DOES LIBERTÈ = EGALITÉ? A SURVEY OF THE EMPIRICAL LINKS BETWEEN DEMOCRACY AND INEQUALITY WITH SOME EVIDENCE ON THE TRANSITION ECONOMIES

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Abstract. The effect of the distribution of political rights on income inequality has been studied both theoretically and empirically. This paper reviews the existing literature and, in particular, the available empirical evidence. Our reading of the literature suggests that formal exclusion from the political process through restrictions on the voting franchise appears to have caused a high degree of economic inequality, and democratization in the form of franchise expansion especially for women, has more often than not led to an expansion in redistribution, at least in the small sample of episodes studied. In a less pronounced way, albeit more emphatically compared to the ambiguous results of the earlier research, the recent evidence indicates an inverse relationship between other measures of democracy, based on civil liberties and political rights, and inequality. The transition experience of the East European countries, however, seems to some extent to go against these conclusions. This, in turn, opens possible new vistas for research, namely the need to incorporate the length of democratic experience and the role played by ideology and social values.

Keywords. Democracy; Freedom; Inequality; Redistribution

1. Introduction

The relationship between political structure and economic performance has long been a subject of scrutiny for researchers. In particular, the links between the extent to which an economy is democratized and its income growth and income distribution have been examined. While the studies on the first of the above links has been recently surveyed by several authors,[1] the second link has received much less attention. The objective of this survey is to bridge this gap by focusing on the empirical evidence with regard to the second link, asking specifically, whether or not democratization should be expected to bring about a decrease in income inequality.

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We need to be very precise about the relationship which we propose to survey here. First, on the inequality side, we are concerned only with within-nation inequality. The subjects of the between-nation inequality (as examined in Firebaugh (2000) for example) or global inequality of individuals in the world (Milanovic, 2002) are outside the scope of this paper. Second, on the democracy side, we are interested in the effects of democratization, conventionally understood to include greater public say in the affairs of the state through free and fair election of various government official, freedom of speech, public assembly, formation of political parties and the like. The implication is that our attention will be focused on a relatively narrow range of democracy measures. A broader perspective would address the links between quality of governance and political instability on the one hand and inequality on the other hand. We are not pursuing this broader scope presently for two reasons. For once, quality of governance or political instability are conceptually different from democracy: they address political performance of a system, not its inherent (democratic or not) features.[2] For obviously a given level of democracy can coexist with vastly various levels of political stability and transparency of governance.[3] The second reason is that the empirical literature that studies the effects of governmental quality on inequality is still very scarce. Finally, this work focuses on the causal link from democracy to inequality only touching in passing the issue of the reverse causality.

That political factors play an important role in shaping inequality should not come as much of a surprise. While economic theory has much to say about efficiency in the allocation of resources, as described by the Pareto frontier, it is much less eloquent about the precise point(s) on the frontier likely to be reached in reality, claiming that this depends on normative/political considerations. The recent political economy literature tries to tackle this latter issue by specifying the institutional details of the political process, which resolve distributional conflicts (e.g., Meltzer and Richard, 1981; Alesina and Rodrik, 1994; Persson and Tabellini; 1994). In particular, a subset of this literature, surveyed in greater detail below, deals specifically with the relationship between the distribution of political power and the distribution of economic resources, which is the focus of this survey.

It might be tempting to think that a more equal distribution of political power, that is more democracy, would necessarily imply less economic inequality. However, a cursory review of the recent development history in countries of East Asia and East Europe, reveals this intuition to be misleading. In fact, some East Asian countries, such as Taiwan and South Korea, have achieved a relatively equal distribution of income when autocratic regimes prevailed, and, ironically, in the post communist countries of East Europe, inequality seems to have actually increased during the course of democratization. These examples call for a more formal empirical look at the co-evolution of democratization and inequality across countries.

Indeed, the empirical research of the subject has been vibrant in recent years. The issue being of an inherently interdisciplinary nature has been addressed by sociologists, political scientists, and economists. The early research conducted in the sixties and seventies made evident the methodological issues that have to be faced by researchers in the field, such as measurement problems, sample composition, model specification and others. More recently, measurement of some key variables (particularly of inequality, but also of democracy) has been significantly refined, which has allowed for a better reassessment of the evidence.

Our main purpose is to briefly review the theories that have been developed on the relationship between democracy and inequality and, in particular, to summarize the results of the empirical research. Since the early empirical studies of the sixties and seventies, have been comprehensively surveyed elsewhere (Sirowy and Inkeles, 1990) the present coverage focuses on the more recent evidence. We also make an attempt to more explicitly relate the findings to existing political economic models.

The survey proceeds in the following order. The next section sketches some theories on the relationship between democracy and inequality. Section 3 then discusses some methodological issues associated with empirical tests of these theories. Section 4 reviews the empirical evidence, while section 5 pays closer attention to the recent transition process in the post communist countries of East Europe. Finally, concluding remarks are presented in section 6.

2. Outline of the Theoretical Arguments

Economists and social thinkers have long held that by reducing inequalities in the distribution of political power, democracy helps to reduce inequalities of wealth and status.[4] The view that political democracy leads to greater economic equality was commonly held in the late eighteenth- and early nineteenth-century period, and economic consequences of democracy have been at the center of debates concerning the right to vote and to organize during the first half of the nineteenth century. One of the main arguments has been that democracy, specifically universal suffrage and the freedom to form unions, threatens private property: endowed with political power in the form of universal suffrage, those who suffer as a consequence of private property will attempt to use this power to expropriate the rich. The British electoral reforms, in particular reduction of the suffrage in the wake of the French revolution, are generally the best-known, and the most researched, case. But the same problems were present throughout Europe: only some 10% of adult male Italians, Dutch and Belgians had the right of vote as late as 1880 (Flora *et al.*, 1983; Lindert, 1989); less than 2% of adult males were enfranchised in Hungary on the eve of World War I (Taylor, 1967; Polonsky, 1975, p. 46). The dilemma was eloquently summarized in 1871 by the Spanish statesman Canavas del Castillo in a rebuttal to those who complained about electoral fraud. He wrote: 'to have to choose between the permanent falsification of universal suffrage and its abolition is not to have to choose between universal suffrage and preservation of property'. (Ubieto *et al.*, 1972, p. 731).

