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# Assessing the Role of Risk in Growth and Development:

Evidence from Latin American, African, and Asian Countries

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## Abstract

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Globalization through international trade and investment does not lead automatically to higher rates of economic growth. Models that focus solely on traditional economic variables often miss important institutional considerations that are essential to an effective transition to higher rates of economic growth. In turn, models that focus exclusively on institutional variables often exclude how institutional behavior affects the level of risk. In this paper, we examine traditional and institutional models of economic growth with and without explicit consideration of risk using a sample of 63 countries from Africa, Asia, and Central and Latin America for the 1980-2002 period. Using panel regression analysis, we find that risk is an important determinant of economic growth and that policy measures that take risk into account are an essential step to successful economic globalization.

# Assessing the Role of Risk in Growth and Development: Evidence from Latin American, African, and Asian Countries

## I. Introduction

Does risk affect the rate of economic growth? The short answer is "yes" in that greater risk reduces economic growth through its impact on the costs of economic transactions. Since globalization can expose an economy to additional risk, how countries manage risk can have significant consequences on the rate of economic growth, particularly at a time when the role of international aid has become part of a renewed public policy debate[1]. Interestingly, much of the research on economic growth and political reform has proceeded with little direct consideration of how risk can arise and what institutional measures may be needed for its effective management in the efficient allocation of resources. In this paper, we use a sample of 63 countries in Africa, Asia, and Central and Latin America to examine how risk can explain differences in economic performance. Our findings help in understanding what measures may be needed for risk management within the context of continuing policy reforms.

## II. Institutional Considerations in the Framework of Economic Growth

Growth theory can be distinguished between traditional and new formulations. While traditional theory has emphasized the growth of inputs and technological change through saving and trade, the new growth literature places emphasis on endogenous feedback effects. De la Croix and Michel (2002), and Aghion and Howitt (1998) provide useful syntheses of the new approaches to growth. In most of these formulations, little attention is given to the incorporation of institutional variables, a consideration that becomes particularly important when growth theory is applied to economic policy.

Incorporating institutional variables in the theory of growth owes much to Williamson (2000, 1975), Barro (1998a, 1998b), Temple (1999), and Easterly (2001). Although focused initially on economic institutions, there also has been growing attention given to political institutions and governance (Carlsson and Lundström, 2002, Saint-Paul, 2000, Persson and Tabellini, 2000, Ayal and Karras, 1998, Barro, 1996). While this literature provides a greater understanding of growth and development, we still confront significant gaps in policy implementation, as the recent critique of globalization by Stiglitz (2002) has shown. We consider some of these critiques in terms of economic and political institutions.

In his review of the new growth evidence, Temple (1999) notes the direct positive importance of international trade, investment in education and physical capital, technology adaptation and innovation, financial intermediation, and preventing excessive increases in income inequality as key factors in determining differential rates of economic growth. He finds that population growth rates and the presence of formal democracy are less important, even though these variables figure prominently in the formulation of domestic and international aid policies in many countries[2].

Economic institutions favorable to economic growth can be subsumed under a grouping of economic freedom[3]. Economic freedom, which includes property rights and judicial independence, can be constricted either by international aid, or by the lack of local participation and accountability in the political process. Jones, Hellman and Schankerman (2000) demonstrate that corruption and state capture arise more easily when accountability is low. De Soto (2000) emphasizes the importance of property rights by pointing out that weak regimes skew access to credit and thus limit the efficient allocation of resources.

In terms of political variables, increasing attention has been given to democracy as a determinant of economic growth, and to whether international aid plays a constructive role. Acemoglu (2002), Acemoglu, Johnson and Robinson (2001), and Barro (1999) find that democracy associates positively with economic growth, but much of the evidence turns on whether one is relying on what the writer Fareed Zakaria (2003, 1997) calls illiberal as opposed to liberal democratic institutions. Some measures of democracy rely essentially on the frequency and transparency of electoral systems, and do not take into account the importance of an independent judiciary and property rights, nor of civil and political rights. Growth may falter as resources are mis-allocated under nominally democratic but effectively corrupt regimes.

