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Journal of Comparative Economics

journal homepage: www.elsevier.com/locate/jce

Learning, political attitudes and crises: Lessons from transition countries

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ARTICLE INFO

Article history:

Received 9 February 2012

Revised 5 June 2012

Available online xxx

JEL classification:

E32

H12

O57

P26

Keywords:

Political preferences

Crisis

Cycles

Corruption

Learning

ABSTRACT

Grosjean, Pauline, Ricka, Frantisek, and Senik, Claudia—Learning, political attitudes and crises: Lessons from transition countries

This paper illustrates the sensitivity of political attitudes to the business cycle. It shows how the 2008 economic crisis has reshaped individual support for democracy and market liberalization in post-transition countries. Pro-reform attitudes have lost ground between 2006 and 2010 in Central and Eastern European countries that were hit by a negative economic shock. By contrast, they have increased in the CIS. Although on average, individual exposure to the crisis is associated with lower support to democracy and markets, it drives the demand for liberal reforms among groups of the population that were most excluded from the political-economic system in place, the youth particularly, in countries that lag behind in terms of liberalization and, where institutions are corrupt. We propose an interpretation of these evolutions in terms of learning and updating of beliefs. *Journal of Comparative Economics* xxx (xx) (2012) xxx–xxx. The School of Economics, Australian School of Business, The University of New South Wales, Australia; European Bank for Reconstruction and Development, Office of the Chief Economist, One, Exchange Square, London, EC2A 2JN, United Kingdom; Paris School of Economics, 48 bd Jourdan, 75014 Paris, France.

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1. Introduction

How cyclical are political attitudes, and what can mitigate the extent of their variation? In the context of the 2008 economic crisis, these questions bear important implications, especially in countries, where democracy is still fragile and market institutions are not full-fledged. In Central and Eastern Europe, the very momentum of Transition from communism was triggered by popular aspirations to democracy and free competition and the belief that these institutions were superior to authoritarianism and state regulation in terms of welfare and performance. Twenty years after the start of the Transition process, how have these beliefs and aspirations evolved? Have they been influenced by the adverse shock of the recent economic crisis? Are new members of the European Union, the most advanced transition economies, more supportive of democracy and free markets?

This paper adopts the view that political attitudes are driven by a process of slow and home-biased formation and updating of beliefs about the relative performance of different institutions. Imperfect learning is at the origin of a “cyclicity” of political attitudes, i.e. the sensitivity of political opinions to the short run state of affairs and business cycle of the country.

Within this frame of analysis, this paper scrutinizes the political attitudes in Central and Eastern Europe and in the Commonwealth of Independent States in 2010 and their evolution since 2006 using the *Life in Transition Survey (LiTS)*.

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The LiTS is a nationally representative survey of socio-economic attitudes and conditions. It is a repeated cross-section, first conducted in 2006 in 29 post-transition countries and Turkey and repeated in 2011, with the addition of five “benchmark” Western European countries: France, Germany, Great-Britain, Italy and Sweden.

At first sight, it appears that, surprisingly, the more democratic and market-friendly the institutions of a country, the stronger the set back of popular support for these institutions. This intriguing result could suggest that citizens of transition countries have been disappointed by the evolution of their country, perhaps because of reform fatigue and disenchantment with the once idealized Western-type societies. However, this interpretation rests on a spurious correlation hiding the effect of the business cycle.¹ Indeed, support for democracy and market liberalization have fallen in Central and Eastern Europe, in contrast with the Commonwealth of Independent States (CIS), mostly because of the deeper integration of the former group in global financial markets and international trade. At the individual level, people seem to blame the negative consequences of the business cycle on the system in place that they reject all the more as they are hit personally. This explains the greater rejection of liberal institutions in more advanced economies, which were both further down the path of reforms and hit harder by the crisis.

We also explore the institutional features that may underlie the increase in popular support for liberal policies within the CIS and their decrease in Central and Eastern Europe. We consider two main hypotheses. The first one has to do with the influence of state corruption as a magnifying factor in the relationship between economic outlook and political attitudes. Because corruption is not only perceived as illegal or inefficient, but also as unfair, we expect that when hit by the crisis, people will turn against the political and economic system in place all the more as they perceive corruption to be high. In line with theoretical interpretations of regulation as a rent-seeking instrument benefiting a restricted group of insiders (Tullock, 1967; Stigler, 1971), people may perceive the inefficiencies associated with regulation when state corruption is high, and demand more liberal policies as a result. This implies that the effect should be particularly strong in countries with low institutional quality and high degree of state capture, and among groups that are most excluded from the beneficiaries of regulation policies. Our estimates confirm this prediction. Where institutions are corrupt, economic hardship leads people to demand more market and democracy. The effect is particularly strong among the youth and in countries with low quality institutions, in particular in the CIS. This observation is conducive to a parallel with Arab revolutions of Spring 2011, where the role of the youth was particularly important in the expression of social discontent and in the political upheaval. The second hypothesis relates to the mitigating effect of social policy. We do observe that social safety nets lessen the effect of economic downturns on people's political preferences, provided that they are adequately targeted to those who most need it and are affected by the crisis.

Identification of the causal effects of the crisis on support for reforms supposes that crisis exposure is exogenous to political preferences. We employ several strategies to deal with the issue of potential endogeneity. First, our approach relies on individual level analysis, thereby controlling for country-level characteristics that could be correlated both with the country's exposure to the economic crisis and with average political preferences. Second, we control for observable individual circumstances, such as education, age, gender, occupation and ownership structure of companies in which people are employed, that could be correlated both with exposure to the crisis and with attitudes towards the political-economic system. However, because there may still be other unobserved variables that jointly influence exposure to the crisis and political preferences, we assess the size of the omitted variable bias that would explain away the observed effect of crisis exposure on political preferences. We find that the influence of unobservable factors would need to be between 3 and 5 times that of all combined observable individual characteristics.

The issue of endogeneity is of particular concern concerning the relationship between people's perception of corruption, exposure to the crisis and attitudes to the political system. One may worry that perceptions of corruption are determined by unobservable variables that may also be correlated with preferences for democracy and free markets. In order to deal with this issue, we instrument perceived corruption in public services by the number of time individuals have actually used public services during the past 12 months. We also check that our results are robust to using different measures of exposure to the economic crisis.

1.1. Literature

This paper draws on a large literature dedicated to popular beliefs and preferences concerning political and economic institutions, regimes and economic policy. An important strand of the literature has endeavored to measure how much these attitudes depend on past outcomes through the formation of beliefs about the relative performance of different institutions. It points to the crucial importance of the process of learning and updating beliefs and to the potential multiple politico-economic equilibria generated by imperfect learning (see Piketty, 1995; Kremer et al., 2001, or Di Tella and MacCulloch, 2009). Because of imperfect learning, political attitudes of the inhabitants of a country may depend on the current state of affairs and on the business cycle in that country. Landier et al. (2008) indeed argue that beliefs are slowly moving, home-biased and path-dependent. In the same spirit, Buera et al. (2011) explain the slow adoption of liberal policies after the Second World War, by the slow process of learning and Bayesian updating of beliefs of policy-makers. Their model

¹ As shown by Transition Report (EBRD, 2011, Chapter 3), controlling for the level of economic activity or the extent of the crisis, it appears that it is not institutional quality but the business cycle that is the main driver of the change in political attitudes.

predicts that a reversal to state intervention could happen if the current financial crisis had consequences of the same size as the Great Depression. Their work analyzes explicitly the beliefs about the relative performance of free markets versus state intervention.

