.448) 0.023	(1.442) 0.033	(1.455) 0.032	(1.416) 0.009
EU aid * Dummy FSU border	(0.048) -39.667	(0.047) -33.391	(0.043) -34.018	(0.042) -44.599	(0.043) -39.698	(0.043) -31.872	(0.042) -32.096	(0.046) -30.532
Education	(24.848) 0.197	(24.395) 0.244	(24.108) 0.266	(29.053) 0.111	(28.390) -0.154	(24.486) 0.200	(26.637) 0.234	(22.342) 0.018
Income per capita	(0.520) -2.002	(0.468)	(0.434) 1.681	(0.435) 2.046	(0.381) 1.573	(0.442) 1.701	(0.456) 1.656	(0.373) 0.821
Dummy republic	(1.606)	6.143**	(2.760) 8.478	(2.751) 8.612	(2.624) 8.25	(2.780) 6.072	(2.763) 8.002	(2.715) 4.904
Share of ethnic Russians	-0.324*	(3.017) -0.271	(5.406) -0.248	(5.269) -0.123	(5.140) -0.317	(5.694) -0.276	(5.760) -0.245	(5.610) 0.014
Distance from Moscow	(0.188) 0.004	(0.195) 0.004	(0.197) 0.004	(0.214) 0.004	(0.231) 0.001	(0.191) 0.004	(0.196) 0.004	(0.187) 0.003
Oil and gas	(0.003) 17.722**	(0.003) 14.737**	(0.003) 15.897**	(0.003) 15.311**	(0.003) 16.153**	(0.003) 16.026**	(0.003) 15.863**	(0.002) 9.277
Urbanization	(7.870)	(7.314)	(6.944) 48.592	(6.635) 53.523*	(6.723) 51.391*	(6.792) 46.253	(6.923) 47.417	(6.580)
Openness to foreign trade			(29.989)	(28.062) 0.001	(27.544) 0.001	(29.929)	(30.038)	
Population				(0.001)	(0.001) 3.508***			
Territory					(1.303)			
Dummy Islamic region						-3.315 (2.518)		
Dummy Northern Caucasus							-0.756 (2.915)	
Fiscal transfers								-10.916** (4.199)
	23.172***	18.556***	14.828*	15.952**	15.615**	16.817**	15.049*	25.609***
Constant	(5.795) 79	(5.324) 79	(7.679) 79	(7.642) 79	(7.285) 79	(8.003) 79	(7.716) 79	(7.866) 79
Observations	0.45	0.472	0.484	0.498	0.543	0.497	0.485	0.516
R-squared	(0.049)	(0.046)	(0.042)	(0.041)	(0.041)	(0.043)	(0.044)	(0.044)

Note: see Table 2.

Table A3: Results for dummy autocratic FSU border region, additional control variables. Dependent variable: Index of democracy, 2000-2004, OLS

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
EU aid, cumulative	0.124** (0.050)	0.122** (0.047)	0.107** (0.043)	0.105** (0.041)	0.109** (0.042)	0.105** (0.044)	0.106** (0.044)	0.120** (0.044)
Dummy FSU border with autocracies	1.965 (1.587)	1.998 (1.587)	2.247 (1.613)	2.027 (1.618)	2.283 (1.649)	2.137 (1.645)	2.239 (1.629)	2.394 (1.577)
EU aid * Dummy FSU border with autocracies	-0.003 (0.050)	-0.012 (0.049)	0.003 (0.044)	0.003 (0.042)	-0.005 (0.044)	0.006 (0.045)	0.003 (0.045)	-0.021 (0.046)
Education	-39.288 (25.304)	-31.788 (25.107)	-30.772 (24.777)	-41.035 (30.343)	-34.921 (29.729)	-28.584 (25.103)	-29.457 (27.209)	-26.86 (22.864)
Income per capita	0.178 (0.505)	0.218 (0.465)	0.238 (0.421)	0.105 (0.418)	-0.176 (0.363)	0.176 (0.431)	0.218 (0.448)	-0.015 (0.356)
Dummy republic	-1.481 (1.585)		2.336 (2.582)	2.687 (2.595)	2.129 (2.457)	2.258 (2.586)	2.289 (2.589)	1.465 (2.567)
Share of ethnic Russians		5.742* (2.902)	9.052* (4.875)	9.218* (4.772)	8.726* (4.586)	6.698 (5.312)	8.722 (5.542)	5.428 (5.161)
Distance from Moscow	-0.284 (0.186)	-0.237 (0.193)	-0.214 (0.192)	-0.1 (0.209)	-0.303 (0.226)	-0.245 (0.189)	-0.214 (0.193)	0.048 (0.186)
Oil and gas	0.002 (0.003)	0.003 (0.003)	0.003 (0.003)	0.003 (0.003)	-0.001 (0.003)	0.003 (0.003)	0.003 (0.003)	0.001 (0.002)
Urbanization	20.102*** (6.871)	16.170** (6.543)	17.263*** (6.175)	16.851*** (5.967)	17.457*** (6.027)	17.137*** (6.032)	17.156*** (6.192)	10.592* (5.728)
Openness to foreign trade			45.529* (26.941)	50.344* (25.986)	47.918* (25.208)	43.601 (27.417)	44.862 (27.647)	
Population				0.001 (0.001)	0.001 (0.001)			
Territory					3.601** (1.359)			
Dummy Islamic region						-3.094 (2.472)		
Dummy Northern Caucasus							-0.462 (2.843)	
Fiscal transfers								-10.929*** (4.076)
Constant	20.889*** (5.510)	17.285*** (5.124)	12.493* (7.131)	13.462* (7.160)	13.313* (6.745)	14.660* (7.487)	12.726* (7.297)	23.272*** (7.575)
Observations	79	79	79	79	79	79	79	79
R-squared	0.461	0.484	0.499	0.51	0.558	0.511	0.499	0.532

Note: see Table 2.

