

Appendix 2: Selected Publications Using Ratings from *Economic Freedom of the World*

The following are some of the articles that have used the economic freedom ratings from *Economic Freedom of the World*. In some cases, a brief abstract of the article is provided. Those interested in doing further research using the Economic Freedom index are invited to retrieve the dataset from the website of the Economic Freedom Network, <<http://www.freetheworld.com>>. The most up-to-date information on articles using the index of *Economic Freedom of the World* can be found at <<http://www.freetheworld.com/papers.html>>.

Ali, Abdiweli M. (1997). "Economic Freedom, Democracy and Growth." *Journal of Private Enterprise* 13 (Fall): 1–20.
 "This paper takes advantage of newly constructed measures of economic freedom to show the importance of economic freedom on growth. I find that economic freedom is a more robust determinant of growth than political freedom and civil liberty." ♦ Uses summary ratings from *Economic Freedom of the World: 1975–1995* as one variable in a comparison of a number of institutional variables.

Ali, Abdiweli M. (2003). "Institutional Differences as Sources of Growth Differences." *Atlantic Economic Journal* 31, 4 (December): 348–62.
 "Until very recently most of the studies investigating the determinants of growth fail to incorporate the importance of institutions into their empirical analysis. This paper highlights the importance of institutions on growth and development, and evaluates the empirical results on the effect of institutions on growth and investment. It provides ample evidence that the institutional environment in which an economic activity takes place is an important determinant of economic growth. This paper uses alternative measures of institutional quality to capture the role of institutions in explaining growth differences across countries. When these institutional variables are incorporated into the core regression equations as additional explanatory variables in two different sample periods; both samples yield similar results. The empirical results reveal that countries with high levels of economic growth are characterized by high levels of economic freedom and judicial efficiency; low levels of corruption, effective bureaucracy and protected private property." ♦ Summary ratings from *Economic Freedom of the World: 1975–1995* provide a key institutional variable.

Ali, Abdiweli M., and W. Mark Crain (2002). "Institutional Distortions, Economic Freedom, and Growth." *Cato Journal* 21, 3 (Winter): 415–26.
 This paper examines the robustness of economic freedom as a predictor of growth and investment compared to political rights and civil liberties. It also examines the relation between economic freedom and input-price distortions and institutional quality. ♦ Uses summary ratings from *Economic Freedom of the World: 1975–1995* as one of a number of institutional variables.

Ayal, Eliezer B., and Karras Georgios (1998). "Components of Economic Freedom and Growth: An Empirical Study." *Journal of Developing Areas* 32 (Spring): 327–38.
 The paper uses regression analysis to examine the effect of the components of economic freedom on growth, output and investment and finds that "economic freedom enhances growth both via increasing total factor productivity and via enhancing capital accumulation." It also identifies components that have the highest statistical effects on these variables, with the aim of informing policy makers. ♦ Uses component ratings from *Economic Freedom of the World: 1975–1995* as main data source for institutional variables.

Bengoa, Marta, and Blanca Sanchez-Robles (2003). "Foreign Direct Investment, Economic Freedom and Growth: New Evidence from Latin America." *European Journal of Political Economy* 19, 3: 529–45.

"This paper explores the interplay between economic freedom, foreign direct investment (FDI) and economic growth using panel data analysis for a sample of 18 Latin American countries for 1970–1999. We find that economic freedom in the host country is a positive determinant of FDI inflows. Our results also suggest that foreign direct investment is positively correlated with economic growth in the host countries. The host country requires, however, adequate human capital, economic stability and liberalized markets to benefit from long-term capital flows." ♦ Uses summary ratings from *Economic Freedom of the World: 1975–1995* as the main data source for institutional variables.

Berggren, Niclas (1999). "Economic Freedom and Equality: Friends or Foes?" *Public Choice* 100, 3/4 (September): 203–23.

This paper describes a theoretical model of the relationship between economic freedom and income distribution, and investigates empirical results. The results indicate that "sustained and gradual increases in economic freedom influence equality measures positively ... [but] the absolute level of economic freedom appears to be negatively related to equality in some cases." ♦ Uses summary ratings from *Economic Freedom of the World: 1975–1995* as the main data source for institutional variables.