In modern times, the theoretical case on the link between democracy and inequality has been forcefully presented by Lipset (1959) and Lenski (1966). Lipset argued that democratic political structures lead to elections that serve as the expression of the democratic class struggle. Citizens vote for parties that appeal primarily to either working-class or middle-class interests. The extension

Table 1. Regressing Inequality on Democracy: Transition Countries.

	Gini change		Gini post-transition level	
Cumulative liberalization	−0.106 (−0.89)	0.131 (0.38)	−0.076 (−0.59)	0.146 (0.37)
GDP 1988 (in $PPP) x 1000	−1.03 (−0.98)	−0.80 (0.40)	−1.67 (−1.49)	−1.45 (−1.4)
CIS dummy		13.15** (2.41)		12.29* (2.0)
Constant	28.81** (3.60)	4.00 (0.32)	52.25** (6.13)	29.07* (2.1)
R^2 adjusted (F)	0.07	0.27	0.12	0.25
Number of observations	21	21	21	21

Note: t-values between brackets.
* significant at 5%. ** significant at 1%.

of the franchise since the last century to include those with little property and other assets has vastly increased political competition in industrial societies, and has served to move politics toward the left. Similarly, for Lenski, the 'new democratic ideology' legitimates a major redistribution of political power in favor of the majority – namely, the disadvantaged elements of society. This increased political equality has led to more social equality because the major electoral demand made on modern political elites has been for a more egalitarian distribution of material goods.

The construct of Meltzer and Richard (1981, 1983) is the economists' counterpart of the above argument. They exhibit a formal pure redistribution model, whereby taxes, which are proportional to income, are used to provide a lump-sum payment. The tax rate, therefore, represents the extent of redistribution, and voters differ with regard to their political preferences: a higher endowment (of abilities, hence income) indicates the preference of a lower tax rate. The equilibrium tax rate is a decreasing function of the ratio between the income of the decisive voter and the average income. Democratization, specifically, expansion of the voting franchise makes a poorer individual to become decisive, thereby leading to higher redistributive taxes and lower inequality. Most recently, this model has been recast in a growth framework by Alesina and Rodrik (1994) and Persson and Tabellini (1994) the tax being interpreted as an investment tax. Such an approach has dynamic implications that indicates *ceteris paribus* a decrease in inequality over time as the voting franchise is expanded. Saint-Paul and Verdier (1993) reached a similar conclusion in a framework wherein tax revenues are used to provide a uniform level of public education.[5]

Let us now take a few moments to review a simple variant of the basic model, that has become intellectually influential in shaping a concept of the relationship between democracy and inequality.[6] Consider an overlapping generations economy with a continuum of households, indexed by i, each comprising two members, young and old, so that the total population remains constant over time. The households differ with respect to their income endowment and, in particular, in each period t, household i allocates post-fisc income y_{it} between current consumption, c_{it}, and investment, k_{it+1} according to the budget constraint:

$$y_{it} = c_{it} + k_{it+1} \tag{1}$$

The next-period pre-tax income equals $A_{t+1}k_{it+1}$, where A_{t+1} is an exogenously given productivity parameter increasing over time. Post-fisc income is determined as a function of the pre-fisc income as well as of a politically determined redistributive policy. Specifically,

$$y_{it+1} = A_{t+1}[(1 - \theta_t)k_{it+1} + \theta_t k_{t+1}] \tag{2}$$

where k_{t+1} denotes the average amount of investment and $0 \leq \theta_t \leq 1$ is the redistributive parameter. The specification in (2) implies that pre-fisc income is taxed at a flat rate, θ_t, and the proceeds are redistributed as a lump-sum payment ($\theta_t k_{t+1}$). Note that the redistribution is of a progressive nature, more so the larger is θ_t; in particular, a higher value of θ_t implies a leftward shift in the Lorenz curve (hence, a decrease in inequality).

The household utility derives from consumption and from anticipated next-period post fisc income:

$$U(c_{it}, y_{it+1}) \tag{3}$$

where U is assumed to satisfy the standard assumptions.

Let y^* denote the income requirement for enfranchisement, so that only individuals whose income is higher than y^* are allowed to vote.[7] We envision in each period t a two-stage decision making process. In the first stage, the enfranchised old vote over the redistributive parameter θ_t. After that is determined by a majority vote, each old member of the household allocates her income between consumption and investment according to (1) so as to maximize her utility (3) and anticipating the determination of future income according to (2). The political-economic equilibrium consists of a redistributive parameter, which is undefeated by a majority vote in a pairwise comparison with any alternative and optimal consumption-investment choices.

The equilibrium analysis proceeds backwards. In the second stage, each household makes its consumption-investment decisions taking the redistributive parameter as given; focusing on the internal solution this implies the following first order condition:

$$-U_1 + U_2 A_{t+1}(1 - \theta_t) = 0 \tag{4}$$

In the first stage voting over redistribution takes place. Employing the envelope theorem, differentiation of (3) with respect to θ_t reveals that the preferred value of the redistributive parameter for household i is determined from the following equation:

$$k_{t+1} - k_{it+1} + \theta_t dk_t / d\theta_t = 0 \tag{5}$$

Further analysis of (5) shows that, under mild assumptions, the preferred level of redistribution, θ_t, is a monotonically decreasing function of income. This implies (Gans and Smart, 1996) that a political-economic equilibrium exists whereby the median-income household among all enfranchised households is decisive in determining θ_t. Furthermore, a decrease in y^*, that is expansion of the franchise, results in a higher value of the redistributive parameter. Intuitively, the poorer a household, the higher the preferred level of redistribution. As political participation of the poor increases because of the franchise expansion, therefore, redistribution increases with the resulting decrease in inequality. This model of redistribution predicts, therefore, an inverse relationship between democracy and inequality.