The cyclicity of political beliefs and preferences is a consequence of the continuous learning and updating of beliefs. Stevenson and Wolfers (2011), using the *Gallup surveys of Trust in Institutions*, document the fact that trust in public institutions, such as banks, businesses and governments, is influenced by the business cycle in the United-States. Using the *Gallup World Poll*, that surveyed about 1000 people in 155 countries between 2006 and 2010, they also show that countries that faced the largest drop in employment due to the current financial crisis also experienced the largest decline in trust in financial institutions, governments and the judicial system. This is particularly true in developed countries. In the same vein, Deaton (2011) has used the *Gallup Healthways Well-Being* index, resulting from a daily telephone poll of 1000 randomly sampled Americans, asking them about their satisfaction with their lives, with their standard of living, and whether they experienced a range of positive and negative feelings on the previous day, such as happiness, smiling, enjoyment, sadness, worry, stress and anger, physical pain.² He documents the swings in these reported well-being measures accompanying the major events of the financial crisis, showing that life satisfaction and other hedonic measures are indeed sensitive to the business cycle. Our work differs from these studies as it relies on individual measures of exposure to the economic crisis. Exploiting inter-individual variations enables a more direct understanding of the link between economic shocks and individual political attitudes; it also allows keeping constant the country level characteristics that could be correlated with both the severity of the crisis in a given country and political attitudes, such as institutional quality or, more broadly, culture.

An important question is how institutional quality is expected to meddle in this relationship between political attitudes and the business cycle. In particular, the literature has recently focused on the relationship between corruption and political attitudes. Aghion et al. (2011) provide an illustration of how beliefs determine the demand for different institutions and political regimes. The authors hypothesize that less trustful individuals expect entrepreneurs to be uncivic and exert more negative externalities in the absence of government intervention. Empirically (using the *World Values Survey* and the first round of LiTS), they test this idea using distrust in others as a proxy for concerns about market failures. They show that trust is indeed negatively related to preferences for state control over economic activity. They conclude that “*individuals in low trust countries want more government intervention even though the government is corrupt*”. This is because they perceive that the inefficiency from unregulated unfair individuals is potentially greater than that of the corrupt state sector. Identically, Di Tella and MacCulloch (2009) try to explain the fact that despite being the system most conducive to growth, capitalism is confronted with persistent negative attitudes in developing countries. Their explanation points to the perception of corruption, which is associated with the image of unfair enrichment of capitalists and hence leads a demand for more state regulation and less market competition. Anti-capitalist policies are seen as the fruit of a social contract between citizens and policy makers/regulators to constrain corrupt and unfair capitalists. *De facto*, as noted by Pinotti (forthcoming), recent corporate scandals coming with the financial crisis have resulted in a dramatic drop in trust and rising pressures for increased state intervention and regulation in various countries. However, as noted by Aghion et al. (2011) the impact of corruption on the demand for regulation should depend on the perceived relative magnitude of the inefficiency arising from unregulated unfair individuals versus the corrupt state sector. We consider this trade-off and undertake an extension of the literature on the relationship between perceived corruption and state regulation by showing how a negative economic shock may affect this relationship.

The rest of the paper is organized as follows. The next section describes the data and empirical strategy. Section 3 discusses the evolution of attitudes between 2006 and 2010. Section 4 establishes the cyclical character of political attitudes and their sensitivity to the recent economic crisis. Section 5 investigates in more details the magnifying influence of corruption and the dampening role of social security transfers on the sensitivity of political attitudes to economic fluctuations. Section 6 concludes.

2. Data and empirical strategy

2.1. Data

We use the *Life in Transition Survey* (LiTS) conducted by the European Bank for Reconstruction and Development and the World Bank in 2006 and 2010. The survey was run in 28 post-transition countries³ and Turkey in 2006 and repeated in the same countries in 2010, with the addition of Kosovo and of five Western European countries for comparison: France, Germany, Great-Britain, Italy and Sweden. The LiTS is a nationally representative survey and includes between 1000 and 1500 (in Great Britain, Poland, the Russian Federation, Serbia, Ukraine and Uzbekistan in 2010) observations per country. The total number of observations is 28,000 in 2006 and 38,800 in 2010. Respondents to each wave of the survey were drawn randomly, using a two stage sampling method, with electoral districts, polling station territories, census enumeration districts or geo-administrative divisions as Primary Sampling Units (PSUs)⁴, and households as secondary sampling units.

² Following the protocol of the *Day Reconstruction Method*.

³ Kosovo was not included in 2006. Turkmenistan was neither included in 2006 nor in 2010.

⁴ PSUs were selected randomly, with probability proportional to size.

2.1.1. Political attitudes

Most questions in the LiTS survey are common to the two waves. In particular, both waves of LiTS contain analogous questions meant to gauge the strength of individual support for markets and democracy. To assess market support, respondents were asked which of the following three statements they most agreed with: “(i) a market economy is preferable to any other form of economic system; (ii) under some circumstances, a planned economy may be preferable to a market economy; and (iii) for people like me, it does not matter whether the economic system is organized as a market economy or as a planned economy”. To assess support for democracy, respondents were asked whether they agreed that (i) democracy is preferable to any other form of political system, or (ii) under some circumstances an authoritarian government may be preferable to a democratic one, or (iii) for people like me, it does not matter whether a government is democratic or authoritarian. Descriptive statistics are displayed in Table 1 for the entire sample and broad regional groups and in Fig. 1 for individual countries.

2.1.2. Impact of the crisis

LiTS (2010) includes several measures of the impact of the crisis on respondents and their household. We build a synthetic consumption response index, constructed as a simple sum of positive responses to questions about whether households had to reduce consumption of staple foods, reduce tobacco smoking, postpone or skip medical treatment, stop buying regular medications or had utilities cut off because of delayed payment. This measure captures the extent to which a household had to adjust its most basic consumption in response to changed circumstances (such as unemployment, reduced wages, and so on). The overall average value of this measure of exposure to the crisis is 1.06. It is highest, on average, in Macedonia (1.90), Bulgaria (1.65) and Latvia (1.62) and lowest in Sweden (0.169). We also use an alternative, more objective, measure of exposure to the crisis: whether the respondent or one household member has lost his or her job since 2008. On average, this is the case for 18.49% of households. The highest proportion is found in Latvia (34.46%) and the lowest in Sweden (0.05%).

Although we document the aggregate evolution of political attitudes between 2006 and 2010 (Section 4), because LiTS is a repeated cross-section rather than an individual panel, we can only study the influence of individual exposure to the crisis on individual political preferences using the 2010 wave of the survey.

2.1.3. Aggregate indicators

In addition to LiTS, we use aggregate indicators of GDP per capita, economic growth and political governance. Our aggregate measures of the economic crisis come from individual countries' national statistics. Measures of the quality of institutions are from the World Bank governance indicators (World Bank, 2006, 2010) and Polity IV (CIDCM, 2006, 2010). We check that all results are robust to using alternative institutional quality measures, such as the Freedom House indicators. The World Bank governance indicator rates six dimensions of governance: voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law and control of corruption. The indicator takes values from -2.5 to 2.5 , with a higher score reflecting better quality institutions. In the region covered by LiTS in 2010, the country ranking lowest is Uzbekistan (-1.26) and the highest is Sweden (1.74). The Polity Score captures the extent of democracy on a 21-point scale ranging from -10 (hereditary monarchy) to $+10$ (consolidated democracy). Autocracies are characterized by a score between -10 and -6 , anocracies by a score between -5 and $+5$ and any score above 6 denotes democracies. Among the 2010 LiTS countries, Hungary, Mongolia, Poland, the Slovak Republic, Slovenia and all five Western European countries but France⁵ are graded 10. Uzbekistan has the lowest Polity score in the sample (-9).

2.1.4. Corruption

To measure the level of corruption in the state sector, we rely on LiTS' questions about the frequency of illicit payments solicited by public officials. Each respondent was asked how frequently, in their opinion, unofficial payments were made across a wide range of public services that are meant to be free – including courts, public education, health care and obtaining public documents, unemployment benefits or social security benefits. We averaged the response scores (1 for *never* to 5 for *always*) from the separate categories in order to produce a single measure of corruption perception for every individual. This variable takes values from 1 to 5 with a sample mean of 1.73. Corruption is, as expected, higher in the CIS (1.77 in 2006 and 2.15 in 2010) than in the rest of the region.⁶ The correlation coefficients between this LiTS-based measure of corruption, on the one hand, and the World Bank governance indicator or the Polity index of corruption, on the other hand, are significant at the 1% level.⁷

We follow Aghion et al. (2010) and Pinotti (forthcoming), and interpret generalized trust as the belief about average civility in society. LiTS measures generalized trust with the standard question: “Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?”. Answers are on a five-point scale, with one for complete distrust and five for complete trust. This variable is meant to capture the intensity of concerns about market failures.

