Socioeconomic Risk and the Class-Basis of Reasoning during Market Transitions

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Thesis submitted in partial fulfilment of the requirements for the degree of DPhil in Politics in the Department of Politics and International Relations at the University of Oxford

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Abstract: This dissertation investigates the nature by which social class membership and identity figure in judgements of transition institutions for the citizens of post-communist Central and Eastern Europe. Using a unique dataset and a series of novel conceptual frameworks, it argues that social class is, in effect, an operationalisation of socioeconomic risk and vulnerability—a premise from which several important implications derive. Drawing on social identity theory, it presents and tests a model of self-conceptualisation, grounded in the belief that individuals variously identify with their social classes, depending on their perceptions of shared socioeconomic risk. From this, it follows that strong identifiers should derive more relevant information about the emerging market system from class-level economic experiences, and therefore accord these cues greater weight in judgements about transition institutions. Beyond testing this theory of interpersonal variation, it invokes signal detection theory from cognitive psychology to determine whether cross-group differences in economic vulnerability are responsible for observed class differentials in reliance on class-based economic cues. It then takes a wider view of class-based economic cognition by considering how the process of transition, itself, influenced the evaluative calculus of post-communist citizens. Building on cognitive mobilisation theory in political science, it is posited that on-going exposure to the prevailing economic system endows these citizens with the ability to link their class-level economic experiences to the effects of the market mechanism. The analysis largely supports the constituent hypotheses, as well as the larger notion that perceptions of shared socioeconomic risk led social class experiences to figure prominently in the minds of post-communist citizens.

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I.1 Introduction

Social groups are centrally important to political and economic processes. In political science research, this is reflected in the abundance of literature which directly considers group-based differences in political behavior, as well as that which seeks to explain the causes and effects of group-based conflict. While most of this work has treated social groups—including occupational classes, ethnic groups, and genders—as meaningful prescribed categories that enable the inference of analytic distinctions, there has been increasing attention paid to the role of social groups as cognitive objects, which individuals directly consider when they form judgments and arrive at decisions.

The conscious incorporation of social group membership into cognitive processes has proven to have significant explanatory power in models of political choice (Mutz and Mondak, 1997; Wilson, 2012), attribution of responsibility (Singer, 2011; Weatherford, 1983), preferences over economic redistribution (Shayo, 2009; Huber, 2013), information processing (Grofman and Norrander, 1990), and political participation (Miller et al. 1981; Uhlander 1989; Sanchez 2006). This orientation towards one's group, commonly known as social identification, has a rich theoretic foundation in social psychology, though it is not yet well understood in the politico-economic domain (Huddy, 2001). Especially little is known about social identities in countries undergoing democratic and economic transition, such as those in post-communist Central and Eastern Europe, where self-concept is likely to have been unstable as social hierarchies consolidated and economic institutions transformed. In addition, there has been a more general lack of attention to social class identity, which is particularly concerning, given the extent to which class has featured as a concept in political science research (Gay and Hochschild, 2010).

Through the following thesis, therefore, I seek to advance this strand of research by elucidating both the causal mechanisms that generate social class identification in transition

economies, as well as the behavioral and attitudinal implications of this sense of belonging. This is accomplished in 4 largely self-contained chapters, which are mutually supporting and refer to each other to avoid redundancy of information. Within this framework, I endeavor to address the questions: what is the manner in which social class identities take form during market and democratic consolidation in post-communist Central and Eastern Europe, and; how does class identification augment or facilitate reasoning about economic and political objects in these environments?

The general argument is that social class is an operationalization of socioeconomic risk and vulnerability[1], such that identification with one's group is a reflection of the average similarity of an individual to members of his own group in terms of the effects he experiences from particular economic conditions. In turn, this is expected to have implications for how individuals process information, form attitudes, and make decisions. These propositions are clarified and tested in the 4 ensuing chapters, each of which presents a set of related hypotheses. The remainder of this introduction is dedicated to presenting an outline of the thesis, followed by several concluding remarks.

I.2 Chapter One Outline

The first chapter is intended to define the central construct—social identity—so as to avoid ambiguity regarding its cognitive foundation. While this concept has been applied in a great deal of political science research, the causal determinants of social identities remain poorly understood outside of the laboratory setting. It is believed that this analysis will assist in determining the role of social identification in political and economic cognition and

[1] Socioeconomic risk is a latent characteristic which predicts utilitarian-outcome responses to various economic shocks, processes, and policies. Vulnerability is largely synonymous, but indicates a revealed characteristic as opposed to a latent characteristic, therefore treated interchangeably. Example: two individuals with the same level of economic risk are likely to experience a similar effect from a change in the marginal income tax profile.

behavior by facilitating the construction of theory and the formation of empirical expectations. In pursuit of this, I attempt to answer the questions: what are the causal determinants of class identity strength in post-communist Central and Eastern Europe, and; how did the class identity calculus change during the market transition?

To resolve these questions, I rely on the social identity approach in social psychology, with a particular emphasis on the subdomain of self-categorization theory. This theory describes both the motivation for engaging in self-categorization into prescribed groups, as well as the processes through which individuals arrive at estimates of their own group belongingness. Self-categorization is only one among a number of contributing factors in social identity, but it is believed to serve as the rational basis for self-concept which guides evaluative and affective components and is augmented by competing social needs and historical circumstances. The main premise of this theory is that individuals compare the distribution of salient attributes across social groups in the relevant context such that their strength of identification with their own group will depend on how similar they are to that group in relation to out-groups, on average. Drawing on this theory, I develop a formal framework which regards individuals as rational Bayes classifiers for whom the salience of a given attribute in the social identity calculus depends on the importance of that characteristic for reducing uncertainty about the social environment. For social class identification, therefore, the most important attributes are expected to be those which predict socioeconomic risk and vulnerability.

The first hypothesis is that the class identity strength of post-communist citizens was a function of the comparison of their own socioeconomic risk-determining attributes with those of in-group and out-group members. It follows that the more directly a specific attribute determines economic risk, the more strongly it will factor into citizens' class identity calculus, since direct indicators convey more relevant information for making political and economic

judgments. In addition, to rule-out the possibility that limiting uncertainty about socioeconomic risk is the motivation for other forms of social identification, it is posited that ethnic identity strength is *not* a significant function of these particular attribute comparisons.

The second hypothesis similarly adheres to the uncertainty limitation theory of self-categorization by proposing that during the market transition, the changing relative importance of certain attributes as determinants of socioeconomic risk is incorporated into citizens' identity calculus. Specifically it is proposed that the rising returns to skills and education across post-communist countries during the transition led citizens to figure group-based comparisons of educational attainment more strongly into their class identity calculus in order to preserve the limitation of subjective socioeconomic uncertainty.

To test the first hypothesis, I apply a novel empirical model to survey data collected in post-communist Central and Eastern Europe between 1993 and 2007. I specify hierarchical linear models, regressing a measure of identity strength based on perceptions of relative in-group commonality against a set of respondent characteristics believed to determine socioeconomic risk, interacted with group-specific variables called 'meta-contrasts'. Meta-contrasts indicate the demographic and socioeconomic composition of a particular group on a given dimension relative to other groups. For example, if the working class in Poland were characterized as having 25% unemployment while 14% of the rest of the population is unemployed, the meta-contrast for unemployment in Poland would be 11%. According to self-categorization theory, a member of the working class who is unemployed would be expected, therefore, to identify more strongly with his group than an otherwise identical individual who is employed. Analyzing the marginal effects of the socioeconomic and demographic variables across the meta-contrast response surface, it is possible to determine the extent to which these attributes are incorporated into the identity calculus, as well as whether certain characteristics are more salient than others.

To test the second hypothesis, I produce similar models, but three-way interact each attribute variable with its appropriate meta-contrast and the survey year. This provides an indication of whether the salience of any of the attributes changed over the course of transition in the region. Particular attention is paid to the change in the marginal effect of educational attainment, which is expected to increase as a result of the rising returns to education. The analysis lends support to the notion that post-communist citizens incorporated perceptions of socioeconomic risk into their identity calculus through appropriate social comparisons. Since social identities are known to be held in memory and drawn on for making judgments, it is also important to achieve an understanding of how social class identification influenced other cognitive processes, such as those relating to economic evaluations and political choice. This is investigated in the second chapter.

I.3 Chapter Two Outline

The second chapter considers how social class identity conditions the perception and processing of economic information. Since social groups are known to be important sources of information about the political and economic environment, based on interpersonal contact and organizational endorsements, we should benefit from an understanding of how variation in identity strength affects judgments about politico-economic matters. For this reason, I seek to answer the question: what are the conditions under which group-level economic observations factor into judgments of the emerging market system in post-communist Central and Eastern Europe?

To answer this question, I build on the theory and analysis presented in the first chapter, which suggests that one's strength of social identification is a function of her relative similarity to members of her own social group in terms of socioeconomic risk. Following Ansolabehere et al. (2014), I further posit that there is some tradeoff between the accuracy

and relevance of retrospective economic information, such that household-level observations are prone to inaccuracy, while national-level evaluations tend to be less relevant, on average, in comparison. Although meso-level economic evaluations—those between the household and national levels, such as regional or group-based—may overcome each of these issues to some extent, the relevance of this information will depend on its utility as a proxy for subject-specific economic outcomes. In other words, if an individual is highly prototypical of his group, then group-level economic observations should be readily incorporated into judgments about economic institutions, political incumbents and public policy, since perceived effects of these stimuli on the group are likely to serve as strong indicators of true effects on the individual. If an individual is a relative outsider within his group in terms of socioeconomic risk, on the other hand, it is unlikely that he will figure group-level information very strongly into his behavioral or evaluative calculus.

The first hypothesis is that class-level economic evaluations are significantly associated with judgements about the market economy, whereby positive evaluations correspond to a higher likelihood of positive judgements, since citizens perceive themselves as elements of social groups which are salient indicators of shared socioeconomic risk. In other words, individuals identify the utility of the market system to themselves through a cognitive heuristic based on social class, whose admissibility is justified by serving as a proxy for personal economic risk. In addition, strong social class identifiers are expected to derive more relevant information about the impact of economic conditions on themselves through references to group-based cues, and therefore factor group-level economic evaluations more strongly into their judgments of the market system.

The second hypothesis is that the working class is more sensitive to class-level economic outcomes for structuring their judgment about the market system than the middle class, since the former are characterized as having a greater degree of entitative risk. This is

based on the notion that market forces exert a common impact on members of this group, since their position in the occupational and social hierarchy leads them to 'move together' to a greater extent than the middle class. Those in managerial and professional positions, on the other hand, figure national-level economic evaluations more strongly into their judgments of the market system because their responses to economic events are more idiosyncratic and they are more concerned with individualistic opportunity, which likely depends on aggregate demand and excess capacity related to national unemployment.

To test these hypotheses, I specify hierarchical logistic models, regressing a dichotomous measure of judgments of the market economy (positive versus negative and neutral) against retrospective economic evaluations at three analytic levels (household, social class, and national). The intervening effect of class identity strength is determined through two-way interactions between each of the economic evaluation variables and the measure of identity strength defined in the first chapter. The relative marginal effects of the main variables are analyzed across the response surface to decipher whether stronger identifiers place greater weight on class-level evaluations in their judgments about the market system.

The second hypothesis is similarly constructed, but with a three-way interaction between each of the economic evaluation variables and both class identity strength and a measure of class position (middle class versus working class). These estimates should indicate whether identity strength influences the evaluative calculus in both groups, and whether the working class figures class-level observations more strongly into their judgments about the market system. The analysis provides support for each of these hypotheses as well as the notion that post-communist citizens incorporated perceptions of socioeconomic risk into their cognitive processes in order to make rational judgments about politico-economic objects. It is also important, however, to understand how differences in group characteristics,

such as those related to economic vulnerability, affect the nature of political and economic cognition. This task is undertaken in the third chapter.

I.4 Chapter Three Outline

The third chapter departs somewhat from the central theme of social identification, but responds to the more general question about how and why post-communist citizens consciously incorporate group membership into their politico-economic judgements and behavior. Since, as was shown in the second chapter, some social groups have a higher propensity than others to draw on group-level information for structuring their judgements, it stands to reason that certain characteristics of the group, in addition to entitativity, engender mesotropic cognition. I therefore seek an answer to the question: what characteristics of social classes in post-communist Central and Eastern Europe are associated with stronger group-based judgments of the market system?

Social groups are known to differ in terms of socioeconomic risk and vulnerability to changing and prevailing social conditions, but in models of causal attribution and political choice, citizens are often treated as homogeneous masses who behave according to common decision rules (Rivers, 1988). While some research has demonstrated how heterogeneous individual-level and national factors may influence both information perception and processing, it is also necessary to understand how variation in group attributes affect the emission and reception of economic signals. Drawing on theory that links variation in economic vulnerability to interpersonal differences in the utilization of certain economic cues for making judgments (Singer, 2011; Singer and Gélineau, 2010; Dorrussen and Taylor, 2002; Echegaray, 2005), I propose that members of groups characterized by greater socioeconomic risk and vulnerability are more likely to figure class-level economic observations into their assessments of the emerging market and democratic systems.

To begin with, if one considers an individual who is at a high risk of becoming unemployed, an economic recession is more likely to render him redundant, thereby reducing his standard of living and revealing his economic vulnerability. Similarly, if he is already unemployed, a positive economic shock is likely to interact with his excess capacity and cause him to become employed, leading to a rise in living standards. An otherwise similar individual with low unemployment risk, on the other hand, is not likely to experience similar changes in employment status or living standards as a result of these economic events. Now, if we consider that social groups differ in the average unemployment risk, income and wealth of their members, it is plausible that more vulnerable groups experience stronger and more noticeable responses to economic events and conditions than less vulnerable groups. As such, members of groups with higher unemployment risk, or lower income and wealth for smoothing consumption, receive stronger signals about the economy than the less vulnerable, whether or not they as individuals have experienced these changes in status or living standards.

Recall from the summary of Chapter 2 that agents are inclined to draw on meso-level economic information due to the high error variance of household-level information and the low average relevance of national-level information. Assuming a social group is relevant to an individual, he must still be able to observe the effects of economic conditions on the group for group-level observations to bear on his judgments. Since the living standards and employment statuses of vulnerable social classes are more sensitive to economic conditions, members thereof will more readily integrate class-level experiences into their evaluations of the market system.

The first hypothesis is that the higher a social class's average level of socioeconomic vulnerability, as measure by unemployment, income and wealth, the more strongly its members will factor perceptions of that group's economic experiences into judgments about

the market and democratic systems. If these institutions are believed to have some real implications for economic outcomes at any analytic level, then those effects should be observed in the aggregated experiences of social group members whose living standards are sensitive to those effects. The second hypothesis follows the same logic, but posits that members of groups characterized by lower levels of vulnerability are less likely to draw on household- and national-level economic evaluations for making judgments about these systems, since these individuals should reallocate their scarce observational resources towards more efficient class-based heuristic cues. In contrast to the analysis in the second chapter, judgements about both the market *and* democratic system are considered, as each set of transitional institutions might interact differently with the specified measures of vulnerability.

Whatever the object of judgement, it is expected that those with limited economic resources and a high risk of unemployment find it more difficult to smooth consumption during economic downturns. While those with accumulated financial resources and secure employment may experience no change in living standards during a recession, the same economic event would likely reveal the economic vulnerability of those in groups with limited means to avoid deprivation. A vulnerable group may, therefore, experience a higher incidence of relocation, foreclosure, or even illness and mortality. Due to the diminishing marginal propensity to consume associated with income and wealth, positive economic shocks should have a greater impact on those with lower wealth and greater excess capacity, since they are more likely to allocate new resources towards consumption rather than saving.

To test these hypotheses, I produce models similar to those in the second chapter, with the dichotomous measure of judgments of the market system (and the democratic system, for comparison) regressed against retrospective economic evaluations at the household-, class- and national-level interacted with the class-level unemployment rate, mean income decile and proportion of car owners in each class (a well-established measure of wealth in post-

communist Eastern Europe)[2]. The expectation is that for classes with higher levels of vulnerability on each dimension, constituent members will draw more strongly on class-level economic evaluations in their judgments. The results provide mixed support the hypotheses, but largely indicate the validity of the proposition that group-based socioeconomic vulnerability conditions the nature of politico-economic cognition. Given that these citizens must be exposed to the relevant institutions for them to form judgments, however, it is also important to understand class-based cognition as a function of experience with the transitional process, itself. This concern forms the basis for the fourth and final chapter.

I.5 Chapter Four Outline

The fourth chapter builds on the notion that the process of transition constitutes a receding state scope, which limits the capacity of sovereign states to redistribute wealth and income. This would tend to create an economic environment defined by rising dispersion in individual-level economic outcomes, determined by citizens' positions in the hierarchy of production and their exposure to economic risk and opportunity. In the first three chapters, it is demonstrated that social class position is an operationalization of risk, which interacts with market events and conditions to generate economic outcomes such as unemployment and material deprivation, or conversely, employment and wealth. As such, if these social groups experience significant differences in economic outcomes resulting from the constituent processes of transition, we must ask: does exposure over time to market forces during economic transition from state socialism to market capitalism influence the nature of class-based economic cognition? Specifically, we should like to know whether class-level economic experiences become more salient to post-communist citizens with continued

[2] See Rose (2008) for an explanation of why car ownership is a strong indicator of wealth in post-communist Central and Eastern Europe.

exposure to the market mechanism, and whether they factor more strongly into their attitudes towards the transitional institutions.

The conceptual framework developed in this chapter is based on the cognitive mobilisation thesis described by Inglehart (1970) and Dalton (1984). They posit that rising levels of education and knowledge in polities engenders a process whereby citizens become dealigned from traditional partisan and identity-based ties while also participating more actively in politics. Since these individuals are believed to be better able to engage in effortful analytic processing of information, it is expected that they will rely less heavily on heuristic cues, such as those based on class position or party affiliation, when making judgements about political options and policies. Instead of focusing on political outcomes, however, I generalise cognitive mobilisation to the case of class-based economic awareness during the marketization of Central and Eastern Europe. The conclusions that follow contrast with those hypothesised in previous work, and suggest that citizens in transition economies should draw more heavily on class cues over the course of transition. They do this, I argue, because these processes have predictable effects on social groups which depend on economic risk and vulnerability. As they acquire experience and become more aware of how emerging institutions affect their groups, these citizens can more easily refer to class-based cues when forming judgements. As stated above, the value in doing so derives from the limitations inherent in household- and national-level economic information.

Based on this model, the first hypothesis is that over time, cognitive mobilization through continued exposure to market forces has led post-communist citizens to base their judgements about the market system more strongly on class-level economic experiences. Since the model assumes that market forces have real and perceptible effects on citizens that interact with risk and vulnerability, it is further hypothesised that the increase in class-based cognition over time is larger for strong transition countries where government intervention is

lowest and differential vulnerability and inequality is greatest. If the market mechanism is weak as a result of the continued operation of state-owned enterprises and excessive price and wage regulation, class awareness might be diminished as group differences in economic outcomes are limited. As the third chapter, described above, demonstrates that members of the working class are the most vulnerable in terms of economic risk and received the strongest signals from class-level experiences, we should also expect that they derive more novel information about the market system through experience over the course of transition. It is therefore hypothesised that the increase over time in the class-experience based judgements of the market system was greatest for members of this group. The relative stationarity of living standards among members of the middle class, on the other hand, would inhibit the learning process and lead to weaker class-based cognitive mobilisation, on average.

Each of the hypotheses is tested in a manner similar to the empirical models in the second and third chapter. For the first hypothesis, I specify multilevel logistic regressions of judgements of the market system against measures of economic perceptions at all three analytic levels (household, class and nation) interacted with survey year. The computed marginal effects indicate whether, and the extent to which, class-level economic experiences became stronger predictors of judgements of the market system in relation to those at the other analytic levels. To test the second hypothesis, I employ a similar strategy, but disaggregate the model into separate countries to decipher whether countries experiencing weak transitions exhibit a muted growth in the class basis of judging the market system. To adjudicate between weak and strong transition countries, I refer to computations based on the European Bank of Reconstruction and Development's transition indicator index. To test the final hypothesis, I run separate regressions for the middle and working class in order to determine whether the marginal effect of class-level economic evaluations increased to a greater extent for the working class. In light of the results and further robustness checks,

there appears to be strong support for this novel model of developmental cognitive mobilisation in transition economies.

I.6 Concluding Remarks

Through this framework, the present thesis is expected to make several meaningful contributions to the strands of research on which it draws. First, it helps by identifying the rational bases for social group identification in terms of limiting uncertainty about socioeconomic risk and vulnerability. It contributes to social psychology and political economy research by providing a population-based test of theory that was traditionally examined in the laboratory setting and applying it in a transitional context in which identities are taking form. Second, it helps us to understand the circumstances under which group-level economic cues figure into decisions. It contributes to work on the heuristic processing of politico-economic cues and cognitive heterogeneity by indicating what factors at the individual and group levels moderate the strength with which this information is figured into judgements. Its practical relevance lies in identifying which individuals and groups are most sensitive to class-based information, as determined by rational incentives to reduce uncertainty about the politico-economic environment, as well as variation in the strength of economic signals based on differences in economic vulnerability. Finally, it helps us better understand the rise of social cleavages in transitional electorates. It contributes to research on social cleavages and cognitive mobilisation by elucidating the mechanisms that drive growing class consciousness about economic institutions and how they impact groups differentially. This may have significant practical implications for those wishing to prevent anti-reform mobilisation and inhibit retrogression to state socialism, since the analysis identifies circumstances and plausible processes through which elites may capitalise on class awareness.

Chapter 1

Risk, Uncertainty and Rational Self-Concept: A Developmental Model of Social Identity in Transition Economies

Summary: Limiting uncertainty about subjectively important matters is a fundamental human motivation. Social identification facilitates this by indicating the likely effects on individuals of events and conditions in the social environment, and by indicating the relative importance of conforming to prescriptive behaviors. Unfortunately, while there has been sustained interest in class and ethnic identification among political scientists, data limitations have meant that little is known about their causal antecedents. Applying a novel empirical framework to unique survey data collected in post-communist Central and Eastern Europe, I seek to advance this line of research by testing two hypotheses concerning social class identity. The first proposes that individuals determine their strength of class identification through cross-group comparison of demographic and socioeconomic attributes in order to limit uncertainty about socioeconomic risk. The second posits that changes in the comparative context experienced during the market transition, whereby the returns to skills and education increased substantially, led to predictable changes in citizens' self-concept. The results provide strong support for these contentions.

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1.1 Introduction

Given the apparent omnipresence of inter-group conflict and group-based differences in political choice, policy preferences, and electoral turnout, it comes as no surprise that there has been sustained and growing interest in social identity among political scientists. In particular, this concept has been integrated into academic discourse, by way of the social identity approach and identity economics, to solve problems related to heuristic information processing, preferences for redistribution, group-level economic cognition and economic voting, and political participation. While applications of social identity theory to these and other models abound, the central construct remains poorly understood outside of the laboratory setting.

Social identity is an individual's sense of belonging in the social groups of which he is a member, along with the value he attaches to that membership (Tajfel 1972). As Tajfel and Turner (1979) explain, it provides a cognitive anchor for self-definition and self-concept, which influences social interaction and other intergroup behaviors. Any coherent group may serve as the object of identification, though two main categories are typically observed as inspiring self-conceptualization. First are demographic groups, related to gender, age, and ethnicity, which are based on ascribed status and immutable attributes. The second are socioeconomic groups, such as those related to occupation, educational attainment, income, and wealth, which are based, in principle, on achieved status and variable attributes. As Huddy (2001) explains, identification with any of these groups is regarded as a choice in modern societies, where there is interpersonal variation in 'the general proclivity to identify with social groups' (i.e., the strength of social identity). Whatever the cognitive foundation, however, social identification appears to contribute considerable explanatory power to models of political behavior.

A great deal of cognitive economy and dual-process research in political science has sought to explain how group-based information cues improve cognition through heuristic processing, thereby necessitating an understanding of individuals' identification with the relevant groups (McKelvey and Ordeshook 1986; Sniderman, Brody, and Tetlock 1993; Grofman and Norrander 1990; Conover 1988). In addition, political economy research has attempted to ascertain how and why group and national identification influence individual-level social welfare functions and preferences for economic redistribution (Shayo 2009; Huber 2013). Economic voting and economic cognition research has presented models of causal attribution in which social identification in some way moderates the structure of electors' decision calculus (Mutz and Mondak 1997; Alsonabehere et al. 2011; Glasgow 2005; Wilson 2012). Finally, another strand of research has sought to answer questions regarding the influence of group consciousness and identity strength on political participation, both directly and as a moderator of the effect of other variables (Miller et al. 1981; Uhlander 1989; Sanchez 2006; Fowler and Kam 2007; Huddy and Khatib 2007; Stokes 2003).

Although the above research has contributed greatly to our understanding of political behavior, the causal antecedents of social identity remain obscure in the real-world setting, where diverse cultures and histories are certain to influence identity formation. This shortcoming is particularly troubling when considering class and ethnic identities, which are of central importance to a great deal of political science research, but logistically beyond the reach of experimental psychology. I therefore reiterate the concern expressed by Huddy (2001), who argues that social identity theory's integration into political psychology has been hindered by the disinclination of researchers to test it in the external social environment using population-based data.

While the motivation to apply social identity theory to politically-relevant groups may be strong, data limitations often render this task unachievable. For instance, the main

empirical problem which confounds survey-based attempts to establish the correlates of social identity strength is that one's self-concept depends, among other things, on the characteristics of the group of which she is a member in relation to the overall context. Since a different calculus applies to each social group, a single additive equation would lead to incorrect estimates of the true antecedents of identity strength. The central purpose of this paper, therefore, is to achieve an understanding of what determines individual-level group identity strength in the social environment. In particular, I endeavor to answer the question: What are the causal determinants of social class identity strength in post-communist Central and Eastern Europe? In addition, it is important to know how the identity calculus changed during the market transition. The resolution of this, though meaningful in its own right, will aid in the formation of conceptual models presented in subsequent chapters.

This region and temporal frame are ideal for the application of social identity theory for several reasons. First, social class categories in this setting were largely defined during the communist era and remained salient throughout the period of politico-economic transition, thus rendering the taxonomic framework both ubiquitous and comprehensible. Second, there was a contextual change from the early to late transition period, in which certain demographic and socioeconomic attributes became stronger predictors of socioeconomic risk and advantage (hereafter, 'socioeconomic risk'), thereby permitting a critical test of this theory. Finally, social group membership and social identification are known to be particularly important considerations during market and democratic consolidation, as political cleavages are crystallizing and social stratification takes form (Evans 1998; Evans and Lipsmeyer 2001; Evans and Whitefield 1995, 2000; Kitschelt 1995). The practical relevance of this work may therefore extend to other economies in transition, which are undergoing similar courses of consolidation.

The following section presents the established theory which informs my expectation that class identity strength is a function of individual-level comparisons of demographic and socioeconomic attributes across social groups, motivated by a desire to reduce uncertainty about the economic environment. I then describe the application of this theory to post-communist Central and Eastern Europe, along with a set of case-specific hypotheses. The subsequent section describes the data and methods used to test these hypotheses, along with the empirical expectations. Finally, I present the results of my analysis and discuss the main findings and several potential avenues for future research.

1.2 Conceptual Framework

The social identity approach refers to a set of related theories and concepts within social psychology, though I am mainly concerned with the subdomain of self-categorization theory. This theory describes the cognitive mechanisms and conditions which give rise to the perception of multiple individuals as coherent groups (Haslam 1997; Turner et al. 1994). Self-categorization is often regarded as the cognitive, rational component of social identification, which accompanies an affective component based on group evaluations and an in-group ties component based on perceptions of solidarity (Cameron 2004). While a general desire for positive distinctiveness and idiosyncratic shocks related to group conflict may augment self-conceptualization (Tajfel and Turner 1979), I believe that social identity is best understood as a fundamentally rational process which is influenced by competing social needs and historical circumstances. As such, self-categorization is an attractive concept to apply within the framework of identity economics (Akerlof and Kranton 2000, 2010) as well as related extensions in political economy (Shayo 2009; Huber 2013). I begin my discussion of the essential theory behind self-categorization with a description of why individuals engage in this process in the first place, followed by an explanation of how it is believed to operate. I

then describe the intervening effect of social context on identity formation and complete the section by explaining how self-categorization theory can be effectively applied to the case of politico-economic transition in post-communist Central and Eastern Europe.

1.2.1 The Drive to Identify

An individual's motivation to self-categorize is based, among other things, on a need to limit uncertainty about, and make sense of, the external social and economic environment as it relates to her own subjectively important concerns (Hogg and Terry 2000). This notion is based on subjective uncertainty reduction theory (SURT), enunciated in Hogg and Abrams (1993) and Hogg (2000, 2005, 2007), which posits that social groups afford members a degree of clarity about which norms and beliefs should be adopted, as well as how to behave. While SURT mainly describes how and why uncertainty amplifies individuals' need to connect to groups, it also helps us to understand why they choose to variously identify with social groups and correspondingly categorize themselves and others.

The uncertainty reduction principle is by no means tautological since, as will be illustrated below, understanding what motivates categorization on a particular dimension of identity influences theoretic expectations about which attributes will be most salient and how this salience may change over time. In the present analysis, I propose that social class identification is motivated by a need to reduce uncertainty about socioeconomic risk—a latent characteristic, determined by socioeconomic, geographic and demographic characteristics, which predicts utilitarian-outcome responses to various economic shocks, processes, and policies.[3] In any case, it stands to reason that by engaging in this process, individuals are

[3] Examples: 1) two individuals with the same level of socioeconomic risk are likely to experience a similar effect from a change in the marginal income tax profile; 2) an economic recession has a similar effect on the living standards of individuals characterized by the same economic risk profile.

better able to make judgments about, for example, political candidates and economic policies, as a result of heightened perceptual clarity.

Since political actors compete on the basis of group membership in order to conserve scarce resources, determining one's own group belongingness helps to decipher the relative importance of these cues for making utility-optimizing judgments. This follows from Grofman and Norrander (1990), who demonstrate that voters can use group endorsements as positive or negative cues to identify which candidate's issue positions and performance is most consonant with their preferences, even in the absence of direct knowledge. If group-based cues resonate more strongly among strong identifiers, therefore, citizens should have some incentive to accurately estimate how typical they are of the relevant group. Similarly, economic and labor market policies, to the extent that they differentially impact social groups, may be judged on the basis of group membership and identity, so as to limit uncertainty about the effects on hedonic outcomes. It is prudent, therefore, to achieve a clear sense of one's identity to make reasoned policy appraisals.

1.2.2 The Process of Identification

The cognitive approach to social identification defines identity strength in terms of the degree to which an individual believes herself to resemble her group's prototype (McGarty 1999). A prototype may be an exemplar individual who possesses qualities thought to embody the relevant group (Billig 1987), or it may be the observed distribution of attitudes and demographic and socioeconomic attributes associated with group members. In the interest of continuity with existing theory in social psychology, I favor the second view and posit that the greater the average degree of similarity between an individual and members of his own group relative to his average similarity to members of out-groups, the higher his level of prototypicality, which should predict the extent to which he identifies with his group. This

is consistent with Hogg and Terry's (2000) explanation that prototypes form according to the meta-contrast principle, which dictates that 'prototypes maximize similarities within and differences between groups, thus defining groups as distinct entities'. Hence, individuals observe the demographic and socioeconomic characteristic and attitudes of both in-group and out-group members and compare them to their own characteristics in order to estimate the relative extent to which they 'belong in', and presumably identify with, their own groups (McGarty 1999; Turner et al. 1987; Turner et al. 1994). The following section provides a formal definition of this process, which regards individuals as Bayes classifiers who observe group-based distributions of risk-determining attributes and factor this information into their identity calculus.

1.2.3 Formal Framework

The present model describes identity strength in terms of individuals being rational Bayes classifiers who observe the social distance between themselves and others in their prescribed groups and their social distance from members in other groups to arrive at a subjective probability of being a member of each group. I build on Shayo's (2009) social distance model of self-categorization, which aids in the explanation of preferences for redistribution by assuming that identities are endogenously determined. While Shayo's model is a variant of the similarity scaling model described by Nosofsky (1986, 1992) and the model of conceptual space for knowledge representation presented by Gärdenfors (2000), mine assumes that individuals furnish training-sets through observation of individuals and groups in the environment, which are then used to compute probabilities of being members of each group on the basis of their own characteristics. Since social classes are known to differ in their economic risk profiles, factors which influence this construct should bear on judgments about social distance used to arrive at these probabilities.