II. Additional econometric tests: trade with Ukraine and with China

The objective of these tests is to ascertain whether our main result is driven by trade with Ukraine; and whether trade with China affects regional democratic variations. These trade flows are measured as the share of Ukraine (China) in the total trade turnover (export plus import). The regressions are constructed in the following way. In the first three specifications, we use our baseline regression, but also control for trade with Ukraine/ China. Since the data for Ukraine/ China trade come from different time periods, we also need to isolate possible time-specific shocks driving the variation in trade share. We therefore also run a model incorporating dummy variables for the time periods for which trade share was computed: 2000-2004, 2005-2009 and 2010-2012. These variables capture the time-specific effects influencing trade share. Furthermore, we also incorporate variables capturing different sources of data (statistical offices and customs; the remaining sources are used as the baseline category). We do so because different sources can have systematic biases in reported trade flows. We then run three specifications, also controlling for time periods and for sources of data, where trade with FSU states is dropped and only trade with Ukraine/ China is included. Finally, we also run three additional specifications, in which only trade with Ukraine / China is included, as well as an interaction term of the respective shares of trade and EU aid.

As noted in the paper, our main results for trade share with FSU states are confirmed, even after controlling for trade with Ukraine or China. Trade with China has no impact on regional democratic variations in Russia. Trade with Ukraine has a significant and negative impact on sub-national democracy. This is an interesting result, which may be interpreted as follows. First, as noted in the paper, during the period covered in our study, which coincides with the presidency of Leonid Kuchma, Ukraine could not be characterized as having a full-fledged democratic regime. Second, our results may reflect the dominance of oligarchic groups in Ukraine, which played an important role in the country's politics and foreign trade. These oligarchic groups, due to their typically close ties with political leaders, tend to rely on Russian regional administrations to facilitate business transactions in specific regions. Third, and more importantly, some of Russia's regions have particularly intensive trade ties with the more industrialized regions of Eastern Ukraine. These Ukrainian regions, during the period covered in our study, had been characterized by powerful political machines with strong business ties (D'Anieri 2005; Kuzio 2015). Thus, trade with Ukraine appears to be trade with an autocracy if we consider the nature of Ukraine's regional regimes with ties to Russian regions.

Table A4: Results for trade with Ukraine. Dependent variable: Index of democracy, 2000-2004, OLS

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
EU aid, cumulative	0.079* (0.040)	0.076* (0.040)	0.081** (0.040)	0.113*** (0.039)	0.108*** (0.039)	0.110*** (0.040)	0.099** (0.048)	0.096* (0.051)	0.098* (0.049)
FSU trade	-5.941 (3.604)	-6.15 (3.674)	-5.563 (3.636)						
EU aid * FSU trade	0.205** (0.078)	0.196** (0.091)	0.189** (0.091)						
Trade with Ukraine	-9.731** (4.403)	-10.043** (4.890)	-9.749** (4.581)	-12.219*** (3.684)	-13.059*** (3.995)	-12.244*** (3.785)	-12.944*** (3.854)	-13.675*** (4.069)	-12.809*** (3.882)
EU aid * Trade with Ukraine							0.245 (0.506)	0.21 (0.551)	0.202 (0.546)
Education	-30.854 (26.628)	-28.061 (28.754)	-31.584 (27.020)	-33.284 (26.889)	-30.148 (29.159)	-33.599 (27.341)	-33.24 (27.367)	-29.943 (29.609)	-33.633 (27.792)
Income per capita	0.274 (0.556)	0.181 (0.649)	0.407 (0.565)	0.332 (0.567)	0.195 (0.663)	0.464 (0.587)	0.325 (0.585)	0.184 (0.676)	0.465 (0.601)
Share of ethnic Russians	7.008 (5.591)	6.711 (5.961)	6.772 (5.715)	6.593 (5.252)	6.122 (5.655)	6.062 (5.449)	6.442 (5.341)	6.052 (5.730)	5.979 (5.514)
Dummy republic	0.559 (2.686)	0.33 (2.860)	0.186 (2.843)	0.582 (2.749)	0.41 (2.934)	-0.009 (2.918)	0.607 (2.799)	0.454 (2.978)	0.028 (2.964)
Distance from Moscow	-0.619** (0.292)	-0.658** (0.305)	-0.669** (0.305)	-0.493* (0.276)	-0.556* (0.291)	-0.596** (0.286)	-0.507* (0.283)	-0.562* (0.296)	-0.604** (0.291)
Oil and gas	0.082 (0.080)	0.079 (0.087)	0.096 (0.094)	0.085 (0.079)	0.08 (0.085)	0.103 (0.092)	0.084 (0.081)	0.08 (0.086)	0.103 (0.094)
Urbanization	12.421* (6.828)	13.710* (7.271)	11.499 (7.175)	12.671* (6.936)	15.080** (7.418)	12.420* (7.323)	12.918* (7.127)	15.196** (7.544)	12.463 (7.456)
Constant	21.863*** (7.545)	15.972* (8.563)	21.082*** (7.839)	21.083*** (7.553)	15.165* (8.654)	20.014** (7.876)	21.116*** (7.627)	15.146* (8.718)	20.057** (7.944)
Observations	65	65	65	65	65	65	65	65	65
R-squared	0.531	0.542	0.534	0.511	0.524	0.518	0.512	0.525	0.519
Time period dummies		Yes			Yes			Yes	
Source dummies			Yes			Yes			Yes

Note: see Table 2.