Much of the concern over illiberal democracy dates to Krueger's 1974 essay on rent-seeking behavior by political elites. Acemoglu and Verdier (2000) measure the tradeoff between market failure and corruption. In the presence of weak institutions where corruption and market failure is widespread, civil wars can ensue as well, as noted in Collier and Hoeffler (1998), Eldabawi and Sambanis (2000), Ellman and Wantchekon (2000), and Jenkins and Kposowa (1990).

As to international aid and its effect on growth, the evidence is mixed. In the post World War II Cold War era, international private capital flows were limited, and much development initiatives were driven by international public aid. Following the end of the Cold War, greater emphasis has been given to international private flows, and a number of studies have pointed to weak links between the level of international public aid and rates of economic growth and development (Easterly, Levine, and Roodman, 2003, Barro, 1998a, Casson, 1986, Collier and Dollar, 2002, Collier and Dehn, 2001, Deverajan, Rajkumar, and Swaroop, 1999, Guillamont and Chauvet, 2001, Hansen and Tarp, 2001, Hansen and Tarp, 2000, Knack 2000, Lensing and White, 2001, Mosely, Hudson, and Horrell, 2001).

International aid can further undermine accountability (Knack and Keefer, 1995). In turn, low accountability can lead to political instability. Mbaku and Paul (1989), analyze how political instability creates additional opportunities for corruption and inefficiency. Easterly (2001) and Huther and Shah (2000) examine the role of corruption, particularly in the context of international aid and democratic reform. Consistent with other findings, they note that aid does not necessarily lead either to improved economic or political governance.

In contrast, Burnside and Dollar (2000) find a positive impact of international aid on economic growth. In turn, there has been a new willingness to re-craft increased levels of international aid, notably the U.S. commitment to the Millennium Challenge Account (Radelet and Herring, 2003)[4]. While much of the recent interest in international aid is its potential in establishing improved governance, in our view, greater attention to how governance affects the level of risk can be even more critical to its success.

How important, then, is democracy to economic growth and development? While there is a direct relationship between democracy and development, whether democratic political reforms should precede economic reform is still subject to debate. Comeau (2003) and Boko (2002) find that democracy expands the level of per capita income, even though some qualification may be needed[5]. As Barro (1998a) notes, what is more important is the emphasis on the corollary institutions of civil society such as civil and property rights, and an independent judicial system, which together can determine the success of democratic reform in achieving both economic freedom and economic growth[6].

## III. Linking Risk to Institutional Models of Economic Growth

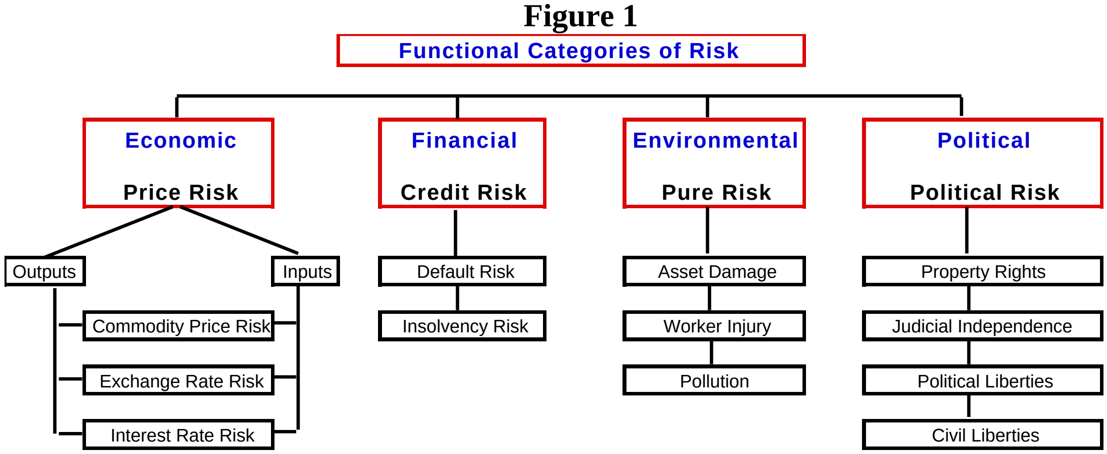
If the evidence linking democracy to economic reform is ambiguous, one reason may be that little attention has been given to the role of risk. Indeed, Temple (1999) notes in his conclusion, one of main reasons why growth rates differ is that macroeconomic stability differs across countries[7]. This now is changing, particularly in light of the East Asian financial crisis of 1997. In their review of the effects of financial globalization on developing countries, Prasad, Rogoff, Wei, and Kose (2003) note that financial integration can increase macroeconomic volatility, whether measured in terms of rates of growth of GDP, exports, or consumption. Fosu (2002) finds that political instability affects exports even more than GDP growth. In turn, Athanasoulis and Wincoop (1997), and Wincoop (1999, 1994) find that sharing economic risk can reduce growth uncertainty, and that measures to do so can increase social welfare in terms of higher levels of per capita income and wealth. This approach builds on a framework first put forth by Obstfeld (1994).