⁵ This is due to the important power conferred by the French Constitution to the President and the executive branch as opposed to the National Assembly.

⁶ In Central and Eastern Europe, the index of corruption of institutions was 1.56 in 2006 and 1.65 in 2010. In Western Europe, the 2010 value is 1.19.

⁷ They are 0.28 and 0.35, respectively.

Table 1

LiTS descriptive statistics for 2006 and 2010.

Panel A: whole sample	Year	Obs.	Mean	Std. dev.	Min	Max
Support democracy	2006	28956	0.57	0.49	0	1
	2010	34060	0.58	0.49		
Support authoritarian regime	2006	28956	0.16	0.36	0	1
	2010	34060	0.19	0.39		
Support market economy	2006	28936	0.43	0.49	0	1
	2010	32799	0.41	0.49		
Support planned economy	2006	28936	0.26	0.44	0	1
	2010	32799	0.3	0.46		
Crisis index	2010	38836	1.06	1.32	0	8
Lost job	2010	38865	0.185	0.39	0	1
Mid income	2006	29002	0.33	0.47	0	1
	2010	35346	0.33	0.47		
Rich	2006	29002	0.33	0.47	0	1
	2010	35346	0.33	0.47		
Age	2006	29000	46.52	17.72	17	97
	2010	38840	45.89	17.37		
Young	2006	29008	0.14	0.35	0	1
	2010	38864	0.14	0.35		
Old	2006	29008	0.12	0.32	0	1
	2010	38864	0.1	0.3		
Male	2006	29002	0.42	0.49	0	1
	2010	38820	0.4	0.49		
Secondary edu	2006	27411	0.51	0.5	0	1
	2010	37572	0.32	0.47		
Tertiary edu	2006	27411	0.01	0.09	0	1
	2010	37572	0.06	0.24		
Pensioner	2006	29002	0.23	0.42	0	1
	2010	38864	0.21	0.41		
Student	2006	29002	0.03	0.18	0	1
	2010	38864	0.03	0.17		
Housewife	2006	29002	0.07	0.26	0	1
	2010	38864	0.08	0.27		
Farmer/farm worker	2006	29002	0.05	0.22	0	1
	2010	38864	0.05	0.21		
Unemployed	2006	29002	0.07	0.26	0	1
	2010	38864	0.08	0.27		
Out of labor force	2006	29002	0.07	0.25	0	1
	2010	38864	0.05	0.23		
Employee of state company	2006	29002	0.18	0.38	0	1
	2010	38864	0.17	0.37		
Employee private domestic company	2006	29002	0.18	0.39	0	1
	2010	38864	0.21	0.41		
Employee foreign company	2006	29002	0.02	0.13	0	1
	2010	38864	0.03	0.16		
Corruption Institutions	2006	28987	1.66	0.87	1	5
	2010	37719	1.77	0.96		
Used institutions	2006	29002	0.16	0.16	0	1
	2010	38696	0.22	0.18		
General trust	2006	27970	2.64	1.23	1	5
	2010	36960	2.96	1.05		
Polity 2	2006	29002	5.64	5.86	−9	10
	2010	38696	5.49	5.9	−9	10
World Bank Governance Index	2006	29002	−0.09	0.7	−1.47	1.67
	2010	38696	−0.06	0.66	−1.26	1.07
Panel B: selected statistics by region	Variable	Year	Mean	Std. dev.		
Central and Eastern Europe (CEE)	Support democracy	2006	0.58	0.49		
		2010	0.51	0.5		
	Support authoritarian	2006	0.15	0.35		
		2010	0.22	0.41		
	Support market economy	2006	0.43	0.5		
		2010	0.37	0.48		
	Support planned economy	2006	0.24	0.43		
		2010	0.3	0.46		
	Crisis	2010	1.19	1.38		
	Lost job	2010	0.2	0.4		
Corruption institutions	2006	1.56	0.8			
	2010	1.65	0.81			

(continued on next page)

Table 1 (continued)

Panel B: selected statistics by region	Variable	Year	Mean	Std. dev.
	Use institutions	2006	0.16	0.17
		2010	0.23	0.2
	Polity 2	2006	9.07	0.77
		2010	9.06	0.76
	World Bank governance	2006	0.37	0.52
		2010	0.38	0.47
Commonwealth of Independent States (CIS)	Support democracy	2006	0.56	0.5
		2010	0.59	0.49
	Support authoritarian	2006	0.17	0.37
		2010	0.18	0.39
	Support market economy	2006	0.42	0.49
		2010	0.46	0.5
	Support planned economy	2006	0.28	0.45
		2010	0.3	0.46
	Crisis	2010	1.12	1.29
		Lost job	2010	0.19
	Corruption institutions	2006	1.77	0.93
		2010	2.15	1.11
Use institutions	2006	0.17	0.17	
	2010	0.23	0.17	
Polity 2	2006	1.69	6.65	
	2010	1.23	6.5	
World Bank governance	2006	-0.66	0.42	
	2010	-0.62	0.37	
Western Europe	Support democracy	2010	0.76	0.43
		Support authoritarian	2010	0.11
	Support market economy	2010	0.45	0.5
		Support planned economy	2010	0.28
	Crisis	2010	0.46	0.97
		Lost job	2010	0.11
	Corruption institutions	2010	1.19	0.47
		Use institution	2010	0.17
	Polity 2	2010	9.82	0.39
		World Bank governance	2010	1.24

Descriptive statistics are displayed in Table 1 (Panel A). Selected descriptive statistics by region are displayed in Panel B of Table 1. Section 3 comments on descriptive statistics and complements the analysis with multivariate regressions that control for individual characteristics.

2.2. Estimation and identification

Section 4 presents the estimates of political attitudes regressed on the composite indicator of individual consumption response to the crisis, controlling for a number of observable individual characteristics. Estimation equations are of the following form:

$$Support_{ic} = \alpha + \beta Crisis_{ic} + \varphi X_{ic} + \delta D + \varepsilon_{ic} \quad (1)$$

where $Support_{ic}$ measures the political attitude of individual i in country c towards either democracy or free markets. $Crisis_{ic}$ measures individual i 's consumption response to the crisis. For robustness, we check that all results remain essentially unchanged when we measure crisis exposure by the fact that a member of the household has lost her job. X_{ic} is a vector of individual controls and D is a vector of country fixed effects. To correct for potential correlation of individual errors within country, standard errors are adjusted for clustering at the country level in all regressions.

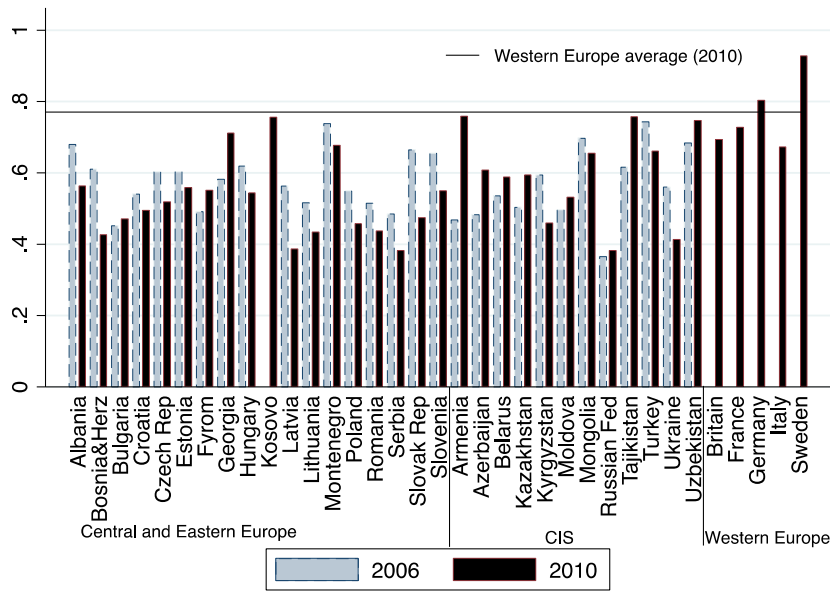
In Section 5, we investigate how state corruption and public transfers affect the relationship between economic shocks and political attitudes. Estimation equations are of the following form:

$$Support_{ic} = \alpha + \beta Crisis_{ic} + \gamma Z_{ic} + \theta Crisis_{ic} * Z_{ic} + \varphi X_{ic} + \delta D + \varepsilon_{ic} \quad (2)$$

where Z_{ic} captures, alternatively, individual exposure to state corruption (Section 5.1) or whether the individual benefited from public transfers (Section 5.2). θ reflects the combined effect of economic hardship on the one hand and, alternatively, exposure to state corruption or public transfers, on the other hand. We expect θ to be positive in both cases.