The model specifies that the strength of social identity of individual *i* on referent dimension *r* (e.g., class, gender or ethnicity), represented as Γ_{ir}, is a function of the observed distribution of attributes in one's own social group on the referent dimension, $f(x_{gir}^{j})$, the distribution of attributes in other groups, $f(x_{er}^{j})$, and one's own attributes, x_i^j. Each individual is characterized by a vector of risk-determining attributes, $x_i^j = x_i^1, x_i^2, x_i^3, \dots, x_i^J$, which may include any demographic or socioeconomic characteristic, and where $j = \{1, 2, 3, \dots, J\}$. Within the relevant referent dimension, individual *i* must be a member of a particular social group, $G = g_{ir}$, where $g_{ir} \in \{g_r^1, g_r^2, g_r^3, \dots, g_r^N\}$, which for social class, might include manual workers, professionals, and entrepreneurs. Other groups, g_{er}, are located in the same set, with the condition that $g_{ir} \neq g_{er}$. An individual's strength of class identity should, in fact, be a function not simply of how much he has in common with members of his own group, but of how similar he is to members of his own group *relative* to those in other groups in terms of economic risk. I therefore propose that

$$\Gamma_{ir}\left[f(x_{gir}^{j}), f(x_{er}^{j}), x_i^j\right]$$

$$= \sum_{j=1}^{J} \sum_{e=1}^{E} \Lambda_j \Omega_{er} \left[\frac{P\left(x^j = x_i^j | G = g_{ir}, f(x_{gir}^{j})\right) - P\left(x^j = x_i^j | G = g_{er}, f(x_{er}^{j})\right)}{1 - \theta_{ir}} \right]$$

where

Γ_{ir} is an individual's identity strength based on perceived relative ingroup commonality
x^j is some value of a risk-determining attribute on dimension *j*
x_i^j is the known value of a risk determining attribute on dimension *j* for individual *i*
g_{ir} is the subset of the population, along referent dimension *r*, of which *i* is a member
g_{er} is the *e*-subset of the population, along referent dimension *r*, of which *i* is not a member
θ_{ir} is the population (or sample) proportion of I_{ir}
Ω_{er} is the informational weight of out-group *e* along referent dimension *r* (pop. proportion)
Λ_j is the informational (attribute) importance weight of risk dimension x^j (sums to 1)

This equation suggests that the rationally-perceived relative in-group commonality (i.e., identity strength) of individual *i* along referent dimension *r* (social class, in our case), which is represented by Γ_{ir} , is a function of the weighted difference between the probability that a randomly selected member of his own group, g_{ir}, shares the same level of x^j as individual *i* and the probability that a randomly selected member of other groups, g_{er}, share the same level of x^j as individual *i*. The higher the probability that one's characteristic on a particular dimension is observed on a random draw from his own group versus other groups, the more prototypical he is and the more he identifies with his group. The salience coefficients, Λ_j, are estimable quantities whose relative values indicate the weight of attributes x^j in one's social identity calculus. They are, therefore, the main variables of interest for testing propositions about the perceptual determinants of identity strength.[4]

As an example of this process, assuming that an individual has a low level of educational attainment, there is a high relative probability that he is a member of the working class versus the professional class. Knowing that he is, in fact, a member of this class, he can use knowledge of his educational status to determine how much he has in common with his own class relative to some composite of other classes, weighted by importance or population proportion. My contention is that this individual will undertake this process to compute his prototypicality and how much he should identify with his own group.

The relative values of Λ_j are of critical importance to the present investigation, since they indicate the salience of risk-determining attributes. I posit that these coefficients are determined by both the visibility of the attribute dimension x^j in the comparative context, as well as its importance for reducing uncertainty and making utility-optimizing judgments. The attribute salience of x^j should be a positive monotonic function of the degree of group-based

[4] Given the expected cognitive demand of this, identification is thought to be an on-line process, whereby individuals incorporate new information into a running tally and draw on it when called upon to do so.

polarisation concerning that attribute in the comparative context.[5] It is expected, for example, to be easier to incorporate comparisons on income into one's self-concept when social groups are characterized by divergent incomes. In addition, the value of Λ_j should be a positive function of the expected value of making 'accurate' decisions by integrating the relevant attribute x^j into one's identity calculus. Where demographic age predicts occupational and pecuniary outcomes, for example, social comparisons on age may aid significantly in financial investment decisions, thereby rendering this variable relatively important to the identity calculus.

1.2.4 Comparative Context and Attribute Salience

From the above discussion, it follows that the social context in which comparisons are made for estimating prototypicality influences the relative importance of specific attributes and attitudes in the identity calculus (Turner 1985). Since group prototypes are regarded as observable distributions of characteristics within and among social groups, any cross-group homogeneity in a given attribute should cause it to factor less strongly into estimates of prototypicality and identity strength (Haslam et al. 1995; Haslam et al. 1999). If, for example, we consider a world in which only doctors and nurses exist, when the gender distribution is highly skewed, such that 80% of doctors are male and 80% of nurses are female, gender is expected to factor strongly into the determination of prototypicality and social identification. In this case, female doctors should, *ceteris paribus*, identify less strongly with their occupational group than male doctors. If, however, there is a 50/50 distribution of genders in each profession, gender cannot reasonably form a basis for social comparison or identification for occupational groups.

[5] See Esteban and Ray (1995) and Rehm and Reilly (2010) for indications of how group-based polarization may be effectively computed.

The above example, in addition to highlighting the importance of population distributions within the comparative context, indirectly suggests that the type of group being considered matters in social identification, since the gender-based occupational differences will not likely factor into estimates of ethnic or other identities. Beyond marginal distributions, however, other factors are expected to influence the relative salience of certain attributes in the identity calculus. If, as I contend, the principal motivation behind self-categorization is to limit uncertainty about the external environment as it relates to oneself, it follows that those attributes which relate most closely to the objects of interest—be they consumption decisions, political choice, or behavioral conformity—will carry more weight in the determination of prototypicality and social identification. In support of this argument, Reynolds and Oakes (2000) show that motivational differences across comparative contexts generate significant differences in the manner in which individuals optimize their self-conceptualization. We might expect, therefore, that ethnic identification, if motivated by a desire to maintain in-group values through social segregation, will depend less on comparisons of ascribed characteristics, such as gender or age, and more on comparative religious values and social attitudes. It is assumed that this way of determining prototypicality would assist in predicting the desirability of contact with specific individuals by reducing the uncertainty surrounding their values and beliefs.

Since prototypes and identity strength are stored in memory and are shaped by the specific social context, they are sensitive to contextual change, whether based on shifting marginal distributions of attributes across groups or changes in the importance of certain characteristics for predicting outcomes in the social environment (Fiske and Taylor 1991). If, for instance, there were some exogenous shock which caused the gender-occupational distribution in the doctors and nurses example to be even more skewed, gender would surely become a stronger determinant of prototypicality and identity strength. In addition, if gender

became a more significant indicator of social status or economic wellbeing, whereby men are at an even greater relative advantage, gender would again be expected to factor more strongly into the occupational identity calculus. In either case, it is expected that the weight individuals attach to certain attributes will change with the shifting context in order to remain consistent with the principle of uncertainty reduction.

1.2.5 Application of Self-categorization Theory to Post-communist Class Identity

In contrast to the later market-based system, the planned economy in Central and Eastern Europe dictated significant wage compression and formal policies of full employment (Fajth 1999; Katz 1999), so it is likely that the motive behind social class identification changed from one regime to the other. Specifically, I believe that individuals' estimates of prototypicality under communism were motivated by a desire to understand their relative positions on some hierarchy of social-status, while under the market-based system they used class identification more as a means to form expectations about socioeconomic risk. In view of this motivation, citizens in the post-communist period are expected to have made comparisons based on attributes thought to predict socioeconomic risk, such as gender, age, income, wealth and education.

The ascriptive qualities—gender and age—are known to correlate strongly with occupational and economic outcomes in post-communist CEE, with women and older workers experiencing higher average unemployment and lower wages across the region (Svejnar 1999; Brainerd 2000; Jurajda 2003; Rutkowski 1996). Ethnicity is also a predictor of labor market outcomes, but its 'effect' varies across the region, with some minority groups attaining lower average wages in some countries and higher in others. Although ethnicity has a different influence on economic outcomes depending on the particular group and region, these effects are all significant, making ethnicity a reasonable dimension of social comparison

for class identification. The more direct indicators—income and wealth—are also relevant comparative attributes, given that a household's ability to smooth consumption and weather an economic recession, for example, depends on accumulated resources and the quality of the source thereof. Education, as a known determinant of labor marketability and pecuniary outcomes in CEE (Rutkowski 1996; Katz 1999), is a strong predictor of socioeconomic risk which ought to bear on the class identity calculus of post-communist citizens.

In line with self-categorization theory, it is expected that these individuals estimated their level of prototypicality by determining the average degree of difference between themselves and both in-group and out-group members on the abovementioned attributes, which serve as salient indicators of socioeconomic risk. Comparison on non-economic attitudes and social values, on the other hand, are not expected to have strongly influenced class identity strength. Once calculated, prototypicality and class identity strength are thought to have been held in memory and drawn on for making reasoned judgments about economic policies, political candidates, and economic institutions (Hogg and Terry 2000). The post-communist context was not fixed, however, and there were significant changes over time in the determinants of risk and advantage.

During the democratic and economic transition, Central and Eastern European countries underwent dramatic contextual changes which likely led citizens to modify their group prototypes along with the extent to which they identified with their social groups. First, with the relaxation of labor market regulations, most CEE countries experienced a significant increase in income and wealth dispersion during the late 1980s and early 1990s (Svejnar 1999). By the earliest point in the dataset (1993), however, the rise in income inequality had largely stabilized. In addition, there was an increase in social expenditure and income support during this period (Lipsmeyer 2002), which likely reduced the importance of household income as a determinant of socioeconomic risk, along with estimates of prototypicality and

identity strength. Similarly, while the gender wage gap increased substantially within the first few years of transition, it leveled-off to some degree, though it still continued to rise (Brainerd 2000). In contrast, ethnicity remained a significant yet varying predictor of socioeconomic risk in transition economies, as, for example, ethnicity-based employment and wage differentials increased markedly in Bulgaria (Giddings 2003), while declining in Slovenia (Orazem and Vodopivec 2000).

Most importantly, a dramatic increase in the pecuniary returns to education was experienced in Central and Eastern Europe over the period of transition covered by the data (Brainerd 1998; Gorodnichenko and Sabirianova-Peter 2005; Hazans 2003; Rutkowski 1996; Chase 1998; Filer et al. 1999; Fleisher et al. 2005). This resulted from improved labor market sorting, whereby the market mechanism permitted skills and ability to correspond more closely to occupational outcomes, as enterprises were given the freedom to set prices and wages (Svejnar 1999). In other words, in contrast to the earlier, planned economic system under which there was less freedom over occupational choice and hiring practices, the market system allowed for improved matching between firms and workers, based on the marginal productivity of labor and the demand for skills.

With the rise in returns to education, this attribute dimension has become a stronger determinant of socioeconomic risk. While there is some degree of ambiguity concerning the effects of contextual change on the incorporation of other comparative attributes into self-concept due to mitigating circumstances, I expect that educational attainment carried significantly more relative weight in social identification in the later period of transition compared to the early period. As such, educational attainment is the main attribute of interest for my analysis of the effect of contextual change in post-communist CEE.

1.2.6 Hypotheses

Based on the application of the above conceptual framework to the case of class identity strength in Central and Eastern Europe, I present the following set of hypotheses.

H1a: Class identity strength is a function of the comparison by individuals of their own socioeconomic risk-determining attributes with those of in-group and out-group members. In contrast, ethnic identity strength is weakly determined by such attribute comparisons, or not at all. This is because the estimation of class, and not ethnic, prototypicality is motivated by a desire to limit uncertainty about the economic environment.

H1b: Citizens factor comparisons on direct indicators of socioeconomic risk, such as income and wealth, more strongly into their identity calculus than those that are indirect, such as demographic characteristics. In other words, the more directly a specific attribute determines economic risk, the more strongly it will factor into citizens' class identity calculus, since direct indicators convey more relevant information for making political and economic judgments.

H2: During the market transition, the changing relative importance of certain attributes as determinants of socioeconomic risk is incorporated into citizens' identity calculus. In particular, it is expected that comparisons on educational attainment will factor more strongly into estimates of identity strength, while comparisons on other demographic and socioeconomic attributes will remain the same or exert less influence. This is done so that social identification remains consistent with the principle of uncertainty reduction.

1.3 Methods

1.3.1 Data and Measures

To test the above hypotheses, I make use of the EUREQUAL social survey, based on random samples of Central and Eastern European citizens between 1993 and 2007. This dataset covers 13 countries, 35 country-years, 175 country-classes (5x35), 168 country-ethnic groups (~5x35), and 57,597 respondents, and includes a large battery of items measuring political preferences, economic perceptions, social attitudes, and policy judgments. The countries included are Belarus, Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Moldova, Poland, Romania, Russia, Slovakia, and Ukraine.

The main dependent variable used is a measure of social class identity strength based on respondents' perceptions of relative in-group commonality (PRC), or the extent to which they feel themselves to have a lot in common with their own social group versus how much they have in common with other groups. Respondents' own group is indicated by responses to a question asking them to self-categorise as a manual worker, manager/administrator, entrepreneur, professional/ intelligentsia, or peasant (V168). The operational questions ask 'How much do you feel you have in common with [social class C] in your views and way of life. Do you have a great deal in common, quite a lot, a little, or nothing at all in common?' (V170-V174) Each respondent is asked this question about each of the 5 social groups, and responses are coded from 1 to 4, with 4 representing the highest perception of commonality. The variable is then recoded to be individual- and class-specific, with the weighted [by population proportion] sum of values associated with the 4 out-groups subtracted from the value associated with the respondent's own group. This produces a variable which takes values between -3 and 3, though only 2.4% of all respondents attain negative values on this measure, which technically indicates stronger perceived commonality with out-groups than their own group.

A similar procedure is applied to create a measure of ethnic identity strength (V191; V193-V197), which is used to produce a separate set of models for the purpose of comparing differences in causal antecedents between class and ethnic identification. Both of the resulting dependent variables are similar to Brady and Sniderman's (1985) and the Sniderman et al. (1993) relative group-affect variables, in that the measure of personal perception of one's own group is anchored against perceptions of out-groups. In line with their reasoning, this helps to avoid problems related to respondents who express the same level of commonality with each group, which makes the measure of in-group commonality, viewed in isolation, less useful. It also allows the measure to double as an indicator of perceived prototypicality, which is central to cognitive conceptions of social identity.

The demographic variables used in the models are gender (V298; female = 1, male = 0), respondents' age (based on year of birth – V297; divided by 10), and ethnicity (based on self-reported ethnicity – V191; minority = 1, majority = 0). The socioeconomic variables used include educational attainment (based on country-specific educational attainment – V191; tertiary = 1, lower level = 0), employment status (based on V200; unemployed = 1, employed or labor force non-participant = 0), household income decile (based on V269; 1 to 10), and car ownership as an indicator of household wealth[6] (V262; own car = 1, do not own car = 0). In addition, I include a dichotomous measure of religiosity as a somewhat exogenous indicator of social values (based on V190; religious attendance more than once per month = 1, less than or equal to once per month = 0).[7]

Since the object of interest is determining whether and how social comparisons influence estimates of prototypicality and identity strength, I produce a set of critical independent variables, based on the above demographic and socioeconomic variables, which

[6] See Rose (2008) for an explanation of why car ownership is a strong indicator of wealth in post-communist Central and Eastern Europe.

[7] I do not incorporate measures of attitudes into the models to avoid introducing endogeneity.

are constructed to conform to the meta-contrast principle. These variables are called 'meta-contrasts', and there is a separate one associated with each demographic and socioeconomic variable. For dichotomous variables, I estimate the sample proportions of each attribute observed within each of the 175 country-classes and 168 country-ethnic groups and deduct from this the proportion observed in the relevant total national sample, excluding the group in question.[8] For continuous variables, a similar procedure is employed, with the exception that the mean value of the variable for the group is used, minus the country-year average, excluding the relevant group. While census estimates of these values and proportions might provide a more accurate reflection of population distributions, they are not available for social class categories. Also, the effect of any systematic bias within a given context will tend to be limited because relative, rather than absolute, values and proportions are used in the production of meta-contrasts. Finally, since the distributions vary by context and are cross-cutting rather than reinforcing, any estimates derived therefrom are expected to be conservative, as non-random measurement error will tend to wash out over the full sample.

As an example of this variable's construction, since the entrepreneurial class in Belarus in 1993 was estimated to be 40% ethnic minorities, while for the rest of the country-year as a whole it was 21% minorities, the resulting meta-contrast value is +19% (or 0.19). In other words, this particular social class in 1993 Belarus had proportionally 19% more ethnic minorities than the weighted average of the other groups in the country. Meta-contrast values of zero therefore indicate that the associated social class has the precise same proportion or mean value of the attribute variable as the rest of the population. Values above zero imply that the fraction or mean value for the relevant group is greater than the remaining population, while negative values suggest the opposite.

[8] Unpaid homeworkers, students, and retired persons are excluded from the estimates, though their inclusion does not affect my substantive inferences. I include unemployed citizens in the estimates because they are still regarded as members of the occupational or social classes based on their previous employment.

1.3.2 Empirical Strategy

As explained in the introduction, the main empirical problem with understanding group identity strength is that the effects of specific antecedents are conditional on the marginal distributions of characteristics within and among groups in a given context. Therefore, each group has its own unique identity calculus, which must be accommodated in any viable empirical model. Since I am able to leverage a unique dataset with a large number of social groups and group-specific measures of identity strength, this issue can be largely overcome through an appropriate statistical procedure which accounts for both country- and group-level fixed effects.

For the main models, the method applied to these data is hierarchical linear regression, where level-1 units are individuals, level-2 units are social classes nested within country-years, level-3 units are country-years, and level-4 units are countries. For each model, I regress the cognitive measure of class identity strength (PRC) against interactions between each main attribute variable and its appropriate meta-contrast. A similar procedure is applied to produce models of ethnic identity strength, with appropriate adjustments for the multilevel design and the meta-contrasts. This procedure produces coefficient estimates which indicate whether an individual is more likely to identify strongly with her social group if the group has a high proportion of members who share the same attribute or attributes. I control for class position in the class identity models and ethnicity (minority vs. majority) in the ethnic identity models in order to rule-out any systematic biases from variation related to social position. I also control for the number of years since transition in all models except for those which include interactions on time, in which it serves as a main effect.

As an example, if a citizen of Poland who is a member of the professional class is female, then that attribute will weigh positively on her strength of identity with her group if there are proportionally more women in that group than in the rest of the population (i.e., the

group has a positive female meta-contrast). If, however, the professional class is relatively dominated by men compared to other occupational groups, her gender is expected to bear negatively on her identity strength. Assuming this logic holds, then the coefficient estimate for the interaction between female and the female meta-contrast will be positive and significant. By implication, the 'main effect' coefficient for the female meta-contrast (i.e., when female = 0) should be negatively signed and significant, since this represents the effect of higher proportions of female group members on the identity strength of male members.

Given the difficulty of interpreting these results from the estimates presented in tables, I compute the marginal effects of each demographic and socioeconomic variable across all of their meta-contrast values. The empirical expectation is that the marginal effect of a given categorical demographic or socioeconomic variable on identity strength is a positive function of the relative proportion of the positive category (e.g., female, minority, unemployed) in the social group. Similarly, the marginal effect of continuous variables on identity strength is expected to be a positive function of the relative group mean value of those variables.

To test the first hypothesis (H1a), I compare the marginal effects in the class identity model to those in the ethnic identity model to see if the effect of each risk-determining variable increases across the response surface with higher meta-contrast values. My expectation is that these attributes will factor significantly into class identity strength, and more strongly than they do for ethnic identity strength. In addition, I expect that religiosity will exhibit the opposite behavior and bear more strongly on ethnic identification compared to class identification, since it indicates social values and not economic risk.

To test the second hypothesis (H1b), I calculate the change in the marginal effect of each variable associated with a one-unit (0% to 100% for proportions, 1 decile for income, and 10 years for age) change in the relevant meta-contrast and multiplying it by both the standard deviation of the meta-contrast and the standard deviation of the attribute variable.

This yields a standardized estimate that is only meaningful as a comparative indicator. While comparing the resulting estimates is a superficial means of testing the hypothesis that direct indicators of socioeconomic risk are more important to self-categorization than indirect indicators, it is a crucial first step towards understanding the causal structure of identity strength. To partially overcome this weakness, I compare the log likelihoods and Bayesian Information Criteria of the full model with a set of nested models, which exclude meta-contrast interactions for demographic variables, educational attainment and socioeconomic variables, respectively.

The final hypothesis (H2) is tested by 3-way interacting a reduced set of demographic and socioeconomic variables (to conserve degrees of freedom – gender, ethnicity, education, income and car ownership are included) with their relevant meta-contrasts and survey year (marginal effects are predicted for the first and final survey – 1993 and 2007). This produces coefficient estimates which indicate the change over time in the effects of specific attribute comparisons on the strength of class identification. Again, I pay particular attention to the marginal effects, and expect that the effect of educational attainment on identity strength will respond more strongly to higher values of meta-contrast in the later period relative to the other variables. In other words, the effect of educational attainment (tertiary versus lower) on identity strength will increase more sharply with the relative proportion of highly educated persons in the group in the later period of economic transition.

1.4 Results

The estimates presented in Table 1.1 suggest that the more similar one is to his own social class relative to out-groups in terms of observable demographic and socioeconomic attributes, the more strongly he identifies with his group. This is indicated by the significant upward slopes of estimated marginal effects in Figures 1.1 to 1.8. The left panel of Figure

1.1, for example, shows that being unemployed is positively associated with class identity strength in groups with a higher differential in the fraction of unemployed persons compared to the proportion observed in other groups. Significant negative marginal effects are also seen in groups with a negative differential for unemployment, in which they are *more* outnumbered by the employed in comparison with other classes. In groups which have 10% fewer unemployed persons than the rest of the population, the unemployed identify with their social class 21.4% of a standard deviation *less* strongly than the employed. In groups with 10% more unemployed persons, on the other hand, the unemployed identify 14.2% *more* with their social class compared to the employed. This pattern of significant social comparison effects is observed for each of the demographic and socioeconomic variables, though not for religiosity. As such, these results are consonant with the first hypothesis (H1a), which states that class identity strength is a function of the comparison by individuals of their own economic risk-determining attributes with those of in-group and out-group members.[9]

Comparing the coefficient estimates for the model of ethnic identity strength presented in Table 1.1 [Model 5] with those for class identity strength, we see that social comparisons of demographic and socioeconomic attributes do not significantly determine the extent to which one identifies with his ethnic group. This is not surprising, given that socioeconomic characteristics cut across ethnic groups in most of Central and Eastern Europe, such that ethnicity is weakly related socioeconomic risk compared to social class. Furthermore, ethnicity is expected to have been a salient indicator of existential risk, thereby muting most economic concerns as the motivation for self-categorization. Post-communist citizens may have used ethnic identification and estimated prototypicality to reduce uncertainty about national citizenship rights and the conservation of social values. While I do not incorporate

[9] The results for ethnic comparisons also lend support to two of the central theoretic assumptions in Shayo's (2009) model of social identity: 1) class identification appears to be a function of perceived social distance along salient attribute dimensions; 2) larger fractions of ethnic minorities within a particular social class appears to lead majority members to disassociate from the group.

Table 1.1: HLM Regression of Class and Ethnic Identity Strength against Respondent Attributes and Meta-Contrasts

	Class Identity Strength				Ethnic Identity Strength	
	(1)	(2)	(3)	(4)	(5)	(6)
Female	-0.0134	-0.0134	-0.0181*	-0.0124	0.0464***	0.0464***
	(0.00782)	(0.00781)	(0.00787)	(0.00783)	(0.00747)	(0.00747)
MCR Female	-0.0982		-0.111	-0.217	0.0485	
	(0.250)		(0.254)	(0.240)	(0.554)	
Female	0.322***		0.256**	0.370***	0.0429	
X MCR Female	(0.0797)		(0.0802)	(0.0798)	(0.299)	
Minority	-0.00687	0.00605	-0.00902	-0.00888		
	(0.0107)	(0.0105)	(0.0108)	(0.0108)		
MRC Minority	0.0851		0.0624	0.130		
	(0.244)		(0.241)	(0.242)		
Minority	0.964***		1.036***	1.042***		
X MRC Minority	(0.185)		(0.186)	(0.185)		
Middle Class					-0.0451***	-0.0444***
					(0.00869)	(0.00862)
MCR Middle Class					0.776	
					(0.572)	
Middle Class					0.149	
X MCR Middle Class					(0.167)	
Age (x10)	0.0156***	0.0162***	0.0193***	0.0168***	-0.00711**	-0.00719**
	(0.00240)	(0.00240)	(0.00241)	(0.00240)	(0.00229)	(0.00229)
MCR Age	-0.386***		-0.374***	-0.438***	-0.00357	
	(0.0648)		(0.0659)	(0.0630)	(0.154)	
Age	0.00461***		0.00461***	0.00606***	-0.000989	
X MCR Age	(0.000579)		(0.000583)	(0.000568)	(0.00171)	
Tertiary Education	-0.119***	-0.124***	0.0886***	-0.116***	-0.0626***	-0.0606***
	(0.0133)	(0.0133)	(0.0111)	(0.0133)	(0.0104)	(0.0104)
MCR Tertiary Edu.	-0.753***	-0.698***		-0.899***	-1.145	
	(0.190)	(0.186)		(0.187)	(0.655)	
Tertiary Edu.	1.521***	1.517***		1.597***	0.454	
X MCR Tertiary Edu.	(0.0543)	(0.0543)		(0.0542)	(0.245)	

Continued on following page.

Table 1.1, continued

Unemployed	-0.0345**	-0.0388**	-0.0377**	-0.0176	0.00998	0.0116
	(0.0128)	(0.0128)	(0.0128)	(0.0123)	(0.0120)	(0.0119)
MCR Unemployed	0.0145	0.374	-0.0914		-0.398	
	(0.399)	(0.392)	(0.407)		(0.720)	
Unemployed X MCR Unemployed	1.693***	1.747***	1.926***		0.473	
	(0.349)	(0.349)	(0.351)		(0.308)	
Income Decile	0.00236	0.00242	0.00243	0.00339*	-0.00665***	-0.00658***
	(0.00144)	(0.00144)	(0.00145)	(0.00144)	(0.00137)	(0.00137)
MCR Income	-0.0830**	-0.0773**	-0.120***		0.0815	
	(0.0279)	(0.0274)	(0.0278)		(0.0733)	
Income X MCR Income	0.0123***	0.0143***	0.0152***		0.00392	
	(0.00151)	(0.00149)	(0.00152)		(0.00455)	
Own Car	-0.0450***	-0.0474***	-0.0477***	-0.0412***	-0.00995	-0.00978
	(0.00841)	(0.00841)	(0.00846)	(0.00841)	(0.00812)	(0.00811)
MRC Own Car	-0.419	-0.405	-0.492		-0.541	
	(0.277)	(0.252)	(0.282)		(0.532)	
Own Car X MRC Own Car	0.816***	0.843***	0.882***		0.398	
	(0.0868)	(0.0867)	(0.0873)		(0.207)	
High Religious	-0.0212**	-0.0213**	-0.0197*	-0.0212*	0.00919	0.0106
	(0.00821)	(0.00821)	(0.00827)	(0.00823)	(0.00801)	(0.00800)
MCR High Religious	0.213	0.136	0.175	0.283	-0.0594	
	(0.255)	(0.248)	(0.254)	(0.254)	(0.333)	
High Religious X High Religious	0.0654	0.177	0.120	0.0634	0.637***	
	(0.159)	(0.158)	(0.160)	(0.159)	(0.141)	
Constant	1.425***	1.432***	1.479***	1.407***	1.769***	1.780***
	(0.0487)	(0.0427)	(0.0409)	(0.0478)	(0.164)	(0.168)
N Total [Classes;.Ethn.]	56267 [175]	56267 [175]	56267 [175]	56267 [175]	56267 [168]	56267 [168]
Log Likelihood	-72394.5	-72451.1	-72784.5	-72516.6	-70685.3	-70713.4
LR Test p-value		0.000	0.000	0.000		0.000
BIC [Difference]	145182	145230 [48]	145941 [759]	145339 [157]	141732	141591 [-141]

Note: Source: EUREQUAL Social Survey (1993 – 2007). Standard errors in parentheses. * p<0.05 ** p<0.01 *** p<0.001. Coefficient estimates are non-standardized. Random effects parameter estimates are not presented.

values or attitudes directly into the models to limit the risk of introducing endogeneity, the coefficient estimates for religiosity in Model 5 of Table 1.1 and the corresponding marginal effects in the right panel of Figure 1.8 support the notion that social comparisons of religious values factored strongly into the ethnic identity calculus of these citizens.[10] In any case, the central object of this paper is to explain class identification, and it is clear that since the strength of class, but not ethnic, identity depends on comparisons of socioeconomic risk-determining characteristics, the first hypothesis (H1a) is further supported.

To test H1b, I calculate and compare the net influence of each attribute comparison on the strength of class identification. As outlined in the methodology section, this is done by taking the change in the marginal effect of each variable associated with a one-unit change in the relevant meta-contrast and multiplying it by both the standard deviation of the meta-contrast and the standard deviation of the attribute variable. The estimated 'influence coefficients' for the 8 specified interactions have values of between 0.0015 and 0.349, with higher values indicating that social comparisons regarding the relevant attribute exert greater net influence on the strength of class identification. The highest value is obtained for income (0.349), followed by educational attainment (0.118) and car ownership (0.036). That these are the most influential comparative attributes is not surprising, given that they are all eminently direct and clear indicators of socioeconomic risk that impact large portions of the population.

The next most influential comparative attributes are age (0.032), ethnicity (0.019), employment status (0.018), and gender (0.016). Age appears to be an important attribute dimension for all age-groups because it is a ubiquitous characteristic which serves as a close proxy for economic vulnerability in a context with insecure public pensions (Schmähl and

[10] In qualification of these estimates, however, I submit that the models are naïve of respondent-specific religion, which implies that social values are assumed to depend on the degree of observance and not specific religion.

Figure 1.1: Average Marginal Effects of Ethnicity and Class Position on Class and Ethnic Identity Strength, by Meta−contrast

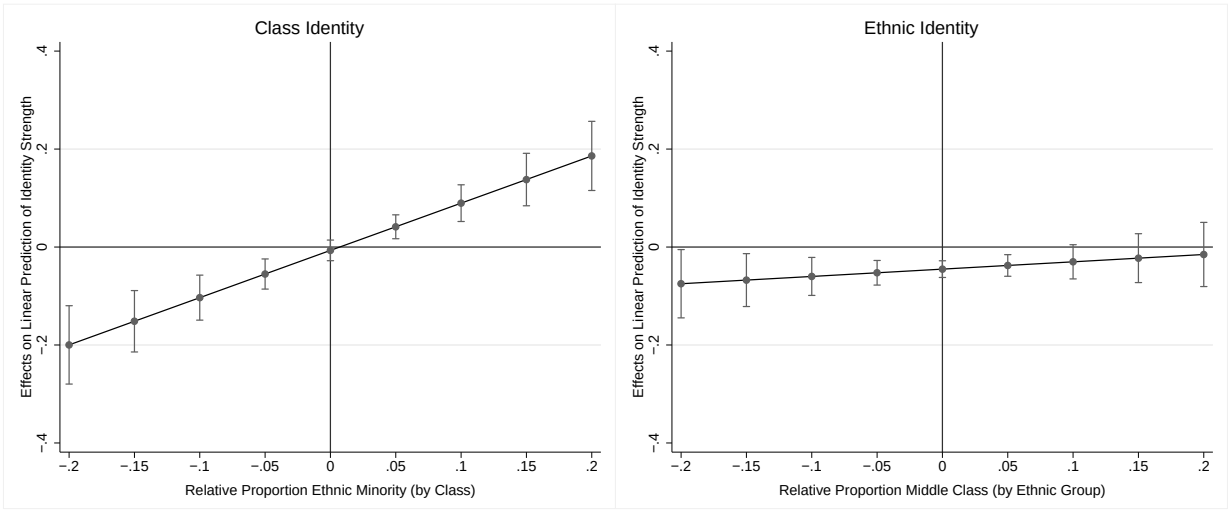


Figure 1.2: Average Marginal Effects of Gender (Female v. Male) on Class and Ethnic Identity Strength, by Gender Meta−contrast

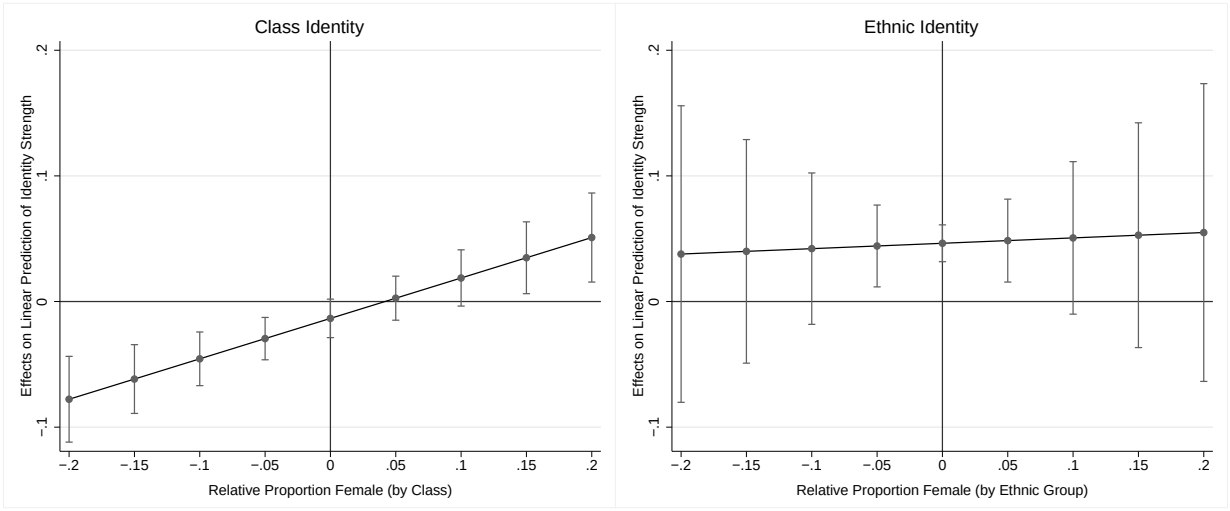
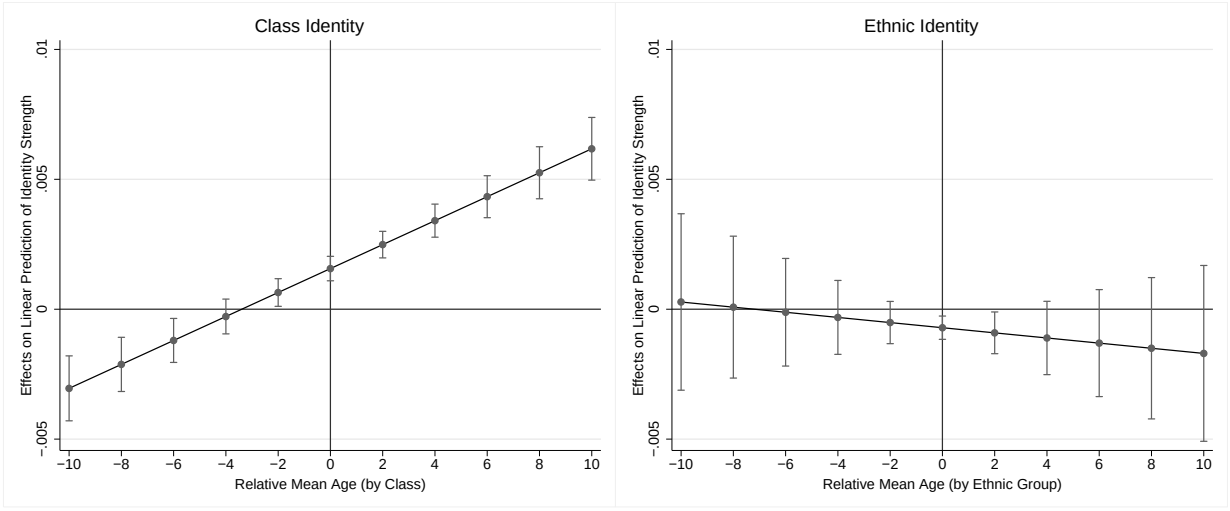


Figure 1.3: Average Marginal Effects of Respondents' Age on Class and Ethnic Identity Strength, by Age Meta−contrast



Horstmann, 2002) and a labor market that has shifted away from rewarding seniority (Hraba et al., 1997). Perhaps surprisingly, employment status is not very influential attribute dimension, since it is known to be a strong indicator of economic risk. Recall, however, that we are interested in knowing the relative net influence of each characteristic within the identity calculus, and since there is relatively limited variation in unemployment across groups (i.e., a low standard deviation of the meta-contrast), this factor is not as influential. The impact of higher group proportions of unemployed on the marginal effect of this variable is, in fact, very strong, but the overall importance to the self-concept of post-communist citizens is low. Since educational attainment, income and wealth (car ownership) are shown to be the most influential comparative attributes for determining class identity strength, while demographic attributes carry less weight, these results provide support for the second hypothesis (H1b) and the larger proposition that citizens draw comparisons on risk-determining attributes to fashion their self-concept and reduce uncertainty about the economic environment.