There are two basic and complementary approaches to the incorporation of risk in globalization models. One is the construction of instability indices of an output variable such as GDP or exports and then to explain this in terms of standard variables such as the degree of trade openness and financial integration. In a perfect market, asset prices incorporate such risks. For example, a country's external borrowing rate should embody a risk premium, just as an internal lending rate should do. Yet in the presence of imperfect information, asset prices do not fully embody risk and a mis-allocation of resources may result.

Another approach is to define an index of aggregate risk that incorporates a weighted mix of economic and political factors. The World Bank routinely takes into account sovereign debt ratings by private firms in its assessment of lending decisions. It also is paying closer attention to country composite risk, which becomes useful as a broader tool that incorporates political and economic factors. Moreover, country composite risk indices also may be useful where sovereign debt markets do not exist or work in fairly imperfect markets. Because we are interested in the broader dimensions of risk in the context of globalization, we use a country composite risk index for our analysis.

As we have pointed out, risk raises the cost of economic transactions. Other things equal, increases in the level of risk lower a country's rate of economic growth. Since there are many forms of risk, it is useful to note the various forms in which it can arise, which we illustrate in Figure 1.

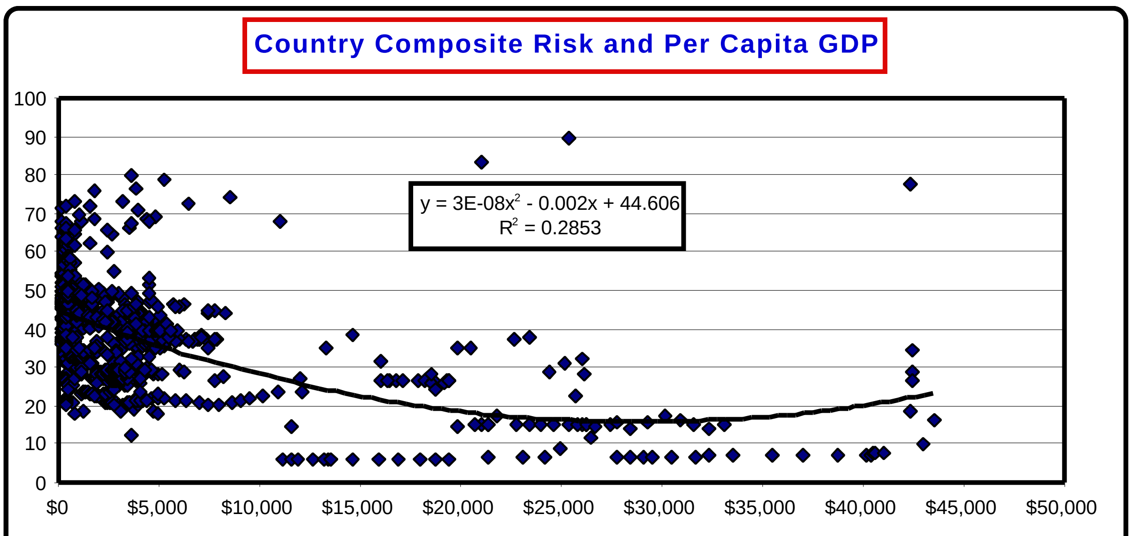
**Figure 1**



If there is a limitation to using a country composite risk index, it first and foremost does not separate the sources of risk into their respective sub-categories. Secondly, it may be considered as a "soft" variable in that it does not reflect directly observable behavior such as a coefficient of variation of GDP or export growth rates. Third, it generally relies on weights that are applied uniformly across countries in time and space when the evolution of determinants may vary. Despite these limitations, we find that a country composite index can be used to derive empirical support for the importance of risk management strategies in the context of globalization. We use the International Country Risk index for this purpose[8].