Justman and Gradstein (1999a) reach a slightly different conclusion in a related framework, whereby initially, as long as the income of the decisive voter is higher than the average income, inequality increases due to the redistribution from the poor to the rich and only afterwards decreases. This indicates an inverse U-shape (or curvilinear) relationship between democracy and inequality, one which had also been stipulated in Huntington and Nelson (1976).

Although it is not the main focus of the present paper, one should mention that the above causality relationship has been challenged and, in particular, it has also been argued that extreme inequalities in wealth undermine democratic political structures, see Dahl (1971). The general argument is that concentrated economic resources may leave the door open for the politically powerful rich to prevent political reforms that extend rights and liberties to the poor. Such actions may range from direct military suppression to more subtle controls such as limitations on access to education and the control of information through ownership and censorship of the mass media. An authoritarian government can repress reactions against these inequalities, while a democracy cannot indefinitely do so and remain democratic. In sum, the effect of inequality on democracy is anticipated because concentrated economic rewards lead to similar concentrated political resources, all of which undermine political equality.[8] Acemoglu and Robinson (1999) present a different argument to reach a similar conclusion. They claim that inequality makes democracy more costly for the ruling rich elite due to the pressure for redistribution by the poor masses that it unavoidably creates. Therefore, inequality destabilizes democracy in the sense that the elite is likely to mount a coup to prevent democracy from functioning. While our coverage is not directly concerned with examining this causality relationship, we note in passing that the jury is still out to decide whether or not it holds; see e.g. the exchange in Muller (1995a,b) and Bollen and Jackman, 1995.

Finally, some researchers have argued for a positive relationship between democracy and inequality. Beitz (1982) suggests that authoritarian regimes are more likely to pursue egalitarian development policies than are democratic regimes because they may be better able to protect the interests of the poor. Thus, although democracies are more receptive to claims made by voters, they fail to treat the voters equally as sources of redistributive claims. Acemoglu and Robinson (1999), argue that when disenfranchised, the poor have access to a revolutionary technology, thus posing a threat to the enfranchised rich. This provides an incentive for the rich to co-opt the poor by expanding the voting franchise. This model seems to suggest that extreme inequality, though not moderate levels of inequality, can be associated with eventual democratization.[9]

3. Methodological Issues

Several important conceptual and methodological issues face researchers interested in studying democracy and inequality, which can broadly be classified into: measurement problems and selection bias.

A. *Measurement Problems*

(a) *Income inequality*

The difficulties in accurately measuring *income inequality* are well known. Data on income distribution are many times heterogeneous in regard to the timing of the observations, the definition of income and income recipient, the duration over which income is recorded, the proportion of the population covered, and the nature of the data collection procedure, which makes international comparisons exceedingly difficult. Some of the sources of this heterogeneity include whether the income figures are net (after cash transfers and taxes), gross (after transfers but inclusive of taxes) or factor only (before either taxes or transfers); whether income recipients are households or individuals; and whether the income figures are representative of the nation as a whole or refer only to certain regions or cities. Also, the dates the income inequality figures refer to in existing data banks vary across nations. Consequently, a good portion of the observed country differences in inequality may simply reflect measurement artifacts. These data problems are yet further complicated by the fact that there are a number of data sources available, which somewhat differ in terms of coverage and some of the figures reported; they force research designs to be cross-sectional, which gives one very little leverage in addressing questions posed in dynamic terms. A major improvement took place only recently with the release of the Deininger-Squire panel data on Gini coefficients and income shares (covering the period 1960–96 and some 80 countries) which represents a major step on the road to full data standardization. The data set is reviewed in detail in Deininger and Squire, 1996, who also provide a detailed guide for its use.

The data problems have particularly plagued the testing of the median voter hypotheses – a crucial hypothesis for our purposes – because the way the hypothesis is theoretically couched requires access to individual factor incomes. This is so because people vote on taxes and transfers based on their factor income levels, and the decisive voter is the one with the median factor (pre-fisc and pre-transfer) income. However, these data are typically very difficult to obtain for most countries and the researchers had therefore had to resort to using the post-tax and post-transfer income (net income) as the basis on which the median voter makes her decision (Perotti, 1993, 1996, Easterly and Rebelo 1993; Bassett *et al.*, 1999). Thus people's decisions about the optimal level of taxes and transfers were made to depend on the distribution which emerges as a consequence of that decision! Lack of data on the middle-class gain, furthermore, led to researchers approximating the gain by the share of transfers in GDP – a very imperfect proxy bearing in mind that many transfers may be captured by the rich. Only recently (Milanovic, 1999) have these two shortcomings, thanks to the rich data set provided by the Luxembourg Income Survey, been overcome, and the hypothesis tested in an empirically correct way.

(b) *Political democracy*

The second major area of interest for the present survey has also suffered from definitional and measurement problems. Some 'hard' measures of democracy, have been based, for example, on the degree of national electoral participation. On the other hand, Bollen, 1980, found that a measure of the percentage of the adult population who voted was either not related to or inversely related to a number of other dimensions of a political democracy. A certain level of participation is necessary to democracy, but above some point the meaning of variations in participation is ambiguous. The interpretation of participation figures is further clouded by the existence in some countries of a legal obligation to vote.

An additional problem is that a measure of level of democracy at a single point in time is insensitive to a country's experience of democracy over time. Research that focuses on the *level* of political democracy implicitly assumes that democracy can have a more or less immediate effect on inequality. All countries with a high level of democracy (controlled for other variables like income) are expected to have a relatively low level of income inequality, regardless of the length of time that democratic institutions have existed. But if the egalitarian influence of democracy is in reality a long-term incremental effect, relatively new democracies should not be expected to be as egalitarian as older ones, even if they have the same level of democracy in a given year. Thus, a reason for the failure to find a significant negative effect of the level of democracy on income inequality could be the confounding influence of new, inegalitarian democracies.

