Political Regimes and Economic Growth

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Does democracy in the political realm foster or hinder economic growth? Our discussion of this question begins with a review of arguments in favor of and against democracy. Then we summarize statistical studies in which political regime is included among determinants of growth and identify some methodological problems entailed in such studies. The conclusion is that social scientists know surprisingly little: our guess is that political institutions do matter for growth, but thinking in terms of regimes does not seem to capture the relevant differences.

Arguments: How Democracy Might Affect Growth

Arguments that relate regimes to growth focus on property rights, pressures for immediate consumption, and the autonomy of dictators. While everyone seems to agree that secure property rights foster growth, it is controversial whether democracies or dictatorships better secure these rights. The main mechanism by which democracy is thought to hinder growth are pressures for immediate consumption, which reduce investment. Only states that are institutionally insulated from such pressures can resist them, and democratic states are not. The main argument against dictatorships is that authoritarian rulers have no interest in maximizing total output. These views are summarized in turn.

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Either Way: Democracy and Property Rights

The idea that democracy protects property rights is a recent invention, and we think a far-fetched one.

Economic consequences of democracy were in the center of debates concerning the rights to vote and to organize during the first half of the nineteenth century. Conservatives agreed with socialists that democracy, specifically universal suffrage and the freedom to form unions, must threaten property. The Scottish philosopher James Mackintosh predicted in 1818 that if the "laborious classes" gain franchise, "a permanent animosity between opinion and property must be the consequence" (cited in Collini, Winch and Burrow, 1983, p. 98). David Ricardo was prepared to extend suffrage only "to that part of them [the people] which cannot be supposed to have an interest in overturning the right to property" (p. 107). Thomas Macaulay in his speech on the Chartists in 1842 (1900, p. 263) pictured universal suffrage as "the end of property and thus of all civilization."[1] Eight years later, Karl Marx expressed the same conviction that private property and universal suffrage are incompatible (1952, p. 62). According to his analysis, democracy inevitably "unchains the class struggle": The poor use democracy to expropriate the riches; the rich are threatened and subvert democracy, typically by "abdicating" political power to the permanently organized armed forces. As a result, either capitalism or democracy crumbles. The combination of democracy and capitalism is thus an inherently unstable form of organization of society, wrote Marx, "only the political form of revolution of bourgeois society and not its conservative form of life" (1934, p. 18), "only a spasmodic, exceptional state of things ... impossible as the normal form of society" (1971, p. 198).

In retrospect, these conclusions are obviously too strong. There are 14 countries in the world today which have been continuously capitalist and democratic for the past half century. Yet these classical views should be sufficient to at least call into question the recently fashionable claim that democracy necessarily promotes development by safeguarding property rights.

While Douglass North (North and Thomas, 1973; North, 1990) has argued that secure property rights are critical for growth, he has not provided a link between property rights and democracy. According to North and Weingast (1989, p. 803): "The more likely it is that the sovereign will alter property rights for his or her own benefit, the lower the expected returns from investment and the lower in turn the incentive to invest. For economic growth to occur the sovereign or government must not merely establish the relevant set of rights, but make a credible commitment to them."[2] Yet North is never explicit

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[1] Only James Mill sought to assuage these fears that the poor would plunder the rich. He offered some rather specious deductive arguments, but ultimately he relied on the following empirical generalization: "We challenge them [the opponents] to produce an instance, so much as one instance, from the first page of history to the last, of the people of any country showing hostility to the general laws of property, or manifesting a desire for its subversion" (cited in Collini, Winch and Burrow, 1983, p. 104).

about the institutions that would provide this commitment: we could find only one passage in his recent book in which he explicitly identifies these institutions as democratic (1990, p. 109).

Mancur Olson (1991, p. 153) argued, in turn, that an autocrat cannot credibly commit himself: "If he runs the society, there is no one who can force him to keep his commitments." Moreover, what matters is not only the commitment of the current regime to follow a particular policy; it must also be credible that the regime itself will last. An insecure autocrat, in particular, is likely to plunder the society. But Olson as well fails to explain how democratic institutions could provide such a credible commitment.

The property rights literature treats the state as the only source of potential threat.[3] But property rights are threatened by private actors: capitalist property is threatened by organized workers, landlords' property by landless peasants. It is by no means clear that the villain is necessarily "the ruler." Indeed, one liberal dilemma is that a strong state is required to protect property from private encroachments but a strong state is a potential threat itself.

