

Should Market Liberalization Precede Democracy?

The Citizens' Point of View

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Abstract

This paper is dedicated to the relationship between market development and democracy. Hinging on a new survey (Life In Transition Survey) conducted in 2006 by the European Bank for Reconstruction and Development and the World Bank in 28 post-transition countries, our identification strategy consists of relying on the specific situation of frontier-zones. We distinguish contexts and preferences and find that democracy enhances the support for market development whereas the reverse is not true. Hence, the relativist argument according to which the demand for democracy is an endogenous by-product of market development is not supported by our data.

Keywords: market and democracy, sequencing of development, transition economies, attitudinal variables, cross-countries survey.

JEL Codes: H1, H5, P2, P3, P5, O1, O12, O57.

Introduction

One of the unexpected side-effects of China's spectacular emergence is the diffusion of a new conventional wisdom concerning the sequencing of political and economic reforms in developing countries. Essentially, the idea is that democratization in the early stages of a country's economic development can be harmful. The continued hold of the Chinese Communist Party over political power is taken to be a positive ingredient in the construction of a viable market economy, as opposed to the erratic reform path experienced by central and eastern European countries of the former socialist bloc, which predominantly chose rapid economic and political liberalization in the 1990's (Dewatripont and Roland, 1992; Godoy and Stiglitz, 2006; Roland and Verdier, 2003). Another example is Latin America, where pervasive economic crises seem to illustrate the danger that democracy can be an obstacle to the development of the market when leaders have to impose unpopular reforms while being responsible in front of their constituencies. It follows that the optimal route is to develop market institutions in a first stage of development, and consider democratization at a later stage.

Pushing the argument one step further, some authors have argued that the desire for political freedom and democratic institutions does not arise until countries reach a certain degree of material comfort and market liberalization (Lipset, 1959; Miller et al., 1994, 1996). Hence, the argument goes, not only is it preferable to postpone democracy until advanced stages of a country's economic development, but this sequence also meets citizens' preferences.

Some observers may find it difficult to reconcile this relativist statement with the recent vivid public demonstrations in favor of democratization in countries of the Commonwealth of Independent States (CIS), e.g. Belarus, Georgia, Ukraine, and in China. In terms of scientific evidence, the empirical literature devoted to the relationship between market and democracy remains rather inconclusive. Most studies are unable to draw a clear direction of causality because of the interdependent dynamics followed by the two variables along the history of any given country. Hence, in spite of the strong vitality of this research field, the scientific consensus on these issues is still in the making.

This paper tries to contribute to the understanding of the relationship between political preferences and development. It exploits a new set of micro evidence from an original survey of 28 transition economies, the *Life in Transition Survey*, which was implemented in the summer of 2006 (see EBRD, 2007).

We first try to isolate the causal relationship that runs from actual democratization to the demand for market liberalization. Our empirical identification strategy relies on the specificities of frontier-zones. Our main assumption is that people who live in an integrated frontier-zone share the same experience of the market and, often, the same historically inherited “cultural attitudes” towards the market and democracy, on both sides of the frontier. This is particularly plausible for the often artificial frontiers of the former USSR and for some formerly integrated regions such as the Ottoman Empire or the Austro-Hungarian Empire. This assumption is tantamount to keeping constant the usually omitted variables that bias estimations of the relationship between market development and the support for democracy.

Reciprocally, we try to assess the relationship that runs from actual market development to popular demand for democracy. Here, we exploit within-country regional variations. We rely on the fact that the degree of market development is heterogeneous across different regions of the countries included in the survey; whereas people who live in the same country share a common experience of democracy. We build an index of regional market development, reflecting the share of the modern sector of the economy, composed of private and smaller size firms. We then compare the support for democracy in the various frontier-zones inside a given country, on the grounds that market development at borders is partly exogenous, as it is influenced by that of the neighboring region.

The main result of this paper is that democracy appears to generate some popular support for the market, while economic liberalization does not clearly enhance support for democracy. To be sure, this finding only suggests that democracy increases subjective support for the market; it does not mean that democracy does not complicate the task of reformers, with the risk of impeding market liberalization. Our results also cast doubt on the idea that democracy would naturally emerge as a by-product of capitalism (Schumpeter, 1942). Even if the demand for democracy increases with individual income, market liberalization as such does not seem to be sufficient to trigger the demand for democracy. A minima, the take-home message of this paper is that one cannot advocate the preferences of citizens to postpone the construction of democratic institutions.

Section I discusses the background literature in the reciprocal linkages between economic and political liberalization. Section II presents the identification strategies for each direction of the relationship between democratization and market liberalization. Section III presents the data and Section IV discusses the results. Section V concludes.

I. Background

The conventional wisdom concerning the linkages between political and economic systems has considerably changed over time. While the early 19th century was predominantly skeptical about the compatibility between democracy and capitalism (see K. Marx, 1867 or J.S. Mill, 1860), the consensus today is that development leads to both a market economy and political democracy¹ with anteriority of the market. The idea that “modern democracy is a by-product of the capitalist process” (Schumpeter, 1942) dates back to de Tocqueville (1839), who stressed that market development is conducive to democracy because it provides the “social space within which individuals, groups and entire institutional complexes can develop independent of state control”. Lipset (1959) further claims that: “industrialization, urbanization, high educational standards and a steady increase in the overall wealth of society [are] basic conditions sustaining democracy”.

Historically, market economies have existed in the contexts of democracy and autocratic regimes, but there is no example of a socialist economy within a democratic regime. This observation lies at the foundation of a certain “instrumental” view of political regimes. In the context of the political economy of transition (Aslund et al., 2001; Dewatripont and Roland, 1992; Roland, 2001; Roland and Verdier, 2003), researchers have focused on the question of how to overcome political opposition to reforms, and in particular opposition to economic liberalization. This literature discusses the relative pros and cons of democracy versus authoritarianism from the point of view of facilitating economic reforms and growth; it thus focuses on the causality that runs from the political regime to the development of the market.

Beyond these theoretical models, what can we learn from empirical studies? To date, the existing empirical literature does not offer clear-cut results.

A series of papers have tried to capture the relationship between democracy and economic growth. In 1993, Przeworski and Limongi (1993) in a meta-analysis, concluded that the evidence was not univocal (see also, among many, Barro, 1996; Burkhart and Lewis-Beck, 1994; Hellwig, 1994; Leblang, 1997; Przeworski, 2004). As pointed out by Persson and Tabellini (2007b), “the findings are, essentially, all over the place”. The study of the reverse causality (from economic development to democracy) is similarly unconvincing. Cross-section correlations between democracy and indicators of development, such as education or income, are likely to be due to an omitted variable bias (Acemoglu et al., 2005a, 2005b). This omitted variable can namely consist of the initial institutions that have presided over the country’s development (Acemoglu et al., 2001). Some authors have tried to overcome this obstacle using matching, propensity scores and differences in differences methods, exploiting both the cross-country and time series variations in aggregate panel datasets. Giavazzi and Tabellini (2005), Persson and Tabellini (2006, 2007a, 2007b) and Rodrick

and Wacziarg (2005) find a positive relationship between democratic regimes and growth.

Few papers address directly the question of the interplay between democratization and economic liberalization using aggregate data. Fidrmuc (2003), in the case of 25 transition economies, find that democracy facilitates economic liberalization. The author rules out the reverse causality issue, on the grounds that democratization largely precedes the resumption of growth in post-communist countries, but does not address the omitted variable issue that could bias his result. Giavazzi and Tabellini (2005) find that both kinds of reforms have mutual feedbacks on one another, and that causality is more likely to run from democratization to economic liberalization, although feedback effects going in both directions cannot completely be ruled out².

Another set of studies has focused on the support for democracy and market economy based on individual data. Again, conclusions regarding the direction of causality are “all over the place”. Based on survey data, most studies related to central and eastern Europe, with the exception of Finifter and Mickiewicz (1992), confirm the prediction that individuals who support a free market economy are more likely to embrace democratic principles. Concerning the reverse causality, Hayo (2004) and Fidrmuc (2003), using respectively survey and election data, find a positive effect of democratization on the support for the market reforms. However, studies based on individual data are also exposed to an identification problem. This is contained in the very idea of the modernization theory (Lipset, 1959) that the same development dynamics favor both democracy and market development. Assessing the direction of causality between the advancement of economic freedom and the degree of political freedom appears to be an almost impossible exercise in the absence of a valid exogenous instrument, which needs to be traced back as far as legal or colonial origins (Acemoglu et al., 2001).

In this paper, we try to overcome this simultaneity bias. We do not pretend to explain the long run causality between democracy and market development; instead we restrict our interest to the causality running from the state of market development to the demand for democracy, and, conversely, from political democracy to the support for the market. We ask whether the demand for democracy only emerges after a certain degree of market development is reached, and whether, conversely, democratization is more likely to be an obstacle or an ingredient to citizens’ support for market liberalization.

II. Identification strategy

In order to discern the direction of causality between market and democracy, one should ideally rely on a situation in which one variable is exogenously “frozen” while the other randomly takes different values across countries. Of course, in the real world there are many reasons why this ideal setting could never exist. On the contrary, market liberalization and democracy are processes that follow highly intertwined dynamic evolutions and depend on countries’ historical background.

Even in the case of transition countries, where democracy and the market have both been abolished by the communist experience for at least half a century, these institutions have evolved in parallel since 1989, probably under the influence of common factors. As an illustration, Figure 1 shows the strong general cross-country relationship between the average support for the market and the average support for democracy in the 28 countries covered by the *Life in Transition Survey (LITS)*. Regional differences are also visible. In particular, countries of central and eastern Europe and the Baltic states, which are the closest both to a free market and to a full-blown democracy, are the most supportive of the two processes.