The studies surveyed below have all used al least one of the following three proxies for political democracy. One group of studies identifies democracy with the voting franchise. This approach is useful in instances where an historic episode of massive expansion of the franchise takes place. In the prevalent situation, however, when no such expansion is being observed the literature has typically resorted to some subjective measures of political democracy. One early such measure was developed by Bollen (1980) who defines political democracy as 'the extent to which the political power of the elite is minimized and that of the non-elite is maximized,' suggests that democracy's two main components are popular sovereignty and political liberties. The first of these concerns the extent to which the elite of a country is accountable to the non-elite. The second dimension concerns institutions through which the non-elite can influence the decisions of the elite, including free speech, a free press, and freedom of opposition. Bollen then combines three indicators of popular sovereignty and three of political liberties into a single index.

In parallel, other related measures have been developed by several authors. All these measures rely invariably on subjective rankings and are based on aspects of civil liberties and political rights. One commonly used such index is drawn from Freedom House publications and is derived from the work of Gastil and co-workers. Finally, there exists the Polity III (and as of 2002 Polity IV) index of democracy generated by Jaggers and Gurr (1995). Despite the fact that all these indices are derived from subjective valuations and sometimes yield very different rankings for individual countries, they exhibit a relatively high correlation between them, of over 0.80.

B. *Selection Bias*

This refers to the bias of including some countries in a cross section analysis while excluding others. Typically, those included are more advanced countries with much better developed data collection procedures than the average. Early work, in particular, was usually based on quite small samples of countries, because of data availability. It is unclear how much bias this introduces into the results;

however, our survey of East European countries below – usually excluded from most analyses – suggests that these omissions might be too important to neglect.

4. Empirical Evidence

The existing empirical evidence can be divided into two broad groups of studies, which are distinguished by their proxies for democracy. One strand of the literature associates democracy with voting franchise. Papers in this group typically conduct analyses of historical episodes of expansion of the voting franchise and the subsequent trend in income inequality. Another strand of the literature conceives of democracy in terms of civil liberties and political rights (rights of expression, rights to organize, free press etc.) and are based on the above described indices to measure democracy. Most of the studies belonging to this group perform cross section analysis focusing on the link between these rights and inequality measures.

4.1 *Voting Franchise*

Studies on the effects of the expansion of the voting franchise tend to focus on the documentation of historical episodes. While this methodology in itself introduces a selection bias and precludes any sweeping generalizations, it represents the most direct effort to test economic theories of redistribution described above.

Pelzman (1980) is probably one of the first papers addressing the issue. Reviewing the evolution of government spending in a small sample of rich countries, it does not discern any systematic effect of the expansion of voting franchise.

In contrast, Lindert (1994) investigates a bigger panel of 21 rich countries in the period 1880–1930, coming to the conclusion that expansion of franchise is only mildly associated with an increase in redistributive spending (although the effects of women suffrage are stronger), attributing this increase for the most part to the increase in the fraction of old people.

Justman and Gradstein (1999a) following the seminal work of Dicey (1914/1962) document the gradual expansion of voting franchise in the nineteenth century Britain and similarly find that it was followed by a massive adoption of redistributive programs.

Husted and Kenny (1997) examine the effect of elimination of poll taxes and literacy tests on redistribution using a panel of 46 states in the USA for 1950–88. They find that it resulted in a significant increase in welfare spending, but not in other government expenditures.

Lott and Kenny (1999) examine the evolution of women suffrage in the USA in the period from 1870 to 1940. They find that giving women the right to vote has resulted in a significant increase in voter's turnout and ultimately, in a substantial increase in government spending and specifically, in transfers. Although they do not explicitly focus their analysis on the inequality effects, the fact that the most significant increase was in welfare spending suggests that inequality must have been reduced.[10]

Abrams and Settle (1999) similarly use the Switzerland's extension of the franchise to women in 1971 to test the hypothesis that redistribution is affected by the relative income of the decisive voter, arguing that women suffrage must have lowered the income of the decisive voter. They find that this extension of voting rights increased Swiss social welfare spending by 28%.

In a related but different vein, Mueller and Stratmann, 2002, examine the effects of voter turnout on inequality. They find a significant and robust moderating effect of voter participation on inequality in a cross country analysis: in particular, an increase in the voter participation rate from 40% to 80% decreases the Gini coefficient by about 10% of its mean value in the sample. While it is difficult to relate this finding to those reviewed above on the extension of franchise, the concept of voter participation captures relevant aspects of democracy and deserves further investigation.

To sum up, it appears that expansion of franchise is only very mildly, if at all, associated with a subsequent increase in redistribution – this, at least, is the reading of the available evidence with regard to a (non-representative) selection of countries. The effects of franchise expansion to women, something that happened in most of Western Europe and in the USA in the 1920s, seem to be a bit stronger. Although inequality measures do not typically feature in the above surveyed analyses, the implication of this expansion of redistribution must have been a decrease in inequality.

Extent of franchise, however, is of a limited value as a proxy for democracy. One reason is that the cross-country variation in this variable is expected to be quite small – most of the world has achieved a formal full franchise. Another problem is that in some countries voting franchise may very little to do with actual political democracy – the former communist countries being the case in point. Thus, one is led to consider alternative, more subtle measures based on civil liberties and political rights.

4.2 *Civil Liberties and Political Rights*

Work in this direction uses subjective indices for political rights, which are based on personal impressions by panels of experts of the extent of those rights in different countries. Among the most commonly used are the indices of Bollen (1980), Gastil, and Polity III and Polity IV (Jaggers and Gurr, 1995; Marshall and Jaggers, 2002). Since most of the studies confirm a high degree of correlation between these indices and reach similar conclusions with regard to them, we will not make such distinctions either.