The market is a system in which scarce resources are allocated to alternative uses by decentralized decisions. Yet under capitalism, property is institutionally distinct from authority: individuals are simultaneously market agents and citizens. As a result, there are two mechanisms by which resources can be allocated to uses and distributed among households: the market and the state. The market is a mechanism in which individuals cast votes for allocations with the resources they own and these resources are always distributed unequally; the state is a system which allocates resources it does not own, with rights distributed differently from the market. Hence, the allocation of resources which individuals prefer as citizens does not in general coincide with that at which they arrive via the market.

Democracy in the political realm exacerbates this divergence by equalizing the right to influence the allocation of resources. Indeed, distributions of consumption caused by the market and those voted on by citizens must differ since democracy offers those who are poor, oppressed or otherwise miserable as a consequence of the initial distribution of endowments an opportunity to find redress via the state. 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 riches: in the modern language, if the median voter is decisive and if the market-generated distribution of income is skewed downward, as it always is, majority equilibrium (if one exists) will call for a greater equality of incomes. The widespread usage of democracy as a "proxy"

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[2]North and Weingast discovered that in seventeenth-century England democracy did secure property rights: a finding not particularly surprising given that only the propertied enjoyed political rights.
[3]We owe this point to Zhiyuan Cui.

for guarantees of property rights in econometric studies is thus unjustifiable:[4] democracy may promote growth but not via this particular mechanism.

Against Democracy: Democracy Undermines Investment

While the classical analyses saw democracy as a threat to private property, the same line of argument was revived in the early 1960s with a focus on growth. The first modern statements that democracy undermines growth are perhaps those by Walter Galenson and by Karl De Schweinitz, who argued in 1959 that democracy unleashes pressures for immediate consumption, which occurs at the cost of investment, hence of growth.[5] This argument acquired widespread acceptance under the influence of Samuel Huntington (1968; also Huntington and Dominguez, 1975).[6] In this view, democracy generates an explosion of demands for current consumption. These demands, in turn, threaten profits; hence they reduce investment and retard growth. Democracy is thus inimical to economic development.

Moreover, via a rather dubious inference, proponents of this view conclude that dictatorships are therefore better able to force savings and launch economic growth. To cite a recent statement by Vaman Rao (1984, p. 75), "Economic development is a process for which huge investments in personnel and material are required. Such investment programs imply cuts in current consumption that would be painful at the low levels of living that exist in almost all developing societies. Governments must resort to strong measures and they enforce them with an iron hand in order to marshall the surpluses needed for investment. If such measures were put to a popular vote, they would surely be

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[4]Note that this usage implies that dictatorships are invariably hostile to private property. Barro (1989, p. 22) could find in the entire world only three that were not: Chile, South Korea and Singapore.

[5]Galenson mentioned both the role of unions and of governments. About unions, he argued that in a democratic society they "must ordinarily appeal to the worker on an all-out consumptionist platform. No matter how much 'responsibility' the union leader exhibits in his understanding of the limited consumption possibilities existing at the outset of industrialization, he cannot afford to moderate his demands [because of competition among unions]." About governments, he observed, "The more democratic a government is, . . . the greater the diversion of resources from investment to consumption."

According to de Schweinitz (1959, p. 388), if trade unions and labor parties "are successful in securing a larger share of the national income and limiting the freedom for action of entrepreneurs, they may have the effect of restricting investment surplus so much that the rate of economic growth is inhibited."

Note that both arguments assume that unions have some market or political power but they are not encompassing and centralized. If they were, they would be sensitive to externalities arising from their wage demands and their optimal strategy would be to offer some wage restraint in exchange for investment and income security (Przeworski and Wallerstein, 1988).

[6]According to Huntington and Dominguez (1975, p. 60), "The interest of the voters generally lead parties to give the expansion of personal consumption a higher priority via-a-vis investment than it would receive in a non-democratic system. In the Soviet Union, for instance, the percentage of GNP devoted to consumption was driven down from 65% in 1928 to 52% in 1937. It is most unlikely that a competitive party system would have sustained a revolution from above like this."

defeated. No political party can hope to win a democratic election on a platform of current sacrifices for a *bright future*."[7]

Since this body of thought is not always explicit about the assumptions and the inferences, the reasoning needs reconstructing. First, this argument assumes that poor people have a higher propensity to consume.[8] This is why democracy is seen as compatible with growth at high but not at low levels of income. Secondly, the underlying model of growth attributes it to the increase in the quantity of the stock of physical capital. Finally, democracy is always responsive to the pressures for immediate consumption. The chain of reasoning is the following: (1) poor people want to consume immediately; (2.1) when workers can organize, they drive wages up, reduce profits, and reduce investment (either by lowering the rate of return or the volume of profit or both) and (2.2) when people can vote, governments distribute incomes away from investment (either they tax and transfer or they undertake less public investment); and (3) lowering investment slows down growth.[9] In turn, (4) dictators are future-oriented.