Berggren, Niclas, and Henrik Jordahl (forthcoming). "Does Free Trade Really Reduce Growth? Further Testing Using the Economic Freedom Index." *Public Choice*.

"While studies of the relationship between economic freedom and economic growth have shown it to be positive, significant and robust, it has rightly been argued that different areas of economic freedom may have quite different effects on growth. Along that line, Carlsson and Lundström (2002) present the surprising result that "International exchange: Freedom to trade with foreigners" is detrimental for growth. We find that "Taxes on international trade" seems to drive this result. However, using newer data and a more extensive sensitivity analysis, we find that it is not robust. Least Trimmed Squares-based estimation in fact renders the coefficient positive." ♦ Uses Economic Freedom of the World index as the main data source for institutional variables.

Boockmann, Bernhard, and Axel Dreher (2003). "The Contribution of the IMF and the World Bank to Economic Freedom." *European Journal of Political Economy* 19, 3: 633–49.

"We analyse the effect of IMF and World Bank policies on the composite index of economic freedom by Gwartney et al. (2000) as well as its sub-indexes, using a panel of 85 countries observed between 1970 and 1997. With respect to the Bank, we find that the number of projects has a positive impact on overall economic freedom, while the effect of the amount of World Bank credits appears to be negative. These effects are stronger during the 1990s than in earlier periods. There is no clear relationship between credits and programmes of the IMF and economic freedom as measured by the index." ♦ Uses summary ratings from *Economic Freedom of the World: 2002 Annual Report* as the main data source for institutional variables.

Carlsson, F., and S. Lundstrom (2002). "Economic Freedom and Growth: Decomposing the Effects." *Public Choice* 112, 3–4 (September): 335–44.

"Most studies of the relation between economic freedom and growth of GDP have found a positive relation. In this paper we investigate what specific types of economic freedom measures that are important for growth. The results show that economic freedom does matter for growth. This does not mean that increasing economic freedom, defined in general terms, is good for economic growth since some of the categories in the index are insignificant and some of the significant variables have negative effects." ♦ Uses summary ratings and the components from *Economic Freedom of the World: 2002 Annual Report* as the main data source for institutional variables.

Chafuen, Alejandro (1998). "Estado y Corrupción." In Alejandro Chafuen and Eugenio Guzmán, *Corrupción y Gobierno* (Santiago, Chile: Fundación Libertad y Desarrollo): 45–98.

Finds that corruption is negatively related to economic freedom. ♦ *Economic Freedom of the World: 1975–1995* and *Transparency International* are the main data-source for institutional variables.

Cole, Julio H. (2003). "The Contribution of Economic Freedom to World Economic Growth, 1980–99." *Cato Journal* 23, 2 (Fall): 189–98.

"The purpose of this study is not to compare different theories of economic growth, but to evaluate the impact of economic freedom on economic growth under alternative theoretical frameworks. The particular measure of economic freedom employed –the EFW index—was found to be quite robust and with respect to major changes in the model specifications. We conclude that economic freedom is significant factor in economic growth, regardless of the basic theoretical framework." ♦ Summary ratings from *Economic Freedom of the World: 2002 Annual Report* provides a key institutional variable.

Dawson, John W. (1998). "Institutions, Investment, and Growth: New Cross-Country and Panel Data Evidence." *Economic Inquiry* 36 (October): 603–19.

"This paper outlines the alternative channels through which institutions affect growth, and studies the empirical relationship between institutions, investment, and growth. The empirical results indicate that (i) free-market institutions have a positive effect on growth; (ii) economic freedom affects growth through both a direct effect on total factor productivity and an indirect effect on investment; (iii) political and civil liberties may stimulate investment; (iv) an important interaction exists between freedom and human capital investment; (v) Milton Friedman's conjectures on the relation between political and economic freedom are correct; (vi) promoting economic freedom is an effective policy toward facilitating growth and other types of freedom." ♦ Uses *Economic Freedom of the World: 1975–1995* as the main data source for institutional variables.