Early work on the link between political rights and inequality is concisely reviewed in Sirowy and Inkeles (1990). Sirowy and Inkeles themselves, covering 12 previous studies come to the conclusion that 'political democracy does not widely exacerbate inequality', and that 'the existing evidence suggests that the level of political democracy as measured at one point in time tends not to be widely associated with lower levels of income inequality' (p. 151). Specifically, six of the surveyed studies find a negative relationship between democracy and inequality and six other studies either find a positive relationship or fail to detect any significant association. Here we extend their survey, supplementing it with more recent studies. As we shall see, this leads to a somewhat different interpretation of the evidence. We begin by summarizing the results of some of the earlier papers identified as better dealing with some of the methodological problems reviewed above.

Bollen and Grandjean (1981) properly controlling for the non-monotonic relationship between economic development (by including both the logarithm of energy consumption per capita and its square as a measures) and income inequality (measured by the Gini coefficient), did not find any significant evidence to support the view that political democracy contributes to a more egalitarian distribution of income in a sample of 50 countries, once economic development is controlled for.

Bollen and Jackman (1985) reexamine the argument presented in a previous study Rubinson and Quinlan (1977) on the potential reciprocal relation between political democracy and income inequality, by constructing a simultaneous-equations model for income inequality and political democracy. Following Kuznets' insights, they specify inequality as a curvilinear function of the level of economic development and anticipate an inverted U-shaped curve, with a positively signed coefficient for economic development and a negatively signed coefficient for its square. The most important variables included in their investigation are: political democracy, measured by Bollen's index of political democracy; income inequality (the data are from World Bank sources); socioeconomic development, measured by the gross national product per capita; and population age structure, measured by the percentage of the population aged 0–14 years. The major result of this study is that, again, no significant effects between democracy and inequality in either direction are found.

Some other studies have tested the effect of the length of democratic experience on inequality. Hewitt (1977) for example, in a sample of 25 industrialized countries failed to find a significant relationship, after properly controlling for other variables.

In an important study, Muller (1988) extended the sample to 50 countries also using the number of years of democratic experience and controlling for the extent of economic development. The indicator of a country's level of democracy is Bollen's index. Muller reports that at least approximately 20 years of democratic experience are required for the egalitarian effect to occur; countries with less than a generation of democracy are almost as egalitarian, on average, than non-democracies. In other words, democratic institutions, if maintained for a relatively long time, cause some gradual reduction of income inequality, independent of level of economic development. Also, a very strong inverse association is observed between income inequality and the likelihood of stability versus breakdown of democracy, even independent of a country's level of economic development. Thus, if a democratic regime is inaugurated in a country with an extremely inegalitarian distribution of income, high inequality is likely to undermine the legitimacy of the regime and cause democratic institutions to be replaced by authoritarian rule.

Robustness of Muller's findings with respect to the inclusion of a control variable (literacy rates) and an observation (Taiwan) was subsequently questioned in Weede (1989). Moreover, using an update inequality data set, Weede failed to reproduce these findings altogether. In his response, Muller (1989) reproduces his results using an alternative measure of the length of democratic experience, even controlling for literacy rates.

Summarizing the results of early research on the subject, Sirowy and Inkeles conclude therefore that evidence on the positive effect of democracy on reducing inequality had been ambiguous, although the *length* of democratic experience (as opposed to the state level of democracy) may have contributed to reduction in inequality.

Some more recent research seems to be more conclusive. A couple of papers done over the past several years have used an improved inequality data set created in the World Bank (the Deininger-Squire) to test the hypothesis that democracy reduces inequality. Note that all the papers surveyed below use the Gastil index of political rights as opposed to Bollen's used in earlier studies; however, because of the high correlation between the two (typically above 0.80), this change is unlikely to matter much.

Rodrik (1999) provides empirical support for the assertion that controlling for labor productivity, income levels, and other possible determinants, there is a robust and statistically significant association between the extent of democratic rights and wages as a share of GDP received by workers. The association exists both across countries and over time within countries (i.e., in panel regressions with fixed effects as well as in cross-section regressions).

Li *et al.* (1999) explore two channels, which are likely to generate inequality: the political economy channel and the imperfect capital markets channel. The key variables associated with the political economy channel (a measure of political freedom and initial secondary schooling) and those associated with the capital market imperfection (the initial degree of inequality in the distribution of assets as measured by the distribution of land and a measure of financial market development) are all shown to be significant determinants of current inequality. The results, in particular, show that expansion of political liberties reduces inequality.[11,12]

Simpson (1990) finds that political democracy and income inequality are related by a curvilinear function: inequality tops at intermediate levels of democracy. Nielsen and Anderson (1995) present further limited support to this finding, although the relationship ceases to hold at a statistically significant level when controlling for other additional variables. Justman and Gradstein (1999b) likewise detect that democracy affects inequality in a curvilinear fashion and argue that it is a better predictor of inequality than level of development as stipulated by the Kuznets hypothesis.

The most recent paper Lundberg and Squire (1999) which studies the simultaneous determination of growth and inequality within the framework of an even more expanded data set relatively to Deininger and Squire (1996) does not discern a significant relationship between democracy and *aggregate* measures of inequality, but they do find that expansion of democracy benefits the lowest quintile of income distribution thus reducing poverty. For the purposes of better comparability between their results and those of other papers reviewed in this section, note that Lundberg and Squire (1999) are the first to include a large sample of post communist countries of East Europe, whose transition experience may have differed demonstrably from that of other countries – see the discussion in the following section.