One puzzle which this literature does not address explicitly is why benevolent dictators would be future-oriented. After all, most authors seem to believe that when incomes hover around subsistence, individuals will not voluntarily make intertemporal tradeoffs, because they would not survive if they restricted current consumption. It seems strange to argue that a benevolent dictator would starve the population to achieve long-term growth. One might think that "developmentalist" dictators have lower time discount rates than members of the present generation or that, since dictators engage simultaneously in several uncorrelated projects, they are less risk averse than individuals who engage in one. But we are just speculating: the literature is strangely silent on this topic.

Against Democracy: Dictatorship Insulates the State from Particularistic Pressures

The question why dictators would behave in a "developmentalist" fashion has been studied by some scholars engaged in comparisons of the Far East and

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[7]At least Huntington (1968) wrote during a period when many dictatorships, "authoritarian" and "totalitarian" did grow rapidly. Yet Rao's assertion was made in 1984, after the failure of several Latin American authoritarian regimes and of the Eastern European communist regimes was already apparent.

[8]Pasinetti (1961–2) claimed that the propensity to consume is lower for workers than for capitalists, Kaldor (1955–6) believed that it is lower for wages than for profits, while the scholars discussed here seemed to assume that in general the marginal propensity declines with income. Galenson and Leibenstein (1955) were probably the first to argue that a highly unequal income distribution was necessary for savings that would facilitate investment and growth.

[9]Note that this reasoning implies that the impact of mean preserving inequality on growth is ambivalent: in the Kaldor-Pasinetti models, inequality promotes growth to the extent to which it increases incomes of those who save more but in the median voter models it slows down growth to the extent to which the political system responds to demands for redistribution. The recent evidence seems to indicate that inequality reduces growth (World Bank, 1987) but it is doubtful that the mechanism is political. At least, both Alesina and Rodrik (1991) and Persson and Tabellini (1991) failed to demonstrate that the median voter model provides an explanation of this relation.

Latin America. In this view, the key to the superior economic performance of the Asian "tigers" is "state autonomy," defined as a combination of the "capacity" of the state to pursue developmentalist policies with its "insulation" from particularistic pressures, particularly those originating from large firms or unions.[10] This argument takes two steps: "state autonomy" favors growth, and "state autonomy" is possible only under authoritarianism.

State autonomy enhances economic performance because: (1) the state has a role to play to make the economy function efficiently;[11] (2) the state must be insulated from private pressures if it is to perform this role well; and (3) the state apparatus wants to perform this role well. The reason an autonomous state is needed to improve economic performance is either economic or political pursuit of particularistic self-interest. Individuals often behave in a collectively suboptimal way as economic agents, specifically they underinvest. In turn, individuals behave in a collectively suboptimal way as citizens when they organize into interest groups that pressure governments to transfer incomes in their favor.

The model of politics that implicitly underlies this analysis has been put forth by Becker (1983). Interest groups compete for rents, each maximizing the net difference between the eventual benefit from the policy and the cost of lobbying. The equilibrium which results is inefficient both because lobbying is wasteful and because transfers of income that result from group pressures cause deadweight losses. Moreover, when the state becomes permeated by private pressures, policies lose internal coherence.

While Becker himself does not use the language of "rent-seeking"—in his model deadweight losses result only from transfers of income, not from lobbying per se—the term "rent-seeking" is often present in this literature. But "rent-seeking" is a bogeyman: only if preferences are fixed and the adjustment to equilibrium is instantaneous can adjustment costs be avoided. Whenever trades are consummated out of equilibrium, someone collects rents, and the only way to reach political, that is, collective, decisions is to go through a process in which groups organize, pressure, persuade, influence, and perhaps even wine and dine public officials. How else are public officials to know what the preferences of citizens are? Moreover, note that in the presence of incomplete markets and imperfect information, rents are unavoidable, whether they are in the public or the private sector.

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[10] Dore (1978) offered a culturalist explanation: "I suspect that a major motive [of dictators] . . . is to increase national 'strength' and prestige, to raise the nation's position in the international pecking order and thereby their *own* position in the ranks of the world's rulers." Thus, in this view all that matters is whether dictators are motivated by vanity or greed.

