

**Mass Privatization, Distributive Politics,  
and Popular Support for Reform in the Czech Republic**

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## CONTENTS

Abstract	4
Acknowledgments	5
1. Introduction	7
2. The Model	14
3. Data	17
4. Restitution	22
4. Voucher Privatization	27
5. Employment Experience	35
6. Labor Force Status and Simultaneous Tests of Hypotheses	40
7. Conclusion	45
References	48
Tables and Figures	51

## **ABSTRACT**

This paper presents an empirical analysis of the role of privatization policy design in creating a constituency for economic reform, focussing on the case of the Czech Republic in the early 1990s. Drawing on a sample survey of 1459 Czech individuals in January 1996, we construct attitudinal indicators of the respondents' reactions to reforms, their opinions on the roles of the state and the market in the economy, their perceptions of the legitimacy of transition, and their democratic values. Using ordered probit estimation techniques, and controlling for income and a variety of other characteristics of individuals, we find that receiving property through the extensive Czech program of restitution is strongly associated with higher support for reform, for markets, and for democracy. Concerning the voucher privatization program, we find that participants tend to be more supportive of reform than non-participants, but most of this effect is accounted for by the stronger support of participants who have retained their shares rather than selling shortly after receiving them. Among workers employed in firms of different ownership types, there is a weak tendency for workers in privatized firms to oppose reforms, but a clear propensity of entrepreneurs to support them. The results provide evidence for the hypothesis that the particular design of a reform program may have important effects on the attitudes of the citizenry, including their willingness to support the reform and their faith in markets and democracy.

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*...the most important of all revolutions...[is] a revolution in sentiments, manners, and moral opinions.*

Edmund Burke (1790: 70)

*The main obstacle to reform is the people.*

Adam Przeworski (1993: 185)

## 1. INTRODUCTION

Understanding the ongoing “revolutions” in Eastern Europe and the former Soviet Union demands, like few events in world history, a recognition and analysis of the interaction between economics and politics. From the beginning of their attempts at social-political-economic transformation after the revolutionary breaks of 1989, the reformist policymakers of the region have had to take into account the political constraints on the design of economic policies *ex ante*. Policies to harden budget constraints, to liberalize prices and imports, and to privatize shops and enterprises have had to appeal to the general population and to various vested interests and lobbies that might block their adoption. The attitudes of the citizenry, the strength of interest groups, and the nature of the constraints these presented have varied across countries, depending *inter alia* on the characteristics of the previous socialist system, including the nature of any partial reforms which had been adopted.<sup>1</sup> But in all countries, it was widely believed at the beginning of the process that within a few years popular euphoria with reform would dissipate and the anti-reform lobbies would consolidate and strengthen their positions, so that there might be only a rather short-lived “period of extraordinary politics” or “window of opportunity” during which an “autonomous” government could introduce and implement radical innovations and after which only marginal changes would be politically feasible.<sup>2</sup>

Although these initial conditions may have imposed effective constraints on the initial policy designs, it was not necessarily true, however, that the political environment of the economic reform process was wholly exogenous. Far-sighted reformers could have been concerned not only about the immediate adoption of their proposals, but also about the political impact of their policies *ex post*. Perhaps the expected collapse in popular patience was not completely inevitable, but could at least be attenuated or postponed by well-chosen policies. Whether positive or negative, the potentially deep impact of the transformation on so many aspects of daily life suggested that popular reaction to the initial policies might be a critical determinant of the political constraints on subsequent reforms, thus on the political sustainability of the overall reform process. Moreover, the fear that even the initial reforms might be easily overturned if public opinion turned against the program implied that policymakers also had to consider the degree of irreversibility inherent in their choice of design. If neglected, popular support for the process might erode to such an extent that renationalization, re-imposition of

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<sup>1</sup>Much of the literature on the politics and economics of transition has dwelt upon these *ex ante* political constraints on economic policymaking, and comparative research has analyzed the origins and consequences of the differences across countries. For instance, it may be argued that decentralizing reforms strengthened the influence of enterprise directors in Hungary and (later on) in the Soviet Union, but tended to enhance worker power in Poland, while in such countries as Czechoslovakia and Romania the system remained relatively tightly centralized, inhibiting interest group formation. The impacts of these different socialist histories on the adoption of privatization policies are discussed, e.g., by Stark (1992) and Earle, Frydman, and Rapaczynski (1993) for the Central European countries, and by McFaul (1994) and Boycko, Shleifer, and Vishny (1995) for Russia.

<sup>2</sup>See, e.g., Lipton and Sachs (1990), Haggard and Kaufman (1991), or Przeworski (1991).

controls, and resoftening of budget constraints might become conceivable. Given that the process of systemic change was bound to last for years if not decades, a rational reformer would have tried from the outset to anticipate multiple stages of feedback between politics and economics, reckoning from the beginning on the endogenous evolution of political conditions as a function of economic policy choices.

Most analyses of this interaction in political and economic transitions have focussed on the expected negative impact of reform on the aggregate economy (usually represented as the national unemployment rate or the real GDP growth rate), and therefore implicitly on overall living standards, in the short run. Reform is considered to trigger a “J-curve” development: the costs of adjustment to the new policies bring about an initial phase of economic decline, followed only after some time by higher growth. [e.g., Przeworski (1991), Haggard and Kaufman (1993)]. Under this scenario, the political problem faced by the reformist policymaker is the tendency for the citizenry to become “impatient” during the initial recessionary phase, resulting in backlash against and possible reversal of the reform program. More rapid reforms (the so-called “big-bang” or “shock therapy” strategy) may cause an earlier and deeper recession than would the slower (“gradualist”) approach, but to some extent the negative reaction to reform may be inescapable in either case.<sup>3</sup> Some analysts have even drawn the conclusion that reformers face a “cruel choice” between democratization and economic reform: a rather authoritarian, or at least highly insulated, political system may be a necessary prerequisite for a successful economic transition.

Within the analytical confines of macropolitical-economy, such pessimism appears to be difficult to escape. Jowitt (1992), for instance, lays stress on the over-riding importance of the political culture that is the “Leninist legacy” throughout Eastern Europe; interestingly for our purposes, he picks on the example of the Klaus government in the Czech Republic: “he is without any well-delineated sociopolitical constituency to offer regular support for his program! What is likely to happen? Klaus’s economic reforms will fail.” (Jowitt 1992: 303) Others see the only solution in “generational change.” Only slightly more optimistic about this dilemma, Przeworski (1991 and 1993) proposes fuller “consultation” and “concertation” among all affected parties in the design of the policy, hoping that the results will thereby be made more acceptable to the populace. Somewhat similarly, Duch (1993) and Linz and Stepan (1995) see the support for economic reform as deriving from democratization, the former arguing on the basis of an observed positive correlation between democratic values and support for reform in an empirical study of Soviet public opinion, and the latter on the basis of the claimed superior legitimacy of democratic institutions to market, or particularly capitalist, institutions. As characterized by Fish (1996), “radical reform immediately creates more losers than winners, so that the only real basis for support for

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<sup>3</sup>“Shock therapy” may be worse if adjustment costs and/or the option value of policy reversal are high, and it may be more difficult to sell politically. On the other hand, the gradualist strategy may be inferior or infeasible on economic grounds (for instance, due to critical mass effects of private sector development), or it may be politically infeasible (for instance, due to a limited window of opportunity in which radical reforms may be adopted). See, e.g., Roland and Verdier (1994) for more discussion.

economic liberalism - at least in the early years of transition - is the tenuous reed of ideological commitment.”

But the important questions remain: Does the policymaker have any means, besides rhetoric, to affect the ideological commitment to reform? If so, how?

In this paper, we argue that the micropolitical-economic details of policy design matter. Holding constant any aggregate economic effects, which as we have suggested are probably not under the control of the policymaker (certainly not in the short run), both the distributive aspects of the reforms and the process by which they are implemented determine the way in which individual citizens experience them. Our hypothesis is that those experiences may affect the attitudes of citizens, including their evaluation of the reforms that have been enacted, their optimism about the future consequences of reforms, their opinions on the roles of the state and the market in the economy, their democratic values, and their perceptions of the fairness and legitimacy of the economic transition.

The paper develops this argument by investigating the role of privatization policy design in the Czech Republic, the country to adopt the earliest and arguably the most successful version of “mass privatization.” Unlike unemployment and growth, the focus of much of the literature on the political economy of transition, privatization is more clearly a policy instrument of the government; within some limits, policymakers have been able to determine many aspects of the process. Privatization was also a central linchpin, if not *the* centerpiece of the transition policy of the Czech (and earlier the Czechoslovak) government. Whatever the economic benefits or shortcomings of the policy design, which have been the subject of much debate that is not our purpose here to join,<sup>4</sup> we draw attention in this paper to the program’s political impact, through its effects on popular support for the reform process.

Of course, given their immense distributional effects, it is hardly in dispute that privatization policies in Eastern Europe have been politically significant. Indeed, popular discussions of the privatization process in transition countries focus much more on issues of equity - the “theft” by managers, the “rights” of workers, the “giveaway” to foreigners of the national patrimony - than of efficiency. But most of the research on the political economy of privatization has focussed on issues of *ex ante* design,<sup>5</sup> and, despite a voluminous literature on the political and economic attitudes of citizens in these countries, there appears to be little or no empirical work that has attempted to relate the attitudes held by an individual to his or her experience of privatization policies,

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<sup>4</sup>Several aspects of the Czechoslovak privatization strategy have come under criticism, as we discuss below. A complete economic evaluation of the program awaits the passage of time and the collection of extensive data. For a preliminary study, see Earle, Frydman, Rapaczynski, and Turkewitz (1994).

<sup>5</sup>The *ex-post* effects of some types of privatization on the interests of the citizenry have been studied in some explicit models (e.g., Dewatripont-Roland (1992) and Schmidt (1996)), but there has as yet been little or no empirical evidence on whether the attitudes of individuals are influenced by their privatization experiences. An exception is the work of Earle and Rose (1996a and b) on the relationship between political attitudes and the experience of ownership in the workplace in Russia.



*ex post*.<sup>6</sup> Indeed, it is noteworthy that studies of political attitudes and voting behavior in the West also seldom consider as potential determinants variables that represent an individual's direct experience with government policies. Instead, they focus on the effects of other attitudes (including opinions about policies and subjective evaluations of their effects), of family background and other social characteristics (education, income, and occupation), or of macroeconomic performance (such as unemployment or GDP growth) - none of which are under the control of policymakers.<sup>7</sup>

Our study analyzes the politics of three aspects of the privatization process and conducts empirical tests of each of their *ex post* effects on popular support for reform in the Czech Republic. First, we examine the impact of the restitution of property which had been nationalized by the Communist regime, also providing new information on the extent and nature of the program. Although the policy benefitted a particular constituency, we argue that it was designed and marketed to maximize its political benefits to the reform-oriented government. Controlling for income and other individual and family characteristics, we test whether restituteds are more likely to support reform, markets, and democracy.

Second, we analyze the design of the mass privatization program, which was based on the participation of citizens using vouchers, and we again provide new information on its outcomes. In testing the impact of the program on attitudes towards reform, we not only distinguish participants from non-participants, but also those participants who, at the time of the survey, had retained their shares rather than selling them for cash. We test the hypotheses that participants exhibit greater inclination towards reforms than nonparticipants, and that, among participants, the shareholders have a greater tendency to support reforms than do the sellers.

Finally, we analyze the impact of experience of alternative ownership forms in the workplace, focussing particularly on three comparisons: "old" organizations that were state-controlled prior to the Velvet Revolution versus "new organizations" that have been created *de novo* since that time; within the "old" sector, privatized firms versus those remaining in the state sector; and, within the "new" sector, entrepreneurs and self-employed who have started new ventures versus employees who work for such businesses. The survey data provides new information on the relative size of each of

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<sup>6</sup>Studies of individual attitudes towards economic transition in Eastern Europe and the former Soviet Union include Duch (1993 and 1995), Evans and Whitefield (1995), Finifter and Mickiewicz (1992), Gibson, Duch, and Tedin (1992), Hough (1994), Przeworski (1996), Reisinger, Miller, Hesli, and Maher (1994), Rose and Haerpfer (1996), Rose and Mishler (1994), Shiller, Boycko, and Korobov (1991 and 1992), Stokes (1996), Večerník (1996), and Whitefield and Evans (1994), but none of this research attempts to link attitudes of the individual directly to his/her actual experience of specific reforms. Voting studies, including Colton (1996), Fidrmuc (1996), Grigoriev, Nagaev, and Woergoetter (1994), and Matějů (1995) have examined some economic experiences as determinants of political preferences, but the focus is generally on unemployment or the data is aggregate.