Although, as explained in the introduction, this survey covers a relatively narrow subset of democracy measures, there has been recently some research on the relationship between broader measures of quality of governance and inequality. Thus, Hellman (1998), Glaeser *et al.* (2002) and Hoff and Stiglitz (2002) present some theoretical arguments why better governance should be expected to be associated with lower inequality. The empirical literature on this channel is still very scant. One paper is Li *et al.* (2000) where the authors do not find a monotonic relationship between corruption and inequality. In another piece, Gupta *et al.* (1998) however, detect a robust relationship between the two arguing that higher corruption levels increase inequality. While it is premature to summarize this emerging literature, it may hold promise as an additional approach to explaining inequality. It should be noted however that this channel may be particularly rife with issues of endogeneity as inequality in turn affects quality of governance.

To sum up, while the earlier research failed to detect any significant correlation between democracy and inequality, more recent studies based on improved data sets and bigger data samples typically cautiously suggest existence of a negative relationship between the two. The hypothesis that seems to be especially promising in the light of this recent research defines democracy in terms of the length of democratic experience, 'accumulative democracy', as opposed to just current indicator of democracy noting that democratic stability could be a defining factor for inequality reducing policies.

5. East European Countries: an Enigma?

The transition economies' experience appears to run counter the strand of literature reviewed so far. Perhaps the two most dramatic changes which occurred in these countries since they abandoned Communism – noticed by economists and casual observers alike – were political liberalization and large increases in income inequality.[13] Figure 1 shows on the horizontal axis, the change in the Freedom House combined index of political freedom and civil liberties for 21 transition countries between 1989 and 1997, and on the vertical axis, the change in the Gini coefficient between approximately the same two dates.[14] All points fall in the NE quadrant (both democracy and inequality increase), whereas we would expect them to be in the SE quadrant (greater democracy, less inequality).

However, Figure 1 shows also an interesting feature – namely that increases in inequality were less in countries that became more democratic. The regression line is negatively sloped if all countries are included,[15] and even more so if several outliers (three Central Asian republics, Belarus, and Croatia) are left out. In other

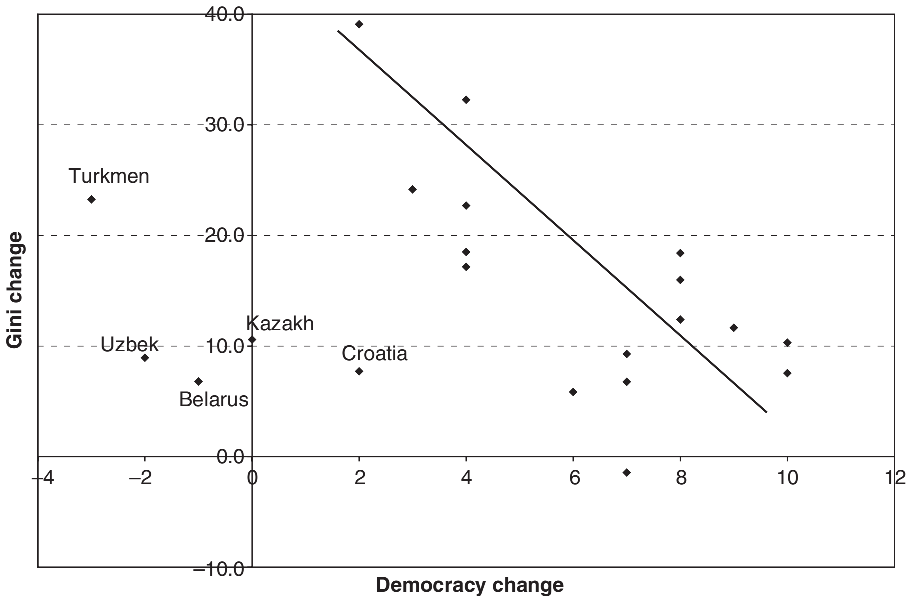

Figure 1. Change in Democracy and Change in Income Inequality between 1988–89 and 1997.

Note: Transition countries only. Change in democracy is calculated as the difference between the Freedom House (inverted) index of civil and political freedom in 1997 and 1989. The maximum value of the index is 14 (7 for civil freedom; 7 for political freedom); the minimum value is 2 (1 for each). The maximum gain would be 12. Change in the Gini index is calculated as the difference between the Ginis in 1996–98 (when available, otherwise 1993–95) and Gini in 1988–89. Sources: for democracy, see Freedom House; for Gini, Milanovic (1998) and World Bank DEC data base available at http://www.worldbank.org/research/inequality/data.htm.

words, while democracy and inequality increased practically in all transition economies, higher increases in democracy were associated with lower increases in inequality. Moreover, if we simply plot *levels* of cumulative democracy achieved between 1989 and 1997 against post-transition (1995–97) *levels* of inequality, the relationship is, as the literature suggests, a negative one (see Figure 2).[16] This suggests that the real relationship between democracy and inequality is a more complex one than most of the literature, based on cross-sectional analysis, has led us to believe. There may be non-linearities such that small increases in democracy are associated with increases in inequality, but that greater democracy chips away at these increases until the relationship becomes negative. Or it may be (as suggested above) that the current level of democracy is a very imperfect proxy for the real level of democracy, namely that in order for democracy to 'work' on inequality through various redistributive mechanisms, sufficient 'democratic time' needs to elapse. We mean by that that a sufficiently long period of democracy is needed in order for either institutions (like tax system, social transfers) or lobbying or countervailing groups (like trade unions, political parties) to be