De Haan, Jakob, and Clemens L.J. Sierman (1998). "Further Evidence on the Relationship between Economic Freedom and Economic Growth." *Public Choice* 95: 363–80.

Primarily investigates the robustness of the index of economic freedom devised by Gerald Scully and D.J. Slotje and determines that the robustness of results depends heavily on how freedom is measured. Finds that some specifications are robust predictors of the growth rate of real per-capita GDP (1980–1992) but few are robust for investment share of GDP. ♦ Empirical analysis on *Economic Freedom of the World: 1975–1995* is limited to correlation with the Scully and Slotje's index. Suggests further empirical work be done on *Economic Freedom of the World*.

De Haan, Jakob, and Jan-Egbert Sturm (2000). "On the Relationship between Economic Freedom and Economic Growth." *European Journal of Political Economy* 16: 215–41.

"It is often maintained that economic freedom underlies high levels of economic growth. This paper compares various indicators for economic freedom. We conclude that, although these measures differ somewhat in their coverage, they show similar rankings for the countries covered. Some elements in these measures are, however, questionable. Our main conclusion is that greater economic freedom fosters economic growth. The level of economic freedom is, however, not related to growth." ♦ Uses summary ratings from *Economic Freedom of the World: 1975–1995* as the main data source for institutional variables.

De Haan, Jakob, and Jan-Egbert Sturm (2003). "Does More Democracy Lead to Greater Economic Freedom? New Evidence for Developing Countries." *European Journal of Political Economy* 19, 3 (September): 547–63.

"This paper examines the relationship between economic and political freedom, focusing on developing countries. We conclude that increases in economic freedom between 1975 and 1990 are to some extent caused by the level of political freedom. This result shows up for all measures of political freedom that we employ." ♦ Uses summary ratings from *Economic Freedom of the World: 1975–1995* as the main data source for institutional variables.

Easton, Steven T., and Michael A. Walker (1997). "Income, Growth, and Economic Freedom." *American Economic Review* 87, 2 (May): 328–32.

Finds that economic freedom is an important explanatory variable for steady-state levels of income. The addition of a variable for economic freedom is also shown to increase the explanatory power of a neo-classical growth model. ♦ *Economic Freedom of the World: 1975–1995* is the main data source for institutional variables.

Farr, W. Ken, Richard A. Lord, and J. Larry Wolfenbarger (1998). "Economic Freedom, Political Freedom and Economic Well-Being: A Causality Analysis." *Cato Journal* 18, 2 (Fall): 247–62.

The paper uses Granger causality analysis to demonstrate that economic freedom "causes" economic well-being and economic well-being "causes" economic freedom. Additionally, the authors argue that economic well-being causes political freedom but that there is no causation flowing from political freedom to economic well-being. The paper also finds no evidence of a causal relationship in either direction between economic freedom and political freedom. Indirectly economic freedom causes political freedom through its effect on economic well-being. ♦ *Economic Freedom of the World: 1975–1995* and the Freedom House index of political rights and civil liberties are the main data sources for institutional variables.

Graeff, P., and G. Mehlkop (2003). "The Impact of Economic Freedom on Corruption: Different Patterns for Rich and Poor Countries." *European Journal of Political Economy* 19, 3 (September): 605–20.

"This paper investigates the impact of various components of economic freedom on corruption. Some aspects of economic freedom appear to deter corruption while others do not. We identify a stable pattern of aspects of economic freedom influencing corruption that differs depending on whether countries are rich or poor. This implies that there is a strong relation between economic freedom and corruption. This relation depends on a country's level of development. Contrary to expectations, we find that some types of regulation reduce corruption." ♦ Uses ratings from *Economic Freedom of the World: 2000 Annual Report* as the main data source for institutional variables.

Green, Sam, Andrew Melnyk, and Dennis Powers (2002). "Is Economic Freedom Necessary for Technology Diffusion?" *Applied Economics Letters* 9, 14 (November): 907–10.