<sup>7</sup>One interesting exception, which came to our attention only after we had finished the research for this article, is Garrett's (1994) analysis of the impact of Prime Minister Thatcher's privatization policies on the voting behavior of British citizens in the 1980s.

these groups, information which sheds light on the progress of the Czech transition but which is not fully captured in official statistics. We test for differences in across each of the pairs of groups in their attitudes towards reforms, markets, and democracy, while simultaneously controlling for restitution, mass privatization participation, income and other factors.

That experience of privatization would increase support for reforms in the Czech Republic is by no means to be taken for granted: it is possible that individual attitudes are not easily influenced by experiences, at least those that can be affected by public policies. Such a view is consistent with the view of many economists that fundamental preferences (attitudes) do not vary significantly over time and across cultures.<sup>8</sup> It is also consistent with some cultural and modernization theories of attitude formation (e.g., Eckstein 1988 and Finifter and Mickiewicz 1992), with “symbolic politics” (Sears *et al* 1980), and with scholarship that has emphasized the importance of the “legacy” of the socialist system, including both indoctrination and habituation as having formed attitudes that tend to persist and do not easily change.<sup>9</sup>

Neither the general issue of whether and how attitudes may change, nor the particular question addressed in this paper of the impact of privatization policies upon them, can be decided on purely theoretical grounds. Rather, the question must be addressed with empirical evidence, which it is our main purpose to provide. Nonetheless, but it is useful to delineate the various conceptual channels through which we hypothesize the Czech privatization policies might have had an impact on individual attitudes.

The first potential channel is self-interest: the privatization program may have developed a set of stakeholders who would see their own interests as tied to further reform. Restitution greatly expanded the set of owners of real property in the Czech Republic, as the voucher privatization did the number of owners of financial assets. Liberalization of private economic activity permitted entrepreneurial activity, also creating

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<sup>8</sup>Shiller, Boycko, and Korobov (1990 and 1991) are commonly associated with the viewpoint that Soviet and American attitudes are not significantly different, but their results contain a number of ambiguities, for instance with respect to the desirability of state controls on prices (an issue we also examine). Their strongest findings pertain to the choices respondents report they would make in hypothetically described situations, which abstracts from the different environments in which they actually live.

<sup>9</sup>Jowitt's (1992) views on the “Leninist legacy” and political culture in the Czech Republic have already been cited. Sztompka (1991: 297) takes an even stronger view on the “entrenched” “residues of the communist system” both “at the level of the cultural codes” and “at the level of political attitudes.” Hahn (1991) argues that political culture (which, “if it has any meaning conceptually, is presumed to change slowly” - P. 394) does indeed matter, but finds it does not differ appreciably in a sample of Yaroslavl residents from the National Election Survey results in the U.S. The claim that attitudes towards markets and politics are very slow to adjust has an interesting parallel with one strand of the “gradualist” argument on economic policy, which asserts that the “organizational capital” of the socialist enterprises may be “rendered non-viable by a rapid change in the environment.” (Murrell 1991)

many new jobs. The incentives of these groups may have been changed by privatization in favor of an increased role for markets and a diminished economic role for the state. On the other hand, a negative rather than a positive effect might be expected from the experience of painful restructuring in privatized enterprises, where workers may feel themselves to be the victims rather than the beneficiaries of private ownership. In the terminology of voting studies, these effects are "prospective" and "pocketbook:" rational individuals are presumed to prefer policies that will benefit them in the future.<sup>10</sup> Thus, there would be no impact of receiving property through privatization if it is consumed, but only if it is retained.<sup>11</sup>

Second, it is possible that the beneficiaries of privatization may feel gratitude for the system or the set of policies to which they give credit for having proposed and implemented the policy. The Czech privatization program, as in other transition countries, has involved the (re)distribution of a large fraction of the nation's wealth, so there would be ample scope for feelings of appreciation. In the voting terminology, gratitude is retrospective and pocketbook. It may be treated as something nonrational (such as reciprocal gift-giving), or it may be interpreted as the outcome of information-processing by a boundedly rational individual who calculates that a set of policies that benefitted him/her in the past are likely to do so in the future.<sup>12</sup>

Third, the Czech privatization policies may have helped to increase individual understanding of the goals of transition, particularly because the mass privatization program required very active participation from the citizenry. As we discuss in detail below, the Czech privatization design increased the incentives of all citizens to compete in acquiring information on the different enterprises and investment funds in which they could invest. Restitution did the same for restitutees with respect to the uses of their returned property, and liberalization for entrepreneurs with respect to the most profitable new business opportunities and for employees searching for better jobs in the new private sector. The first experience of most Czechs with market mechanisms were these experiences of the privatization process, and particularly the voucher privatization abruptly forced them to behave as market actors - financial investors - as they had never done before. The design of the process was therefore critical to the extent and nature of the social learning that took place, and to the types of new market institutions (including expectations, behavioral modes and routines, and organizations, such as funds, consultancies, etc.) that were created. Positive initial experiences may contribute to support for further reform and market development due to "sociotropic" preferences of individuals over the general economic environment, regardless of their (in)ability to forecast the outcome of the reform for their own pocketbooks.

Finally, and closely related to the previous channel, is the role of the design of the privatization program in helping to legitimate the overall transition. By opening the

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<sup>10</sup>See, for instance, Fiorina (1981) or Kinder and Kiewit (1979).

<sup>11</sup>If consumed, the property can be considered a "sunk" benefit, and should not affect the behavior of a rational individual.

<sup>12</sup>Downs (1957) employs this argument with respect to voting behavior, where individuals use information on past behavior of incumbents to forecast their future behavior.

process to all citizens and providing relatively equal opportunities for them to participate, the Czech government may have increased the perceptions of fairness and transparency of the program. The absence of preferences given to managers and employees of enterprises and the relative lack of opportunities for *nomenklatura* or “spontaneous” privatization in the Czech program (as we elaborate below) stand in striking contrast to the practice in most other East European countries of granting special preferences (free shares or sales at discounted prices, cheap loans, pre-emptive rights of purchase, etc.) to favored groups - through both formal and informal means. Although it would obviously be an exaggeration to say that the Czech program contained no possibilities for favoritism, self-dealing, or corruption, the outcome of the program was determined to a substantial extent by the choices of the citizens themselves, an impact which they could sense and for which they had to take a measure of responsibility. These participatory factors may enhance support not only for market economic reforms, but also for democratization, by increasing the trust in both processes.<sup>13</sup>

To examine these questions, we analyze individual data from a survey of 1459 adults conducted in the Czech Republic in January 1996. The survey contains a variety of indicators of the respondents’ attitudes towards the reform process, including pocketbook and sociotropic indicators, beliefs concerning alternative economic systems and policies, and feelings concerning the legitimacy of reforms and the viability of democracy. We designed the questionnaire to elicit information on participation in several aspects of the privatization process and on demographic, economic, and other characteristics of the respondents.

To test our hypotheses on the relationships between attitudes and experiences of privatization and ownership change, we estimate functions in which attitudinal variables are dependent variables; because the latter are categorical, the statistical technique is ordered probit. The key right-hand side variables on which we focus are the measures of experience of the privatization process, but we control for a variety of other characteristics of the individual and his/her family to try to remove the effects of third factors tending to increase both pro-reform attitudes and the probability of the privatization experiences. The equations should be understood as reduced form, rather than as structural: there is considerable overlap across the various conceptual channels we have discussed above, and it is not the primary purpose of this paper to attempt to measure them separately and assess the relative magnitude of their effects. Furthermore, the effects on attitudes and voting behavior may be mediated through a variety of other variables that we are unable to measure and therefore do not investigate.

The rest of the paper is organized as follows. Section 2 presents our statistical model of the determination of attitudes, and section 3 the construction and characteristics of the data set and our key indicator variables of attitudes towards reform, markets, and democracy. The following three sections examine the major dimensions of the political economy of ownership transformation in the Czech Republic: restitution (section 4),

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<sup>13</sup>By fostering trust, positive experiences with privatization may also have contributed to the development of civil society. On the relationship between trust and civil society, see Rose (1994).

voucher privatization (section 5), and experience of ownership in the workplace (section 6). In each instance, we first analyze the nature of the privatization process, using our survey data to provide new information on the participation and experiences of individuals. We then relate that experience to three sets of attitudinal indicators:

- A. Evaluation of economic reform, including reactions to past reforms and expectations about the future effects of reform
- B. Opinions of economic policies and the economic role of the state
- C. Beliefs about the legitimacy of reforms and democratic values.

In three tables corresponding to these three sets of indicators in each section, we report the estimated ordered probit functions as well as the result of alternative policy simulations, such as no restitution program or no mass privatization, and the estimated marginal effects of the privatization variables on support for reform. Section 7 concludes with a discussion of the some of the broader implications of this work.

**2. THE MODEL**

This section presents the ordered probit model that we use to examine the role of privatization policies in the determination of attitudes in this paper. We assume that each individual, indexed by subscript “i,” possesses well-defined attitudes (subsuming preferences, values, beliefs, expectations, and evaluations) on issues such as the course of economic reforms, the expected future consequences of reforms, the proper role of the state and markets in the economy, the legitimacy of the reform, and democratic values. In our notation,  $Y_i^*$  alternatively denotes these different attitudes of individual i. We further assume that each attitude may be expressed as a linear function, common across individuals, of the individual’s privatization experiences,  $Z_i$ , and of other characteristics,  $X_i$ :

$$Y_i^* = X_i\beta + Z_i\gamma + \varepsilon_i ,$$

where

$Y_i^*$  = attitude (alternatively, views towards various aspects of reform, markets, democracy)

$Z_i$  = vector of privatization experiences (restitution, voucher privatization, workplace ownership)

$X_i$  = vector of personal characteristics (income, age, gender, education, family and job characteristics)

$\beta, \gamma$  = vectors of parameters to be estimated

$\varepsilon_i$  = unobserved residual.

We are interested in testing the hypothesis that  $\gamma$  is significantly different from zero in this equation. If we scale  $Y^*$  such that larger values imply greater support for reform, markets and democracy, then we are interested in the possibility that  $\gamma$  is positive for variables reflecting experiences such as receipt of property in restitution, participation in voucher privatization, retention of shares, and working in the new private sector as an

employee or as self-employed. It is also possible that  $\gamma$  is negative for the experience of working in a privatized company undergoing restructuring.

Of course, the estimation problem is that we cannot observe  $Y^*$  directly. As we describe below, the attitudinal indicators in our data set consist of the responses of individuals to statements reflecting positions on the course of reforms, on the roles of markets and the state in the economy, on democracy, and on the legitimacy of the transition. Respondents were requested to indicate their agreement or disagreement, “strongly” or “somewhat” with the statement. We assign values from 0 to 3 to these 4 categories. Therefore, the data can be treated as though we observe a qualitative variable  $Y$ , with 4 categories as follows:

$Y_i$	=	0	if $Y_i^* \leq 0$	(“not at all” or “strongly disagree”)
	=	1	if $0 < Y_i^* \leq \mu_1$	(“a little” or “rather disagree”)
	=	2	if $\mu_1 < Y_i^* \leq \mu_2$	(“somewhat” or “rather agree”)
	=	3	if $\mu_2 < Y_i^*$	(“very much” or “strongly agree”)

where  $\mu_1$  and  $\mu_2$  represent the common “thresholds” across which individuals switch categories, with  $0 < \mu_1 < \mu_2$ . Together with  $\beta$  and  $\gamma$ , the category thresholds are parameters to be estimated by the model. Under the conventional assumption that  $\varepsilon$  is distributed as a standard normal [ $\varepsilon \sim N(0, 1)$ ], we can compute the probabilities of an observation falling within each category as a function of the  $X_i$  and  $Z_i$ :

$$\Pr(Y_i = 0) = \Pr(Y_i^* \leq 0) = \Pr(\varepsilon_i \leq 0) = \Phi(-X_i\beta - Z_i\gamma)$$

$$\Pr(Y_i = 1) = \Pr(0 < X_i\beta + Z_i\gamma + \varepsilon_i \leq \mu_1) = \Phi(\mu_1 - X_i\beta - Z_i\gamma) - \Phi(-X_i\beta - Z_i\gamma)$$

$$\Pr(Y_i = 2) = \Pr(\mu_1 < X_i\beta + Z_i\gamma + \varepsilon_i \leq \mu_2) = \Phi(\mu_2 - X_i\beta - Z_i\gamma) - \Phi(\mu_1 - X_i\beta - Z_i\gamma)$$

$$\Pr(Y_i = 3) = \Pr(\mu_2 < X_i\beta + Z_i\gamma + \varepsilon_i) = 1 - \Phi(\mu_2 - X_i\beta - Z_i\gamma),$$

where  $\Pr$  stands for probability, and  $\Phi(\omega)$  for the cumulative normal distribution from  $-\infty$  to  $\omega$ . The parameters of the  $Y^*$  function as well as the category thresholds can then be estimated using maximum likelihood, where the contribution of any single individual to the likelihood function is simply given by the formula for the probability of observing him/her in the observed category, conditional upon his/her characteristics.

