

ECONOMIC GROWTH AND FREEDOM: A CAUSALITY STUDY

Manuel Vega-Gordillo and José L. Álvarez-Arce

Each year the Fraser Institute and the Heritage Foundation (in conjunction with the *Wall Street Journal*) publish indexes of economic freedom, while the Freedom House publishes an index of political freedom around the world (Gwartney and Lawson 2002; O'Driscoll, Holmes, and Kirkpatrick 2002; Freedom House 2001). The explanations and graphs in those reports illustrate the relationships between each of the indexes and relevant socioeconomic variables such as GDP growth, life expectancy, and measures of human development. What the annual reports suggest is that there is a positive relationship between economic freedom and the standard of living, as well as between economic growth and political freedom.

Although such assertions would appear to be intuitively correct, the reports do not undertake any rigorous empirical tests to provide scientific support to such relationships. The empirical analyses existing in the literature afford more or less clear, but inconclusive, results. They highlight the positive impact of economic freedom on growth,¹ or the ambiguous relationship between growth and political freedom. Fewer studies have been published on the association between the two types of freedom, but much attention is paid to the hypothesis of both being mutually enhancing.

Such conclusions are open to criticism. Generally speaking, they depend on the choice of methodology and sample size. Moreover, a series of control variables must be included in the model for the analysis to be robust. In other words, there is a need for data on a

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Manuel Vega-Gordillo is Professor of Quantitative Methods at the University of Navarra and an Adjunct Scholar at the *Círculo de Empresarios* in Madrid. José L. Álvarez-Arce is a Professor of Economics at the University of Navarra.

¹Several of these empirical studies stress that economic freedom is one of the factors that affects economic development (e.g., Vansay and Spindler 1994; Haan and Siermann 1998; Haan and Sturm 2000). See Vamvakidis (2002) for the connection between economic growth and trade openness.

broad range of variables, for a considerable number of countries, over a long period of time—a task whose complexity should not be underestimated. Indeed, in many cases we are obliged to work with a small sample of countries and a small set of time observations. This problem conditions the methodology to be used (Judson and Owen 1999). Under such circumstances, any new contribution on the subject is welcome, as far as it can offer additional evidence on the behavior of these variables and contribute to suitable institutional reform. It is along these lines that our study is intended.

Our study adopts the general approach previously taken by Farr, Lord, and Wolfenbarger (1998), hereafter FLW, although with a different econometric technique. We do not try to analyze the variables relevant to economic growth,² but rather to discern the causal relationships existing among economic freedom, democracy, and growth. With this aim in mind, we have structured the article as follows. First, we provide a review of what we regard to be some key ideas in the existing research on the relationships among the three variables. Second, we define economic and political freedom and briefly explain the most relevant ingredients used to build the indexes to measure them. Third, we develop the model we use to study and analyze the different associations and statistical relationships between the variables, and we succinctly explain the methodology. Finally, we examine the results and set out our conclusions.

Democracy, Economic Freedom, and Growth: The Question of Causality

As North (1990) has pointed out, a society's institutional framework seems to play an instrumental role in the long-term performance of its economy. As appropriate data have become available, empirical researchers have added economic freedom, democracy, and other institutional variables to the set of potential determinants of economic welfare. More specifically, many studies attempt to identify the variables that determine economic growth and how they do so. But some interesting questions remain, as the following review of the relevant literature will show.

A significant body of research indicates that economic freedom enhances economic growth. Baumol (2002) stresses that the free-

²Some of the more relevant papers on this subject include Feder (1982); Leamer (1983); Baumol, Batey Blackman, and Wolff (1989); Romer (1989); Barro (1991); Levine and Renelt (1992); Fischer (1993); Barro (1995); Barro and Sala-i-Martin (1995); Sala-i-Martin (1997).

market economic system acts as a powerful innovation machine—a fundamental driving force behind growth processes—in societies where the rule of law prevails. Dutz and Hayri (2000) find a high correlation between long-term growth and effective enforcement of antitrust and competition policy. FLW (1998) discover a Granger-causal relationship working from economic freedom to economic well-being. Barro (1997) furnishes empirical evidence supporting the idea that free markets and maintenance of property rights foster economic growth. However, not all the literature is so conclusive. Haan and Sturm (2000) maintain that economic freedom brings countries to their steady state level of economic growth more quickly, but does not increase the rate of steady state growth. Haan and Siermann (1998) offer an even more skeptical view: according to these authors, the positive effect of economic freedom on economic growth is not robust, but depends on the indicator of economic freedom used.