Table A5: Results for trade with China. Dependent variable: Index of democracy, 2000-2004, OLS

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
EU aid, cumulative	0.065 (0.048)	0.057 (0.047)	0.065 (0.048)	0.104** (0.045)	0.098** (0.045)	0.101** (0.047)	0.104 (0.079)	0.103 (0.078)	0.109 (0.080)
FSU trade	-8.694** (3.482)	-9.352** (3.492)	-8.521** (3.457)						
EU aid * FSU trade	0.264*** (0.091)	0.271*** (0.097)	0.261** (0.101)						
Trade with China	-1.795 (4.263)	-2.479 (4.528)	-1.96 (4.488)	0.737 (4.252)	0.035 (4.564)	0.043 (4.515)	0.736 (4.271)	0.047 (4.617)	0.05 (4.569)
EU aid * Trade with China							0.002 (0.292)	-0.031 (0.301)	-0.049 (0.312)
Education	-20.622 (26.773)	-20.736 (28.711)	-21.151 (27.602)	-23.967 (27.435)	-24.47 (29.368)	-23.887 (28.154)	-23.982 (27.154)	-24.137 (29.189)	-23.386 (27.949)
Income per capita	1.806* (0.919)	1.830* (0.914)	1.834* (0.946)	2.151** (0.898)	2.171** (0.913)	2.141** (0.914)	2.152** (0.923)	2.146** (0.923)	2.111** (0.941)
Share of ethnic Russians	5.821 (5.894)	5.227 (6.165)	5.633 (6.001)	5.54 (5.496)	4.706 (5.845)	5.017 (5.743)	5.54 (5.548)	4.712 (5.901)	5.015 (5.796)
Dummy republic	-0.419 (2.625)	-0.884 (2.772)	-0.403 (2.703)	-0.041 (2.653)	-0.388 (2.834)	-0.167 (2.793)	-0.04 (2.685)	-0.405 (2.856)	-0.215 (2.804)
Distance from Moscow	-0.748* (0.379)	-0.799** (0.375)	-0.775* (0.386)	-0.705* (0.381)	-0.759* (0.381)	-0.747* (0.389)	-0.706* (0.393)	-0.751* (0.389)	-0.736* (0.401)
Oil and gas	0.04 (0.080)	0.034 (0.088)	0.033 (0.096)	0.042 (0.078)	0.033 (0.085)	0.036 (0.094)	0.042 (0.079)	0.034 (0.084)	0.038 (0.095)
Urbanization	4.047 (7.401)	4.307 (7.980)	4.348 (7.822)	5.058 (7.945)	6.611 (8.639)	6.496 (8.355)	5.062 (7.964)	6.632 (8.732)	6.46 (8.402)
Constant	22.611*** (7.497)	18.357** (8.407)	23.309*** (8.563)	19.512*** (7.305)	15.578* (8.349)	19.985** (8.442)	19.510** (7.394)	15.517* (8.413)	19.969** (8.538)
Observations	64	64	64	64	64	64	64	64	64
R-squared	0.548	0.562	0.549	0.51	0.521	0.514	0.51	0.521	0.515
Time period dummies		Yes			Yes			Yes	
Source dummies			Yes			Yes			Yes

Note: see Table 2.