Besides estimating the  $\beta$  and  $\gamma$  parameters, and drawing inferences about the statistical significance of the estimates, we are interested in calculating the implied magnitude of the impact of  $X$  on  $Y$ . For this purpose, we use several alternative measures. First, a rough notion of whether an effect is meaningful in size can be gleaned from a comparison of the estimated coefficient with the estimated thresholds,  $\mu_1$  and  $\mu_2$ . Where  $\gamma$  is “small” relative to  $\mu_1$ , this means that it is unlikely that an individual would be induced to move from the category given by  $Y=1$  to the category  $Y=2$ , except for those who are already close to the threshold. On the other hand, a value of  $\gamma$  that is “large” relative to  $\mu_1$ , for instance equal to about  $.5\mu_1$ , implies that more than half the individuals in category  $Y=1$  would shift to  $Y=2$  (more than half in the usual case where the density is greater close to the righthand threshold). Similarly, we can compare  $\gamma$  with  $\mu_2 - \mu_1$ . Although this method provides only a crude approximation, it is still useful, given the large number of marginal effects one could conceivably compute for the different

independent variables (also, conditioning on different values for the other variables), and particularly so for identifying effects that are negligible.

A better estimate of the impact of the policy variables can be obtained from policy simulations, using the predicted probabilities of observing an individual choosing each of the categories under different conditioning assumptions. For instance, take the case where  $Z$  is a single dichotomous variable (in practice, all our measures of  $Z$  are qualitative indicators). Thus, we may compute the probability that an individual chooses category “ $j$ ” conditional on her/his characteristics, separately for  $Z_i = 0$  and  $Z_i = 1$ :  $\Pr(Y_i = j | X_i, Z_i = 0)$  and  $\Pr(Y_i = j | X_i, Z_i = 1)$  for each category “ $j$ ” ( $j=0, 1, 2, 3$ ). Defining these two estimated probabilities as  $P_{ij0}$  and  $P_{ij1}$ , respectively, a prediction of the conditional incidence of category  $j$  can be derived in each case:

$$P_{j|z=0} = (1/n)(\sum_i P_{ij0}) \text{ and}$$

$$P_{j|z=1} = (1/n)(\sum_i P_{ij1}).^{14}$$

The impact of  $Z$  on  $Y$  is then the change in the distribution of the 4 mean probabilities across states  $Z = 0$  and  $Z = 1$ . As summary measures of this change, we examine the following two indicators:

$$\text{Elasticity of “strong support” with respect to } Z = (P_{3|z=1} - P_{3|z=0}) / P_{3|z=0}$$

$$\text{Elasticity of “support” with respect to } Z = (P_{3|z=1} + P_{2|z=1} - P_{3|z=0} - P_{2|z=0}) / (P_{3|z=0} + P_{2|z=0}).$$

The elasticity of strong support measures the predicted proportionate increase in the incidence of category 3 associated with the change from  $Z=0$  to  $Z=1$  for the whole sample, and the increase in support shows the analogous response in categories 2 and 3. We call them elasticities because they are scaled by the predicted incidence under the baseline of  $Z=0$ .

Finally, in our reports of these simulations in the tables of results below, we sometimes divide the sample into a “treatment” group (those who experienced the policy, i.e. whose actual  $Z_i = 1$ ) and a “control” group (those who did not, i.e. whose actual  $Z_i = 0$ ), and conduct the simulation on each of the two groups separately. There are several reasons for doing so. To begin with, the two groups may differ in terms of their other characteristics as well. If those characteristics are correlated with  $Z$ , then the impact of  $Z$  may also differ across the two groups, suggesting that extending the program to the control group could produce a different effect that it had on the original treatment group. If the estimated impact differs, this suggests there may have been some selection bias, so that people of certain characteristics were more likely to be included. Furthermore, a realistic policy simulation sometimes does not involve the comparison of everyone “affected” compared to everyone “unaffected,” since budgetary or other constraints may affect the feasibility of extending a program to “affect” or “treat” everyone. Rather, the more relevant simulation in many situations involves the comparison of only the treatment group with and without the treatment: the control group is presumed to remain unchanged. The estimated aggregate impact of the actual policy

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<sup>14</sup>If we estimate the  $\Pr(Y_i | X_i, Z_i)$  function by maximum likelihood, then these are also the maximum likelihood predictors, and as such are consistent and asymptotically efficient. See Cramer (1991: 86).

on the incidence of an attitude is simply the estimated elasticity for the treatment group, scaled by their share in the total population. In other cases, such an extension or expansion of the program may in fact be feasible; thus, our results provide estimates of the impact of such a policy change.

### 3. DATA

This section describes our data source, the attitudinal indicators that are our dependent variables, and the demographic and economic characteristics of individuals that we employ as control variables in our analysis. We postpone the description of the privatization variables, and the development of our specific hypotheses concerning their impacts upon individual attitudes, until later sections.

Our data are drawn from a nationwide survey that is part of an ongoing series called the "Surveys of Economic Expectations and Attitudes" (EEA), organized by the Institute of Sociology of the Academy of Sciences of the Czech Republic in January 1996. Sampling was done according to a two-step quota procedure, using settlement size and region in the first step, and age, gender, and education in the second. The procedure assured that the sample is fairly representative of the Czech population. (Unfortunately, no census or residence registration lists were available from which a fully random sample could have been drawn.) Of the 1800 individuals aged 18 and over approached, 1459 were ultimately conducted by STEM, the Center for Empirical Surveys. In addition to the usual set of questions in the EEA series on political and economic attitudes and on individual and household characteristics, the January 1996 questionnaire contained several special sections, designed by the authors of this paper, which request detailed information on the experience of the respondent with several aspects of the transformation of ownership relations in the Czech Republic: restitution, voucher privatization, and workplace ownership.

Table 1 shows our selected indicator variables for economic and political attitudes, in the groupings A, B, and C in which we examine them in subsequent sections. As we discussed above, the indicators are defined on the basis of the respondents' reactions to a qualitative statement or question on some political or economic issue. Except for the "preferred economic system" variable, there are four admissible responses, which take on values from 0 to 3: "definitely not" (0), "rather not" (1), "rather yes" (2), and "definitely yes" (3). In order to facilitate the reading of results throughout the paper, we have inverted some answers so that the indicator is consistently larger if it reflects agreement with a more "pro-reform" statement (or disagreement with an anti-reform statement); in those cases, a "not" is inserted in the questions marked with an "\*" in the table.

#### Table 1 Attitudinal Variables

Although they are inherently and inevitably subjective in nature, the indicators should be taken as proxies for the underlying preferences of individuals. We hope that by examining a range of measures, including groups of alternative measures of similar concepts, we may be able to obtain consistent, robust evidence concerning the hypothesized relationships, although each question on its own may be somewhat



problematic.<sup>15</sup> Furthermore, as long as the questions are not systematically misinterpreted by respondents in a manner which is correlated also with the independent variables on which we focus, any noise can be treated as pure measurement error.<sup>16</sup>

The set of variables listed in table 1 under “Group A: Evaluation of Economic Reform” reflects personal evaluation of the reform process to date, and expectations concerning the future consequences of the current reforms. As discussed in detail in subsequent sections, we are interested in testing the association of such opinions with certain types of experience with the privatization process. The first variable is retrospective: “satisfied with reform” measures the response to the question “Can you say that you are satisfied overall with the course of economic reform to date?” The results show the population to be fairly evenly divided, with a bit more than half declaring themselves satisfied, the other half not; fewer than 10 percent are definitely satisfied, however.

The second pair of variables in Group A is prospective: “economic situation improving” contains the answer to the question “Would you characterize the present period as being the beginning of a substantial improvement in our economic situation?” and “future improvements in family living standards” to “Do you think that the new economic situation will bring better living standards for your family in the near future (approximately in the next two years)?” The distinction between these two questions is that the first is less precise about the time horizon, and more general in its scope; while the second specifies the effects of reform on the respondent’s family in the next two years. While 55 percent respond positively to the first, only 40 percent do so to the second: it seems that people are more prepared to believe that the reforms are beneficial overall and in the longer run than that they themselves will be medium-run beneficiaries.

The second set of variables, Group B: Evaluation of Economic Policies and Systems, is more abstract and ideological, requiring an evaluation of propositions concerning the extent of state involvement in the economy and of economic systems. “Complete freedom for private enterprise” measures the response to the statement “It is necessary to leave private enterprise completely free,” and “no increase in price controls” the response to “The state should not increase the level of price controls.” The hypothesis we would like to investigate is whether certain kinds of involvement in the privatization process imply particular preferences over economic policies and systems. Complete freedom for private enterprise has 54 percent of Czechs in agreement, but only 40 percent favor no increases in price controls. Further indication that a significant fraction of Czechs favor some continued economic role for the state is provided by the last

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<sup>15</sup>The survey contained a number of other attitudinal indicators that we also investigated. Here we present results for those variables we judge to be most clearly formulated and easiest to interpret, but the qualitative conclusions are consistent with other indicators, as well.

<sup>16</sup>This is not strictly accurate, as we employ non-linear estimation techniques: bias from omitting a relevant variable (such as a measure of the tendency towards certain interpretations or responses) can arise even if it is uncorrelated with the right-hand side variables of interest. We attempt to correct for any systematic interpretational differences by controlling for observable individual characteristics.

variable in this set, the preferred economic system: "socialist, as in our country until 1989," "social market, where the state influences the economy to a marked degree," or "free market, with minimal state intervention." The table shows the percentage of people preferring each type: 11, 60, and 29 percent, respectively. A potential problem of interpretation here is the possibility that respondents could be mixing judgments about the political system with evaluation of the economy; nonetheless, it is notable that so few Czechs (29 percent) agree wholeheartedly with Václav Klaus's vaunted "market economy without adjectives." However, they even much more strongly reject the socialist economic system.<sup>17</sup>

The variables in the last set, Group C: Legitimacy and Democratic Values, are more political and ethical in nature: "more social justice today" measures the response to the statement "Today's system is more socially just than the previous (until 1989) one," "privatization not unfair" the response to "Do you think that privatization does not mean the transfer of assets primarily to the wrong hands?" and "no rule by 'strong hand'" the response to "It would not be better for our country if, instead of discussion about the various possibilities for resolving the current situation, there were a government of a strong hand and somebody clearly said what should be done." We take the first two variables as indicators of the degree to which the respondent perceives the reforms as fair and legitimate, while the last variable reflects the respondent's democratic values. We are interested in examining the political feedback of economic experiences, both positive and negative. The first shows only 43 percent in agreement, probably reflecting the many possible types of dissatisfaction with the current system. Attitudes toward the privatization process are also somewhat negative overall, with about 56 percent disagreeing and thus believing that property has indeed been transferred to the "wrong hands." The last variable shows an almost exactly equal division of Czechs between agreement and disagreement. In this context, it should be remembered that, of all the criticisms of the Czech government over the last six years, the charge of excessive vacillation is hardly among them.

In the rest of the paper, we investigate whether differences across individuals in their experience and participation in ownership transformation carries any explanatory power for the variation in these attitudes. In doing so, we control for other characteristics of individuals, the places they live, the jobs they hold, and the incomes they earn - variables which may be correlated with both the attitudinal indicators and our privatization measures.<sup>18</sup> Besides providing a strict specification for testing our hypotheses, the inclusion of such covariates may help to reduce systematic biases in response patterns. Given that attitudinal questions are inherently subjective, it is important, insofar as possible, to control for systematic tendencies towards positive or

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<sup>17</sup>Although the structure of this question is different from the others, involving the selection of a preferred system rather than reporting the extent of agreement or disagreement with some statement, the responses do have a natural ordering (from much to little state intervention); thus, we also use ordered probit techniques for analyzing this variable's determinants.

<sup>18</sup>For instance, if income and the receipt of property through restitution are positively correlated, and individuals with higher income tend to be more supportive of reform, then failing to control for income would result in an upward bias on the estimated impact of restitution.

negative expression and towards moderate or extreme responses. Younger individuals, for example, might be more likely to provide more extreme responses, while older people may tend to be more moderate; or individuals of one gender might be more likely to answer questions positively than would the other.

### Table 2A **Income and Demographic Characteristics of Sample and Population**

Table 2A shows the sample summary statistics for the income and demographic variables used as covariates, together with roughly comparable statistics (where available) for the population of all residents of the Czech Republic.<sup>19</sup> The first variable is income, which seems likely to be highly correlated with pro-reform attitudes. Individuals who participated in the survey reported receiving an average of 6955 CZK (about 250 USD) each month in wage income, income from entrepreneurial activities, and social insurance (including unemployment insurance and child support). No directly comparable figure is available for the Czech Republic, though the 1995 Labor Cost Survey reports an average net compensation of 8536 CZK per month. It is possible, of course, that individuals' attitudes are informed not only by their personal income, but also by the income of other family members. Thus, we calculate a second income measure as the total monthly family income received from all sources (including wage and entrepreneurial income, social insurance, child support, alimony, gifts, other assistance, and withdrawals from savings) divided by the number of family members. We use the log of this measure, which has a mean of 5699 Kc, in the estimations reported below.