Figure 1 about here

Obviously, using the pooled cross-section data of LITS and running a naive regression of support for democracy on an index of market development, or of support for the market on a democratic index, would come across serious identification problems. The relationship put in evidence would not readily be interpretable in terms of causality because of the influence of omitted variables affecting both market development and democracy. We propose two different identification strategies in order to isolate the direction of causality from market development to the support for democracy and vice-versa.

A. *Democracy and demand for the market*

The first question that we wish to address is whether a higher degree of democracy is more likely to be a positive or a negative ingredient in the support for market development. To address this question, one needs to overcome the problem that subjective support for the market may be due both to the degree of democracy and to the degree of market development itself, both variables being likely to develop at a parallel pace. More generally, it can be suspected that common “cultural factors” influence the national attitudes towards both the market and democracy.

In other words, one would like to estimate the naive equation (1), regressing the support for the market of individual i in country j on the degree of democracy in country j :

$$\text{Support for market}_{ij} = a_0 + a_1 \text{degree of development of democracy}_j + a_2 X_{ij} + a_3 C_j + u_i \quad (1)$$

but suspects that the true relationship is (1'):

$$\text{Support for market}_{ij} = a_0 + a_1 \text{degree of development of democracy}_j + a_2 \text{degree of development of market}_j + a_3 \text{cultural factors}_j + a_4 X_{ij} + a_5 C_j + u_i \quad (1')$$

where X_{ij} stands for the socio-demographic characteristics of respondent i in country j , C_j is a vector of country dummies and u_i the error term.

Our strategy consists of trying to find a way of keeping the second and third terms of equation (1') constant. As our analysis is based on individual data, we need to find people who, in an exogenous way, are exposed to different levels of democracy but to the same degree of market development and who share the same "culture" regarding the politico-economic system.

The idea is to match observations in frontier-zones. We assume that, because of spatial integration, people who live in open frontier-zones share the same culture and the same perception of market development even though they live on both sides of the frontier.

This relies on three types of arguments. The first is the well-documented high level of interregional trade in frontier zones. Secondly, it is well known that in such regions, when it is possible, people do not hesitate to cross the frontier to work, buy their daily shopping, or buy cheaper appliances. Hence regional integration is a fact of their everyday lives, what certainly influences their perception of the market. Thirdly, in the specific case of the 15 former Soviet republics, regional integration was a hard fact until the early 1990's: under the socialist system, the economy of the Soviet republics was submitted to the centralized organization of material resources by the Soviet plan based in Moscow. Many countries, particularly in Central Asia and the Caucasus, have inherited from the Soviet Union integrated infrastructure networks, which is a positive factor of trade and regional integration (Broadman, 2006). We thus assume that inhabitants of certain frontier-zones share the same experience of the market even when they live in different countries with different political institutions.

Clearly, the validity of our assumption relies on the level of market integration across the borders of the surveyed countries. We thus distinguish open frontiers from those that are closed or restricted because of political conflicts or geographical obstacles. We also check that the degree of market development is more similar in adjacent frontier-zones than it is in pairs of adjacent countries.

Market integration at frontier-zones is useful to eliminate the risk that the support for market liberalization that is measured reflects the actual market development. But what about the "cultural"

omitted variable? A first element is that the citizens of the former Socialist bloc, and in particular the Soviet Union, have been living for 45 to 70 years in a common political system marked by strong official ideological values concerning the market. So, we can assume that they have a common heritage in terms of attitudes towards the market (Alesina and Fuchs-Schundeln, 2007). Beyond this remark, we rely on the fact that current frontiers of many transition countries, especially countries of the Commonwealth of Independent States (CIS), are more or less artificial divisions of formerly integrated jurisdictions, whose citizens have developed common attitudes concerning both market development and political freedom (e.g. the Austro-Hungarian Empire, the Ottoman Empire, etc.). The very idea of “culture” and more specifically “national culture” is that countries’ past experience continues to have long-term effects³. We therefore rely on the idea that citizens of countries that have belonged to formerly highly integrated zones have a common culture, i.e. common inherited general attitudes towards the market and democracy.

There are some subsets of the transition countries in which this assumption is particularly appealing. Countries that have belonged to the Ottoman Empire (Albania, Armenia, Bosnia and Herzegovina, Bulgaria, FYR Macedonia, Montenegro, Romania and Serbia) developed under the same rule for several centuries (1299-1922). The same can be said about countries of the Austro-Hungarian Empire (Croatia, the Czech Republic, Hungary, the Slovak Republic and Slovenia, 1867-1918), countries of the former Polish Empire (which included Poland, Ukraine, Lithuania, Belarus and parts of Russia, 1569-1795), countries of the USSR (1922-1991), or countries of the Former Yugoslavia (Bosnia and Herzegovina, Croatia, FYR Macedonia, Montenegro, Serbia and Slovenia) who shared the same rule for several decades (1918-1991). We thus retain these cultural grouping in order to deal with the potential impact of cultural factors on the demand for democracy.

Using the LITS survey, we identify frontier-zones as groups of Primary Sample Units (PSUs) that are quasi-adjacent and located on both sides of a frontier (less than 30 km from each other). In order to measure the degree of democratization of a country, we use the democracy score established by the *Freedom House* survey (Freedom House, 2006a).

Our test therefore consists, for all pairs of observations at frontier-zones, of regressing individual support for the market on the index of democratic development, controlling for frontier-zone dummies and other socio-demographic characteristics of respondents. The assumptions of (i) market integration and (ii) common culture at the frontier between two formerly integrated countries mean that the third and fourth terms of equation (1’) are constant and so need not be included in the regression. We thus estimate equation (1’’) on the sub-samples of frontier zones: we regress the support for democracy of individual i living in frontier-zone k of country j , on the level of democracy of country j :

$$\text{Support for market}_{ijk} = a_0 + a_1 \text{Democracy Level}_j + a_4 X_{ijk} + a_5 Z_k + u_i \quad (1'')$$

where *Democracy Level_j* corresponds to the democracy score of country *j*, *X_{ijk}* stands for the socio-demographic characteristics of respondent *i*, *Z_k* is a vector of frontier-zone dummies and *u_i* is the error term. In an alternative specification, we run the same regression on a dummy variable indicating whether the country of residence of an individual is more democratic than the adjacent country (i.e. we dichotomize the variable measuring the score of democracy).

B. Demand for democracy

To isolate the causation running from market liberalization to the support for democracy, we need to overcome the symmetrical problem, i.e. to avoid the contamination of the actual degree of democracy and the influence of “cultural factors”. This implies keeping constant the second and third terms of equation (2):

$$\text{Support for democracy}_{ij} = b_0 + b_1 \text{degree of development of market}_j + b_2 \text{degree of development of democracy}_j + b_3 \text{cultural factors}_j + b_4 X_{ij} + b_5 C_j + u_i \quad (2)$$

Here, we hinge both on frontier-zones and on regional variations. We rely on the considerable within-country regional variations in terms of market development (Zhuravskaja, 2006; EBRD, 2006). We build indices that reflect the regional development of private, small and medium enterprises and the formal sector (see section III.C). We start by assuming that political institutions and “culture” are the same in a given country. We thus match individuals of a given country who live in regions that experience unequal degrees of market development and we regress the support for democracy of individual *i* living in region *r* of country *j* on the degree of market development of region *r* in country *j*, controlling for the socio-demographic features of this individual and for country dummies:

$$\text{Support for democracy}_{ijr} = b_0 + b_1 \text{degree of development of regional market}_{jr} + b_4 X_{ijr} + b_5 C_j + u_i \quad (2')$$

However, the estimation of equation (2') relies on the admittedly strong assumption that the uneven development of the market across the regions of a country is not due to some local variable that would also influence the political attitudes of the inhabitants of the region. In order to lift this assumption, we use two strategies. First, we control for the type of living area of respondents (metropolitan, urban or rural areas). Second, we again rely on borders' specificities. We rely on the fact that due to the high regional economic integration at borders, the level of market development on one side of the frontier is strongly influenced by that of the adjacent country (cf. section II.A). This means that market development at the borders varies in a way that is partly exogenous.

Concretely, we match individuals of the same country, who live in different frontier-zones, and we regress individual support for democracy on the level of market development in the different frontier-zones. To go one step further, we use as a proxy for market development in the frontier zone z_j of country j the industrial liberalization score of the adjacent frontier-zone z_k across the border, in country k . We thus estimate the following regressions:

$$\text{Support for democracy}_{ijk} = b_0 + b_1 \text{degree of development of regional market}_{z_l} + b_4 X_{ij} + b_5 C_j + u_i \quad (3')$$

With $l=j,k$, and where z refers to the frontier-zone of, alternatively, country j and k .

Again, we do not pretend that these identifications strategies allow escaping the influence of long term determinants of economic and political development. Neutralizing these long term trends would imply finding an instrument that could approximate the exogenous ultimate origin of these differences. This limits the validity of our conclusions to short term relevance.

III. Data

Our study hinges on the Life in Transition Survey (LITS), a survey conducted by the European Bank for Reconstruction and Development and the World Bank in 2006, in 28 post-transition countries and Turkey⁴. Respondents to the survey were drawn randomly, using a two stage sampling method, with census enumeration areas as Primary Sampling Units (PSUs), and households as secondary sampling units. The survey includes 1000 observations per country, making a total of 29000 observations. The sample of respondents is equally balanced in terms of gender, but is biased in favor of older people: the age of the respondents varies from 17 to 97 years, with a means of 46. All descriptive statistics are presented in the Annex.