III. Further robustness checks and econometric concerns

1. We disaggregate the dependent variable, looking at the effect of EU aid and FSU trade on individual components of the democracy index.
2. We employ a number of alternative indicators to explore the EU democratic diffusion effect. In particular, we modify the time frame for measuring EU aid effects and the size of the sample. First, we rerun the baseline specification, excluding regions which received no EU aid over the 1991-2001 period. It is possible that these regions have unobserved characteristics which could bias our results. The interaction effect remains highly significant and keeps the predicted sign. Second, we seek to ensure temporal overlap in our EU data with other time-variant variables and employ an alternative measure of average annual EU aid for the 2000-2004 period. In this alternative specification the interaction term becomes insignificant, although the EU aid variable remains positive and significant. This result may indicate that EU aid counteracts the negative effects of FSU trade on regional democracy only in the long term, through some form of a persistence effect. When we experiment with dropping the regions which received no EU aid in 2000-2004, we find that the interaction term again becomes significant.
3. We use an alternative proxy of EU aid, namely the number of projects implemented by the EU in individual regions. We also look at individual types of projects depending on the project partner and investigate their effect for the aggregate democracy score and for the score's sub-components.
4. In our baseline analysis, we assumed that FSU trade ties may have an over-time constraining effect on democracy in Russia's regions. However, this assumption may be considered simplistic. In some cases, large volumes of FSU trade may reflect short-term trends—for instance, favorable market conditions for particular goods in specific years—rather than long-term trade interdependencies. We therefore compute a coefficient of variation of the annual share of FSU trade in regional GDP in 2000-2004. This variable shows the extent of year-to-year fluctuations in FSU trade relative to average FSU trade volumes. If this variable is large, it means that the contribution of FSU trade to regional GDP varies substantially from year to year. If it is small, we conclude that its contribution to regional GDP is relatively constant. (We examine the coefficient of variation since we need to normalize the standard deviation of FSU trade contribution to GDP; otherwise, we will encounter the issue of regions with larger FSU trade also, by definition, having larger trade variation in absolute terms).
Thus, for small coefficients of variation, FSU trade may be more likely to constitute a factor conducive in the longer term to the development of authoritarian tendencies in Russia's regions. To deal with this problem, we split the regions into two groups with high and low coefficients of variation (we use mean and median values as cutoffs) and replicate the regressions for each of these groups. If we split the sample according to the mean, the interaction term is insignificant in both the sub-samples. However, when we split the sample along the median, the interaction term is significant and positive in the sub-sample with low variation of EU aid. Thus, we show that EU aid indeed mitigates the negative impact of FSU trade on democracy in the sub-sample in which FSU trade exhibits smaller variation, that is, where FSU trade is more likely to have a facilitating effect on regional authoritarianism.
5. We also need to address various endogeneity concerns. To begin with, reverse causality may be potentially at work. If that were the case, it would be the specific nature of regional political regimes, which attracts EU aid and FSU trade, rather than EU aid and FSU trade influencing regional regimes. In order to address this problem, we replace the key explanatory variables by their lags. For EU aid, we employ data for 1991-1999; for FSU trade we employ data for 1997 (the earliest period available); we also drop the region of Buriatia, which in 1997 experienced a surprising jump in FSU trade to the level of 66 percent of total trade turnover, while already in 1998 the region's FSU trade levels went down to 14 percent and subsequently remained less than 10 percent, in 1999-2004. The results are confirmed.
A further area of concern is that regions with more FSU trade may be those less likely to attract or, or be interested in attracting, EU aid. The correlation coefficient between our variables measuring FSU trade share and EU aid is minus 0.0366, which makes a relation between these two characteristics insignificant. However, as a further robustness check, we also run a cross-sectional time-series regression, where EU aid (annual inflow) is regressed on FSU trade for the 1997-2004 period. We run several specifications: simple pooled OLS regression, where contemporaneous EU aid is regressed on FSU trade; pooled OLS, where EU aid in year t is regressed on lagged FSU trade in year $t-1$; similar regressions excluding Buriatia; and regressions using region fixed effects. We do not find a significant effect of FSU trade, contemporaneous or lagged, on EU aid.
6. In the baseline specifications, we employ the measure of average income per capita for 2000-2004 obtained by simple averaging of annual nominal income levels. Considering that in 2000-2004, Russia experienced rapid economic growth, accompanied by high inflation, we also use an alternative variable: we compute the average income for 2000-2004 averaging annual income levels in constant for prices in the year 2000 (and employ the

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CPI inflation indicator published by *Nezavisimaya Finansovaya Ekspertiza* for this purpose). The results do not change as well.

Table A6: Results for individual components of the democracy index

	EU aid		FSU trade		EU aid * FSU trade	
	beta	s.e.	beta	s.e.	beta	s.e.
Openness	0.014**	(0.006)	-0.131	(0.514)	0.003	(0.013)
Elections	0.009*	(0.005)	-0.295	(0.658)	0.018	(0.013)
Pluralism	0.003	(0.006)	-0.667	(0.481)	0.032**	(0.012)
Media	0.016***	(0.005)	-0.834*	(0.456)	-0.01	(0.013)
Economic liberalization	0.001	(0.005)	-0.965*	(0.559)	0.035***	(0.011)
Civil society	0.015***	(0.005)	-0.938**	(0.422)	0.016*	(0.009)
Political organization	0.018***	(0.004)	-0.628*	(0.335)	0.000	(0.007)
Elites	-0.006	(0.005)	-1.472***	(0.403)	0.083***	(0.009)
Corruption	0.009*	(0.005)	-0.790*	(0.463)	-0.002	(0.011)
Municipal autonomy	0.003	(0.007)	-0.694	(0.451)	0.026*	(0.014)

Note: See Table 2. All the control variables of specification 2, Table 2 are included. We also control for openness to foreign trade.

Table A7: Alternative estimates and robustness checks. Dependent variable: Democracy index, 2000-2004