The connection between political freedom and either economic freedom or economic growth is much more controversial. FLW (1998) find no evidence of causal relationships working between both freedoms. Friedman (1962) believes that democracy and economic freedom are mutually reinforcing. Under this hypothesis, democracy should facilitate economic growth through the development of an institutional framework more compatible with incentives to engage in productive transactions. In other words, democracy is the political system that allows markets to perform adequately. In his discussion of this question, Rodrik (2000) reaches a suggestive empirical conclusion: participatory democracies favor what he calls “higher-quality growth”: more predictable long-term growth rates, greater short-term stability, better resilience to adverse shocks, and a more equitable distribution of wealth. The implication is that democracy helps build better institutions because it works as an efficient meta-institution for eliciting and handling local knowledge.

Democratic institutions can foster growth in a variety of ways. Przeworski and Limongi (1993) hypothesize that democracy should positively influence economic growth through better protection of property rights, which promotes savings and investment. Rodrik’s (1999) results indicate that participatory and democratic institutions cushion the impact of negative external shocks on economic growth. Svensson (1999) finds that the long-term impact of international aid on growth depends on the political and civil liberties in the host country. In particular, aid tends to have a positive impact on growth only in countries with democratic governments. But Svensson (2000) and Knack (2001) also provide some evidence that higher aid levels

erode institutional quality, as measured by indexes of bureaucratic quality, corruption, and the rule of law.

Mauro (1995) shows the extent to which corruption hinders economic growth. Del Monte and Papagni (2001) provide further evidence in support of this premise. They also point out that corruption may be relevant in underdeveloped countries where society lacks democratic control over government, a possibility investigated by Paldam (2002). According to his results, democracy seems to decrease corruption, and lower corruption rates may provide for higher growth, but the effect is slight and fragile. He also suggests the potential for rent-seeking is large in countries with highly regulated economies—that is, with little economic freedom. The countries also tend to have high corruption, although that link is not clear for Bliss and Di Tella (1997) who present a microeconomic model that shows that increased competition may not reduce corruption.

Democracy is thought to promote gender equality and foster female education, which tends to promote growth by increasing human capital. For instance, Behrman et al. (1999) test the hypothesis that increases in female literacy also enhance the human capital of the next generations. They conclude that, during the green revolution in India, a significant and positive relationship between maternal literacy and childhood schooling reflected the productivity effect of home schooling. Moreover, as Barro (1996) explains, female education reduces fertility and infant mortality, paving the way for increases in growth.

Despite the fact that political freedoms are a fundamental component of human development, social scientists are also aware of the growth-hindering aspects of democracy. Majority suffrage tends to redistribute income and reduce efficiency. Democratic governments that try to maximize tenure must respond to popular demands for greater consumption and spending. Representative legislatures allow well-organized interest groups to lobby and legally appropriate resources at the expense of society as a whole.³ In their interesting

³See Przeworski and Limongi (1993) and Barro (1997). The issue of how inequality and redistribution affect economic growth is controversial in itself. Income inequality may produce social and political unrest, uncertainty, and economic disruption. If that is the case, redistribution program would improve productivity. Barro (2000) discusses this and other possibilities, concluding that inequality retards growth in poor countries but encourages growth in richer areas. In any case, his empirical study for a large number of countries shows only a small overall relationship between inequality and growth and investment rates. Tavares and Wacziarg (2001) discover evidence of the positive effects of democracy on growth via reductions in income inequality.

study, Tavares and Wacziarg (2001) find that democracy hinders growth because it reduces investment in physical capital and also because it raises the ratio of public consumption to GDP.⁴