Comparing the full model for class identity strength in Table 1.1 [Model 1] with the nested models [Models 2 through 4], it is also apparent that eliminating demographic variables (gender, ethnicity, and age) from the regression in Model 2 worsened the model fit considerably less than the removal of education in Model 3 or income, unemployment and wealth in Model 4. Although the BIC values and LR tests indicate that social comparison on all of the dimensions improve predictions of class identity strength, socioeconomic characteristics appear to carry the greatest weight in the class identity calculus, thus further supporting H1b. Moreover, comparing the BIC values for Models 5 and 6 shows that the inclusion of socioeconomic and demographic meta-contrasts actually worsens model fit for ethnic identity strength, as the critical value is lower (i.e., better) for the nested model.

Figure 1.4: Average Marginal Effects of Tertiary Educational Attainment on Class and Ethnic Identity Strength, by Education Meta−contrast

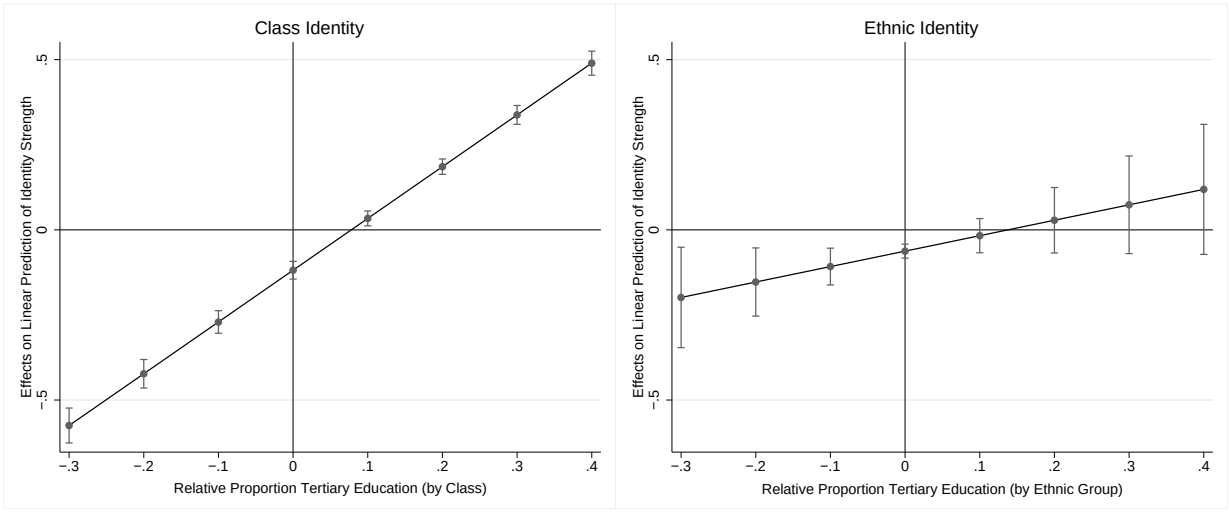


Figure 1.5: Average Marginal Effects of Income Decile on Class and Ethnic Identity Strength, by Income Meta−contrast

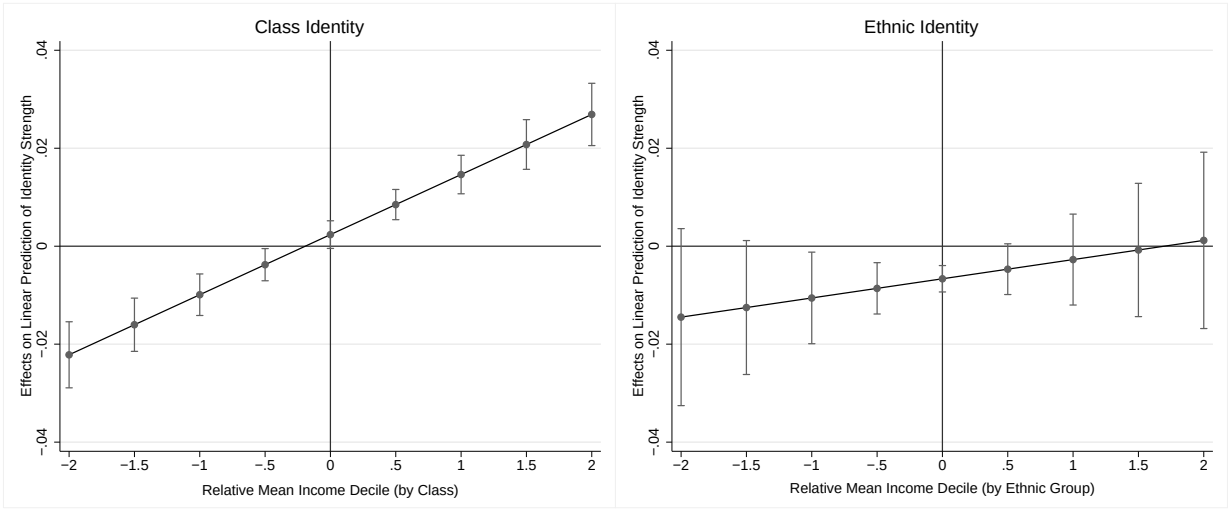
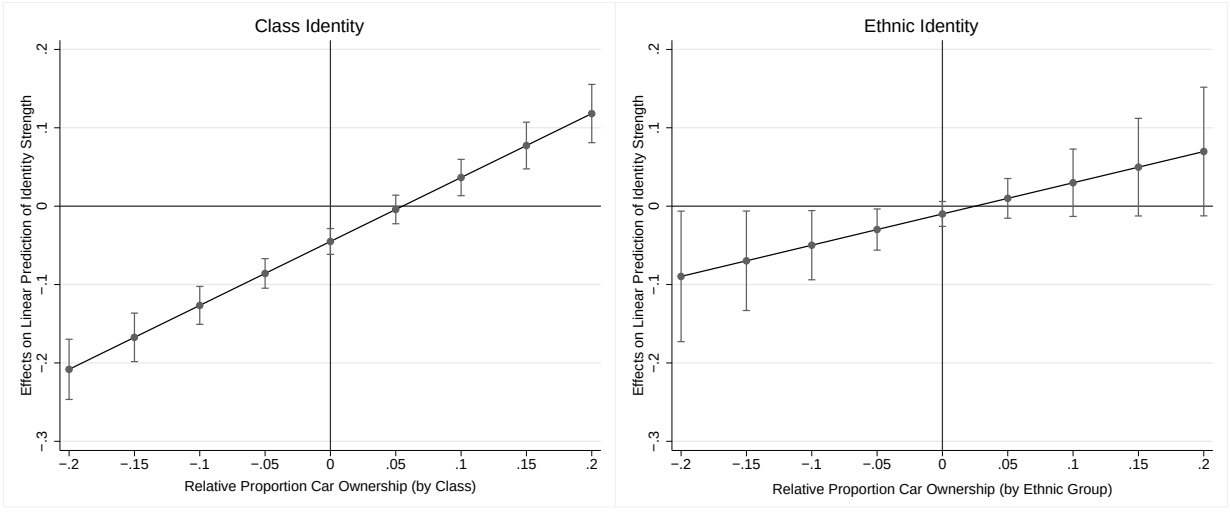


Figure 1.6: Average Marginal Effects of Car Ownership on Class and Ethnic Identity Strength, by Car Ownership Meta−contrast



Hence, the social comparison of socioeconomic and demographic characteristics does not predict ethnic identity strength in post-communist Central and Eastern Europe.

Figure 1.7: Average Marginal Effects of Unemployment on Class and Ethnic Identity Strength, by Unemployment Meta−contrast

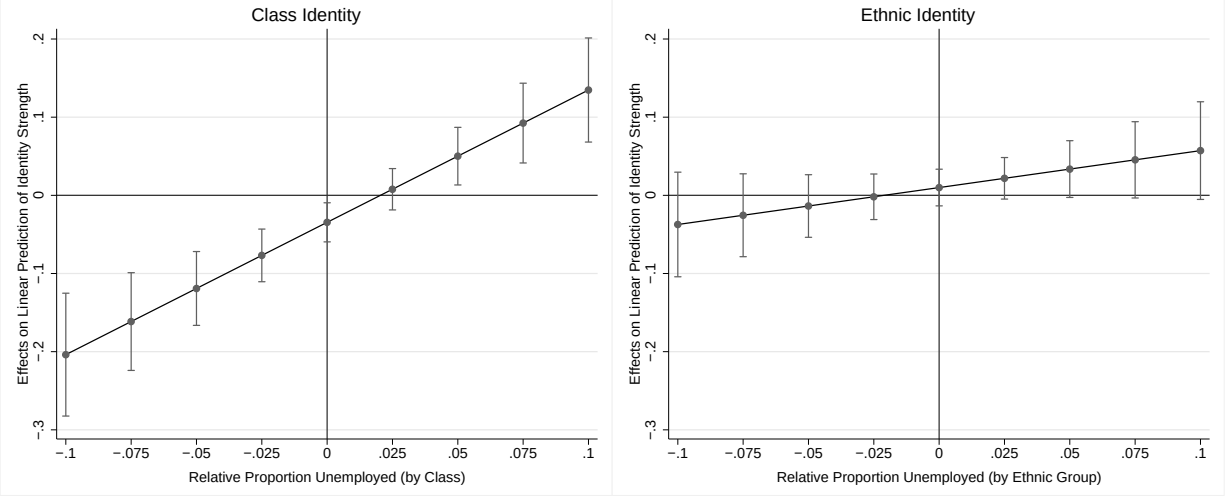
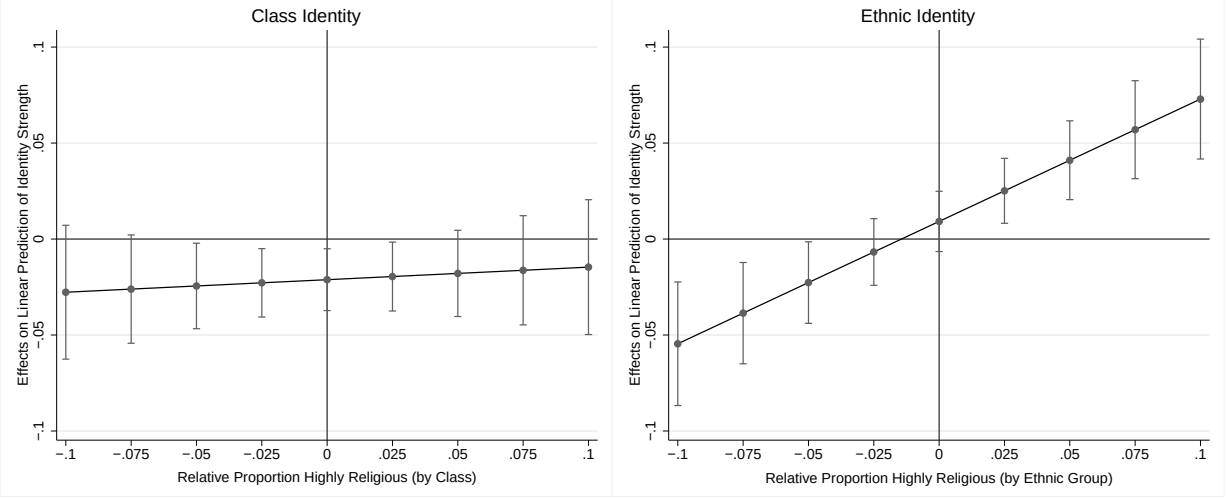


Figure 1.8: Average Marginal Effects of High Religiosity on Class and Ethnic Identity Strength, by Religiosity Meta−contrast



In support of the final hypothesis (H2), Table 1.2 indicates that during the market transition between 1993 and 2007, post-communist citizens increased their emphasis on group-level educational attainment for determining their level of class identity strength. At the same time, they reduced their emphasis on ethnicity and income, while the importance of other attributes was unchanged. From the marginal effects presented in Figure 1.9, it is shown that the slope of the line increases, which indicates that for most meta-contrast values

Table 1.2: Time-Interacted HLM Regression of Class Identity Strength against Characteristics and Meta-Contrasts

	(1)	(2)
Female	0.0174	-0.00909
	(0.0108)	(0.00779)
MCR Female	-0.608	-0.0607
	(0.323)	(0.250)
Female	0.292**	0.333***
X MCR Female	(0.109)	(0.0790)
Female X Yr	-0.00475***	
	(0.00135)	
MCR Female X Yr	0.0713*	
	(0.0310)	
Female	0.00705	
X MCR Female X Yr	(0.0145)	
Minority	0.00409	-0.00371
	(0.0145)	(0.0108)
MRC Minority	0.413	0.101
	(0.305)	(0.249)
Minority	1.273***	1.017***
X MRC Minority	(0.241)	(0.187)
Minority X Yr	-0.00141	
	(0.00198)	
MRC Minority X Yr	-0.0604	
	(0.0403)	
Minority	-0.0738	
X MRC Minority X Yr	(0.0417)	
Tertiary Education	-0.107***	-0.123***
	(0.0193)	(0.0133)
MCR Tertiary Edu.	-0.338	-0.707***
	(0.218)	(0.193)
Tertiary Edu.	1.181***	1.506***
X MCR Tertiary Edu.	(0.0773)	(0.0543)

Continued on following page.

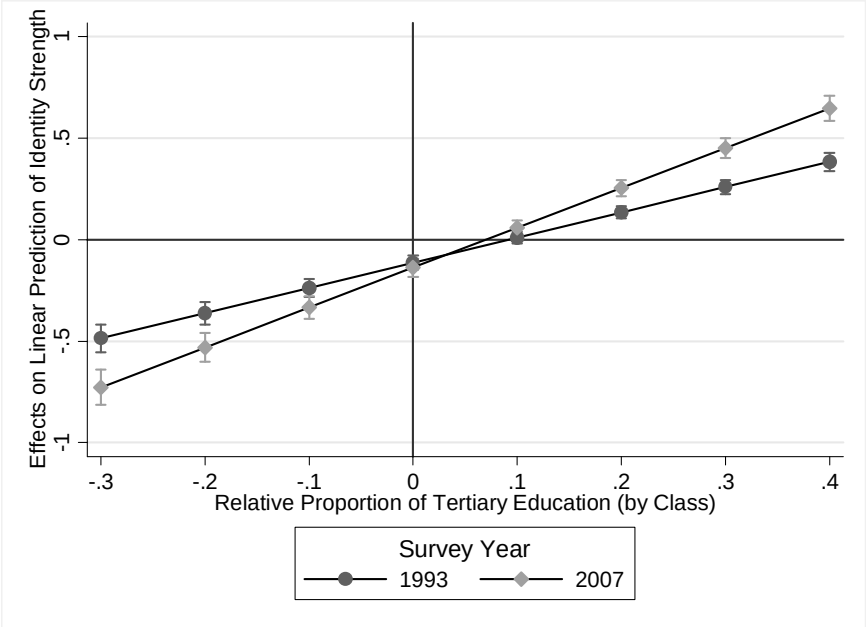
Table 1.2 continued.

Tertiary Education X Yr	-0.00216 (0.00231)	
MCR Tertiary X Yr	-0.0812*** (0.0208)	
Tertiary Edu. X MCR Tertiary X Yr	0.0558*** (0.00929)	
Income Decile	-0.00439* (0.00203)	0.000454 (0.00147)
MCR Income	-0.195*** (0.0467)	-0.0869** (0.0286)
Income X MCR Income	0.0196*** (0.00206)	0.0156*** (0.00149)
Income Decile X Yr	0.000811*** (0.000242)	
MCR Income X Yr	0.0144*** (0.00404)	
Income X MCR Income X Yr	-0.000721** (0.000260)	
Own Car	-0.0491*** (0.0117)	-0.0488*** (0.00838)
MRC Own Car	-0.452 (0.383)	-0.434 (0.277)
Own Car X MRC Own Car	0.707*** (0.117)	0.803*** (0.0861)
Own Car X Yr	0.000407 (0.00142)	
MRC Own Car X Yr	0.00831 (0.0340)	
Own Car X MRC Own Car X Yr	0.0173 (0.0150)	
N Total (Classes)	56591 (175)	56591 (175)
Log Likelihood	-73305.7	-73355.6

Note: Source: EUREQUAL Social Survey (1993 – 2007). Standard errors in parentheses. * p<0.05 ** p<0.01 *** p<0.001. Coefficient estimates are non-standardized. Random effects parameter estimates are not presented.

above zero, the marginal effect of educational attainment on class identity strength has increased, while for meta-contrast values below zero, the negative marginal effect is also stronger. As a concrete example, for a group in which there are 20% more highly educated individuals than the other groups in the context, the marginal effect of tertiary (versus lower) educational attainment in 1993 was 13.2% of a standard deviation in class identity strength, which increased to 26.7% in 2007—more than double the original estimate. In other words, since this pattern obtains for the full response surface, we can say that the class identity strength of post-communist citizens became more sensitive to the marginal distribution of educational attainment across groups.

Figure 1.9: Average Marginal Effects of Tertiary Education on Class Identity Strength, by Education Meta-contrast and Years since Transition

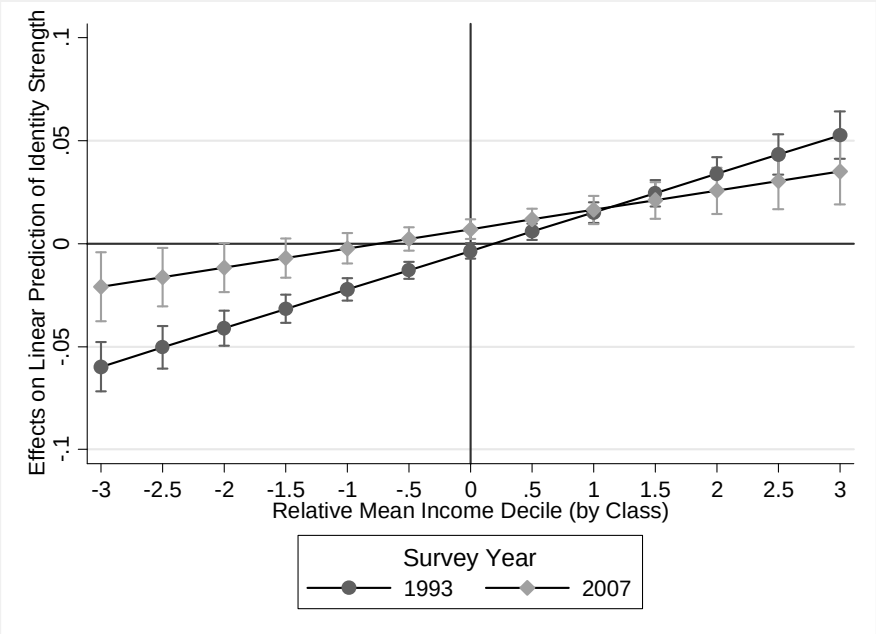


Source: EUREQUAL (1993-2007).

As discussed in the second section, there was no clear expectation of how the effect of income comparisons on identity strength would change with the transition. While income dispersion across groups increased with time, most of this occurred before the first wave of the EUREQUAL project. Also, since net social expenditure per capita more than trebled, on average, from the first wave to the final wave, it is not surprising that income became a less

significant determinant of economic risk, thus factoring less strongly into the identity calculus of post-communist citizens.

Figure 1.10: Average Marginal Effects of Income Decile on Class Identity Strength, by Income Meta-contrast and Years since Transition

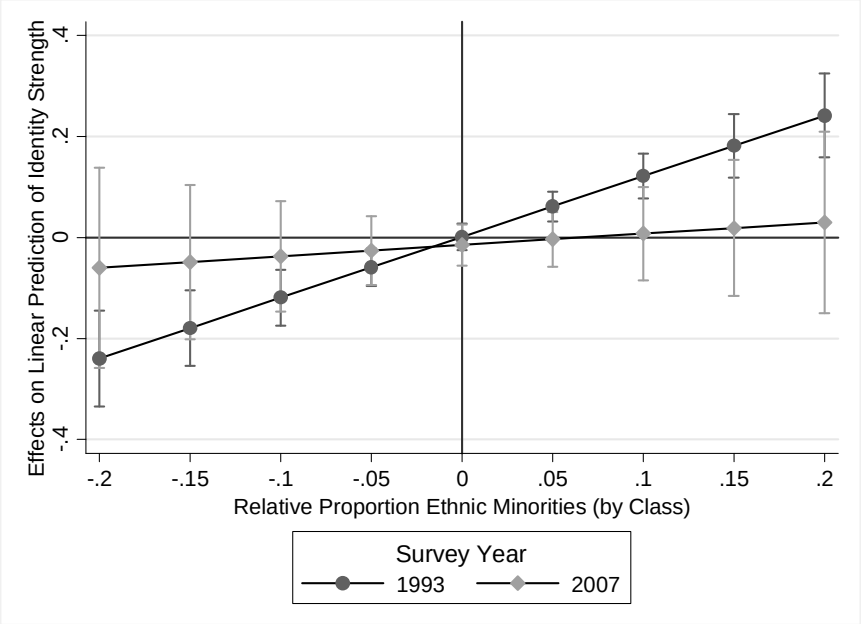


Source: EUREQUAL (1993-2007).

Although the coefficient estimates for the ethnicity interaction with survey year are below conventional levels of statistical significance, the marginal effect estimates (Figure 1.11) show that this attribute dimension became an insignificant determinant of class identity strength in later stages of the market transition. For example, groups in which there are 20% more ethnic minorities than the other groups in the context had a marginal effect of ethnicity (minority versus majority) which was 27.0% of a standard deviation in class identity strength in 1993. By 2007, however, the effect for similar groups was 3.1% and not significantly different from zero. This might be explained by the proliferation of ethnocentric political parties during the early stages of democratic transition, which likely generated a perceived threat of political and economic exclusion among ethnic minorities. When this threat largely failed to manifest in later years, and with the incorporation of most of these countries to the

European Union (exceptions being Belarus, Moldova, Russia and Ukraine), ethnicity likely became less salient, thus no longer factoring into the identity calculus of post-communist citizens. Should this speculative reasoning prove to be accurate, the observed attenuation of ethnic comparisons in the class identity calculus lends credence to the notion that while self-categorization may be fundamentally rational, perceptions of the external environment take precedence over objective reality.

Figure 1.11: Average Marginal Effects of Ethnicity on Class Identity Strength, by Minority Meta-contrast and Years since Transition



Source: EUREQUAL (1993-2007).

1.5 Discussion

The above results demonstrate that social comparisons of socioeconomic and demographic attributes influenced self-conceptualization in post-communist Central and Eastern Europe. Specifically, the more similar an individual is to his own social class compared to other classes on observable characteristics, the more strongly he identifies with his group. While this empirical regularity is well established in the laboratory setting, this is the first application, to the best of the author's knowledge, to a real-world context for social

class identification. By employing a unique dataset and novel empirical strategy, I effectively overcome previous limitations which have hindered the ability of researchers to ascertain the causal antecedents of class identity strength. In the process, my results support the external validity of the social identity approach and, in particular, its subcomponents self-categorization theory and subjective uncertainty reduction theory.

While my inductive approach is not entirely conclusive, it supports the notion that individuals' motivation to self-categorize is driven by a desire to limit uncertainty about their social, economic and political environments. In the case of class identity, I have found that citizens' estimates of prototypicality are calculated in such a way as to reduce uncertainty about socioeconomic risk. This is indicated by several observations in the results. First, there are significant interactions between each attribute variable and its relevant meta-contrast, with the exception of religious attendance. Since each of these variables is a known indicator of socioeconomic risk, the identity calculus appears to be rationally-derived for the purpose of making economic judgments (e.g., about purchases, investments, or economic policies). Second, social comparisons of these risk-determining attributes do not appear to factor into the ethnic identity calculus. This suggests that self-categorization on each identity dimension (i.e., class, ethnicity, gender, etc.) is motivated by a desire to reduce uncertainty about specific concerns. Given the significant religious attendance interaction for the ethnic identity model, it is possible that ethnic identification is motivated by a need for clarity about social values. Finally, there is clear variation in salience among the attribute variables I have specified, which appears related to their relevance to economic outcomes. Demographic attributes, which are indirect determinants and indicators of socioeconomic risk, factor into the class identity calculus less strongly than direct, 'acquired' determinants of risk, such as income, wealth and education. Analysis of model fit further supports this argument.

Perhaps the most interesting finding in the preceding analysis is that the changing nature of the comparative context in these transitional societies led to a change in the mechanism through which citizens define themselves as members of groups. We see that the market mechanism, by facilitating labor market sorting, increased the returns to skills and education across Central and Eastern Europe. As a result, educational attainment became a stronger determinant of socioeconomic risk and individuals updated their identity calculus to give more weight to this attribute in their self-conceptualization. This observation further supports the notion that class identification is largely motivated by a desire for clarity about the economic environment. The main lesson from this is that there do not appear to be universal rules for how identity strength is determined, since the comparative context has significant bearing on the formation of identities.

That there is an apparent rational basis to social identity in these emerging markets may be cause for optimism, since weak systems of mass communication and fractionalised electoral systems meant that informational deficits abounded in the early stages of politico-economic transition. It is plausible that ascertaining one's level of class prototypicality improved the ability to make reasoned judgments about important economic objects, even when information about the economy was limited. In other words, the act of identification may have reduced uncertainty about socioeconomic risk, assuming the presence of sufficiently accurate group-based informational cue. Furthermore, to the extent that economic voting and other judgments are based on evaluations oriented towards the economic experiences of social classes, accurate estimation of social identities based on comparisons of risk-determining characteristics may have aided in the attribution of responsibility—a notion explored in the second chapter.

Future research on social identity and self-categorization will need to explore certain avenues in order to further test social identity theory in the real-world setting. First, other

societies, where ethno-racial economic polarization is more pronounced, will need to be considered to determine whether ethnic identification is differently motivated in contexts where ethnic groups have experienced historical economic exclusion and discrimination. Second, researchers will need to understand how intergroup conflict intervenes in an otherwise rational process to augment the nature of individuals' identity formation. It is also important to determine how social exposure to other groups, in terms of frequency, duration, and quality, affects the strength of identity, both directly and as a moderator of social comparison. Finally, political scientists will need to determine whether and how political parties or institutions influence the strength of social identity or the salience of particular attributes in the identity calculus.

The preceding analysis was a crucial first step in the development of this thesis by providing the foundation upon which conceptual models in subsequent chapters are based. The second chapter, in particular, is devoted to exploring how the strength of social identity influences the class basis of judgements. In short, the results described above point to a plausible mechanism through which post-communist citizens variously used class experiences as a proxy for the true implications of the market mechanism to themselves by adjusting for their perceptions of shared risk. While the implications of the models in each chapter stand on their own merits, they are mutually reinforcing and lend to a more thorough understanding of how social identity influences class-based economic cognition.

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Chapter 2

Evaluating the Market Mechanism in Transition Economies: The Importance of Class-level Economic Experiences

Summary: Citizens' opinions about their economic system are important indicators of whether related institutions are serving their needs. Understanding the informational bases of these attitudes is necessary if we are to draw inferences about their significance. Since economic transition from state socialism to capitalism differentially benefits certain social classes, it is important to know whether class-specific economic experiences influence judgements about the market system. Using surveys in post-communist Central and Eastern Europe, I examine the conditions under which citizens incorporate class-based economic assessments into their market evaluations. Testing a novel conceptual framework informed by identity economics, I show that strong class identifiers derive the most relevant information about economic risk from class-based cues and that at all levels of social identity the working-class places greater emphasis on class-based evaluations. Attitudes towards marketization are shown to be largely based on class experiences, but this is conditional on identity strength and class position.

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2.1 Introduction

Economic systems—whether market-based, centrally-planned, or mixed—dictate how and to whom financial and public resources are allocated. Though many have sought to establish which of these frameworks optimizes general welfare in a given context (Schumpeter, 1952; Stiglitz, 1982; Sen, 1993; Conn, 1977), the structural components may affect certain groups differently, depending on their position in some social hierarchy or level of socioeconomic risk. A market-based economy may, for example, reward entrepreneurs and private-sector managers, while a centrally-planned system may disproportionately benefit manual workers or farmers. Given the implications of these processes to the utilitarian outcomes of individuals and social groups, we should expect that citizens form meaningful judgements about prevailing institutions based on their own experiences and the experiences of those around them. These evaluations should then influence policy preferences, ideological leanings and political choice by virtue of their instrumental basis (Rose and Mishler, 2010).

One challenge from an analytic perspective is that judgements about economic systems tend to be counterfactual—that is, one's opinion about the relevant institutions is based on beliefs about how economic experiences would have differed in the presence of another system. For example, evaluations of the market economy represent the expected difference in net utility attributed to operating under a market system versus a centrally-planned economy, other factors being equal. This premise echoes Stiglitz's (1982) argument that 'an evaluation of the market economy should ... entail a comparison with a socialist economy facing the same transactions technology or the same information problems'. While the validity of such a comparison would be questionable in view of the likely presence of endogeneity, we inhabit a world in which many people have experienced a transition away from a planned system towards one driven by the market mechanism. These citizens are

therefore certain to have their assessments more firmly anchored in reality than those who have not experienced such changes, and can serve as useful subjects of analysis.

Although observations of transitional citizens, such as those of post-communist Central and Eastern Europe (CEE) may mitigate this empirical challenge, it is also important to understand the causal *structure* of system evaluations because we need to discern on what information these attitudes are based for them to be analytically meaningful. In this respect, we need to know the degree to which information is based on personal versus societal economic experiences. The 'egocentric' versus 'sociotropic' distinction is well-established (Kinder and Kiewiet, 1981; Mutz and Mondak, 1997), but we can extend this to include a meso-level by examining whether and how evaluations of the market system are related to perceived retrospective economic experiences at the household-, national-, and occupational class-level, each of which possesses certain strengths and weaknesses.

When making judgements about economic institutions, political actors or policy options related to instrumental outcomes, intuition suggests that individuals should look towards indicators of their immediate financial circumstances, such as household income. This is because self-interested actors ought to be strictly concerned with the net benefits which accrue to them, regardless of how these factors affect others (Kinder and Kiewiet, 1981). Mutz and Mondak (1997) explain that the problem with relying on this level of analysis is that the sample size is exceedingly small, such that expected sampling error and uncertainty about the estimates is high (see also Ansolabehere et al., 2014). Instead, individuals may focus on aggregate economic indicators such as national unemployment or production, which are far less prone to this issue. While national information is not necessarily biased, it may be less relevant to a given individual if he is, or regards himself as being, a relative outsider in terms of his exposure to economic risk or opportunity. As noted in other literature (Wilson, 2012; Ansolabehere et al., 2014; Mutz and Mondak, 1997),

however, meso-level observations—those oriented towards outcomes somewhere between the personal or household and national levels—may overcome much of the potential error problem concerning household-level observations, as well as the relevance problem regarding national-level observations. Meso-level observations may include economic circumstances at the regional level, or those among members of a particular social group, such as the working class or ethnic majority.

Given that there is an informational incentive to incorporate group-based observations into judgements, and that social groups are differentially impacted by systemic economic conditions and events, it is reasonable to assume that individuals will derive valuable information about an emerging system from retrospective consideration of group-level economic experiences. Since the economic transition from state-socialism to a market-based system in post-communist Europe is known to have benefited certain occupational groups more than others (Loveless, 2010), I seek to establish the relative importance of social class-level experiences to politico-economic judgements. Above all, I wish to understand the individual-level circumstances under which citizens figure social class into their economic reasoning.