[11] These writings tend to place emphasis on institutions, learning, increasing returns to scale, human capital, and allocative efficiency rather than on investment in physical capital. The particular authors writing on the Asian experience offer divergent justifications for the role of the state (Amsden, 1989; Haggard, 1990; Wade, 1990; Westphal, 1990; essays in Gereffi and Wyman, 1990), but we leave this issue aside to concentrate on the political aspects.

Given this model of politics, the state must be sheltered from pressures; indeed, it must be precommitted against being able to respond to these pressures even if it wanted to. The state is the only potentially universalistic actor and to act on behalf of universalistic interest it must be insulated from societal pressures and empowered to pursue policies it finds best. Haggard's (1990, p. 262) formulation is most explicit: "Institutions can overcome these collective-action dilemmas by restraining the self-interested behavior of groups through sanctions; collective-action problems can be resolved by command."[12]

While the consensus that state autonomy improves economic performance seems to be widespread among the students of Asian miracles, some go on to argue that authoritarian regimes are more likely to establish the required form of autonomy. The main proponent of this view is Haggard (1990, p. 262): "Since authoritarian political arrangements give political elites autonomy from distributionist pressures, they increase the government's ability to extract resources, provide public goods, and impose the short-term costs associated with efficient economic adjustment."[13] Hence, this reasoning entails the same assumption, albeit now educated by the collective action literature, that the society invariably exerts pressures for immediate consumption and it completes the argument for the superiority of dictatorships by explaining the role of the state. What it fails to answer is why an autonomous state would behave in the interests, long- or short-term ones, of anyone else.

In Favor of Democracy: Autonomous Rulers are Predatory

Several recent models which view state autonomy as pernicious for economic performance emphasize that the state is always ready to prey on the society (North, 1990) and only democratic institutions can constrain it to act in general interest. From this view, dictatorships of any stripe are a source of inefficiency.

Barro (1990), Findlay (1990), Olson (1991), and Przeworski (1990) constructed models which differ in detail but generate the same conclusion. These models assume that governments engage in activities that assist private production in two ways: either by maintaining a framework for private activity or by

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[12]Bardhan (1990, p. 5) provides an operational recipe: "What seems to be important in these cases in making a difference in outcomes toward a developmental state is the extent of centralization of decision making, coupled with its flexibility in dealing with changes in technical and market conditions...; how much operational space the economic technocrats get in their design and implementation of policy; how important meritocratic recruitment and predictable long-term career paths are in the organization of the bureaucracy; and how much leeway the state has in restructuring its relationships with labor, business and the rural sector."

[13]Not everyone associates state autonomy with authoritarianism. Bardhan (1990, p. 5) takes issue with this position: "It is not so much authoritarianism per se which makes a difference, but the extent of insulation (or 'relative autonomy') that the decision-makers can organize against the ravages of short-run pork-barrel politics." As he wrote in 1988, "Authoritarianism is neither necessary nor sufficient for this insulation."

supplying inputs directly. Governments provide law and order, enforce con-
tracts, and defend private parties from external threats, as well as providing
those inputs to private production that are not efficiently supplied by the
market. Hence, these models begin with the presumption that some productive
role of the state is optimal for maximizing efficiency, growth, or welfare.

Political regimes can be characterized by two features: the locus of
decision–making and the property right to the fiscal residuum, which
is the difference between the total output and the cost of the government
(Przeworski, 1990). In some regimes the decision about the size of the govern-
ment is made by citizens through some voting process; in other regimes, it is
made by the state apparatus. In turn, in some regimes the fiscal residuum is the
property of citizens, in the sense that the state apparatus has no legal right to
privately appropriate it (the state can only tax or accumulate stocks to use the
resources as inputs to production); in other regimes the fiscal residuum can be
consumed privately by members of the state apparatus.

This framework allows us to distinguish three regimes: democracy, where
citizens both decide the size of government and have a right to the fiscal
residuum; autocracy, where the state apparatus both decides the size of govern-
ment and can appropriate the fiscal residuum; and bureaucracy, where the
state apparatus decides the size of government but citizens have a right to fiscal
residuum. Personalized dictatorships, in the style of Somoza in Nicaragua or
Trujillo in the Dominican Republic, as well as "crony dictatorships," such as
Marcos's Philippines provide examples of autocracies. The Soviet and Eastern
European regimes typify bureaucracies: the party or state decided how big the
government should be, but individual members of the nomenklatura could not
privately appropriate (sell, capitalize, cede, or bequeath) the output. The same
was true of the "bureaucratic-authoritarian" regimes in Latin America (O'Don-
nell 1973). Hence autocracy and bureaucracy represent different forms of
dictatorship.