What then is the net impact of democracy on economic growth? The literature fails to provide a conclusive answer. Typically ambiguous results can be found, for example, in a study by Helliwell (1994), who concludes that democracy may have either a positive or a negative influence on economic growth; Haan and Siermann (1996) state that the relationship is not robust. Przeworski and Limongi (1993) address the question of how political rights affect economic growth both positively and negatively. They interpret their likewise ambiguous results to mean that while political institutions are important for economic growth, reducing them to democratic and nondemocratic regimes does not seem to account for the relevant differences.⁵

In another cross-country empirical study, Barro (1997) observes that democracy has a nonlinear effect on growth. Increases in political rights initially increase growth, which tends to slacken once a certain level of democracy is attained. His own interpretation of these results is that, in the strictest dictatorships, increased freedom stimulates growth by limiting governmental abuse. But after achieving some degree of political freedom, further increases in democracy hinder growth by intensifying the redistribution of resources. Chong and Calderón (2000) show that improvements in the institutional framework have a positive influence on economic growth, especially in poor countries. After establishing and solving a full system of equations determining growth and the channel variables, Tavares and Wacziarg (2001) affirm that the overall impact of democracy on growth is mod-

⁴Persson and Tabellini (2002) discuss the effect of constitutional rules for elections on government size. Their empirical answer is that presidential regimes and majority-ruled elections produce smaller governments.

⁵In an attempt to address that question, Durham (1999) develops a continuous variable—the effective party/constitutional framework measure—to quantify the degree of policymaker discretion. His study renders no empirical regularities between policymaker discretion and growth or investment in the total sample. Dividing the sample into per capita income brackets produces some significant results. As he expected, discretion affects growth negatively in developed countries. Some evidence also indicates that discretion brings investment down in poorer areas. Gupta, Madharan, and Blee (1998) argue that it is not the type of regime that influences economic growth in less developed countries but the level of political stability. Therefore, democracies as well as dictatorships should experience similar levels of growth if the political environment has been stable for a period of time. Although their empirical study suggests that democracy is more conducive to long-term economic growth than other regimes, they believe that a higher degree of democracy is neither necessary nor sufficient for economic growth.

erately negative. In their search for causality links, FLW (1998) conclude that political freedom does not Granger-cause economic well-being. Taking a different approach, Minier (1998) studies the experience of countries in which the level of political freedom changes significantly. Countries that democratize seem to grow faster, while countries becoming less democratic grow more slowly.

Economists have also studied the existence of reverse causality between liberties and growth. Specifically, economic growth appears to prompt institutional and political change, while prosperity appears to enhance democracy. There is some empirical evidence for this idea, known as the Lipset hypothesis (Lipset 1959).⁶ In a comparative historical survey, Huber, Rueschemeyer, and Stephens (1993) confirm the existence of such a relationship. The explanation, in their view, is that economic development enlarges the working and middle classes, making it more difficult for elitist groups to exclude them politically. Posing the question of whether a higher standard of living favors democracy, Barro (1999) finds a relationship in data gathered from a large number of countries. His premise holds when democracy is measured in terms of electoral rights or civil liberties, and the standard of living is approximated by per capita GDP, percentage of primary school attained, equality between male and female primary schooling, and middle-class share of income. The same conclusions are to be found in FLW (1998), as well as in Helliwell (1994), whose analysis reveals that the impact of income on democracy is positive and robust. Burkhart and Lewis-Beck (1994) conduct a very similar study for less developed countries, concluding that democracy does not trigger economic development, but rather that economic development furthers political rights, so that a certain degree of economic development is prerequisite to democratization.⁷ Chong and Calderón (2000) deduce from their analysis that economic growth favors institutional improvement apparently in less time than it takes for institutional quality to enhance growth.⁸

⁶Lipset prefers to credit the idea to Aristotle.

