Inequality, Democracy, and Institutions: A Critical Review of Recent Research

ANTONIO SAVOIA
University of Reading, Reading, UK
Università di Salerno, Salerno, Italy

JOSHY EASAW
University of Bath, Bath, UK

and

ANDREW MCKAY*
University of Sussex, Brighton, UK

Summary. — This paper surveys the theoretical and empirical literature on the effect of economic and political inequality on institutions. The current understanding suggests that unequal societies develop exploitative and inefficient institutions. Empirical research—which is scant, and has mainly concentrated at cross-national level—supports, to some extent, the existence of an inverse relationship between inequality and institutions, but more analysis is needed. Future empirical research should undertake country, state, and micro-level analysis, which are a necessary complement to aggregate level studies. The effect of inequality could also take place indirectly, through the influence of inequality on democratization.

© 2009 Elsevier Ltd. All rights reserved.

Key words — inequality, institutions, democracy

1. INTRODUCTION

There is now an extensive academic literature on the importance of different institutional factors as determinants of economic growth and long-run development. This suggests that sound property rights, effective market regulation, competent monetary, and fiscal authorities, by creating an appropriate system of incentives, deliver economic prosperity (see, e.g., Acemoglu, Johnson, & Robinson, 2005, chap. 6; Rodrik, 2005). What shapes institutions then? Political economy factors are likely to be important in influencing the quality of institutions a country is able to develop. One important such factor is the level of inequality—political as well as economic. This paper reviews existing literature on the impact of such inequalities on institutional quality. There is at present some understanding of this relationship, although this strand has only relatively recently started to develop. Yet this link is important in evaluating the significance of inequality for how the economy is organized and how production and distribution will perform. This, in turn, might add to our understanding of why countries may be rich or poor. For this could have relevant implications for economic policy in developing regions. Suppose one finds that inequality is harmful for institutions. Then building a development-friendly system of rules in many countries could hinge on reducing high levels of inequality.

In addition, we argue that the study of such relationship is also related to the quest for the economic effects of political democracy, which we bring into the analysis. Last, we stress the need for further investigation, as the relationships of interest among economic institutions, democracy, and economic inequality are not well documented.¹

Most of the literature under scrutiny here has focused on, and bears implications at, the macroeconomic level. So we keep the discussion focused on macro issues first. Far from denying the importance of institutional analysis at micro-level, we then argue that the relationship between resource distribution and state or local level institutions is a necessary complement, which has not been adequately studied yet.

Economic institutions, for example, property rights systems, are molded by historical and socio-economic conditions (see La Porta, Lopez-de-Silanes, & Shleifer, 2007; Levine, 2005). But, generally, we still know little about the determinants of institutions and institutional change. The current understanding suggests that, when distribution of resources is biased in favor of a given social group, political and economic institutions can be subverted and grant opportunity only (or outright redistribute) to the dominant classes. For instance, institutional systems in place in many Latin American and Sub-Saharan Africa ex-colonies were characterized by activities that concentrated economic power within a handful of oligarchs. As a result, an initial inequitable distribution of resources creates exploitative and inefficient economic institutions.

This relationship must be studied by considering the role of political equality—that is, political democracy—which has not always been emphasized. We argue that there are at least two reasons why the existence of substantial political equality matters. First, moves toward political democracy could contribute to setting economic institutions that guarantee equality

* Antonio Savoia has benefited from financial support from the *Dipartimento di Scienze Economiche e Statistiche—Università di Salerno* for which he is very grateful. Final revision accepted: December 3, 2008.

of opportunity for all citizens (and this should also mitigate the impact of elite-biased economic institutions on inequality). Second, skewed wealth and income distribution can delay or block the emergence of effective democracy, because it makes subsequent (potential) redistribution too costly for the elite in power.

This is a puzzle that must also be explained through empirical analysis. We shall illustrate what are the relevant related issues, for example, availability of relevant data and econometric modeling. We argue that the relationship between political systems and economic institutions cannot be fully appreciated without considering the level of inequality. However, empirical research is scant, and has considered inequality and political democracy as separate issues (econometric models include either the former or the latter, but not both), including the fact that they can also be intertwined. Therefore, there is substantial need for more analysis. In particular, to supplement the findings based mainly on macro empirical literature, we highlight the need for country or regional level analysis, and micro-level studies. The former are necessary to capture the peculiarities of the relationships under scrutiny within specific countries or between different states within the same country (e.g., large countries, such as India). The latter are important as economic institutions indicators at cross-national and national level tend to reflect business community perspectives. For instance, with respect to security of private property rights, rural households and business community can regard them in a different way, as the former could be primarily interested in land rights. Finally, while here we confine our interest to the impact of economic and political inequality on institutions for market-based economies, we are aware that the inverse causality is not well studied and constitutes a stimulus for current and future research. Institutions could well change the ongoing distribution of wealth and income (Chong & Gradstein, 2007; Easaw & Savoia, 2009).

The paper is structured as follows. First, we introduce some descriptive statistics to illustrate the differences in institutions quality between developed and developing economies (Section 2). A survey of what theory has proposed so far shall follow (Section 3). Our interest is also on the empirics, which we shall discuss in Section 4. Finally, we shall summarize and conclude (Section 5).

2. INSTITUTIONS: SOME STATISTICS

To start with, we set out an analytical framework, that is, classifying and explaining which institutions scholars mainly refer to. We do not provide a comprehensive account of conceptual issues, as it is beyond the scope of this work.² The economy needs a set of rules to constrain incentives (otherwise generating undesired outcomes) which we call economic institutions. Liberally borrowing from Rodrik (2000), Rodrik (2005), market economies need *growth-igniting* and *growth-sustaining institutions*. Well-defined property rights, granting the control over the return to the assets that are produced or improved, constitute the former group of institutions. The latter one includes institutions providing appropriate product, factor and financial markets regulation (counteracting the sources or consequences of market failure), supporting macro-economic stabilization (fiscal and monetary institutions), and promoting social cohesion and stability, including guarding against extremes of poverty, reducing civil conflict, and muting the adverse consequences of economic dislocation and change. Political democracy and its attributes (an independent judiciary, representative political institutions, regular free ad

fair elections, institutionalized representation of minority groups) are meta-institutions that provide the political environment to create economic institutions. On the importance of politics, Acemoglu *et al.* (2005) stress that the cluster of institutions that guarantees long term prosperity is the one that grants economic opportunities to a broad cross section of the society (not just to a privileged minority, in which case growth could be short-lived). Therefore, effective constraints on the executive and a system of political checks and balances work as a commitment device to prevent ruling minorities from predateding the economy and the rest of the society.

Some simple statistics will help to trace the differences between developed and developing economies. It is informative to look at the ratings of institutions and some inequality measures. In Table 1, we have income and land inequality data. We have chosen our inequality indices from datasets that privilege substantive comparability across countries and time, as well as availability of observations. One is the classic Gini index for income inequality; while land inequality is proxied as the percentage of agricultural land occupied by family farms (a higher score means less land inequality).³

In addition, we have some of the most used proxies for institutions. They cover most of the institutional categories seen above: security of property rights, democracy, constraints on the executive, political stability, government effectiveness, and regulatory quality. We shall briefly discuss the nature and the issues of institutional measurement in the subsequent pages (Section 4). For now, we simply describe these measures. Note that for all the indices a higher score indicates a better institutions rating.

We start with an index of *property rights security*, based on experts' opinions taken as a continuous variable ranging between 1 and 10 (see Gwartney & Lawson, 2004).⁴ Next, we have a set of *subjective* indices elaborated by Kaufman *et al.* (2003) from several individual variables measuring perceptions of governance, drawn from 25 data sources. Each component is continuous and ranges from -2.5 to 2.5. They are: (a) *Regulatory Quality* focuses on the incidence of market-unfriendly policies such as price controls or inadequate bank supervision, as well as perceptions of the burdens imposed by excessive regulation in areas such as foreign trade and business development; (b) *Government Effectiveness* combines responses on the quality of public service provision, the quality of the bureaucracy, the competence of civil servants, the independence of the civil service from political pressures, and the credibility of the government's commitment to policies; (c) *Political Stability and Absence of Violence* combines several indicators which measure perceptions of the likelihood that the government in power will be destabilised or overthrown by possibly unconstitutional and/or violent means, including domestic violence and terrorism.