It is frequently alleged that there is a generation gap in the Czech Republic, with younger individuals supposed to be more likely to support reform, and we use the individual's years of age to control for this possible effect.<sup>20</sup> The mean age of individuals surveyed is 44 years, higher than the Labor Force Survey (LFS) mean of 37 years since the sample contains only persons aged 18 and over, versus 15 and over in the LFS. There is also much casual discussion of the differential effects of reform on men and women, with some claims that women have suffered more. Even independent of gender differences in education and income, it is possible that gender may have some power to predict individuals' attitudes or tendencies to give certain sorts of answers. Women account for 52.7 percent of the respondents to our survey, close to the LFS mean of 51.4 percent. Another possibility is that more well-educated respondents will be more supportive of a liberal economic and political system. Among all respondents, 22.6 percent reported having only elementary school education, 36.3 percent vocational education of some sort, 29.6 percent secondary education, and 11.5 percent university

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<sup>19</sup>It should be borne in mind that our sample is restricted to adults aged 18 and over, while census data pertain to the entire population, and the Labor Force Survey covers individuals aged 15 and over.

<sup>20</sup>Rose and Carnaghan (1994) provide a comparative analysis of generational differences in attitudes to communist regimes in a number of East European countries. Although the finding of large age effects is quite interesting and may have important long-run implications, we would argue that, from a political perspective, it is more interesting to examine the effects of policies, since age structure cannot (or at least should not!) be a control variable of the policymaker.

education. Examination of the population statistics suggests that well-educated individuals may be overrepresented in our survey (a common result in surveys of individuals), though it should be re-emphasized that individuals 15 years of age or older are interviewed in the Labor Force Survey, from which the population statistics for education are drawn. Finally, Prague residency might be of significant importance in explaining variation in attitudes given the vastly different economic opportunities and social conditions in the capital city; 13.0 percent of respondents live in Prague, slightly more than the official 11.8 percent.

Additionally, in Section 6 we report results from another series of estimations of the impact of an individual's employment experience on attitudes that controls not only for the demographic characteristics listed in Table 2A, but also for characteristics of the respondent's employment. Summary statistics for these variables and for similar categories of the population of Czech residents are presented in Table 2B.

### **Table 2B Employment Characteristics of Sample and Population**

Attitudes of employed individuals may show systematic variation across sectors due to differences in sector-specific characteristics, such as initial conditions prior to economic transformation, import competition, changes in demand for good and services produced, and continued government intervention. The majority of economically active individuals in our survey are employed in either manufacturing and construction (34.4 percent) or the trade and service sector (23.6 percent). Relative to statistics compiled from LFS data, employment in manufacturing and construction, agriculture and forestry, transportation and communication, and health is underrepresented.

Attitudes of employees may also differ based on the size of the firm in which they work. Many firms in formerly socialist countries are probably overstaffed, and attempts to downsize might create dissension among workers. This effect could be exacerbated if employees of large firms feel more alienated from decision-making processes. The vast majority, 60.2 percent, of respondents to our survey work for firms with fewer than 100 employees. By contrast, only 12.4 percent of individuals taking part in the survey are employed by companies with more than 1000 employees. Unfortunately, no comparable data of which we are aware are available for the entire population.

Finally, while our education variables provide some controls for differing amounts and types of human capital, we also include the type of occupation for employed individuals. Assuming that individuals with more valuable human capital are more likely to have higher-status positions, and that human capital is more highly valued in a market economy than in a socialist economy, persons with more skilled or professional positions may benefit more from economic reform. The issue is not just *amount* of human capital, for the shock of economic change has surely had differential effects across different types of skills, raising the returns to some activities, including some low-skilled ones, while reducing those for others. The respondents to our survey are divided fairly evenly among occupation types, with 29.4 percent of individuals employed as higher professionals, 25.5 percent as skilled workers, 25.2 percent as clerical workers, 17.0 percent as unskilled workers, and 2.9 percent as agricultural workers. Table 2B also provides statistics for the job classifications used by the Labor Force Survey, but

these are not directly comparable with the categories in our survey. In general, however, it appears that clerical workers may be underrepresented in our sample.

#### 4. RESTITUTION

The Czech Republic had one of the largest programs of real property restitution of any formerly communist country in Eastern Europe. The ability of the reform government that was newly elected in 1990 to enact such a program may have been related to the particular history of the Czech Republic under socialism. Given that the Czechoslovak state was the owner of almost all assets in 1989, there were relatively few logistical obstacles to returning property to its previous owners rather than trying to provide some equivalent value in compensation. In Hungary, by contrast, a significant proportion of the housing stock had already been privatized by 1989, and compensation bonds were issued in lieu of real property. In fact, among the formerly communist countries of Central Europe, only the new states of former East Germany had a program similar to the Czech Republic's.<sup>21</sup>

The idea of returning specific assets was controversial when first discussed in 1990-91, however. Many objected that property restitution would lead to administrative gridlock and slow down the overall privatization process, as citizens battled over assets whose titles were unclear. Proponents, on the other hand, asserted that the program would spark the development of a new entrepreneurial class, contributing to capital formation and economic growth. Although it was not so clearly enunciated, the government may have also hoped that restitution would increase support for reform policies and create a grateful, loyal constituency that would support the mass privatization and other policies. Returning tangible property was, in the Czech case, not only simpler to organize than compensation, but it also seems plausible that it had the potential to produce a bigger positive response from the recipients, than would have some intangible coupons.

At the same time, a significant program of restitution obviously carried the risk that the majority of the population, receiving no direct benefit from the program, would be resentful of what might be perceived as special treatment for a privileged minority. In light of the potential benefits and costs of restitution, it is interesting that the government ultimately made the case for the program by arguing that the return of confiscated property was the only *fair* thing to do. The property had been unjustly expropriated; now it had to be returned. Moreover, the government played on the widespread sense of guilt and shame over the four decades of socialism, implying that restitution would offer some form of expiation. By framing the issue in this way, the government likely hoped that they could avoid alienating the majority of citizens who would receive no property through restitution, even while they enlisted the support of the minority who would.

The program as implemented allowed any resident citizen (or his heir) from whom non-financial assets had been nationalized after February 25, 1948 to petition for return

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<sup>21</sup>The program was enacted in 1990 and 1991, before the splitup of the Czechoslovak Federation. After December 1992, it was continued in each Republic separately.

of those assets.<sup>22</sup> The choice of that date was rationalized as the period of Communist Party control of the Czechoslovak parliament, but it incidentally served to exclude two large, dispossessed groups: Jews and Sudeten Germans. No doubt the property records from the war period would have been very complicated to disentangle, and the treatment of these groups has remained a subject of great controversy. Thus, the explanation for the date may well go beyond the fact that few of the members of these groups were likely to return to Czechoslovakia and vote in the elections, yet the coincidence is noteworthy.

Despite the clear importance of restitution in the Czech privatization process, there has been no information previously available on the number of individuals receiving property through restitution, and only extremely rough estimates of the number of assets returned. The data from our survey helps to fill this gap. As Table 3 shows, 18.1 percent of respondents reported receiving some asset through restitution. Over two-thirds of restituted (12.4 percent of the total sample) said that the primary asset returned was a farmstead, farmland, or forest land. 2.6 percent of restituted reported receiving other real estate, 2.1 percent financial assets (which were offered when the real property could not be returned, for instance because it had been destroyed), and 1 percent businesses.<sup>23</sup>

**Table 3 Property Received Through Restitution**

We hypothesize that restitution of personal property might have significant effects on individuals' attitudes towards market reforms and the economic and political transition. Out of self-interest, restituted could be inclined to support reform policies that would maximize the return on their reacquired property. Restituted might also be grateful and they might tend to see the reform process as fairer and more legitimate for correcting what they would see as the injustices of the communist regime. To test these hypotheses, we estimated ordered probit functions for the attitudinal measures described in Section 3. Because we do not have any clear hypotheses as to differences in behavior among restituted who received one type of property over another, and because some of the restituted groups are quite small, we use only one dummy variable to represent the effect of restitution of property. Additionally, we control for demographic characteristics that might be correlated both with restitution of property and with the dependent variable. The covariates are the natural logarithm of income (family income per capita, as described in section 2, above); a dummy variable equal to one for male (zero for female); years of age; vocational, secondary, and university education dummies (where elementary education is the omitted category); and a Prague residency

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<sup>22</sup>See Earle, Frydman, Rapaczynski, and Turkewitz (1994), Frydman *et al* (1993), and Mladek (1993) for more details on the restitution program.

<sup>23</sup>Our analysis of data from an earlier survey (Social Stratification in Eastern Europe (1993)) suggests that this is significantly less than the percentage of the population that had had property confiscated by the communists. 27.6 percent of the respondents to that survey reported that the communist government had nationalized property that had been owned by their parents, and 34 percent said that property owned by themselves, their parents, or their grandparents had been confiscated.

dummy. We first report the estimates of the impact of restitution, including the simulation elasticities, for all the equations, and then briefly discuss the coefficients on the covariates, since those do not differ appreciably across equations. Finally, we consider (but do not report full results for) some alternative specifications to address the robustness of the results presented here.

Table 4A displays the ordered probit equation estimates where the dependent variable is one of three indicators of an individual's evaluation of economic reform. Responding to the first, most general, question, participants in the survey who received property through restitution are more likely to say they are "satisfied with economic reform:" the coefficient on the restitution dummy is positive, and statistically significantly different from zero at the 1 percent level. As shown in the simulation results at the bottom of the table, restitutory status raises the predicted incidence of support for reform (either "strongly" or "somewhat agree") by 24 percent for restitutors, and 26 percent for non-restitutors. In other words, the equation predicts that support for reform is increased by about a quarter among people affected by restitution. With respect to "strong support" alone, the elasticity is still larger: the incidence goes up by 75 for restitutors and 79 percent for non-restitutors. The simulations show that there is little difference in the predicted impact on restitutors versus non-restitutors; thus, at least in terms of observables, there does not appear to have been any great selection bias in the restitution program.

Restitutors also appear to be generally more sanguine about the country's economic future, when belief that the "current period marks the beginning of a better economic situation" is the dependent variable. The estimated coefficient on the restitutor dummy variable is positive and significantly different from zero at the 1 percent level, although the simulations show smaller estimated elasticities. Finally, restitutors are more optimistic about "future improvement in family living standards", again with a positive, statistically significant coefficient, and a substantial implied elasticity of support for reform for both restitutors and non-restitutors. Overall, individuals who received property through the restitution program seem to be consistently and substantially more supportive of economic reform and optimistic about its outcome than those who did not.

#### **Table 4A Restitution and Evaluation of Economic Reform**

Table 4B reports the estimates of ordered probit regressions with evaluations of economic policies and systems as dependent variables. The results show consistently positive coefficients on restitutor, but both the statistical significance of the coefficients and the elasticities implied by the simulations are smaller than in the first set of dependent variables. When asked about "complete freedom for private enterprise," restitutors are more likely than other respondents to agree, with a coefficient on the restitution dummy that is positive and significantly different from zero at the 5 percent level, and with the estimated elasticity of support .12 and of strong support .25. Restitutors also appear to be more inclined to believe that "no increase in price controls," possibly because many restitutors are owners of rental property; the coefficient is positive and again significant at the 5 percent level, with estimated elasticities that are similar in magnitude to those of the previous dependent variable.

Finally, respondents who received property through the restitution program are more likely to prefer an economic system oriented towards the free-market, indicated by a positive coefficient on the restitution dummy, and similar elasticities. It should be noted, however, that even restituteds tend to place themselves in the center of the spectrum on this question: an absolute majority, 53.8 percent, of restituteds say they favor a social market system, while 38.1 percent expressed support for a free market system. Taken together, the results suggest that receipt of property through restitution is associated with greater support for liberal economic policies.

#### **Table 4B Restitution and Evaluation of Economic Policies and Systems**

Table 4C reports results for the three ordered probit estimations with perception of legitimacy and democratic values as dependent variables. As might be expected, restituteds are more likely than other respondents to believe that there is “more social justice today” than under the prior system; the result is significantly different from zero at the 1 percent level and implies elasticities of .26 and .56 on agreement and strong agreement, respectively. Restituteds also seem more likely to believe that “privatization was not unfair,” again with a positive, statistically significant coefficient and an even larger elasticity - .62 - for strong agreement. Although the coefficient is positive in the equation for “no rule by strong hand,” suggesting that restituteds may be more inclined to oppose authoritarian tendencies, the result is not precisely estimated, and the implied elasticities are very small. In summary, our data shows evidence that restituteds are more likely than other Czechs to perceive the reforms as fair and legitimate.