⁷In an earlier study, Barro (1997) looks at the cross-country data and suggests that while countries at low levels of economic development in general are not able to sustain democracy, less democratic nations that undergo substantial economic development tend to expand their political freedoms. For a slightly different result, see Przeworski and Limongi (1997): The level of economic development does not affect the likelihood of a transition to democracy, but affluence makes democracy more stable. From another point of view, Ranis, Stewart, and Ramirez (2000) suggest that countries should give priority to policies aimed at human development as a way to create a virtuous growth-development circle.

⁸Economic growth may also increase economic freedom, for example, by cutting out some of the social and economic waste caused by corruption (see Paldam 2002).

By way of summary, the interplay between economic freedom, democracy, and economic growth can be said to form various cause-effect chains, which have been studied theoretically and empirically but are not fully understood. Our objective is to shed additional light on the empirical relationships between these variables, which we believe to be crucial in designing development-oriented policies.

Measuring Economic and Political Freedom

Economic freedom and political freedom are ideas so closely related that any distinction between them may appear to be more or less arbitrary. In this study, we use the Fraser Institute's index of economic freedom and the Freedom House's index of political freedom. According to the authors of the Fraser study, "Individuals have economic freedom when the following conditions exist: (a) their property acquired without the use of force, fraud, or theft is protected from physical invasions by others; and (b) they are free to use, exchange, or give their property to another as long as their actions do not violate the identical rights of others" (Gwartney and Lawson 2001: 4).

Gwartney and Lawson emphasize that we should distinguish economic freedom from civil and political liberties. Political freedom, they explain, is present in situations in which citizens are completely free to participate in the political process; elections are fair, competitive, and corruption free; and different political parties can participate freely in the political process. Civil liberty, in turn, includes freedom of the press, freedom of association, freedom of religion, and freedom of speech. Their Economic Freedom Index (EFI) consists of 21 components grouped under the seven areas listed in Table 1.

Once all the components of the index are evaluated, each country

TABLE 1
MAJOR AREAS COVERED BY THE ECONOMIC FREEDOM INDEX

Size of government
Structure of the economy and use of markets
Monetary policy and price stability
Freedom to use alternative currencies
Security of property rights and viability of contracts
Freedom to trade with foreigners
Freedom of exchange in capital and financial markets

SOURCE: Gwartney and Lawson (2001: 6).

is ranked for economic freedom on a scale ranging from 0 (no economic freedom) to 10 (maximum economic freedom).

The Freedom House, in its annual survey considers the extent of political and civil liberties around the world. The survey consists of a series of questions grouped under political rights and civil liberties, and each country or territory is given a numerical score for each category. Finally, the political rights and civil liberties scores are averaged and used to assign each country the status of “Free,” “Partly Free,” or “Not Free.” A score of 1 corresponds to the countries enjoying greatest freedom and a score of 7 to countries with the least freedom (Freedom House 2001).

These indexes have not gone uncriticized. Freeman (2002) stresses that the indicators of economic freedom are built from subindexes that are weighted subjectively and are largely impervious to change in institutions and the interactions among them. Milton Friedman, one of the main forces behind the Fraser Institute’s economic freedom project sees some inconsistencies between the EFI and the Freedom House index. He calls for putting the two indexes “on the same philosophical basis” and eventually constructing a “combined index of economic and political freedom (Friedman 2002: xvii). He also comments on the inherent difficulties in measuring relevant variables, in particular with respect to the rule of law, because there may well be substantial differences between the letter of the law and its enforcement (see also Knack and Keefer 1995).

Minier (1998) stresses some of the limitations of the Freedom House index of political freedom. First, the subjectivity involved in building this index introduces some degree of error and bias. Second, democracy is a complex subject: The index is based on a checklist that includes a wide range of indicators, but the overall ranking is purely subjective. Finally, the index forces a question of degree into a discrete variable or ranking system.

Durham (1999) criticizes the available indicators of political freedoms because they focus on outcomes rather than institutions. He suggests that measures of political freedoms and regimes could be improved if they could gauge governments’ discretionary power on a continuum. He also points out that the Freedom House indicators are inherently subjective and the validity of their time series is highly questionable.