We identify the relation between the severity of the crisis and political attitudes on inter-individual differences, controlling for country fixed-effects, hence for potential international differences that could be correlated both with the severity of the crisis and with political attitudes. For example, it is likely that the quality of institutions, or more broadly 'culture', may influence both political attitudes and the severity of the economic crisis, as well as people's adjustment to the crisis ($Crisis_{ic}$). The use of country fixed effect helps overcome this problem. Still, causal identification is impaired if individual characteristics

Panel A:



Panel B:

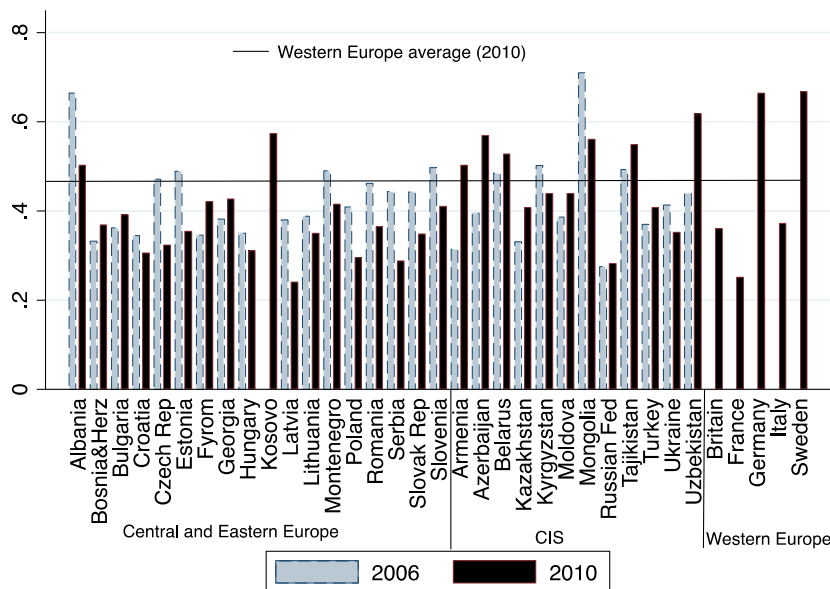


Fig. 1. Support for democracy and a market economy. Panel A. Support for democracy. *Notes:* Bars' height measures the share of the population of each country that unequivocally supports democracy rather than authoritarianism in 2006 (blue bar) and 2010 (red bar). The horizontal line indicates the 2010 average for Western comparator countries (France, Germany, Great-Britain, Italy and Sweden). Source: LiTS (2006 and 2010). Panel B. Support for a market economy. Source: LiTS (2006 and 2010). (For interpretation of the references to color in this figure legend, the reader is referred to the web version of this article.)

may predict both political attitudes and individual exposure to the crisis. While such selection bias is much less likely at the individual level than it is at the country level, we undertake a number of strategies to establish the causal nature of our results. First, we control for observable individual characteristics that may be correlated both with attitudes and with exposure to the crisis, such as education, age and gender but also occupation and the ownership structure of companies in which people are employed. This is justified by the concern that employees of foreign firms may not only be exposed to different types of shocks but may also hold different attitudes towards the political-economic system. However, we may not be able to observe all the variables that jointly influence exposure to the crisis and political preferences. Our second strategy consists in assessing the size of the omitted variable bias that would explain away the observed effect of crisis exposure on political preferences.

Concerning the identification of the effect of corruption on political attitudes, the suspicion is that perceptions of corruption may be heavily correlated with respondents' attitudes to the political and economic systems in general, and support for democracy and markets in particular. In other words, one might worry that people invoke corruption as part of their general rejection of the system in place, without any true causal effect of actual corruption. To overcome this obstacle to identification, we use the number of times respondents have used public services during the last 12 years as an instrumental variable for the perception of corruption. The identifying assumptions are that the perception of corruption in public services is influenced by the actual use of such services, but that the number of times people use public services is uncorrelated with their preferences for reforms. This instrumental variable estimation is implemented using two stage least squares.

3. Evolution of attitudes between 2006 and 2010: The harder they fall?

Twenty years after the fall of the Soviet Union and the disintegration of the socialist bloc, how strong is the support for democracy and free markets in the countries of Central and Eastern Europe and in the CIS? Starting from about the same point in 1990 (past history notwithstanding), some countries have adopted social democratic institutions and market-friendly regulations at an accelerated pace in order to enter the European Union and adopted its "acquis communautaire" since the mid-1990s, while others, absent the potential reward of EU membership, progressed at a much slower pace. Have subjective attitudes followed these different paths? Is there more support for democracy and a market economy in countries of the new Europe?

A naïve look at self-declared political preferences in 2010 would suggest that this is not the case. It would even suggest that the further the progress of social democracy, the stronger the current backlash against this system! Panels A and B of Figs. 1 and 2 plot the proportions of each country's populations who unequivocally prefer democracy and markets to any other political and economic system. In 2010, Central and Eastern Europe is lagging behind the Western Balkans and the CIS, not to mention Western European countries, in terms of average support for a market economy and for democracy. Panel A of Fig. 2 illustrates the inverse correlation between the quality of social-democratic institutions, measured by the Polity score, and popular support for the economic and political foundations of these systems in 2010. This observation is in line with a series of studies that have analyzed the disenchantment of citizens of transition countries in face of the realization of their hopes and expectations. Authors like Krastev (2007) have assessed the reform fatigue of the inhabitants of this region, as well as the backlash of their support to the new regime as a reaction to the unabated corruption and the widening of income inequalities (see also Grosfeld and Senik, 2010). It may also be the case that inhabitants of these countries have become "blasé" as they became accustomed to capitalist and democratic institutions.

This theory could explain why popular support to social democracy and life satisfaction is lower in the countries that are most advanced in this direction. However, if it were the case that people need to be disappointed by market and democratic institutions once they experience them, one should observe the same patterns in 2006 as in 2010. One should also observe a lower support to liberal institutions in Western European countries: this prediction is contradicted by the high average level of support for democracy and for market mechanisms illustrated by the horizontal line in Panels A and B of Figures. The lower panel of Fig. 2 (Panel B) also shows that in 2006, there was no systematic relationship between popular support for democracy and a market economy on the one hand and Polity scores on the other hand. Hence, the lower support for liberal institutions in more advanced countries is a new feature of 2010.