To examine the consequences of these institutional characteristics, examine
Figure 1. The output without government is $Y(0)$; as the size of the government
increases from 0 to G^*, output grows; then it declines. The size of the area
between $Y(G)$ and the diagonal line, G, represents fiscal residuum. Now, let us
consider what happens under democracy: well–informed individuals vote for
parties, parties compete for votes, this competition eliminates rents, and once in
office, the victors behave as perfect agents of the public. Hence, the winning
platform is the one that maximizes $V(Y)$, with $V_Y > 0$, where V represents the
vote share or the probability of winning, and the solution to this problem is G^*:
the size of the government is efficient. Of course, this view of democracy is
naive—a point to which we return in a moment—but in this literature democ-
racy serves as the benchmark.

In turn, under autocracy, the state, which has the right to the fiscal
residuum, maximizes output minus the cost of production of this output.
Autocracy is indifferent between high output and large government size and

Figure 1
Government Spending and Output Under Different Regimes
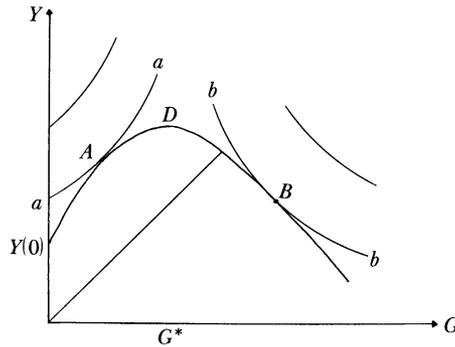
small output and small government size: the indifference curves for autocracy in Figure 1 are *aa* and the autocratic equilibrium is *A*.

Finally, bureaucrats derive utility in part from the output and in part from the government size itself: the larger the government, the more power and perks. As a result, the government is larger than the efficient level. The indifference curves for bureaucrats in Figure 1 are *bb* and the bureaucratic equilibrium is *B*. The ratio B_G/B_Y represents the degree of bureaucratic autonomy: if this ratio is very small, but positive, we are dealing with a democracy in which the bureaucracy is not quite a perfect agent of the public; if this ratio is large, the state becomes as large as it was under communism.

In this framework, any dictatorship, whether autocracy or bureaucracy, deviates from the level that maximizes output, growth, or the present value of future consumption. The underlying model of democracy, however, is a house of cards: it assumes perfect information among voters, perfect competition among parties, and perfect agency. As Downs (1957) himself argued, there are good reasons why voters would be ill-informed and good reasons why they would vote strategically for public goods. In a world of uncertainty, voters may have different evaluations of policies before and after they are implemented (Rodrik and Fernandez, 1991). When there are externalities, any voting equilibrium will diverge from a decentralized one (Elster and Moene, 1989). Under some electoral systems, the incumbent representatives from opposing parties have incentives to collude (Crain, 1977).[14] Majority rule equilibrium exists only under most restrictive assumptions. One can go on.

Moreover, these "economic models of democracy" are ridden with paradoxes (Przeworski, 1990). Since they take preferences to be fixed and exogenous to the political process, they fail to explain what parties do when they "compete"; since they conclude that parties converge to the same platform,

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[14]Party competition must be easily the most protected industry in the United States.

they cannot even predict which will win; since they assume that voters care only about policies and politicians only about victory, they treat politicians as if they were not voters. Finally, these models never succeeded in resolving the issue of agency: If politicians are motivated only by power, then indeed their tenure in office is economically costless to the public. But if power is also an instrument for getting other things politicians may want, then they must be getting some rents for performing office, and they do not function as perfect agents.

None of the above implies that democracy is less efficient than dictatorships of various stripes (for a spirited defense of the democratic process, see Wittman, 1989). But since those who argue that democracy favors growth fail to provide a reasonable model of the democratic process and those who see dictatorship as necessary to restrain particularistic pressures skirt over the motivation of the state apparatus, we do not have a framework within which this controversy could be resolved.

The Statistical Evidence

In one way, the critics and defenders of democracy talk past each other. The critics argue that dictatorships are better at mobilizing savings; the defenders that democracies are better at allocating investment. Both arguments can be true but, as we shall see, the statistical evidence is inconclusive and the studies that produced it are all seriously flawed.