#### **Table 4C Restitution, Legitimacy, and Democratic Values**

To examine the fit of the models, we conducted chi-square tests of the difference between the (restricted) log likelihood function and the unrestricted log likelihood function, measuring the probability that the model is not better at predicting the value of the dependent variable than a naive guess based on the frequency distribution. For all estimations, the chi-square statistic was significant at the 1 percent level, suggesting that the models do indeed have predictive power.

The covariates in the regressions also have considerable explanatory power. Log of income, for example, is always positively correlated with pro-reform attitudes and voting behavior, and always significantly different from zero. Male gender is often, but not always, significantly associated with more pro-reform attitudes, as is youth and higher education. Finally, Prague residency is inconsistently associated with pro-reform attitudes.

A possible objection to our interpretation of the effects of restitution is that our measure of receipt of property in restitution may be proxying for some third, unmeasured factor affecting attitudes. Restituteds, for example, might be more likely to have become entrepreneurs, and therefore to have an even greater interest than non-entrepreneurial property owners in minimizing government intervention in the economy. Furthermore, those restituteds who are not themselves entrepreneurs might have vested management responsibility for their property with other family members.



Rational self-interest aside, respondents who come from a bourgeois background might have been inculcated with more liberal beliefs from an early age, and therefore might be more likely to support liberal capitalism and democracy than other individuals. Unfortunately, we cannot measure this “class” effect with our data set. But restituteds are, in fact, considerably more likely to be either entrepreneurs themselves or to have family members who are: 45.4 percent of restituteds have some member of their household who is registered as an entrepreneur, while the same is true for only 27.5 percent of non-restituteds.<sup>24</sup>

While it is not possible to sort out self-interest and family background effects of family entrepreneurship using the data available, we can test the hypothesis that restitution is a proxy for either one or the other of the two factors. We re-estimated our estimations with a model that included a dummy variable for registration by any household member as an entrepreneur. The effect of restitution holds up in these estimations, even while registration of a household member as an entrepreneur is often positively correlated with pro-reform attitudes. For only one dependent variable - “no increase in price controls” - is the estimated coefficient on the restitution dummy statistically insignificant in the unrestricted model (including the family member entrepreneurship dummy) where it is positive and significantly different from zero in the restricted model.

To summarize, our evidence indicates that restituteds are significantly more likely than non-restituteds to agree with positive statements on reform, on future economic progress, on market-oriented economic policies, and on the fairness and legitimacy of the transition. This relationship is large and robust even when controlling for a variety of demographic characteristics and for registration of household members as entrepreneurs. The government’s hope that restitution of property could create a base of support for liberal capitalism seems to have been well-placed, at least in the short-term.

#### **4. VOUCHER PRIVATIZATION**

The voucher program was the centerpiece of privatization policies and, arguably, the principal impetus for transition in the Czech Republic. While subsequently imitated in various forms by reformist governments in a number of other East European countries, the design of the program was untested and considered radical when championed in 1991 by Vaclav Klaus, then Finance Minister. Rather than selling large state enterprises for cash through conventional methods such as stock market flotations and tenders (which had been the primary approach in Western privatizations and was attempted by most other East European governments), or turning them over for nominal prices to their managers and workers (which was the eventual outcome in most other countries), the Czech Government distributed the bulk of the shares in corporatized enterprises to the Czech citizenry in exchange for vouchers. In each of two “waves” (the first in 1992, the

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<sup>24</sup>The definition of “family member” is admittedly restrictive, as it does not include non-resident family members. Two of the authors have lived in Prague housing where older restituteds passed on management of their property to younger, non-resident family members. Such a situation would not be captured by this definition.

second in 1993), any resident citizen over the age of 18 was eligible to acquire state property by first purchasing a voucher booklet and then using the 1000 voucher “points” either to bid directly for company shares or to invest indirectly by becoming a shareholder in an investment privatization fund (IPF). Thus were transferred the bulk of the shares in 1664 large state enterprises, including much of Czech manufacturing industry.<sup>25</sup>

Although this basic sketch of the program is well-known (see, e.g., Frydman, Rapaczynski, and Earle *et al* (1993) and Earle, Frydman, Rapaczynski, and Turkewitz (1994) for more detailed discussions), rather little information has been available concerning the nature of individual participation: the only facts reported by the Czech Privatization Ministry have been the total number of participants (5.95 mln in the first wave and 6.16 mln in the second), and the aggregate percentage of voucher points placed with IPFs (72 percent in the first wave and 64 percent in the second). But it would also be valuable to know more about the patterns of participation, including the allocation of points between direct investment in companies and indirect investment through IPFs, and whether the new shareholders have tended to keep their shares, or rushed to sell them quickly, as had been frequently feared. Furthermore, despite much speculation about the program's potential political feedback, there has been no empirical analysis (of which we are aware) of the reactions of individuals to their experiences of the program, including how it may have affected their attitudes towards economic and political reforms. In this section, we employ our sample survey data to explore these issues further, first in examining the patterns of choices made by Czech citizens, and second by analyzing the relationship between those choices and their attitudes and voting intentions.

An important determinant of participation, and one of the choice variables available to policy makers in the design of a voucher program, is the price for participation. The price is a double-edged sword, creating a tradeoff between the economic and political benefits of the program. On the one hand, setting a higher price could lead to a lower participation rate, resulting in more concentration of ownership, and consequently better chances for more effective corporate governance and matching of owners with assets. On the other hand, the Czech Government was clearly aware of the design of some of the British utility privatizations in the 1980s, where shares were offered at very low prices in an attempt to involve as many citizens as possible. Large-scale participation by the citizenry held out the possibility of creating a constituency that would oppose any attempt at renationalization and that would support the Government's further proposals for market development. By contrast with mass privatization programs in a number of other countries, including Poland, Romania, and Russia, the decision to participate was not entirely trivial in the Czech Republic: a voucher booklet cost 1030 CZK (35 USD or about 1.5 times an average weekly wage). Nonetheless, virtually every adult citizen could afford to participate.

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<sup>25</sup>These figures are for the Czech Republic only. The design of the program and bidding for first-wave companies took place before the breakup of Czechoslovakia in January 1993. There was no second wave in Slovakia following the split.

In the event, participation was quite high: we estimate that approximately 85 percent of those eligible to participate did so in each of the two waves of voucher privatization, as shown in Table 5.<sup>26</sup> There was a slight inconsistency in participation across waves, however. Of those respondents who would have been old enough to participate in both waves, 8.5 percent of the sample who did not participate in the first wave decided to participate in the second, while the reverse situation is reported by 8.9 percent of the sample. Overall, 78.6 percent of eligible respondents participated in both waves (or only one if young enough to have been eligible only during the second), 13.2 percent participated in one only, and 8.3 percent participated in neither.<sup>27</sup>

### Table 5 Participation in Voucher Privatization

In addition to the rather low, but not negligible, cost of the voucher booklet and the availability of financing from banks and employers, a major factor in the high participation rate was the dramatically rapid formation of IPFs in late 1991. Led by the aggressive marketing campaign of Viktor Kožený's "Harvard Capital and Consulting," a number of fund management companies competed to offer "guaranteed" returns to vouchers invested in their funds. The guarantees functioned like a put option, with the strike price in Harvard's case carrying a ten-fold return on the voucher-holder's initial investment after only one year.

Indeed, the IPFs grew from a mere vague possibility in the original blueprint to perhaps the most important element in Czech financial markets and corporate governance. Not only did the funds encourage (if somewhat recklessly) individuals to participate in the program, they offered the possibility for risk diversification and the potential for concentration of shareholdings and better monitoring of company management. At the same time, there were some fears that excessive concentration could threaten the Czech authorities' goal to demonopolize the economy; thus any IPF was limited to a maximum 20 percent shareholding in any one firm (or a maximum of 40 percent for groups of affiliated funds). Unlike the privatization intermediaries in most mass privatization designs under discussion in 1990/91 (proposed for instance by Lipton and Sachs, 1990, and others) and implemented in Poland and Romania, the Czech funds were not set up by the state directly, although several of the large state-owned

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<sup>26</sup>These participation rate estimates are slightly higher than that obtained by taking the ratio of the number of individuals who actually participated (according to Ministry of Privatization reports) to the total number of Czech individuals aged 18 or over at the beginning and the end of 1993 as the eligible population (Czech Statistical Office (1993)), from which we calculate the percentage of the eligible population participating to be 77 and 79 percent in the first and second waves, respectively.

<sup>27</sup>Individuals might not have participated in one or the other wave of voucher privatization for any of a variety of reasons. Financial constraints could have been important for some, though this effect was likely trivial due both to the low price of a coupon booklet and the convenient financing arrangements available through banks and funds, with the agreement that the individual would then invest in a particular fund, or through an individual's employer if the participant would agree to bid for the firm's shares.

banks, themselves in the process of privatization, established sizable IPFs, with long-term ramifications for Czech corporate control and restructuring (Coffee (1996)).

The IPFs became important only because Czechs decided to invest in them, of course, and table 5 provides information from the survey on individual decisions to invest directly in privatized companies or indirectly in the IPFs acting as intermediaries. Though individuals were free to invest any proportion of their points in a fund or group of funds, our data show that most participants pursued an all-or-nothing strategy, choosing to place either all or none of their points with IPFs: relatively few (less than 16 percent in each wave) divided their portfolio between diversified investments in funds and direct investments in companies. Compared with the first wave, the second wave data show a move away from IPFs, perhaps because of greater experience or self-confidence of the participants: 69.2 percent of first-wave participants invested at least half their points in IPFs; while 56.9 percent of second-wave participants did so. Among the main factors in the choice to place points with the IPFs were probably the costs of acquiring information, of non-diversification, and of participating in five rounds of bidding, with prices and share availability changing between each. This was a real choice.

Another important choice From the outset of the debate over voucher privatization, one of the critical uncertainties was whether or how quickly citizens would try to cash in their shares after they were distributed. On the one hand, exchange of shares could lead to desirable concentration and improved matching of ownership and assets. On the other, the illiquidity of markets raised the possibility of financial crisis, exacerbated by the wantonly excessive put options offered by IPFs (following Harvard's lead) to lure investors. Moreover, as we discussed above, sale of shares might also remove the incentives of the citizenry to oppose renationalization and to support future reforms.

Our survey provides what may be the first information available on the post-privatization behavior of the new shareholders: as Table 5 shows, approximately half of all participants surveyed (52.7 percent) had not sold any of their shares as of January 1996, and fully 80.7 percent of participants retained some of the shares they received from voucher privatization. The outcome was that Harvard Capital and Consulting and the other funds were able, just, to honor their commitments, and there was no immediate financial crisis in the Czech Republic.

We are interested in the effects of these aspects of individual participation in the voucher privatization program on attitudes towards reform. We hypothesize that those individuals who took part in voucher privatization may be grateful for being given a share of the national wealth, and might therefore be more inclined to support reform policies. Those participants who retained the shares acquired through voucher privatization might have developed a vested interest in reform, supporting further reforms likely to increase the value of the "investment." The experience of the Conversely, a participant who had sold his shares, or someone who never participated in the first place, might have less reason to support reform efforts.

To test these two hypotheses, we estimated a series of ordered probit models of the relationship between our set of attitudinal variables on the one hand and participation in the voucher privatization program and continued share ownership on the other, while controlling for relevant factors. The attitudinal variables used as dependent variables

were described in section 2. Voucher participation is defined as a dummy variable (“participated in both waves” in Tables 6A-6C) equal to one if the individual participated in both waves of voucher privatization, with the exception of those old enough to have participated in the second wave but not the first, for whom participation in the second wave is deemed equivalent to participation in both. The dummy variable for continued ownership (“retain shares” in Tables 6A-6C) equals one if the individual still retains any shares from voucher privatization, and zero if the individual either did not participate or participated and subsequently sold all her shares. Additionally, our model includes demographic characteristics - income, gender, age, education, and Prague residence - that might be correlated with both the dependent variable and with voucher participation and continued share ownership. Thus, our results for the participation and share retention variables hold constant the effect of these covariates. Finally, the sample was restricted to those old enough to have participated in at least the second wave of voucher privatization.<sup>28</sup>

Table 6A presents the estimated impact of voucher participation and continued share ownership on the four attitudinal variables concerned with evaluation of economic reform. For the first variable, “satisfied with economic reform,” participation in both waves is estimated to have a positive effect, statistically significant at the 5 percent level. The effect of continued share ownership also has the hypothesized positive sign, again significant at the 5 percent level. Participation and continued ownership are also positively associated with greater support for the assertion that “privatization was not unfair,” although neither is precisely estimated. In the third equation, where the dependent variable measures agreement with the statement that “economic situation is improving,” both participation in both waves of voucher privatization and continued share ownership are positively associated with agreement. Only the coefficient on continued share ownership, however, is estimated to be significantly different from zero at the 5 percent level. Finally, both voucher participants generally and those who held onto their shares in particular appear optimistic about the “future improvement in family living standards” for their family. The estimated coefficients on both variables are positive and highly significant. Overall, we find evidence that both participation in voucher privatization and continued ownership of shares is positively associated with support for economic reform.