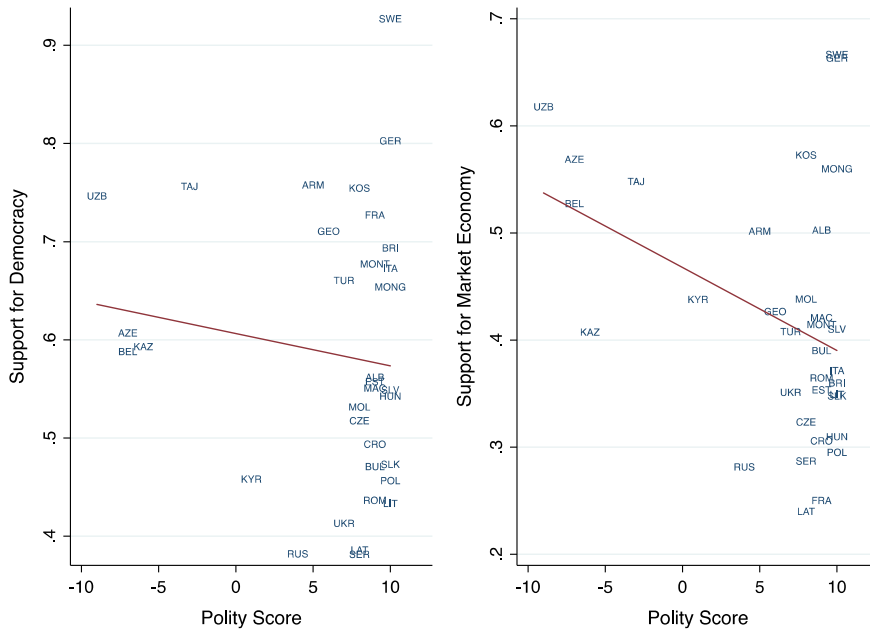
In fact, a closer look at Fig. 1 reveals large swings in political attitudes between 2006 and 2010. In particular, the new EU members, which were among the top 10 supporters of markets in 2006, experienced a sharp preference reversal between 2006 and 2010. The Czech Republic, Estonia, the Slovak Republic and Slovenia all saw popular support for markets shrink by at least 10 percentage points. Overall support for a market economy and democracy has decreased in Central and Eastern Europe but has increased in the CIS. The CIS is the only region in which popular support for democracy and the market has increased between 2006 and 2010.

In summary, support for democracy and free markets has changed significantly since the first round of the LiTS survey in 2006. It has declined in many of the more advanced transition countries, including all the new EU members, except Bulgaria. On the other hand, it has increased in quite a few of the countries of the CIS, which are not as far along the path of transition. The changes have been significant enough so that in 2010, as opposed to 2006, almost all the strongest supporters of democracy and free markets are in the CIS or other less advanced transition countries. This contrasts with the view that better institutions protect against anti-liberal backlash (Rodrik 1999). The next section explores the role of the recent economic crisis in this changing political landscape across the region.

4. Political attitudes, institutional quality and the business cycle

The implication of the learning hypothesis is that the relationship between exposure to the crisis and political attitudes depends not only on the severity of the crisis but also on the quality of existing institutions: for people living in more democratic and capitalist countries, the shock of the crisis will be interpreted as a failure of the system in place, which will thus lose popular support. Hence support to democracy and capitalism is expected to recede in countries, where these institutions are more developed, whereas they will increase in countries, where the system in place is still authoritarian and far from market competition. This section shows that, indeed, exposure to the economic crisis affects individual political preferences in a different way, depending on the level of institutional quality.

Panel A:



Panel B:

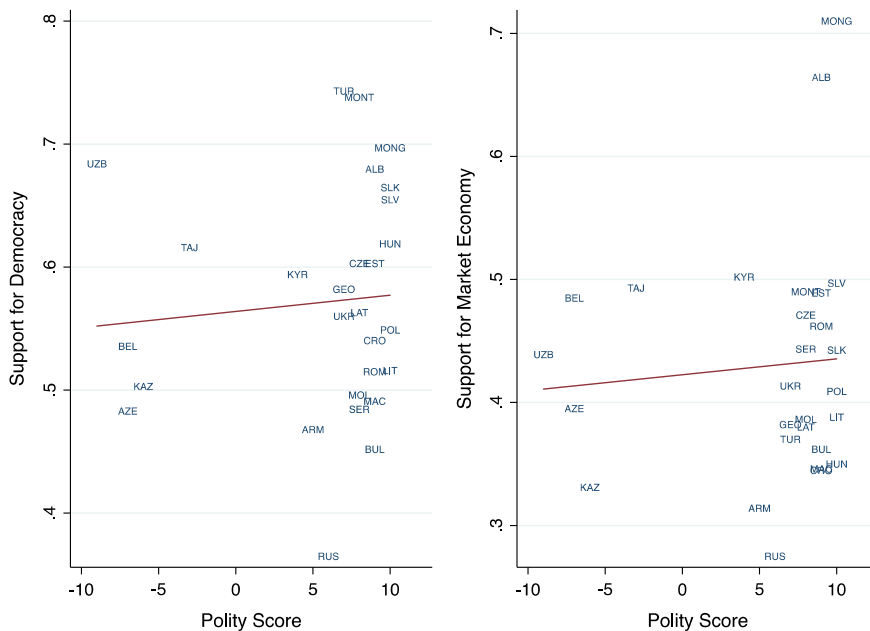
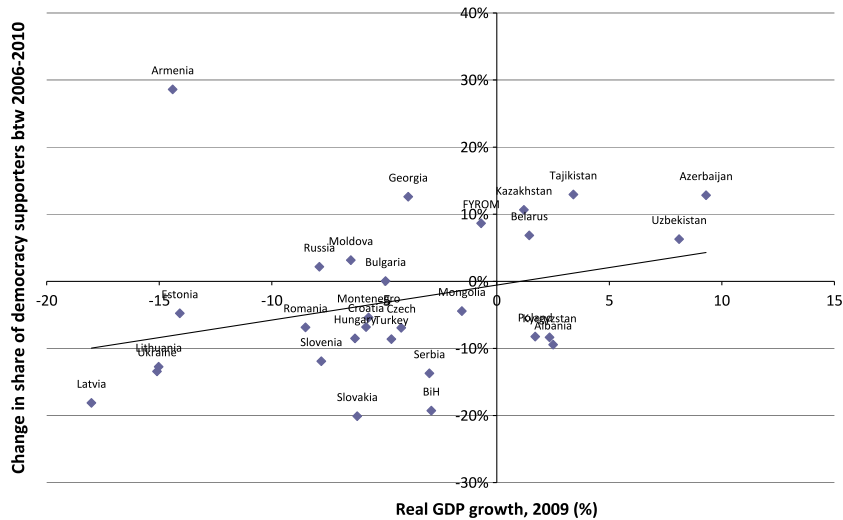


Fig. 2. Political preferences and polity scores. Panel A: The negative relationship between support for democracy and a market economy and Polity score in 2010. Panel B: The weak positive relationship between support for democracy and a market economy and polity score in 2006. Source: LiTS (2006 and 2010), Polity IV.

4.1. Cross-country differences

A close look at the data reveals that the contrast between the evolution of political attitudes in the CIS and in the rest of Central and Eastern Europe is very much correlated with the extent of the 2008 economic crisis. The two groups of countries

Panel A:



Panel B:

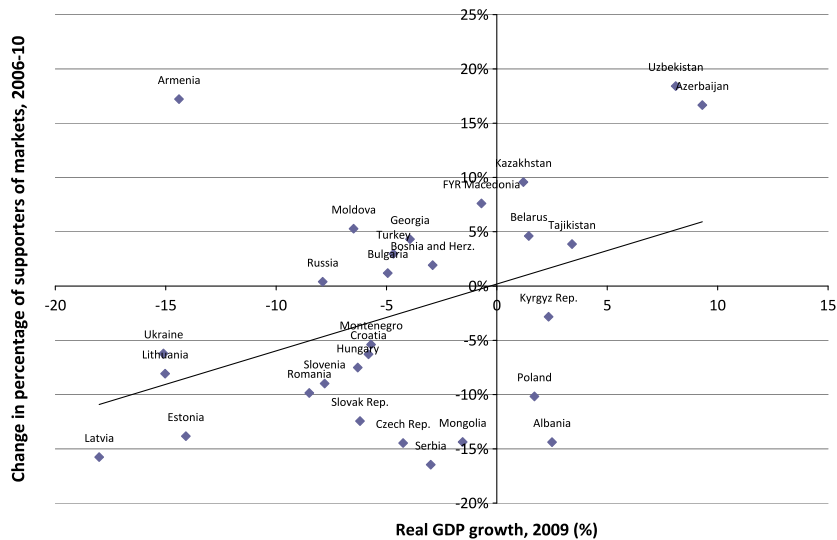


Fig. 3. The positive relationship between the evolution of pro-democracy and pro-Market Attitudes and GDP growth. Panel A: Support for democracy declines with the crisis. Panel B: Support for a market economy declines with the crisis. Notes: For each country, this graph plots the change in the share of the population that unequivocally supports democracy (panel A) or a market economy (panel B) between 2006 and 2010 against the country's real GDP growth rate in 2009. The line represents the best linear approximation of the relationship between the two variables, as determined by an OLS regression model. Source: LiTS (2006 and 2010), World Development Indicators.

vary greatly in their degree of integration in the world market, and especially in their degree of international financial integration: countries of the CIS are much less integrated financially, hence less exposed to the international business cycle. As a result, the impact of the crisis was much more severe in Central and Eastern Europe and most particularly in EU countries (see chapter 2 of Transition Report, EBRD, 2011). Descriptive statistics in Table 1 confirm the fact that the perceived intensity of the crisis was lower in the CIS than in Central and Eastern Europe. In Western European countries, the perception of the crisis has probably been attenuated by the presence of functioning social safety nets, a point that we will come back to in Section 6. Fig. 3 illustrates these evolutions in a graphic way, showing the positive correlation between output growth in 2009 and the change in support for democracy and free markets between 2006 and 2010. Many countries that experienced a comparatively mild crisis or even grew in 2009, such as Azerbaijan and Uzbekistan, saw an increase in both democracy and

Table 2

Political attitudes and exposure to the crisis in different regions – individual level OLS estimates.