A. *Support for the market and for democracy*

Support for the market was analyzed using the following question:

Q3.10. Which of the following statements do you agree with most?

- A market economy is preferable to any other form of economic system.
- Under some circumstances, a planned economy may be preferable to a market economy.
- For people like me, it does not matter whether the economic system is organized as a market economy or as a planned economy.

We analyze the probability of choosing any of the three modalities of questions q3.10.

Concerning the support for democracy, we analyze the probability of choosing either modalities of the question:

Q.3.11: Which of the following statements do you agree with most?

- Democracy is preferable to any other form of political system.
- Under some circumstances, an authoritarian government may be preferable to a democratic one.
- For people like me, it does not matter whether a government is democratic or authoritarian.

We also study the determinants of the demand for more specific aspects of democracy, such as free and fair elections, independence of the press or of the courts system (Q.3.12). Finally, we verify that the support for democracy comes with trust in democratic institutions, using question Q.3.03 (see section IV.B).

B. Frontier-zones

The LITS is based on PSUs⁵, each containing 20 observations (surveyed persons). We use the geographical map of the survey to identify groups of PSUs that are located on both sides and in the immediate vicinity of a political frontier. We identified 37 valid frontier-zones that contain between 40 and 460 observations, concentrated in 2 (Slovak Republic-Ukraine) to 24 (Croatia-Slovenia) PSUs.

The validity of our identification assumption relies on the intensity of market integration on either side of borders. This makes little doubt for the new ten EU members, among which persons and goods are free to circulate. This is also true of neighboring countries in most part of central, eastern Europe and south eastern Europe (for example the Slovak Republic and the Czech Republic; Albania, FYR Macedonia and Montenegro⁶; Bulgaria and FYR Macedonia or Moldova and Romania). Many countries of the sample are integrated in Euroregions, the purpose of which is to promote trans-frontier cooperation⁷. Two CIS countries: Belarus and Ukraine are also integrated into Euroregions⁸. This implies deeper cross border integration between these neighboring countries, despite their relative closeness. These countries are also largely integrated with Russia, historically and formally, in the Neman Euroregion that also includes Lithuania and Poland.

In the case of Central Asia and the Caucasus, patterns of trade have changed less rapidly than in eastern Europe (Babetskii et al, 2003; Broadman, 2006). While the costs of intra-regional trade have likely increased with the creation of independent countries (Djankov and Freund, 2000) and with the recent nationalist stance of some countries, such as Uzbekistan, these countries appear to be

“overtrading” among themselves⁹.

We leave out of our sample frontiers that are impaired by geographical obstacles or either restricted or closed because of political tensions and disputed territories. We thus exclude the frontiers between Georgia and Russia, Armenia and Azerbaijan, Moldova and Ukraine, as well as all Uzbek borders.

We verify that the degree of market development is more similar between two adjacent frontier-zones than it is on average between two adjacent countries. We calculate the index of market development (defined infra in section III.C) in each frontier-zone (z_i and z_j) and in each country i and j on average. Table 1 shows that on average, the correlation between indices of industrial market development is twice as high between adjacent frontier-zones of the sample (z_i and z_j) as it is between adjacent countries (i and j) of the sample. If one restricts the analysis to subsets of formerly more integrated countries, the proximity between adjacent frontier-zones appears even higher. For instance, in Central Asia, the correlation between two adjacent frontier-zones is 0.78 against 0.34 in two adjacent countries (row 5 of Table 1).

Table 1 about here

C. *Indices of market liberalization*

Using questions about the respondents' first, second and third jobs¹⁰, we build a regional industrial score of market liberalization. The score is the regional proportion of respondents who declare that they either: work in a small enterprise, work in a medium enterprise, work in a private firm, work in a newly created enterprise (since 1989), are self-employed with more than five employees or have a formal employment contract.

During the socialist era, Soviet economies were distinguished by their exceptionally low proportion of small and medium sized enterprises (SMEs). The necessities of central planning favored the organization of production and distribution in large units. We thus interpret the presence of SMEs as an indicator of market development. The presence of private and of newly created firms is also a sign of progress in transition towards a market economy, an essential aspect of which is the process of privatization of the formerly dominant state-owned sector and the elimination of former monopolies under the pressure of new competitive firms (Berkowitz and Jackson, 2005). Self-employed persons with at least five employees are also part of this new economic pattern that is typical of a market economy and was absent from the landscape of planned economies. We do not count self-employed persons without employees on the grounds that those are unlikely to be small firms but rather forms of quasi unofficial economy or what is sometimes called “disguised unemployment” (Earle and Sakova, 2000). Finally, we interpret the existence of an employment

contract as a sign that the person is working in the official sector rather than in the informal sector, a sign of development of the market. This industrial regional score varies from 0 to 5 with an average of 2.37.

The quality of such indices of market liberalization is limited by the lack of representativeness of the data at the regional level. However, there is no alternative regional index of private sector development or market liberalization that is available for the whole set of countries.

D. Scores of democracy

The index of democratization is built using additional statistical sources. We mainly hinge on the *Freedom House* democracy index (Freedom House, 2006a), which takes values from 1 to 7, with 1 representing the highest level of democratic progress and 7 the lowest; we have recoded it in order to present the score of democracy in an ascending order.

In an alternative specification, we dichotomize this score and for each pair of adjacent countries, we build a dummy variable that takes value 1 in the PSUs located in the most democratic country of each pair, and 0 in PSUs located in the country which fares worse.

For robustness, we verify that our results hold when using other political scales, such as *Polity IV* (CIDCM, 2006) (see Table A4 in the Annex).

IV. Results

Although simple correlations show that supporting the market and supporting democracy are highly correlated attitudes (the correlation coefficient between the first modality of question Q3.10 and question Q3.11 is 0.45), our identification strategies leads to a different picture. We find that democracy does increase support for market liberalization, but that the reverse relationship is not as clear-cut.

This pattern is apparent even in descriptive statistics. Table A2 shows that at frontier-zones, the support for a market economy tends to be higher on the border of the country that enjoys a higher level of democracy (according to the *Freedom House* ranking). Table A3 however shows that, within a given country, the taste for democracy is not significantly higher in those frontier-zones where market development is most advanced.

A. Democracy increases support for the market

Table 2 presents the general regressions of the support for the market (equation 1'') on scores of democratization. Columns 1 to 3 present the regression on the *Freedom House* democracy score;

whereas columns 4 to 6 contain the regressions on a dummy variable representing the relative advancement of democracy (cf section III.D). All regressions are performed on the sub-sample of people living in frontier-zones¹¹. We control for frontier-zone dummies and we adjust standard errors for clustering on frontier-zones. Finally, in Table A7 (Annex), the regressions are performed within each border-zone.

Columns 1 and 4 in Table 2 analyze the determinants of the probability of declaring that “*a market economy is preferable to any other form of economic system*”. The coefficients on both the democratic index and the “more democracy” dummy variable are significant. Column 1 displays the marginal effect of a change in the *Freedom House* democratic score, while the coefficient on the variable “more democracy” represents the effect of a discrete change of this dummy variable from 0 to 1 (on the probability to support the market). Hence, column 4 in Table 2 shows that conditionally on living in a frontier-zone, living on the “more democratic” side of the frontier increases the probability of supporting the market by about 8.4%.

Columns 2 and 5 analyze the determinants of the probability to declare that “*under some circumstances, a planned economy may be preferable to a market economy*”. Column 2 shows that an incremental change in the democracy score does not significantly affect preferences for a planned economy. However, the coefficient on the “more democracy” dummy variable is significant at 5%, as it captures more significant progress towards democracy. Column 5 thus indicates that conditionally on living in a frontier zone, experiencing a more democratic regime reduces the probability of favoring a planned economy by roughly 6.7%.

Finally, columns 3 and 6 analyze the probability of declaring that “*for people like me, it does not matter whether the economic system is organized as a market economy or a planned economy*”. This attitude appears not to be significantly influenced by the degree of democracy.

Other rows of Table 2 display the other correlates of attitudes towards the market. We distinguish three income categories (the richest, middle and poorest quantiles inside each country), six educational levels, occupational categories, and employment status (self-employed versus employees). Self-employed workers tend to be more supportive of the market, while elder people and the poorest 30% of the population are less so.

Table 2 about here

If one accepts the assumption that people living in a common frontier-zone share the same practical experience of market development (and the same background culture), the lesson of Table 2 is that living in a country with a higher degree of democracy exerts a positive influence on the declared support for the market.

As a robustness check, we have run the same regression as column 4 of Table 2 within each frontier-zone. The positive effect of democratic institutions on the support for the market proves particularly strong and significant at borders that are well integrated both culturally and economically (see Table A6 in the Annex for the quality of market integration at frontier-zones). This is notably the case for the frontier between Moldova and Romania frontier or between Estonia and Latvia. The effect is also strong for the Belarus-Lithuania, Belarus-Poland and Ukraine-Russia frontier-zones, all formerly part of the Polish Empire and currently highly integrated. The effect is globally well respected except for most Hungarian frontiers and the Bulgaria-Romania, Croatia-Serbia and Poland-Ukraine frontier-zones. The unexpected results for Hungary may be explained by the difficult situation in the country, which, at the time of the LITS, was going through a deep confidence crisis. Concerning the Bulgaria-Romania frontier, the fact that the development of democracy in the two countries is very close, as shown by the identical ranking of these countries by other democracy indices, such as *Polity IV*, might explain why the sign of the coefficient of “More Democracy” is reversed. The same reason may explain why many coefficients are insignificant at the borders of countries that experience similar level of democracy, such as the Czech Republic and Poland (which obtain the same ratings by both *Freedom in the World* and *Polity IV*), Bulgaria and FYR Macedonia or Bosnia and Herzegovina and Croatia. At certain borders, e.g. Croatia and Serbia where heavy restrictions were lifted only in 2003, it can be the case that economic integration is only partial.