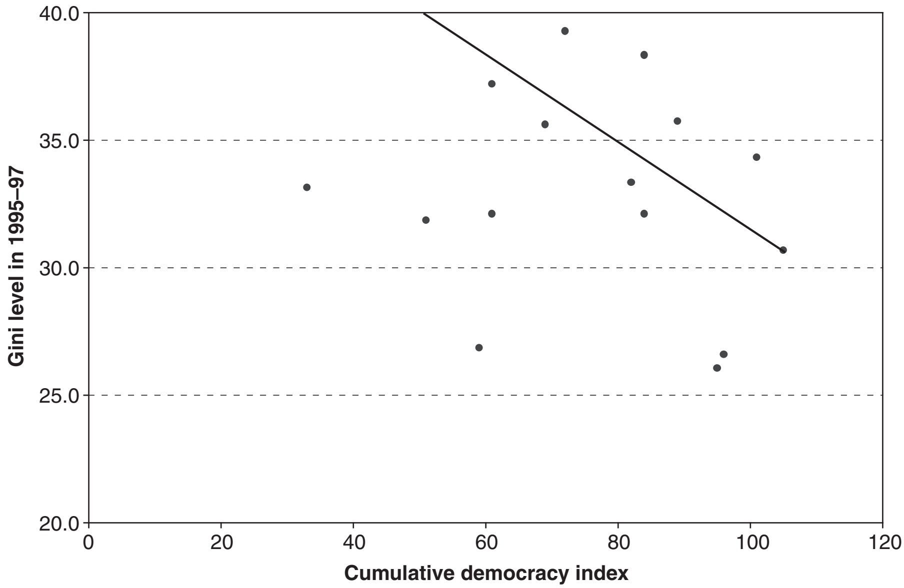

Figure 2. Relationship between Accumulated Democracy (1989–97) and Level of Inequality.

Note: Transition economies only. Cumulative democracy index is the sum of (inverted) Freedom House democracy indexes between 1989 and 1997 (the maximum cumulative democracy index would be 126). Sources: see Figure 1.

established. Reduction of inequality, we think, does not occur by a democratic fiat. It requires democratic time (experience) to build the channels of redistributon. Thus countries that have lacked democratic time canot be expected to exhibit the same (low) level of inequality as countries with sufficient democratic experience —even if both exhibit the same *current* level of democracy.

To fix the ideas, and since we are discussing transition economies, consider Azerbaijan and Poland. During the transition, both have experienced increased inequality and democracy. But while Azerbaijan's barely increased democracy was accompanied by huge increases in inequality, the reverse happened in Poland: moderate increase in inequality, and significant expansion of democracy. Could not the much greater increase in democracy, and also the more democratic climate which existed in Poland before the transition, have something to do with a smaller increase in inequality? The accumulated democratic experience – the existence of free trade unions for some 20 years; tolerance of several, even if powerless, parties before the transition; the strength and vibrancy of civil society throughout the 1980s – were all elements which did not exist in Azerbaijan. Moreover, transition in Azerbaijan occurred in the context of the break-up of the Soviet Union. The local elite were now free to appropriate the rents which, in a context of a unified country, it could not. For sure, Azerbaijan might represent an extreme example of rent-grabbing simply because there was a lot to grab thanks to large oil revenues. But substantially the same appropriation by the local elites happened in all the new countries created after the break up of the Soviet Union. This is, of course, an additional *sui generis* factor which might explain large inequality increases in the former Soviet republics.

We thus run two additional specifications of the inequality equation (on the sample of transition economies only). The first, where we replace current level of political and civil democracy with the cumulative level over the last 9 years. In the second regression, we add a dummy variable for the former Soviet republics. In both cases, we control for initial income levels using the 1988 values of country's GDP per capita in PPP (equal purchasing power) dollars. The results show that cumulative liberalization enters the regressions with the correct (negative) sign. However, once the CIS dummy variable is introduced, its effect, in view of large increases in inequality in CIS countries, swamps the effect of political variables and in neither of several formulations are democracy variables any longer significant nor do they have the predicted sign.[17]

Before we conclude the analysis of transition economies, there are two additional caveats worth making. First, the former socialist countries undertook a total overhaul of their economic and political systems. It is quite possible that, particularly in the short-run, other factors like privatization had much more of an impact on inequality than democratization (Ivaschenko, 2002). Democracy might play more of a role in years to come as dramatic systemic shifts subside. Second, there might have been here a case of reverse causality going from huge increases in inequality to elite's capture of institutions and political processes, and thus slower democratization. This view has been presented in several recent papers (Hellman, 1998; Glaeser *et al.*, 2002; Stiglitz and Hoff, 2002).

The analysis of transition economies allows us to make, we believe, some broader tentative conclusions about the relationship between democracy and inequality. First, the cross-sectional relationship between current democracy and current inequality might not tell the whole story: while the current levels of democracy and inequality are negatively correlated even for transition economies, the truly important story of the 1990s is their positive correlation (both increased). Their evolution through time may differ from the conclusion we would obtain from a snapshot picture (cross-section regression). Second and related point: to explain current inequality, one may need to use a longer-term measure of democracy: either cumulative democracy as we have done here, or length of democratic experience.

But our analysis still begs the crucial point – this is: why did socialist countries, characterized by a strong concentration of power, exhibit very low levels of inequality (e.g. Atkinson and Micklewright, 1992)? For the entire discussion of the socialist enigma would have been redundant had these countries, in accordance with theory, exhibited very high inequality which 'goes together' with high concentration of political power. After all, one may wonder what purpose having a concentrated political power serves if it is not accompanied by a control over economic resources, that is easy living and high welfare of the elite? Socialist countries in the past, rather than the transitional countries now, do represent an anomaly.

While we do not have an answer to this question, one hypothesis – which we propose to pursue in the forthcoming research – is that, in addition to all the variables which different researchers have considered, inequality is also a reflection of social values, or the values held by the elite. We believe that socialist values which frowned upon excessive wealth accumulation, explicitly banned private ownership of the means of production, made a sharp distinction between private and personal property (the latter being control over essential items of current consumption), did prevent increases in income inequality. It can be little doubted that, for example, the well-documented (Redor, 1992; Phelps Brown 1988) low income differential between skilled and unskilled workers was ideologically motivated. These differences – since in most societies labor income accounts for two thirds or more of total disposable income – are the cause of most differences in personal incomes.[18] But ideology – some of which is self-serving for the elite, but most of it derived from Marx and general left-wing ethos – must have played an important role in determining acceptable income differences. While Communist societies were ideological, they were not the only ideological societies. Ideology, broadly defined as religious or ethical beliefs of the ruling elite, plays a similar role in other societies. We plan to apply, in another paper, this insight derived from the analysis of transition economies to a broader set of countries.