Next, we measure the quality of the political system. We have *Executive Constraints*; again, based on subjective experts' assessment. This variable refers to the extent of institutionalized constraints on the decision making powers of chief executives, which is typical in democracy and holds politicians accountable.⁵ The source is Polity IV project, Jagers and Marshall (2002). A seven-category scale is used, ranging from "unlimited executive authority" (1) to "executive parity or subordination" (7). Finally, we have a second democracy measure, *Vanhanen's Index*, which captures characteristics related to political rights (see Vanhanen, 2000). It is an *objective* index, computed (by multiplying and dividing by 100) from equally weighting two indices: *competition* and *participation*.⁶

It is interesting to compare across regions of the developed and developing world. Unsurprisingly, developed (OECD)

Table 1. *Institutions, democracy and inequality measures over the 1990s*

Variables	Countries	Mean	Std. Dev.
<i>Property rights in 2000</i>			
Africa	30	4.49	1.36
Asia	13	5.58	1.65
Latin America	23	4.70	1.11
OECD	24	8.60	1.06
Transition economies	13	5.82	0.83
<i>Regulatory quality in 1998</i>			
Africa	35	-0.33	0.66
Asia	13	0.33	0.50
Latin America	24	0.31	0.67
OECD	24	0.86	0.25
Transition economies	26	-0.22	0.81
<i>Government effectiveness in 1998</i>			
Africa	33	-0.46	0.58
Asia	12	0.23	0.87
Latin America	23	-0.26	0.60
OECD	24	1.36	0.46
Transition economies	26	-0.26	0.66
<i>Political stability in 1998</i>			
Africa	32	-0.66	0.86
Asia	12	0.06	0.93
Latin America	23	-0.25	0.56
OECD	24	1.11	0.43
Transition economies	26	0.07	0.73
<i>Executive Constraints in 1998</i>			
Africa	36	2.86	2.00
Asia	13	5.08	1.85
Latin America	22	6.04	1.04
OECD	22	6.91	0.29
Transition economies	26	5.00	2.13
<i>Democracy (Vanhanen's index) in 1998</i>			
Africa	36	6.52	6.90
Asia	12	16.57	8.79
Latin America	24	18.32	8.57
OECD	24	33.78	6.56
Transition economies	26	20.26	11.36
<i>Income inequality (Gini index) in 1994</i>			
Africa	19	48.47	4.92
Asia	11	41.51	5.00
Latin America	17	47.58	3.33
OECD	20	36.26	3.97
Transition economies	17	41.24	8.99
<i>Land inequality (Family farms,%) in 1998</i>			
Africa	36	52.86	11.31
Asia	12	66.92	16.30
Latin America	24	28.13	9.83
OECD	24	74.92	18.56
Transition economies	25	25.84	25.42

Note: the authors' elaboration based on the most representative observations over the 1990s.

economies enjoy high-quality institutions, coupled with fairly democratic political systems and equitable societies, thus faring far better than all the other regions, especially those with a high concentration of developing economies.

Latin America shows low institutions ratings. At the same time, its political systems are less democratic and, as is widely believed, this is a region where land and income inequality can reach staggering levels. Africa shares with Latin America a record of poor institutional quality (even worse along some

dimensions like government effectiveness and regulatory quality). This region is also vexed with high inequality and very poor democracy.

In Asia, institutions are stronger than in the previous two regions along all dimensions, despite its (average) democracy record is not particularly high (although better than Africa). Inequality, especially land, has been lower. It is also noteworthy that the protection of private property rights (growth-igniting institutions) is not necessarily associated with high

Table 2. *Institutions, democratization, and inequality: a schematization*

	Low inequality	High inequality
Low democracy	1. Economies with average institutions ratings: many Asian countries	2. Economies achieving low institutions ratings: Latin American and Sub-Saharan African countries, plus Ex-Soviet transition economies
High democracy	3. Economies with high institutions ratings: developed economies (OECD countries), and Central-Europe transition economies	4. No countries could settle in this category: it is unlikely to observe consolidated democracy and high inequality at the same time

democracy scores. For example, the Asian region seems to have a stronger protection of property rights and a slightly weaker democratic record than Latin America; but with a substantial difference in inequality levels: Asia enjoys a relatively equitable distribution of resources.

Finally, transition economies score better institutional ratings than Sub-Saharan Africa and Latin America (property rights and political stability), but worse than Asian countries along some dimensions, while having more democratic political systems. However, this situation needs a more careful interpretation, as there is much variability. In this group, the picture of distribution of resources is a mixture of fairly equitable countries (Central European countries and part of the Balkans) and rather unequal countries (the Ex-Soviet countries), both in terms of land and income distribution. The former economies show high quality institutions, the latter are struggling to achieve a good functioning economy.

All this can be schematized, in a stylized fashion, in Table 2. Suppose we can split countries in high and low inequality, high and low democracy. One can then identify four categories of economies. In Boxes 2 and 3, we have two polar cases: strong institutions in low-inequality-high-democracy economies, weak institutions in the opposite case. Box 1 seems to be some sort of middle ground for countries that are (rapidly) modernizing. Finally, it is hard to come across economies which are unequal but democratic.

3. INEQUALITY, DEMOCRACY AND INSTITUTIONS: CAUSAL MECHANISMS

If the rules of the game matter, what is required to have an apparatus of high quality institutions? We take a political economy approach and consider the extent to which lower inequality and more democracy facilitate this.⁷ We can distinguish contributions that have been inspired by historical events from studies that have used econometric modeling. The former have mainly focused on and provided insights on specific regions or countries; the latter have attempted to generalize them and are surveyed later. In the following exposition, we identify direct and mediated channels through which inequality and democracy could affect institutions.

(a) *Inequality harms institutions: rent seeking and distributive conflict*

Comparative historical analysis contends that inequality is detrimental to the emergence of efficient institutions. Private property rights, regulatory, legal, educational, and tax systems can all be affected. The rationale lies in rent-seeking behavior

by political and business elites. Engerman and Sokoloff's (2002) account of the histories of the American colonies, emphasizes the role of factor endowments—labor scarcity, abundance of land, natural resources—and geographic conditions—seen as climate and soil fertility, which were exogenous at the beginning of colonization—as the main determinants of wealth distribution. Some areas of Latin America and the Caribbean were rich in minerals; land endowments had suitable soil for large-plantation commodities (cash crops, such as sugarcane) which employed forced labor: typically, Brazil, El Salvador, Guatemala, and the Caribbean islands, but also Mexico, Peru, and Bolivia.⁸ Thus, these countries were historically associated with high inequality, because they provided the elite with highly unbalanced access to economic opportunities. This led to oligarchic (rather than democratic) politics and exploitative institutions. Domination by the colonial elites forged institutions in a way that would advantage their members. In societies that began with extreme inequality, the wealthy minority was both inclined and able to establish a basic legal framework that ensured them a disproportionate share of political power and to use that influence to establish rules, laws, and other government policies that gave them greater access to economic opportunities than the rest of the population (Engerman & Sokoloff, 2002, pp. 17, 18).⁹ This created societies where property rights, legal systems, and fiscal institutions perpetuated the unequal distribution of wealth, and political power always ensured the elite a disproportionate influence on the economy.¹⁰

Geographical factors can also explain why exploitative institutions arose in different contexts and regions of the world. When studying the land revenue system set up by the British power in India, Banerjee and Iyer (2005) note (and present empirical evidence) that areas where landlords collected the revenue had an elite class that had enjoyed a great deal of economic and political power. These areas inherited a more unequal land distribution at the time of independence, and a very specific set of social cleavages. This created a temptation for the peasants to support political platforms aiming at expropriating the assets of the rich. Furthermore, in such districts, peasants' property was, in turn, insecure because of the risk of being expropriated by landlords, thus discouraging investments that would have made the land more productive. The effect of inequality is also present in Sub-Saharan Africa. As explained in Acemoglu, Johnson, and Robinson (2001), the interest of the colonial administrators—who were often relying on indigenous intermediaries—and post-colonial power was often predatory in many countries. In the same fashion, Morrison (2006) gives a detailed account of three African countries. It is documented how Senegal and Kenya could have built inequitable institutions; while Ghana is seen as a

counter-example. However, an exception to all this could be represented by some Asian societies. Bardhan (2005b) explains that cultural values translated in formal and informal rules that made such societies relatively egalitarian (e.g., the absence of law of primogeniture has contributed to keep land inequality low), and investment in human capital was substantial. Not negligible is also East Asia's lack of cash crops and mineral resources, exceptions being plantation economies like Sri Lanka and Malaysia.

Summing up, the mechanisms by which economic and political inequality affected economic institutions seem to work through rent-seeking policies. One further point is also worth highlighting at this stage: the initial level of resources distribution could have affected the development of forms of political democracy. We shall return to this in more detail later.