Figure 2 illustrates the basic relationship between country composite risk and real per capita GDP. Table A.3 in the Appendix lists the 63 countries used in the analysis, along with specification of the geographic panel groupings. For our present purposes, these geographic groupings do not rely on policy samples of reforming and non-reforming countries.

**Figure 2**



Source: Data listed in the Appendix

For our analysis, we are interested in the relationship of country composite risk not just to real per capita GDP, but also to standard determinants of economic growth, notably the national saving rate and the degree of trade dependence. Trade dependence captures some but not all of the dimensions of financial integration. For our purposes trade dependence serves as a proxy for globalization of an economy.

Figures 3 and 4 summarize the basic relationship between country composite risk and the gross national saving rate and between country composite risk and the degree of trade dependence. While they reflect the global sample only, our econometric estimates provide panel separations by regions.

**Figure 3**

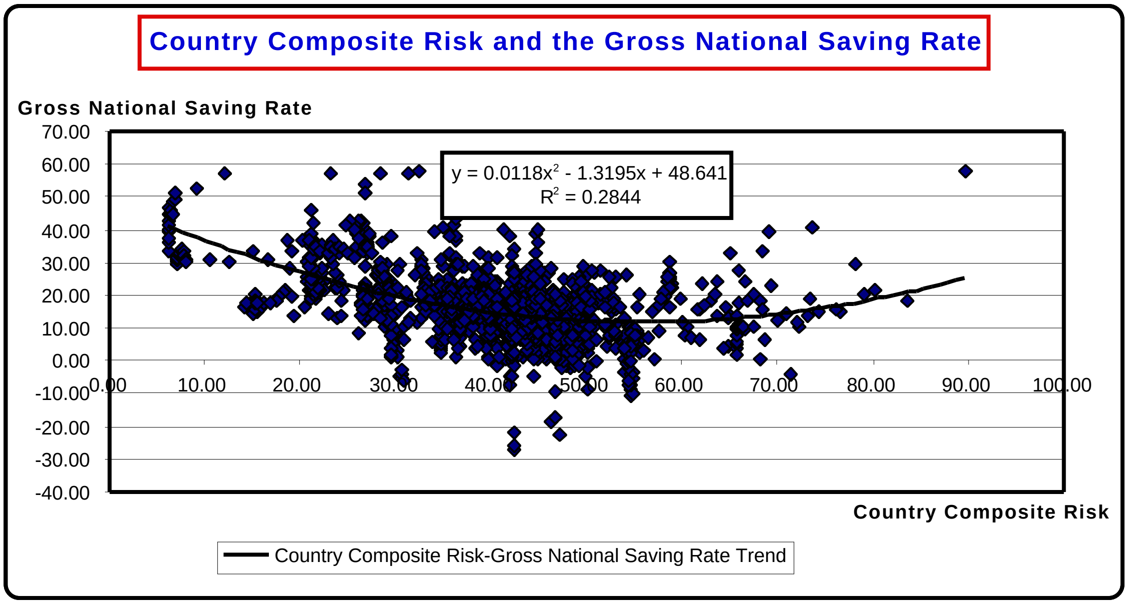
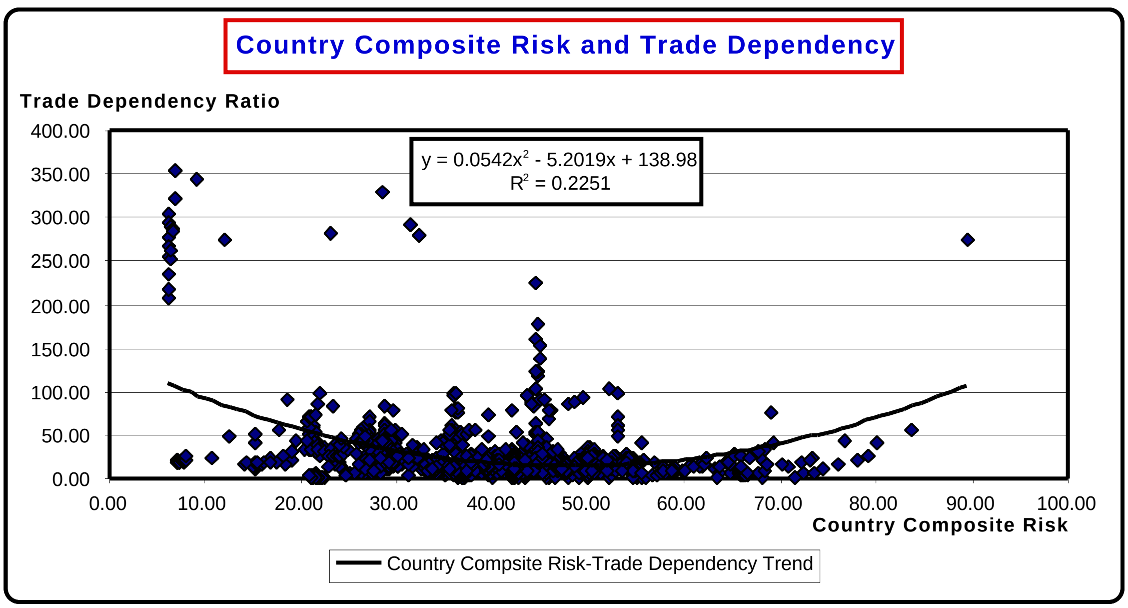