Clearly, all of the preceding objections show that the indicators used in our study do not provide a wholly accurate measurement of a society’s economic or political freedom. Nevertheless, our selected indexes of economic and political freedom do meet the two requirements that we believe to be relevant for our purposes—namely, data availability and extensive use in previous studies.

The Model

To determine what causal relationships exist between economic freedom, political freedom, and economic growth, we use a dynamic model and define causality along the lines established by Granger (Granger 1969). We say that the variable x is causing y if we are better able to predict y using all available information than if the information apart from x had been used. That is, if we control for the information contained in past values of y , and past values of x add significantly to the explanation of current y , then we may say that x Granger-causes y .

Because we are interested in the causal links between economic freedom, political freedom, and economic growth, we use the following dynamic specifications:

- Economic freedom as a cause of economic growth ($f^{ef} \rightarrow g$) and economic growth as a cause of economic freedom ($g \rightarrow f^{ef}$):

$$(1) \quad g_{i,t} = \sum_{j=1}^m \gamma_j^{g,ef} g_{i,t-j} + \sum_{j=1}^n \delta_j^{g,ef} f_{i,t-j}^{ef} + \alpha_i^{g,ef} + \varepsilon_{i,t}^{g,ef}$$

$$(2) \quad f_{i,t}^{ef} = \sum_{j=1}^{m'} \gamma_j^{ef,g} f_{i,t-j}^{ef} + \sum_{j=1}^{n'} \delta_j^{ef,g} g_{i,t-j} + \alpha_i^{ef,g} + \varepsilon_{i,t}^{ef,g}$$

- Political freedom as a cause of economic growth ($f^{pf} \rightarrow g$) and economic growth as a cause of political freedom ($g \rightarrow f^{pf}$):

$$(3) \quad g_{i,t} = \sum_{k=1}^q \gamma_k^{g,pf} g_{i,t-k} + \sum_{k=1}^r \delta_k^{g,pf} f_{i,t-k}^{pf} + \alpha_i^{g,pf} + \varepsilon_{i,t}^{g,pf}$$

$$(4) \quad f_{i,t}^{pf} = \sum_{k=1}^{q'} \gamma_k^{pf,g} f_{i,t-k}^{pf} + \sum_{k=1}^{r'} \delta_k^{pf,g} g_{i,t-k} + \alpha_i^{pf,g} + \varepsilon_{i,t}^{pf,g}$$

- Political freedom as a cause of economic freedom ($f^{pf} \rightarrow f^{ef}$) and economic freedom as a cause of political freedom ($f^{ef} \rightarrow f^{pf}$):

$$(5) \quad f_{i,t}^{ef} = \sum_{l=1}^r \gamma_l^{ef,pf} f_{i,t-l}^{ef} + \sum_{l=1}^s \delta_l^{ef,pf} f_{i,t-l}^{pf} + \alpha_i^{ef,pf} + \varepsilon_{i,t}^{ef,pf}$$

$$(6) \quad f_{i,t}^{pf} = \sum_{l=1}^{r'} \gamma_l^{pf,ef} f_{i,t-l}^{pf} + \sum_{l=1}^{s'} \delta_l^{pf,ef} f_{i,t-l}^{ef} + \alpha_i^{pf,ef} + \varepsilon_{i,t}^{pf,ef}$$

where $i = 1, \dots, N$, $t = 1, \dots, T$; $g_{i,t}$ is the growth rate of real per capita GDP in country i in period t ; $f_{i,t}^{ef}$ is the index of economic freedom, and

$f_{i,t}^{pf}$ the index of political freedom for country i over t ; α_i represents unobserved individual effects that vary across i but are constant over time; and $\varepsilon_{i,t}$ is an independent and identically distributed random error $N(0, \sigma_\varepsilon^2)$.

Methodology and Data

The choice of methodology is conditioned by the characteristics of the panel data designed. And the dimensions of the panel, in turn, depend on data availability. Initially, we had a panel of more than 100 countries, although this number steadily declined as we broadened the set of variables to be studied. In our search for data we were unable to find observations before 1975 or more recent than 1995 for all the variables considered in the study.