6. Conclusion

Our review of the recent literature reveals that there are some indications regarding a positive relation between democracy and equality. This conclusion emerges both when democracy is measured by the extent of the voting franchise franchise (especially for women) on the basis of specific case studies and also in cross country regressions with democracy proxied by an index based on measures of civil liberties and political rights. As such it provides empirical support for the existing theories of income redistribution *à la* Meltzer and Richard (1981) as well as others.

An important caveat to the positive relationship is exemplified by the transition experience of post communist countries in East Europe. While the increase in inequality that took place despite continuous democratization may serve as a warning signal against broad generalizations and premature conclusions, it could also trigger additional theoretical as well as empirical research to explain this puzzle.

Note, however, that none of the recent studies has used the length of democratic experience as an explanatory variable, which further confounds the comparison with some of earlier findings. This, of course, leaves open the question of whether the increase in inequality in post communist countries is really a puzzle that begs an explanation, or perhaps just a transitory phenomenon, that will vanish as democracies there stabilize.

While recent research has addressed some of the methodological problems related to the measurement of inequality and democracy, more work is needed to improve the available databases in order to allow for better comparability across countries. In the light of the findings regarding the importance of the length of democratic experience, an analysis of longitudinal data may prove important in future research. Compilation of reliable panel data may enhance our understanding of the interaction between the distribution of political rights and economic resources. Another potentially interesting direction for future research could be incorporation of the prevailing ideology in different countries into the analysis; our preliminary discussion of the post communist experience in East Europe suggests that this may be a fruitful avenue to pursue.

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Notes

1. For recent summaries of the growth evidence the reader is referred to Alesina and Perotti (1994), Helliwell (1994) and Przeworski and Limongi (1993).
2. There are several recent measures of political instability and quality of governance (for their survey and derivation of a new composite measure, see Kaufmann *et al.*, 1999). We are grateful to one of the referees for this clarification.
3. To give a very simple example: French Fourth Republic was politically unstable but was not more or less democratic that its successor. Similarly, the same level of democracy can accommodate vastly different outcomes when it comes to public probity and transparency. For example, in 1999 Singapore and Jordan had, according to Polity IV, the same levels of democracy; yet according to the Kraay *et al.*, (1999) composite measure of governance, Singapore's government stability was rated 1.4 and Jordan's –0.06, and rule of law respectively 2 and 0.7 (higher numbers are better with 2.5 being the maximum in both cases).
4. Bollen and Jackman (1985), claim that Aristotle should be credited with being the pioneer in developing the subject.
5. Acemoglu and Robinson (2001), present an additional channel of income redistribution, through violent appropriation by the poor. Focusing more on the underlying causes of democratization than on its consequences for income distribution, they argue that, historically, rich elite extended the franchise to prevent such appropriation.
6. The following discussion is based on Justman and Gradstein (1999a).
7. In Justman and Gradstein (1999a), the franchise varies across periods and is endogenously determined; but for the current presentation an exogenously given constant franchise is assumed.
8. This line of argument has been elaborated upon and tested empirically in numerous studies, but lies outside the scope of the present paper. We should only mention Engerman *et al.* (2000) who, comparing the nexus of the relationship between inequality, extension of franchise, and schooling in the New World colonies, find that those with high inequality exhibited also lower fractions of population with the right to vote, which in turn impeded development of mass education.

9. Building on Olson's theory of redistributive coalitions, Weede (1990) does find that democracy is negatively associated with the income share of the poorest quintile.
10. However, Keyssar (2000) in an authoritative account of the history of franchise in the USA, notes that, due to women suffrage, the electorate almost doubled between 1910 and 1920. While voting patterns hardly changed, the political arena being dominated in the twenties by the conservative Republicans, he attributes the social welfare programs of the thirties to the direct concerns of the female electorate.
11. Although the variables associated with the financial market imperfection argument were found to have an even greater effect on inequality.
12. Benabou (1996) surveys several determinants of inequality, in particular, the credit market imperfections channel. While the scope of this work is narrower, the reader is referred to Benabou's paper for a more comprehensive treatment of various determinants of inequality.
13. A question can be legitimately asked whether the calculated changes in inequality in transition economies reflect true increases in inequality for two reasons. Before the transition, many consumption items were rationed and there were sizeable benefits in kind received by the elite. The actual inequality, particularly in the countries of the former Soviet Union, was greater than the recorded inequality. On the other hand, after the transition, a number of income sources is not well covered in surveys, and some of those (e.g. home consumption) may be pro-poor. Thus, the current values may exaggerate true inequality. Both points are correct but they cannot account for more than a few Gini points. The massive extent of the change in recorded inequality leaves therefore little doubt that inequality did indeed increase; in addition, we notice that even in the countries where both the pre- and post-transition Ginis were measured with the same – rather high – level of accuracy (Poland, Hungary, Czechoslovakia), inequality went up. The biases in the comparison of inequality figures before and after the transition are discussed in some detail in Milanovic (1998, Appendix 1).
14. The Freedom House index is inverted so that its higher values show greater democracy and civil liberties.
15. The regression is:
    Change in Gini = 24.03 – 0.281 change in democracy – 0.001 GDP in 1988 (in PPP dollars). However, neither coefficient (except the constant) is statistically significant, and R^2 is only 0.14.
16. The same result obtains if we use simply level of democracy in 1997 instead of cumulative democracy between 1989 and 1997.
17. We have tried several democracy formulations which are not reported here: simply change in level of democracy between 1989 and 1997, number of important government changes both alone and interacted with cumulative liberalization. All the formulations give basically the same results.
18. Some of ideological limitations did pay a useful political role too: not allowing people to accumulate private wealth made it easier to control them politically, because people who had no economic back-up in the case of political disgrace were more likely to toe the political line.

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