**Figure 4**

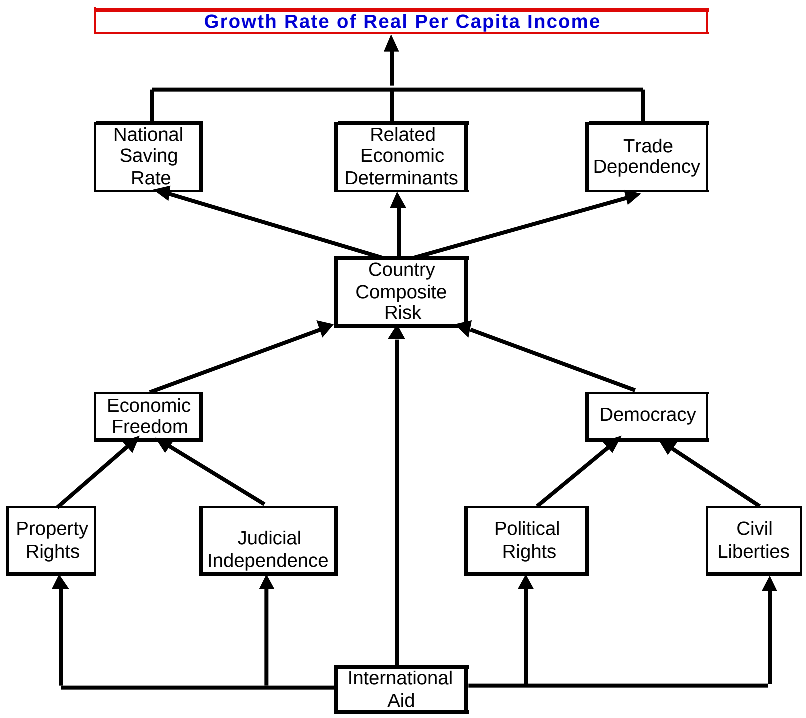



Given the inverse relationship posited in the pooled sample, we seek to examine the determinants of country composite risk and how they determine in turn economic behavior across the respective regions in our sample of East Asia, Sub-Saharan Africa, and Central and Latin American countries.

**IV. Explaining Economic Growth**

We outline here three models economic growth, beginning first with a traditional formulation of growth under globalization. In turn, we then modify this framework to include institutional variables. We then incorporate aggregate risk. In each stage, we derive random effects panel regression estimates, and report pair-wise Granger causality tests statistics from the pooled samples consistent with the sequential modeling framework illustrated in Figure 4 below.

**Figure 4**




In the absence of specific consideration of risk, a country's rate of economic growth depends in the first instance on a set of basic economic variables. These variables include the national saving rate, the level of trade dependency, the overall tax burden, the external debt service ratio, and interest rate differentials. Trade dependency serves as a proxy for globalization, while the savings rate, tax burden, debt service ratio, and interest rate differentials reflect a mix of domestic and international policy determinants of growth.