The Fraser Institute's index of economic freedom is formulated once every five years. Unfortunately, there are no observations before 1970. The Freedom House political freedom index, in turn, has no observations before 1972. Finally, the growth rate has been calculated for real GDP per capita in constant dollars.⁹

Five-year averages were computed for all variables so they would correspond with the EFI. This method also obviated having to deal with the variability inherent in economic cycles (Carrol and Neil 1994). The panel data thus obtained consisted of a total of 45 countries (listed in Table 2) with 5 observations for each country between 1975 and 1995 ($N = 45$, $T = 5$). The index of political freedom was standardized to be consistent with the EFI so that a value of 0 means a country with no political freedom and a value of 10 corresponds to countries with full political freedom.

As far as dynamic relations are concerned, the small number of observations in the time dimension poses a substantial problem. Judson and Owen (1999), among others, draw attention to the bias generated by the least squares dummy variable (LSDV) estimator in panels with small time dimensions when a lagged value of the dependent variable is included in the equation (as in equations 1–6). Furthermore, all these estimators depend on the characteristics of the data to be analyzed. Using Monte Carlo experiments, Judson and Owen (1999: 13) reach the following conclusions for panels with a small time dimension:

1. The LSDV estimator bias is not insignificant (and for $T = 30$, the

⁹We use 1996 as the base year, and we construct a Laspeyres index using international prices. Data are from Summers, Heston, and Bettina (2001).

TABLE 2
LIST OF COUNTRIES

Africa	Asia	Latin America	Industrial Countries
Congo, D.R.	India	Argentina	Australia
Ghana	Indonesia	Chile	Austria
Morocco	Israel	Columbia	Belgium
Nigeria	Korea	Costa Rica	Canada
Tanzani	Malaysia	Ecuador	Denmark
	Pakistan	Guatemala	Finland
	Philippines	Mexico	France
	Singapore	Peru	Greece
	Syria	Venezuela	Iceland
	Thailand		Ireland
	Turkey		Italy
			Japan
			Netherlands
			New Zealand
			Norway
			Portugal
			Spain
			Sweden
			United Kingdom
			United States

bias can reach figures as high as 20 percent of the true value of the coefficient in question).

2. For panels of any dimension, the corrected LSDV estimator usually yields a smaller mean quadratic error than any other.
3. The most effective estimator is restricted GMM (general method of moments), provided the instruments used are a subset of lagged values.

They conclude by showing that for balanced panels with a time dimension less than or equal to 10 ($T \leq 10$), the corrected LSDV estimator proposed by Kiviet (1995) is preferable to any of the other dynamic balanced panel estimators. Thus, that is the estimator we use to solve for equations 1–6.

Empirical Evidence

Table 3 shows our estimates for the dynamic relationships specified in equations 1–6. Two estimation methods were used to find the

TABLE 3
RESULTS FOR GRANGER-CAUSALITY RELATIONSHIPS

	AH	GMM1	GMM2
Equation 1			
Dependent variable: g_t			
g_{t-1}	-0.215*** (0.074)	-0.087 (0.070)	-0.086 (0.070)
f_{t-1}^{ef}	0.004*** (0.0004)	0.003*** (0.0004)	0.003*** (0.0004)
Equation 2			
Dependent variable: f_t^{ef}			
f_{t-1}^{ef}	0.847*** (0.024)	0.887*** (0.022)	0.883*** (0.022)
g_{t-1}	-3.014 (4.450)	-4.802 (4.173)	-4.425 (4.192)
Equation 3			
Dependent variable: g_t			
g_{t-1}	-0.137 (0.072)	-0.021 (0.069)	-0.026 (0.069)
f_{t-1}^{pf}	-0.002*** (0.0003)	-0.002*** (0.0003)	-0.002*** (0.0003)
Equation 4			
Dependent variable: f_t^{pf}			
f_{t-1}^{pf}	0.721*** (0.029)	0.771*** (0.027)	0.777*** (0.027)
g_{t-1}	16.591* (6.742)	14.568** (6.317)	14.059** (6.277)
Equation 5			
Dependent variable: f_t^{ef}			
f_{t-1}^{ef}	0.560*** (0.051)	0.642*** (0.049)	0.645* (0.049)
f_{t-1}^{pf}	0.270*** (0.042)	0.216*** (0.039)	0.214*** (0.039)
Equation 6			
Dependent variable: f_t^{pf}			
f_{t-1}^{pf}	0.302*** (0.068)	0.431*** (0.064)	0.434*** (0.064)
f_{t-1}^{ef}	0.694*** (0.082)	0.561*** (0.078)	0.558*** (0.078)