#### **Table 6A Voucher Program Participation and Evaluation of Economic Reform**

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<sup>28</sup>Both voucher program participation and continued share ownership could have been defined in a variety of other ways. Participation could have been defined as taking part in either of the two waves of voucher privatization rather than both, or first and second-wave participation could have been considered separately. Additionally, continued share ownership might have been defined as individuals who owned something more than any of the shares they acquired through voucher privatization. We had no clear hypotheses as to why any of these differences in the level or type of participation and the proportion of shares kept might be different from the variables we chose to use. We did, however, run another series of estimations with participation in both waves and participation in either of the two considered as separate, nested variables. Those estimations are discussed below.

Table 6B reports the results of estimations of the effects of voucher privatization experience on attitudes towards economic policies and systems. When asked whether they agreed on statement about “complete freedom for private enterprise,” participants in both waves of voucher privatization were more likely to agree than were respondents who participated in one or neither, with the estimated coefficient on the dummy variable positive and significantly different from zero at the 1 percent level. Although the estimated coefficient on share ownership is negative, it is only half the size of the standard error, and thus not significantly different from zero. With a general measure of support for state intervention - “economy not under state control” - as the dependent variable, the estimated coefficient on the participation dummy is positive, though not significantly different from zero, while the estimated coefficient on the continued share ownership variable is almost exactly zero. It is possible, of course, that many people who support a free-market system might disagree with this statement, and in fact fewer than 20 percent of all respondents even somewhat agreed. The third variable, “no increase in price controls,” asks about a specific policy, and therefore might better gauge respondents’ preferences for government intervention. In this estimation, the estimated coefficient on both dummies is positive, and both are significantly different from zero at the 10 percent level. Finally, when asked what type of economic system they prefer, participants in both waves seem more likely to support a system skewed towards the free-market end of the spectrum, with an estimated coefficient on the dummy variable for participation that is positive and significantly different from zero. The sign on the estimated coefficient on share ownership is also positive in this specification, though the coefficient is not precisely estimated. In summary, participation in both waves of voucher privatization, and, to a lesser degree, continued share ownership, appear to be somewhat correlated with greater support for a market-based economy.

**Table 6B Voucher Program Participation and Evaluation of Economic Policies and Systems**

Regression results from estimations with political attitudes and preferences as dependent variables are presented in Table 6C. The first question asks whether the respondent thinks that there is “more social justice today.” Participants who received assets through both waves of voucher privatization seem more likely to agree, though the estimated coefficient on this dummy variable is not significantly different from zero. Those who retain shares also appear to be more inclined to agree. The estimated coefficient on the ownership variable has a positive sign and is significantly different from zero at the 5 percent level. Participation in both waves of voucher privatization is also positively correlated with agreement with the anti-authoritarian sentiment that there should be “no rule by ‘strong hand’,” but the coefficient is not precisely estimated. As with the previous equation, the estimated coefficient on the continued share ownership variable is positive and significantly different from zero.

**Table 6C Voucher Program Participation, Political Attitudes, and Voting Intention**

Finally, voucher participation is positively correlated with support for the government coalition but, again, the estimated coefficient is not significantly different from zero. Individuals who continue to own shares from voucher privatization seem inclined to support the government coalition over the Communist Party, suggested by an estimated coefficient on the ownership variable that is positive and significantly different from zero at the 10 percent level. Neither the voucher participation nor share ownership dummies have estimated coefficients that are significantly different from zero when estimating the impact of participation in both waves and continued share ownership on support for the Social Democratic Party and the Republican Party over the Communist Party.

Thus, participants who continue to own shares seem to be more supportive of liberal democracy, and it appears that Klaus may have convinced shareholders that only the current government could protect their assets from the Communists. The impact of voucher participation is a bit more ambiguous. While participation in both waves is always positively correlated with greater support for our “pro-democracy” variables and for the government, the coefficients are never precisely estimated.<sup>29</sup>

In most cases where the estimated coefficients are sizable and statistically significant, their implied marginal effects are also of a meaningful magnitude. With respect to “satisfied with economic reform,” participation raises the probability of strong agreement by 25 percent, and participation and retaining shares have a combined effect of close to 50 percent on strong agreement. The marginal effects on agreement (answers 2 and 3) versus disagreement (answers 0 and 1) are somewhat weaker - about 10 percent for participation and 25 percent for participation and share retention together - but still consequential. Concerning the variable “economic situation improving,” participating and retaining shares raises the probability of strong agreement (answer 3) by about 35

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<sup>29</sup>Arguably, participating in both waves might produce a different set of attitudes towards reform than would the more limited exposure to privatization that would come with participation in only one wave. Thus, another set of specifications was estimated with nested dummy variables used for participation in the two waves of voucher privatization, with the first variable equal to one if the individual participated in either wave, and the second equal to one only if the respondent participated in both. In general, we found that the effect of participating in one of the two waves was not significantly different from the effect of participating in neither, and participation in both waves was significant or insignificant as in the general specifications, with the same signs on the coefficients. The one notable exception was voting preferences, where individuals who participated in one wave were less likely to support the government coalition than were those who participated in neither, while individuals who participated in both waves were more supportive of the government coalition than those who took part in only one.

A number of explanations are possible for the consistently different effect that participating in both waves had relative to taking part in only one. It is certainly possible that the effect of participation in mass privatization was non-linear, with greater satisfaction coming only after repeated evidence that reform could produce benefits both for the participant and for the economy as a whole. It is also possible that those who were already half-hearted about reform efforts might have made the effort to only participate in one wave, or that individuals who had a negative experience in the first wave chose not to participate in the second.

percent and the combined probability of weak and strong agreement (answers 2 and 3) by about 20 percent.

The estimated marginal effects are still greater in the case of “future improvement in family living standards.” Participation raises the probability of strong agreement by about 30 percent, and of either strong or weak agreement by 18 percent. The combined effect of participation and share retention is 60 percent and 45 percent on strong and total agreement, respectively. Regarding the variable, “complete freedom for private enterprise,” it is consistent with the coefficient estimates that marginal effect of participation is sizable (about 50 percent on strong agreement), but that of share retention is inconsequential. Marginal effects are small for “economy not under state control,” but those for “no increase in price controls” are again large, at 27 percent for the effect of participation on strong agreement and 18 percent on total agreement, and combined effects of participation and share retention of 55 percent on strong agreement and 31 percent on either strong or weak agreement. Participants are 25 percent more likely to favor a “free market system,” and 30 less likely to favor a “socialist (pre-1989) system,” compared to non-participants. These effects are still stronger when combined with share retention: 40 percent and 53 percent, respectively. Although participation does not, we estimate that share retention has sizable effects on the political attitudes and voting intentions variables: 15 percent on strong agreement with “more social justice today,” 44 percent on “no rule by strong hand,” 12 percent on the probability of voting for the government coalition, and -62 percent on the probability of voting for the Communist Party.

Not surprisingly, given the number of variables whose estimated coefficients are statistically significant from zero, the models have significant predictive power for all the dependent variables studied. The chi-square test on the difference between the log likelihood function and the restricted log likelihood is statistically significant at the 1 percent level for all specifications, suggesting that the model does a better job of predicting the value of the dependent variable than the proportions given by the dependent variable’s frequency distribution.

The most robust of the covariates included in these regressions is the log of income, with an estimated coefficient that is positive and statistically significant from zero in all specifications (significantly different from zero for choice of the government coalition over the Communist Party in the party preference multinomial logit model). Gender is often a good predictor of pro-reform attitudes, with men seemingly more likely to espouse pro-reform opinions than are women, though male respondents are also more inclined to vote for the nationalist Republican Party over the Communist Party. The young also seem more likely to have pro-reform sympathies, with the estimated coefficient on age negative and statistically significant in all regression except the “no rule by a strong hand” estimation (with younger Czechs more likely to vote for any of the three major alternatives to the Communist Party). Additionally, pro-reform attitudes appear to increase with additional education, with the estimated coefficients for higher levels of education always higher than the estimated coefficients for lower levels. Surprisingly, however, no education level is associated with an increased propensity to vote for the government coalition (or any other party) over the Communist Party.



Finally, Prague residency is almost always positively correlated with pro-reform attitudes, though the coefficient is often imprecisely estimated.

Overall, participation in both waves of voucher privatization is correlated with stronger agreement with a number of measures of support for economic reform and for a free-market economic system relative to participation in one or neither of the two waves, but in and of itself seems to have had little discernable impact on political attitudes and on voting intentions. Continued ownership of at least some of the shares acquired through either of the two waves of voucher participation is associated with greater support for all three types of measures studied, most especially with support for economic reform and with political attitudes and voting intentions.

Finally in our examination of the attitudinal impact of the Czech voucher privatization program, we investigated the answers to the question, "Did you benefit overall from voucher privatization?" Most surveyed individuals reported that they did indeed benefit, with the distribution of answers 18 percent definitely not, 22 percent rather not, 38 percent rather yes, and 22 percent definitely yes. As a further test of the relationship between the voucher program and attitudes towards reforms, we estimated similar ordered probits to those above, replacing however the participation and kept shares variables with the responses to this question on the individual's "overall benefit" from the program. This benefit measure (entered as three dummies for each level of agreement above "definitely not") has strongly positive effects on all the attitudinal indicators, further supporting the notion that direct experience of reforms is an important determinant of an individual's attitude towards the overall reform process.

## **5. EMPLOYMENT EXPERIENCE**

In addition to the possibility of receiving property through the restitution and voucher privatization programs, many individuals in the Czech Republic have experienced ownership transformation in their workplace. Privatization, in the narrow sense of transfers of state-owned assets, has meant that workers in former state enterprises now face private owners and, frequently, new management brought in by those owners. There has been at least partial transformation of ownership rights within cooperatives away from state control towards control by owner-members (Earle, Frydman, Rapaczynski, and Turkewitz, 1994). Additionally, economic liberalization has created opportunities to start new businesses and become employed in the new private sector.

In fact, the potential for major personal gains or losses associated with the economic transformation is considerably greater through one's employment than through voucher privatization, and may also outweigh the value of property received through restitution for many restituted. Individuals in state enterprises may fear the job or wage cuts that they expect to follow the eventual privatization of their employer, and employees of privatized firms might already be experiencing the withdrawal of state support and the beginnings of restructuring within their firms; even if the changes increase the efficiency of the firm as a whole, the individual worker may well be negatively affected. Alternatively, the privatized company employee may have the chance to experience the highly touted efficiency of private ownership, with investment in new technologies and retraining for higher skilled jobs, and come to be persuaded of the wide social benefits of

the transition to a market economy. The self-employed and employees of new private (*de novo*) firms may perceive reform as having opened up new opportunities, and feel that their fortunes are dependent upon further reforms, or they may observe only theft and "speculation" and little socially productive activity in the fly-by-night *de novo* firm.

It is possible, therefore, that different experiences of ownership change - the entry of private owners into a state-owned establishment, the movement of a worker from a state organization to a new private firm, or remaining with the old organization - have diverse effects on attitudes. These experiences are themselves functions of economic policies, including not only privatization, but also stabilization, liberalization, competition, small enterprise development, and other policies affecting the restructuring process. If broad public support is necessary for reform efforts to retain momentum, then the effects of policies on attitudes of workers across ownership sectors may have implications for the political sustainability of the transition process. In this section, we examine the relationship between attitudes and workplace ownership for working respondents, again using the set of attitudinal indicators we have already investigated in relationship to restitution and voucher privatization.

We begin, however, by providing information from the survey on the composition of Czech employment by ownership type. Because little current information is available on the ownership structure resulting from several years of Czech transition, these data contribute to our understanding of the outcomes of that process. Table 7 shows our grouping of respondents by type of employer: budgetary organization, cooperative, state enterprise, privatized enterprise, new (*de novo*) firm, self-employed with employees, and self-employed without employees. "Budgetary organizations" refers to public institutions that receive practically all of their funding through the state budget, and include schools, hospitals, and the military. "Privatized" does not necessarily mean that the firm is completely privately owned, for the state retains shareholdings, mostly small ones, in many enterprises that were in the privatization process. Cooperatives in the Czech Republic are old organizations, mostly in agriculture but also to some extent in trade and manufacturing. *De novo* enterprises and the self-employed are distinguished from each other by whether the respondent was an employee or owner of a new firm. The table includes all respondents who report themselves to be working, including both "employed" and "employed pensioner."