The class basis of economic reasoning in transitional societies is important because social class referents may provide informational shortcuts in these contexts, where systems of mass communication are weak. Populations for which social class is a salient subject of economic appraisal could also be diagnostic of an environment suitable for class-based conflict or political competition—an especially pressing concern for regions undergoing economic and democratic consolidation. I thus seek to address the question: What individual-level characteristics determine the relative strength with which class-based economic cues are incorporated into judgements about the emerging market system? I also want to know whether any intervening effect of identity strength on class-based judgements is robust

throughout the transition and across groups. The resolution of this can contribute to extant work on attitudes towards transitional institutions (Duch, 1993; Rose and Mishler, 1994, 2010; Evans, 2006; Evans and Whitefield, 1995; Rohrschneider, 1996; Tucker et al., 2002; Loveless, 2010; Owen and Tucker, 2010; Tverdova, 2010) by clarifying the cognitive bases of individual-level judgements about the market economy.

To answer the above questions, I draw on theory from the literature on attributions of responsibility (Powell and Whitten, 1993; Tucker et al., 2006; Duch, 2001; Gomez and Wilson, 2001, 2006) and identity economics (Akerlof and Kranton, 2000, 2010; Shayo, 2009; Huber, 2013; Penn, 2008). Particular attention is paid to variation in the strength of group identity, which is largely determined, according to self-categorisation theory, by the extent to which an individual regards himself as belonging in his own social group relative to other groups (Turner et al., 1987).[11] Based on this, a novel conceptual framework is applied to data collected in post-communist Central and Eastern Europe to test the hypothesis that class-level economic experiences weigh most heavily on judgements about the effectiveness of the market system among individuals who perceive themselves to share a high degree of economic risk with other members of their social group. The chapter proceeds with a brief review of relevant literature followed by the specification of a conceptual model for explaining heterogeneity in the class-basis of evaluations of the market system. An empirical model for testing the main propositions is then presented, followed by a discussion of the findings and their broader implications.

[11] Self-categorisation is regarded as the rational, cognitive component of social identification, which accompanies an affective component based on group evaluations and an in-group ties component based on perceptions of solidarity (Cameron, 2004). It is, in other words, but one of several dimensions of social identity.

2.2 Literature Review

Forming judgements about one's economic system is akin to evaluating the performance of an incumbent political party or candidate. In line with this reasoning, Duch (1993) suggests that citizens may attribute credit for positive economic experiences, or blame for negative ones, to the economic institutions under which they operate. He goes on to show that negative evaluations of economic performance under communism led citizens in the former Soviet Union to more strongly support market reforms. While, as Sen (2002) contends, the market mechanism may be judged by other factors, including its promotion of freedom of choice, freedom from encroachment, and opportunities to achieve, these economic experiences are likely to be a crucial factor in determining the sustainability of a system. As such, this review emphasizes research on economic voting and attribution of responsibility. I begin the review by describing the main contributions to the concept of causal complexity in preference formation, which mainly involve heterogeneity in economic voting. I then discuss work that incorporates another element of complexity—social identity—which serves as the moderating construct in this analysis.

When considering any aspect of individual-level political or economic choice, there has at times been a tendency to treat societies as homogeneous masses which behave according to common decision rules (Rivers, 1988). In reality, it is known that individuals differ with respect to how they observe information in the social environment, what information they focus on, how they process that information, and how they incorporate it into their judgement (Pierce, 1993; Cutler, 2002; Goren, 1997, 2004; Bartle, 2005; Peterson, 2009). Gomez and Wilson (2001, 2006), for example, explain that political sophistication influences the relative importance of national and personal economic evaluations for structuring preferences for presidential candidates. They argue, and show, that pocketbook voting is more common among sophisticated citizens because they are better able to associate

government policy with personal outcomes, while less sophisticated citizens must rely on observations of the national economy for making judgments. These results appear to challenge the traditional notion, expressed by Conover, Feldman, and Knight (1987), Krause (1997), and Weatherford (1983), that less informed voters are more likely to rely on personal financial circumstances for structuring their judgments than national evaluations because of the higher cost associated with acquiring the latter. Gomez and Wilson explain that this counterintuitive result is related to the fact that information must not only be acquired, but also processed, and the idea that causal attribution is more challenging for non-sophisticates. A different individual-level basis of heterogeneity in economic voting is discussed by Hellwig (2008), who shows that perceived constraints on political actors resulting from global economic integration led citizens in Britain and France to reduce the weight of economic performance evaluations in the judgment of incumbents.

Some have argued that the extent to which economic evaluations bear on assessments of government competency depends on group membership and socio-economic vulnerability and risk (Dorussen and Taylor, 2002; Singer and Gelineau, 2010; Singer, 2011). Social groups, which may include class, ethnicity, gender, and others, may be affected differently by the same economic stimulus (e.g., policy package), so it is likely that they respond differently in forming their preferences and behaviour in order to optimise economic outcomes. According to Singer and Gelineau (2010) and Singer (2011), citizens or social groups are expected to associate economic outcomes with government performance conditional on the economy being regarded as salient or important. In line with this reasoning, Echegaray (2005) finds that voters that are poor or experience economic deprivation are relatively more likely to factor their financial situation into their preferences and behaviour because they find it more difficult to cope with even transient economic shocks. Hibbs et al. (1982) similarly argue that class-based heterogeneity in political decision-making exists in a manner reflecting

diverging group interests, with those lower on the occupational hierarchy focussing on changes in the job market while those in more advantageous positions are more concerned with rising inflation. Further highlighting the importance of social categories for cognitive heterogeneity, Weatherford (1983) finds that the impacts of economic events covary in predictable ways with social class, and this manifests politically as class-based differentials in party affiliation.

Conover (1985) more directly considers the role of group identification in moderating the influence of group-based economic perceptions on political judgements. In seeking to explain why group identification matters as a conditioning factor, she indicates that group-level economic perceptions are utilitarian considerations which inform rational choice. As Mutz and Mondak (1997) explain, this expression of self-interest can be viewed as a form of aggregated pocket-book voting or a symbolic concern with the group's well-being. Mutz and Mondak (1997) test the idea that identity strength moderates the influence of group-based perceptions on political choice. They find that while group-based evaluations exert an independent effect on presidential vote choice, this effect is not conditioned by group membership, group identification, or relative deprivation. Instead, they observe that citizens base their presidential approval or disapproval on perceptions of sociotropic fairness, whereby groups have enjoyed similar rather than divergent changes in economic outcomes. In contrast, using the National Black Election Study, Wilson (2012) shows that for African Americans, group-based evaluations powerfully influence presidential job approval and vote choice, suggesting that group solidarity may partially moderate the relationship.

The conceptual framework presented in the following section adheres to the notion that the strength of social class identity is associated with class-based evaluations exerting greater influence on judgements about the market system if the intervening variable indicates

relative rather than *absolute* commonality with one's own group. I also consider whether this relationship is robust throughout economic transition or dependent on class position.

2.3 Conceptual Framework

At the foundation of judgements about the market mechanism is the idea that the economic system has real effects on individuals which influence their utilitarian outcomes, and that they in some way perceive these effects. For instance, the operation of the market may be associated with relaxed price controls, which increases inflation on consumer goods and disproportionately burdens those subject to fixed incomes or those who spend a large portion of their salaries on basic necessities (Rosati, 1994). It may also represent opportunity in the form of limitations on government involvement in industry and the elimination of restrictions on investment, which would, at least initially, disproportionately benefit those with resources to invest (Sen, 1993). Individuals are not expected, in general, to perceive these specific effects, but rather proxy for them by judging processes and institutions related to the market on the basis of observed changes in living standards. As noted in the introduction, however, evaluating economic outcomes is complicated by the problem of high error variance and uncertainty in the case of household-level evaluations, and low representativeness in the case of national-level evaluations (this may be regarded as a trade-off between 'accuracy' and 'relevance'). I expect, therefore, that citizens will base their judgements about the market economy on observations at both of these analytic levels to compensate for the inherent limitations of each, while also drawing on meso-level evaluations, based on class position.

While positive evaluations at any analytic level will be associated with a higher likelihood of positive judgements of the market economy, the causal weight attached to each level in forming these judgements is likely to differ across individuals. A formal

representation of this relationship is presented below in order to illustrate the logic which guides the conceptual framework.

The first proposition of this model is that an individual's subjective utility is a function of perceived living standards at the household-, group-, and national-level, respectively.

$$u_i^* = f(y_{Hi}, y_{Gi}, y_{Ni}) \quad (1)$$

The change in subjective utility over some period of time is therefore a function of changes in perceived living standards at each analytic level.

$$\Delta u_i^* = f(\Delta y_{Hi}, \Delta y_{Gi}, \Delta y_{Ni}) \quad (2)$$

Where,

$$\Delta y_{Hi} = y_{Hi}^t - y_{Hi}^{t-1} \quad (3 - 5)$$

$$\Delta y_{Gi} = y_{Gi}^t - y_{Gi}^{t-1}$$

$$\Delta y_{Ni} = y_{Ni}^t - y_{Ni}^{t-1}$$

To incorporate the perceived effect of the market's function on living standards at each level, I introduce a counterfactual interaction term, *M*, which takes a value of 1 when the market mechanism is operating and 0 when it is not. In other words, this variable represents the hypothetical condition in which the market-based economic system can be assumed to either operate or not, such that changes in living standards can be consciously decomposed into components attributable to both the market system and the centrally-planned economy that would otherwise prevail.[12]

$$\begin{aligned} \Delta u_i^* = {} & [(1 - \lambda_{Hi})\Delta y_{Hi} + M\lambda_{Hi}\Delta y_{Hi}] \\ & + [(1 - \lambda_{Gi})\Delta y_{Gi} + M\lambda_{Gi}\Delta y_{Gi}] \\ & + [(1 - \lambda_{Ni})\Delta y_{Ni} + M\lambda_{Ni}\Delta y_{Ni}] \end{aligned} \quad (6)$$

[12] While I am treating the market as being cognitively exogenous, intuition suggests that the free market is a natural form of social organisation, while government intervention is artificial. This is done because market liberalisation was the economic 'shock' in this context, given 70 years of a centrally-planned economy.

A set of attribution coefficients, λ_i, are included as a discrimination parameters, which can take any value between 0 and 1 inclusive. These variables indicate the perceived proportion of the change in living standards at each level that is explained by the market mechanism. If the market is believed to explain none of the change in living standards at a given analytic level, lambda will have a value of 0, but if it is believed to completely explain the change, the value will be 1. Since this variable strictly takes non-negative values, it is implied that the market has the effect of encouraging dispersion, whereby negative economic conditions are made more negative and positive conditions, more positive. In other words, the market is assumed to not *offset* the effects of the planned system.

$$\begin{aligned}\Delta u_i^* = \theta_{Hi}[(1-\lambda_{Hi})\Delta y_{Hi} + M\lambda_{Hi}\Delta y_{Hi}] \\ + \theta_{Gi}[(1-\lambda_{Gi})\Delta y_{Gi} + M\lambda_{Gi}\Delta y_{Gi}] \\ + \theta_{Ni}[(1-\lambda_{Ni})\Delta y_{Ni} + M\lambda_{Ni}\Delta y_{Ni}]\end{aligned} \quad (7)$$

The next proposition, reflected in equation 7, is that individuals attach unique weights, θ_i, to each analytic level, depending on the extent to which living standards at a given level are believed to be relevant to their utilitarian outcomes. As will be explained in greater detail below, these weights are assumed to depend, in part, on individuals' strength of social identity with the relevant group (e.g., class), such that the more strongly one identifies with his particular class, the more weight he will accord to group-level economic observations. These weights are subject to the following constraints.

$$0 \leq \theta_{Hi}, \theta_{Gi}, \theta_{Ni} \leq 1 \quad (8)$$

$$\theta_{Hi} + \theta_{Gi} + \theta_{Ni} = 1 \quad (9)$$

The first condition (8) is that the value of any given weight is bounded by 0 and 1. More importantly, however, the second condition (9)—that the three weights must sum to 1—implies that individuals are allocating scarce attention to the three levels, such that greater

weight attached to one must be accompanied by less weight attached to the others. The equation reduces to the following.

$$\Delta u_i^* = M[\theta_{Hi}\lambda_{Hi}\Delta y_{Hi} + \theta_{Gi}\lambda_{Gi}\Delta y_{Gi} + \theta_{Ni}\lambda_{Ni}\Delta y_{Ni}] + [\theta_{Hi}(1-\lambda_{Hi})\Delta y_{Hi} + \theta_{Gi}(1-\lambda_{Gi})\Delta y_{Gi} + \theta_{Ni}(1-\lambda_{Ni})\Delta y_{Ni}] \quad (10)$$

The perceived effect of the market on the change in utility over some unit of time is therefore represented as follows.

$$\frac{\partial \Delta u_i^*}{\partial M} = \Delta u_i(M=1) - \Delta u_i(M=0) \quad (11)$$

This equates to,

$$\frac{\partial \Delta u_i^*}{\partial M} = \theta_{Hi}\lambda_{Hi}\Delta y_{Hi} + \theta_{Gi}\lambda_{Gi}\Delta y_{Gi} + \theta_{Ni}\lambda_{Ni}\Delta y_{Ni} \quad (12)$$

This derivative implies that the change in an individual's utility resulting from the market mechanism is a function of the change in living standards, at each level, attributed to the market, weighted by their perceived relevance to utilitarian outcomes. As such, it represents the key construct which informs judgments about the market economy. A positive differential will be reflected in positive judgments of the market system, while a non-positive differential leads to negative or neutral judgments.

Since I established above that the engagement of observations at a given analytic level in economic reasoning hinges on the trade-off between accuracy and relevance, it is further posited that a crucial factor in the structure of judgments about the market economy is the *strength of social identity*. Also, as vulnerabilities and advantages associated with economic events are unevenly distributed across social groups, I propose that the relative influence of class-level evaluations depends on class position (i.e., whether one is working class or middle class). Finally, given that observation of the economic environment is cumulative and that an

understanding of the complex relations involves a learning process for individuals and societies, I test the robustness of these relationships over time. Each of these moderating factors will also be described in detail.

2.3.1 Social Distance, Economic Risk, and the Information Conveyed by Social Groups

The first proposition for explaining heterogeneity in economic cognition is that the more relevant information about the effectiveness of the system an individual derives from a given level (i.e., her household, social group or nation), the greater weight she will assign to that level. It follows that those who identify strongly with their social class are expected to derive, or believe themselves to derive, more relevant information from class-level observations, and should weigh these more heavily in their judgements about the market system. This notion is based on the logic of self-categorisation and self-concept, which holds that the more similar an individual is to a group prototype (i.e., representative exemplar of a category), the more likely she will identify, or identify strongly, with that group (Turner et al., 1987; Nosofsky, 1986; Goldstone, 1998; Anderson, 1991).[13] Since there are many potential comparative attributes that may factor into this self-concept, I focus mainly on those related to socioeconomic risk, which are expected to be of value for making judgements about economic objects. If, as I demonstrate in first chapter, the strength with which individuals identify with their particular social class depends on how typical they are of that group in terms of risk-determining characteristics, such as age, income, occupation, and wealth, then identity strength should be associated with judgements being based more strongly on class-level economic outcomes.

[13] It is important to note that individuals define themselves as elements of their groups in contrast to those in other groups. If we are similar to members of all groups, as in the case where group boundaries are poorly defined or overlap, we cannot expect to derive much novel information for incorporating into our economic cognition.

As a concrete illustration of the above proposition, if the working class in a context is generally comprised of individuals with low incomes and low levels of educational attainment, who are predominantly male and middle-aged, someone who shares each of these characteristics (Member 1) is expected to identify more strongly with the working class than a highly educated, high earning, young woman who happens to also be a member of the working class (Member 2). In this example, Member 1, insofar as he strongly identifies with the working class as a result of his low social distance from the group prototype, is expected to draw heavily on group-level information for making judgements about the market system. Member 2, due to her high distance from the prototype and presumably divergent economic risk, is expected to find group-based cues somewhat irrelevant. This information may include industry-specific economic indicators in the news media, labour union communications, or simply observations of the material well-being of colleagues.

As described in Chapter 1, it is useful to think of identity strength in terms of individuals being rational Bayes classifiers who observe the social distance between themselves and others in their prescribed groups and their social distance from members in other groups to arrive at a subjective probability of being a member of each group (a similar model is enunciated by Shayo, 2009). This idea is a variant of the similarity scaling model described by Nosofsky (1986, 1992) and the model of conceptual space for knowledge representation presented by Gärdenfors (2000), but differs in assuming that individuals furnish training-sets through observation of individuals and groups in the environment, which are then used to compute probabilities of being members of each group on the basis of their own characteristics. Since social classes are known to differ in their economic risk profiles, factors which influence this construct should bear on judgements about social distance used to arrive at these probabilities. An individual's strength of group identity should, in fact, be a function not simply of how much he has in common with members of his own group, but of

how similar he is to members of his own group *relative* to those in other groups in terms of economic risk.

Based on the analysis in Chapter 1, there is clear evidence that citizens in these transition economies make use of risk-determining socioeconomic and demographic referents for determining their level of class, but not ethnic, identification. I take this as evidence that class identity strength represents, in part, the degree of socioeconomic risk individuals share with members of their group relative to out-groups.

While there is an expectation that perceptions of commonality are based on comparisons of socioeconomic risk, other factors may influence identity strength, such as ethnic heterogeneity and intergroup conflict (see Shayo, 2009). If an individual perceives himself to be highly typical of his group, however, regardless of how this belief came to be, it should lead his judgements of the market system to be more strongly related to the economic experiences of his social class. I expect this relationship to be robust across social class position, holding for members of both the working class and the middle class, as well as over time, in both the early and late periods of economic transition. Given that class position is known to be related to economic risk, I incorporate this factor into the conceptual model described below. Deeper discussion of the basis for group differences in class-based reasoning is presented in Chapter 3, while a thorough investigation of the temporal interaction, beyond robustness, is reserved for Chapter 4.

2.3.2 Entitative Groups and Economic Vulnerability

An entitative social group is one in which constituent members have a sense of linked fate with the group itself because external forces are perceived to operate on all group members by virtue of being in the group (Campbell, 1958). For example, Dawson (1994) explains that African Americans are conscious of their status as members of the general black

community in such a way that they believe their own economic and social fates to be tied to the well-being of the entire community. Gay (2004) goes on to state that African Americans often give precedence to group utility over individual utility when making judgements about political candidates and policy options. In an empirical application of this theory, Sanchez and Masuoka (2010) demonstrate the existence of a "brown utility heuristic" in the United States, whereby Latinos perceive a shared collective identity which is exercised in the political realm. Similarly, Wilson (2012) shows that a sense of linked-fate among African Americans plays a significant role in political choice, whereby stronger attachments are associated with more negative assessments of presidents. What is particularly interesting about these analyses in relation to the present study, however, is that an individual's sense of linked fate appears to be based largely on marginalisation associated with economic status.

While most research on entitativity is concerned with ethnic or racial identities, this concept can be generalised to the case of social class (Gay and Hochschild, 2010). In line with this observation and the arguments presented by Weatherford (1983), Hibbs et al. (1982) and Singer (2011), I posit that vulnerable groups with higher shared risk place greater importance on class-level evaluations because they perceive class position as a component of risk. Class itself may be regarded as a utilitarian consideration for the working class because vulnerability to economic conditions is determined by position in the occupational or social hierarchy, while the middle class cares more about the aggregate implications of the market mechanism as they influence individualistic opportunity. Since members of the working class in post-communist societies have less autonomy and influence over their economic fates than members of the middle class (Evans 1997), class-level outcomes are more salient for the former (see also Singer and Gelineau, 2010).

2.3.3 Hypotheses

The following hypotheses are largely a reiteration of the above propositions.

Question 1: Do group-level economic evaluations influence judgements about the market economy, independent of household- and national-level evaluations? If so, what individual-level characteristics influence the relative importance of different levels in these judgements?

H1a: Class-level economic evaluations are significantly associated with judgements about the market economy, whereby positive evaluations correspond to a higher likelihood of positive judgements, since citizens perceive themselves as elements of social classes which are salient indicators of shared economic risk. In other words, individuals identify the utility of the market system to themselves through a heuristic based on social class, whose admissibility is justified by serving as a proxy for personal economic risk.

H1b: The strength of class identity is associated with stronger weight of class-level evaluations in judgements about the market economy because strong identifiers perceive themselves as being more typical of the group and derive more instrumentally-relevant information from class-based observations.

Question 2: Does the weight of observations at different analytic levels and the conditioning effect of class identity strength depend on social class position?

H2a: The working class is more sensitive to class-level economic outcomes compared to middle class for structuring their judgements about the market economy due to a greater sense of linked fate and vulnerability to market forces attached to group membership. This

difference is expected to hold at all levels of social identity strength due to the entitative character of the working class, whose socioeconomic risk is partly determined by their position in the occupational hierarchy. In other words, class is more important for this group, even at low levels of identification, because of their inherent risk differential against the middle class.

H2b: The middle class is more sensitive to national-level economic outcomes compared to the working class for structuring their judgements about the market economy because they are less concerned with risk associated with their position in the hierarchy of production and more concerned with the exploitation of opportunity, which depends on factors associated with the national economy, such as aggregate demand, price inflation, and interest rates.

2.4 Methods

2.4.1 Data and Measures

To test the above hypotheses, I make use of the same EUREQUAL surveys, based on random samples of Central and Eastern European citizens between 1993 and 2007. This dataset covers 13 countries, 35 country-years, and 57,597 respondents, and includes a large battery of items tapping political preferences, economic perceptions, social attitudes, and policy judgements. The countries included are Belarus, Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Moldova, Poland, Romania, Russia, Slovakia, and Ukraine. Population weights are use throughout the analysis.

The dependent variable used is based on responses to the second part of a two-part question concerning beliefs about the market economy. The first part, which defines 'market economy', is a Likert-type item asking 'What do you think about the idea that a market economy, in which there is private property and economic freedom to entrepreneurs, is the

best system for [country]?' (V3) The operational question on which the dependent variable is based then asks 'How would you evaluate the actual experience of the market economy so far?' (V4) Responses are: very positively, positively, neither positively or negatively, negatively, or very negatively. Presenting the questions in this manner is believed to lead respondents to consciously differentiate between the normative principle of the market and experience of the market, so as to mitigate ideological biases in that latter (Evans and Whitefield, 1995). This variable is transformed into dichotomous form, where positive evaluations are represented by 1 and negative and neutral evaluations are coded 0. While this transformation may blur some of the nuances in responses, it makes for more intuitive interpretation of model coefficients and comparison with other attribution models. Analysis using linear models was also performed with similar substantive results.

The independent variables for each of the specified models are retrospective evaluations of changes in living standards at the household-, class-, and national-levels. The operational questions are 'Compared with five years ago, has [your household/social category/the country]'s standard of living fallen a great deal, fallen a little, stayed about the same, risen a little, or has it risen a lot?' (V272, V175-V179, V274) Respondents are asked about changes in living standards for each of 5 social categories (manual workers, entrepreneurs, managers/administrators, intelligentsia, and peasants), though for the class level variable I only use the response to the question about the group with which they identify. For each level, responses are recoded to have values between -2 and +2. The benefit of having questions which ask about living standards is that they give a good indication of individuals' perceptions of hedonic outcomes at each level, and having a common object of analysis (i.e., living standards) across levels makes it easier to draw inferences about cognitive aggregation than, for example, if I used questions about unemployment at the national level and income at the household level.

The strength of social identity is measured via respondents' perceptions of relative in-group commonality (PRC), or the extent to which they feel themselves to have a lot in common with their own social group versus how much they have in common with other groups. Respondents' own group is indicated by responses to a question asking them to self-categorize as a manual worker, manager/administrator, entrepreneur, professional, or peasant (V168). The operational questions ask 'How much do you feel you have in common with [social class] in your views and way of life. Do you have a great deal in common, quite a lot, a little, or nothing at all in common?' (V170-V174) Each respondent is asked this question about each of the 5 social groups, and responses are coded from 1 to 4, with 4 representing the highest perception of commonality. The variable is then recoded to be individual- and class-specific, with the weighted [by population proportion] sum of values associated with the 4 out-groups subtracted from the value associated with the respondent's own group. This produces a variable which takes values between -3 and 3, though only 2.4% of all respondents attain negative values on this measure, which technically indicates stronger commonality with out-groups than their own group. As noted in the first chapter, these resulting variables are similar to Brady and Sniderman's (1985) and the Sniderman et al. (1991) relative group affect variables, in that the measure of personal perception of one's own group is anchored against perceptions of out-groups to avoid certain response biases.

2.4.2 Empirical Strategy

Data are analysed using mixed effects multilevel logistic regression, where level-1 units are individuals, level-2 units are social classes nested within country-years, level-3 units are country-years, and level-4 units are countries.[14] For each of the models, I regress the

[14] I specify country-classes as a level for all models except the one in which I test for differences between the working class and middle class in the weight associated with group-level economic evaluations because for the others I want to control-for within-group fixed effects.

dichotomous variable indicating positive versus negative or neutral judgements of the effectiveness of the market economy against household-, class-, and national-level economic evaluations. To test H1a and H1b, I specify both a base model without any interactions and a model with 2-way interactions between class identity strength (class PRC) and each of the three economic evaluation variables. To test the robustness of the first hypothesised relationships across time, I run 3-way interactions of survey year and class identity strength on each of the three economic evaluation variables. To test H2a and H2b, and robustness across class position, I 2- and 3-way interact a dichotomous variable indicating whether the respondent is working class (manual worker or peasant) or middle class (manager, professional, or entrepreneur) and the measure of class identity strength with each of the economic evaluation variables. To further test the robustness of these models, I run regressions with and without a full set of controls, including age, gender, ethnicity, education, income decile, class position (for all but the class-interaction model), and occupational status.

2.5 Results

Model 1 in Table 2.1 shows that class-level economic evaluations have an effect on judgements of the market system which is independent of household- and national-level evaluations. This is indicated by the presence of a significant and substantive coefficient estimate on the class-level evaluation variable when controlling for evaluations at the other two levels. While the effect magnitude for class-level evaluations is lower, on average, than those for household and national evaluations, Model 3 in Table 2.1 shows that the strength with which class experiences factor into economic cognition is an increasing function of identity strength. It is apparent from the marginal effects presented in Figure 2.1 that for weak class identifiers, class-level evaluations have limited relevance to judgements about the market system, as the effect of a 1-unit increase in this variable corresponds to only a 2%

Table 2.1: Mixed Effects Logistic Regression of Judgements of the Market Economy on Economic Evaluations at Three Analytic Levels, Interacted on Class Identity Strength

	(1)	(2)	(3)
Household Econ. Evaluation	0.167***	0.191***	0.174***
	(0.0111)	(0.0169)	(0.0173)
Household Econ. Evaluation X Class Identity Strength		-0.00913	-0.00841
		(0.0106)	(0.0106)
Class Econ. Evaluation	0.152***	0.0849***	0.0884***
	(0.0105)	(0.0143)	(0.0150)
Class Econ. Evaluation X Class Identity Strength		0.0604***	0.0556***
		(0.00902)	(0.00912)
National Econ. Evaluation	0.252***	0.300***	0.293***
	(0.0118)	(0.0180)	(0.0181)
National Econ. Evaluation X Class Identity Strength		-0.0371***	-0.0350**
		(0.0109)	(0.0110)
Class Identity Strength		-0.00649	-0.00566
		(0.0135)	(0.0138)
Full controls?	Yes	No	Yes
N	51941	51941	51941
Log Likelihood	-31537.5	-31708.8	-31517.0

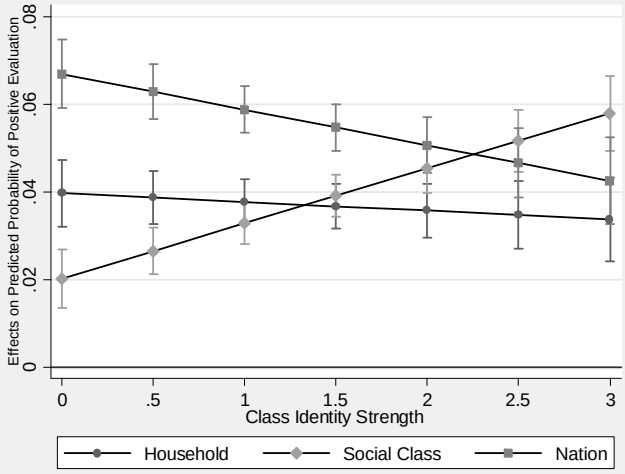
Standard errors in parentheses
* p<0.05 ** p<0.01 *** p<0.001
Source: EUREQUAL (1993-2007)

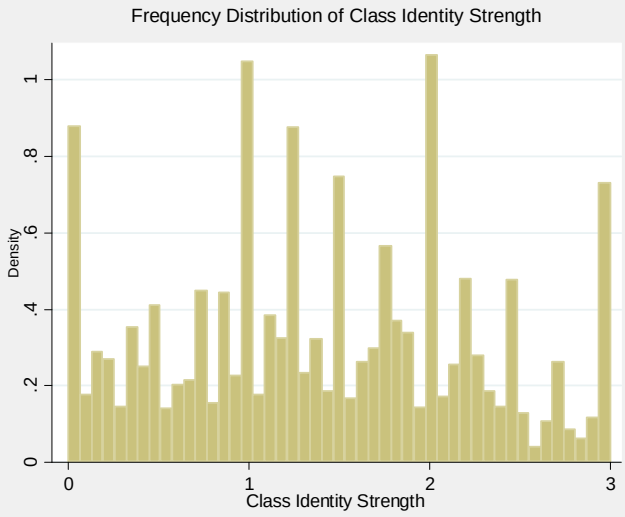
increase in the probability of a positive appraisal—half the effect magnitude of the household variable and less than a third of that of the national variable. For the strongest class identifiers, however, with a value of 3, class-level evaluations are more influential as determinants of judgements of the market economy than both household and national evaluations, though only analytically distinct for the former. For these citizens, a 1-unit increase in class-level evaluations corresponds to a 5.9% increase in the probability of holding a positive assessment of the market economy, while the same increase for household and national evaluations engenders a 3.6% and 4.1% increase in probability, respectively.

These estimates provide clear support for H1a, since class-level evaluation have a unique and significant effect on judgements of the market system, as well as H1b, since the strength of class identity is shown to be associated with stronger weight of class-level

evaluations in judgements about the market system. In view of the analysis presented in Chapter 1, this serves as evidence that the degree to which citizens incorporate class-based observations into their economic cognition depends on how relevant that information is to them personally in terms of their common exposure to economic risk. Also, given the sample distribution of identity strength shown in the lower panel of Figure 2.1, it appears that a large proportion of individuals in these transitional societies care a great deal about how the emerging economic system is impacting upon their social group.

Figure 2.1: Marginal Effects of Economic Evaluations at Three Levels





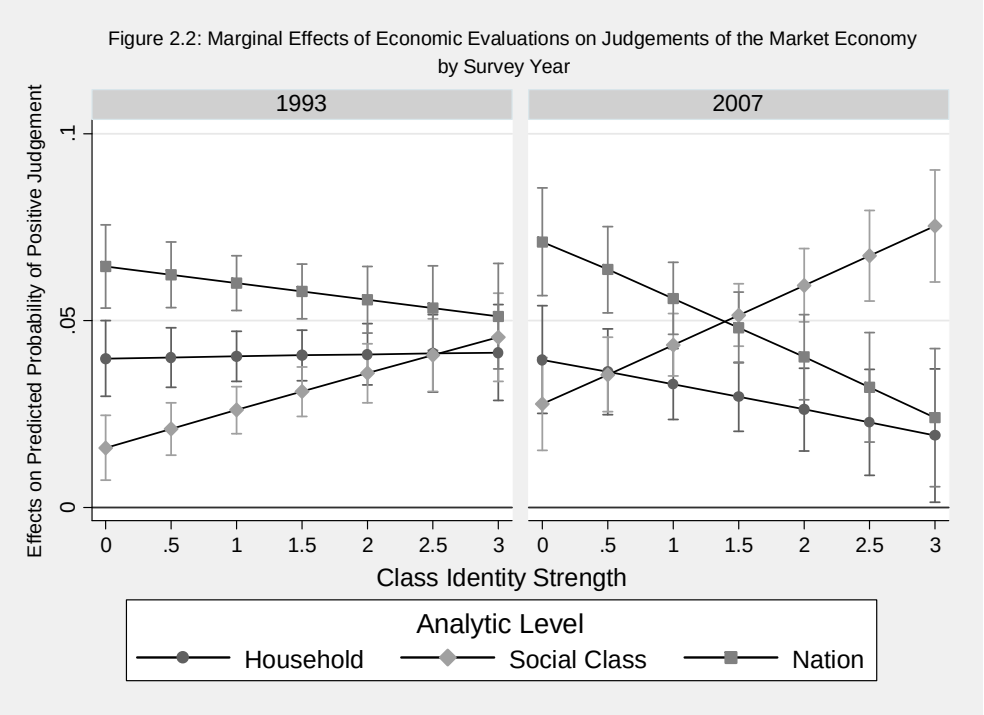
The second set of models (Table 2.2) is used to determine whether the intervening effect of class identity strength is robust across time. Looking at the three-way interactions in Model 3 of Table 2.2, it is apparent that the positive relationship between class identity

Table 2.2: Mixed Effects Logistic Regression of Judgements of the Market Economy on Economic Evaluations at Three Analytic Levels, Interacted on Class Identity Strength and Survey Year

	(1)	(2)	(3)
Household Econ. Evaluation	0.187***	0.189***	0.173***
	(0.0195)	(0.0224)	(0.0227)
Household Econ. Evaluation X Class Identity Strength	-0.00797	0.00435	0.00387
	(0.0107)	(0.0143)	(0.0143)
Household Econ. Evaluation X Survey Year	-0.00285	0.000838	0.000166
	(0.00191)	(0.00306)	(0.00307)
Household Econ. Evaluation X Class Identity Strength X Survey Year		-0.00273	-0.00248
		(0.00188)	(0.00189)
Class Econ. Evaluation	0.0621***	0.0723***	0.0693***
	(0.0172)	(0.0189)	(0.0194)
Class Econ. Evaluation X Class Identity Strength	0.0543***	0.0495***	0.0446***
	(0.00918)	(0.0122)	(0.0123)
Class Econ. Evaluation X Survey Year	0.00502**	0.00265	0.00383
	(0.00173)	(0.00263)	(0.00262)
Class Econ. Evaluation X Class Identity Strength X Survey Year		0.00168	0.00165
		(0.00160)	(0.00160)
National Econ. Evaluation	0.299***	0.287***	0.280***
	(0.0211)	(0.0256)	(0.0257)
National Econ. Evaluation X Class Identity Strength	-0.0327**	-0.0197	-0.0175
	(0.0110)	(0.0161)	(0.0161)
National Econ. Evaluation X Survey Year	-0.00217	0.00254	0.00253
	(0.00205)	(0.00325)	(0.00326)
National Econ. Evaluation X Class Identity Strength X Survey Year		-0.00376	-0.00380
		(0.00199)	(0.00199)
Class Identity Strength	-0.00430	-0.00363	-0.00425
	(0.0138)	(0.0243)	(0.0244)
Survey Year	0.00701	0.00359	0.00563
	(0.00817)	(0.00843)	(0.00857)
Class Identity Strength X Survey Year		0.00127	0.00150
		(0.00229)	(0.00229)
Full Controls?	Yes	No	Yes
N	51589	51589	51589
Log Likelihood	-31353.5	-31491.4	-31346.7

Standard errors in parentheses
* p<0.05 ** p<0.01 *** p<0.001
Source: EUREQUAL (1993-2007)

strength and the marginal effect of class-level economic evaluations on judgements of the market system holds for the whole period of economic transition covered by the data (1993 to 2007). While the interaction coefficients at all three levels fall below conventional levels of statistical significance, it is apparent from the marginal effects estimates in Figure 2.2 that there are significant contrast effects. In particular, while there is no meaningful difference among weak class identifiers in the first and final wave in the causal significance they attribute to observations at all three analytic levels, strong class identifiers in the final wave, but not the first, base their judgements of the market economy much more strongly on class experiences. Said differently, there is no analytic distinction between the marginal effects of the three critical independent variables among strong identifiers in the first wave, but strong identifiers in the second wave incorporate class experiences into their judgement to a significantly greater extent than household and national experiences.