As our identification strategy is based on the assumption of regional integration, we expect that the results do not hold in the frontiers that were excluded from our sample for being closed or severely restricted. Indeed, we verify that the coefficient inside the Armenia-Azerbaijan border zone is -0.070 (0.128); it is of -0.328 (0.207) in the Kazak-Uzbek frontier-zone; of -0.097* (0.051) in the Kyrgyz-Uzbek and of 0.004 (0.696) in the Moldova-Ukraine zone. Considering all the closed border-zones together (and controlling for border-zones dummies), the coefficient on the *Freedom house* democracy index is 0.039 (0.053) in the regression of support for the market. Hence the relationship is not significant in closed frontier-zones, which is consistent with our interpretation of regional integration.

To go one step further in the attempt to control for “cultural” omitted factors, we now estimate equation (1’’) within various sub-samples of frontier-zones belonging to historically integrated regions. Table 3 presents the regressions by “cultural zones” as defined in section III.B. Market development still exerts a positive and significant influence on the demand for democracy among countries of the former USSR, countries of the former Yugoslavia, countries of the former Polish Empire and countries of the CIS, as well as among the subset of Central Asia. The effect is particularly strong in countries that have experienced a strong degree of integration in the past¹²,

such as the USSR, and a fortiori the CIS and Central Asia, where, in addition, today's frontiers are often arbitrary. By contrast, it is not significant for the countries of the former Austro-Hungarian Empire. A possible interpretation of this is that the relationship between democratic institutions and the support for the market is particularly strong for less developed countries. Another possible interpretation is that the countries of the former Austro-Hungarian Empire are too close in terms of democratic development for the effect to be sizeable.

Table 3 about here

As a robustness check, we also test different indicators of democracy (see Annex). The result that the development of democracy positively and significantly influences the demand for the market is preserved using the *Freedom of the World* (Freedom House, 2006b), *BTI* indicators (Bertelsmann Stiftung, 2005) or *Polity IV* (CIDCM, 2006).

B. Market liberalization does not raise the support for democracy

We now address the symmetric question whether market liberalization increases the support for democracy. We need to make sure that the attitude toward democracy that is observed is not caused by the degree of democratization already reached in the country of the respondent. So, we need to find some groups of citizens who experience a common political environment with different degrees of market liberalization. As explained in section II, we rely on the evidence that there are wide regional differences within the countries of the former Soviet bloc and eastern and southern Europe. We build an index of market progress at the regional level based on the regional market structure.

Table 4 displays the regressions of support for democracy on indices of regional market development. Because the impact of market development on attitudes towards democracy could be driven by metropolitan regions in which market liberalization is well in advance of other regions, and where people are also likely to have different political attitudes, we include a control for the type of area (metropolitan/urban/rural) in all regressions. We checked that the results are essentially unchanged when these controls are not performed and when metropolitan regions are dropped from the sample.

Columns 1 to 3 present the regressions of individual preferences for the political regime on the index of market development across all regions of a given country. Columns 4 to 6 present an alternative specification where we restrict the sample to open frontier-zones. Lastly, columns 7 to 9 display the result of a third specification where the degree of market development of a frontier-zone j is proxied by the degree of market development of the adjacent region k across the frontier (cf section II.B). As explained in section II.B, the two latter specifications are useful in order to avoid

the risk that the observed relationship between market development and support for democracy is due to reverse causality.

Columns 1, 4 and 7 analyze the determinants of the probability of declaring that “*democracy is preferable to any other form of political system*”. Surprisingly, the index of market development has no impact on this variable, in either of the specifications. Identically, the probability of choosing the modality “*for people like me, it does not matter whether a government is democratic or authoritarian*” (columns 3, 6 and 9) does not depend on the index of market development.

Columns 2, 5 and 8 analyze the determinants of the probability to declare that “*under some circumstances, an authoritarian government may be preferable to a democratic one*”. Here, market development has a negative and significant effect when the sample is restricted to frontier-zones. Hence, conditionally on living in a frontier-zone, living close to a country where the market is more advanced, and enjoying such market development thanks to cross border market integration reduces individual support for authoritarian regimes. However, this effect is not significant when all regions of the country are considered (columns 2, 5 and 8).

Market liberalization does thus not appear to reinforce democratic values. Other effects indicate that the richer, better educated, younger, self-employed people and surprisingly, farmers and farm-workers, are more supportive of democracy. On the contrary, the poor, those who have not completed compulsory education and women are less supportive of democracy and more likely to declare that the political system does not matter to them.

Table 4 about here

As the estimates of Table 4 are based on regional variations, it may seem confusing to pool the data of the various countries of the sample together. Therefore, we run the same estimation of support for democracy within each country of the survey. Country-wise regressions corroborate the finding that support for democracy does not increase with the market development indicator. Finally, we estimate the support for democracy within each zone of deeper cultural integration (Tables 5.a and 5.b). Table 5.a displays the regressions on the entire sample; the industrial index measures the score of market development at the regional level. Table 5.b shows the regression on the sub-sample of frontier-zones. The industrial index measures the score of market development in the adjacent frontier-zone. Essentially, regional market development again appears to have no impact on the support for democracy. The industrial index of market development is only significant for the regions of the former Austro-Hungarian Empire; by contrast, the impact of the index is significantly negative in regions of Central Asia. Hence, the link between market development and preferences for democracy only appears in countries that are more affluent and face a higher degree of actual

democracy.

Lindblom (1995) provides a possible interpretation of these findings. He defines markets and democracy as two distinct methods of popular controls over the elites. The former aims at outcomes (resources allocation) but gives no control over the processes that generate outcomes; symmetrically, the latter provides popular control over processes. In this framework, an interpretation of our findings is that the need to control processes becomes more pressing in situations where people have already secured the control over outcomes. It may also be the case that the relationship is non linear, in other words, for people to care about processes, they need to have already reached a certain degree of empowerment. This would explain why the demand for democracy is stronger in societies that are already more advanced in terms of market liberalization and democratization.

Tables 5.a and 5.b about here

Finally, as robustness checks, we use alternative indicators of the explained variable (support for democracy) and of the explanatory variable (market development). First, we build an index of adhesion to democratic principles based on questions of the LITS. This index is based on the following question:

Q3.12. *To what extent do you agree that the following are important for your country?*

- Free and fair elections
- Law and order
- Freedom of speech
- Peace and stability
- A press that is independent from the government.
- A strong political opposition
- A courts system that defends individual rights against abuse by the state.
- A courts system that treats all citizens equally, rather than favoring some over others.
- Protection of minority rights (religious, ethnics, etc...)
- Freedom to travel abroad

(Scale: Strongly disagree, Disagree, Neither agree nor disagree, Agree, Strongly Agree, Difficult to say)

The “value of democracy” index sums the number of times a person “agrees” or “strongly agrees” that the items listed in the above table are important. The index varies from 0 to 9, with an average of 4.5.

Table 6 shows the ordered probit regression of the “value of democracy” index. Column 1 displays the regression on the entire sample; the industrial index measures the score of market development at the regional level. Column 2 shows the regression on the sub-sample of frontier-zones. The industrial index measures the score of market development of the adjacent frontier-zone (z_k).

Table 6 about here

Again, regional market indices do not influence the importance that citizens attach to democracy. The impact even seems to be significantly negative in regions of the CIS and the former Polish Empire.

Of course, the indices of market development that we use may be misconstrued and it is possible that better measures of market liberalization would be found to influence support for democracy. We regret that indices of industrial concentration are not available at the regional level for the whole set of countries in the sample¹³.

As an alternative to the market development index, we use an indicator of relative wealth. We calculate the average aggregate regional income based on the real expenditures declared by the households of the survey, relative to the national average¹⁴. This is based on the idea that aggregate income is an outcome of market development. This relative wealth index is thus more specifically an indicator of the success of market development. Again, as shown by Table 7, this indicator does not have any significant impact on the attitudes to democracy or authoritarian regimes¹⁵. Hence, our individual data do not confirm the relationship between income and democracy that was observed at the aggregate level by Barro (1996) or Minier (2001).

Table 7 about here

In summary, the degree of market development does not seem to have a sizable impact on the political support for democracy, or on the rejection of authoritarian regimes. In contradiction with current priors, developing market institutions is not a guarantee or a sufficient condition of the subsequent emergence of democracy, even when the market is successful in raising income. .

V. Conclusion

The main result of this paper is that in transition countries, democracy appears to generate some popular support for the market, while economic liberalization does not clearly increase support for democracy. These observations are consistent with the empirical fact that market economies can live without democracy, whereas there is no historical evidence of a democratic society without a market economy.

This paper suggests that democracy raises the subjective support for the market. The relationship between democracy and support for the market is particularly strong in the CIS, Central Asia and south eastern Europe, as opposed to other countries of the European Union (e.g. central Europe). Hence, the link seems to be particularly relevant for “developing” countries, i.e. countries that are still in an earlier stage of democratic development. To be sure, this does not mean that democracy is not likely to complicate the task of reformers, with the risk of impeding market liberalization.

Concerning the reverse relationship, our results cast doubt on the idea that democracy needs naturally emerge as a by-product of capitalism, particularly in less developed countries. The data do not support the idea that market liberalization as such is sufficient to trigger the demand for democracy; identically, citizens of countries with less developed markets do not appear to be less supportive of democracy. Therefore, one cannot advocate the preferences of citizens to postpone the construction of democratic institutions.