"Benhabib and Spiegel (1996) argue that human capital increases technological diffusion and, as a result, has a positive effect on economic growth. When human capital is accounted for in this way they find that other institutional variables do not affect growth. Their findings are re-examined by considering the effects of economic freedom on technology spillovers, hence on growth, and it is found that the greater the economic freedom in a country, the greater the amount of technological diffusion. More generally, this research suggests that institutional variables which are captured by economic freedom do indeed have an impact on growth, but only through technological diffusion. However, after accounting for the effects of economic freedom on technological diffusion, there is only weak evidence that human capital has a positive effect on technological diffusion." ♦ Summary ratings from *Economic Freedom of the World: 1997 Annual Report* provides a key institutional variable.

Grubel, Herbert G. (1998). "Economic Freedom and Human Welfare: Some Empirical Findings." *Cato Journal* 18, 2 (Fall): 287–304.

The paper compares economic freedom to income, growth, unemployment in the OECD, the UN Human Development Index, life expectancy, literacy, poverty, and income distribution. It finds that "economic freedom does not have a cost in terms of income levels, income growth, unemployment rates, and human development." ♦ *Economic Freedom of the World: 1997 Annual Report* is the main data source for institutional variables.

Gwartney, James, Randall Holcombe, and Robert Lawson (1998). "The Scope of Government and the Wealth of Nations." *Cato Journal* 18, 2 (Fall): 163–90.

The paper examines the effect of the size of government in OECD countries upon economic growth. This paper draws on the authors' Joint Economic Committee Study, *The Size and Functions of Government and Economic Growth*. ♦ Makes reference to the general conclusions regarding economic freedom and income and growth as published in *Economic Freedom of the World: 1975–1995* and *Economic Freedom of the World: 1997 Annual Report*.

Gwartney, James, Robert Lawson, and Randall Holcombe (1999). "Economic Freedom and the Environment for Economic Growth." *Journal of Institutional and Theoretical Economics* 155, 4: 1–21.

This study examines the relationship between economic freedom and economic growth. The authors find that economic freedom is a "significant determinant of economic growth, even when human and physical capital,

and demographics are taken into account.” The authors also test for causality. They find that increases in economic freedom lead to higher economic growth but not that higher economic growth leads to higher economic freedom. ♦ Uses summary ratings from *Economic Freedom of the World: 1997 Annual Report* as one of a number of institutional variables.

Hanke, Steve H., and Stephen J.K. Walters (1997). “Economic Freedom, Prosperity, and Equality: A Survey.” *Cato Journal* 17, 2 (Fall): 117–46.

The article compares several institutional indexes for content and explanatory power: Gerald Scully’s studies, The Fraser Institute’s *Economic Freedom of the World*, Freedom House’s *Economic Freedom Indicators*, The Heritage Foundation’s *Indices of Economic Freedom*, The International Institute for Management Development’s *World Competitiveness Yearbook 1996*, The World Forum’s *Global Competitiveness Report 1996*. Compares liberty and prosperity, equality and foreign policy implications. They find that economic freedom is positively correlated with GNP per capita. ♦ *Economic Freedom of the World: 1975–1995* is used as one variable in a comparison of a number of institutional variables.

Islam, Sadequil (1996). “Economic Freedom, per Capita Income and Economic Growth.” *Applied Economics Letters* 3: 595–97.

Examines the effect of economic freedom on income and growth in high-, middle-, and low-income country sets and finds that economic freedom is significant for a sample of all countries but only in some subsets. ♦ Uses the precursor to *Economic Freedom of the World*, “Measuring Economic Freedom,” by James Gwartney, Walter Block and Robert Lawson, a chapter in Stephen Easton and Michael Walker (eds.), *Rating Global Economic Freedom* (Vancouver: The Fraser Institute, 1992). “Measuring Economic Freedom” is the main data source for institutional variables.

Johnson, James P., and Tomasz Lenartowicz (1998). “Culture, Freedom and Economic Growth: Do Cultural Values Explain Economic Growth?” *Journal of World Business* 33, 4: 332–56.