Some of the above hypotheses from historical analysis have inspired, and are supported by, formal modeling. A few recent studies have formalized the micro foundations of institutional change in the presence of high wealth and political inequality. Glaeser, Scheinkman, and Shleifer (2003) and Sonin (2003), inspired by facts of the Russian transition, argue that higher inequality may worsen regulatory institutions and property rights. Glaeser *et al.* (2003) argue that, if in low-accountability political systems institutions are shaped by wealth or influence (corruptible), politically strong subjects (local oligarchs or foreign capital) expect to prevail in any court case brought against them. Hence, there are breakdowns in the legal system and narrow property rights protection. Similarly, in Sonin (2003), the rich and politically influential oligarchy is able to manipulate regulation and the legal system to work in their favor by establishing corrupt relations with state authorities. This is understood as a peculiar rent-seeking activity, interpretable as an investment in "private" (rather than public) protection of property rights.¹¹ Some models bring these arguments further, showing that the consequences can be particularly adverse for development. Despite its growth-enhancing potential, the ruling wealthy elite will not be interested in state protection of property rights (Cervellati, Fortunato, & Sunde, 2005; Gradstein, 2007), or in a more educated labor force (Bourguignon & Verdier, 2000; Galor, Moav, & Vollrath, 2006),¹² against appropriative rent-seeking, because the *status quo* benefits the rich relatively more.

The second argument contends that economic inequality exacerbates the distributive conflict, thus leading to institutional instability or breakdown (and, if the ongoing set of rules is perceived as unstable, agents will experience increasing uncertainty and increase in transaction costs). Excessive economic inequality will exacerbate social conflict *via* socio-political unrest (Figueroa, 1996; Svensson, 1998, on the Latin American experience), decreasing social cohesion (Easterly, Ritzen, & Woolcock, 2006), and break out of riots and political violence (Muller & Seligson, 1987; and, recently, Dutta & Mishra, 2005).¹³ However, we do not dwell on this argument extensively here, as it has been reviewed in Thorbecke and Charumilind (2002, pp. 1484–1487).

The idea of conflict over the distribution of resources can also be useful to understand why, once exploitative institutions are in place, it can be hard to reform the system. Because of high inequality, "bad" institutions can persist, even when knowing that different arrangements would increase the total size of the economic pie. This is because the inherent distributive conflict creates insurmountable commitment problems for institutional change. For the rich (poor) cannot commit to compensate the poor (rich) after old rules have been replaced with new ones (see Acemoglu, 2003; Bardhan, 2005a, chap. 2). For example, Bardhan (2001) points out that the

tenacity of vested interests is at the origin of the persistence of inefficient land rights and the related reforms in developing countries. In general, Acemoglu *et al.* (2001, pp. 1376–1377) suggests these type of equilibria are most likely when the size of the elite is small so that each member would have a larger share of the revenues, and when the elites have made irreversible investments that are complementary to a particular set of institutions.

Not all literature focuses on the importance of property rights. Bardhan (2005a, chap. 1) departs from the focus on property rights, emphasizing the role of the state as an institution that deals with coordination failures as impediments to industrial development and innovation; for example, state-supported development banks. Below the macro level, he also illustrates how distributive conflict can lead to inefficient agrarian institutions for the management of common resources (forests, fisheries, grazing lands) and local public goods (roads, irrigation, education, public health and sanitation) which contribute to the day-to-day livelihood of the poor (Bardhan, 2001). It is also worth noting that recent research has started to investigate such links between inequality and collective action which are important in rural communities and which display their effects at village or local level. The relationship between resource distribution and irrigation systems and water management, has been studied with reference its effects on the possibility of collective action; see Bardhan (2005a), especially chaps. 10 and 11), Baland, Bardhan, and Bowles (2007), Bandiera, Barankay, and Rasul (2005), and Banerjee, Mookherjee, Munshi, and Ray (2001).

(b) *Is more democracy beneficial? Representation and accountability*

Why might democracy be good for market-economy institutions? Drawing on historical analysis, Powelson (1997) has argued that it is the process of "power diffusion" that has marked the difference between economies which have evolved from simple to more complex institutional structures that allowed production and exchange to expand beyond village and regional communities. According to Rodrik (2000, p. 19), country-specific realities necessitate tailor-made institutional solutions, which requires eliciting local knowledge. And this can be done the more representative the political environment is; for instance, with political institutions that allow diffused participation. In practice, a substantial part of the literature is concerned with identifying the effect of political democracy on the security of and access to individual property rights.

Some democratic attributes—that is, free and fair elections, separation of powers and political checks and balances—convey political accountability. The argument would be that they work as a device to avert rent seeking and thus prevent the political and business elites from preying on the economy (see North & Weingast, 1989, when discussing 17th century England; and, recently, Acemoglu *et al.*, 2005). This aspect has been stressed with respect to property rights. According to Acemoglu (2008), the form that property rights can take is either "democratic" or "oligarchic." In a democratic society, political power is more equally distributed, and, unlike oligarchic societies, poorer agents have the possibility to prevent the elite from erecting entry barriers and enjoying markets with monopoly power. The case of many developing economies is one where, reflecting the unequal balance of the political and economic power, market-economy institutions have not provided equal access to economic resources for a broad cross-section of the population. On the contrary, the experience of developed, capitalist democracies does suggest that democracy

is hospitable to the rule of law, to fair tax systems, accountable management of the economy, and it is associated with property rights protection for all citizens. Similarly, Gerring, Bond, Barndt, and Moreno (2005) argue that democracy has “historical” effects, meaning that they must be conceptualized over a long period. The accumulated democratic stock fosters growth by delivering better governance, for example, *via* efficient bureaucracies, opening up markets and institutions to previously excluded groups.

The idea of democracy delivering broad access to property rights, rather than a narrow one, is well grounded. Nevertheless, democratization and property rights do not always go hand in hand. Their relationship is controversial. If one is trying to explain the stability and predictability of property rights systems, it is useful to reconsider the role of democratic attributes. The stability and predictability of property rights—regardless of how inclusive such system is—is still related to the evolution of the distributive conflict. As Przeworski and Limongi (1993) and Bardhan (1999) noted, the poor majority can use the diffusion of political rights to change the distribution, thus threatening the property rights of the rich minority. For this scenario is rather realistic in polarized societies along income or assets. We shall return on this issue below, when discussing the democracy-inequality link. For now, note this implies that agents do not necessarily need political democracy to feel their investments secure. Historically, strong protection to property rights has often been granted under autocratic regimes in East Asian economies (e.g., Indonesia) as well as under European fascist regimes. Bardhan (1999) illustrates how, in the South Korea and Taiwan cases, the state was a powerful catalyst for industrialization having competent technocratic organization insulated from pork-barrel politics, while in Latin America and India did not have the same type of organization recruiting competent bureaucracies. In West Europe, however, the outcome of the distributional conflict arguably led to solid democracies that breed inclusive institutions (Acemoglu & Robinson, 2000).^{14,15}

Apart from its impact on property rights systems, the relationship between political democracy and economic institutions deserves more investigation also in other respects. What is its impact on wage setting institutions in developing economies? By enjoying greater freedom of association in democracies, workers may have stronger unions and more protective labor legislation (e.g., minimum wage, hiring and firing practices). Relying on market wage determination as opposed to institutional wage determination could matter for economic performance (an early discussion is Fields & Wan, 1989),¹⁶ as democracies might display higher labor costs. Another important issue (that may well matter for development outcomes) is the strength of institutions of accountability at the local level. Also in this case, it is not clear that democracy may lead to better institutional outcomes. Bardhan (2005a, chap. 5, pp. 94–95) notes that an electoral democracy such as India fails, in large part of the north, to provide important public goods at the local level (education and public health) and has done worse than China, an authoritarian country, where local party officials have been sometimes been responsive to local needs.

Suppose, although we have argued the point is controversial, one takes the view that democratization is always conducive to higher quality economic institutions. This would still beg the question: when could the same political transition of Western economies happen in developing ones? A potential answer is to consider, again, the role of distributive conflict, to which we now turn when discussing the existence of “indirect channels.”

(c) *The democracy–inequality link: indirect channels*

The analysis of influence of political systems and economic inequality on institutions probably is not complete yet. It could be carried further by considering the relationship between inequality and democracy.