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
EU aid, cumulative	0.081*							
	(0.044)							
EU aid * FSU trade	0.247***							
	(0.081)							
EU aid, 2000-2004		3.055***	2.140*					
		(0.843)	(1.176)					
EU aid, 2000-2004 * FSU trade		2.093	5.656**					
		(1.907)	(2.554)					
EU projects				0.032*				
				(0.018)				
EU projects * FSU trade				0.363***				
				(0.077)				
EU projects with NGOs					0.260*			
					(0.134)			
EU projects with NGOs * FSU trade					0.834***			
					(0.277)			
EU projects with regional government						0.084		
						(0.087)		
EU projects with regional government * FSU trade						1.920***		
						(0.446)		
EU projects with federal government							-0.023	
							(0.716)	
EU projects with federal government * FSU trade							6.062	
							(4.213)	
EU projects with local government								0.28
								(0.184)
EU projects with local government * FSU trade								3.892
								(4.662)
FSU trade share	-11.169***	-6.612**	-13.409***	-11.386***	-7.214**	-7.814**	-6.318*	-5.318
	(2.839)	(2.735)	(3.438)	(2.666)	(3.074)	(2.955)	(3.252)	(3.434)
Education	-43.494	-19.077	-42.62	-57.767*	-29.032	-24.503	-17.377	-4.186
	(33.704)	(17.486)	(28.374)	(30.372)	(22.788)	(20.954)	(25.240)	(20.959)
Income per capita	0.31	-0.193	0.014	0.706	0.3	0.342	-0.205	0.214
	(0.509)	(0.386)	(0.485)	(0.462)	(0.432)	(0.441)	(0.532)	(0.472)
Share of ethnic Russians	9.981	5.588	1.579	7.858	8.596	9.036*	8.68	8.203
	(8.050)	(4.591)	(9.575)	(7.917)	(5.420)	(5.191)	(5.675)	(5.116)
Dummy republic	2.065	-0.858	-0.997	0.841	1.471	1.292	1.37	0.677
	(2.572)	(1.987)	(3.243)	(2.787)	(2.640)	(2.552)	(2.898)	(2.412)
Distance from Moscow	-0.3	-0.237	-0.272	-0.275	-0.491**	-0.478**	-0.312	-0.361*
	(0.359)	(0.210)	(0.372)	(0.297)	(0.205)	(0.201)	(0.270)	(0.213)
Oil and gas	0.003	0.007***	-0.006	0	0.003	0.003	0.005	0.004
	(0.003)	(0.002)	(0.131)	(0.003)	(0.002)	(0.002)	(0.003)	(0.003)
Urbanization	11.097*	12.287*	13.572	11.963*	15.072**	13.094**	17.732**	14.004*
	(6.396)	(6.344)	(8.397)	(6.455)	(6.753)	(6.452)	(6.904)	(7.496)
Openness to foreign trade	31.404	-30.254	-10.756	41.950*	51.618*	27.604	54.102	-26.624
	(23.065)	(42.906)	(53.018)	(24.562)	(26.702)	(32.886)	(39.024)	(45.982)
Constant	21.462**	20.752***	28.521**	23.252**	16.540**	16.899**	14.005*	14.154**
	(9.632)	(5.693)	(11.426)	(9.457)	(6.811)	(6.595)	(7.524)	(6.129)
Observations	59	79	46	65	79	79	79	79
R-squared	0.465	0.586	0.559	0.499	0.503	0.524	0.444	0.47
Regions with zero EU aid included	No	Yes	No	Yes	Yes	Yes	Yes	Yes

Note: see Table 2.

Table A8: The effects of various types of EU projects on key dimensions of democracy

	EU projects		FSU trade		EU projects * FSU trade	
	beta	s.e.	beta	s.e.	beta	s.e.
Civil society						
Projects with NGOs	0.049***	(0.015)	-0.862*	(0.442)	0.059*	(0.033)
Projects with regional government	0.016*	(0.009)	-1.022**	(0.428)	0.234***	(0.060)
Projects with federal government	-0.032	(0.098)	-0.896**	(0.448)	0.835	(0.560)
Projects with local government	0.029	(0.027)	-0.661	(0.440)	0.252	(0.676)
Municipal autonomy						
Projects with NGOs	-0.005	(0.019)	-0.705	(0.453)	0.114***	(0.038)
Projects with regional government	0.000	(0.015)	-0.685	(0.453)	0.164***	(0.056)
Projects with federal government	-0.042	(0.084)	-0.682	(0.470)	0.973*	(0.501)
Projects with local government	0.040*	(0.023)	-0.395	(0.477)	0.303	(0.463)
Composition of elites						
Projects with NGOs	-0.021	(0.017)	-1.397***	(0.426)	0.295***	(0.036)
Projects with regional government	-0.023**	(0.010)	-1.417***	(0.427)	0.414***	(0.059)
Projects with federal government	-0.271***	(0.098)	-1.342***	(0.370)	2.347***	(0.565)
Projects with local government	-0.004	(0.027)	-0.835	(0.577)	0.658	(0.723)

Note: See Table 2. All of the Table A7 control variables are included.

Table A9: The effects for sub-samples with high and with low coefficient of variation of the share of FSU trade in regional GDP. Dependent variable: Democracy index, 2000-2004

Coefficient of variation	Above the mean	Below the mean	Above the median	Below the median
EU aid, cumulative	0.363*** (0.069)	0.077 (0.057)	0.252*** (0.065)	0.003 (0.072)
FSU trade	-3.008 (6.600)	-6.498* (3.492)	-6.381 (6.138)	-4.921 (4.714)
EU aid * FSU trade	0.142 (0.809)	0.155 (0.102)	-0.161 (0.875)	0.355** (0.143)

Note: See Table 2. All the control variables of specification 2, Table 2 are included.

Table A10: The effects of lagged explanatory variables. Dependent variable: Democracy index, 2000-2004

	(1)
EU aid, cumulative, 1991-1999	0.078 (0.055)
FSU trade, 1997	-6.587* (3.882)
EU aid * FSU trade	0.242* (0.134)
Education	-25.384 (25.726)
Income per capita	0.169 (0.456)
Share of ethnic Russians	7.73 (5.640)
Dummy republic	0.9 (2.784)
Distance from Moscow	-0.465** (0.211)
Oil and gas	0.004 (0.002)
Urbanization	15.616** (7.248)
Constant	17.471** (6.765)
Observations	78
R-squared	0.459

Note: See Table 2. Buriatia is excluded. For Pskov, we assume that in the years for which the information on EU aid is missing, the region received no EU assistance.