In summary, our data do not support a widespread view concerning the optimal sequencing of reforms for developing countries: it seems that building democratic institutions can act as an ingredient in favor of market liberalization, whereas early market development is no guarantee of popular support for democracy further down the line.

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Endnotes

1. Hence the concept of the “End of History” (Fukuyama, 1992).
2. However, from the point of view of growth, the authors conclude that a sequencing based on market liberalization first is most favorable: “Countries that first liberalize and then become democracies do much better than countries that pursue the opposite sequence” (Giavazzi and Tabellini, 2005).
3. In Bisin and Verdier (2000) or Fernandez and Fogli (2005), culture is defined as long term inertia in preferences.
4. Turkmenistan was not included in the survey, neither was Kosovo. We exclude Turkey from our sample, because of its very specific political situation.
5. PSUs were selected randomly, with probability proportional to size.
6. As well as Kosovo, but Kosovo was excluded from our sample.
7. For example, Albania, Bosnia and Herzegovina, Croatia, Montenegro and Slovenia are part of the Adriatic Euroregion; Latvia, Lithuania, Poland and Russia are part of the Baltic Euroregion (alongside with Sweden and Denmark); the Czech Republic, Poland, the Slovak Republic constitute the Beskydy Mountains Euroregion; and trade among Hungary, Romania, and Serbia is facilitated in the Danube - Kris - Mures - Tisza Euroregion.
8. Białowieża Forest Euroregion between Poland and Belarus, the BUG Euroregion between Belarus, Poland, Ukraine, or the Carpathian Euroregion between Hungary, Poland, Romania, the Slovak Republic.
9. Using relative prices of a bundle of goods to complement official trade data, Grafe et al. (2005) show that the impact of borders on trade between Kazakhstan, Kyrgyzstan, Uzbekistan and Tajikistan is much smaller than what the view of cumbersome crossing border procedures and licensing systems would imply. The authors attribute this result to the large development of shuttle trade in this region.
10. Multiple jobs are frequent in transition countries.
11. Results are robust to clustering at different levels, i.e. country or country-frontier-zone.
12. As these countries have shared a common experience of a planned economy; it would be farfetched to suspect some reverse causality running from people’s current attitudes towards the market to the current degree of democracy.
13. In our view, indices of this type would be best suited, if they were available, than some often used indicators based on governance, the protection of legal rights, the protection of minority shareholders or indices of price liberalization. The latter have two important drawbacks: firstly, they are only available at the national level and secondly, they often reflect the progress of the rule of law, i.e. of democracy itself, rather than that of the freedom of transactions on the market.
14. Household expenditures were adjusted for household size using the modified OECD equivalence scale.
15. Here we do not use frontier-zones integration as there is no point in supposing that inhabitants of a given region experience the level of wealth of neighboring regions.

TABLES AND FIGURES

Figure 1. Support for the Market and for Democracy

(Percentage of respondents who chose the market (respectively democracy) as the best system of organization of the economic (respectively political) system, see section III).

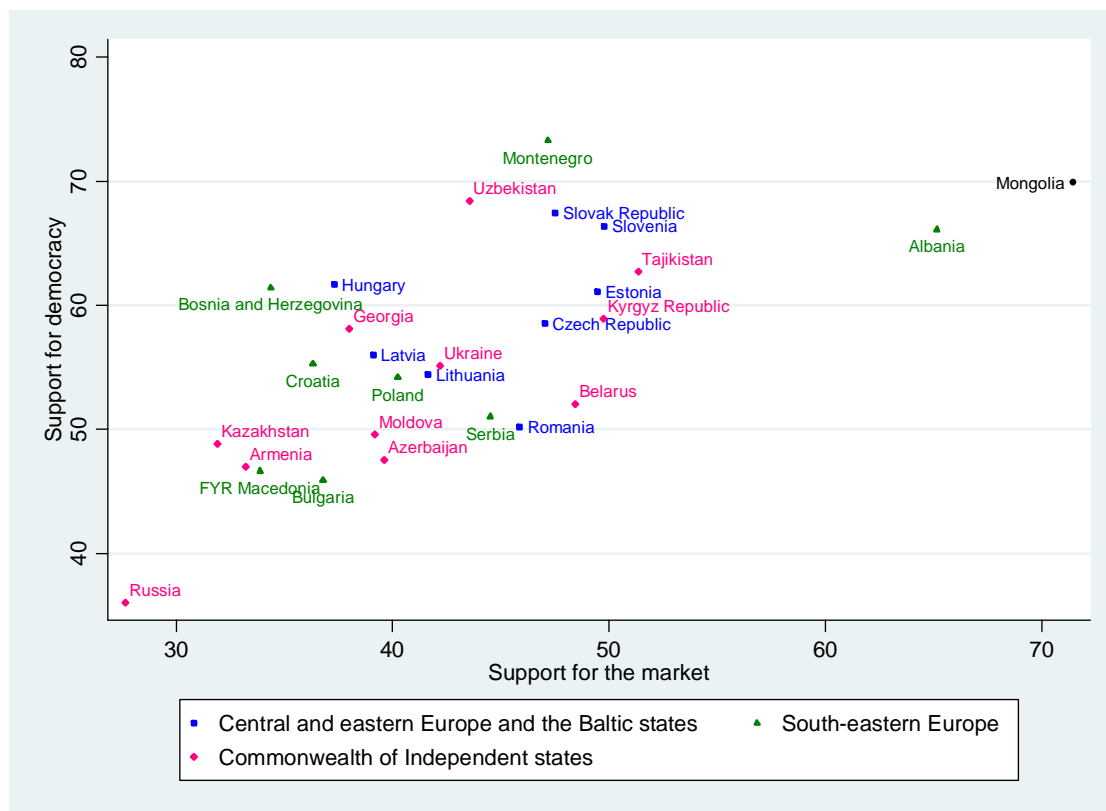


Table 1: Industrial market development indices at frontier zones

Correlation between industrial market development indices	Adjacent frontiers	Adjacent countries
Whole sample	0.68	0.46
CIS	0.25	-0.02
Baltic countries	0.87	0.49
European Union	0.78	0.34
Central Asia	0.78	0.11
Former Yugoslavia	0.08	-0.28
Former Ottoman Empire	0.11	-0.31

Notes to Table 1:

Number of observations (frontier zones): whole sample: 65; CIS (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Russia, Ukraine and Tajikistan): 28; Baltic states: 8; European Union: 28; Central Asia (Kazakhstan, Kyrgyz Republic and Tajikistan): 5; Former Yugoslavia (Bosnia and Herzegovina, Croatia, FYR Macedonia, Montenegro, Serbia and Slovenia): 12; Former Ottoman Empire (Albania, Armenia, Bosnia and Herzegovina, Bulgaria, FYR Macedonia, Montenegro and Serbia): 14.

For each pair of frontier zones between two countries i and j , the average industrial indices of market liberalization (cf infra) are calculated at the level of frontier zone i and frontier zone j and of country i and country j .

Table 2. Democracy Increases the Support to Market Development

	dprobit Regressions of Support to the Market					
	-1	-2	-3	-4	-5	-6
	Market is preferable	Plan is preferable	Does not matter	Market is preferable	Plan is preferable	Does not matter
Democracy index	0.040***	-0.026	-0.012			
	[0.015]	[0.019]	[0.017]			
More democracy				0.084**	-0.066**	-0.015
				[0.034]	[0.028]	[0.026]
Adult (35-19)	-0.068***	0.052***	0.018	-0.069***	0.053***	0.016
	[0.015]	[0.016]	[0.018]	[0.015]	[0.016]	[0.018]
Mid-age (50-65)	-0.094***	0.056***	0.042*	-0.094***	0.056***	0.041*
	[0.021]	[0.020]	[0.024]	[0.020]	[0.020]	[0.023]
Old (>65)	-0.153***	0.060**	0.089***	-0.158***	0.063**	0.089***
	[0.024]	[0.030]	[0.025]	[0.024]	[0.030]	[0.024]
Poor	-0.066***	-0.01	0.071***	-0.063***	-0.011	0.071***
	[0.018]	[0.016]	[0.016]	[0.018]	[0.015]	[0.016]
Rich	0.015	-0.004	-0.012	0.011	-0.001	-0.01
	[0.021]	[0.015]	[0.014]	[0.020]	[0.014]	[0.013]
Male	-0.018	0.096***	-0.053	-0.014	0.100***	-0.060**
	[0.032]	[0.033]	[0.032]	[0.031]	[0.031]	[0.030]
Compulsory education	0.04	0.132***	-0.129***	0.047	0.131***	-0.135***
	[0.035]	[0.034]	[0.035]	[0.034]	[0.032]	[0.033]
Secondary education	0.056*	0.126***	-0.141***	0.062**	0.125***	-0.144***
	[0.032]	[0.028]	[0.030]	[0.031]	[0.028]	[0.027]
Professional education	0.109***	0.191***	-0.229***	0.115***	0.188***	-0.231***
	[0.034]	[0.034]	[0.026]	[0.033]	[0.033]	[0.024]
University education	0.027	0.199***	-0.147***	0.042	0.190**	-0.151***
	[0.076]	[0.076]	[0.045]	[0.078]	[0.077]	[0.042]
Postgraduate education	0.051***	-0.002	-0.048***	0.053***	-0.003	-0.049***
	[0.010]	[0.011]	[0.011]	[0.010]	[0.011]	[0.011]
Unemployed	0.003	-0.01	0.008	0.008	-0.014	0.009
	[0.027]	[0.028]	[0.025]	[0.027]	[0.027]	[0.024]
Self employed	0.101***	-0.089***	-0.009	0.116***	-0.098***	-0.013
	[0.027]	[0.018]	[0.025]	[0.027]	[0.018]	[0.023]
White collar worker	0.052	0.005	-0.069**	0.058	-0.004	-0.063**
	[0.036]	[0.027]	[0.032]	[0.036]	[0.027]	[0.031]
Blue collar worker	0.003	0.027	-0.029	0.001	0.024	-0.021
	[0.033]	[0.028]	[0.029]	[0.032]	[0.027]	[0.028]
Service worker	0.035	-0.009	-0.028	0.045	-0.017	-0.026
	[0.033]	[0.025]	[0.033]	[0.033]	[0.024]	[0.032]
Farmer, farm worker	0.04	0.012	-0.044	0.059	-0.003	-0.05
	[0.051]	[0.032]	[0.047]	[0.050]	[0.031]	[0.045]
Pensioner	-0.012	0.005	0.001	-0.002	-0.003	0.003
	[0.036]	[0.021]	[0.028]	[0.036]	[0.022]	[0.028]
Student	0.025	0.008	-0.033	0.031	0.001	-0.029
	[0.059]	[0.045]	[0.043]	[0.057]	[0.043]	[0.042]
Housewife	0.05	-0.024	-0.024	0.062	-0.036	-0.024
	[0.048]	[0.028]	[0.043]	[0.048]	[0.028]	[0.042]
Observations	6750	6750	6750	6970	6970	6970
log likelihood	-4254.41	-3691.65	-3982.12	-4391.74	-3796.55	-4041.41
Pseudo R2	0.0696	0.0328	0.0754	0.0746	0.0331	0.0829