Democracies are believed to ease inequality, because granting voting rights to the disenfranchised may increase the demand for redistribution (see Bollen & Jackman, 1985, pp. 438–439, for an early account). Regular, free and fair elections, for instance, allow poorer citizens to vote for parties that privilege redistributive platforms.¹⁷ Conversely, in autocracies, there are no constraints that will commit the ruler to accept the redistributive pressures. Hence, democracy could channel the social conflict so to lead to a relatively equal concentration of wealth and income. Such an outcome captures the possibility that democracy fosters economic institutions through an indirect channel, *via* reducing inequality. If the concentration of resources is limited, one should be less likely to observe the type of institutional subversion recounted in the preceding paragraphs.

This hypothesis arguably fits the case of some Western developed economies, where democratic institutions and practices have been long established, and this is associated to levels of economic inequality within socially acceptable limits. Although intuitively well-grounded, the view that more democracy means more redistribution—and less inequality—is not unchallenged. This relationship is, in fact, supported only to a limited extent by empirical research, especially in the case of developing economies. The issue, probably, is to consider how embedded democracy is. In other words, democracy must be consolidated before it can trigger any redistributive effect (see Gradstein & Milanovic, 2004), and this is a major concern when analyzing the political development in poor countries. What can we say then about such systems?

We need to know more about the conditions democratization necessitates. A substantial part of the recent literature has argued that the distribution of assets matters, for both the transition to democracy and its stability. In both cases, the role of social conflict is important. The higher the initial level of inequality, the more the elite resist democratization because this increases the extent to which they would be worse off after a prospective redistribution of political power and economic resources (Boix, 2003). According to Robinson (2006), this holds true especially in rural economies, where it is easier to tax the landed elite. Similarly, the stability argument contends that, even if a formal democracy has been established, high levels of inequality makes the poor resentful and inclined to create political and social turmoil. Hence, its breakdown is very likely (Bollen & Jackman, 1985, pp. 439–440; Figueroa, 1996, p. 236–237; Muller, 1995, pp. 968–969).¹⁸ For the same reason, the elite can retake power by mounting a coup which, although socially wasteful, makes them avoid the high costs (to them) of redistributive demand (Acemoglu & Robinson, 2001). The deeper rationale seems to be that the elite simply defend the ongoing property rights system. The case of Western countries, instead, is quite different. Retaining political and economic influence, for the elite, might have required redistribution. Formal models have suggested that democratization and mass education—namely, redistribution—occurred to avert the worse outcome of revolutions (Acemoglu & Robinson, 2000; see, for a similar idea and a rigorous historical account on democratization in Europe, Therborn, 1977), and because the elite, by extending education, could rely on a more productive labor force (Bourguignon & Verdier, 2000).

On the empirical side, the effect of inequality on democratization has not received extensive investigation. Bollen and Jackman (1985) find no evidence. But a negative influence of inequality on democracy is reported in Barro (1999). A panel study of over 100 countries from 1960 to 1995 finds that democracy rises with the middle-class share of income (insignificant results accrue if Gini index is utilized as an explanatory variable). Easterly (2001) finds that suppression of political rights decreases when the middle class share is larger. While Muller (1995) finds that high levels of inequality are incompatible with the development of a stable democracy. Boix and Stokes (2003, pp. 539–544), finally, find that economic equality increases the probability of democratic transitions and stability.

The punch line seems to be that high inequality is linked to unstable political systems and poor democratic development. What could this imply for institutional reforms? Inequality could also harm market-economy institutions “indirectly,” by affecting the formation and functioning of political institutions. This hypothesis could be relevant for developing economies, where conditions of high economic inequality often occur. The hypothesized mechanism has not seen much analysis yet. To investigate this further, one needs a conceptualization of how economic power translates into political power. Theoretical efforts are now beginning to study this link, and it is probably going to carry forward in the future research agenda. Acemoglu *et al.* (2005), for example, envisage *de jure* and *de facto* political power. The *de jure* distribution of political power reflects the political institutions present in a society, among which the form of government (democracy *vs* autocracy) and the extent of constraints on political elites are key. This idea is formalized in Acemoglu and Robinson (2006), arguing that rich agents can offset changes in *de jure* political power (allocated by political institutions) with changes in *de facto* power. Other things being equal, democracy is more likely to be associated with social stability and market supporting institutions. However, the *de facto* distribution of political power may be somewhat different if resources are unequally distributed such that elites are able to use force or to buy off other groups (through lobbying or bribery). This in turn may shape the evolution of future political institutions. High inequality may thus have an adverse impact on economic institutions through its direct impact on the distribution of political power, and “indirectly” by shaping future political institutions.

To summarize, recent scholarship has singled out the negative impact of economic and political inequality on most of the institutional dimensions that can ignite or sustain economic growth. We believe that the relationship between political democracy and inequality must not be underplayed. For inequality shapes (and is shaped by) political institutions. Hence, the level of inequality supposedly affects institutions by direct channels, and “indirectly” by affecting the level of democracy.

4. EMPIRICAL EVIDENCE: RESULTS AND UNSOLVED ISSUES

Disentangling theoretical controversies on the relationship between economic inequality, political democracy and market-economy institutions is also an empirical matter, which can be analyzed by using regression analysis. In this section, we want to address the main issues that empirical research is facing: specifying the related economic hypotheses, data results and other econometric issues (endogeneity). We distin-

guish between macro and micro-level approaches. We shall stress their differences and the need for both, given they are complements and given that the literature has produced a limited amount of contributions, especially from the microeconomic point of view.

(a) *Aggregate cross-national studies*

Governance data, which can proxy for some economic institutions, are available at aggregate level for a substantial number of developing, as well as developed, economies. Many (and popular) indices of institutional quality are based on experts' surveys (a comprehensive guide to institutions measures is Besançon, 2003). In the case of property rights, they come often from the business community and are conducted by agencies assessing the political risk for international decisions. In other words, such indices are *subjective*: they capture investors' perceptions, rather than any of the formal aspects of the institutional setting. Is this approach appropriate? Rodrik reminds us that they measure how well the rules of the game are perceived to operate with regard, for example, to property rights protection, and not what those rules are. The problem is that, the results do not tell us what specific rule, formal or informal, is actually responsible for the institutional outcome being measured. Economic performance is superior when investors feel their property rights are protected, but we do not know what it is that makes investors feel this way (Rodrik, 2004, pp. 8–9, on this point, see also Chang, 2005, p. 7). Another related aspect that can be problematic is that indicators can be too broad, and thus result in proxies of whom the researcher is not able to clearly identify with a certain institutional dimension. After all, the elusiveness of institutional concepts and definitions cannot easily be captured in a simple figure. Finally, it could be problematic (not just for subjective measures) the fact that rating agencies do not cover all developing countries, excluding those that are not attractive to investors and that could instead be very attractive for research. Despite the potential limitations, there is still scope for using subjective assessments. Subjective indices express opinions, and opinions do matter when it comes to economic expectations and decisions, such as investment. If investors' sentiments with respect to protection of property rights are improving, this will be relevant for the final economic performance at aggregate level, regardless if the institutional change which occurred was formal or informal in nature. In this sense, they can be quite responsive to institutional change. Another (obvious) reason why we use them is that we have to make the best possible use of what data is available, which is always a binding constraint.

Data aimed at measuring the degree of democracy are abundant, political scientists can rely on numerous and well-established democracy datasets. Like in the case of economic institutions, many indices of democratic quality are based on experts' surveys, in the case, coming from the academic community. The potential objections, this time, are not so much about the usefulness of subjective assessments. The disputed issue is about the accuracy in synthesizing the multifaceted concept of democracy in a single figure. Thus, definitional and conceptual issues have been the focus. Bollen (1990) argued that democracy should not be interpreted—and measured—as a dichotomous concept, so favoring multiple scale and continuous indices. A recent assessment of the most well known datasets by Munck and Verkuilen (2002) argues that the underlying concept of democracy is either too narrow—so missing important attributes, for example, political participation—or too broad so resulting of little analytical use.

Nonetheless, employing more than one indicator guarantees some robustness.