Table 1 summarizes the 18 studies we examined. These generated 21 findings, since some distinguished areas or periods. Among them, eight found in favor of democracy, eight in favor of authoritarianism, and five discovered no difference. What is even more puzzling is that among the 11 results published before 1988, eight found that authoritarian regimes grew faster, while none of the nine results published after 1987 supported this finding. And since this difference does not seem attributable to samples or periods, one can only wonder about the relation between statistics and ideology.[15]

For reasons discussed below, we hesitate to attach much significance to these results one way or another. Hence, we still do not know what the facts are.

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[15] Indeed, it is sufficient to read Scully (1992, pp. xiii-xiv) to stop wondering: "The Anglo-American paradigm of free men and free markets unleashed human potential to an extent unparalled in history.... One needs evidence to persuade those who see promise in extensive government intervention in the economy. I have found such evidence, and the evidence is overwhelmingly in favor of the paradigm of classical liberalism." The evidence on the effect of democracy on growth consists of cross-sectional OLS regressions in which investment is controlled for, so that political effects measure efficiency but not the capacity to mobilize savings.

Table 1
Studies of Democracy, Autocracy, Bureaucracy and Growth

Author	Sample	Time frame	Finding
Przeworski (1966)	57 countries	1949–1963	dictatorships at medium development level grew fastest
Adelman and Morris (1967)	74 underdeveloped countries (including communist bloc)	1950–1964	authoritarianism helped less and medium developed countries
Dick (1974)	59 underdeveloped countries	1959–1968	democracies develop slightly faster
Huntington and Dominguez (1975)	35 poor nations	the 1950s	authoritarian grew faster
Marsh (1979)	98 countries	1955–1970	authoritarian grew faster
Weede (1983)	124 countries	1960–1974	authoritarian grew faster
Kormendi and Meguire (1985)	47 countries	1950–1977	democracies grew faster
Kohli (1986)	10 underdeveloped countries	1960–1982	no difference in 1960s; authoritarian slightly better in 1970s
Landau (1986)	65 countries	1960–1980	authoritarian grew faster
Sloan and Tedin (1987)	20 Latin American countries	1960–1979	bureaucratic-authoritarian regimes do better than democracy; traditional dictatorships do worse
Marsh (1988)	47 countries	1965–1984	no difference between regimes
Pourgerami (1988)	92 countries	1965–1984	democracies grew faster
Scully (1988, 1992)	115 countries	1960–1980	democracies grew faster
Barro (1989)	72 countries	1960–1985	democracies grew faster
Grier and Tullock (1989)	59 countries	1961–1980	democracy better in Africa and Latin America; no regime difference in Asia
Remmer (1990)	11 Latin American countries	1982–1988 1982 and 1988	democracy faster, but result statistically insignificant
Pourgerami (1991)	106 less developed countries	1986	democracies grow faster
Helliwell (1992)	90 countries	1960–1985	democracy has a negative, but statistically insignificant, effect on growth

Inferences Based on Standard Regression Models are Invalid

The reason social scientists have little robust statistical knowledge about the impact of regimes on growth is that the research design required to generate such knowledge is complex. This complexity is due to three sources: simultaneity, attrition, and selection.

Following the seminal work of Lipset (1960), there is an enormous body of theoretical and statistical literature to the effect that democracy is a product of economic development. This literature suffers from ambiguities of its own. While the belief is widespread that democracy requires as a "prerequisite" some level of economic development, there is much less agreement which aspects of development matter and why. Some think that a certain level of development is required for a stable democracy because affluence reduces the intensity of distributional conflicts; others because development generates the education or the communication networks required to support democratic institutions; still others because it swells the ranks of the middle class, facilitates the formation of a competent bureaucracy, and so on. Statistical results are somewhat mixed (Lipset, 1960; Cutright, 1963; Neubauer, 1967; Smith, 1969; Hannan and Carroll, 1981; Bollen and Jackman, 1985; Soares, 1987; Arat, 1988; Helliwell, 1992). They suggest that the level of development, measured by a variety of indicators, is positively related to the incidence of democratic regimes in the population of world countries, but not necessarily within particular regions. Moreover, the exact form of the relationship and its relation to regime stability are left open to debate. Yet the prima facie evidence in support of this hypothesis is overwhelming: all developed countries in the world constitute stable democracies while stable democracies in the less developed countries remain exceptional.