Table A11: Effect of FSU trade on EU aid, 1997-2004, panel data

	(1)	(2)	(3)	(4)	(5)	(6)
FSU trade	-0.254 (0.471)		-0.249 (0.478)		-0.277 (0.786)	
Lagged FSU trade		-0.618 (0.383)		-0.609 (0.390)		-0.672 (0.685)
Constant	0.723*** (0.121)	0.750*** (0.124)	0.726*** (0.123)	0.752*** (0.126)	0.727*** (0.149)	0.761*** (0.128)
Observations	632	553	624	546	632	553
Buriatia excluded			Yes	Yes		
Region fixed effects					Yes	Yes

Note: see Table 2. For Pskov, we assume that in the years for which the information on EU aid is missing, the region received no EU assistance.

Table A12: The effects of computing average income per capita in constant prices. Dependent variable: Democracy index, 2000-2004

	(2)
EU aid, cumulative, 1991-2004	0.091** (0.044)
FSU trade, 2000-2004	-8.095*** (2.964)
EU aid * FSU trade	0.187** (0.084)
Education	-27.500 (23.631)
Income per capita, constant prices	0.181 (0.576)
Share of ethnic Russians	8.329 (5.050)
Dummy republic	0.921 (2.377)
Distance from Moscow	-0.432** (0.211)
Oil and gas	0.005* (0.002)
Urbanization, latest Rosstat report	12.923** (6.381)
Constant	19.193*** (6.415)
Observations	79
R-squared	0.505

Note: See Table 2.

IV. Data**Key variables**

Region	Share of FSU trade, %	Democracy score	EU aid, millions of EUR
Adygeia	5.785%	23	0
Altai (Krai)	67.954%	27	10.3526
Altai (Republic)	9.622%	27	0.838992
Amur	1.140%	26	0
Arkhangelsk	4.631%	37	12.0943
Astrakhan	23.455%	27	2
Bashkortostan	14.259%	18	0.147194
Belgorod	60.136%	25	0.256843
Briansk	53.538%	28	3.2
Buriatia	5.437%	30	3.01624
Cheliabinsk	29.965%	36	6.78807
Chita	1.419%	26	0
Chukotka	0.476%	20	0
Chuvashia	20.317%	33	0.453293
Dagestan	37.988%	25	0
Evreyskaia AO	2.698%	23	0
Ingushetia	1.188%	17	0
Irkutsk	5.530%	36	4.08083
Ivanovo	61.544%	27	7.0975
Kabardino-Balkaria	33.755%	17	0.19
Kaliningrad	2.342%	35	37.6907
Kalmykia	16.681%	20	0
Kaluga	31.534%	31	2
Kamchatka	0.477%	29	0
Karachaevo-Cherkessia	51.397%	23	0
Karelia	1.900%	41	44.7569
Kemerovo	15.106%	25	28.7196
Khabarovski	0.474%	25	0.970264
Khakassia	23.525%	23	0
Kirov	10.460%	28	0.1278
Komi	7.218%	36	10.4648
Kostroma	11.346%	30	0.516018
Krasnodar	9.551%	27	0.017
Krasnoiarsk	6.847%	41	6.76223
Kurgan	63.312%	24	0.0835
Kursk	59.355%	22	2.32811
Leningradskaia	2.577%	35	24.3018
Lipetsk	6.725%	26	0.54587
Magadan	0.890%	29	0
Mariy El	13.281%	27	0.721944
Mordovia	36.491%	20	0
Moscow (City)	8.941%	31	45.0068

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Moscow (Oblast)	18.952%	35	10.2401
Murmansk	1.195%	31	16.5375
Nizhny Novgorod	25.584%	41	28.3659
Northern Ossetia	23.778%	19	0
Novgorod	5.209%	35	6.70277
Novosibirsk	56.570%	39	72.6859
Omsk	29.149%	29	6.69884
Orel	25.429%	24	0.517
Orenburg	28.429%	30	0.03466
Penza	29.750%	27	0.276948
Perm	10.153%	41	12.4919
Primorski	0.627%	28	0.294035
Pskov	3.689%	34	8.34998
Riazan	9.316%	28	0.253
Rostov	36.802%	26	4.15035
Sakha	1.059%	28	0
Sakhalin	0.608%	33	0
Samara	11.300%	42	0.571597
Saratov	11.856%	26	8.00256
Smolensk	7.229%	27	0
St. Petersburg	6.303%	41	138.219
Stavropol	15.750%	27	0.2
Sverdlovskiaia	16.442%	45	25.5336
Tambov	34.452%	28	0
Tatarstan	15.823%	23	2.51454
Tiumen	7.062%	34	0.213968
Tomsk	14.045%	30	3.89972
Tula	12.297%	28	0.99986
Tver	27.096%	30	0.695
Tyva	0.304%	17	0
Udmurtia	16.441%	30	2.1702
Ulianovsk	30.724%	25	0.08884
Vladimir	30.121%	34	4.28
Volgograd	20.784%	32	0
Vologda	4.236%	29	6.94876
Voronezh	35.863%	29	0.7
Yaroslavl	16.106%	31	6.23935

Composition of the Petrov/ Titkov index of regional democracy. (Data and discussion of the indices are available from: *Sotsial'nyy atlas rossiyskikh regionov: Integral'nye indeksy* http://atlas.socpol.ru/indexes/index_democr.shtml#methods).