Moving to modeling issues and econometric results, the effect of inequality and democracy on market-economy institutions can be suitably tested with cross-country regressions.¹⁹ A baseline model can be specified as follows. For each country i :

$$Q_i = \beta_1 \cdot I_i + \beta_2 \cdot Ineq_i + X_i' \cdot \gamma + \varepsilon_i \quad (4.1)$$

where Q_i is a measure of economic institutions, for example, property rights protection. I_i is a measure of political democracy—for example, political representation or constraints on the executive; and $Ineq_i$ is the inequality index of interest. Finally, X_i is a set of other controls (and includes the constant), and ε_i is an error term, capturing all other omitted factors. Recalling Rodrik's classification, Eqn. (4.1) can capture the essence of both growth-igniting and growth-sustaining institutions (depending on which institutional dimension is the dependent variable) as a function of asset and/or income inequality and democracy, which are usually taken as long-term averages. Following the rent-seeking and distributional conflict arguments, inequality supposedly exerts a "direct" effect on institutional quality with an expected negative sign. A democratic political environment is associated with socio-political stability and with market-supporting institutions, thus the expected sign is positive. The model is completed with a set of control variables that, again, can vary according to the nature of the institutions under scrutiny (for instance, legal origins of the country, when our dependent variable is an index of property rights protection). Since setting up institutions may require a considerable amount of resources, a measure of how rich is the economy often is included as a control variable.

Little empirical work has been done so far. Keefer and Knack (2002) estimate a similar model by Ordinary Least Squares, finding that land and income inequality negatively affect property rights security, measured as a composite index compiled by the authors from institutional measures from the International Country Risk Guide. This piece of research carefully includes the influence of political regimes, by adding a dummy variable for regime type. As a result, democracies do exhibit more secure property rights on average (while controlling for regime type has little effect on the inequality results).

A common problem is the existence of correlation between one or both the explanatory variables of interest and the error term, that is, endogeneity. This can be typically ascribed to three phenomena. The first is contemporaneous causality between institutions and inequality variables, when they are measured in the same period. The second arises when democracy and inequality are measured with error. This is likely to be the case with governance and politics databases (as well as being a possibility for the existing cross-national inequality data). Given their nature of proxies, we have a discrepancy between the measured institution and the concept we would like to capture. Finally, the most important case is the omission of relevant explanatory variables. In cross-country studies, we may expect that relevant variables may be omitted, for example, the error term includes unobserved country characteristics, which might be correlated with democracy or inequality. In all those cases, Ordinary Least Squares approach fails to deliver unbiased and consistent estimates. Hence, accounting for endogeneity is essential in any attempt to address questions of causality.

For all these reasons, the econometric approach should look beyond OLS. One possibility is to rely on Instrumental Variables estimation. Although powerful, this approach is

demanding. To tackle the above issues, the researcher must find enough instruments which have substantial predictive power with respect to the endogenous variables and whose exogeneity is theoretically plausible. Subsequent research has endeavored to do so, although it has not considered democracy. Easterly (2007), using agricultural endowments (the abundance of land suitable for growing wheat relative to that suitable for growing sugarcane) as an instrument for the share of income accruing to the middle quintiles or the Gini index, tested the effect of income inequality. The results show a robust inverse relationship between inequality and institutions, when using an all-embracing institutional quality indicator based on Kaufmann *et al.*'s (2003) classification of institutions. Rather similar results (and approach) can also be found in Easterly *et al.* (2006). Erickson and Vollrath (2004), however, find no evidence for this relationship when using land inequality data with both Ordinary Least Squares and Instrumental Variables estimators and the same Kaufmann *et al.* (2003) indicator.

The existing empirical literature, on the one hand, has considered institutions as an indistinct body, making little attempt to disaggregate them and consider the peculiarities of each institutional aspect. On the other hand, the papers above have not adequately addressed the role of political systems, as the model in (4.1) would suggest. This is a crucial point, because democracy is likely to be linked strongly to both assets and income distribution and institutions, as we have pointed out throughout the paper. Actually, some articles explicitly focus on the role of political systems. Contrary to the literature reviewed before, this is done specifying models that do not include inequality among the explanatory variables. Adserà, Boix, and Payne (2003) is 1980–95 panel study present evidence that free and fair elections are associated with better governance, using ICRG data. They utilize pooled OLS and carefully specify a dynamic model, but the econometric limitations of this approach are not addressed. Clague *et al.* (1996) offer cross-section and panel evidence with fixed and time effects, finding that democracies, in general, provide greater security of property than autocracies. Long-lasting democracies specifically offer stronger protection than regimes that have recently democratized. Furthermore, autocratic governments that had been long in power are also associated with better property rights.

A linear specification, such as Eqn. (4.1), is a convenient starting point. However, it does not capture the interplay between political systems and inequality. New insights can be gained if the empirical approach is a non-linear one. As such, a better model could be:

$$Q_i = \beta_1 \cdot I_i + \beta_2 \cdot Ineq_i + \beta_3 \cdot (I_i \cdot Ineq_i) + X_i' \cdot \gamma + \varepsilon_i \quad (4.2)$$

The interplay of inequality and democracy is thus captured by an interaction term. The marginal effect of democracy becomes conditional on the level of inequality (and *vice versa*). This should allow capturing the nuances of this relationship in unequal societies.²⁰

In future econometric studies, a useful complement to cross-section techniques could be to try to capture the effect of the democracy-inequality interlinkages when the same country is observed repeatedly over time. Panel data methods allow the researcher to control for heterogeneity due to unobserved country-specific factors, so considerably reducing the likelihood of omitted variables bias. It is also relatively easier to deal with endogeneity, while in a cross-section approach it is harder to justify instruments exogeneity (and very difficult to assess instruments relevance when one faces multiple endogenous variables such as democracy and inequality). With panel

data techniques, instead, lagged values of inequality and democracy may be valid instruments for their contemporaneous values (thanks to a Generalized Method of Moments approach).

There could also be a further motivation to justify a panel data approach. Suppose now we rely solely on the cross-section approach. We would be able to tell which countries end up adopting “good” or “bad” institutions based on structural characteristics—presumably rooted in history—that are stable. But what are the potential consequences of averaging variables over long time periods? It tends to obscure episodes of political change. It would not tell us if, for example, the attempts to democratize over time matter, that is, it could neglect the effect of changes that occurred in the initial political structure. In reality, some countries do attempt to reform, and this should be reflected in the subsequent change in the quality of economic institutions (see the discussion in the introduction of [Pagano & Volpin, 2005](#), with respect to corporate finance institutions). To exemplify our concern, suppose that political structure may matter for economic institutions. Cross section regressions (taking long-term averages) may not capture the likely effects of episodes of reforms toward democracy followed by reversions to authoritarianism, or *vice versa*. This would be the case of many developing countries, which experienced a period of, say, 5–10 years of transition to democracy, probably reforming institutions, but during other periods they have reverted to military rule, making their average democracy rating similar to those in any other country. To a more limited extent, a similar reasoning applies to inequality (although persistent, it has been steadily increasing in the last 20–25 years in some macro regions). Such phenomena call for an appropriate empirical investigation. And this argument could justify using panel data, we can exploit the variation within each statistical unit, in addition the variation across units. Apart from the advantages described above, we would explore what the last decades have delivered in terms of political reforms.

(b) *The way forward: micro, state, and regional level studies*

Cross-country regressions are a necessary and valuable tool when it comes to testing development theories and appreciating the diversity of development patterns across the regions of the globe. After all, often they explain a great deal of variation. Nevertheless, it is important to recognize that their insights may be limited. In particular, [Bardhan \(2005a, chap. 1\)](#) warns against this approach, given that many institutions and policies, as actually implemented at the local level within a country, are often diverse and heterogeneous (unlike the countrywide macroeconomic institutions). For example, using aggregate indices of democracy or economic institutions for large, federal states—such as India—could have limited explanatory power or be misleading, as the political situation can be very different across states. Specific country-studies, which test the relationships of interest while using state-level data, would deliver further insights.

In our specific context, another limit of using cross-country aggregate data is linked to its inability to capture the perspectives of different social groups (or sectoral differences). Suppose we are interested in institutions protecting ownership, control and use of property. This could mean different things and have different consequences for different social groups. [Bardhan \(2005a, chap. 1, p. 3\)](#) notes that the rich can be mainly interested in corporate shareholder rights or the level of income taxation, while the poor care more for land rights. One could extend this and argue that a similar reasoning ap-

plies when considering the perspective of industrialists and workers (or between rural and urban sectors). The issue at stake here would become whose property rights should be privileged, bearing in mind that protecting either the former or the latter could equally spur economic growth (see also [Chang, 2005, pp. 14–15](#)). Nonetheless, looking at the obstacles to access to property for the lower classes would be in line with a pro-poor growth approach ([Sen, te Velde, Wiggins, & Cali, 2006](#)). Hence, also in this case, the need to conduct investigation at state or local level promises to be insightful, as macro studies could be unable to capture the situation of specific groups. It would be interesting to investigate if land reforms (their effective implementation and their lack of) result from changes in economic and political equality. Land tenure systems are a good example. And India has been a stimulating case study. There are states, such as Kerala, where the influence of distributive conflict on institutional change has had much more efficient and equitable outcomes than other agrarian states. Prominent counterexamples are in the “Tribal Belt” (an area intersecting Bengal, Bihar and Andhra Pradesh, among the others). To explain these differences, the imbalance of political power among classes could be important.