The results presented in Model 3 of Table 2.2 and Figure 2.2, demonstrate the robust effect of identity strength over time, and suggest that class-awareness has not diminished in step with demise of state socialism. In fact, the results indicate that class experiences become

more important to economic cognition over the course of transition, though only for strong identifiers. This moderating effect of survey year is analysed in detail in Chapter 4, in which describe and test a comprehensive model of transitional cognitive mobilisation.

The third set of models (Table 2.3) is used to both check the robustness of the conditioning effect of identity strength across class positions and to see whether one's social group (middle class versus working class) influences the weight accorded to each analytic level in economic cognition. Model 3 in Table 2.3, in which each of the economic evaluation variables is interacted with identity strength and class position, presents several pertinent results.

First, the significant positive coefficient representing the interaction between class-level evaluations and identity strength, along with non-negative but insignificant 3-way interaction with class position reveals that this conditioning effect does not differ by class position. In addition, the coefficient estimate representing the interaction between class position and class-level evaluations is negatively-signed and both statistically and substantively significant (p-value= 0.027, with a contrast in marginal effect of approximately 1.5%). This indicates that class-level evaluations factor more strongly into judgements about the market economy among the working class (manual workers and peasants), and since there is an insignificant 3-way interaction between class position, identity strength and class-level evaluations (p-value= 0.94), this class differential is present among equally-strong identifiers in both groups across the full response surface. This result lends support to H2a in showing that the working class is significantly more sensitive than the middle class to class-based evaluations in structuring their judgements of the economic system. Since the working class need not identify strongly with their group to make greater use of group evaluations than their middle class counterparts, it is plausible that they believe their position in the occupational

Table 2.3: Mixed Effects Logistic Regression of Judgements of the Market Economy on Economic Evaluations at Three Analytic Levels, Interacted on Class Identity Strength and Class Position

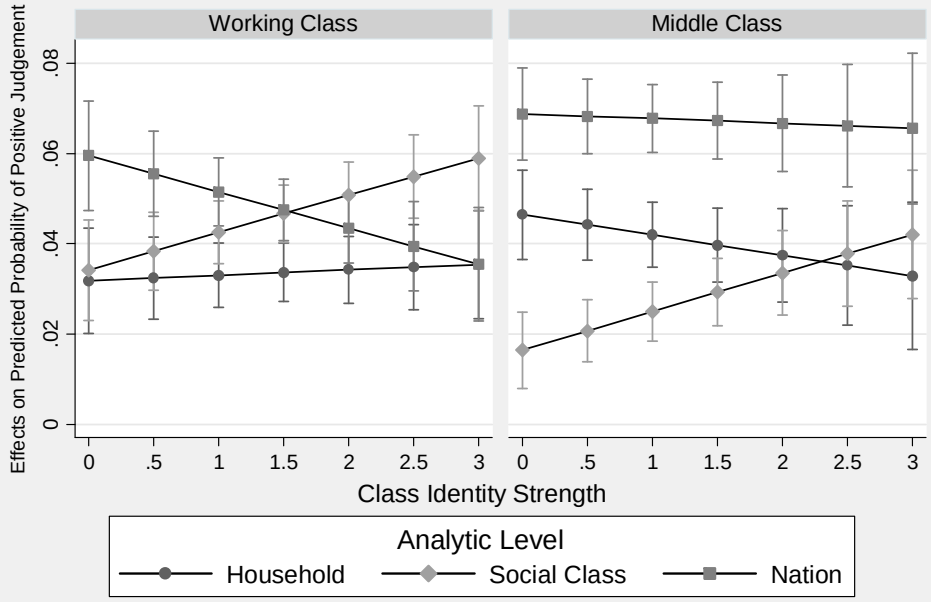
	(1)	(2)	(3)
Household Econ. Evaluation	0.153***	0.155***	0.138***
	(0.0216)	(0.0258)	(0.0261)
Household Econ. Evaluation X Class Identity Strength	-0.00407	0.00384	0.00591
	(0.0110)	(0.0148)	(0.0149)
Household Econ. Evaluation X Middle Class	0.0391	0.0618	0.0672*
	(0.0220)	(0.0340)	(0.0341)
Household Econ. Evaluation X Class Identity Strength X Middle Class		-0.0220	-0.0258
		(0.0221)	(0.0221)
Class Econ. Evaluation	0.136***	0.152***	0.148***
	(0.0198)	(0.0249)	(0.0250)
Class Econ. Evaluation X Class Identity Strength	0.0472***	0.0365*	0.0370*
	(0.00943)	(0.0143)	(0.0144)
Class Econ. Evaluation X Middle Class	-0.0748***	-0.0752*	-0.0755*
	(0.0213)	(0.0314)	(0.0315)
Class Econ. Evaluation X Class Identity Strength X Middle Class		0.00338	0.000815
		(0.0199)	(0.0200)
National Econ. Evaluation	0.246***	0.260***	0.258***
	(0.0226)	(0.0273)	(0.0274)
National Econ. Evaluation X Class Identity Strength	-0.0258*	-0.0337*	-0.0341*
	(0.0113)	(0.0155)	(0.0155)
National Econ. Evaluation X Middle Class	0.0792***	0.0498	0.0454
	(0.0235)	(0.0359)	(0.0359)
National Econ. Evaluation X Class Identity Strength X Middle Class		0.0278	0.0296
		(0.0229)	(0.0230)
Class Position [Middle]	0.0238	-0.0820	-0.0646
	(0.0391)	(0.0502)	(0.0501)
Class Identity Strength	0.00121	-0.0493*	-0.0359
	(0.0138)	(0.0195)	(0.0196)
Class Identity Strength X Middle Class		0.102***	0.0852**
		(0.0285)	(0.0290)
Full Controls?	Yes	No	Yes
N	51941	51941	51941
Log Likelihood	-31513.9	-31643.2	-31507.7

Standard errors in parentheses
* p<0.05 ** p<0.01 *** p<0.001
Source: EUREQUAL (1993-2007)

hierarchy to be an important determinant of individual outcomes, independent of other sources of economic risk.

Comparing the 2 panels in Figure 2.3, we can also see that the average marginal effect of national-level evaluations is significantly higher for the middle class (manager, professional, or entrepreneur) at all levels of class identity strength above 0.5. This is the case because class identity strength is associated with attenuation of the effect of national-level evaluations in judgements about the market economy among the working class while there is no moderating effect among the middle class. The robustness of the effect of national economic evaluations among the middle class is consistent with H2b, since instead of substituting class-level evaluations for national ones with higher levels of identity strength, those in the middle class maintain their concern with aggregate economic indicators.

Figure 2.3: Marginal Effects of Economic Evaluations on Judgements of the Market Economy by Class Position



This lends further credence to the view that social class position, in addition to being an informational construct that indicates average differences in risk across groups, is a determinant of socioeconomic risk which conditions the extent to which members incorporate observations at different analytic levels into their judgement. In this case, the middle class

factors national evaluations into their economic cognition to a greater extent, on average, perhaps because they are more concerned with risk factors which influence investment values, such as inflation and interest rates, as well as those which affect managerial decisions, such as general labour market conditions and the cost of productive inputs.

2.6 Discussion

The above results demonstrate that judgements about the market system in post-communist Central and Eastern Europe were largely based on class-level economic experiences at all levels of identity strength, for the full period of transition covered by the data, and among members of both the working-class and middle-class. These assessments were, however, subject to considerable heterogeneity in terms of the weight that individuals attach to different levels of analytic aggregation. In support of our contention that strong class identifiers derive more relevant information about the effect of the market system on their utilitarian outcomes from class-based economic evaluations, I show that identity strength significantly potentiates the marginal effect of these evaluations relative to household- and national-level evaluations. This mediating relationship is also found to be robust for the full period covered by the survey, as well as across class position.

While I do not directly test whether these results obtain due to intergroup comparisons of socioeconomic risk, the empirical analysis of determinants of identity strength presented in Chapter 1 strongly supports the view that class, but not ethnic, identity strength is a function of individual-level comparisons of risk factors across groups. In addition to supporting the notion that the working class is more entitative, in that they regard class position as a *determinant* of economic risk as opposed to simply *indicating* relative risk, the comparison of effects for the middle class with those for the working class (Table 2.3; Figure 2.3) lend support to the main proposition. This is consistent with previous theory (Weatherford, 1983;

Hibbs et al., 1982; Singer, 2011), stating that those in more vulnerable groups are more concerned with consumption smoothing and personal (or in this case, class) economic outcomes, while those in more advantageous positions focus on such indicators as inflation and aggregate demand.

It is expected that the middle class, being more concerned with investment and opportunity, would focus, for example, on the national unemployment rate as an indicator of future aggregate demand, while the working class would focus on the perceived unemployment rate within their own class (see also Ansolabehere et al., 2014). Hence, the greater weight of class-level evaluations among the working class and the stronger effect of national evaluations among the middle class supports the more general theory that perceptions of economic risk and vulnerability factor into the judgements of citizens by augmenting the salience of different analytic levels. While this proposition is plausible, future work will need to test it directly by seeing whether the conditioning effect of identity strength on, and differences among classes in, the weight of class-level evaluations is mediated by individual-level perceptions of relative economic risk. In addition, it would be interesting to see how descriptive and substantive representation in policymaking influences cross-class differences in entitative economic risk and identity strength. As Carnes (2012) and Carnes and Lupu (2013) show, unequal representation has significant economic consequences for citizens, by way of elite attitudes and preferences. It is, therefore, possible that the class composition of legislatures may influence both the strength of social identity and class differentials in group-based economic reasoning if policy augments the distribution of economic risk across social classes.

Perhaps the most definitive observation derived from the preceding investigation is that a significant portion of the citizens in these transitional societies largely base their judgement about the market system on class-level experiences. This may have several

important social, political, and economic implications. First, if perceptions of economic risk and vulnerability factor into cognition by way of class-based cues, this information may plausibly facilitate heuristics for making economic judgements. In other words, the observation of class-level experiences may help citizens to avoid the costly analytic processing of economic information, or otherwise overcome informational deficits to arrive at more appropriate judgements that are consistent with the optimisation of household outcomes (Bartels, 1996; Lupia, 1994; Lupia and McCubbins, 1998). This is particularly relevant in early transitional societies, where constraints on political-economic information are expected to be considerable. Given the logic presented in our conceptual framework, however, those for whom class is most salient (i.e., strong identifiers) would stand to benefit the most from this form of heuristic processing. Another potential implication of this group-based reasoning is that economic policy preferences would tend to reflect perceived implications for social groups, though to the greatest extent among strong identifiers. Any systematic error in the identity calculus or shock which causes the general sense of group salience to rise may inflate the importance of social class to economic policy judgements, possibly leading to the misallocation of resources (Shayo, 2009; Paolini, Harwood and Rubin, 2010). The final potential implication of a strong group basis of economic reasoning is that political actors may be better positioned to appeal to voters on the basis of group-level outcomes, since class is more salient and, by implication, an effective theme by which to mobilise electors (see Wilson, 1999). In societies for which social class factors strongly into economic judgement, political parties may find it relatively efficient to allocate scarce campaign exposure and resources towards class-based economic appeals.

In the next chapter, I depart somewhat from the focus on class identity strength, and instead further interrogate the relationship between class position and the strength of class-based cognition. Building on the above observation that members of the working class accord

greater weight to class-level experiences than the middle class, I consider whether this is mediated by differences in group-level socioeconomic vulnerability, which might influence the clarity of economic signals to different social categories.

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Chapter 3

Revealed Deprivation and Class Salience: Vulnerability and the Strength of Group-based Signals during Market Transition

Summary: It is an emerging empirical regularity that social groups differ in what information they draw upon for making political judgements, as well as the extent to which their choices are based on sociotropic economic evaluations. Little is known, however, about the causal mechanism behind this variation. Building on signal detection theory in cognitive psychology, this chapter suggests that differences across social classes in socioeconomic vulnerability determine the visibility of class-based cues, whereby members of more vulnerable classes are presented with more salient information. In turn, this leads these citizens to accord more weight to class-level economic evaluation when forming judgements about the prevailing distributive institutions. Several empirical models are specified, which show that different measures of socioeconomic vulnerability at the class level predict the magnitude of class-based economic cognition.

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3.1 Introduction

It was demonstrated in the second chapter that some social groups rely more heavily on group-based economic experiences than others when forming judgements about transition institutions. This result, while tentatively ascribed to entitative mass psychology among less privileged classes, requires further examination to clarify the potential causes of these differences. In the present chapter, I attempt this by drawing on theories of signal detection and economic vulnerability to identify which group-level characteristics influence the strength of group-based cognition and why. I consider the possibility that certain occupational classes may derive more relevant information about the effects of transitional institutions from class-based cues because they receive clearer economic signals from aggregated group outcomes. It may be that some groups are relatively unaffected by economic events and conditions associated with the emerging market and democratic systems, while others are influenced more strongly. This, I posit, would lead vulnerable groups to more readily ascribe responsibility to economic agents and institutions on the basis of group experiences if the visible material wellbeing of members moves in tandem with aggregate economic conditions related to institutional change.

Through the following analysis, I test the hypothesis that groups experiencing greater socioeconomic risk and insecurity[15] draw more strongly on class-specific experiences when evaluating the costs and benefits of democracy and the market economy because they receive clearer economic signals based on group-level outcomes. In the next section, I present an overview of the extant literature which informs this logic, followed by a conceptual model, based on signal detection theory from cognitive psychology, of how group-specific variables might influence the importance of group experiences to judgements and choices. I then

[15] in the form of high unemployment, low relative income and low material wealth

describe the data and methodological procedure used to test the main hypothesis, which is followed by a presentation of the analysis and a brief discussion.

3.2 Literature Review

Previous work has shown and otherwise argued that variation exists across social groups in both the types of economic cues they rely on as well as the salience of general economic performance when appraising political parties and actors. From a rational choice perspective, Weatherford's (1979) early work indicated the differential sensitivity of social classes to economic events, thus pointing to plausible class differences in the voting decision calculus. Nagler and Neimann (1997), with a similar emphasis on social class, argue that these groups not only assign different salience to overall economic conditions, they also react to different economic cues when forming judgements of political incumbents. Focusing more on specific economic indicators, Hibbs and Vasilatos (1982) argue that low-income voters weigh unemployment more than wealthy voters whereas wealthy voters express an aversion to inflation. Similarly, Weatherford (1983) and Echegaray (2005) argue that poor voters generally focus on the state of their personal finances than rich voters and factor this sensitivity into their judgements.

While the above work demonstrates the existence of strong differences across social groups in their evaluative calculus, it falls short of providing specific details about the mechanism though which economic conditions interact with individuals embedded within groups to produce these results. In particular, we are left asking why the working class figures economic experiences more strongly into their judgements. Dorussen and Taylor (2002) argue that it is differences in exposure to economic risk that accounts for observed variation in sensitivity to the overall employment climate in the country. They explain that the cost of labour market fluctuations are not equally borne by all groups in society, such that

those more strongly affected by changing economic conditions should give greater weight to these indicators. Conversely, groups that are relatively insulated from economic shocks and do not suffer material deprivation during economic recessions should discount general economic experiences in their evaluative calculus.

As established by Rehm (2009), differences in risk of unemployment vary by industry, company, region, union influence, and worker skill. It stands to reason, therefore, that social classes for which many of these characteristics overlap should exhibit differences not only in their attitudes towards social policies and economic redistribution, but also in how they arrive at judgements about political actors or institutions. With a particular emphasis on job insecurity and employability as key indicators of economic vulnerability, Fossati (2014) demonstrates that a crucial factor in explaining individual-level variation in economic voting is the degree of exposure to these risk factors. In other words, job-related insecurity significantly moderates the relationship between national economic evaluations and incumbent voting. Similarly, Singer (2010) shows that at the individual level the salience of economic performance rises with unemployment and economic vulnerability. In so doing, he supports the hypothesis that because changing economic conditions disproportionately affect the short-term incomes of citizens with precarious employment, they will pay greater attention to economic issues than those with more stable finances. Further to this, Singer (2013) identifies a psychological mechanism for this relationship in showing that workers who feel anxious about being fired or who believe it would be difficult to find a new job place significantly greater weight on sociotropic evaluations than do those with more secure employment situations. These arguments make a convincing case for the notion that cross-group differentials in economic risk and vulnerability, mediated by perceptions thereof, account for differences in the magnitude of economic voting. What it doesn't test, however,

is whether economic vulnerability governs the salience of *group*-based experiences in economic voting and other behaviour—a shortcoming bridged in the present thesis.

Recall that Conover (1985) provided some of the first evidence that members of social groups incorporate perceptions of their groups' economic wellbeing into judgements of political candidates and parties. Her findings indicate that group economic interests are perceived to overlap relatively little with personal, and especially national, interests and group economic interests have a significant independent effect on performance evaluations. Glasgow (2005) demonstrates a similar pattern of group-based decision making in showing that concern with job losses due to NAFTA influenced the voting behaviour of members of union households in the 1992 US presidential election, with those who were most concerned with job losses due to the agreement more likely to vote for Perot over Clinton. These group-level experiences and perceptions are clearly important factors in individual-level political judgements, but again, the above research only illustrates part of the picture.

The conceptual framework presented in the following section is largely a synthesis of the above arguments. It suggests that the relative importance of perceived social group experiences to judgements of distributive economic and political institutions is conditioned by economic vulnerability at the group level. It bridges the two main theoretic domains through reference to signal detection theory based in cognitive psychology, implying that the ease with which group-level information is observed is centrally important to the group salience and the causal structure of judgements. While this framework is clearly grounded in a rational choice perspective, it does not negate the possibility that some affective mechanism might operate concurrently, though I restrict analysis to the former in the interest of coherence and concision.

3.3 Conceptual Framework

The following model is based on the notion that social classes are clusters of individuals characterised largely by their position in a socioeconomic hierarchy and productive system. Members are, by this logic, similar to each other in their level of economic risk and insecurity. Since the effects of economic events on these individuals combine to influence their perception of group experiences, it is necessary to consider behaviour at both the individual and class level in sequence.

3.3.1 Individual-level Socioeconomic Risk

Economic risk and insecurity at the individual level are associated with a greater likelihood that one's employment status or material wellbeing will change as a result of an economic shock or event, such as periods of economic recession or expansion (Bell and Blanchflower, 2013). During a recession, for example, an individual at a high risk of unemployment is more likely to be rendered redundant than someone with a low unemployment risk. These vulnerable individuals are also more likely to become employed, assuming they are presently unemployed, during an expansionary period because they occupy a pool of potential labour and represent excess capacity, while their employed counterparts do not (Solow, 1962). Similarly, those earning a relatively low income or in possession of limited financial resources are less likely to have the ability to smooth consumption and maintain living standards during an economic recession, while those with more resources can accept financial losses without visibly revealing their deprivation. During an expansionary period, those with low income and wealth should exhibit a greater degree of material gain, since marginal propensities to spend are diminishing functions of income and wealth, as a condition of autonomous spending (i.e., universal basic consumption for survival) (Brada and King, 1992). In other words, the apparent improvement in living standards is greatest for

those who are most deprived, since they begin to satisfy their basic needs by, for example, renting apartments and buying food for their families. A similar pecuniary improvement for the better-heeled might translate to either an increase in savings or a relatively modest rise in discretionary purchases.

3.3.2 Class-level Socioeconomic Risk

As social classes are aggregations of individuals characterized by similar levels of economic risk and insecurity (unemployment risk, income and wealth), groups that are, on average, more economically vulnerable are likely to experience stronger shocks to their living standards during changing economic conditions. During a recession, a group with a high unemployment rate is expected to experience a larger increase in redundancy than one with a low unemployment rate. Under these same economic conditions, a group with a low average income or wealth is likely to experience a higher incidence of material deprivation, poverty, homelessness, poor health and mortality (van Loon et al., 1995; Rank and Herschl, 1999; Agerbo et al., 2007; Lorant et al., 2007). The visibility of these indicators lends to the belief that the economic experiences of more vulnerable groups provide stronger signals, at least to their members, of changing economic circumstances. In contrast, the collective outcomes of relatively invulnerable social classes are not expected to provide strong indications of prevailing economic conditions. More succinctly, the vulnerable are more sensitive to economic conditions, so a larger proportion will be visibly affected during an economic event, and with greater intensity.

3.3.3 Attribution of Responsibility

Recall that the attribution of responsibility for economic outcomes requires both the perception of relevant information and the ascriptive processing thereof (Ansolabehere et al.,

2014). We should expect, therefore, that if vulnerable social classes are presented with clearer economic signals concerning group outcomes, their members should attach more weight to the group's experiences when forming judgements about political incumbents, enacted public policies, as well as the prevailing economic and political systems. Economic vulnerability at the class level may therefore facilitate the incorporation of perceived class experiences into judgements about important distributive institutions and agents. This, I suspect, may serve to catalyse the transformation of passive class awareness into motivated class consciousness, as citizens in vulnerable groups are better able to observe the instrumental effects of economic activity pertaining to them. This process is best understood in terms of the abilities of individuals and groups to detect relevant economic signals in the presence of uncertainty and competing information.

The idea that economic signal quality depends on relative changes in groups' living standards derives from signal detection theory (SDT) in cognitive psychology (Nevin, 1969). As Macmillan (2002) explains, the central premise of SDT is that random or extraneous patterns of information (called 'noise') distract from useful information (called 'signals') employed to make relevant, actionable decisions. These affected decision-makers are active agents who make perceptual judgements under uncertainty and are subject to three constraints (Swets et al., 1978). The first is the discriminability of the information, or the signal-to noise ratio, which refers to how difficult it is to detect the subjectively relevant information against less relevant background events (Commons et al., 2013). This variable may be a function of the relative intensities of relevant and irrelevant information or the degree to which the information overlaps. In the present model, the signal-to-noise ratio for member of a given group is a function of the extent to which their economic outcomes differ from those of other classes in the context over time, as well as the relative intensity of change. The second constraint, called 'sensitivity', is based on the agents' perceptual abilities, which may depend

on duration of exposure to the stimuli or processing capability (Maniscalco and Lau, 2012). The final constraint affecting signal detection is bias, which is the degree to which a particular response to the signal is more probable than another (Swets, 2014). In this framework, we might think of bias as a prescriptive likelihood to attribute class-specific economic experiences to the behaviour of distributive institutions (i.e., caring about other class members).

While the present model conforms to SDT, it differs to the extent that signal detection is typically measured through a directly observable behaviour, such as picking up a phone or failing to do so after it rings while in the presence of background sound. In contrast, I treat the relationship between economic evaluations and judgements of distributive institutions as indicators of signal detection strength. The main difference here is that, similar to economic voting models, the detection of signals is inferred from observed correlations derived from the data rather than individual responses to stimuli. Empirically, an example of this can be inferred from the work of Duch and Stevenson (2008), which shows that citizens of a given country more readily attribute responsibility for economic conditions to political incumbents when national economic changes (the signal) diverge from global changes (the noise), especially in more open economies. One interpretation of this is that in addition to rationally integrating knowledge of constraints on political agents into judgements, the visibility of national economic change is greater when this change appears in relief against contrasting global information. The resulting information is then more salient and accessible, such that it can be used in utilitarian judgements. The present model sets forth a similar indirect test of signal detection by investigating the moderating influence of relative vulnerability on politico-economic judgements. An application of this framework is detailed below.

3.3.4 Application to Politico-economic Attitudes

Naturally, we should assume that economic and political systems have real effects on the living standards of citizens under their operation, and that these effects are variously perceived by those affected and used to form judgements about policies, political agents, and distributive institutions. It is also plausible that, as noted in previous chapters, citizens are not limited to basing judgements on economic experiences at the individual and national levels, but also draw on those at the group-level to help overcome the limitations of the other two. The logic of attribution of responsibility therefore extends to the domain of judgements of democratic and market systems in Central and Eastern Europe, where citizens drew upon experiences at each analytic level. It is further believed that the importance of class-level evaluations to these judgements depends, in accord with signal detection theory, on the level of socioeconomic vulnerability by which classes are characterised.

3.3.5 Hypotheses

Given these assumptions, I form the following hypothesis:

H1: The more vulnerable is a given social class with respect to economic risk and insecurity, the more strongly members will draw on their own classes' economic experiences when forming judgements about the emerging market and democratic systems.

In other words, members of more vulnerable social classes are more likely to personalize class-specific economic experiences and factor them into their utilitarian judgements about distributive institutions such as the market economy or democratic system. The average impact of an economic shock would outweigh any idiosyncratic outcomes for members of more vulnerable classes, providing them the requisite information to ascribe responsibility to

market and democratic mechanisms. Moreover, since seeking and observing information is an effortful process that takes place within a time constraint, it is further expected that:

H2: members of more vulnerable groups will accord less weight to household and national economic experiences as they allocate emphasis towards observing the more accessible class-specific information.

3.4 Methods

3.4.1 Data and Measures

To test the above hypotheses, I again make use of the EUREQUAL social survey, based on random samples of Central and Eastern European citizens between 1993 and 2007. The full survey is utilized, including 13 countries, 35 country-years, and 57,597 respondents (excepting a small proportion of list-wise deleted cases). Again, population weights are used throughout the analysis.

Two different dependent variables are used in the models, the first of which is identical to that used throughout Chapter 2. It is based on responses to the second part of a two-part question concerning beliefs about the market economy. The first part, which defines 'market economy' for the second part, is a Likert-type item asking 'What do you think about the idea that a market economy, in which there is private property and economic freedom to entrepreneurs, is the best system for [*your country*]?' (V3) The operational question on which the dependent variable is based then asks 'How would you evaluate the actual experience of the market economy so far?'[16] (V4) Possible responses are: very positively, positively, neither positively or negatively, negatively, or very negatively. The second dependent

[16] I chose to focus on evaluations rather than normative support because the former are expected to have a more directly utilitarian basis which depends on evaluations of real or perceived economic outcomes.

variable is similar to the first, though its initial prompt asks respondents 'Tell us, please, what do you think about the idea that a democracy, in which multiple parties compete for power, is the best system for governing [*country*].' (V1) The corresponding operational question then asks 'How would you evaluate the actual practice of democracy here in [*country*] so far?' (V2) Again, possible responses range between very positively and very negatively. Both variables are transformed into dichotomous form, where positive evaluations are represented by 1 and negative and neutral evaluations are coded 0.

The central independent variables for each of the specified models are retrospective evaluations of changes in living standards at the household-, class-, and national-levels. The operational questions are 'Compared with five years ago, has [your household/ social category/the country]'s standard of living fallen a great deal, fallen a little, stayed about the same, risen a little, or has it risen a lot?' (V272, V175-V179, V274) Respondents are asked about changes in living standards for each of 5 social categories (manual workers, entrepreneurs, managers/administrators, intelligentsia, and peasants), though for the class level variable I only use the response to the question about the group with which they identify. Respondents' own group is indicated by responses to a question asking them to self-categorize as a manual worker, manager/administrator, entrepreneur, professional, or peasant (V168). For each level, responses are recoded to have values between -2 for the most negative economic experience and +2 for the most positive.

The moderating variables (interacted on each of the three evaluation variables) are measures of group-level economic vulnerability. The first is social classes' unemployment rates, which is a strong indication of present unemployment risk (Rehm, 2011). (based on V200) The second is the mean class income (i.e., earnings risk), which is based on a variable indicating individual-level income decile.[17] (V269) The final indicator of vulnerability is class

[17] Scaling was performed to ensure some degree of cross-national comparability.

Table 3.1: Indicators of Economic Vulnerability by Country and Occupational Class in Central and Eastern Europe (1993 – 2007)

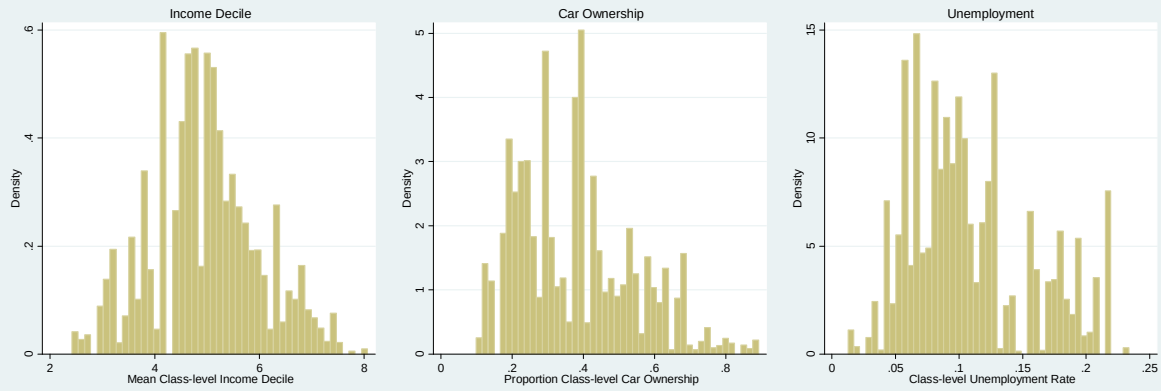
	Occupation Class	Prop. Unempl.	Mean DecInc	Prop OwnCr.		Occupation Class	Prop. Unempl.	Mean DecInc	Prop OwnCr.
Belarus	Manual	0.06	4.73	0.28	Moldova	Manual	0.19	5.48	0.24
	Manager	0.11	7.03	0.67		Manager	0.20	6.21	0.47
	Entrepr.	0.05	6.76	0.44		Entrepr.	0.08	6.86	0.34
	Intelligentsia	0.07	5.06	0.37		Intelligentsia	0.11	6.35	0.30
	Peasant	0.05	3.67	0.23		Peasant	0.16	3.84	0.14
Bulgaria	Manual	0.16	4.01	0.40	Poland	Manual	0.21	3.80	0.47
	Manager	0.14	6.06	0.67		Manager	0.12	5.72	0.81
	Entrepr.	0.08	6.14	0.66		Entrepr.	0.07	6.10	0.72
	Intelligentsia	0.10	5.16	0.49		Intelligentsia	0.10	5.70	0.64
	Peasant	0.13	3.72	0.36		Peasant	0.15	2.77	0.54
Czech.	Manual	0.09	4.20	0.55	Romania	Manual	0.10	4.97	0.33
	Manager	0.06	6.62	0.84		Manager	0.05	7.09	0.62
	Entrepr.	0.05	6.40	0.73		Entrepr.	0.02	7.96	0.66
	Intelligentsia	0.06	5.99	0.70		Intelligentsia	0.05	6.29	0.52
	Peasant	0.13	3.36	0.42		Peasant	0.06	3.05	0.17
Estonia	Manual	0.10	4.17	0.42	Russia	Manual	0.09	4.54	0.23
	Manager	0.07	7.06	0.73		Manager	0.13	6.65	0.52
	Entrepr.	0.04	6.77	0.63		Entrepr.	0.07	5.95	0.40
	Intelligentsia	0.06	5.46	0.48		Intelligentsia	0.10	5.32	0.30
	Peasant	0.12	3.42	0.46		Peasant	0.10	3.06	0.17
Hungary	Manual	0.16	5.18	0.41	Slovakia	Manual	0.15	4.78	0.50
	Manager	0.08	4.87	0.81		Manager	0.06	4.89	0.79
	Entrepr.	0.08	6.50	0.59		Entrepr.	0.04	6.16	0.72
	Intelligentsia	0.09	5.92	0.58		Intelligentsia	0.09	5.59	0.65
	Peasant	0.20	3.62	0.22		Peasant	0.16	4.41	0.49
Latvia	Manual	0.17	4.58	0.32	Ukraine	Manual	0.11	5.02	0.21
	Manager	0.08	7.37	0.70		Manager	0.12	6.95	0.44
	Entrepr.	0.08	6.83	0.46		Entrepr.	0.06	6.50	0.39
	Intelligentsia	0.08	5.77	0.40		Intelligentsia	0.07	5.97	0.27
	Peasant	0.21	3.37	0.42		Peasant	0.09	3.42	0.17
Lithuania	Manual	0.14	4.94	0.46					
	Manager	0.15	7.37	0.73					
	Entrepr.	0.07	7.10	0.71					
	Intelligentsia	0.09	5.80	0.54					
	Peasant	0.14	3.57	0.43					

Notes: Values are based on weighted estimates from EUREQUAL data (1993 to 2007) and represent proportion unemployed, mean income decile, and proportion car ownership across classes, by country. Estimates are pooled across survey waves for concision.

proportions of car ownership (i.e, wealth risk), based on the aggregation of individual-level car ownership. (based on V262) Similar to the meta-contrast variables utilized in Chapter 1, these group-level predictors are constructed through the computation of sample means or proportions within each context, for a total of 35X5 = ~175 values for each. Table 3.1

summarises these values for each country and constituent social classes.[18] What is immediately apparent from this table is that in most countries, manual workers and peasants experience higher unemployment, lower income and lower incidence of car ownership than managers, entrepreneurs and intelligentsia. For instance, manual workers and peasants in Estonia have unemployment rates of 10 and 12 per cent compared to 7, 4 and 6 per cent for managers, entrepreneurs and intelligentsia, respectively. Manual workers in this country similarly inhabit the lower income deciles and have lower rates of car ownership. There is, of course, some variation in this pattern, with managers in Belarus, Bulgaria, Lithuania, Moldova, Russia and Ukraine experiencing some of the highest unemployment, despite their relatively high average incomes. This occupational class may therefore be described as both high risk and high reward. The total variation in these measures of economic vulnerability is also considerable, though better represented in the Figure 3.1 below.