The paper discusses which cultural values are associated with economic freedom, drawing on two international quantitative cultural indexes. ♦ Uses the summary ratings from *Economic Freedom of the World: 1975–1995* as one of a number of institutional variables.

Ludovic, Comeau (2003). “The Political Economy of Growth in Latin America and East Asia: Some Empirical Evidence.” *Contemporary Economic Policy* 21, 4 (October): 476–89.

“This article examines the historical records of poor economic performance of Latin America compared to East Asia’s relative success in the 1970s and 1980s. This study shows that the respective sociopolitical and institutional environment of the two regions was also an important factor contributing to their economic outcomes. Using data for selected countries in both regions, the results confirm the hypothesis of a negative direct (efficiency) effect of sociopolitical instability on growth, with an additional indirect (accumulation) effect through investment, irrespective of a country’s location. Policies adopted by governments, particularly to control inflation and foreign indebtedness and to enhance economic freedom and human capital accumulation, appear crucial for stability. Such policies influenced economic performance through both the direct and the indirect channels.” ♦ Uses summary ratings from *Economic Freedom of the World: 1975–1995* as the main data source for institutional variables.

Mahoney, P.G. (2001). “The Common Law and Economic Growth: Hayek Might Be Right.” *Journal of Legal Studies* 30 (June): 503–25.

“Recent finance scholarship finds that countries with legal systems based on the common law have more developed financial markets than civil-law countries. The present paper argues that finance is not the sole, or principal, channel through which legal origin affects growth. Instead, following Hayek, I focus on the common law’s association with limited government. I present evidence that common-law countries experienced faster economic growth than civil-law countries during the period 1960–92 and then present instrumental variables results

that suggest that the common law produces faster growth through greater security of property and contract rights.” ♦ Uses some components of economic freedom from *Economic Freedom of the World: 1975–1995*.

Mbaku, John Mukum (1998). “Constitutional Engineering and the Transition to Democracy in Post-Cold War Africa.” *The Independent Review* 2, 4 (Spring): 501–17.

Discusses the constitutional guarantees necessary to secure economic freedom and why such guarantees are important. Focuses on Africa. ♦ Makes reference to the general conclusions of *Economic Freedom of the World: 1975–1995* regarding economic freedom and income and growth.

Mbaku, John Mukum, ed. (1999). *Preparing Africa for the Twenty-First Century: Strategies for Peaceful Coexistence and Sustainable Development*. Aldershot, UK and Brookfield, VT: Ashgate.

Chapter 6, “A Balance Sheet of Structural Adjustment in Africa: Towards a Sustainable Development Agenda” (John Mukum Mbaku) and chapter 12, “Making the State Relevant to African Societies” (John Mukum Mbaku) emphasize the constitutional guarantee of economic freedoms as the single most important way both to generate the wealth that Africans need to meet the challenges of the new century and to deal more effectively with the continent’s colossal debt. ♦ Makes reference to the general conclusions of *Economic Freedom of the World: 1975–1995* regarding economic freedom and income and growth.

Nelson, Michael A., and Ram D. Singh, (1998). “Democracy, Economic Freedom, Fiscal Policy and Growth in LDCs: A Fresh Look.” *Economic Development and Cultural Change* 46, 4 (July): 677–96.

The study examines the effect of democracy on economic growth after controlling for a number of variables for the size of government and institutions. The study finds that it is not the redistributive policies of democratic governments that hinder development in developing countries but the lack of economic freedom. ♦ Uses the precursor to *Economic Freedom of the World*, “Measuring Economic Freedom,” by James Gwartney, Walter Block, and Robert Lawson, in Stephen Easton and Michael Walker (eds.), *Rating Global Economic Freedom* (Vancouver: The Fraser Institute, 1992). The summary ratings of “Measuring Economic Freedom” are used as one variable in a comparison of a number of variables for institutions and the size of government.

Norton, Seth W. (1998). “Poverty, Property Rights, and Human Well-Being: A Cross-National Study.” *Cato Journal* 18, 2 (Fall): 233–45.