A handful of recent papers have provided first micro-level evidence when focusing on changes in land rights. We briefly discuss them below. [Conning and Robinson \(2007\)](#) have theoretically investigated the political determinants of land tenancy arguing, that, under higher land inequality, the advantage for landowners of a shorter tenancy is greater, given the risk that prospective political and agrarian reforms could transfer land ownership to tenants or squatters. Using panel data and a fixed effects approach, they also provide (tentative) evidence from Indian states.²¹ The likelihood of land reforms (measured as the number of tenancy reforms acts or revisions up to a certain date) increases when the political power of peasants (or land inequality) is greater. And land reforms, in turn, reduce the extent of tenancy. Some time before, and using the same data, [Besley and Burgess \(2000, pp. 410–416\)](#) had also provided first panel data evidence from Indian states, and found that property of land is reformed when political changes lead to a shift in favor of peasants.

At this stage, micro-empirical evidence can only rely on very limited number of contributions. An obvious constraint is the scarcity of data; especially with respect to variables proxying for institutions and democracy. Ideally, focusing on household’s views would require collecting primary data by surveying at the micro-household level. From the econometric point of view, analyses using micro data would still be affected by endogeneity, for example, institutions at state (village)-level “property rights,” are affected by income inequality and state (village)-level democracy, and reverse causality might well be possible. Again, using panel data would be useful for handling endogenous explanatory variables (as well as reduce the possibility of omitted-variable bias).

5. CONCLUSION

In this paper, we have surveyed the current discourse on the political economy of institutions and inequality. A number of issues have arisen. To explain the differences across the globe in the scores of several aspects of institutions, we have reviewed the theoretical arguments, arguing that the impact of inequality on many institutions can be both direct and mediated, through its effect on democracy. We have also highlighted what the empirical issues are. And we have noted that carrying out empirical research is not straightforward,

partly because of the availability and quality of data on institutions and political systems, and mostly because regression analysis is likely to be plagued by endogeneity problems, which must be accounted for. However, the current consensus is to consider market-economy institutions as the key to prosperity. Therefore, policy makers are unlikely to ignore these insights when designing institutional reforms in developing economies, while future growth strategies will have to face a further constraint.

Finally, we briefly speculate on future research. Given the relatively limited amount of contributions so far, we believe this topic will be at the cutting edge of political economy research, especially in terms of empirical analysis. Hence, econometric studies of how inequality, democracy and economic institutions have evolved around the developing world will be insightful (together with historical analysis). And they will

be all the more so if the available aggregate-level evidence could be matched with micro and state-level studies. Such studies would provide valuable information on how these relationships affect the economic opportunities of different social groups and the evolution of different economic sectors—as well as regions. Unfortunately, this is no panacea. For many of the econometric problems that the researcher must tackle in aggregate level analyses will hamper the progress of micro and state-level ones. Most prominently, endogeneity prevents us from claiming causality rather than correlation. Finally, we have been hinting throughout the discussion that economic institutions do affect income distribution. A future, interesting avenue is to reverse the arrow of causation and investigate the distributional impact of economic institutions, which has to be carefully addressed.

NOTES

1. The political economy of inequality and institutions could also touch upon the broader debate on the interaction between growth and inequality, which has attracted a lot of attention again since the 1990s. For instance, economic inequality—under imperfect credit markets—denies investment opportunities (in physical or human capital) to wealth-constrained individuals—who would be otherwise willing to contribute to the formation of national income (Galor & Zeira, 1993)—or it can heighten social conflict and ignite political turmoil (comprehensive reviews of theories and evidence are Thorbecke and Charumilind (2002), and Benabou (1996)). Some empirical evidence supports the view that high levels of inequality have adverse impact on growth, though the question remains unsolved (Aghion, Caroli, & Garcia-Penalosa, 1999).

2. Textbook exposition and surveys are, respectively, Schmid (2004) and Jütting (2003). Critical perspectives on concept and ontology of institutions are offered by Hodgson (2006) and, in relation to economic development, by Chang (2005).

3. Land inequality is the area of family farms as a % of the total area of holdings, where family farms are those that provide employment for not more than four people (including family members), that are cultivated by the holder family itself and that are owned by the cultivator family or held in over like possession. The source is Vanhanen (2003). Gini coefficients, instead, are estimates of gross household income inequality, computed from a regression relationship between pre-existing inequality measures and the UTIP-UNIDO pay inequality measures (controlling for the source characteristics and for the ratio of manufacturing employment to population, the share of urban population, and the population growth rate. See Galbraith and Kum (2004).

4. It is a *subjective* index composed assembling data by Political Risk Services (PRS) group and Global Competitiveness Report (GCR). It includes: (a) judicial independence (GCR): the judiciary is independent and not subject to interference by the government or parties in dispute; (b) impartial courts (GCR): a trusted legal framework exists for private businesses to challenge the legality of government actions or regulation; (c) the degree of protection of intellectual property rights (GCR); (d) military interference in the rule of law and the political process (PRS); and, (e) integrity of the legal system (PRS): strength and impartiality of the legal system and popular observance of the law.

5. “Accountability groups” may impose such limitations. In Western democracies these are usually legislatures. Other kinds of accountability groups are the ruling party in a one-party state; councils of nobles or powerful advisors in monarchies; the military in coup-prone polities; and

in many states a strong, independent judiciary. The concern is therefore with the checks and balances between the various parts of the decision-making process (see Jagers & Marshall, 2002, pp. 23–24).

6. The value of the *Competition* variable is calculated by subtracting the percentage of votes won by the largest party from 100 (which is the smaller parties’ share of the votes cast in parliamentary or presidential elections). If data on the distribution of votes are not available, the value of this variable is calculated on the basis of the distribution of seats in parliament. The value of the *Participation* variable is calculated from the total population. It is the share of population that actually votes as a percentage of total population.

7. Recent literature, in economics, has also addressed institutional formation by studying the impact of the identity of colonial power. It has been argued that the origin of “good” institutions (and development) relates systematically to legal origins, Anglo-Saxon *common law* and French *civil law* legal systems, of the colonisers. Where a civil law system supposedly delivers better protection of property rights, and a more limited, efficient State than civil law systems. Exhaustive surveys are La Porta *et al.* (2007) and Levine (2005).

8. On Peru, these and other issues are studied in greater detail in a recent collection of articles edited by Crabtree (2006).

9. Good examples are the *encomienda* (land grants from the crown which gave Spanish colonisers feudal rights over the indigenous population), *mita* (a system of forced labour used in the mines) and *repartimiento* (forced sale of goods to indigenous population, typically at highly inflated prices).

10. Historically, franchise was granted under wealth and literacy requirements and lack of secrecy of vote was also a recurring feature of political systems. The share of the voting population has always been very low in Argentina, Brazil, Chile, Ecuador and Mexico, in the second half of the 19th century as well as the beginning of the 20th (see Engerman & Sokoloff, 2002, Tables 7 and 8).

11. An attempt to extend this further is Chong and Gradstein (2007), which explores the possible double-causality relationship between income inequality and institutional quality. Their dynamic model suggested that, while income inequality may cause subversion of institutions by the politically powerful, the reverse holds as well, namely, that poor institutional quality results in a higher degree of inequality.

12. In Bourguignon and Verdier (2000), the incentive to democratize relies on a more educated labor force, which will increase the rate of growth of the economy. But the cost is a loss of political control; because, beyond a certain level of education, people become politically active, which means that incomes may be taxed away by the new majority that now includes the newly educated individuals. An initial relatively egalitarian distribution will lead to the democratization of the economy and an acceleration of economic growth. Galor *et al.* (2006) focus on the role of land inequality. Where land was associated with increasing returns in agricultural activities or in natural resources extraction, the emergence of a class of wealthy landlords opposed, and retarded, institutional reforms aimed at promoting human capital formation (education and child labor regulation) because they had little incentive to industrialize and therefore exploit a higher-qualified labor force (which was needed by the industrialists).

13. Historically, large landowners in 19th century Sicily had to defend their properties from the attacks of peasants turned to banditry by resorting to a private system of property rights enforcement, which relied on armed guards (and gave rise to the Sicilian mafia). Bandiera (2003) documents this idea.