Figure 3.1: Sample Distributions of Indicators of Economic Vulnerability by Social Class



Here, it can be seen that the class-level unemployment rate ranges from nearly zero (Ukrainian entrepreneurs in 1993) to 25.2% (Latvian peasants in 2007) with all countries and years included. Adjusting for group size, the standard deviation of this variable is 4.8%. Mean income decile at the class level ranges from 2.4 to 7.7, with groups towards the low end being comprised of individuals with low average relative incomes. The standard deviation of this variable is 1.03 deciles. Finally, across social classes, car ownership ranges from 9.9% to

[18] These values reflect averages across all survey years due to space limitations.

76.3%, with a standard deviation of 16.4%. While these values reflect multiple classes and countries across time, the empirical strategy described in the next section explains that respondents, groups and countries are appropriately nested in the analytic models.

Control variables included in the models are social group membership (V168), gender (based on V298), age, ethnic majority versus minority (V191), income decile (based on V269), level of education (based on V198), employment status (V200), and car ownership (V262). To account for the potential confounding influence of factors related to vulnerability at the group level, I also control for each class's population proportion in the nation. Furthermore, to account for the possibility that the intervening effects of the three vulnerability variables results from greater group cohesiveness and not the strength of economic signals, I include in each of the models the individual-level class identity strength variable described and analysed in Chapter 1, as well as its mean value for each group.

3.4.2 Empirical Strategy

The method applied to these data is multilevel logistic regression, where level-1 units are individuals, level-2 units are social classes nested within country-years, level-3 units are country-years, and level-4 units are countries.[19] The first and second set of models differ only by their dependent variable. For the first set, I regress the dichotomous variable measuring positive versus negative or neutral evaluations of the market economy against household-, class-, and national-level economic evaluations. Each of these three predictors is interacted with mean class-level income, the class-proportions of car ownership, and the class unemployment rate. The result is a total of 9 two-way interactions. For the second set of

[19] I specify country-classes as a level for all models except the one in which I test for differences between the working class and middle class in the weight associated with group-level economic evaluations because for the others we want to account for within-group fixed effects.

models, I perform the same procedures, but replace evaluations of the market economy with dichotomized evaluations of the democratic system as the dependent variables.

By exploiting cross-national variation in the relative vulnerability of social classes observed in these data, it may be possible to determine whether members of social classes characterized by higher unemployment, lower income or lower wealth draw more strongly on class-specific economic experiences when forming judgements about distributive institutions. We should expect, therefore, to see a stronger association between class-level experiences and both market and democratic evaluations among members of groups with relatively high unemployment rates, low proportions of car ownership, and low average income decile. The empirical expectation based on the second hypothesis is that there will be a weaker relationship between household- and national-level economic evaluations and judgements about distributive institutions among groups with higher measures of average socioeconomic vulnerability due to the greater marginal benefit of allocating attention towards class experiences.

As with the preceding chapters, the analysis for these models focuses on variation in the marginal effects of economic evaluations at the three analytic levels (household, class and nation) on judgements about democracy and the market economy. To do this, I make reference to graphs depicting average marginal effects on proportions for mixed logit models. The response surfaces are conditioned on the x-axes by the three measures of economic risk and insecurity.

3.5 Results

Starting with Model 1 in Table 3.2, we see that there is a significant positive relationship between economic evaluations at each of the three analytic levels and judgements about the market economy after controlling for class-level unemployment, income and car

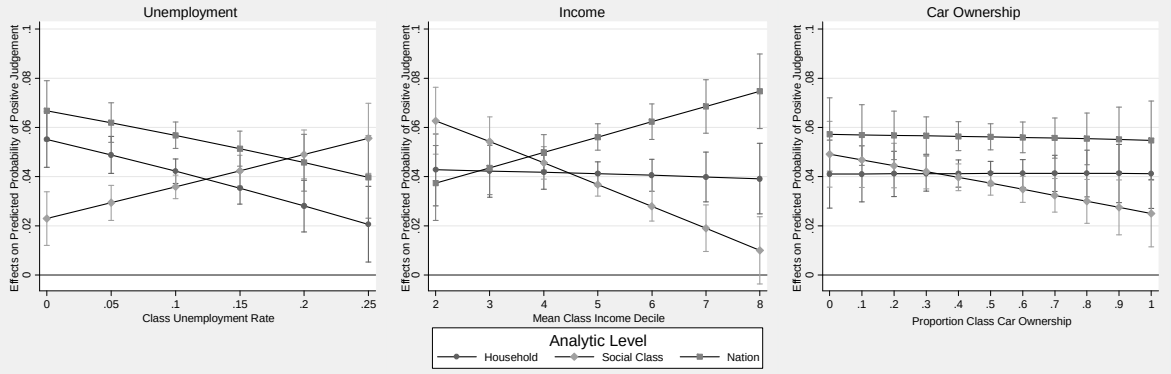
Table 3.2: Mixed Effects Logistic Regression of Judgements of the Market System on Economic Evaluations at Three Analytic Levels, Interacted on Measures of Class-level Vulnerability

	(1)	(2)	(3)	(4)	(5)
Household Econ. Evaluation	0.268***	0.151*	0.250***	0.263***	0.275***
	(0.0742)	(0.0621)	(0.0402)	(0.0642)	(0.0742)
Household Econ. Evaluation	-0.651**		-0.633**	-0.640**	-0.647**
X Class Unemployment	(0.224)		(0.216)	(0.223)	(0.224)
Household Econ. Evaluation	-0.00330	0.00469		-0.00264	-0.00401
X Mean Class Income Decile	(0.0104)	(0.0100)		(0.0103)	(0.0104)
Household Econ. Evaluation	-0.00176	0.0123	-0.00161		-0.00699
X Proportion Class Car Ownership	(0.0599)	(0.0597)	(0.0596)		(0.0599)
Class Econ. Evaluation	0.356***	0.444***	0.120**	0.288***	0.362***
	(0.0708)	(0.0602)	(0.0385)	(0.0612)	(0.0708)
Class Econ. Evaluation	0.534*		0.744***	0.559**	0.532*
X Class Unemployment	(0.214)		(0.207)	(0.214)	(0.214)
Class Econ. Evaluation	-0.0393***	-0.0446***		-0.0372***	-0.0398***
X Mean Class Income Decile	(0.00989)	(0.00957)		(0.00983)	(0.00988)
Class Econ. Evaluation	-0.108	-0.115*	-0.0866		-0.112
X Proportion Class Car Ownership	(0.0577)	(0.0576)	(0.0574)		(0.0577)
National Econ. Evaluation	0.179*	0.0725	0.342***	0.164*	0.175*
	(0.0816)	(0.0666)	(0.0435)	(0.0690)	(0.0816)
National Econ. Evaluation	-0.533*		-0.703**	-0.528*	-0.531*
X Class Unemployment	(0.247)		(0.234)	(0.246)	(0.247)
National Econ. Evaluation	0.0265*	0.0349***		0.0282**	0.0274*
X Mean Class Income Decile	(0.0111)	(0.0105)		(0.0109)	(0.0111)
National Econ. Evaluation	-0.0144	0.00145	-0.0326		-0.0141
X Proportion Class Car Ownership	(0.0674)	(0.0672)	(0.0665)		(0.0674)
Class Unemployment (main eff.)	0.661	1.210*	0.600	0.588	0.641
	(0.539)	(0.492)	(0.531)	(0.538)	(0.538)
Mean Class Income Decile (main eff.)	0.00516	0.0104	-0.00551	0.00656	0.00383
	(0.0337)	(0.0338)	(0.0335)	(0.0338)	(0.0337)
Proportion Car Ownership (main eff.)	-0.337	-0.341	-0.322	-0.241	-0.349
	(0.233)	(0.235)	(0.235)	(0.227)	(0.228)
Covariates?	Yes	Yes	Yes	Yes	No
N Total (Classes)	51635	51635	51635	51635	51635
Log Likelihood	-31483.3	-31494.5	-31492.9	-31485.5	-31507.8
LR test (Prob > chi2)		0.000	0.000	0.219	0.000

Notes: Robust standard errors in parentheses. * p<0.05 ** p<0.01 *** p<0.001. Source: EUREQUAL (1993 – 2007).

ownership as well as the set of individual-level demographic and socioeconomic variables enumerated above. This simply indicates that the main effects are behaving as expected, and that the models are convergent without any significant collinearity. In the same model, there is a significant positive interaction between class-level economic evaluations and class-level (mean) unemployment. This indicates that higher unemployment among members of a given social class is associated with stronger reliance on class experiences for adjudicating the effectiveness of the market system. From the marginal effects displayed in the first panel of Figure 3.2, it appears that a 1-unit increase in class-level economic evaluations among those with a class unemployment rate of 5% corresponds to a 3.1% greater probability of forming a positive judgement of the market system. For those with a 20% class unemployment rate, the

Figure 3.2: Marginal Effects of Economic Evaluations on Judgements of the Market System, by Measures of Economic Vulnerability



marginal effect of a similar increase in class-level evaluations is 5.2%. While the latter does not appear to be a large effect in itself, it is worth considering that this model is based on an additive function with 3 levels of economic evaluations and their interaction with three different measures of relative economic vulnerability. Viewed in this light, and given that these measures of vulnerability correlate strongly, a difference in effect of 2.1% across part of the response surface is substantial. If comparing two extremes of economic outcomes, with one individual who reports greatly improved living standards for his class and another who reports a highly negative experience, the difference between the two in the likelihood of

offering a positive judgement of the market economy is 26% for those with 20% class unemployment and 15.5% for those with 5% class unemployment.

There is also a significant interaction between class-level evaluations and mean class income decile, as seen in model 1. This suggests that the more vulnerable a group is with respect to earned income, the less likely they can smooth real financial losses[20], such that group-level deprivation is revealed and may serve to inform judgements about the economic system. From panel 2 in Figure 3.2, we see that the marginal effect of a 1-unit change in class economic evaluations of groups with an average income within the second decile is 6.2%, while the effect for those with an average in the eighth decile is 1.1% and statistically insignificant. In view of the comparative distributions of both mean class income deciles and unemployment rates presented in Figures 3.1 and 3.2, the difference in these effects across the response surface suggests that class-level income plays a larger role in moderating the strength of class-based economic signals than unemployment risk. This is further reflected in greater level of statistical significance obtained for the interaction between mean income and class-level evaluations. Moreover, comparing models 2 and 3 with model 1, we can see that removing class unemployment interactions has only a slight potentiating effect on the magnitude of income interaction for class evaluations, while removing class income interactions strongly increases the power of the unemployment interaction. It appears likely, therefore, that economic vulnerability, as a general construct that determines the sensitivity of economic signals, is better predicted by income than unemployment. Nevertheless, the significant interactions on the first two measures of economic vulnerability appear to support the first hypothesis in showing that greater economic risk at the group level augments the relationship between class-level evaluations and judgements of the market system by increasing the salience of group experiences.

[20] perhaps resulting from price inflation

The third variable, car ownership, was expected to exhibit a similar moderating effect, though it does not appear to significantly interact with class-level evaluations. It is worth noting, however, that while this relationship is insignificant, the sign of interaction coefficient is as hypothesised. The marginal effect of a 1 unit change in class-level evaluations ranges from 5.1% among groups with no car owners to 2.3% where all families own cars. To determine whether this insignificance resulted from collinearity with the other measures in the full model, I refer to the models in which interactions at each level are systematically removed. Removing the class unemployment interaction from the full model, as shown in model 2, leads the interaction on car ownership to increase slightly to meet the conventional standard for significance ($p < 0.05$). Eliminating the interaction on income decile, on the other hand, actually reduces the effect magnitude of the car ownership interaction. The strongest evidence against the moderating effect of this measure of wealth is seen in model 4, in which the car ownership interaction is removed. Here, a likelihood ratio test comparing this model to the full model suggests that the interaction between class-level economic evaluations and proportion car ownership actually worsens model fit in predicting judgements of the market economy. Clearly, car ownership, or lack of, as an indicator of relative economic insecurity fails to significantly moderate the strength of the relationship between class-level evaluations and judgements of the emerging system.

The second hypothesis states that the effortful nature of information acquisition and processing leads vulnerable groups to allocate less weight to household and national-level experiences as they emphasise more accessible class-level experiences. The significant negative interactions between both household and national economic evaluations and unemployment risk as well as the positive interaction between national evaluations and mean class-level income lend support to this contention. For both measures of economic vulnerability, the hypothesised relationship clearly holds. Looking once again at the marginal

effects in Figure 3.2, it is evident that the effect of household- and national-level evaluations is attenuated and class-level evaluations are potentiated at higher unemployment, while at lower average income this divergence is seen for the marginal effects of class- and national-level evaluations. There appears, therefore, to be a stark difference between those with the lowest and highest levels of vulnerability in terms of the relative dominance of class experiences as determinants of important economic judgements. Social groups with an unemployment rate of 5% exhibit judgments based mainly on national and household economic evaluations, while class-level evaluations begin to dominate at roughly 18% unemployment. Similarly, national evaluations dominate in judgements about the market system among groups in the highest income deciles, while there is no significant difference in the marginal effects of evaluations at different analytic levels among those in the lowest deciles. Again, there are no significant interactions for the measure of wealth—mean car ownership.

When judgements of the democratic system are substituted as the dependent variable, the pattern of results is similar. This is not surprising, given that the multilevel Pearson's correlation between these two variables is quite high at 0.42. As the democratic system is similarly responsible for moderating economic and distributive outcomes, perceptions of its effectiveness deserve independent attention. This permits an additional test of the two hypotheses and allows us to determine whether group-level economic vulnerability imparts a different moderating effect on the relationship between economic evaluations and judgements about democracy versus the market economy.

In Model 1 of Table 3.3, it is apparent that there are significant interactions between class-level economic evaluations and both mean class income decile and proportion car ownership. The interaction between class-level evaluations and class unemployment, while exhibiting a positive sign, is not significant. Based on the marginal effects displayed in panel

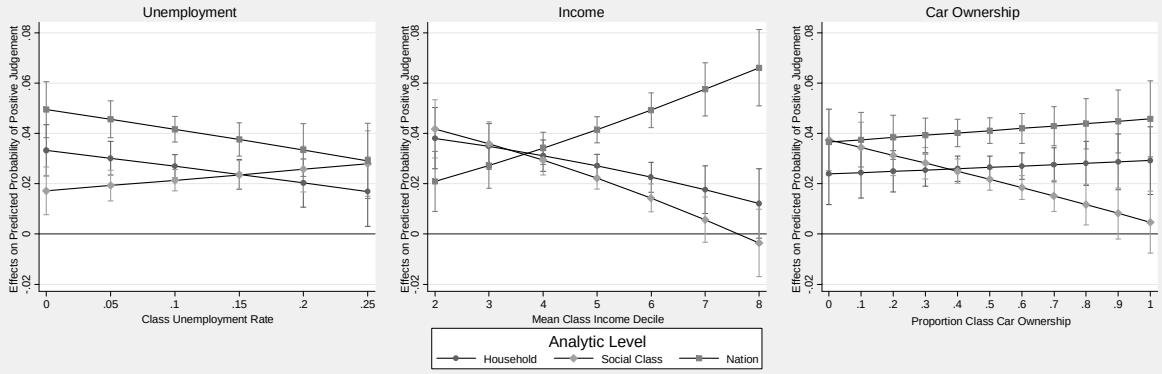
Table 3.3: Mixed Effects Logistic Regression of Judgements of the Democratic System on Economic Evaluations at Three Analytic Levels, Interacted on Measures of Class-level Vulnerability

	(1)	(2)	(3)	(4)	(5)
Household Econ. Evaluation	0.331***	0.261***	0.151***	0.334***	0.340***
	(0.0813)	(0.0682)	(0.0438)	(0.0706)	(0.0810)
Household Econ. Evaluation X Class Unemployment	-0.394		-0.204	-0.380	-0.376
	(0.251)		(0.241)	(0.251)	(0.251)
Household Econ. Evaluation X Mean Class Income Decile	-0.0297**	-0.0246*		-0.0290**	-0.0272*
	(0.0113)	(0.0108)		(0.0112)	(0.0112)
Household Econ. Evaluation X Proportion Class Car Ownership	0.0171	0.0219	0.0353		0.0123
	(0.0677)	(0.0676)	(0.0673)		(0.0675)
Class Econ. Evaluation	0.431***	0.465***	0.149***	0.314***	0.442***
	(0.0773)	(0.0657)	(0.0414)	(0.0669)	(0.0770)
Class Econ. Evaluation X Class Unemployment	0.222		0.497*	0.245	0.239
	(0.237)		(0.227)	(0.236)	(0.236)
Class Econ. Evaluation X Mean Class Income Decile	-0.0466***	-0.0486***		-0.0433***	-0.0487***
	(0.0108)	(0.0104)		(0.0107)	(0.0107)
Class Econ. Evaluation X Proportion Class Car Ownership	-0.195**	-0.196**	-0.166**		-0.203**
	(0.0642)	(0.0643)	(0.0638)		(0.0641)
National Econ. Evaluation	0.101	0.00409	0.298***	0.114	0.102
	(0.0862)	(0.0707)	(0.0462)	(0.0737)	(0.0860)
National Econ. Evaluation X Class Unemployment	-0.498		-0.703**	-0.507	-0.479
	(0.270)		(0.254)	(0.269)	(0.269)
National Econ. Evaluation X Mean Class Income Decile	0.0327**	0.0406***		0.0338**	0.0338**
	(0.0116)	(0.0110)		(0.0115)	(0.0116)
National Econ. Evaluation X Proportion Class Car Ownership	0.0344	0.0442	0.0227		0.0132
	(0.0734)	(0.0733)	(0.0725)		(0.0732)
Class Unemployment (main eff.)	-0.290	0.154	-0.285	-0.429	-0.166
	(0.567)	(0.542)	(0.553)	(0.564)	(0.570)
Mean Class Income Decile (main eff.)	0.0580	0.0624	0.0474	0.0585	0.0836*
	(0.0347)	(0.0351)	(0.0341)	(0.0347)	(0.0348)
Proportion Car Ownership (main eff.)	0.0482	0.0555	0.0518	0.130	0.0997
	(0.246)	(0.249)	(0.244)	(0.242)	(0.245)
Covariates?	Yes	Yes	Yes	Yes	No
N Total (Classes)	51635	51635	51635	51635	51635
Log Likelihood	-27092.1	-27097.2	-27107.8	-27096.9	-27194.6
LR test (Prob > chi2)		0.017	0.000	0.023	0.000

Notes: Robust standard errors in parentheses. * p<0.05 ** p<0.01 *** p<0.001. Source: EUREQUAL (1993 – 2007).

2 of Figure 3.3, we see that members of vulnerable groups in the second decile have the highest class basis for judgements of the democratic system. For them, a one-unit increase in economic evaluations corresponds to a 4.1% greater probability of offering a positive judgement of the market system. In contrast, the marginal effects for household and national evaluations are 3.9% and 2.1%, respectively, though not significantly different from the marginal effect for class-level evaluations. For relatively invulnerable citizens, who are members of groups in the eighth income decile, national-level economic evaluations dominated judgements of the democratic system, with an average marginal effect of 6.8%. This compares to the significantly lower marginal effects of household and class evaluations, at 1.2% and effectively 0, respectively. Since higher levels of group-level vulnerability relate to a stronger class basis of democratic judgements, the first hypothesis is supported. In addition, since higher vulnerability appears to depress the marginal effect of national evaluations while also increasing that of household evaluations, there is limited to mixed support for the second hypothesis.

Figure 3.3: Marginal Effects of Economic Evaluations on Judgements of the Democratic System, by Measures of Economic Vulnerability



As mentioned, in contrast to the market economy models, the proportion of group members owning cars appears to exert significant influence over the marginal effect of class-level economic evaluations on judgements about the democratic system. In panel 3 of Figure 3.3, we see that for groups in which nobody owns a car, the marginal effect of economic evaluations at all three levels is between 2.5% for household evaluations and 3.8% for

national evaluations (with class at 3.82%). These marginal effects are not substantively or significantly different from one another. In groups enjoying the highest level of car ownership, the average marginal effect of class-level evaluations exhibits a significant decrease to 0.05%, while household evaluations become slightly more influential and national-level evaluations come to dominate as determinants of judgements about the democratic system. Again, the higher observed class basis of judgements among those experiencing economic insecurity lends support to the first hypothesis, while the second hypothesis is weakly supported.

Economic vulnerability at the class level, as measured through unemployment risk, relative income and the rate of car ownership, has been shown to moderate the relationship between class-level evaluations and judgements of both the market economy and the democratic system of governance. A question remains, however, as to what accounts for the variation in the interaction estimates across these two dependent variables, and whether the observed coefficients merely reflect correlations on some latent construct related to judgements of both democracy and the market economy. It may be that these assessments are driven by some third attitudinal position, such as preferences for or against general reform. To test this possibility, I incorporate attitudes towards democracy as a covariate in the model of judgements of the market system, and *vice versa*. By comparing each expanded model to the base model described above, it may be possible to test the uniqueness of the dependent variables and determine whether the pattern of interactions on class-level evaluations is novel, or merely an artefact of correlation.

Based on the estimates presented in Table 3.4, it is evident that each of the two dependent variables shares a unique relationship with the included covariates and interactions. If these variables were measuring some common construct, we would expect that their inclusion as covariates in the alternative models would substantially diminish the size of

Table 3.4: Mixed Effects Logistic Regressions of Judgements of the Market and Democratic Systems on Economic Evaluations at Three Analytic Levels, Base Model and Expanded Comparisons

	Market System		Democratic System	
	(1)	(2)	(3)	(4)
Household Econ. Evaluation	0.268***	0.192*	0.331***	0.292***
	(0.0742)	(0.0773)	(0.0813)	(0.0850)
Household Econ. Evaluation X Class Unemployment	-0.651**	-0.572*	-0.394	-0.260
	(0.224)	(0.234)	(0.251)	(0.263)
Household Econ. Evaluation X Mean Class Income Decile	-0.00330	0.00507	-0.0297**	-0.0331**
	(0.0104)	(0.0109)	(0.0113)	(0.0118)
Household Econ. Evaluation X Proportion Class Car Ownership	-0.00176	-0.00114	0.0171	0.00468
	(0.0599)	(0.0625)	(0.0677)	(0.0708)
Class Econ. Evaluation	0.356***	0.269***	0.431***	0.365***
	(0.0708)	(0.0734)	(0.0773)	(0.0805)
Class Econ. Evaluation X Class Unemployment	0.534*	0.522*	0.222	0.0329
	(0.214)	(0.222)	(0.237)	(0.246)
Class Econ. Evaluation X Mean Class Income Decile	-0.0393***	-0.0302**	-0.0466***	-0.0391***
	(0.00989)	(0.0103)	(0.0108)	(0.0113)
Class Econ. Evaluation X Proportion Class Car Ownership	-0.108	-0.0638	-0.195**	-0.185**
	(0.0577)	(0.0597)	(0.0642)	(0.0670)
National Econ. Evaluation	0.179*	0.169*	0.101	0.0616
	(0.0816)	(0.0847)	(0.0862)	(0.0893)
National Econ. Evaluation X Class Unemployment	-0.533*	-0.425	-0.498	-0.414
	(0.247)	(0.257)	(0.270)	(0.280)
National Econ. Evaluation X Mean Class Income Decile	0.0265*	0.0175	0.0327**	0.0271*
	(0.0111)	(0.0115)	(0.0116)	(0.0121)
National Econ. Evaluation X Proportion Class Car Ownership	-0.0144	-0.0188	0.0344	0.0252
	(0.0674)	(0.0701)	(0.0734)	(0.0760)
Judgement of Democratic System (positive vs. negative/neurtral)		1.488***		
		(0.0245)		
Judgement of Market System (positive vs. negative/neurtral)				1.489***
				(0.0245)
Covariates?	Yes	Yes	Yes	Yes
N total	51635	51635	51635	51635
Log Likelihood	-31483.3	-29481.9	-27092.1	-25085.4
BIC	63281.3	59289.4	54498.9	50496.4

Notes: Robust standard errors in parentheses. * p<0.05 ** p<0.01 *** p<0.001. Source: EUREQUAL (1993 – 2007).

coefficient estimates. Here, it can be seen that none of the estimates for the interaction between class-level evaluations and measures of economic vulnerability are significantly reduced for either the market system model or the democratic system model. It is apparent, however, that the correlation between these dependent variables explains part of the observed relationships, as many of the estimates become marginally smaller with the inclusion of the alternate variable. Despite this, the substantive implications are clear – the interaction between class-level evaluations and class unemployment is robustly significant for estimates of judgements of the market system but not those for the democratic system, while the wealth interaction (i.e., car ownership) is similarly significant for the latter, but not the former.

Based on the logic described in the conceptual framework, these empirical results imply that wealth moderates class-based cognition for judgements of the democratic system, while unemployment moderates class cognition for judgements of the market system. As a result, we might infer that "democratic shocks" are generating changes in wealth, which serve as signals used to ascribe responsibility to democratic institutions, while more general economic shocks engender changes in employment status, which signal the market's influence. Although the existing data and analysis are insufficient to test this belief, it is plausible that democratic governance promotes vote-seeking through the intentional reallocation of wealth towards sub-constituencies viewed to be prospective supporters. As such, members of groups that are more vulnerable on this dimension are more likely to experience significant changes in living standards as a result of electoral competition and governmental change. This would then facilitate the allocation of responsibility for class experiences to democratic institutions. In contrast, the market mechanism might influence the economy as a whole, while also disproportionately affecting the employment status of vulnerable groups. Economic shocks would generate greater changes in living standards for those under high unemployment risk than for those with limited risk. While government

policies might also influence unemployment rates, they would tend to do so to a lesser extent in unregulated labour markets. The influence of party policies over the distribution of wealth, on the other hand, is quite transparent in comparison. This suggests that economic vulnerability might be multidimensional rather than a single construct, and that certain indicators of risk and vulnerability interact more strongly with specific transition institutions to affect living standards at the individual and class level. Whatever the cause, it is apparent that vulnerability related to unemployment better predicts class-level signal detection associated with the market mechanism, while that related to wealth better predicts signal detection associated with democratic processes.

3.6 Discussion

The above results indicate a possible mechanism behind the observation in the second chapter that certain social classes figure class-level economic experiences more strongly into their judgements of transitional distributive institutions. It appears that social groups that experience greater economic vulnerability give more weight to group-level economic perceptions than their more secure counterparts when assessing emerging market and democratic systems. In view of previous research and theory relating socioeconomic risk to both a relative inability to smooth consumption and variation in the magnitude and nature of economic voting, these results are consistent with the notion that signal detection is moderated by the sensitivity of groups to economic events and conditions. To reiterate, individuals characterised by high unemployment risk and low income and wealth are more likely to experience visible material deprivation or gain resulting from economic shocks or events. Since social classes are composed of individuals with similar risk profiles, members of vulnerable groups may more readily judge the effects of prevailing economic or distributive institutions on their true utilitarian outcomes through reference to observed group

experiences. As the visibility of effects on aggregated group outcomes is greater for these groups, they receive stronger signals and can avoid relying on error-prone household experiences or relatively irrelevant national experiences.

Although there is mixed support for two hypotheses, the analysis contributes a better understanding of why social groups, and classes in particular, are salient cognitive objects for some but not others. It was shown that judgements of the market system are strongly determined by class-level economic experiences among members of classes characterised by high unemployment risk and low income, while judgements of the democratic system are governed by class experiences among those whose classes face low wealth and income. While it was also hypothesised that the stronger class basis of reasoning among more vulnerable citizens would coincide with diminished reliance on national- and household-level evaluations, the results provide inconsistent support for this. In fact, it appears that this pattern only holds to a limited extent when vulnerability is measured by class unemployment risk. It is possible, therefore, that lower information costs and stronger signals associated with class-based cues among more vulnerable classes leads them to be utilised more supplementally rather than as substitutes for household and national cues. As can be seen from the results, however, it is reasonable to assume that a more complex relationship exists regarding the relative weight of different analytic levels, which depends not only on the degree of socioeconomic vulnerability but also the measure thereof.

Also worthy of mention is the robustness of the results for both models on two separate dimensions. First, the systematic deletion of interactions and control variables appears to have little effect on estimated interaction coefficients, indicating the robustness of the hypothesised relationship between vulnerability and class-based reasoning. One exception for each model appears to be group-level income, which clearly possesses greater explanatory power than either wealth (car ownership) or unemployment risk. This finding may then

contribute to future research in helping adjudicate among measures of vulnerability for inclusion in statistical models. Second, Table 3.4, which presents values used to test the possibility that market and democratic evaluations are both related to class experiences through some latent orientation, clearly demonstrates that the two models are largely unique. The inclusion of alternate dependent variables as independent variables in each respective model has little effect on the key estimates. This serves as further evidence that different types of vulnerability interact with market and democratic institutions in unique ways. Specifically, despite the inclusion of alternative variables, car ownership fails to moderate the relationship between class experiences and judgements of the *market* system, while unemployment fails to moderate the relationship between class experiences and judgements of the *democratic* system.

Beyond addressing the question of how and why groups differ in the information they draw upon to form judgements about transitional institutions, this chapter contributes to the larger thesis by elucidating how class identification facilitates reasoning about economic and political objects in transition economies. It was shown that post-communist citizens, far from being homogeneous masses, rely on class-based signals concerning economic and political conditions which vary in strength according to the sensitivity of groups to economic conditions and events. Hence, while being aware of or identifying with one's group is a necessary condition for class-based reasoning, it is not in itself sufficient to engender this form of cognition. For this degree of class consciousness to manifest, prevailing economic and political processes must interact with latent vulnerability at the group level in such a way that not only are class differences in results apparent, but also changes over time. Members of social groups that are robust to economic shocks and events are less likely to observe or regard economic recessions, for example, as afflicting their cohort, while members of more vulnerable groups surely would. Economic vulnerability and advantage is, therefore, a clear

determinant of how individuals relate the value of these governing institutions to their class positions.

A practical implication of this reasoning is that during an economic transition, policy-makers may have an incentive to enact programmes which reduce the sensitivity of vulnerable groups to economic events in order to prevent affected classes from becoming self-conscious. Examples of this include employment protection and basic income support. By reducing the fluctuation of living standards at the class level, it then becomes more difficult for constituent members to attribute class outcomes to the emerging political and economic systems. It is possible that by decreasing signal strength and weakening the cognitive link between economic institutions and group outcomes, there is a reduced risk that political agents will benefit from anti-reform mobilisation. This compromise may, therefore, reduce resistance to political and economic reforms and help to avoid retrogression to state socialism.

Thus far in this thesis, I have established that individuals in transition economies rationally identify as members of social classes in a manner that reflects their shared economic-risk determining characteristics. I have further shown that these identities are efficiently used to facilitate reasoning about important political and economic institutions, with strong class identifiers according greater weight to class-level economic experiences when forming judgements about the emerging market system. The present chapter has also demonstrated that heterogeneity exists not only within these groups, but across classes as well, as members of more economically vulnerable classes rely more strongly on group-based economic cues. In the final chapter, I will round-out the narrative by examining the importance of the process of transition to cognitive mobilisation in Central and Eastern Europe and how class-based reasoning is affected by on-going experience with transition institutions.

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Chapter 4

Market Exposure and the Rise of Class Consciousness
A Developmental Model of Cognitive Mobilisation in Transition Economies

Summary: Several models of cognitive mobilisation in political science contend that as polities become better educated and more politically aware, they begin to rely less on heuristic cues related to party attachments and group membership. It is suggested that these heightened abilities allow them, instead, to engage in the more effortful analytic processing of information, such that traditional attachments become dealigned. The fourth chapter challenges this view, and posits that certain forms of cognitive mobilisation should engender stronger class-based reasoning, especially during periods of politico-economic transition. It is understood that transitional processes impart different effects across social groups, which depend on their levels of socioeconomic risk and vulnerability. These effects are expected to become apparent over the course of time, as citizens continue to be exposed to the market mechanism. It is argued, therefore, that through the process of economic transition in post-communist Central and Eastern Europe, citizens attached more weight to class-level economic evaluations when forming judgements of the market system. By implication, the growth in class-based cognition should also be more pronounced within strong transition countries, as well as for members of the working class. The results largely support these contentions.

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4.1 Introduction

Economic transition is a process characterised by several concurrent structural transformations that permit the operation of a market mechanism for governing transactions and allocating resources. Through economic liberalization, prices and wages are set via the aggregation of individual- and firm-level behaviour rather than centrally-planned price and wage controls (Fischer and Gelb, 1991). In addition, government intervention in economic affairs is relaxed and state-owned enterprises and resources are restructured towards private ownership (McKinnon, 1992). Barriers to international trade are also often removed during this period, allowing for transnational investment and competition (Frye and Mansfield, 2003). To varying degrees, this has been the experience in post-communist Central and East European countries, whose respective citizens and industries provide us valuable information about the effects of such transformations.