The paper compares property rights to indicators of development and determines that the “well-being of the world’s poorest inhabitants [is] sensitive to the cross-national specification of property rights.” The paper shows that well-specified property rights enhance the well-being of the world’s most impoverished. ♦ *Economic Freedom of the World: 1997 Annual Report* and the Heritage Foundation’s *Indices of Economic Freedom* are the main data source for institutional variables.

Norton, Seth W. (1998). “Property Rights, the Environment, and Economic Well-Being.” In Peter J. Hill and Roger E. Meiners (eds.), *Who Owns the Environment* (Rowman & Littlefield): 37–54.

Investigates whether countries with better property rights have better performance on environmental measures. ♦ Uses the summary ratings of *Economic Freedom of the World: 1975–1995* as one of four measures used as proxies for property rights.

Norton, Seth W. (2003). “Economic Institutions and Human Well-Being: A Cross-National Analysis.” *Eastern Economic Journal* 29, 1 (Winter): 23–40.

“Economic institutions are widely thought to be important in enhancing human well-being. Other scholars emphasize geography in determining economic deprivation and development. This paper examines both types of factors and finds that property rights and economic freedom substantially reduce poverty and enhance economic development.” ♦ Summary ratings from *Economic Freedom of the World: 2001 Annual Report* provides a key institutional variable.

Paldam, Martin (2003). "Economic Freedom and the Success of the Asian Tigers. An Essay on Controversy." *European Journal of Political Economy* 19, 3 (September): 453–77.

"The term 'tigers' refers to a group of four to five East Asian countries that joined the rich Western countries after less than 50 years of "miraculous" growth. Controversies surround the attempt to explain how the successes were achieved. This paper surveys the discussion and uses the index published in *Economic Freedom of the World* to address the main controversy, which is the role of the state in the rapid growth that took place. After a discussion of likely biases, the data are considered. Three of the five countries have a level of regulation much like other rich countries while two have been as close to *laissez faire* as any country in the world. All are much more "market-friendly" than the LDCs that they left behind. The extent of *laissez faire* can, however, be only one aspect of the miracle."

Park, Walter G., and Juan Carlos Ginarte (1997). "Intellectual Property Rights and Economic Growth." *Contemporary Economic Policy* 15 (July): 51–61.

The authors have compiled an index of intellectual property rights, and examine its effects on growth and the factors of production (investment, schooling, and R&D). "The paper finds that IPRs affect economic growth indirectly by stimulating the accumulation of factor inputs like R&D and physical capital." ♦ Uses summary ratings of *Economic Freedom of the World: 1975–1995* as a control variable for market institutions in the analysis.

Scully, G.W. (2002). "Economic Freedom, Government Policy and the Trade-Off between Equity and Economic Growth." *Public Choice* 113, 1–2 (October): 77–96.

"This study investigates the role that economic freedom plays in economic growth and in the distribution of market income, the role of government policy in advancing economic progress and in promoting income equality, and the effect that the rate of economic progress has on the distribution of market income. Structural and reduced form models are estimated that reveal that economic freedom promotes both economic growth and equity, and that there is a positive but relatively small trade-off between growth and income inequality." ♦ Uses summary ratings and the components from *Economic Freedom of the World: 1975–1995* as the main data source for institutional variables.

Spindler, Z. A., and X. de Vanssay (2002). "Constitutions and Economic Freedom: An International Comparison." *South African Journal of Economics* 70, 6 (September): 1135–47.

"The effects of *de jure* constitution enumerations and the number of *de facto* veto players in a polity on economic freedom are empirically explored with the result that only a few constitutional characteristics, such as a bicameral legislature, religious freedom and the *de facto* veto players, seem to matter." ♦ Uses EFW index from *Economic Freedom of the World: 2000 Annual Report* as the dependent variable. This is a cross-section analysis covering 97 countries.

Sturm, J.E., and J. De Haan (2001). "How Robust Is the Relationship between Economic Freedom and Economic Growth?" *Applied Economics* 33, 7 (June): 839–44.