- Regional political organization: balance of powers between the executive and the legislative branches, independence of the courts and of law enforcement agencies, violations of citizens' rights.
- Openness of regional political life: transparency of politics, barriers between regional and national politics.
- Democratic nature of elections at all levels: free and fair elections, electoral competition, manipulations and restrictions on active and passive electoral rights.
- Political pluralism: stable party system, representation of parties in the regional parliaments, presence of political coalitions.
- Independence of mass media.
- Corruption: link between economic and political elites, corruption scandals.
- Economic liberalization: regional law and law enforcement, conflicts regarding property rights.
- Civil society: freedom of NGOs, referenda, public protest activity.
- Elites: composition of elites, mechanisms of rotation of leaders, pluralism of elites.
- Municipal autonomy: presence of elected municipal government institutions, their influence.

Trade with Ukraine and with China**Remarks on data collection**

- We screened all the websites of regional statistical offices, customs offices and regional governments. We also browsed through a large number of additional relevant publications. A study by the Eurasian Development bank on cross-border cooperation between Ukraine and Russia was a particularly useful source (EDB 2013).
- We extract the relevant data for the period as close to the timeframe of our investigation as possible. Unfortunately, data across different time periods and regions are often inconsistent. Sometimes we had to use data from as late as 2012; for some regions, only data for 2014 are available, but we do not use them, since trade with Ukraine in this period was already affected by the Crimea and Donbass conflicts.
- For fourteen regions, we could not find any data. Are these regions significantly different from those that do report data on trade? To answer this question, we performed a simple two-way means comparison of the key variables for the sub-sample of regions, which reported trade with Ukraine, and those which did not. We find no significant difference in terms of FSU trade between these two groups. The difference in the means of EU aid is also insignificant (t-tailed test; it is marginally significant at the 10 percent level in the one-tailed test, with regions reporting trade with Ukraine receiving more aid). Furthermore, regions reporting no trade data for Ukraine are significantly less democratic. Thus, this appear to be regions, which receive less EU aid, have similar levels of exposure to FSU trade, and are less democratic than regions in the rest of the sample. This combination is in line with our theoretical reasoning. We conclude therefore that our results are unlikely to be driven by selection bias.
- Note that the value of share of trade with Ukraine in regional trade volume for some regions may exceed the share of trade with FSU used in the baseline specification. This is because data are extracted for different time periods.

Region	Share of trade with Ukraine	Share of trade with China	Period	Source
Adygeia				
Altai (Krai)	8%	22%	2012	Customs
Altai (Republic)	1%	10%	2012	Customs
Amur	0%	82%	2005	Regional statistical committee
Arkhangelsk	4%	23%	2006	Regional government
Astrakhan				
Bashkortostan				
Belgorod	61%	0%	2000	Regional statistical committee
Briansk	38%		2007	EDB (2013)
Buriatia	7%	31%	2012	Customs
Cheliabinsk	4%	15%	2003, 2004	Statistical office
Chita	0%	79%	2012	Customs
Chukotka				
Chuvashia	5%	1%	2000	Regional statistical committee
Dagestan	3%	20%	2005	Regional statistical committee
Evreyskaia AO	2%	65%	2000, 2004	Regional statistical committee
Ingushetia	40%	35%	2011	Customs
Irkutsk	1%	31%	2012	Customs
Ivanovo	13%	1%	2005	Regional statistical committee
Kabardino-Balkaria				
Kaliningrad	2%	8%	2009	Regional statistical committee
Kalmykia	11%	0%	2000	Regional statistical committee
Kaluga	7%	1%	2007	Regional statistical committee
Kamchatka				

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Karachaevo-Cherkessia				
Karelia	2%	2%	2005	Regional statistical committee
Kemerovo	9%	8%	2005	Regional statistical committee
Khabarovsk		53%	2006	Interregional Association of Eastern and Trans-Baikal Regions
Khakassia	13%	5%	2011	Customs
Kirov	5%	8%	2004	Regional statistical committee
Komi	1%	1%	2000	Regional statistical committee
Kostroma	4%	1%	2000, 2002, 2003, 2004	Regional statistical committee
Krasnodar	6%		2007	Regional government
Krasnooiarsk	1%	10%	2012	Customs
Kurgan	2%	4%	2009	Regional statistical committee
Kursk	48%	2%	2000, 2001, 2002, 2003, 2004	Regional statistical committee
Leningradskaia	2%	1%	2005	Regional statistical committee
Lipetsk	3%	0%	2000	Regional statistical committee
Magadan	1%	2%	2000	Regional statistical committee
Mariy El	5%	6%	2005	Regional statistical committee
Mordovia	4%	1%	2005	Regional statistical committee
Moscow (City)	8%		2000	Libman (2013)
Moscow (Oblast)	7%	9%	2009	Regional statistical committee
Murmansk	1%	0%	2000	Regional statistical committee
Nizhny Novgorod	18%	4%	2007	Regional statistical committee
Northern Ossetia	6%	0%	2005	Regional statistical committee
Novgorod	4%	3%	2000	Regional statistical committee
Novosibirsk	15%	33%	2012	Customs
Omsk	8%	10%	2012	Customs
Orel				
Orenburg	4%	2%	2010	Regional government
Penza	7%	0%	2000	Regional statistical committee (only export)
Perm	2%	11%	2000	Regional statistical committee
Primorsky		46%	2011	Regional government
Pskov	1%	16%	2010	Customs
Riazan	7%	4%	2000	Regional statistical committee
Rostov	29%	10%	2010	Regional statistical committee
Sakha				
Sakhalin	0%	10%	2009	Regional statistical committee
Samara	5%	15%	2003, 2004	Regional statistical committee
Saratov	8%	4%	2013	Customs
Smolensk	3%	2%	2005	Regional statistical committee
St. Petersburg	3%	15%	2005	Regional statistical committee
Stavropol	6%	2%	2000, 2003, 2004	Regional statistical committee
Sverdlovskiaia	2%	4%	2006	Regional statistical committee
Tambov				
Tatarstan	18%	1%	2005	Regional statistical committee