The results from this analysis indicate that employees of budgetary institutions represent 24 percent, workers in cooperatives 4 percent, employees of state enterprises 9 percent, employees of privatized firms 32 percent, employees of *de novo* firms 18 percent, self-employed with employees 7 percent, and self-employed without employees 4 percent. An additional 2 percent of those employed provided no information on the ownership of their employer. These figures demonstrate the rapid privatization of the Czech economy, both through the transfer of state-owned assets and the liberalization of entry into the new private sector. The private sector altogether accounts for 62 percent of employment, of which just over half was in privatized firms and just under half in newly created entities, including the self-employed.

#### **Table 7 Enterprise Ownership Categories**

To test the relationship between workplace ownership and his/her political attitudes and voting intentions, we defined a series of nested dummy variables so as to be able to measure the marginal impact of employment in an organization of one ownership type compared to employment in related categories. Figure 1 shows the nesting of the employment variables (the part of the tree under “Employed”), together with variables representing different types of labor force status, the discussion of which we defer to Section 6 below. The purpose of the nesting is to permit direct testing of several hypotheses that flow naturally from transformation of ownership.<sup>30</sup> Thus, the estimated coefficient on “Privatized” provides a measure of the impact of working in a privatized firm relative to working in a firm that could have been but was not privatized, i.e. a state enterprise. Similarly, the estimated coefficient on the “New” dummy provides a measure of the effect of working in, but not owning, a new private company, while the estimated marginal effect of owning rather than simply working in a new private firm is calculated using the estimated coefficient on “Entrepreneur.” The coefficients on “Cooperative” and “Privatizable” measure the difference from old budgetary organizations, where “Privatizable” includes both still state-owned and already privatized enterprises. In each of these cases, a t-test of the significance of the coefficient is also a test of the hypothesis of the significance of any difference between the two ownership categories. We may also infer the magnitude of other differences, for instance between privatized firm workers and new private sector employees as the sum of the coefficients on Privatizable and Privatized minus the coefficient on New.

### Figure 1 **Classification of Individuals by Labor Force Status and Ownership of Employer**

In constructing the variables, self-employed individuals with and without employees were combined due to the relatively small number of cases in each of the two categories. However, cooperatives were maintained as a separate classification, their relative infrequency notwithstanding, as we felt that cooperatives were categorically different from both state enterprises (since cooperatives are by definition privately owned) and privatized enterprises (since the transfer of *de facto* ownership rights within cooperatives might not have been so complete as with privatized firms).

As in Sections 3 and 4, we control for income and demographic characteristics when estimating the impact of ownership transformation on attitudes and voting intentions. Thus, in the results that follow, we are reporting our estimates of the effect of an individual’s workplace experience holding constant any effects of income, age, education, or Prague residency.

Table 8A reports results from ordered probit estimations of the effect of ownership on our first set of dependent variables - measures of the degree to which the individual supports economic reform. In all four estimations - “satisfied with economic reform,” “privatization not unfair,” “economic situation improving,” and “future improvement in

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<sup>30</sup>A somewhat similar approach to classifying the “dominant ownership” of enterprises is developed in Earle and Estrin (1996), although the focus there is on different types of private owners of privatized companies - workers, managers, and outsiders.

family living standards” - employees of cooperatives, state enterprises, and privatized companies seem to be less likely to support economic reform than employees of the reference category, budgetary organizations, although the standard errors are large and almost none of the coefficients are precisely estimated. Relative to employees of state enterprises, workers in privatized firms generally are somewhat less enthusiastic about economic reform, with the exception of their stronger belief that will be “future improvement family living standards,” although none of the estimated coefficients on the privatized firm variable are significantly different from zero.<sup>31</sup>

**Table 8A Workplace Experience and Evaluation of Economic Reform**

The estimated coefficient on New, measuring the difference between employees of new firms and those of budgetary organizations are negative, but small and very imprecisely estimated.<sup>32</sup> The strongest result is the clear tendency of self-employed individuals (entrepreneurs), relative to everyone else, to evaluate economic reform positively. For the “satisfied with economic reform,” “economic situation improving,” and “future improvement in family living standards” regressions, the estimated coefficient on the self-employment variable is significantly different from zero.

Similar results are obtained from estimating equations for attitudes toward economic systems and policies, as shown in Table 8B. When asked their reaction to general statements about economic systems - “complete freedom for private enterprise,” “economy not under state control,” and “preferred economic system” - or to a relatively specific policy prescription - “no increase in price controls” - respondents employed by cooperatives appear to be the individuals least likely to be supportive of a liberal economy, although the coefficients are again imprecisely estimated. The difference between state enterprise, privatized company, and budgetary organization employees appears to be negligible.

**Table 8B Workplace Experience and Evaluation of Economic Policies and Systems**

In contrast with employees of old enterprises, workers in new firms appear more likely to believe that there should be “complete freedom for private enterprise,” and prefer the “economy not under state control,” and to support an economic system skewed towards the free-market model when to state their “preferred economic system.” The estimated coefficient on New in the last of these regressions is statistically significant from zero at the 5 percent level. Self-employed respondents to the survey

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<sup>31</sup>Quite different results were obtained in a similar analysis of political attitudes in Russia. Earle and Rose (1996 a and b) report that employees of privatized companies are the most anti-reform group in a sample of Russian workers, again controlling for a variety of other characteristics.

<sup>32</sup>Again these results differ from those in Russia, where, relative to workers in old firms, the employees as well as the owners of new private companies tend to be significantly more pro-reform, although the latter more so than the former.

are even more ardent than their employees in their support of liberal economic values, with the estimated coefficient on Entrepreneur in all four of the estimations positive and statistically significant from zero.

We report estimations of the impact of workplace experience on the last set of attitudinal variables, political attitudes and voting intentions, in Table 8C. Here, employees of cooperatives appear more likely than employees of budgetary organizations to agree that there is “more social justice today,” they tend to prefer “no rule by ‘strong hand’,” and to support either the Social Democratic Party or the government coalition over the Communist Party, but none of the estimated coefficients on the coefficient dummy is significantly different from zero. On the other hand, workers in state-owned enterprises seem less likely than employees of budgetary organizations to support liberal democratic values or the mainstream alternatives to the Communist Party, with the estimated coefficient significantly different from zero (5 percent level) for the government coalition choice. Respondents employed by privatized firms, however, are more likely than those in state enterprises to prefer “no rule by ‘strong hand’” and to support any of the three major alternatives to the Communist Party - but especially the Social Democratic Party.

**Table 8C Workplace Experience and Political Attitudes and Voting Intentions**

The results are mixed and imprecisely estimated for the effect of employment in the new private sector, but there may again be a difference between owning and working for a new private firm. Self-employed individuals are estimated to be more likely than anyone else to believe that there is “more social justice today,” to believe in “no rule by ‘strong hand,’” and to support either the government coalition or the Republican Party over the Communist Party, though they are also more likely to support the Communists than the Social Democrats.<sup>33</sup> Only the estimated coefficient on the Entrepreneur dummy is statistically significantly different from zero, however.<sup>34</sup>

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<sup>33</sup>We may speculate that the interesting cases of entrepreneurs who support the Communist Party may be members of the former *nomenklatura* who managed to convert (or something less polite) their positions and relations into economic advantage under the new conditions.

<sup>34</sup>We also ran a series of estimations with branch, size of firm, and occupation type as additional covariates. Generally, the point estimates were the same sign to those reported here, though estimated coefficients that were statistically significant in the more restricted specification sometimes were not so in the unrestricted model. Self-employment had an estimated coefficient that was positive and statistically significant when the respondent was asked if she believes that reforms will improve living standards, that private enterprise should have complete freedom, that the state should not increase price controls, and that today’s system is more socially just. The estimated coefficient on the Privatizable variable was negative and significant in the estimation where respondents were asked whether they believe that privatization is not unfair, while the coefficient on the privatized firm dummy was positive and significant in the estimation with the “strong hand” question as the dependent variable and for intention to vote for either the Social Democratic Party and the government coalition over the Communist Party.

Estimates of the marginal effects of ownership type, computed from the regression results, are large where the estimated coefficient is large and statistically significant. Entrepreneurs are about 50 percent more likely than other groups of employed persons to strongly agree that they are “satisfied with economic reform” and 25 percent more likely to either weakly or strongly agree. The effects are smaller for “privatization not unfair” and “economic situation improving,” but very large - 65 percent and 50 percent - for “future improvement in family living standards.” The estimated marginal effect of employment at a cooperative is, of course, of the opposite sign, and also somewhat smaller than that for entrepreneurs, although it is still sizable. Among the other categories, most notable is the negative evaluation of state enterprise employees of the fairness of privatization: they are 43 percent less likely than budgetary organization employees to strongly agree that “privatization is not unfair” and about 23 percent less likely to agree either weakly or strongly.

With respect to the evaluation of economics policies, the estimated marginal effect of Entrepreneur is huge, raising the probability of strong agreement with statements about “complete freedom for private enterprise,” “economy not under state control,” and “no increase in price controls” by 90 percent, 40 percent, and 60 percent, respectively.

Chi-square tests on the difference between the log likelihood function and the unrestricted log likelihood are statistically significant from zero at the 1 percent level in all specifications, and the covariates generally performed as they did in the restitution and voucher participation estimations. Income is almost always correlated with greater support for the attitudinal variables studied, though its impact on party preference is more ambiguous. Male respondents are, on average, more likely to support economic reform and liberal economic and political values, though they also are more likely to vote for the nationalist Republican Party, suggesting again that there may be some basis to the supposition that women feel less enchanted with the transition. The young are generally more likely to agree with the statements in all three groups of variables, and to support any major alternative to the Communist Party. The better-educated are more inclined to agree with all of the pro-reform statements, though, surprisingly, none of the education coefficients are precisely estimated in the party preference estimation. The only consistent result is that better education is more highly associated with support for the government coalition. Finally, the impact of Prague residency seems mixed, with Prague residents usually more, but occasionally less, likely to support economic reform and a free-market system. Only on political attitudes are the opinions of Praguers less ambiguous: respondents from Prague are more likely to support liberal democratic values and the mainstream parties over the Communists, though even here the only significant result appears in the “no rule by strong hand” estimation.

In summary, the self-employed are the most consistently pro-reform of all the ownership categories measured, though surprisingly those pro-reform attitudes do not translate into significantly stronger support for the government coalition. Little other systematic differentiation among ownership types is apparent, with the occasional exception of individuals in privatizable and privatized firms. The most notable of those exceptions is the tendency of employees of privatized firms to support both the Social Democrats and the government coalition over the Communist Party. Combined with the fact that employees of state enterprises are less likely to vote for the government, it

appears that Vaclav Klaus's decision to pursue privatization as rapidly as possible was politically intuitive, and that the fear of privatization may be worse than the reality.

## **6. LABOR FORCE STATUS AND SIMULTANEOUS TESTS OF HYPOTHESES**

In sections 3, 4, and 5, we have examined the relationship between economic and political attitudes and three types of individual experience with the Czech privatization process: restitution, voucher privatization, and workplace ownership, respectively. In each case, we found some evidence of statistically significant differences in attitudes between individuals with different experiences. In this section, we test the three sets of hypotheses simultaneously, to see whether our results for any one set are robust to controlling for the others, and we add an additional factor - labor force status - to the analysis.

The possibility that labor force status, and unemployment in particular, could affect political attitudes and voting behavior has attracted considerable attention from commentators and policymakers, mostly due to the concern that "too rapid" a pace of reform could lead to large layoffs and political backlash. The conventional argument is that because the unemployed are likely to represent, disproportionately, the unfortunate losers from the reform process, their experience will lead them to a lower evaluation of reforms. By contrast, Rodrik (1995) argues that if the unemployed are forward-looking, they will favor rapid reforms in the hope of a higher probability of their re-employment in the new private sector. As of yet, no empirical evidence has been available to support or reject either view.

We also disaggregate non-participants in the labor force into two groups: pensioners receiving state support (for both disability and old-age reasons) and others (typically students and, in the term used by the survey, "housewives"). The former group has seen its average real income fall considerably (Večerník (1996a)), at least in part because of specific reform policies (including price liberalization and budgetary restrictions), and thus may be likely to oppose reforms. The second group may not have suffered as much, and, in the case of students, may be more oriented towards their future prospects than to their current problems. Thus, it is interesting to test attitudinal differences across four groups of individuals: employed, unemployed, pensioners, and other nonparticipants. Figure 1 illustrates our nesting of the four labor force states.