Notes to Table 2:

Controls: frontier zone dummies.

Omitted categories: young (17 to 34 years old), middle income group, lowest education, employee, occupation in army. Robust standard errors adjusted for clustering on frontier zones. *** significant at 1%, ** significant at 5%, * significant at 10%.

Democracy index is built on the basis of Freedom House (2006a). **More democracy** is a dummy variable based on the same index (see section III.D.).

Table 3. Democracy and Support to the Market within Cultural Areas

dprobit Estimates of Support to the Market

	1 Austro Hungarian Empire	2 Ottoman Empire	3 Yugoslavia	4 Polish Empire	5 CIS	6 Central Asia	7 USSR
Democracy index	0.031 [0.021]	0.137 [0.129]	0.068** [0.026]	0.0295** [0.012]	0.046*** [0.013]	0.231*** [0.043]	0.034*** [0.010]
Observations	1,656	1,920	2,134	1,734	2,354	740	2,994
Log likelihood	-1,022	-1,277	-1,373	-1,064	-1,458	-443	-2,008
Pseudo R2	0.072	0.032	0.041	0.094	0.081	0.117	0.073

Notes to Table 3:

Sub-samples of frontier-zones.

Controls: income categories, age categories, gender, occupation categories, self employed, education categories.

Robust standard errors adjusted for clustering on frontier zones. *** significant at 1%, ** significant at 5%, * significant at 10%.

The Austro Hungarian zone comprises Croatia, Czech Republic, Hungary, Slovak Republic and Slovenia. The Ottoman zone comprises Albania, Armenia, Bosnia and Herzegovina, Bulgaria, FYR Macedonia, Montenegro and Serbia. Yugoslavian zone comprises Bosnia and Herzegovina, Croatia, FYR Macedonia, Montenegro, Serbia and Slovenia. The Commonwealth of Independent states (CIS) consists of Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, the Russian Federation, Tajikistan, Ukraine and Uzbekistan. The former USSR comprises all of the CIS, plus Estonia, Latvia and Lithuania. Central Asia consists of Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan. The Polish Empire zone comprises Belarus, Lithuania, Poland, Ukraine, the Russian Federation (western borders). EU zone comprises Bulgaria, the Czech Republic, Estonia, Latvia, Lithuania, Hungary, Poland, Romania, the Slovak Republic and Slovenia.

Democracy index is built on the basis of Freedom House (2006a).

Table 4. Support to Democracy and Regional Indices of Market Liberalization
dprobit Estimates of Support to Democracy/Authoritarianism

	-1	-2	-3	-4	-5	-6	-7	-8	-9
	Whole sample			Only frontier-zones			Only frontier-zones		
	Democracy preferable	Authoritarian government	Does not matter	Democracy preferable	Authoritarian government	Does not matter	Democracy preferable	Authoritarian government	Does not matter
Industrial index of region	-0.014	-0.001	0.012						
	[0.030]	[0.019]	[0.029]						
Industrial index frontier-zone_j				-0.032	-0.183***	0.16			
				[0.106]	[0.058]	[0.110]			
Industrial index frontier-zone_k							0.015	-0.115**	0.068
							[0.108]	[0.054]	[0.102]
Adult (35-19)	-0.024**	0.017**	0.006	-0.035**	0.022*	0.012	-0.034**	0.022	0.011
	[0.011]	[0.008]	[0.007]	[0.015]	[0.013]	[0.019]	[0.016]	[0.014]	[0.021]
Mid-age (50-65)	-0.028*	0.020**	0.007	-0.015	0.011	0.003	-0.017	0.008	0.009
	[0.016]	[0.010]	[0.009]	[0.025]	[0.016]	[0.024]	[0.027]	[0.016]	[0.027]
Old (>65)	-0.058***	0.026*	0.025*	-0.073**	0.008	0.053*	-0.090**	0.006	0.075**
	[0.022]	[0.014]	[0.013]	[0.037]	[0.021]	[0.030]	[0.041]	[0.020]	[0.031]
Poor	-0.056***	0	0.052***	-0.075***	0.014	0.057***	-0.078***	0.015	0.058***
	[0.010]	[0.006]	[0.009]	[0.017]	[0.012]	[0.015]	[0.018]	[0.012]	[0.014]
Rich	0.028***	-0.004	-0.026***	0.035*	-0.005	-0.029*	0.033*	-0.004	-0.029*
	[0.009]	[0.006]	[0.007]	[0.019]	[0.013]	[0.015]	[0.020]	[0.014]	[0.016]
Male	0.037***	0.003	-0.039***	0.027*	0.006	-0.031**	0.023	0.008	-0.029*
	[0.008]	[0.005]	[0.007]	[0.015]	[0.011]	[0.015]	[0.015]	[0.012]	[0.016]
Compulsory education	0.043**	0.032**	-0.052***	0.044	0.056**	-0.069**	0.018	0.041	-0.04
	[0.018]	[0.016]	[0.011]	[0.032]	[0.027]	[0.033]	[0.038]	[0.026]	[0.037]
Secondary education	0.104***	0.043***	-0.112***	0.101**	0.084***	-0.136***	0.069	0.072***	-0.106***
	[0.020]	[0.015]	[0.013]	[0.042]	[0.023]	[0.037]	[0.047]	[0.022]	[0.040]
Professional education	0.117***	0.049***	-0.129***	0.125***	0.085***	-0.161***	0.094**	0.074***	-0.130***
	[0.017]	[0.015]	[0.014]	[0.036]	[0.024]	[0.034]	[0.041]	[0.023]	[0.034]
University education	0.186***	0.056***	-0.191***	0.193***	0.109***	-0.222***	0.161***	0.109***	-0.207***
	[0.018]	[0.014]	[0.011]	[0.040]	[0.030]	[0.025]	[0.044]	[0.027]	[0.028]
Post graduate education	0.252***	0.015	-0.204***	0.169***	0.142**	-0.200***	0.140**	0.151**	-0.200***
	[0.025]	[0.025]	[0.012]	[0.060]	[0.066]	[0.032]	[0.062]	[0.062]	[0.039]

Unemployed	0.021 [0.018]	-0.015 [0.013]	-0.004 [0.015]	0.033 [0.032]	-0.034* [0.019]	0.008 [0.023]	0.008 [0.029]	-0.016 [0.019]	0.011 [0.021]
Self employed	0.023 [0.022]	-0.014 [0.014]	-0.009 [0.015]	0.03 [0.027]	-0.025 [0.022]	-0.005 [0.025]	0.002 [0.025]	-0.02 [0.022]	0.016 [0.025]
White collar worker	0.089*** [0.013]	-0.014 [0.010]	-0.079*** [0.012]	0.081*** [0.026]	-0.008 [0.020]	-0.073*** [0.024]	0.066** [0.026]	0.006 [0.022]	-0.074*** [0.026]
Blue collar worker	0.029* [0.016]	-0.012 [0.012]	-0.014 [0.015]	0.035 [0.029]	-0.008 [0.022]	-0.022 [0.031]	0.024 [0.032]	-0.002 [0.021]	-0.018 [0.035]
Service worker	0.053*** [0.014]	-0.008 [0.010]	-0.043*** [0.013]	0.086*** [0.028]	-0.042** [0.019]	-0.038 [0.026]	0.069*** [0.026]	-0.031* [0.017]	-0.034 [0.028]
Farmer, farm worker	0.060*** [0.017]	-0.004 [0.013]	-0.051*** [0.017]	0.069*** [0.026]	0.016 [0.024]	-0.082*** [0.023]	0.068** [0.033]	0.029 [0.028]	-0.089*** [0.028]
Pensioner	-0.002 [0.018]	-0.007 [0.010]	0.007 [0.019]	0.008 [0.034]	0.009 [0.017]	-0.014 [0.030]	-0.004 [0.037]	0.023 [0.016]	-0.015 [0.033]
Student	0.128*** [0.028]	-0.038*** [0.013]	-0.085*** [0.021]	0.088 [0.065]	-0.054 [0.039]	-0.023 [0.038]	0.071 [0.067]	-0.039 [0.042]	-0.024 [0.042]
Housewife	0.039** [0.018]	-0.034** [0.013]	-0.005 [0.019]	0.022 [0.035]	-0.031 [0.025]	0.013 [0.030]	-0.004 [0.035]	-0.014 [0.026]	0.02 [0.032]
Observations	28909	28909	28955	7032	7032	7041	6274	6274	6281
log likelihood	-18624.11	-12203.71	-15662.88	-4511.66	-3055.29	-3848.54	-4051.73	-2682.95	-3491.07
Pseudo R2	0.0557	0.0297	0.0711	0.0685	0.0496	0.0814	0.0625	0.0456	0.0746

Notes to Table 4:

Controls: country dummies; urban/rural or metropole area for columns 1 to 3.