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Tiumen				
Tomsk	1%	14%	2012	Regional statistical committee
Tula				
Tver	10%	16%	2010	Regional statistical committee
Tyva	6%	81%	2012	Customs
Udmurtia	35%	1%	2004 (China); 2011 (Ukraine)	Regional statistical committee (China); Customs (Ukraine)
Ulianovsk	21%	1%	2003, 2004	Regional statistical committee
Vladimir	10%	3%	2005	Regional statistical committee
Volgograd	14%	1%	2008	Regional statistical committee
Vologda	5%	2%	2010	Customs
Voronezh	38%	13%	2000	Regional statistical committee
Yaroslavl	10%	4%	2009	Regional statistical committee

Note: Additional sources cited in this table are: EDB (2013) *Prigranichnoe Sotrudnichestvo Regionov Rossii, Belarussii i Ukrainy*. EDB Center for Integration Studies Report No. 17, St. Petersburg; Libman, A. (2013) 'Komplementarnost' Ekonomiki Rossii i Ukrainy: Regional'nyi Aspekt.' *Vestnik Instituta Ekonomiki Rossiyskoy Akademii Nauk*, Issue 3.

Summary statistics

Variable	No. Obs.	Mean	St. dev.	Min	Max
Democracy index	79	29.013	6.285	17.000	45.000
Distance from Moscow	79	2.367	2.748	0.000	11.876
Dummy autocratic FSU border	79	0.203	0.404	0.000	1.000
Dummy FSU border	79	0.316	0.468	0.000	1.000
Dummy Islamic region	79	0.089	0.286	0.000	1.000
Dummy Northern Caucasus	79	0.076	0.267	0.000	1.000
Dummy republic	79	0.253	0.438	0.000	1.000
Education	79	0.172	0.036	0.112	0.360
EU aid	79	7.904	19.362	0.000	138.220
EU aid, 1991-1999	79	5.314	15.528	0.000	117.095
EU projects	65	19.031	38.650	1.000	289.000
EU projects with federal government	79	0.759	2.132	0.000	15.000
EU projects with local governments	79	1.519	4.621	0.000	25.000
EU projects with NGOs	79	1.734	4.963	0.000	39.000
EU projects with regional government	79	3.089	8.391	0.000	62.000
Fiscal transfers	79	0.274	0.185	0.011	0.791
Income per capita	79	3.473	1.948	1.134	14.813
Oil and gas	79	15.976	114.599	0.000	1019.120
Openness to foreign trade	79	0.014	0.014	0.001	0.109
Population	79	1820.562	1619.616	53.600	10313.800
Share of agricultural products in foreign trade	79	0.120	0.132	0.000	0.703
Share of China trade	64	0.135	0.200	0.000	0.815
Share of energy in foreign trade	79	0.191	0.241	0.000	0.960
Share of ethnic Russians	79	0.769	0.238	0.012	0.966
Share of FSU trade	79	0.185	0.176	0.003	0.680
Share of FSU trade, 1997	79	0.209	0.163	0.000	0.795

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Share of machinery in foreign trade	79	0.222	0.143	0.013	0.716
Share of metals in foreign trade	79	0.135	0.186	0.001	0.815
Share of petrochemistry in foreign trade	79	0.128	0.123	0.005	0.603
Share of Ukraine trade	65	0.097	0.124	0.000	0.614
Share of wood products in foreign trade	79	0.077	0.126	0.000	0.584
Territory	79	0.216	0.470	0.000	3.103
Urbanization	79	0.691	0.129	0.261	1.000

Note: Shares measured between 0 and 1. For the computation of the share of machinery in foreign trade for Adygeia, data for 2003 are not employed, since there appears to be an erroneous entry in the Rosstat data, suggesting that trade in machinery far exceeds the overall foreign trade of Adygeia. Oil and gas extraction in coal equivalents.

V. Average democracy scores of FSU states, Freedom House and Polity IV, 2000-2004

Country	Freedom House (political rights)	Polity IV
Armenia	4.0	5.0
Azerbaijan	6.2	-7.0
Belarus	7.0	-7.0
Georgia	3.8	5.4
Kazakhstan	6.0	-5.2
Kyrgyz Republic	6.0	-3.0
Moldova	2.6	7.8
Russia	5.2	6.0
Tajikistan	6.0	-1.8
Turkmenistan	7.0	-9.0
Ukraine	4.0	6.0
Uzbekistan	7.0	-9.0

Note: The Polity IV scores range from -10 to 10, with 10 assigned to countries with the highest level of democracy. The Freedom House scores range from 1 to 7, with 1 being the highest level of democracy.

Title Page

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