The composition of the sample by labor force status is reported in table 9, with the self-classification of individuals responding to the questionnaire given along the vertical axis, and our reaggregation along the horizontal axis. "Retired" here refers to all non-employed individuals on state pensions (including disability pensions). Although unemployment is not rigorously defined in the questionnaire, it is notable that the implied unemployment rate (the number of unemployed divided by the sum of the number of employed and the number of unemployed), 2.1 percent, is actually quite close to the official unemployment rate in the Czech Republic, which has had the lowest in Europe (both East and West) for some time. The sample may seem remarkable for the very

high rate of labor force participation, 71.1 percent, but the socialist countries had high rates, a tendency that has to some extent persisted.<sup>35</sup>

### Table 9 **Composition of Sample by Labor Force Status**

Tables 10A, 10B, and 10C show the results from estimating ordered probit functions using the entire survey sample (except those under 20 years of age at the survey date, since they would not have been eligible to participate in either wave of voucher privatization). Our dependent variables are the same as before, but we have included all the privatization and ownership variables, plus the labor force status variables, plus the control variables on the right-hand side. The omitted category for labor force status is other nonparticipant, so the coefficients on the dummy variables Retired, Unemployed, and Employed represent the difference from this base group. This specification suffers from high multicollinearity, reducing significance levels on many coefficients, and we also discuss (but do not report, for reasons of space) an alternative specification in which all the control variables are omitted.

### Table 10A **Restitution, Voucher Program Participation, Labor Force Experience, and Evaluation of Economic Reform**

We find that the retired and unemployed tend to evaluate reform more negatively and to be less sanguine about the future compared to the omitted category of students and “housewives.” In the full specification with all covariates, the results from which are shown in table 10A, the results are only occasionally statistically significant, but in the restricted specification with no controls (but all privatization and labor force status variables) the coefficients on the dummy variables representing the retired and unemployed are highly significant, usually at the 1 percent level. The difference in statistical significance is certainly due to some multicollinearity with the control variables; in particular, Age and Retired are highly correlated.

The inferences to be drawn from table 10A concerning the effects of restitution and participation in voucher privatization are similar to those in the restricted specifications reported in sections 3 and 4, above, with only minor changes in levels of statistical significance. Restitution, voucher participation, and retention of shares have strongly positive effects on the probability of holding pro-reform attitudes, particularly when the issue concerns satisfaction with reforms so far, and optimism about the future effect of reforms. The main exception is the lack of statistically significant results for voucher participation and keeping shares in the evaluation of the “fairness” of privatization.

The results concerning experience of workplace ownership are also quite similar, with the biggest effect from the Entrepreneurship variable. When the controls are omitted, we find consistently negative and significant coefficient estimates for Employed and Cooperatives in all four models, as also for the estimated coefficient on Privatizable (representing the difference between employees of state-owned enterprises and

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<sup>35</sup>See, e.g., the various country papers in Commander and Coricelli (editors, 1995).



budgetary organizations) for the question about “future improvement in family living standards.”

Concerning set B of dependent variables, the evaluations of economic policies and systems, the retired again appear to be the most anti-reform group, with negative coefficients in all models and specifications. As shown in table 10B, the estimated coefficients on Retired are statistically significant at the 10 percent level in the case of two variables - “complete freedom for private enterprise” and “no increase in price controls” - where all controls are included, but when the controls are dropped, the Retired coefficients are negative and significant at the 1 percent level in all four models. By contrast, the unemployed seem much more ambivalent, with no significant coefficient estimates in any of the four models, whether or not covariates are included: it is interesting that they are, by far, not the most anti-reform group. Indeed, employed persons seem to be much more anti-reform than the unemployed, with coefficients on Employed that are negative in sign and sizable in magnitude in all four models; although statistically significant only in “complete freedom for private enterprise,” in the full model results shown in table 10B, the Employed coefficient is also significant in “preferred economic system.” This may lend some weak support to Rodrik’s (1995) hypothesis that the unemployed see their future interest in the furthering of reforms and marketization, although they are bitter over their misfortune at present.

**Table 10B Restitution, Voucher Program Participation, Labor Force Experience, and Evaluation of Economic Policies and Systems**

The effects of restitution and voucher program participation on the evaluation of economic policies and systems are similar in these specifications to those reported earlier in sections 3 and 4. Although the coefficients on Restitution and Participant are positive in all cases, significance is weaker than in the models for evaluating the economic reforms (table 10A). Retain shares is significant (and positive) only for “no increase in price controls” and, in a specification without the control variables, for “preferred economic system.” The results for experience of workplace ownership are similar to those reported earlier (table 8B), and Entrepreneur again has the most consistent positive influence on pro-reform attitudes. This effect is even stronger in the specification omitting other covariates, where the estimated coefficient on Entrepreneur is positive and highly significant in all models, and where the estimated coefficient on Cooperative is statistically significant - and negative - in the models for “state should not control economy” and “preferred economic system.”

Concerning political attitudes (table 10C), the retired are the least likely to agree that there is “more social justice today,” a result which is, however, statistically significant only when the control variables are omitted. Both Retired and Unemployed also have negative and significant coefficients for “no rule by ‘strong hand’” when covariates are omitted, while the effect of Employed, although also negative, is in no case significant. The relative probability of voting for the government coalition versus voting for the Communist Party is lower for both Retired and Unemployed, results which are statistically significant in the models where the controls are omitted. The estimated

coefficients on Employed are small and not significant in the voting intention models, whether or not covariates are included.

**Table 10C Restitution, Voucher Program Participation, Labor Force Experience, and Political Attitudes and Voting Intentions**

Results in table 10C for restitution and voucher program participation are almost identical with those reported earlier, in tables 4C and 6C. Retain shares is a statistically significant positive predictor of belief that there is “more social justice today” and that there should be “no rule by ‘strong hand’,” as well as for voting for the government coalition over the Communist Party. Restitution is positive and significant for the first and last of the three dependent variables, while simple participation in the voucher program is significant nowhere (not even in specifications in which the control variables are omitted). Results are also similar for the effects of different types of workplaces on political attitudes and voting behavior: entrepreneurs are again the only group significantly more likely to believe that there is “more social justice today.” Concerning voting behavior, the outstanding group is state enterprise employees, who are significantly less likely to vote for the government coalition than the Communist Party, relative to all other employed individuals.

The estimated marginal effects of the labor force status variables on the probability of the levels of dependent variable response are consistent with the conclusions we have drawn so far from examining signs and significance levels of the estimated coefficients. With respect to “satisfied with economic reform,” Unemployed both raises the probability of strong disagreement and lowers the probability of strong agreement by about 70 percent, *ceteris paribus*; for “economic situation improving,” the effect is over 90 percent. Retired has a large effect in the evaluation of “privatization not unfair,” raising the left tail and lowering the right tail of the distribution each by 50-60 percent. Concerning agreement with “future improvement in family living standards,” Unemployed reduces strong agreement and raises strong disagreement by over 60 percent, while Retired does the same by about 50 percent.

All three labor force status variables have negative and large marginal effects on agreement with “complete freedom for private enterprise,” with a 40-50 percent increase in the probability of strong disagreement and a decrease of similar magnitude in the probability of strong agreement, relative to students and “housewives.” With respect to the other variables evaluating economic policies and systems - “economy not under state control,” “no increase in price controls,” and “preferred economic system” - Retired has the biggest effects, lowering the probability of strong agreement in the first two cases by about 45 percent, *ceteris paribus*, and raising the probability of preferring the “socialist pre-1989 system” by about the same amount.

Chi-square statistics for the goodness of fit of the estimated equations reported in this section are highly significant, and the control variables have effects similar to those discussed in previous sections. Other marginal effects are of similar magnitudes to those reported in earlier sections.

## 7. CONCLUSION

In this paper, we have presented evidence of an empirical relationship between attitudes toward reforms and individual experience of several aspects of the privatization policies introduced by the Czech government. In our sample of 1459 adult Czech respondents, restitutory status, participation in voucher privatization, and retention rather than sale of shares acquired through the voucher program all have significant predictive power for attitudes which may be characterized as pro-reform. Either because they are grateful to the government that arranged the privatization program in such a way as to make them the beneficiaries, or because they have acquired a vested interest in continued progress towards a market economy, these recipients of property through the restitution and voucher programs are more likely to appraise past reform efforts positively, to expect good future developments, to oppose state intervention in the economy, to hold democratic values, and to cast their votes for the government coalition.

The paper also presented evidence, although somewhat weaker, of effects from workplace experience of ownership and from labor force status on attitudes towards the reform. Differences according to workplace ownership and labor force status appear fairly strong if one simply compares the patterns of responses across groups. But in the ordered probit regressions, controlling for a number of other factors, most of these differences become statistically insignificant - probably due to multicollinearity with our many covariates. The principal results that appear to be robust are the pro-reform tendencies of entrepreneurs and the anti-reform attitudes of pensioners and, to a smaller extent, the unemployed.

These results have a number of wider implications. First of all, most if not all of the empirical literature on the effects of the economy on individual attitudes has studied macroeconomic variables, such as inflation, unemployment, and growth in national income, relating them to voting for a particular party or for the incumbent versus the challenger in presidential elections.<sup>36</sup> While such analyses have their own intrinsic interest, their usefulness is limited from a Machiavellian point-of-view because macroeconomic variables are not policy instruments that can easily be controlled by a politician. What the Prince or the Princess (at least a democratic one) would like to know is how to design policies to strengthen his/her political base, or indeed whether policy design can affect the attitudes of the citizenry whatsoever. If it cannot, then the ruler is unfettered, at least by political forces, in pursuing any and all objectives. Our work demonstrates both the political opportunities and the political constraints that policymakers face in their design decisions.

Second, we find that the transition context is both an apt and a fascinating setting in which to investigate these issues. Seldom in world history have democratic

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<sup>36</sup>A recent study of the U.S. is Fair (1996). In the transition context, see Przeworski (1996) for a study of the effects of unemployment, inflation, and wage levels on support for the Balcerowicz program in Poland. Another approach (e.g., Whitefield and Evans (1994), Evans and Whitefield (1995)) relates support for democracy (the dependent variable) to subjective evaluations of the political and economic situation (the independent variables), rather than, as we do here, to the actual experiences of policies.

policymakers faced both the opportunity and the conundrum that privatization has represented to the East European leaders coming to power in the early 1990s. In some ways, the chance to implement such a program must be the dream of every politician out to buy votes with pork barrel or worse, and of course policymakers in the transition countries generally also had broad awareness of the importance of privatization in improving economic performance, at least in the long run. At the same time, designing the privatization policy was a daunting challenge to face, full of invisible political and economic pitfalls. In retrospect and in contrast to the situation in most other countries, Klaus and his colleagues charted their way with uncommon skill through these treacherous and opportunity-filled waters of the early days of transition, when they embarked on the programs that would completely reallocate ownership in the Czech economy. As we have shown, the designs of the restitution and voucher programs contained specific elements that served to maximize their positive impact and to minimize their negative consequences, in purely political terms.<sup>37</sup> Their history provides a striking case study of policymaking under political and economic uncertainty: they were either remarkably adept or, if one is unwilling to impute intentionality, extremely lucky.

Third, our work provides some support for viewing attitudes themselves as institutions: the preferences of individuals over alternative policies carry consequences, for instance for the sustainability of a reform process, and they are persistent in that habitual ways of thinking (what East Europeans widely refer to as “the mentality of the people”) are not easily changed.<sup>38</sup> Most intriguing, however, is the point we focus on in this paper: despite their persistence, attitudes toward policies may be susceptible to influence by the particular design of policies themselves. In the Czech example, reform policies were fundamentally new, both in form and content: by contrast with economic policy under the Communist Party, they were open, transparent, and competitive (merit-based). Moreover, as we have emphasized, they involved the population as active participants in the process, giving them incentives and new opportunities for gain and profit. The paper provides evidence that these experiences may indeed have re-oriented Czech individuals towards the market and away from the old *modus operandi* of personal connections, special deals, and dependence on the state.

Finally, we believe this paper contributes to the development of a new, positive, *empirical* political economy. Our approach to the analysis of privatization policies is quite consistent with the recent exciting developments in the “new positive political economy”, which analyze the determination, persistence, and consequences of

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<sup>37</sup>Privatization is not the only area in which the Klaus government seems to have been exceptionally conscious and foresightful of political implications of economic policy design. Klaus himself has referred to the “two pillows policy” whereby an undervalued exchange rate and restrictions on the growth of real wages helped protect the viability of antiquated manufacturing industries, thus cushioning the transition to open international competition.

<sup>38</sup>Both Simon (1945) and Nelson and Winter (1982) discuss the possible conceptualization of personal habits as kinds of institutions. We would add that patterns of thinking may also be habits and that they also have real consequences. Our approach has parallels in the discussions of “cultural persistence” in the literature on ethnomethodology; see, e.g., Zucker (1991).

institutions (and policies).<sup>39</sup> The research in this area so far, however, has been largely theoretical or provided only case-studies as examples. Perhaps this is because the topics which have received most attention - policy games between the government and the monetary authority and rent-seeking in tariffs and other import restraints - provide little opportunity for large-scale empirical work. By contrast, the attitudes of citizens toward policies, and the role of policy design in affecting those attitudes, is eminently suitable for empirical examination. With this paper, we hope to have demonstrated the viability of such a research agenda.

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<sup>39</sup>See, e.g., the papers in Alt and Shepsle (1990).

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## TABLES AND FIGURES