	Support for democracy							
	Whole sample	CEE	CIS	West Europe	High polity	Low polity	Very low polity	
<i>Panel A: attitudes towards democracy</i>								
	Support for democracy							
Crisis	–0.026*** [0.004]	–0.020*** [0.004]	–0.020*** [0.006]	–0.015** [0.006]	–0.028*** [0.004]	–0.023*** [0.004]	–0.011 [0.008]	0.005 [0.010]
Socio-eco controls	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	34,036	30,909	15,434	10,184	5291	20,578	10,331	5085
R-Squared	0.084	0.104	0.079	0.081	0.084	0.112	0.092	0.066
Value of dep. var.	0.577		0.518	0.586	0.756	0.575	0.58	0.604
<i>Panel B: attitudes towards market economy</i>								
	Support for market							
Crisis	–0.030*** [0.005]	–0.025*** [0.005]	–0.019*** [0.006]	–0.031** [0.010]	–0.039*** [0.008]	–0.023*** [0.005]	–0.028** [0.011]	0.005 [0.012]
Socio-eco controls	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	32,781	29,703	14,840	9961	4902	19,676	10,027	4993
R-Squared	0.061	0.072	0.056	0.059	0.132	0.082	0.056	0.044
Value of dep. var.	0.413		0.368	0.463	0.454	0.396	0.447	0.502
Value of "crisis"	1.363		1.533	1.223	1.085	1.425	1.241	1.19

Notes: Individual level OLS estimates. All regressions include a constant. Robust standard errors clustered at the country level are reported in brackets. "CEE": Central and Eastern Europe. "CIS": Commonwealth of Independent States. "Socio-economic controls" are: income categories, age categories, gender, education categories, pensioner, student, housewife, farmer or farm worker, unemployed, outside the labor force, employee of state enterprise, employee of private domestic company, employee of foreign firm. "High Polity" defines a group of countries with Polity scores above 8. "Low Polity" and "Very low Polity" define groups of countries with Polity scores strictly below 8 and 4, respectively.

Source: LiTS (2010), Polity IV.

* Significantly different from 0 at the 10% level.

** Significantly different from 0 at the 5% level.

*** Significantly different from 0 at the 1% level.

markets support, while countries such as Estonia, Latvia and Lithuania, experienced a decline in both dimensions.⁸ However one should be careful in interpreting the results of cross-country comparisons because of potential unobserved heterogeneity between countries, as detailed in Section 2. For this reason, the rest of the paper hinges on inter-individual variations using the LiTS (2010) cross-section and explores how political attitudes co-vary with the extent of the economic crisis at the individual level.

4.2. Exposure to the crisis and political attitudes: individual estimates

Table 2 presents basic estimates of individual support for democracy (Panel A) and for free markets (Panel B), controlling for our crisis-response measure and other individual-level variables. Estimates on the whole sample are presented in Columns 1 and 2 in each panel. They confirm that the intensity of the perceived crisis at the individual level is associated with lower support for democracy and for a market economy. The coefficient on *Crisis* is negative and statistically significantly different from 0 at the 1% level in the whole sample. The effect is economically significant too. One additional point on the consumption response index reduces by 2–3 percent the likelihood that a person prefers liberal institutions. Considering the average extent of the crisis in the region (average values of the dependent variables are reported in the bottom row of each panel and average values of the main independent variable of interest are reported in the bottom row of Table 2), on average, the recent economic crisis is associated with nearly a 6% decrease in average support for democracy and a more than 8%⁹ decrease in average support for a market economy, controlling for a large range of individual characteristics. Additional results (not shown) indicate that the share of persons who declare that for people like them, it does not matter whether the economy is market-driven or planned also increases with the perceived intensity of the crisis.

Table 2 also presents estimates on sub-samples, such as the CIS, Central and Eastern Europe and the five Western comparator countries, as well as groups of countries defined by the quality of their political institutions, as measured by the Polity indicator. The negative association between the economic shock and political attitudes is confirmed in the sample of new EU members. By contrast, the relationship is weaker in the CIS, in particular regarding attitudes to democracy, and statistically significant only at the 5% level. As discussed above, the extent of the economic crisis is also smaller in the CIS, as indicated in the bottom row of Table 2. Given the average intensity of the shock in each sub-sample, the crisis is associated with

⁸ That said, there are some significant outliers in the two charts, such as Armenia, where support for markets and democracy grew in spite of a large output decline in 2009.

⁹ Obtained respectively as $(1.363^* - 0.020)/0.577$ and $(1.363^* - 0.025)/0.413$.

a reduction in support for democracy by 6%, 3% and 4%¹⁰ in Central and Eastern Europe, the CIS and Western Europe respectively. As for support for a market economy, the crisis is associated with lower support by 8% both in Central and Eastern Europe and the CIS and by 9.3% in Western Europe.

When countries are grouped depending on their institutional quality, the picture is even more contrasted. Results are displayed in Columns 6, 7 and 8 of Table 2. Political attitudes are only negatively affected by the crisis in countries that rank high on the Polity index (above 8). By contrast, in countries with the lowest polity scores, preferences for markets and democracy are not statistically significantly affected – if anything, they are affected in a positive way. Indeed, the coefficient on consumption response (*crisis*) is positive, but it falls short of standard levels of statistical significance.

Table A1 in the Appendix presents the results of similar estimates controlling for our alternative measure of exposure to the crisis. Results carry through: job loss within the household is associated with a statistically significant reduction in average support for democracy and markets. The effect is particularly robust in countries with high Polity score, where the coefficient associated with job loss is negative and always statistically significant at the 1% level. By contrast, the coefficient associated with job loss is not significant in the countries with low institutional quality (Polity score up to 8). The effect of the crisis is negative and statistically significant in Central and Eastern Europe but not in the CIS.

In a working paper version of this paper, we showed that people's political attitudes are influenced by the *relative* impact of the recent crisis compared with previous experiences of economic downturns. People became less supportive of democracy if the crisis hit them harder relative to their previous transition experience. As many of the CIS countries endured much deeper downturns early in the transition process, this may also have mitigated the negative impact of the more recent turmoil on attitudes towards democracy and free markets.

4.3. Robustness and omitted variable bias

Following Altonji et al. (2005), we compute ratios that reflect how much greater the influence of unobservable factors would need to be, relative to observable factors, to explain away the full relationship between political attitudes and crisis exposure. This test is based on the ratio of coefficients of regressions including either a full or a restricted set of control variables.¹¹ The intuition is that the smaller the difference between the two coefficients, the less the estimate is affected by selection on observables so that the larger the selection on unobservables needs to be, relative to observables, in order to explain away the entire effect of the variables of interest. The ratios can be computed directly from Table 2, which displays estimates alternatively with no controls and with the full set of controls. The influence of omitted individual level variables would need to be between 3.33 and 5 times higher than that of all included individual-level controls in order to explain away the full effect of the crisis on political attitudes. Considering the wide range of individual controls that we include in the estimates, we believe that it is unlikely.