14. Clague, Keefer, Knack, and Olson (1996) argue that the key element for property rights security is regime longevity, rather than regime type. They argue that oligarchs or dictators have the incentive to respect contractual obligations if they expect to stay in power for long enough to enjoy the benefit of increased rents from a bigger economy. Conversely, in young democracies, the elected leader may maximize his chances of re-election by confiscating the assets of unpopular and opposition minorities or of the rich and distribute the proceeds among those from whom it hopes to obtain a majority again.

15. Some literature has addressed the relationship between democracy and governance focusing on specific aspects of constitutions. Persson (2005) develops the democracy argument further by presenting empirical evidence that proportional and parliamentary democracies are more conducive to property rights protection and growth-enhancing policies than presidential and majoritarian systems. Pagano and Volpin (2005) study the political determinants of company law, arguing that under proportional voting there is low degree of shareholder protection and a high degree of employment protection, while a majoritarian system shows the opposite pattern and is more favorable to outside shareholders.

16. Teitelbaum (2007) documents that repression of labor movements in Sri Lanka over—the 1980s and 1990s—has led to political violence, and drove away foreign investment.

17. A long-established explanation argues that the median-income earner determines the extent of redistributive taxation, with higher-income individuals preferring less and lower-income earners preferring more taxation. If the median income falls compared to the mean income, redistribution increases (Meltzer & Richard, 1981). However, the standard median voter argument is not always accepted. For instance, redistribution can be limited when political participation of the rich is more likely than the poor, when the poor oppose it because of the prospects of upward mobility, and when the rich tends to evade taxes (see, for a review, Borck, 2007; Putterman, Roemer, & Silvestre, 1998). Not surprisingly, this has spawned renewed theoretical efforts to reconcile the existence of inequality together with low levels of redistribution (e.g. Petrova, 2008; Rodriguez, 2004; Saint-Paul & Verdier, 1996). On developing economies, see Mejia and Posada (2007), who formalise the idea that political elites engage in populist redistribution (in the sense that it does not improve the poor's productive capacity) to avoid revolutions and retain political influence.

18. Figueroa (1996, p. 241), about the Latin American region, argues that poor workers or landless peasants could be even inclined to tolerate political patronage and to support populist undemocratic governments. A patron-and-client system of power, which is willing to satisfy their basic needs, makes them better off.

19. As far as we are aware, the possibility of conducting country-studies is likely to be precluded, because data at hand does not have a suitable structure for time-series analyses.

20. A cross-country estimation of Eqn. (4.2) is the approach that Easaw, McKay, and Savoia (2006) have taken when assessing the relevance of democracy and inequality for property rights security. The results, which are robust for different property rights, inequality and democracy indicators, support the view that democracy does not have a significant positive influence on property rights protection in unequal countries, both when using panel data techniques and when estimating a cross-section model with Instrumental Variables (tropical geographical location as an instrument for inequality and (lagged) education for democracy). This is probably due to the effect of inequality taking place via the political systems. The suggested non-linear specification highlights the importance of 'indirect channels'. Hence, high inequality, rather than a lack of democracy, could be the relevant constraint at the origin of weak institutions in such economies. However, democracy does have an important impact on institutional quality in equitable societies.

21. Admittedly, there are some data limitations though (this dependent variable, reported tenancy, could be underreported to avoid tenancy regulations).

REFERENCES

- Acemoglu, D. (2003). Why not a political coarse theorem? Social conflict, commitment and politics. *Journal of Comparative Economics*, 31, 620–652.
- Acemoglu, D. (2008). Oligarchic vs. democratic societies. *Journal of the European Economic Association*, 6(1), 1–44.
- Acemoglu, D., & Robinson, J. A. (2001). A theory of political transition. *American Economic Review*, 91, 938–963.
- Acemoglu, D., & Robinson, J. A. (2006). De facto political power and institutional persistence. *American Economic Review Papers and Proceedings*, 96(2), 325–330.
- Acemoglu, D., Johnson, S., & Robinson, J. A. (2001). The colonial origins of comparative development: An empirical investigation. *American Economic Review*, 91, 1369–1401.
- Acemoglu, D., Johnson, S., & Robinson, J. A. (2005). Institutions as the fundamental cause of long-run growth. In P. Aghion, & S. Durlauf (Eds.). *Handbook of economic growth* (Vol. 1A). Amsterdam, Netherlands: North Holland.
- Acemoglu, D., & Robinson, J. A. (2000). Why did the West extend the franchise? Democracy, inequality and growth in historical perspective. *Quarterly Journal of Economics*, 115, 1167–1199.
- Adserà, A., Boix, C., & Payne, M. (2003). Are you being served? Political accountability and quality of government. *Journal of Law, Economics & Organization*, 19(2), 445–490.
- Aghion, P., Caroli, E., & Garcia-Penalosa, C. (1999). Inequality and economic growth: The perspective of the new growth theories. *Journal of Economic Literature*, 37, 1615–1660.
- Baland, J., Bardhan, P., & Bowles, S. (Eds.) (2007). *Inequality, collective action and environmental sustainability*. New York: Russell Sage Foundation & Princeton University Press.
- Bandiera, O. (2003). Land reform, the market for protection, and the origins of the Sicilian Mafia: Theory and evidence. *Journal of Law, Economics & Organization*, 19(1), 218–244.
- Bandiera, O., Barankay, I., & Rasul, I. (2005). Cooperation in collective action. *Economics of Transition*, 13(3), 473–498.