Omitted categories: young (17 to 34 years old), middle income group, occupation in army, self-employed, lowest education.

Robust standard errors adjusted for clustering at the country level. *** significant at 1%, ** significant at 5%, * significant at 10%.

The industrial index is constructed at the regional level. Industrial index j is the index of market development of the zone where the respondent lives. Industrial index k measures the market development of the adjacent frontier-zone.

Table 5.a. Support to Democracy and Regional Indices of Market Liberalization**dprobit Estimates of Support to Democracy****Full sample**

	-1	-2	-3	-4	-5	-6	-7	-8
	Austro Hungarian	Ottoman	Yugoslavia	CIS	Central Asia	Polish Empire	USSR	EU
Industrial index	0.109**	-0.011	0.045	-0.077	-0.205	-0.002	-0.080**	0.032
	[0.050]	[0.042]	[0.044]	[0.048]	[0.096]	[0.045]	[0.034]	[0.045]
Observations	4973	7975	5971	10972	4000	4972	13952	9964
Log likelihood	-3106	-5138	-3827	-7167	-2547	-3253	-9142	-6394
Pseudo R2	0.062	0.062	0.055	0.054	0.054	0.056	0.050	0.059

Notes to Table 5a:

Full sample.

Controls: income categories, age categories, education categories, gender, occupation categories, self-employed, country dummies.

Regions (in columns) are defined as in Table 3.

Robust standard errors adjusted for clustering at country level. *** significant at 1%, ** significant at 5%, * significant at 10%.

The industrial index is constructed at the regional level.

Table 5b. Support to Democracy and Regional Indices of Market Liberalization**dprobit Estimates of Support to Democracy****Sub-sample of Frontier-Zones**

	-1	-2	-3	-4	-5	-6	-7	-8
	Austro Hungarian	Ottoman	Yugoslavia	CIS	Central Asia	Polish Empire	USSR	EU
Industrial index frontier-zone_k	0.123*	-0.036	0.125	0.019	-0.123	-0.018	-0.035	-0.009
	[0.075]	[0.085]	[0.082]	[0.133]	[0.252]	[0.087]	[0.092]	[0.073]
Observations	1656	1940	2134	3794	1859	1794	4414	2322
Log likelihood	-1051	-1250	-1365	-2452	-1188	-1161	-2869	-1472
Pseudo R2	0.066	0.094	0.072	0.064	0.057	0.067	0.058	0.064

Notes to Table 5b:

Sub-sample of frontier-zones.

Controls: income categories, age categories, education categories, gender, occupation categories, self-employed, country dummies.

Robust standard errors adjusted for clustering at country level. *** significant at 1%, ** significant at 5%, * significant at 10%.

The industrial index measures the level of market development of the adjacent frontier-zone k when the respondent lives in frontier-zone j .

**Table 6. The Value of Democracy and Regional Indices of Market Development
Ordered Probit Regressions of the Score of Declared Importance of Democracy**

	-1	-2
	Entire sample (industrial index of zone j)	Only frontier-zones (industrial index of adjacent zone k)
Industrial index	0.038	-0.30
	[0.090]	[0.232]
Observations	27955	6281
Log likelihood	-61759	-13689
Pseudo R2	0.019	0.027

Notes to Table 6:

Controls: type of area (rural, urban or metropolitan), income categories, age categories, education categories, gender, occupation categories, self-employed, country dummies.

Robust standard errors adjusted for clustering at the country level. *** significant at 1%, ** significant at 5%, * significant at 10%.

Column 1: whole sample. Industrial index of the region j of the respondent.

Column 2: only frontier-zones. Industrial index of the adjacent frontier zone k when respondent live in region j.

**Table7. Support to democracy and relative regional income
dprobit Estimates of Support to Democracy**

	-1	-2	-3
	Democracy preferable	Authoritarian government preferable	Does not matter
Regional level of expenditure	0.021	-0.002	-0.018
	[0.043]	[0.031]	[0.028]
Observations	27960	27960	27995
Log likelihood	-18089	-11981	-15212
Pseudo R2	0.055	0.027	0.073

Notes to Table 7:

Controls: income categories, age categories, education categories, gender, occupation categories, self-employed, country dummies.

The industrial index is constructed as the average regional real level of expenditure.

Robust standard errors adjusted for clustering at the country level. *** significant at 1%, ** significant at 5%, * significant at 10%.

ANNEX

Table A1. Descriptive Statistics

Variable		Mean	Std. dev.
Market preferable	1 if resp. prefers market economy to other form of economic system	0.43	0.50
Planned economy is preferable	1 if resp. prefers planned economy under certain circumstances	0.26	0.44
Does not matter_eco	1 if resp. answers “for people like me it does not matter” whether the economy is organized as a market economy or as a planned economy	0.31	0.46
Democracy preferable	1 if resp. prefers democracy to other form of political system	0.57	0.49
Authoritarian reg. preferable	1 if resp. prefers authoritarian regime under certain circumstances	0.16	0.37
Does not matter_pol	1 if resp. answers “for people like me it does not matter” whether a government is democratic or authoritarian	0.27	0.37
Old	more than 65 years old	0.16	0.37
Mid-age	between 50 and 65 years old	0.24	0.43
Adult	between 35 and 50 years old	0.31	0.46
Gender	1 if male	0.48	0.50
Unemployed	actively looking for a job. waiting for an answer or find no job available	0.09	0.29
White collar worker		0.17	0.38
Blue collar worker		0.18	0.38
Service worker		0.12	0.32
Farmer or farm worker		0.05	0.22
Pensioner		0.21	0.41
Student		0.03	0.16
Housewife		0.06	0.25
Self employed	work as self employed at their main job (regardless occupation)	0.08	0.28
Industrial index	regional index. share of SMEs. private. post-1989 created enterprises. Min: 1; Max:5	2.39	1.05
Imp free elections	importance of free and fair elections. Min: 1; Max 5	0.89	0.32
Imp law order	imp. of law and order. Min: 1; Max 5	0.59	0.49
Imp free speech	imp. of freedom of speech. Min: 1; Max 5	0.51	0.50
Imp peace	imp. of peace and stability. Min: 1; Max 5	0.65	0.48
Imp indep press	imp. of press independence. Min: 1; Max 5	0.44	0.50
Imp pol opposition	imp. of political opposition. Min: 1; Max 5	0.39	0.49
Imp court indep	imp. of courts to defend ind. rights against abuse by state. Min: 1; Max 5	0.55	0.50
Imp court equal	imp. of equal treatment of citizens in courts. Min: 1; Max 5	0.60	0.49
Imp minority protec	imp. of minority rights protection. Min: 1; Max 5	0.42	0.49
Imp free abroad	imp. of freedom to travel abroad. Min: 1; Max 5	0.53	0.50
Imp democracy	global index (sum) of importance of above democratic institutions. Min: 0(none is important); Max: 10 (all are very important)	5.38	3.59

**Table A2. Attitudes towards the Market and Democracy in frontier zones of adjacent countries,
ranked by democracy level**

	Country i Market preferable	Country j Market preferable
Estonia> Russia	0.56	0.33
Estonia >Latvia	0.46	0.17
Russia > Belarus	0.32	0.48
Ukraine>Russia	0.50	0.22
Russia>Kazakhstan	0.28	0.35
Latvia> Lithuania	0.32	0.50
Lithuania > Belarus	0.55	0.33
Albania> Montenegro	0.71	0.51
Georgia>Armenia	0.45	0.25
Turkey>Armenia	0.27	0.20
Georgia > Azerbaijan	0.35	0.39
Poland>Belarus	0.42	0.43
Ukraine>Belarus	0.55	0.41
Poland > Ukraine	0.13	0.46
Slovak>Poland	0.27	0.33
Romania>Ukraine	0.74	0.82
Slovak Rep.>Ukraine	0.48	0.50
Croatia>Bosnia & H.	0.34	0.29
Slovenia>Croatia	0.55	0.40
Serbia >FYROM	0.90	0.27
Hungary>Serbia	0.57	0.38
Bulgaria> FYROM	0.25	0.54
Bulgaria>Romania	0.25	0.32
Romania > Moldova	0.59	0.41
Romania >Serbia	0.56	0.38
Hungary>Romania	0.69	0.69
Hungary >Croatia	0.24	0.37
Hungary > Romania	0.27	0.69
Slovak Rep.>Hungary	0.58	0.37
Slovak>Czech Rep.	0.49	0.41
Poland>Czech Rep	0.45	0.48
Kyrgyzstan>Kazakhstan	0.49	0.27
Kyrgyzstan>Tajikistan	0.70	0.35

Symbols > or < indicate the country ranking in terms of democracy according to Freedom House Nations in Transit 2006. Average score inside each zone.