Results are also qualitatively similar, when Primary Sampling Units fixed-effects are included, which implies that the identification of the effect of the crisis rests upon the variation within a primary sampling unit, generally a village or a suburb of a larger town (Table A2 in the Appendix). For robustness, we also checked that all results are also robust to using probit or logit specifications (Table A3 in the Appendix).

5. Corruption, public transfers and the impact of the crisis on political attitudes

5.1. Corruption and the youth

In the nexus between institutions and the effect of the crisis, perceived corruption occupies a special place. As explained in Section 1, we expect that when hit by the crisis, people will turn against the political and economic system in place all the more so as they perceive state corruption to be high. However, concerns about market failures and perceptions about the vicinicity of entrepreneurs should also matter.

Table 3 presents results from multivariate regressions that estimate political attitudes over our index of individual exposure to the crisis, corruption, as well as an interaction term that reflects the combined effect of corruption and of being personally hit by the crisis. In order to push the causal interpretation of these results, we instrument the degree of perceived corruption using a measure of the number of times individual respondents had recourse to a series of public services during the last 12 months (see Section 2). We then run two-stage least square estimates of political attitudes. All regressions control for the usual individual characteristics and for country fixed-effects. Following Aghion et al. (2010) and Pinotti (forthcoming), we also control for generalized trust, which is meant to capture concerns about market failures. Estimation is first performed on the whole transition sample and then separately on the sub-samples of CIS countries and Central and Eastern Europe.

¹⁰ Computed in a similar way as for the whole sample averages, by multiplying the coefficient on *Crisis* by the average value of *Crisis* and dividing by the average value of the relevant dependent variable.

¹¹ The restricted coefficient $\hat{\beta}^R$ is obtained when only the variable capturing individual exposure to the economic crisis is controlled for. The full coefficient, $\hat{\beta}^F$ is obtained when the full set of observable characteristics are controlled for. The ratio is calculated as: $\hat{\beta}^F / (\hat{\beta}^R - \hat{\beta}^F)$.

Table 3
The Struggling youth as a vector of political change in corrupt countries – 2 stage least square estimates.

	Transition region		CIS		CEE							
	All	Young	All	Young	All	Young						
<i>Panel A: first stage estimates: dependent variable: corruption of institutions</i>												
Use institutions	0.463*** [0.000]	0.454*** [0.002]	0.906*** [0.001]	0.844*** [0.000]	0.194** [0.048]	0.19 [0.194]						
Socio-eco controls	Yes	Yes	Yes	Yes	Yes	Yes						
General trust	Yes	Yes	Yes	Yes	Yes	Yes						
Country dummies	Yes	Yes	Yes	Yes	Yes	Yes						
Observations	27,150	7900	11,066	3665	16,084	4235						
R-Squared	0.27	0.28	0.26	0.28	0.11	0.12						
Value of dep. var	1.87	1.98	1.12	2.27	1.64	1.72						
	Support democracy				Support market economy							
	Transition region		CIS		CEE		Transition region		CIS		CEE	
	All	Young	All	Young	All	Young	All	Young	All	Young	All	Young
<i>Panel B: second stage estimates</i>												
Crisis	-0.040*** [0.002]	-0.045** [0.029]	-0.041 [0.136]	-0.096** [0.021]	-0.050** [0.039]	-0.049* [0.084]	-0.037* [0.067]	-0.069** [0.015]	-0.089** [0.015]	-0.139*** [0.000]	-0.050 [0.184]	-0.022 [0.667]
Corruption (inst)	0.160*** [0.006]	0.049 [0.567]	0.108** [0.029]	0.020 [0.747]	0.301 [0.107]	0.033 [0.910]	0.077 [0.344]	0.004 [0.971]	0.011 [0.758]	-0.061 [0.414]	0.183 [0.547]	0.129 [0.732]
Crisis*corruption (inst)	0.012* [0.053]	0.017** [0.048]	0.011 [0.326]	0.034** [0.027]	0.019 [0.227]	0.025 [0.123]	0.007 [0.489]	0.026* [0.054]	0.025* [0.053]	0.050*** [0.000]	0.020 [0.389]	0.003 [0.929]
General trust	0.032*** [0.000]	0.032*** [0.001]	0.020** [0.015]	0.020* [0.064]	0.045*** [0.000]	0.042** [0.033]	0.020*** [0.002]	0.018* [0.054]	0.014* [0.072]	0.017** [0.026]	0.028* [0.055]	0.020 [0.398]
Socio-eco controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	24,239	7153	9737	3280	14,502	3873	23,494	6927	9536	3206	13,958	3721
R-squared	0.08	0.06	0.09	0.06	0.08	0.07	0.06	0.05	0.06	0.05	0.06	0.04

Notes: 2 SLS estimates. The unit of observation is an individual. Panel A displays results of the first stage, Panel B of the second stage. All regressions include a constant. Robust standard errors clustered at the country level are reported in brackets. "CEE": Central and Eastern Europe. "CIS": Commonwealth of Independent States. "Socio-economic controls" are identical to Table 2. "Young" is defined as below the age of 33.

* Significantly different from 0 at the 10% level.

** Significantly different from 0 at the 5% level.

*** Significantly different from 0 at the 1% level.

The results of the first stage, which regresses perceived corruption on the use of public services are displayed in Panel A. The use of public services is a robust predictor of perceived corruption, with a coefficient significant at the 1% level in the whole sample and in the CIS. The instrument is rather weak among the sample of young people in Central and Eastern Europe but particularly relevant in the CIS, which, as the most corrupt, is the main region of interest for our test.

The second stage regressions displayed in Panel B show that, as expected, corruption of institutions is positively associated with support for liberal policies. The coefficient on the main effect of perceived corruption, instrumented by the actual use of institutions, is positive and statistically significantly associated with support for democracy at the 1% level (Column 1) and at the 5% level in the CIS (Column 3). Moreover, the crisis has a reinforcing effect. The coefficient on the interaction term between perceived corruption and individual exposure to the crisis is positive and statistically significant at the 5% level for the whole sample for support for democracy. It is positive for support for democracy and significant at the 5% level in the CIS for the whole sample of respondents. In other words, when hit by the crisis, people who perceive institutions to be highly corrupt revise their pro-market and pro-democracy attitudes upward.

These results are in line with public choice theories that consider regulation as a rent-seeking instrument benefiting a restricted group of insiders consisting of bureaucrats, politicians and market incumbents (Tullock, 1967; Stigler, 1971). People perceive the inefficiencies associated with regulation when state corruption is high, and demand more liberal policies as a result. This implies that the effect should be particularly strong in countries with low institutional quality and high degree of state capture, and among groups that are most excluded from the groups that benefit from regulation. This is exactly what our results show. The positive relationship between state corruption and higher support for democracy and a market economy, as well as the reinforcing effect of the economic crisis is particularly robust and strong in the CIS, and among the youth. By contrast, it falls short of statistical significance in Central and Eastern Europe.

For the sample of young people, i.e. those under the age of 33, in the CIS, the coefficients on the interaction term between individual exposure to the crisis and corruption are positively and statistically significantly, respectively at the 5% and 1% level, in the estimates of Support for Democracy and Support for a Market Economy (Columns 4 and 10). They are also much larger in magnitude, between twice and three times the values of the coefficient for the whole sample. The same result is obtained, more generally, in countries with low levels of institutional quality (not displayed). By contrast, it is not observed in the countries of Central and Eastern Europe, who enjoy better quality institutions, on average (Columns 5, 6, 11 and 12). Additional results (not shown) indicate that the interaction term between exposure to the crisis and corruption is never statistically significant, for the group of people over 33 years old but that it is positive and significant amongst another category of people who are excluded from the political-system in place: the unemployed.

To sum up, the effect of the crisis on the rejection of corrupt governments by the young is higher, the lower the quality of institutions. This observation is conducive to a parallel with Arab revolutions of Spring 2011, where the role of the youth was particularly important in the expression of social discontent and the reversal of political institutions. The interpretation is that the young (and the unemployed) are generally the most excluded groups from the closed political-economic systems in place and, as such, can be turned by the crisis into the strongest supporters of social and political change.