Attrition is a more complicated issue. Following Lipset again, everyone seems to believe that durability of any regime depends on its economic performance. Economic crises are a threat to democracies as well as to dictatorships. The probability that a regime survives a crisis need not be the same, however, for democracies and dictatorships: one reason is that under democracy it is easier to change a government without changing the regime, another is that democracies derive legitimacy from more than their economic performance. We also have the argument by Olson (1963; also Huntington, 1968) that rapid growth is destabilizing for democracies but not for dictatorships.

This evidence suffices to render suspect any study that does not treat regimes as endogenous. If democratic regimes are more likely to occur at a higher level of development or if democracies and dictatorships have a different chance of survival under various economic conditions, then regimes are endogenously selected. Since this is the heart of the statistical difficulties, we spell out the nature of this problem in some detail. (The following discussion draws on Przeworski and Limongi, 1992.)

We want to know the impact of regimes on growth. Observing Brazil in 1988, we discover that it was a democracy which declined at the rate of 2.06 percent. Would it have grown had it been a dictatorship? The information we have, the observation of Brazil in 1988, does not answer this question. But unless we know what would have been the growth of Brazil in 1988 had it been a dictatorship, how can we tell if it would have grown faster or slower than under democracy?

Had we observed in 1988 a Brazil that was simultaneously a democracy and a dictatorship, we would have the answer. But this is not possible. There is still a way out: if the fact that Brazil was a democracy in 1988 had nothing to do with economic growth, we could look for some country that was exactly like Brazil in all respects other than its regime and, perhaps, its rate of growth, and we could match this country with Brazil. But if the selection of regimes shares some determinants with economic growth, an observation that matches Brazil in all respects other than the regime and the rate of growth will be hard to find. And then the comparative inferences will be biased: Whenever observations are not generated randomly, quasi-experimental approaches yield inconsistent and biased estimates of the effect of being in a particular state on outcomes. Indeed, this much is now standard statistical wisdom, as evidenced in the vast literature reviewed by Heckman (1990), Maddala (1983), and Greene (1990). Yet the implications of this failure are profound: we can no longer use the standard regression models to make valid inferences from the observed to the unobserved cases. Hence, we cannot compare.

The pitfalls involved in the studies summarized above can be demonstrated as follows. Averaging the rates of growth of ten South American countries between 1946 and 1988, one discovers that authoritarian regimes grew at the average rate of 2.15 percent per annum while democratic regimes grew at 1.31 percent. Hence, one is inclined to conclude that authoritarianism is better for growth than democracy. But suppose that in fact regimes have no effect on growth. However, regimes do differ in their probabilities of surviving various economic conditions: authoritarian regimes are less likely than democracies to survive when they perform badly. In addition, suppose that the probability of survival of both regimes depends on the number of other democracies in the region at each moment. These probabilities jointly describe how regimes are selected: the dependence of survival on growth constitutes endogenous selection, the diffusion effect represents exogenous selection.

In Przeworski and Limongi (1992), we used the observed regime-specific conditional survival probabilities to generate 5,000 (500 per country) 43–year histories obeying these assumptions, each beginning with the level and the regime observed in 1945. As one would expect, authoritarian regimes grew faster than democracies—indeed, we reproduced exactly the observed difference in growth rates—despite the fact that these data were generated under the assumption that regimes have no effect on growth. It is the difference in the

way regimes are selected—the probabilities of survival conditional on growth—that generate the observed difference in growth rates. Hence, this difference is due entirely to selection bias.[16]

If one applies ordinary least squares to data generated in this way, with a dummy variable set to 1 for Authoritarianism and 0 for Democracy, the regime coefficient turns out to be positive and highly significant. Thus standard regression fails the same way as the comparison of means, even with controls. To correct for the effect of selection, we followed the procedure developed by Heckman (1978) and Lee (1978). Once we corrected the effects of selection, we generated the unbiased means for the two regimes and these, not surprisingly, reproduced the assumptions under which the data were generated: no difference in growth between the two regimes.

These methodological comments should end with a warning. Selection models turn out to be exceedingly sensitive: minor modifications of the equation that specifies how regimes survive can affect the signs in the equations that explain growth. Standard regression techniques yield biased (and inconsistent) inferences, but selection models are not robust (Greene, 1990, p. 750; Stolzenberg and Relles, 1990). While reverting to simulation provides at least the assurance that one does not attribute to regimes the effects they do not have, it may still fail to capture the effects they do exert.

Conclusions

The simple answer to the question with which we began is that we do not know whether democracy fosters or hinders economic growth.[17] All we can offer at this moment are some educated guesses.