**Table A3. Attitudes Towards the Market and Democracy
in Frontier-Zones of Selected Countries**

	Frontier industrial index	Democracy preferable		Frontier industrial index	Democracy preferable
BELARUS			ROMANIA		
Belarus Poland	1.87	0.12	Romania Serbia	2.39	0.52
Belarus Ukraine	1.89	0.49	Romania Bulgaria	2.43	0.42
Belarus Russia	1.98	0.57	Romania Hungary	2.58	0.75
Belarus Lithuania	2.03	0.61	Romania Moldova	2.64	0.68
CROATIA			RUSSIA		
Croatia Bosnia & H.	2.35	0.43	Russia Mongolia	2.2	0.61
Croatia Slovenia	2.31	0.58	Russia Kazakhstan	2.26	0.42
HUNGARY			Russia Estonia	2.33	0.48
Hungary Slovak Rep.	2.33	0.65	Russia Poland	2.33	0.57
Hungary Croatia	2.38	0.34	Russia Belarus	2.33	0.38
Hungary Romania	2.48	0.61	Russia Ukraine	2.51	0.31
Hungary Serbia	2.53	0.8	SERBIA		
LATVIA			Serbia FYROM	2.12	0.92
Latvia Lithuania	2.9	0.51	Serbia Romania	2.29	0.48
Latvia Russia	2.9	0.43	Serbia Hungary	2.4	0.42
Latvia Estonia	3.38	0.56	UKRAINE		
LITHUANIA			Ukraine Poland	2.25	0.51
Lithuania Belarus	2.5	0.58	Ukraine Belarus	2.32	0.58
Lithuania Latvia	2.9	0.59	Ukraine Russia	2.34	0.61
Lithuania Russia	3.17	0.6	Ukraine Romania	2.53	0.87
POLAND			Ukraine Slovak Rep.	2.67	0.51
Poland Belarus	1.94	0.6			
Poland Ukraine	2.26	0.47			
Poland Czech Rep.	2.43	0.58			
Poland Slovak Rep.	2.77	0.46			

Table A4. Descriptive Statistics by Country

	Support Democracy (%)	Support Authoritarian (%)	Support Market (%)	Support Plan (%)	Industrial Index	Importance democracy
Albania	66.1	9.4	65.15	13.14	2.30	7.23
Armenia	47.01	13.6	33.22	22.19	2.32	NA
Azerbaijan	47.55	9.13	39.61	9.27	1.96	5.15
Belarus	52.04	17.06	48	19.08	1.94	4.33
Bosnia & H.	61.42	19.14	34.37	38.65	2.33	6.43
Bulgaria	45.90	17.74	36.79	24.72	2.61	5.89
Croatia	55.28	14.12	36.32	26.78	2.37	7.41
Czech Rep.	58.53	17.59	47.03	27.25	2.60	5.36
Estonia	61.11	12.23	49.47	18.45	2.78	6.03
FYROM	46.63	18.04	33.88	28.96	2.33	5.09
Georgia	58.13	11.63	38	23.04	2.28	5.73
Hungary	61.68	13.45	37.31	26.29	2.53	6.17
Kazakhstan	48.81	22.23	31.92	39.52	2.50	5.86
Kyrgyzstan	58.92	19.11	49.75	27.68	2.25	4.35
Latvia	55.97	19.59	39.11	26.16	2.75	5.99
Lithuania	54.42	10.31	41.64	17.12	2.73	5.72
Moldova	49.59	19.25	39.19	32.75	2.32	4.32
Mongolia	69.92	19.82	71.42	16	2.22	1.79
Montenegro	73.27	8.26	47.17	26.02	2.19	6.82
Poland	54.19	17.49	40.24	14.6	2.36	6.27
Romania	50.19	26.68	45.87	26.77	2.55	5.81
Russia	36.05	32.77	27.67	41.03	2.37	4.88
Serbia	51.02	14	44.52	21.21	2.33	6.80
Slovak Rep.	67.43	13.21	47.51	24.57	2.52	5.12
Slovenia	66.37	8.18	49.79	18.77	2.26	6.29
Tajikistan	62.74	15.87	51.35	28.18	2.21	4.26
Turkey	74.93	6.04	37.59	32.75	2.06	7.01
Ukraine	55.14	24.45	42.19	33.24	2.36	5.39
Uzbekistan	68.4	12.24	43.55	38.04	2.27	3.84

Table A5. Indices of Democracy and Country Rankings

	FREEDOM HOUSE		BTI	POLITY IV	
	Democracy (Nations in Transit) (i)	Freedom in the World (ii)	Ranking	Democracy indicator (iv)	Polity (v)
Slovenia	1.75	95	1	7	6
Estonia	1.96	95	2	7	6
Slovakia	1.96	91	5	9	9
Hungary	2	93	4	10	10
Latvia	2.07	89	9	8	8
Poland	2.14	92	7	10	10
Lithuania	2.21	90	6	10	10
Czech Rep.	2.25	92	3	10	10
Bulgaria	2.93	98	10	9	9
Romania	3.39	75	11	9	9
Croatia	3.71	84	8	7	7
Serbia	3.71	76(vi)	14 (vi)	6 (vi)	6 (vi)
Albania	3.79	63	16	7	7
FYROM	3.82	61	12	9	9
Montenegro	3.89	NA	NA	NA	NA
Bosnia & H.	4.07	62	17	NA	NA
Ukraine	4.21	72	13	6	6
Georgia	4.86	61	21	7	7
Moldova	4.96	57	23	8	8
Armenia	5.14	41	19	5	5
Kyrgyzstan	5.64	47	24	4	-3
Russia	5.75	35	20	7	7
Tajikistan	5.93	30	27	1	-3
Azerbaijan	5.93	33	25	0	-7
Kazakhstan	6.39	32	22	0	-6
Belarus	6.71	15	26	0	-7
Uzbekistan	6.82	3	28	0	-9
Mongolia	NA	83	18	10	10
Turkey	NA	65	15	8	7

(i) The *democracy score* ratings from *Nations in Transit* survey by Freedom House are based on a scale of 1 to 7, with 1 representing the highest level of democratic progress and 7 the lowest. The Democracy Score is an average of ratings for electoral process, civil society, independent media, independence of the judicial system, and corruption.

(ii) The *Freedom in the World* survey provides an annual evaluation of the state of global freedom as experienced by individuals. The ratings process is based on a checklist of 10 political rights questions and 15 civil liberties questions. The political rights questions encompass electoral process, political pluralism and participation, and functioning of the

government. The civil liberties questions are concerned with freedom of expression and belief, associational and organizational rights, rule of law, and personal autonomy and individual rights. The highest number of points that can be awarded to the political rights checklist is 40, and that to the civil liberties checklist is 60, with the highest score indicating more freedom. This index is thus more global than the democracy index and more concerned with the actual rights and social freedoms enjoyed by individuals.

(iii) The *Bertelsmann Transformation Index* (BTI) is a global ranking that analyzes and evaluates development and transformation processes in 119 countries. This index is however not only concerned with democracy, but also with the development of the market economy in each country, and for that reason, is less well suited than indicators purely concerned with democracy for our identification strategy.

(iv) The *Polity IV Democracy indicator* is an additive eleven-point scale (0-10), which is a weighted indicator of the competitiveness of political participation, the openness and competitiveness of executive recruitment, and constraints on the chief executive.

(v) The *Polity indicator* from Polity IV is a combined polity score that is computed by subtracting the ‘autocracy score’, which indicates how restricted or suppressed political participation is, to the democracy score. A negative ranking thus signifies that autocratic characteristics of a regime outweigh its democracy characteristics.

(vi) Serbia and Montenegro are pooled.

Table A6. Indices of Industrial Market Development at Frontier-Zones

Frontier-Zone i j	Frontier zone i	Country i	Frontier zone j	Country j
Albania Montenegro	2.27	2.36	2.43	2.24
Armenia Georgia	2.00	2.36	2.38	2.24
Azerbaijan Georgia	1.89	1.89	2.25	2.24
Belarus Lithuania	1.95	1.92	2.53	2.70
Belarus Poland	2.04	1.92	2.03	2.38
Belarus Russia	2.00	1.92	2.00	2.38
Belarus Ukraine	2.14	1.92	2.21	2.33
Bosnia & H. Croatia	2.42	2.38	2.38	2.37
Bosnia & H. Serbia	2.56	2.38	2.12	2.25
Bulgaria FYROM	2.47	2.62	2.18	2.29
Croatia Bosnia & H.	2.38	2.37	2.42	2.38
Croatia Slovenia	2.31	2.37	2.19	2.25
Czech Poland	2.62	2.61	2.26	2.38
Czech Slovakia	2.80	2.61	2.28	2.49
Estonia Russia	2.34	2.74	2.55	2.38
Estonia Latvia	3.14	2.33	2.27	2.80
Kazakh-Kyrgyzstan	2.65	2.48	2.32	2.25
Kazakhstan Russia	2.57	2.48	2.38	2.38
Kyrgyzstan Tajikistan	2.00	2.25	2.55	2.20
Latvia Lithuania	2.91	2.80	2.96	2.70
FYROM Serbia	2.15	2.29	2.50	2.25
Moldova Romania	2.35	2.26	2.93	2.56
Poland Slovakia	2.58	2.38	2.55	2.49
Poland Ukraine	2.27	2.38	3.14	2.33
Romania Serbia	2.53	2.56	2.29	2.25
Russia Ukraine	2.47	2.38	2.40	2.33
Slovakia Ukraine	3.00	2.49	2.67	2.33