Consistently with Aghion et al. (2010) and Pinotti (forthcoming) general trust is positively and robustly associated with support for liberal policies. However, the interaction between general trust and the economic crisis is never significant (see Table A4 in the Appendix). The inclusion of an interaction term between general trust and the crisis does not alter the results concerning the interaction between state corruption and the crisis described above.

Results are robust to using our alternative measure of crisis exposure, namely job loss. Instrumented results are displayed in Table A5. The results are entirely consistent with the abovementioned findings. The interaction between state corruption and job loss is positive and significantly (at the 1% to 5% level) associated with support for democracy and a market economy in the CIS. The effect is particularly robust for the youth in that region (significant at the 1% level) and larger in magnitude. Even in Central and Eastern Europe, the combined effect of state corruption and the economic crisis is to drive up the support for a market economy amongst the youth (Column 12 of Table A5).

5.2. The attenuating role of public transfers

In a related paper, using the same data, Brown et al. (2012) showed that a variety of mechanisms – personal savings, family aid, bank borrowing, public insurance mechanisms – had enabled households to cushion the impact of crisis events on consumption. If public insurance can smooth the effect of economic shocks on consumption, can it also attenuate their ideological impact? This question is of importance for governments who are at risk of losing the support of their population in the face of negative economic shocks.

Table 4 investigates how government programs moderate the influence of the economic crisis on political and economic attitudes. The LiTS asked respondents whether they sought unemployment benefits or social assistance during the crisis and whether they were successful. The estimates presented in Table 4 include, for each benefits program, a dummy variable indicating whether a household applied for it and another dummy indicating whether this application was successful. Here, to

Table 4

Crisis, government programs and support for democracy and a market economy - individual level OLS estimates.

	Support democracy						Support market economy					
	Transition region		CIS		CEE		Transition region		CIS		CEE	
Lost job	-0.036*** [0.012]	-0.043*** [0.012]	-0.032 [0.022]	-0.039* [0.021]	-0.039** [0.013]	-0.046*** [0.014]	-0.026** [0.012]	-0.026** [0.012]	-0.024 [0.025]	-0.027 [0.024]	-0.027** [0.011]	-0.025* [0.013]
Applied for unemployment benefits	-0.014 [0.019]	-0.012 [0.019]	0.008 [0.029]	0.01 [0.029]	-0.025 [0.025]	-0.023 [0.025]	-0.011 [0.021]	-0.01 [0.021]	0.007 [0.027]	0.007 [0.028]	-0.02 [0.031]	-0.02 [0.031]
Applied for social assistance	-0.021 [0.020]	-0.021 [0.021]	-0.025 [0.032]	-0.024 [0.032]	-0.022 [0.024]	-0.021 [0.024]	-0.01 [0.027]	-0.01 [0.027]	0.000 [0.042]	0.000 [0.043]	-0.02 [0.029]	-0.021 [0.029]
Received unemployment benefits	-0.02 [0.027]	-0.090** [0.042]	0.011 [0.056]	-0.059 [0.081]	-0.021 [0.031]	-0.105** [0.045]	-0.031 [0.024]	-0.045 [0.035]	-0.07 [0.049]	-0.114** [0.038]	-0.016 [0.031]	-0.016 [0.050]
Received social assistance	0.015 [0.025]	0.004 [0.023]	-0.003 [0.028]	-0.024 [0.032]	0.035 [0.038]	0.04 [0.028]	0.005 [0.023]	0.012 [0.029]	-0.024 [0.037]	-0.027 [0.050]	0.03 [0.025]	0.051* [0.025]
Job loss* received unemp. benefits		0.103** [0.044]		0.155 [0.102]		0.118** [0.046]		0.022 [0.033]		0.093 [0.095]		-0.001 [0.037]
Job loss* received social assistance		0.031 [0.037]		0.076 [0.043]		-0.007 [0.050]		-0.02 [0.044]		0.011 [0.101]		-0.049 [0.041]
Socio-eco controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	25,295	25,295	10,043	10,043	15,252	15,252	24,468	24,468	9,814	9,814	14,654	14,654
R-Squared	0.076	0.077	0.077	0.077	0.075	0.075	0.053	0.053	0.047	0.047	0.052	0.052

Notes: The table reports OLS estimates. The unit of observation is an individual. All regressions are with a constant. Robust standard errors clustered at the country level are reported in brackets. "CEE": Central and Eastern Europe. "CIS": Commonwealth of Independent States. Socio-eco controls: income category, age category, gender, education category, occupation category.

Source: LiTS (2010).

* Significantly different from 0 at the 10% level.

** Significantly different from 0 at the 5% level.

*** Significantly different from 0 at the 1% level.

isolate the pure shock from the impact on consumption, we rely on job loss as the main indicator of exposure to the economic crisis.¹² We are interested both in the direct effect of public insurance programs and in their specific impact on households most vulnerable to shocks. To look at the latter, Columns 2, 4, 6, 8, 10 and 12 include an interaction term between job loss and access to unemployment benefits or social assistance. Regression results are presented for the transition region as a whole and for Central and Eastern Europe and the CIS separately.

No benefit program has a significant direct impact on attitudes to political and economic systems (odd numbered columns). However, for those who experienced job loss, receiving unemployment benefits is positively associated with support for democracy. However, the effect is only found in the sample of Central and Eastern Europe countries. The coefficient on the interaction between job loss and receiving unemployment benefit is positive and statistically significant at the 5% level. The size of the coefficient is economically meaningful too. Receiving unemployment benefits actually more than offsets the negative main effect of job loss on attitudes towards democracy. Indeed, in Central and Eastern Europe, job loss is associated with reduction in average support for democracy by 4.6 percentage points, but among those who have actually experienced job loss, receiving unemployment benefits is associated with an increase in average support for democracy by nearly 12 percentage points (Column 6). The fact that Eastern countries have high levels of democracy suggests that safety nets can help governments maintain support for the political system in place, at least to some extent. Nevertheless, the main effect of receiving unemployment benefits is also negative and significant at the 5% level (Column 6). This is not surprising, given that those who receive unemployment benefits are among the most marginalized segments of society and hence less supportive of the politico-economic in place.

In the CIS, receiving unemployment benefits or social assistance is never statistically significantly associated with political attitudes, even for those who are hit hardest by the crisis. One explanation may have to do with the low efficiency and inadequate targeting of benefit programs in the CIS. Brown et al. (2012) have indeed uncovered that public safety nets were generally not very effective in smoothing the impact of negative economic shocks on consumption in the transition region, especially in the CIS.

Taken together, these results suggest that governments can play a role in dampening the effect of economic downturns on people's political preferences, provided that such benefits are adequately targeted to those who most need it and are affected by the crisis.

¹² Results with "Crisis" as the variable capturing exposure to the economic crisis are displayed in Appendix A, Table A6.

6. Conclusion

Using two waves of the Life in Transition Survey, we provide evidence that political preferences are cyclical, and that their sensitivity to large swings in the business cycle can be interpreted as the result of a process of learning and updating of beliefs. It seems that people tend to attribute the harshness they experience to the political and economic system in place, hence reduce their support to the prevalent system.

Accordingly, political preferences have changed significantly between 2006 and 2010 in transition countries. Support for democracy and free markets has dropped in many of the more advanced transition countries, in particular the new EU members, but increased in some of the less-developed CIS ones. This effect was sometimes mitigated by the social safety nets put in place by governments.

The post-crisis rejection of the regime in place was magnified when people perceived the institutions of their country to be corrupt. This effect is particularly strong for the youth. Young people facing hardship and living in non-democratic countries appear to nourish particularly strong feelings against their poor quality institutions. This is reminding of the role of the youth in the Arab spring of 2011, suggesting that the crisis could be a catalyst of positive change in countries with low-quality institutions.

Acknowledgments

The authors are grateful for their comments and suggestions to Erik Berglöf, Ralph De Haas and Jeromin Zettelmeyer and all participants at the Banque de France seminar. The authors would like to thank CEPREMAP and The European Bank for Reconstruction and Development for financial support.

Appendix A. Supplementary material

Supplementary data associated with this article can be found, in the online version, at <http://dx.doi.org/10.1016/j.jce.2012.06.002>.

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