The above-noted components of transition constitute a receding state scope, which limits the capacity to redistribute wealth and income. Naturally, this creates an economic environment characterized by increasing dispersion in individual-level economic outcomes, determined by citizens' positions in the hierarchy of production and their exposure to economic risk and opportunity. As discussed in previous chapters, social class position is an operationalization of risk, which interacts with market events and conditions to generate economic outcomes such as unemployment and material deprivation, or conversely, employment and wealth. Those social groups that are relatively invulnerable to economic changes enjoy greater financial and occupational stability than those that incur significant risks as a result, for example, of limited control over firm-level decisions or low educational attainment.[21] If these social groups experience significant differences in economic outcomes resulting from the constituent processes of transition, it merits asking: does exposure over

[21] Low educational attainment implies poor labour marketability

time to market forces during economic transition from state socialism to market capitalism influence the nature of class-based economic cognition? Specifically, we might like to know whether class-level economic experiences become more salient to post-communist citizens with continued exposure to the market mechanism, and whether they factor more strongly into their attitudes towards the transitional institutions. To examine this possibility, I draw mainly on the concept of cognitive mobilisation developed by both Inglehart (1970) and Dalton (1984) to explain how increasing levels of information and awareness augment political behaviours such as partisan alignment and political protest. Instead of focusing on political outcomes, however, I generalise cognitive mobilisation to the case of class-based economic awareness during the marketization of Central and Eastern Europe.

As I have maintained throughout this thesis, understanding the nature and scope of class-based reasoning is particularly important when investigating market transitions, since class identities can serve to facilitate political segmentation into cleavages that form the basis for electoral competition. In addition, cognitively mobilised classes are more efficient recipients of information conveyed by elites, thereby permitting more decisive political action. If, for example, the working class is capable of associating their group-level (aggregate) economic outcomes with the abovementioned components of marketization, political elites may capitalise on this through targeted anti-reform messages and the promotion of programmes aimed at inhibiting transition institutions. While the goal of the present chapter is not to test this possibility directly, it contributes to a fuller understanding of how the process of class-based reasoning takes form during the course of transition. In so doing, I hope to contribute to the body of work concerned with the economic bases of political fragmentation by considering a possible mechanism through which groups become sensitised to their shared risks and opportunities.

This chapter proceeds with a discussion of the ways in which increasing awareness and information are thought to affect political behaviour. I then present a model that applies this concept to class-based economic cognition, along with a set of hypotheses derived therefrom. This is followed by the description, and subsequent analysis, of a series of models for testing the robustness and idiosyncrasies of the process of transitional cognitive mobilisation and a brief discussion of the significance of these results.

4.2 Models of Cognitive Mobilisation

Inglehart (1970) refers to "Cognitive Mobilisation" as the development of political skills that are needed to cope with the politics of a large-scale society. It is a process influenced by educational attainment, the accrual of political knowledge, and access to media. In general, this construct is thought to correspond to increased participation in social movements and the ability of the general population to intervene in politics and, as such, it has been linked analytically to support for European integration, partisan dealignment, and the weakening of identity-based politics. No consensus has emerged as to the net effect of cognitive mobilisation on any of these behavioural processes, yet each merits independent review to demonstrate how the developmental model differs from, and overcomes certain limitations evident in, the standard framework.

4.2.1 Application to European Integration

Inglehart (1970; 1990) argues that European identity – an individual's ability to relate to a supranational European community – is closely linked to higher levels of education within constituent countries. It is believed that education endows citizens with the political skills to cognitively cope with a more remote political community. The existence of this relationship was subsequently demonstrated in a number of empirical studies (Citrin and

Sides, 2004; Fligstein, 2008; Karp et al., 2003; Hobolt, 2012). Others, using data collected from participants in the Erasmus exchange programme have shown that 'European exposure' does not significantly influence identity (Sigalas, 2010; Wilson, 2011), while a similar study shows a strong effect (Mitchell, 2015). Bellucci et al. (2012) succinctly describe the challenges in this research in explaining that there is no consensus in the literature on how and through which mechanisms citizens come to identify with national and supranational institutions, since it is not straightforward how to address the manner in which correlates of cognitive mobilisation influence these attachments.

Regardless of which results turn out to be more robust, most attempts to explain European identity through reference to rising levels of education are incomplete. As Janssen (1991) contends, the concept of cognitive mobilization is only meaningful at the individual level and cannot, therefore, be extended to theories of general European integration or cross-national differences in support. Giving consideration to competing theories, Gabel (1998) provides evidence that the partisan context of reforms and perceived consequences of related policy significantly explain variation in support, while cognitive mobilisation exerts only a small influence under specific contextual conditions. As will be shown in the developmental model, experience with the consequences of an emerging system can not only influence social identities, but also how those identities figure into utilitarian logic.

4.2.2 Application to Partisan Dealignment

Another dimension of the cognitive mobilisation thesis links the observed partisan dealignment of some Western polities to the increasing cognitive skills of their citizens (Dalton, 1984, 2007; Kuan and Lau, 2002; Enyedi and Todosijević, 2009). This is based on the premise that heuristic cues afforded by partisan affiliations or party identification allow citizens to avoid thorough analytic processing of political and economic information, such

that those lacking the requisite cognitive skills and information may form reasoned judgements (Dalton, 1984, 2012). With the observed rise in education and access to information, therefore, it has been hypothesised that partisan alignments might weaken as a result. This argument is supported by Dalton (1984), who finds that increasing political sophistication across 80 industrial nations is linked to a new form of dealigned politic. He does so, however, through the development of a typology that differentiates among apartisans, cognitive partisans, ritual partisans and the apolitical, which forces a convenient distribution and overstates the declining usage of partisan cues. Furthermore, in stating that "cognitive mobilization implies that citizens possess the skills and resources necessary to become politically engaged with little dependence on external cues", Dalton presents a tautology, which cannot be reconciled with the aggregate-level analysis he offers.

The above study implicitly assumes that alignments are the product of cognitive limitations, when they may be supplemental and their formation largely dependent on reasoning and information. As Lau and Redlawsk (2001) have demonstrated, cognitive heuristics are at times employed by all voters, especially under complex choice situations, and more effectively by the most sophisticated voters. It is therefore no surprise that Albright (2009) finds that cognitive mobilisation is associated with increased partisan alignment at the individual level.

4.2.3 Application to Identity Politics

A similar dealignment argument has been made, which contends that a general increase in levels of education and cognitive mobilization has led identity-based responses to group-based divisions to be replaced by more individualized utilitarian preferences (Evans, 2000). In other words, voters' increasing ability to make calculative and issue-oriented electoral decisions has overcome behavioural patterns driven by collective identities (Franklin

1985; Rose and McAllister, 1986; Dalton, 2013). Typical of this line of reasoning, Rose and McAllister's (1986) political learning approach links the increased capacities of voters to make independent electoral choices to the apparent decline in social class voting in a number of electorates.

Much evidence has challenged the above notion, not least by showing the existence of a trendless fluctuation in class voting rather than decline (Heath, 1991; Evans et al., 1991 – evidence from Britain). Moreover, the same deficit in face validity apparent in the partisan dealignment argument is also present in the application to group dealignment, since identity-based attachments may derive from reasoned judgement (Manza et al., 1995). Elff (2007) has also challenged the view that voting decisions have become individualized and have superseded old social cleavages in showing that cognitive mobilization has failed to undermine cleavage-based alignments in Western electorates. He demonstrates that hardly any of the decline in class voting is attributable to cognitive mobilisation. In contrast to these frameworks, the model presented below lends to the argument that there may be circumstances under which rising political and economic awareness may actually heighten group-based reasoning attributable to experience with prevailing distributive institutions.

4.2.4 Developmental Cognitive Mobilisation

While the above model of cognitive mobilisation applies mainly to contexts with established economic and political systems, it may be generalised to the case of countries undergoing economic and political transition. Under these conditions, what differs is that the process of knowledge accumulation at the individual and mass levels is a function of exposure to systemic change rather than a relatively static set of institutions. Under a stable constitution, changes in attitudes and political behaviour may result from investment in education or a shift in economic composition towards knowledge-based employment. This

form of enlightenment contrasts with transitional cognitive mobilisation, in that during periods of transformation these processes have various, if predictable, effects on individuals and groups which are incorporated into judgements as a function of time. In other words, citizens in transition economies become more aware of how these emerging institutions operate and affect them as they continue to acquire experience.

It has been noted that when the market-based and democratic revolution reached Central and Eastern Europe, its citizens had already been politicised and mobilised through years of debate over political and economic constitution (Mair, 1997; Enyedi, 2006). The existence of galvanisation in this region during the early stages of transition is discussed by Gibson and Duch (1994), who show that postmaterialist value orientations owing to cognitive mobilisation played a significant role in mass politics. Support for democracy and modernization was sufficiently high to influence political choice and unconventional forms of political behaviour in some cohorts. Based on these observations, the standard of information and awareness for cognitive mobilisation described by Inglehart had been met, coinciding with the predicted high levels of mass political activity. Given the initial naivety of post-communist citizens with respect to the material implications of market transition, however, it must be assumed that an additional learning process would take place.

As discussed by Evans (2000), while cognitive mobilisation in Western democracies was expected to generate partisan dealignment in the post-industrial era, the pressing question for post-communist countries was whether class alignments would take form under free-market democracy. In support of the realignment thesis, Mateju et al. (1999) demonstrate that class voting took place in the Czech electorate through the emergence of left-right alignments that approximate those observed in the West. Similarly, in an analysis of class-based political divisions in transitional Russia, Evans and Whitefield (1999) found evidence of an economic basis of class polarization during the early stages of transition. Evidently, the necessary levels

of political and class awareness had been reached to generate class cleavages, but it is uncertain whether class-level economic experiences figured into reasoning over the emerging political and economic institutions. Specifically, it remains to be seen whether post-communist social groups enjoyed a high degree of class-based cognitive mobilisation pertaining to the allocation of responsibility over economic conditions from the beginning. It is my belief that despite the presence of nascent class cleavages, citizens were not initially endowed with the ability to link class experiences to market forces, since differences in vulnerability to economic events can only be revealed through continued interaction with the market mechanism. Cross-group differences in the effects of these institutions on job security, income and wealth would not be fully understood from the outset, but rather subject to a more gradual development in awareness as individuals interact with other group members and receive relevant information from political organisations and media outlets.

As a concrete example of how developmental mobilization might manifest, consider a member of the working class during the early stages of transition. Initially, she might have been rendered unemployed as a result of government restructuring and privatization, and therefore attribute her personal experience to marketization. This outcome not being limited to manual workers, however, perceived class-level experiences would not likely figure strongly in her judgements of the market system. As the transition progresses and society gains exposure to market forces, income and wealth inequality among social classes is seen to rise, corresponding to differential economic vulnerabilities. Through interaction with other members of her social group over time, this individual recognises that the working class experiences a unique cycle of unemployment. In addition, organised labour and associated political parties convey information about relative class outcomes, including both losses and achievements, in order to mobilise their base. Through this acquisition of experience and information, she is then better able and more willing to judge market institutions on the basis

of working class economic outcomes. While individual experiences may vary, the net result is likely one of an increasing class basis of attitudes towards the emerging market system.

4.2.5 Hypotheses

Based on the discussion above, several testable hypotheses can be formed:

H1: Over time, cognitive mobilization through continued exposure to market forces has led post-communist citizens to base their judgements about the market system more strongly on class-level economic experiences. As economic events and conditions interacted with varying levels of vulnerability across social classes, this latent construct is revealed through changes in income, wealth and employment status, which are integrated into attitudes towards prevailing institutions.

H2: Since the first hypothesis assumes that market forces have real and perceptible effects on citizens, it is further posited that the increase in class-based cognition over time is larger for strong transition countries where government intervention is lowest and differential vulnerability and inequality is greatest. If the market mechanism is weak as a result of the continued operation of state-owned enterprises and excessive price and wage regulation, class awareness might be diminished as group differences in economic outcomes are limited.

H3: The increase over time in the class-experience based judgements of the market system was greatest for members of the working class, including both manual workers and peasants. As the third chapter demonstrates that these citizens are the most vulnerable in terms of economic risk and received the strongest signals from class-level experiences, we should expect that they derive more novel information about the market system through experience

over the course of transition. The relative stationarity of living standards among members of the middle class, on the other hand, would inhibit the learning process for this group and lead to weaker mobilisation.

4.3 Methods

4.3.1 Data and Measures

To test the above hypotheses, I use of the full EUREQUAL social survey, based on random samples of Central and Eastern European citizens between 1993 and 2007. The data file includes 13 countries, 35 country-years, and 57,597 respondents (although, in the analysis, a small proportion of cases is list-wise deleted due to missing data). Demographic and regional population weights are utilised throughout the analysis.

The dependent variable for all models is based on the same Likert-type measure of attitudes towards the market system, which is primed by a preceding question asking 'What do you think about the idea that a market economy, in which there is private property and economic freedom to entrepreneurs, is the best system for [*country*]?' (V3) The subsequent operational question asks 'How would you evaluate the actual experience of the market economy so far?' (V4) Possible responses range from very positively to very negatively, but for the purpose of analysis, positive assessments are coded 1 and negative and neutral are 0. While this may obscure some variation across respondents, it facilitates analytic concision and permits more effective comparison of effect magnitude with models of economic voting.

Table 4.1 shows the percentage of respondents offering a positive assessment of the market system in the first and final survey waves by country. It is seen here that appraisals of the emerging economic system became more positive between the early 1990s and 2007 for all included countries except for Bulgaria, the Czech Republic and Hungary, each of which exhibits a decline of less than 3%. This generally positive trend likely reflects improvements

in living standards across Central and Eastern Europe over the period of transition, which may be partly attributable to the initial shock of marketization that led to poor economic experiences in the early stages as governments downsized and the labour market reorganised. Nevertheless, considerable variation in economic outcomes existed across social groups, countries and time, which can be inferred from both the range of positive appraisals in each wave, as well as the general lack of attitudinal homogeneity (i.e., few countries show within-wave extreme values that approach 0% or 100%).

Table 4.1: Percentage Reporting Positive or Very Positive Assessment of the Market Economy, by Country and Survey Wave

	First Wave	Final Wave	Change
Belarus	9.2%	43.3%	34.1%
Bulgaria	23.9%	23.0%	-1.0%
Czech Republic	39.5%	37.4%	-2.1%
Estonia	37.3%	54.4%	17.1%
Hungary	18.5%	15.8%	-2.7%
Latvia	18.0%	32.8%	14.8%
Lithuania	13.3%	41.8%	28.5%
Moldova	16.5%	27.1%	10.6%
Poland	30.1%	48.5%	18.4%
Romania	19.5%	32.3%	12.8%
Russia	14.2%	29.8%	15.6%
Slovakia	15.8%	44.6%	28.8%
Ukraine	7.0%	20.1%	13.0%

Notes: values reflect positive (versus negative and neutral) assessments of the market system as a proportion of total.
Source: EUREQUAL (1993 – 2007).

The central independent variables for each of the specified models are retrospective evaluations of changes in living standards at the household-, class-, and national-levels. The operational questions are 'Compared with five years ago, has [your household/ social category/the country]'s standard of living fallen a great deal, fallen a little, stayed about the same, risen a little, or has it risen a lot?' (V272, V175-V179, V274) Respondents are asked

about changes in living standards for each of 5 social categories (manual workers, entrepreneurs, managers/administrators, intelligentsia, and peasants), though for the class level variable I only use the response to the question about the group with which they identify. Respondents' own group is indicated by responses to a question asking them to self-categorize as a manual worker, manager/administrator, entrepreneur, professional, or peasant (V168). For each level, responses are recoded to have values between -2 for the most negative economic experience and +2 for the most positive.

The moderating variable used in the analysis is a measure of survey year. The data begin in 1993 and end in 2007, so the range of the variable is 14 years. Since each country's transition was characterised by administrative and technical idiosyncrasies related to democratic and market reforms, this variable is preferred to one measuring the number of years since the beginning of transition. Instead, this measure permits comparisons across countries at specific points in time and avoids being anchored by a date that is open to dispute. While results will also be interpreted by specific year, the default is to consider how unit changes in time influence the marginal effect of economic evaluations on judgements of the market system. Control variables included in the models are social group membership (V168), gender (V298), age, ethnic majority versus minority (V191), income decile (Based on V269), level of education (based on V198), employment status (based on V200), and car ownership (V262).

4.3.2 Empirical Strategy

To test the first hypothesis, I apply multilevel logistic regression to the data, where level-1 units are individuals, level-2 units are social classes nested within country-years, level-3 units are country-years, and level-4 units are countries. I regress the dichotomous variable measuring positive versus negative or neutral evaluations of the market economy

against household-, class-, and national-level economic evaluations. Each of these three predictors is interacted with the measure of survey year, which produces three main effects and three interaction terms. Further to this, I systematically delete a set of covariates, including gender, age, ethnic majority status, income and education. This is done to determine whether a change over time in the marginal distribution of these variables explains any of the changes in class-based cognition.[22] The empirical expectation for these tests is that the coefficient estimate on the interaction term for class-level economic evaluations is positive and significant, indicating that the marginal effect of class experiences has increased over the course of transition.

As a test for the second hypothesis, I run simple logistic regressions for each country to identify which countries have experienced the largest increase in class-based cognition. A total of 13 regressions are performed. Each model is precisely the same as the one described above, with the exception that they are disaggregated and contain no fixed effect specification. The expectation for these models is that the increase in the marginal effect of class-level economic evaluations is greatest for countries that have the strongest transition institutions (i.e., market mechanism) as judged by the European Bank of Reconstruction and Development's (EBRD) transition indicators (Transition Report, various years. EBRD: London.). To do this, I produce an index computed though an additive function of scores for each country from between 1993 and 2007, including scores for large scale privatisation, small scale privatisation, governance and enterprise restructuring, price liberalisation, trade and forex system, and competition policy. The maximum possible score is 4. Table 4.2 presents values for the transition indicator index by country and year (1993 and 2007), as well as change over time in the index score and the average for each country over the period covered by the survey data. Using values in the rightmost column, countries are separated

[22] It is possible, for example, that increased levels of education within countries led to a heightened ability to associate class-level experiences with the operation of the market system.

into strong transition countries (Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland and Slovakia) and weak transition countries (Belarus, Moldova, Romania, Russia and Ukraine).[23]

Table 4.2: European Bank of Reconstruction and Development Transition Indicator Index, by Country and Year

	1993	2007	Change	Avg 93-07
Belarus	1.67	1.89	0.22	1.82
Bulgaria	2.33	3.67	1.33	3.20
Estonia	2.89	4.06	1.17	3.72
Hungary	3.22	4.00	0.78	3.82
Latvia	3.22	4.44	1.22	4.01
Lithuania	2.89	3.89	1.00	3.51
Moldova	1.89	3.22	1.33	2.93
Poland	3.28	3.89	0.61	3.67
Romania	2.28	3.56	1.28	3.11
Russia	2.61	3.17	0.55	3.04
Slovakia	3.33	4.00	0.66	3.76
Ukraine	1.33	3.17	1.83	2.74

Notes: values are based on an index of 6 different measure of transition institutions produced by the EBRD. Values are added, then divided by 6.
Source: EBRD Data Centre.

The third hypothesis is tested by comparing the estimates of two separate multilevel logistic regressions, divided by working class versus middle class. Similar to the first model, positive versus negative or neutral judgements of the market economy are regressed against all three levels of economic evaluation, each of which is interacted on the survey year. The expectation is that the coefficient estimate representing the interaction between class-level economic evaluations and time will be larger for members of the working class (peasants and manual workers) than the middle class (managers, intelligentsia and entrepreneurs). This would indicate that members of the working class experienced more pronounced class-based

[23] While the table indicates that Moldova, Romania and Ukraine experienced some of the strongest improvements in transition institutions during this period, the average weakness of their transitions is thought to have impeded the process of class-based cognitive mobilisation.

cognitive mobilisation than middle class over the course of economic transition. The values presented in Table 4.3 show that while the middle class tends to exhibit more positive attitudes towards the market system than the working class, the difference is rather modest for most of the countries being investigated. In fact, based on this set of estimates, only Estonia and the Czech Republic obtain class differences above 10%, while in Belarus and Latvia the working class have slightly more positive appraisals of the market than the middle class. This indicates the presence of considerable cross-national heterogeneity within classes, which further permits comparison of effects at the three analytic levels.

Table 4.3: Percentage Reporting Positive or Very Positive Assessment of the Market Economy, by Country and Social Class

	Working Class	Middle Class	Difference (MC - WC)
Belarus	25.0%	20.4%	-4.6%
Bulgaria	22.0%	27.0%	5.0%
Czech Republic	30.5%	50.3%	19.8%
Estonia	40.6%	50.6%	10.1%
Hungary	15.7%	20.8%	5.0%
Latvia	22.8%	22.5%	-0.3%
Lithuania	19.7%	20.0%	0.3%
Moldova	18.2%	20.5%	2.3%
Poland	36.2%	43.5%	7.3%
Romania	22.9%	29.3%	6.4%
Russia	19.2%	22.7%	3.5%
Slovakia	23.8%	30.2%	6.4%
Ukraine	9.8%	10.6%	0.8%

Notes: values reflect positive (versus negative or neutral) assessments of the market system as a proportion of total. Working class includes manual workers and peasants, middle class includes managers, entrepreneurs and intelligentsia. Source: EUREQUAL (1993 - 2007).

As with previous chapters, the analysis below makes reference to average marginal effects estimates based on each model's output. To do this, graphs are presented that indicate the changes over time in the average marginal effect of economic evaluations at each of

household, class and national levels. A significant upward slope of these values across the response surface suggests an increase in the marginal effect of the relevant evaluations on judgements of the market system.

4.4 Results

The first model of Table 4.4 shows that even with the inclusion of a comprehensive set of covariates, there is a significant positive interaction between class-level economic evaluations and survey year. A significant main effect on this evaluation variable suggests that there was some degree of class-based reasoning related to judgements of the market system early in the transition. At this point, a one unit increase in evaluations of how one's social class was fairing with regard to its standard of living corresponds to a 2.7% increase in probability of giving a positive assessment of the system. As shown in Figure 4.1, this marginal effect increased at an average rate of 0.15% per year, leading the marginal effect in 2007 to be greater than 4.8%. In comparison, the marginal effects for household- and national-level evaluations are higher than for social class in 1993, at 4.1% and 6%, respectively. These each exhibit a slight and insignificant decline over time, however, such that in 2007 the marginal effect of class-level evaluations is greater than those at the household level and statistically indistinguishable from those at the national level. It is therefore evident that some form of class-based cognitive mobilisation took place throughout the transition, whereby citizens' evaluations of their classes' living standards figured more strongly in their judgements of the market system in the later period of transition. The first hypothesis is therefore supported by the results.

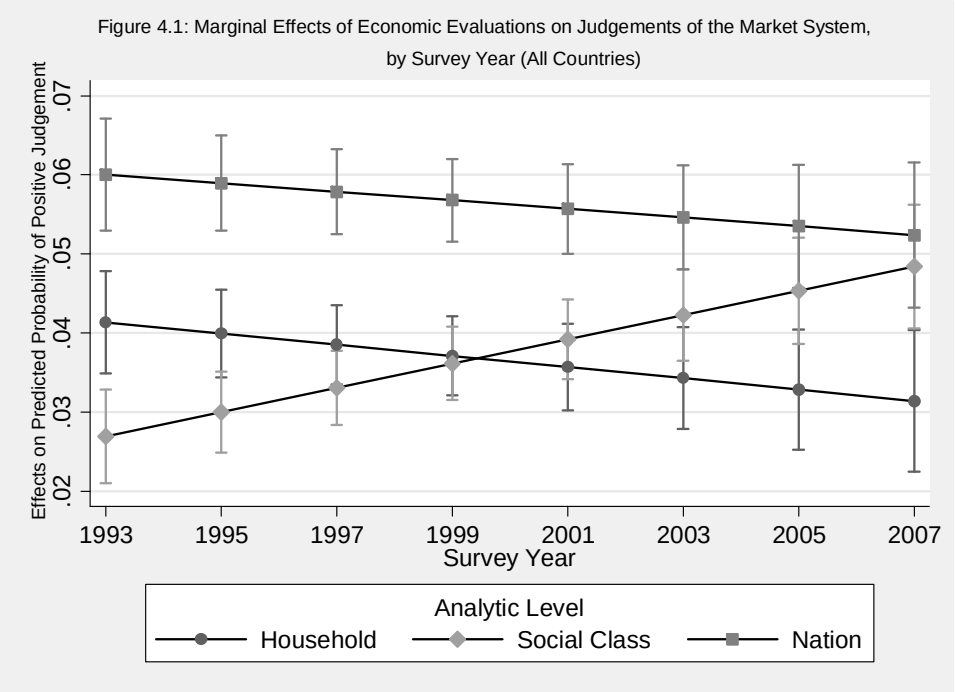
Further to this test, I assess the robustness of these results. Looking at the likelihood-ratio test toward the bottom of Model 2 in Table 4.4, it is apparent that removing the interaction terms from the full model significantly worsens the goodness-of-fit. This simply

Table 4.4: Mixed Effects Logistic Regressions of Judgments of the Market System on Economic Evaluations at Three Analytic Levels, Interacted on Number of Years Since Transition

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Household Econ. Evaluation	0.181***	0.164***	0.181***	0.195***	0.183***	0.174***	0.182***
	(0.0146)	(0.0111)	(0.0146)	(0.0146)	(0.0146)	(0.0143)	(0.0146)
Household Econ. Evaluation X Survey Year	-0.00313		-0.00313	-0.00257	-0.00312	-0.00291	-0.00312
	(0.00189)		(0.00189)	(0.00189)	(0.00189)	(0.00189)	(0.00189)
Class Econ. Evaluation	0.118***	0.152***	0.118***	0.122***	0.119***	0.118***	0.117***
	(0.0134)	(0.0104)	(0.0134)	(0.0133)	(0.0133)	(0.0134)	(0.0133)
Class Econ. Evaluation X Survey Year	0.00673***		0.00672***	0.00638***	0.00663***	0.00671***	0.00673***
	(0.00164)		(0.00164)	(0.00164)	(0.00164)	(0.00164)	(0.00164)
National Econ. Evaluation	0.263***	0.251***	0.264***	0.266***	0.265***	0.264***	0.264***
	(0.0163)	(0.0118)	(0.0163)	(0.0163)	(0.0163)	(0.0163)	(0.0163)
National Econ. Evaluation X Survey Year	-0.00241		-0.00245	-0.00254	-0.00238	-0.00245	-0.00242
	(0.00204)		(0.00204)	(0.00203)	(0.00203)	(0.00204)	(0.00204)
Female	0.0535**	0.0536**		0.0552**	0.0529**	0.0601**	0.0536**
	(0.0199)	(0.0199)		(0.0199)	(0.0199)	(0.0198)	(0.0199)
Age (10 X)	-0.0903***	0.0898***	-0.0904***		-0.0902***	-0.0879***	-0.0880***
	(0.00632)	(0.00632)	(0.00632)		(0.00632)	(0.00625)	(0.00615)
Majority (Minority Base)	0.173***	0.172***	0.173***	0.173***		0.174***	0.172***
	(0.0275)	(0.0275)	(0.0275)	(0.0275)		(0.0275)	(0.0275)
Income Decile	-0.00941*	-0.00917*	-0.0107**	-0.00130	-0.00967**		-0.00967**
	(0.00375)	(0.00375)	(0.00372)	(0.00370)	(0.00375)		(0.00371)
Secondary School Education (Less than Secondary Base)	-0.0365	-0.0357	-0.0376	0.0449	-0.0322	-0.0428	
	(0.0249)	(0.0249)	(0.0249)	(0.0242)	(0.0249)	(0.0248)	
Tertiary Education (Less than Secondary Base)	-0.00822	-0.00571	-0.0115	0.0457	-0.00817	-0.0209	
	(0.0343)	(0.0343)	(0.0343)	(0.0340)	(0.0343)	(0.0340)	
Survey Year	0.00582	0.00552	0.00601	0.00217	0.00588	0.00623	0.00586
	(0.00827)	(0.00823)	(0.00827)	(0.00822)	(0.00826)	(0.00824)	(0.00826)
Constant	0.644***	0.643***	0.676***	0.185	0.786***	0.583***	0.615***
	(0.140)	(0.139)	(0.139)	(0.136)	(0.136)	(0.138)	(0.138)
N Total	51635	51635	51635	51635	51635	51635	51635
BIC	63049.3	63035.1	63045.7	63243.1	63078.3	63044.8	63030.3
Log Likelihood	-31416.1	-31425.3	-31419.8	-31518.4	-31436.1	-31419.3	-31417.5
Prob > Chi2		0.0004	0.0073	0.0000	0.0000	0.0121	0.2637

Notes: Standard errors in parentheses. * p<0.05 ** p<0.01 *** p<0.001. Source: EUREQUAL (1993 – 2007).

indicates that there is some meaningful predictive value associated with including the change over time in the relative strength of the relationship between economic evaluations and judgements of the market system. Moreover, in models 3 to 7, individual covariates are systematically removed from the full model to ascertain whether changes over time in the marginal distribution of these characteristics within countries or across social groups influenced the observed increase in class-based cognition. In particular, we need to consider the possibility that increasing levels of education within countries explains the heightened willingness or ability of citizens to base judgement of the emerging economic system on perceived class outcomes.



Comparing the coefficient estimates representing the interaction between class-level evaluations and survey year in models 3 through 7 with model 1, it is evident that explanatory power is reduced by eliminating most of these variables, albeit insignificantly. In other words, levels and distributions of gender, age, ethnicity, income and education fail to explain why the marginal effect of class-level economic evaluations on judgements of the market system increased over the course of transition. In fact, the most likely factor to explain this

process – rising levels of education – contributed the least explanatory power of all, as evidenced by the results of the likelihood ratio test presented at the bottom of model 7. Including respondents' highest level of education in the model is shown here to worsen the goodness-of-fit. This lends further credence to the notion that post-communist citizens progressively developed a sense of how the market mechanism generated different outcomes across social groups depending on their level of socioeconomic risk. If the increased salience of class-level experiences were following the traditionally-described pattern of cognitive mobilisation, we would expect to see that this measure of education accounts for much of the change over time in class-based cognition.

Table 4.5 is the basis of analysis for testing the second hypothesis. It shows that most of the weak transition countries, as judged by an index of the EBRD's transition indicators, have exhibited little growth in the class-basis of judgements of the market system. As further expected, most of the regressions for strong transition countries contain positive and significant coefficient estimates for the interaction between class-level economic evaluations and survey year. In Figure 4.2, it is seen that for weak transition country, Moldova, the marginal effect of class-level evaluations remains insignificant and relatively constant over time. In contrast, national-level evaluations are consistently significant, with a stable average marginal effect of around 6.6%. Household-level evaluations have the strongest marginal effect for Moldova in 1993 at 8.7%, then decline and become statistically indistinguishable from zero. For the strong transition country, Lithuania, the marginal effects in 1993 at all three levels is around 3.3%. As seen in Figure 4.3, a process of class-based mobilization becomes apparent over time, as the marginal effect for class-level evaluations rises at a significant rate to 7.4% in 2007, while the increase for the household and national levels is below conventional levels of significance.

Table 4.5: Logistic Regressions of Judgements of the Market System on Economic Evaluations at Three Analytic Levels, Interacted on Years Since Transition, by Country

	Weak Transition					Strong Transition							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Country	Belarus	Moldova	Romania	Russia	Ukraine	Bulgaria	Czech	Estonia	Hungary	Latvia	Lithuania	Poland	Slovakia
Household Econ. Evaluation	0.1341	0.425***	0.159**	0.274***	0.204***	0.197***	0.349***	0.158***	0.134*	0.0942	0.149***	0.0710	0.0380
	(0.0699)	(0.100)	(0.0522)	(0.0316)	(0.0409)	(0.0569)	(0.0734)	(0.0416)	(0.0615)	(0.0709)	(0.0430)	(0.0610)	(0.0668)
Household Econ. Evaluation X Survey Year	0.0002	-0.0338***	-0.000239	-0.0107*	-0.00300	-0.00114	-0.0297**	0.0184*	0.0136	0.00795	0.00525	0.0105	0.0105
	(0.0081)	(0.00995)	(0.00593)	(0.00445)	(0.00593)	(0.00709)	(0.00918)	(0.00801)	(0.00770)	(0.00900)	(0.00731)	(0.00760)	(0.00846)
Class Econ. Evaluation	0.0743	0.111	0.0366	0.112***	0.137***	0.0902	0.107	0.139***	0.00517	0.323***	0.140**	0.0915	0.139*
	(0.0643)	(0.0831)	(0.0480)	(0.0313)	(0.0375)	(0.0497)	(0.0674)	(0.0410)	(0.0637)	(0.0701)	(0.0437)	(0.0629)	(0.0602)
Class Econ. Evaluation X Survey Year	0.0182*	-0.00700	0.00530	0.00240	0.000888	0.01115*	0.0141*	-0.00364	0.0139*	0.0182*	0.0159*	0.0155*	0.0174*
	(0.00763)	(0.00809)	(0.00527)	(0.00404)	(0.00481)	(0.00548)	(0.00681)	(0.00740)	(0.00686)	(0.00919)	(0.00700)	(0.00673)	(0.00729)
National Econ. Evaluation	0.1894	0.315*	0.316***	0.373***	0.241***	0.226***	0.385***	0.206***	0.483***	0.214*	0.151**	0.374***	0.235**
	(0.0782)	(0.136)	(0.0555)	(0.0362)	(0.0517)	(0.0611)	(0.0742)	(0.0424)	(0.0841)	(0.0834)	(0.0546)	(0.0843)	(0.0822)
National Econ. Evaluation X Survey Year	0.00059	-0.00273	-0.00180	-0.0130**	-0.00549	-0.0108	0.0146	-0.00820	-0.0236*	-0.00157	0.0101	-0.0110	0.0119
	(0.00938)	(0.0121)	(0.00615)	(0.00475)	(0.00627)	(0.00731)	(0.00937)	(0.00845)	(0.00923)	(0.00980)	(0.00788)	(0.00916)	(0.00947)
Survey Year	0.0865***	-0.0494*	0.00353	0.0100	0.00966	-0.0329***	-0.0512***	0.00340	-0.0593***	-0.0117	0.0185*	-0.0578***	0.0501***
	(0.0100)	(0.0194)	(0.00662)	(0.00540)	(0.00785)	(0.00862)	(0.00801)	(0.00869)	(0.0118)	(0.0121)	(0.00900)	(0.0119)	(0.0104)
Constant	-0.382**	0.694**	0.120	0.0989	-0.407***	0.371***	1.188***	1.315***	0.510***	0.633***	0.0642	0.697***	0.366**
	(0.138)	(0.266)	(0.0833)	(0.0619)	(0.100)	(0.109)	(0.0981)	(0.0792)	(0.131)	(0.152)	(0.100)	(0.133)	(0.135)
Covariates?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N Total	2001	2500	3009	10712	8719	2545	2404	4446	2269	2895	4720	2269	2454
Log Likelihood	-1158.5	-1593.7	-1966.8	-6655.3	-4733.9	-1700.7	-1359.8	-2519.4	-1407.4	-1904.7	-3008.5	-1440.2	-1513.8
BIC	2408.1	3281.3	4029.7	13422.0	9576.7	3495.4	2813.1	5139.6	2907.5	3905.0	6118.5	2973.1	3121.3

Notes: Robust standard errors in parentheses. * p<0.05 ** p<0.01 *** p<0.001. Source: EUREQUAL (1993 – 2007).