NOTES: In all the equations, *** indicates that the coefficient is statistically significant at the 1 percent level, ** indicates that the coefficient is statistically significant at the 5 percent level, and * indicates that the coefficient is statistically significant at the 10 percent level. Figures in parentheses indicate standard deviations.

residuals: the Arellano and Bond one-step and two-step generalized method of moments (GMM1 and GMM2) estimator and the Anders-Hsiao (AH) instrumental variable estimator.¹⁰ The main results are discussed below.

The application of Kiviet's method yields interesting results. Political and economic freedoms appear to enhance economic growth. In view of the significantly positive correlation found, it could be said that greater overall freedom is conducive to higher growth rates. The impact of economic freedom on economic growth nearly doubles the effect of political freedom. That is, free-market institutions boost growth more than democracy does. Does this mean that institutional reform intended to foster growth should be geared more to market liberalization than democratization? To answer such a question, we need to consider a broad set of dynamic relationships.

The results of a review of the interaction between political and economic freedoms are enlightening. On the one hand, economic freedom enhances political freedom at the same time that more democratic institutions provide for greater economic freedom. Even if economic prosperity is the primary concern when some liberalization processes are implemented, regardless of their impact on political rights, greater political freedom could be achieved in the end too. On the other hand, societies can capitalize on political freedom to enhance economic freedom. Given these considerations and the intrinsic value of democratic liberties, economic reforms should go together with democratization or, at the very least, democratization should not be postponed under the weight of economic arguments.

Another causal relationship, which proves to be significant, is that prior higher growth rates foster political freedom (Lipset's hypothesis). Our results show no statistically significant causality working from growth to economic freedom.

These results must, of course, always be interpreted with caution because as Haan and Sturm (2000: 231) note, "One possible objection towards our analysis so far could be that the choice of our sample of countries, although only based on data availability, may have influenced our results."

Conclusion

The dynamic relationships estimated strongly suggest that economic freedom fosters economic growth. To our knowledge, this

¹⁰See Anderson and Hsiao (1981), Hsiao (1986), Arellano (1989), and Arellano and Bond (1991).

causal link appears as an empirical regularity in most of the literature addressing the subject. Market liberalization seems to be an appropriate institutional reform for countries whose concerns include economic growth.

The impact of political freedoms on economic growth is much less clear. However, based on the evidence, it is plausible to say that political freedoms do not have to be postponed. Furthermore, the dynamic relationships estimated with the Kiviet method indicate that intensified democracy may result in faster growth and greater economic freedom. They also indicate that economic prosperity makes democratization easier. Our findings, therefore, are closer to Friedman's belief than to Lipset's: Freedom is a key component in any attempt to improve economic and social well-being. There are no economic grounds for postponing democratization to give priority to market reforms. Less developed countries should take advantage of broad institutional reform to promote economic growth and consolidate both political and economic freedom.

The key lesson that emerges from this study is that no single reform by itself is sufficient for fast growth or for sound development. A moderate degree of freedom is necessary in political and economic areas to improve growth perspectives. That is, institutional reforms have important complementarities, and liberties seem to work as a virtuous circle. Of course, we do not suggest that there is an immediate cause-effect relationship between freedom and economic growth. There will be delays reflecting the particular circumstances of each country. Unfortunately, such delays represent a danger to both freedom and development.

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