First, it is worth noting that we know little about determinants of growth in general. The standard neoclassical theory of growth was intuitively unpersuasive and it implied that levels of development should converge: a prediction not born by the facts. The endogenous growth models are intuitively more appealing but empirically difficult to test since the "engine of growth" in these models consists, in Romer's (1992, p. 100) own words, of "ephemeral externalities." Statistical studies of growth notoriously explain little variance and are very sensitive to specification (Levine and Renelt, 1991). And without a good economic model of growth, it is not surprising that the partial effect of politics is difficult to assess.

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[16] We could have gotten the same result in a different way. Suppose that (1) levels converge, that is, growth is a negative function of income, and (2) dictatorships occur at low levels while democracies are more frequent at high levels. Then we will observe fast growing dictatorships (at low levels) and slowly growing democracies (at high levels).

[17] Note that we considered only indirect impacts of regimes on growth via investment and the size of the public sector, but we did not consider the impacts via income equality, technological change, human capital, or population growth.

Secondly, there are lots of bits and pieces of evidence to the effect that politics in general does affect growth. At least everyone, governments and international lending institutions included, believes that policies affect growth and, in turn, scholars tend to think that politics affect policies. Reynolds (1983), having reviewed the historical experience of several countries, concluded that spurts of growth are often associated with major political transformations. Studies examining the impact of government spending on growth tend to find that the size of government is negatively related to growth, but the increase of government expenditures has a positive effect (Ram, 1986; Lindauer and Velenchik, 1992). Studies comparing the Far East with Latin America argue that there is something about the political institutions of the Asian countries which makes them propitious for growth. But while suggestive stories abound, there is little hard evidence.

Our own hunch is that politics does matter, but "regimes" do not capture the relevant differences. Postwar economic miracles include countries that had parliaments, parties, unions, and competitive elections, as well as countries ran by military dictatorships. In turn, while Latin American democracies suffered economic disasters during the 1980s, the world is replete with authoritarian regimes that are dismal failures from the economic point of view.[18] Hence, it does not seem to be democracy or authoritarianism per se that makes the difference but something else.

What that something else might be is far from clear. "State autonomy" is one candidate, if we think that the state can be autonomous under democracy as well as under authoritarianism, as do Bardhan (1988, 1990) and Rodrik (1992). But this solution meets the horns of a dilemma: an autonomous state must be both effective at what it wants to do and insulated from pressures to do what it does not want to do. The heart of the neo-liberal research program is to find institutions that enable the state to do what it should but disable it from doing what it should not.

In our view, there are no such institutions to be found. In a Walrasian economy, the state has no positive role to play, so that the constitutional rule is simple: the less state, the better. But if the state has something to do, we would need institutions which enable the state to respond optimally to all contingent states of nature and yet prevent it from exercising discretion in the face of group pressures. Moreover, as Cui (1992) has argued, if markets are incomplete and information imperfect, the economy can function only if the state insures investors (limited liability), firms (bankruptcy), and depositors (two-tier

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[18]As Sah (1991) has argued, authoritarian regimes exhibit a higher variance in economic performance than democracies: President Park of South Korea is now seen as a developmentalist leader, while President Mobutu of Zaire is seen as nothing but a thief (Evans, 1989). But we have no theory that would tell us in advance which we are going to get. We do know, in turn, that until the early 1980s the democratic regimes which had encompassing, centralized unions combined with left-wing partisan control performed better on most economic variables than systems with either decentralized unions or right-wing partisan dominance.

banking system). But this kind of state involvement inevitably induces a soft-budget constraint. The state cannot simultaneously insure private agents and not pay the claims, even if they result from moral hazard.

Even if optimal rules do exist, pre-commitment is not a logically coherent solution. The reason is that just any commitment is not good enough: it must be a commitment to an optimal program. And advocates of commitment (like Shepsle, 1989) do not consider the political process by which such commitments are established. After all, the same forces that push the state to sub-optimal discretionary interventions also push the state to a suboptimal commitment. Assume that the government wants to follow an optimal program and it self-commits itself. At the present it does not want to respond to private pressures but it knows that in the future it would want to do so; hence, it disables its capacity to do it. The model underlying this argument is Elster's (1979) Ulysses.[19] But the analogy does not hold since Ulysses makes his decision *before* he hears the Sirens. Suppose that he has already heard them: why does he not respond to their song now and is afraid that he would respond later? If governments do bind themselves, it is already in response to the song of the Sirens and their pre-commitment will not be optimal.

Clearly, the impact of political regimes on growth is wide open for reflection and research.

[19]Note that Elster (1989, p. 196) himself argues against the analogy of individual and collective commitment.

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