- Banerjee, A., & Iyer, L. (2005). History, institutions and economic performance: The legacy of colonial land tenure systems in India. *American Economic Review*, 95(4), 1190–1213.
- Banerjee, A., Mookherjee, D., Munshi, K., & Ray, D. (2001). Inequality, control rights and efficiency: A study of sugar cooperatives in Western Maharashtra. *Journal of Political Economy*, 109, 138–190.
- Bardhan, P. (2005a). *Scarcity, conflict and cooperation: Essays in political and institutional economics of development*. Cambridge, MA: MIT Press.
- Bardhan, P. (2005b). Institutions matter, but which ones?. *Economics of Transition*, 13(3), : 499–532.
- Bardhan, P. (1999). Democracy and development: A complex relationship. In I. Shapiro, & C. Hacker (Eds.), *Democracy's values*. Cambridge: Cambridge University Press.
- Bardhan, P. (2001). Distributive conflicts, collective action and institutional economics. In G. M. Meier, & J. E. Stiglitz (Eds.), *Frontiers of development economics: The future perspective*. Oxford: Oxford University Press.
- Barro, R. J. (1999). Determinants of democracy. *Journal of Political Economy*, 107(6-2), 158–183.
- Benabou, R. (1996). Inequality and growth. In B. Bernanke, & J. Rotemberg (Eds.), *NBER macroeconomics annual* (pp. 11–74). Cambridge, MA: The MIT Press.
- Besançon, M. (2003). *Good governance rankings: The art of measurement*. World Peace Foundation Reports, J.F. Kennedy School of Government, Harvard University.
- Besley, T., & Burgess, R. (2000). Land reform, poverty reduction and growth: Evidence from India. *Quarterly Journal of Economics*, 115(2), 389–430.
- Boix, C. (2003). *Democracy and redistribution*. Cambridge: Cambridge University Press.
- Boix, C., & Stokes, S. (2003). Endogenous democratization. *World Politics*, 55, 517–549.
- Bollen, K. A. (1990). Political democracy: Conceptual and measurement traps. *Studies in Comparative International Development*, 25, 7–24.
- Bollen, K. A., & Jackman, R. W. (1985). Political democracy and the size distribution of income. *American Sociological Review*, 50, 438–457.
- Borck, R. (2007). Voting, inequality and redistribution. *Journal of Economic Surveys*, 20(1), 90–109.
- Bourguignon, F., & Verdier, T. (2000). Oligarchy, democracy, inequality and growth. *Journal of Development Economics*, 62(2), 285–313.
- Cervellati, M., Fortunato, P., & Sunde, U. (2005). *Hobbes to Rousseau: inequality, institutions and development*. IZA discussion paper no. 1450.
- Chang, H.-J. (2005). Understanding the relationship between institutions and economic development: Some key theoretical issues. Paper presented at the WIDER Jubilee conference, 17–18 June, WIDER, Helsinki.
- Chong, A., & Gradstein, M. (2007). Inequality and institutions. *Review of Economics and Statistics*, 89(3), 454–465.
- Clague, C., Keefer, P., Knack, S., & Olson, M. (1996). Property and contract rights in autocracies and democracies. *Journal of Economic Growth*, 1, 243–276.
- Conning, J. H., & Robinson, J. A. (2007). Property rights and the political organization of agriculture. *Journal of Development Economics*, 82, 416–447.
- Crabtree, J. (2006). *Making institutions work in Peru*. London: Institute for the Study of the Americas.
- Dutta, I., & Mishra, A. (2005). *Does inequality lead to conflict?* UNU-WIDER research paper no. 2005/34.
- Easaw, J., McKay, A., & Savoia, A. (2006). Property rights: The impact of economic and political inequality. Paper presented at Royal Economic Society 2006 conference.
- Easaw, J. Z., & Savoia, A. (2009). *Inequality in developing economies: The role of institutional development*. Society for the Study of Economic Inequality – ECINEQ, Working Paper 2009/121.
- Easterly, W. (2001). The middle class consensus and economic development. *Journal of Economic Growth*, 6(4), 317–335.
- Easterly, W. (2007). Inequality does cause underdevelopment: Evidence from new instruments. *Journal of Development Economics*, 84, 755–776.
- Easterly, W., Ritzen, J., & Woolcock, M. (2006). Social cohesion, institutions and growth. *Economics & Politics*, 18(2), 103–120.
- Engerman, S. L., & Sokoloff, K. L. (2002). *Factor endowments, inequality and paths of development among new world economies*. NBER working paper 9259.
- Erickson, L., & Vollrath, D. (2004). *Dimensions of land inequality and economic development*. IMF working paper 04/158.
- Fields, G., & Wan, H. Jr., (1989). Wage-setting institutions and economic growth. *World Development*, 17(9), 1471–1483.
- Figueroa, A. (1996). The distributive issue in Latin America. *International Social Science Journal*, 48(2), 231–244.
- Galbraith, J. K., & Kum, H. (2004). *Estimating the inequality of household incomes: A statistical approach to the creation of a dense and consistent global data set*. University of Texas Inequality Project (UTIP) working paper no. 22, May. Data and documentation available at: <<http://utip.gov.utexas.edu>>.
- Galor, O., Moav, O., & Vollrath, D. (2006). *Land inequality and the emergence of human capital promoting institutions*. Centre for Economic Policy Research, discussion paper no. 3817.
- Galor, O., & Zeira, J. (1993). Income distribution and macroeconomics. *Review of Economic Studies*, 60, 35–52.
- Gerring, J., Bond, P., Barndt, W. T., & Moreno, C. (2005). Democracy and economic growth: A historical perspective. *World Politics*, 57, 323–336.
- Glaeser, E. L., Scheinkman, J., & Shleifer, A. (2003). The injustice of inequality. *Journal of Monetary Economics*, 50, 199–222.
- Gradstein, M., & Milanovic, B. (2004). Does Liberté = Egalité? A survey of the empirical links between democracy and inequality with some evidence on the transition economies. *Journal of Economic Surveys*, 18(4), 515–537.
- Gradstein, M. (2007). Inequality, democracy, and the protection of property rights. *The Economic Journal*, 117, 252–269.
- Gwartney, J. G., & Lawson, R. A. (2004). *Economic freedom of the world: 2003 annual report*. The Fraser Institute, Vancouver; data and documentation available at: www.freetheworld.com.
- Hodgson, G. (2006). What are institutions?. *Journal of Economic Issues*, XL, 1.
- Jagers, K., & Marshall, M. G. (2002). *Polity IV project: Political regimes and characteristics, 1800–2002*. Center for International Development and Conflict Management, University of Maryland; data and documentation <<http://www.systemicpeace.org/polity/polity4.htm>>.
- Jütting, J. (2003). *Institutions and development: A critical review*. OECD Development Centre, Working paper no. 210, July.
- Kaufmann, D., Kraay, A., & Mastruzzi, M. (2003). Governance matters III: Governance indicators for 1996–2002. *World Bank Economic Review*, 12(12). Data and documentation available at: <<http://go.worldbank.org/ATJXPZHMH0>>.
- Keefer, P., & Knack, S. (2002). Polarization, politics, and property rights: Links between inequality and growth. *Public Choice*, 111(1–2), 127–154.
- La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2007). *The economic consequences of legal origins*. NBER working paper 13608.
- Levine, R. (2005). Law, endowments and property rights. *Journal of Economic Perspectives*, 19(3).
- Mejia, D., & Posada, C.-E. (2007). Populist policies in the transition to democracy. *European Journal of Political Economy*, 23, 932–953.
- Meltzer, A., & Richard, S. (1981). A rational theory of the size of the government. *Journal of Political Economy*, 89, 914–927.
- Morrison, C. (2006). Institutions, factor endowment and inequality in Ghana, Kenya and Senegal. In A. de Janvry, & R. Kanbur (Eds.), *Poverty, inequality and development: Essays in honour of Erik Thorbecke*. Springer.
- Muller, E. N., & Seligson, M. A. (1987). Inequality and insurgency. *The American Political Science Review*, 81(2), 425–452.
- Muller, E. N. (1995). Democracy, economic development, and income inequality. *American Sociological Review*, 60(6), 966–982.
- Munck, G. L., & Verkuilen, J. (2002). Conceptualizing and measuring democracy: Evaluating alternative indices. *Comparative Political Studies*, 35(1), 5–34.
- North, D., & Weingast, B. (1989). Constitutions and commitment: The evolution of institutions governing public choice in seventeenth-century England. *Journal of Economic History*, 49, 803–832.
- Pagano, M., & Volpin, P. F. (2005). The political economy of corporate governance. *American Economic Review*, 95(4), 1005–1030.
- Persson, T. (2005). *Forms of democracy, policy and economic development*. NBER working paper 11171.
- Petrova, M. (2008). Inequality and media capture. *Journal of Public Economics*, 92(1–2), 183–212.
- Powelson, J. P. (1997). *Centuries of economic endeavour*. The University of Michigan Press.

- Przeworski, A., & Limongi, F. (1993). Political regimes and economic growth. *Journal of Economic Perspectives*, 7(3), 51–69.
- Putterman, L., Roemer, J. E., & Silvestre, J. (1998). Does egalitarianism have a future?. *Journal of Economic Literature*, 36(2), 861–902.
- Robinson, J. A. (2006). Economic development and democracy. *Annual Review of Political Science*, 9, 503–527.
- Rodriguez, F. (2004). Inequality, redistribution and rent-seeking. *Economics & Politics*, 16(3), 287–320.
- Rodrik, D. (2000). Institutions for high-quality growth: What they are and how to acquire them. *Studies in Comparative International Development*, 35(3).
- Rodrik, D. (2004). *Getting institutions right*. Unpublished paper, Harvard University, April.
- Rodrik, D. (2005). Growth strategies. In P. Aghion, & S. Durlauf (Eds.). *Handbook of economic growth* (Vol. 1A). Amsterdam, Netherlands: North Holland.
- Saint-Paul, G., & Verdier, T. (1996). Inequality, redistribution and growth: A challenge to the conventional political economy approach. *European Economic Review*, 40, 719–728.
- Schmid, A. A. (2004). *Conflict and cooperation: Institutional and behavioural economics*. Blackwell Publishing.
- Sen, K., te Velde, D. W., Wiggins, S., & Cali, M. (2006). *Institutions for pro-poor growth: Towards a framework for quantitative analysis*. Institutions for pro-poor growth – IPPG, Discussion paper series, no. 2.
- Sonin, K. (2003). Why the rich may prefer poor protection of property rights. *Journal of Comparative Economics*, 31, 715–731.
- Svensson, J. (1998). Investment, property rights and political instability: Theory and evidence. *European Economic Review*, 42, 1317–1341.
- Teitelbaum, E. (2007). Can a developing democracy benefit from labour repression? Evidence from Sri Lanka. *Journal of Development Studies*, 43(5), 830–855.
- Therborn, G. (1977). The rule of capital and the rise of democracy. *New Left Review*, CIII, 3–41.
- Thorbecke, E., & Charumilind, C. (2002). Economic inequality and its socioeconomic impact. *World Development*, 30(9), 1477–1495.
- Vanhnen, T. (2000). A New dataset measuring democracy, 1810–1998. *Journal of Peace Research*, 37(2), 251–265. Data and documentation available at: <<http://new.prio.no/CSCW-Datasets/Data-on-Governance/The-Polyarchy-dataset/>>.
- Vanhnen, T. (2003). *Democratization: A comparative analysis of 170 countries*. London: Routledge. Data and documentation available at <<http://www.fsd.uta.fi/english/data/catalogue/FSD1216/>>.

Available online at www.sciencedirect.com