"Using various indicators for economic freedom, it is shown that increases in economic freedom are robustly related to economic growth. This conclusion holds even if the impact of outlying observations is taken into account. The level of economic freedom is not related to growth." ♦ Uses summary ratings from *Economic Freedom of the World: 1975–1995* as the main data source for institutional variables.

Vamvakidis, Athanasios (1998). "Explaining Investment in the WAEMU [West African Economic and Monetary Union]." Working paper WP/98/99. International Monetary Fund.

Relates differences in investment as a share of GDP within the West African Economic and Monetary Union to differences in economic freedom using fixed and random-effects models across time. ♦ *Economic Freedom of the World: 1975–1995* is the main data source for institutional variables.

Vásquez, Ian (1998). "Official Assistance, Economic Freedom, and Policy Change: Is Foreign Aid Like Champagne?" *Cato Journal* 18, 2 (Fall): 275–86.

Argues that foreign aid is propping up countries that are not economically free. Mr Vásquez also tests the notion that aid agencies target pro-growth policies. He finds that for the countries where economic freedom declines or does not improve, foreign aid actually increases (19 of 20 cases). As well, in over one half of these countries GDP per capita declines. ♦ Makes reference to the general conclusions of *Economic Freedom of the World: 1997 Annual Report* regarding economic freedom and income and growth.

Vega-Gordillo, Manuel, and José L. Álvarez-Arce (2003). "Economic Growth and Freedom: A Causality Study." *Cato Journal* 23, 2 (Fall): 199–215.

"The dynamic relationships estimated strongly suggest that economic freedom fosters 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." ♦ Uses ratings from *Economic Freedom of the World: 2001 Annual Report* as the main data source for institutional variables.

Voigt, Stefan (1998). "Making Constitutions Work: Conditions for Maintaining the Rule of Law." *Cato Journal* 18, 2 (Fall): 191–208.

Makes reference to the general conclusions of *Economic Freedom of the World: 1975–1995* regarding economic freedom and income and growth and discusses conditions under which the rule of law can be maintained.

Weede, Erich, and Sebastian Kampf (2002). "The Impact of Intelligence and Institutional Improvements on Economic Growth." *Kyklos* 55, 3: 361–80.

"Standard indicators of human capital endowment—like literacy, school enrollment ratios or years of schooling—suffer from a number of defects. They are crude. Mostly, they refer to input rather than output measures of human capital formation. Occasionally, they produce implausible effects. They are not robustly significant determinants of growth. Here, they are replaced by average intelligence. This variable consistently outperforms the other human capital indicators in spite of suffering from severe defects of its own. The immediate impact of institutional improvements, i.e., more government tolerance of private enterprise or economic freedom, on growth is in the same order of magnitude as intelligence effects are." ♦ Summary ratings from *Economic Freedom of the World: 2000 Annual Report* provides a key institutional variable.

Wu, Wenbo, and Otto A. Davis (1999). "The Two Freedoms in a Growth Model." *Journal of Private Enterprise* 14, 2: 115–43.

The paper develops a theoretical model describing the impact that economic and political freedoms might have upon economic growth, then estimates the relative impact of the two on growth in the world as a whole and for subsets of developing and developed nations. ♦ Summary ratings from *Economic Freedom of the World: 1975–1995* provide a key institutional variable.

Wu, Wenbo, and Otto A. Davis (1999). "Two Freedoms, Economic Growth and Development: An Empirical Study." *Public Choice* 100: 39–64.

"The main results are: given economic freedom, the rate of economic growth is independent of political freedom and the level of income; given the level of income, political freedom is independent of economic freedom and the growth rate. The analysis suggests the fundamental effects of economic freedom in fostering economic growth and a high level of income as the condition of a high degree of political freedom." The article also uses principle component analysis to weight the results published in *Economic Freedom of the World*. ♦ *Economic Freedom of the World: 1975–1995* and Freedom House's *Economic Freedom Indicators* on political rights and civil liberties are the main data sources for institutional variables.