Figure 4.2: Marginal Effects of Economic Evaluations on Judgements of the Market System, by Survey Year (Moldova)

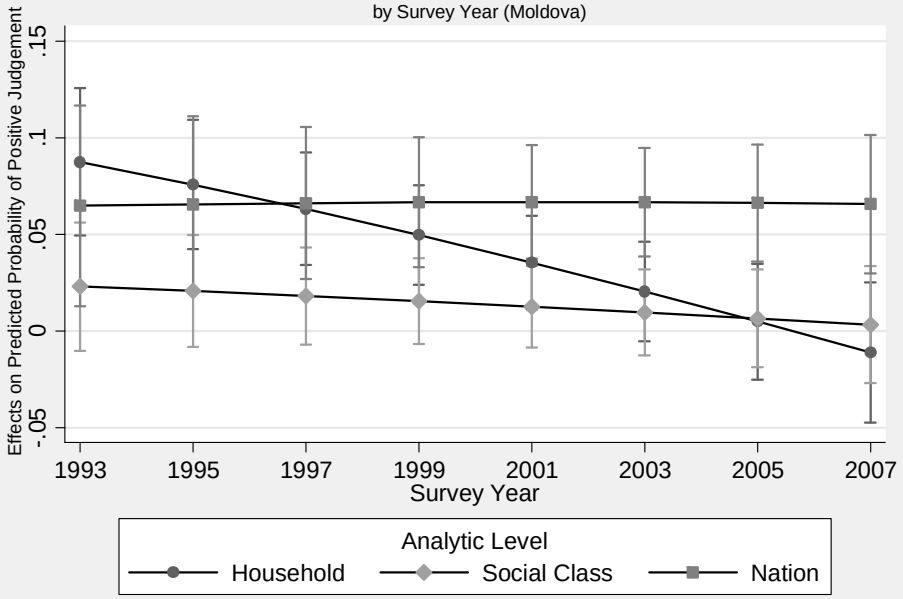
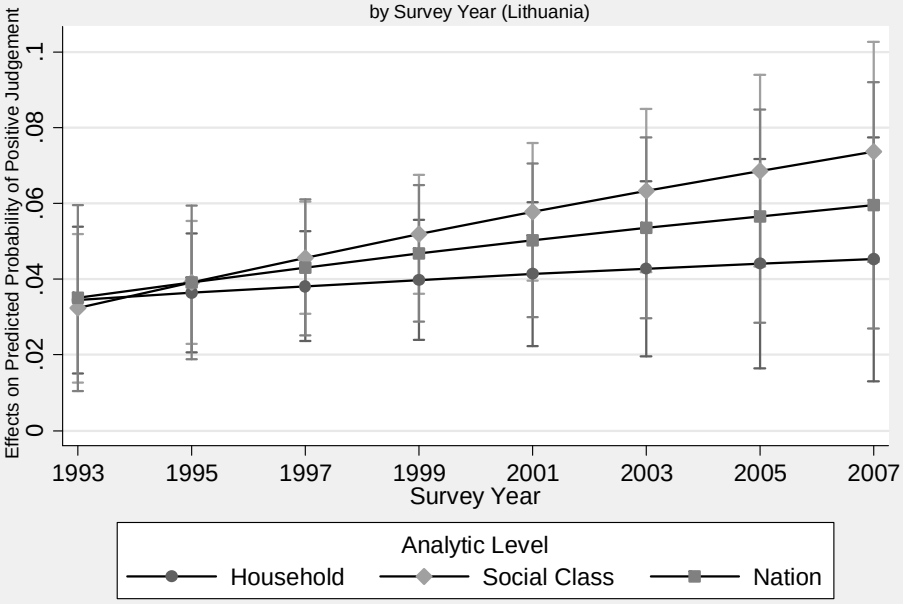


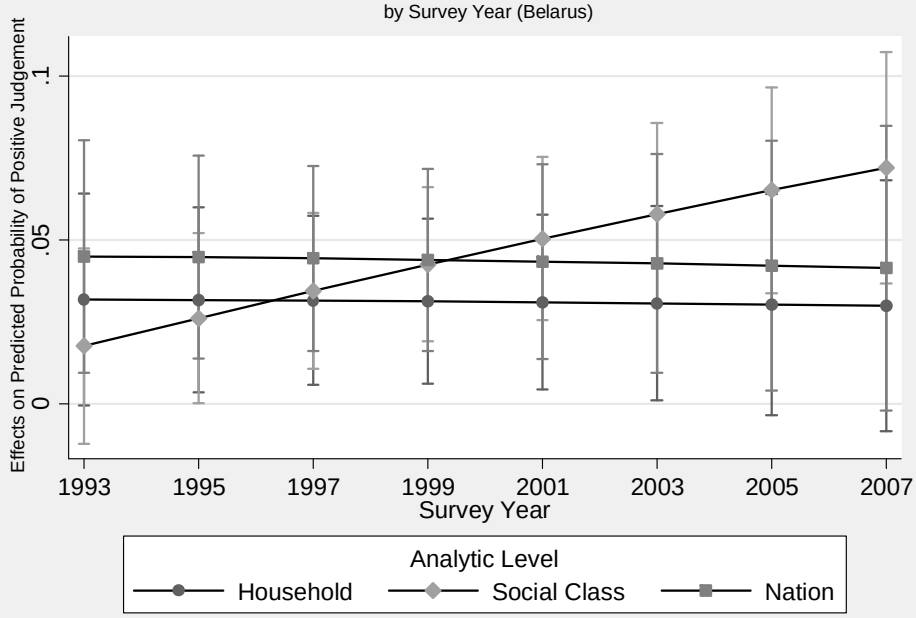
Figure 4.3: Marginal Effects of Economic Evaluations on Judgements of the Market System, by Survey Year (Lithuania)



It appears that the only countries that do not conform to the hypothesised relationship are Belarus, which has been judged by the EBRD to have had the weakest transition of all 13 countries, and Estonia, which has among the strongest transition institutions. In Figure 4.4, corresponding to model 1 in Table 4.5, we see that there appears to have been a significant increase over time in the marginal effect of class-level evaluations on judgements of the

market system for Belarus, where transition institutions have remained weak, as substantial government intervention in the markets has persisted (Yemelyanau, 2008). While strict regulation and state ownership are credited as having stunted economic growth, this has also limited income and wealth inequality in the country (Milanovic, 2011). If the Belarusian transition has been so weak, we should expect that state intervention has limited the degree to which citizens were able to link the market mechanism to their classes' economic experiences. Why, then, have class experiences come to dominate in predicting attitudes towards the market system in Belarus? One possibility is that the public backlash against early transition policies that contributed to bringing Alexander Lukashenko into power in 1994 has remained a salient rhetorical theme (Korosteleva, 2007). Class divisions in economic outcomes were highly politicised as the political leader sought and received the support of the working masses, thereby sensitising Belarusians to class experiences.

Figure 4.4: Marginal Effects of Economic Evaluations on Judgements of the Market System, by Survey Year (Belarus)



At the same time, while there was dominance of administrative controls over prices, output and foreign trade, the state initiated some degree of enterprise decision decentralisation, which has generated a modest increase in social inequality (Treisman, 2006). In the presence

of class sensitivity from the transitional backlash, this growing inequality might have magnified in Belarusians' attitudinal calculus, such that they began to attribute differential class experiences to the emerging, though strictly limited, market forces.

The divergence of results for Estonia from the hypothesised relationship also warrants further examination. Soon after Estonia gained independence from the Soviet Union in 1991, privatization of state-owned industry began, along with currency reforms needed to facilitate this (Purju, 2005). As noted by Noorkôiv et al. (1998), the early transition of this country stood in relief against others for both its rapid price liberalisation and relatively free labour market policies. The authors show that the relative wages of the highest educated individuals rose dramatically, along with returns to job experience. The resulting substantial growth in income and wealth dispersion across social classes in Estonia, while not surprising, inspires questions over why class-level economic experiences failed to become significant predictors of attitudes towards the market system. The market mechanism was operating quite strongly, manifesting in class differentials in economic outcomes, so why has class failed to become more relevant in Estonia?

One possible explanation for the lacking development of class-based cognition in Estonia is that economic divisions across ethno-linguistic lines cut across class cleavages. Leping and Toomet (2008) have documented a substantial rise in the wage gap between the minority Russian population (who comprise more than 20% of the total population) and the titular ethnic Estonian population between 1989 and 2005. This coincided with the institution and practice of discriminatory language requirements (Leping and Toomet, 2008) and social discord over the non-citizen status of the preponderance of Russians residing in Estonia (Aasland, 2002). Others have shown that ethnic diversity, immigration and ethnic conflict may augment traditional relationships between economic risk at the individual level and attitudes towards economic policies and institutions (Finseraas, 2008; Stichnoth and Van der

Straeten, 2009; Alesina and Ferrara, 2005; Shayo, 2009; Soroka et al., 2006). It is plausible, therefore, that traditional class divisions in Estonia have been overshadowed by a more salient ethnic dispute, which has manifested in in the labour market as dispersion in economic vulnerability. It may not be the market system that is perceived to affect economic outcomes so much as ethnic origin or linguistic facility. Since this model of cognitive mobilisation assumes that class is viewed as relevant to economic risk and outcomes, ethnicity-based distraction from that economic reality might have arrested the process through which Estonians learned to associate class experiences with market forces. Despite these qualifying explanations for the divergent results for Belarus and Estonia, the empirical standard adopted for this analysis leads me to conclude that the second hypothesis is only partially supported. Overall, however, the marginal effect of class-level evaluations increased during the course of economic transition to a greater extent for strong transition countries, thereby lending further credence to the developmental model of cognitive mobilisation.

Table 4.6 shows the changing relationship between economic evaluations and judgements of the market economy over time, separated by class position. Model 1 presents the regression for working class citizens and shows that there is a strong interaction between class-level economic evaluations and time (p-value < 0.01). As depicted in Figure 4.5, this corresponds to an increase in the marginal effect of class-level evaluations over the course of economic transition. In 1993, the average marginal effect of a 1 unit increase in economic evaluations at the class level was a 4% increase in the probability of holding a positive view of the market's effect. By 2007, the marginal effect rose to 6.1%. By comparison there is a slight decline in the marginal effect of household and national evaluations over time, such that while in 1993 evaluations at both of these levels exert more influence over market judgements than those oriented towards class outcomes, by 2007 the marginal effect of class-level evaluations is greatest.

Table 4.6: Mixed Effects Logistic Regressions of Judgements of the Market System on Economic Evaluations at Three Analytic Levels, by Social Class Position (Working Class versus Middle Class)

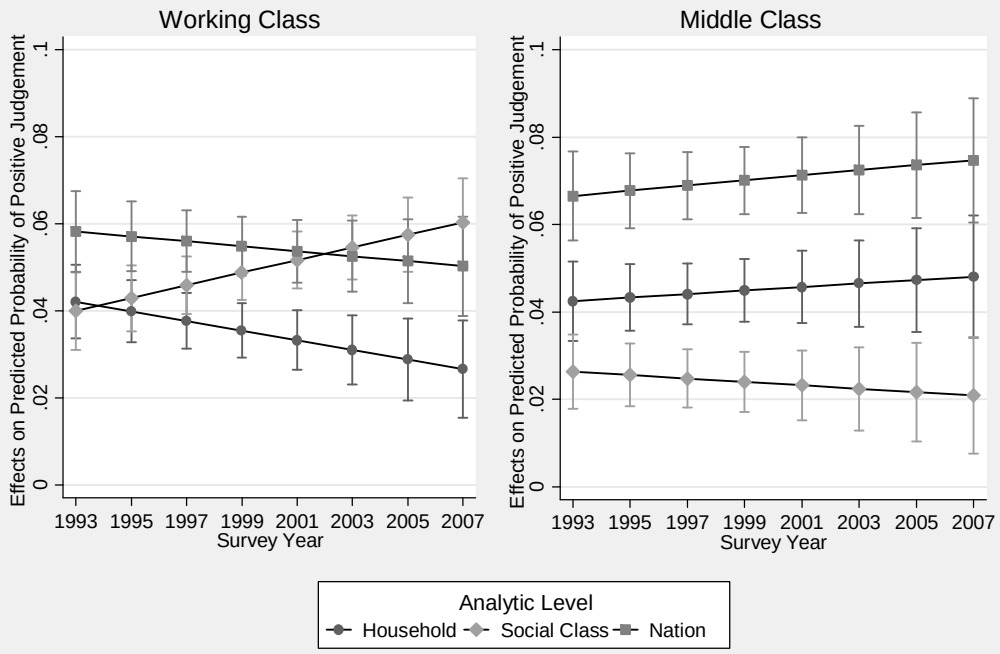
	(1)	(2)
	Working Class	Middle Class
Household Econ. Evaluation	0.184***	0.196***
	(0.0190)	(0.0205)
Household Econ. Evaluation X Survey Year	-0.00477*	0.00111
	(0.00242)	(0.00297)
Class Econ. Evaluation	0.174***	0.115***
	(0.0201)	(0.0175)
Class Econ. Evaluation X Survey Year	0.00664**	-0.00262
	(0.00231)	(0.00271)
National Econ. Evaluation	0.255***	0.292***
	(0.0213)	(0.0239)
National Econ. Evaluation X Survey Year	-0.00261	0.00322
	(0.00256)	(0.00314)
Survey Year	-0.00312	0.0115**
	(0.00312)	(0.00351)
Constant	0.438***	0.332**
	(0.116)	(0.123)
Covariates?	Yes	Yes
N Total	32027	19631
Log Likelihood	-19789.0	-11971.8
BIC	39671.4	24032.5

Notes: Robust standard errors in parentheses. * p<0.05 ** p<0.01 *** p<0.001. Source: EUREQUAL (1993 – 2007).

The results in Model 2 show the relationship for middle class citizens. In contrast to the results for the working class, there is no significant interaction between class-level evaluations and time at any analytic level. Consistent with results in previous chapters, class-level evaluations exert the least influence over judgements of the market system for this group, with marginal effects between 1.8% and 2.6%. As discussed in Chapter 2, manual workers may exhibit a more entitative quality, since their vulnerability to economic

conditions is determined by position in the occupational or social hierarchy, while the middle class cares

Figure 4.5: Marginal Effects of Economic Evaluations on Judgements of the Market System, by Survey Year and Class Position



more about the aggregate implications of the market mechanism as they influence individualistic opportunity. Since members of the working class in post-communist societies have less autonomy and influence over their economic fates than members of the middle class (Evans 1997), class-level outcomes are more salient for the former (see also Singer and Gelineau, 2010). As further demonstrated in Chapter 3, economic vulnerability at the group level influences the relative importance of class-level economic experiences to judgements of the market system. This is shown to result from more vulnerable groups experiencing stronger shocks from economic events, which permits them to more easily incorporate this information into attitudes towards prevailing institutions. Given the relative stationarity of living standards among the middle class, the class-level economic signals lack the requisite variation to enable developmental cognitive mobilization over the course of transition. Members of the working class, on the other hand, experience stronger average changes resulting from

economic events and condition, allowing them to progressively develop a sense of how the market system imparts differential effects across social groups. The third hypothesis is, therefore, strongly supported by the results.

4.5 Discussion

The above results show that over the course of politico-economic transition in Central and Eastern Europe, citizens relied increasingly on class-level economic experiences when forming judgements about the market system. This finding supports the notion that exposure over time to the market mechanism facilitates a learning process whereby individuals progressively observe how constituent institutions interact with group-level vulnerabilities to generate cross-group differences in economic outcomes. These results challenge the traditional model of cognitive mobilisation, which posits that heuristic cues afforded by class membership and identity ought to become less relevant with increased information and knowledge, as the net value of analytic processing supersedes that of informational shortcuts. Instead it appears, at least in the post-communist context, that citizens ascribe greater importance to these cues as they become familiar with how the system operates. In view of this and the past inconsistency of results, we might be justified in questioning both the generalised predictions of the cognitive mobilisation thesis as well as the manner in which the central construct is measured.

Although the analysis contained in this chapter is based on cross-sectional data and cannot directly test the hypothesised antecedent, the premise is strongly supported by the fulfilment of other empirical expectations which help to rule out other possible explanations. First, it is shown that the observed interaction between time and the marginal effect of class-level evaluations is robust to the changing marginal distribution of socio-demographic characteristics within countries. Especially telling is that highest level of education not only

fails to explain any of the increase in class-based judgement, but actually contributes no significant predictive value to the model. This does not suggest that education is unrelated to class alignments, but does indicate that it is irrelevant to the development of class consciousness concerning the market system. Second, the disaggregated model highlights that countries experiencing weaker transitions from state socialism to market capitalism experience a muted increase in the relationship between class-level experiences and assessments of the market system. Given that citizens must experience the differential effects of the market mechanism on class outcomes for them to be integrated into judgements, the finding that countries with greater state intervention exhibited a weaker interaction lends further credence to the argument that exposure over time is generating this effect. If all countries had shown a similar rise despite variation in transition strength, we would be inclined to question whether mobilisation is instead the result of some exogenous informational factor, such as elite communication. While this possibility is not entirely ruled out, the central hypothesis cannot be rejected on the basis of the analysis.

The final piece of support for the developmental model of cognitive mobilisation is seen in the class-specific model. Here it was shown that members of the more vulnerable working class figured class-level experiences more strongly into their judgements over the course of transition, while members of the middle class did not. This is consistent with the results presented in the third chapter, which show that economic vulnerability at the class level determines the ease with which class-based economic cues are observed. Since the working class is more sensitive to economic shocks and conditions, on average, they experience more variation in outcomes over time and factor this into their calculus. If both social groups exhibited a similar rise in class-based reasoning, we might wonder how the middle class, given their relative economic invulnerability, acquired sufficient economic signals to engender a significant rise in the link between class outcomes and judgements.

This does not negate the possibility that class experiences are important to the middle class, but does indicate that exposure to a certain standard of information is necessary for a process of cognitive mobilisation to occur.

In addition to showing that citizens in post-communist Central and Eastern Europe experienced a specific form of class-based cognitive mobilisation, this chapter gives further credence to the central thesis by demonstrating how class membership and identification influence the manner in which these individuals reason about political and economic institutions. It was shown that, conditional on social status and context, social classes become more salient cognitive objects in themselves through continued exposure to the differential effects of economic institutions on the groups. Class experiences are not initially powerful heuristics for making judgements, since there is minimal information about how institutions influenced these results. With on-going exposure, however, citizens acquire enough relevant information about the relationship between class position and the market mechanism to supplement their information about household- and national-level outcomes.

Two possible implications derive from the analysis above. First, if cognitive heuristics based on social group membership become more accessible over time along with the clarity of class-level informational cues, individuals may find it easier to process complex information regarding policies and political choices which may affect their lives. If this allows them to make choices that more accurately reflect their utilitarian preferences, democratic aggregation would tend to produce more efficient results. Second, we should expect growth in the strength of class-based political cleavages over time, since there is a heightened link between class experiences and appraisals of prevailing institutions which produces an opportunity for class mobilisation by political elites. Since the analysis does not explicitly rule out the possibility that developmental cognitive mobilisation is facilitated by communication from these actors, however, cleavage growth must be regarded as endogenous

to growing class consciousness. Despite this qualification, attention should be paid to rising opportunities for political opportunism during economic transitions so as to avoid the risk of anti-reform campaigns and the promotion of retrogression to state socialism.

Conclusion

In this final section, I summarise the main contributions made in this thesis. For each chapter, I describe the essential premises and questions that guide the theory and analysis. I also reiterate the main results and explain some of the substantive implications that follow, along with how this work contributes to extant research in political science and other conceptual domains. I then offer several concluding remarks.

The motivation for first chapter is based on the limitations of existing work on social identity, which has explained variation in group attachments through data gathered by way of laboratory experiments. While this has contributed greatly to verifying the internal validity of the social identity approach, data limitations have meant that this framework went untested in real world settings, leaving many questions unanswered. The analysis in this chapter overcame this hindrance through the application of self-categorisation theory to the case of citizens in post-communist Central and Eastern Europe using a novel empirical model. In particular, it addressed uncertainty surrounding causal determinants of social class identity strength in post-communist Central and Eastern Europe as well as the manner in which the identity calculus changed during the market transition.

The results demonstrate that social class identification is a function of individual-level comparison of respondents' own demographic and socioeconomic characteristics with aggregations of both in-group and out-group attributes. It is indicated that the more similar an individual is to his own social class compared to other classes on observable characteristics, the more strongly he identifies with his group. It was further shown that individuals espouse a certain level of social identification for the purpose of limiting uncertainty about the social and economic environment. This is evident through the finding that the more closely a given attribute relates to socioeconomic risk (for example, income), the more strongly comparisons

thereon factor in their identity calculus. It was also found that the changing nature of the comparative context in these transitional societies led to a change in the nature by which citizens define themselves as members of groups. We see that the market mechanism, by facilitating labour market sorting, increased the returns to skills and education across Central and Eastern Europe. As a result, educational attainment became a stronger determinant of socioeconomic risk and individuals updated their identity calculus to give more weight to this attribute in their self-conceptualization. This observation further supports the notion that class identification is largely motivated by a desire for clarity about the economic environment.

In view of previous work on the use of group-based heuristic cues for making reasoned political choices, these results imply that even in contexts characterised by weak systems of mass communication, it is possible that citizens can form meaningful judgements. Since social class identities are strongly determined by comparative perceptions of socioeconomic risk, ascertaining one's level of class prototypicality might improve the ability of electors to make reasoned judgments about important economic and political objects, even when information about the economy is limited.

Beyond verifying the validity of the social identity approach, these findings contribute to several strands of research in political science. First, cognitive economy research often considers the importance of group-based information for making political choices, without investigating the nature of social identities. The framework presented in this thesis shows that this construct is by no means universal and depends on both individual-level and contextual factors, which may affect how those cues are processed. This may have further implications for political economy research, which attempts to ascertain how social identification influences social welfare functions and preferences for redistribution. It may also lead some to augment heterogeneous models of economic voting and those linking group consciousness

to political participation, since the causal antecedents of social identity are likely to influence expectations about how those identities relate to observable behaviour.

The second chapter helps to overcome one of the analytic challenges surrounding the study of how citizens form judgements about their economic systems. At the individual level, these judgements tend to be counterfactual because they constitute one's opinion about how economic experiences would have differed in the presence of another system. The present thesis makes use of data from respondents who experienced a transition away from a planned system towards one driven by the market mechanism, such that their assessments are certain to be more firmly anchored in a comparative reality rather than based on speculative reasoning. Further to this, I investigated how economic evaluations at the social class level, in addition to those at the household and national levels, influenced judgements about the market system. Social class experiences are believed to be particularly important in these contexts since the economic transition from state-socialism to a market-based system is known to have benefited certain occupational groups more than others. I therefore sought to elucidate the individual-level circumstances under which citizens figure social class into their economic reasoning. Based on the results in the first chapter, I proposed that the strength of class identity is associated with stronger weight of class-level evaluations in judgements about the market economy because strong identifiers perceive themselves as being more typical of the group in terms of socioeconomic risk and therefore derive more instrumentally-relevant information from class-based observations.

Based on the results, several interesting observations were made. First, post-communist citizens were found to form judgements about the market system based not only on their perceptions of household and national experiences, but also those at the social class level. This implies that to overcome the issue of high error variance associated with household observations and the relative irrelevance of national observations, individuals also

considered the aggregated experiences of members of their social classes. Since the relevance of this information is expected to depend on how typical an individual is of his social class, I further tested the proposition that strong class identifiers accord class-level experiences more weight in their judgements. In support of this, I show that the marginal effect of class-level experiences is an increasing function of identity strength, whereby national evaluations dominate the calculus among weak class identifiers, while class-based cues are the strongest predictors of market assessments among strong identifiers. In addition, I show that this relationship is robust across social class position, as the relationship holds for members of both the working class and middle class, and throughout the course of transition. These ancillary results generated further questions that were addressed in the third and fourth chapters.

Building on the substantive implications regarding the analysis in the first chapter, these results lend further merit to the notion that if perceptions of economic risk and vulnerability factor into cognition by way of class-based cues, this information may plausibly facilitate heuristics for making economic judgements. Given that class identity strength was shown to be a rational function of risk-determining characteristics and that this variable seems to influence the class-basis of reasoning, it is plausible that citizens' observation of class experiences may help them to avoid the costly analytic processing of economic information or overcome informational deficits to make utility-optimising judgements. This would tend to be most important in transitional economies, where constraints on political and economic information are often significant. Furthermore, from an elite perspective, interpersonal variation in the strength of group-based reasoning may have implications for how scarce campaign or communicative resources are allocated. Group-based appeals would likely be most relevant to strong identifiers, so there may be some incentive for political actors to increase the salience of group experiences to potential electors.

The main contribution of the second chapter is to political science research concerned with heterogeneous political behaviour and group based reasoning. First, it offers further support to work arguing that group consciousness plays a significant role in attitudes and political choice. Second, it suggests that models of cognitive heterogeneity may be incomplete, since the relevance of not just class-level, but also national- and household-level information appears to vary across individuals as a function of perceive relative socioeconomic risk. Finally, it supports models, such as that presented in Shayo (2009), which posit that social classes are important economic objects and that identification therewith influences attitudes over policies and institutions.

In contrast to the second chapter, which investigates interpersonal differences in economic cognition within classes, the third chapter is motivated by a desire to understand differences in judgements of market institutions across classes. Building on signal detection theory in cognitive psychology as well as work in political science that links group status to the nature of economic voting, I addressed the possibility that certain occupational classes may derive more relevant information about the effects of transitional institutions from class-based cues because they receive clearer economic signals from aggregated group outcomes. I suggested that social classes characterised by greater socioeconomic vulnerability are likely to factor group-based economic experiences more strongly into their judgements of both the market and democratic system. They do this, I propose, because vulnerability leads individuals in groups to be more sensitive to economic shocks and conditions, which should lead the aggregate experiences of the most vulnerable groups to be more closely associated with market forces. I further posit that this relationship would be accompanied by lower reliance on household and national experiences, owing to the need to conserve scarce attention and cognitive resources.

The results largely support the main contention, by showing that members of social classes with the highest levels of unemployment risk and lowest average income and wealth weigh class-level experiences more strongly in their judgements of the prevailing economic and democratic institutions. While the direction of the marginal effect is as hypothesised, the estimates are shown to be insignificant for the wealth interaction in the model of economic judgements and for the unemployment interaction in the model of democratic judgements. The significant results are, however, shown to be to be robust to the inclusion of each dependent variable as a covariate in the alternate model, thereby suggesting that there is some complex mechanism by which certain measures of economic vulnerability predict signal clarity for specific institutions. There was also modest support for the argument that class-level evaluations supplant household and national evaluations for the most vulnerable, which may imply that group-based reasoning serves to supplement other cues.

Aside from providing further confirmation that citizens in transitional Central and Eastern Europe were not homogeneous masses, but responded to economic stimuli in a manner reflecting their varied levels of socioeconomic risk, the third chapter informs us of one potential societal implication. The results suggest that during an economic transition, political actors and supranational institutions may be justified in enacting programmes aimed at reducing the sensitivity of vulnerable groups to deleterious economic events, such as recessions, in order to prevent citizens from becoming class conscious. By limiting the amplitude of fluctuating living standards and allowing affected individuals to smooth consumption, it becomes more difficult for group members to attribute class outcomes to the emerging political and economic systems, which might otherwise benefit them. If this were to effectively weaken the cognitive link between economic institutions and group outcomes, there would be a lower risk that political agents would benefit from anti-reform mobilisation.

The third chapter makes several significant contributions to extant research in both cognitive psychology and political science. First, in showing that class-based economic signals are most effectively received and incorporated into the judgements of vulnerable groups, these results provide verification of the external validity of signal detection theory. Previous work in cognitive psychology has relied on experimental data for assessing how individuals respond to various stimuli when presented with competing information or 'noise'. In this case, it appears that for vulnerable groups, the salience of class cues emerges in relief against the more stationary information conveyed by invulnerable groups in a manner consonant with this framework. Second, the results serve to reinforce the observation in other work, such as Singer (2011), that group vulnerability influences how and the extent to which individuals make choices based on economic outcomes. In contrast, however, this chapter sheds light on variation in the importance of class-level experiences rather than those at the national level. In so doing, it offers a plausible mechanism for the hypothesised relationship, which had previously gone unspecified.

The fourth chapter takes a wider view of class-based economic cognition by considering how the process of transition, itself, influenced the evaluative calculus of post-communist citizens. Since, as was posited in the third chapter, transitional institutions variously affected social groups based on their differential socioeconomic risk, it was necessary to examine whether this information was integrated into judgements as a function of time or remained equally salient throughout the transition. More formally, I addressed whether class-level economic experiences became more salient to post-communist citizens with continued exposure to the market mechanism, and whether they factored more strongly into their attitudes towards the market system. To further interrogate the central assumption behind this proposition, I sought to determine whether any increase over time in class-based reasoning was larger for strong transition countries compared to those that experienced weak

transitions. Also, to ensure consistency with the results of the third chapter, I tested whether any class-based cognitive mobilisation was greater for the more vulnerable working class compared to the middle class.

The results for Chapter 4 confirm my suspicion that social class experiences become stronger predictors of market assessments throughout the economic transition. The marginal effect of class-level evaluations is dominated by those at the household and national level in 1993 and comes to be statistically indistinguishable from the effect of national level evaluations in 2007. While there were a few outlying results for individual countries, it was largely shown that strong transition countries experienced more pronounced class-based cognitive mobilisation than weak transition countries. This implies that the market mechanism was, in fact, interacting with citizens on the basis of their latent socioeconomic risk, such that weak transition institutions muted the information which would be incorporated into their reasoning as a function of exposure. The final observation supported the hypothesis that class position moderated the strength of class-based cognitive mobilisation. The results showed that for members of the working class, class-level economic experiences figured more strongly into judgements of the market system over time, while the relationship for middle class was insignificant. This supports the notion that the relative stationarity of living standards for the middle class suppressed the process through which they might observe how market institutions affect them as a group.

These results may be cause for both optimism and concern. If class-based cues become more efficient means for heuristic processing over time, the informational deficits that tend to define transitional countries during their early stages might be progressively overcome as citizens acquire continued exposure to the market mechanism. This may permit them to make choices that more closely coincide with their utilitarian preferences. Concern is also warranted, however, in that rising class-based judgements of prevailing institutions might

engender the growth of class-based political cleavages over time. While a class basis for party politics is not in itself a concern, caution must be exercised regarding the potential for anti-reform class-based mobilisation by elites, which might result in institutional retrogression. It is evident that this is not merely a potential issue during the early stages of transition, as the risk may increase over time.

The fourth chapter contributes, in particular, to political science research concerned with cognitive mobilisation and social class cleavages. Traditional models of cognitive mobilisation focused on how variables such as increasing levels of education and political awareness influenced supranational integration and partisan and group-based political alignment. In contrast, the framework in this chapter considered the epistemic role of experience with transition institutions in the development of group-based cognition. It challenged the notion that cognitive mobilisation reduces reliance on class cues for making politico-economic judgements, instead showing that there is a rational reason for this information to become more salient over time. Also, although the analysis does not test for the existence of class cleavages in transition economies, this model of cognitive mobilisation presents a plausible mechanism through which they might take form. These results, in view of those in preceding chapters showing an association between class identity and perceptions of socioeconomic risk, indicate one possible reason for the observed resilience of class cleavages, despite the expectation of class dealignment.

Viewed as a whole, this thesis has shown that social class figured prominently in the minds of post-communist citizens, at least to the extent that group experiences influenced their judgements of transition institutions. Furthermore, while the notion that social class is operationalisation of socioeconomic risk has been previously discussed, the analysis above converges to indicate that these identities are largely influenced by perceptions of risk and vulnerability. It makes apparent that this relationship is responsible not only for the

observations seen here, but also those in other research that indicates a moderating role of group identity and consciousness in cognitive processes, as well as those demonstrating the presence and resilience of class differences in voting behaviour and social attitudes. Although this narrative is comprehensive, it is confined to a specific region and period in human history. It is hoped, therefore, that this work will inspire and assist future research on class identities and heterogeneous economic cognition in other transition economies and political contexts.

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