Other things equal, the saving rate relates positively to the growth of per capita income, as does the level of trade dependence. As to the tax burden, globalization implies in principle a reduced role by the public sector. However, the tax burden can relate positively to the growth rate of per capita income as long as public sector intervention is used to enhance the productive capacity of the economy. Thus, while we include the tax burden as a measure of public sector intervention, we leave open the question of whether it contributes positively or negatively to the growth rate of per capita income. We include an economy's external debt service ratio to capture the effects of public sector misallocation as well as imperfections in the mix of internal incentives on economic efficiency. Finally, we include interest rate differentials as an indication of the degree of local economic competition[9].

Based on our sample, we summarize estimates from the random effects panel regressions for all 63 countries, as well as for geographic sub-samples for the 1980-2002 period, in Table 1 below[10]. Below each regression coefficient is the corresponding computed t value, as well as the Granger null causality F tests for 2 period lags[11].

**Table 1**

**Basic Economic Globalization Model**

**Random Effects Panel Regression Estimates**

| | Global | Africa | Asia | C&L America |
|---|---|---|---|---|
| Panel n | 63 | 30 | 13 | 17 |
| n | 1224 | 437 | 246 | 325 |
| Constant | 1.8297 | 1.0716 | 0.8735 | 1.0034 |
| **LogGNSGDP** | **0.2266** | **0.1310** | **0.0985** | **0.1176** |
| t | (9.029) | (4.431) | (2.143) | (2.849) |
| Gr | (11.661) | (7.006) | (1.312) | (3.718) |
| **LogTRDEP** | **0.6374** | **0.9065** | **0.8404** | **0.8478** |
| t | (22.292) | (17.982) | (18.763) | (20.638) |
| Gr | (1.643) | (1.995) | (0.424) | (1.410) |
| **LogTAXBURD** | **0.2051** | **0.3109** | **0.6727** | **0.4711** |
| t | (3.513) | (3.377) | (6.949) | (5.165) |
| Gr | (3.956) | (1.995) | (2.343) | (1.194) |
| **logDEBTSRAT** | **-0.1551** | **-0.1260** | **-0.2806** | **-0.2364** |
| t | (6.510) | (3.254) | (6.481) | (6.095) |
| Gr | (2.562) | (3.890) | (0.711) | (0.056) |
| **LogIRSPRD** | **-0.0392** | **0.0931** | **0.1646** | **0.1632** |
| t | (2.325) | (3.528) | (6.589) | (6.938) |
| Gr | (7.475) | (0.838) | (5.443) | (1.265) |
| Adjusted $R^2$ | 0.8836 | 0.8946 | 0.8955 | 0.8765 |
| SEE | 0.5340 | 0.4586 | 0.1467 | 0.1453 |

Standard policy prescriptions follow directly from this first model. They include: measures to raise the national savings rate, measures to expand international trade in the economy, raising taxes while reducing government spending so as to reduce the debt-service ratio. They also include measures to lower interest rate differentials between the international and domestic economy (which implies for the respective regions, adjusting interest rates to stimulate investment spending)[12]. Results for all regions are statistically significant and provide support for traditional approaches to policy reform as countries move toward globalization.

While the standard model explains much of the variation in growth rates, it does not include major institutional variables. Moreover, while results are statistically significant, Granger causality test levels are not statistically significant in several cases. We note that for Africa, except for the savings rate and the debt-service ratio, other variables do not meet the Granger null at the 5 percent level or better. For Asia, Granger null tests fail for the savings rate, trade dependence and the debt-service ratio. For Central and Latin America, all variables except by the saving rate do not satisfy the Granger null causality test.

As a second approximation, we reformulate our model of economic growth to include institutional variables. In terms of institutional variables, the most frequently cited are economic freedom and democracy. The assumption here is that economic growth will be greater not just in terms of a higher savings rate and greater trade dependence, but also the higher is the level of economic freedom and the level of democracy. We can define economic freedom in terms of three components: property rights, judicial independence, and the lack of corruption. In turn, democracy consists of political rights and civil liberties. We thus drop the role of taxes, the debt service ratio, and interest rate spreads by substituting economic freedom and democracy as determinants. Regression results are shown below in Table 2.

**Table 2**

**Economic Freedom and Democracy in a Simple Globalization Model**

**Random Effects Panel Regression Estimates**

| | Global | Africa | Asia | C&L America |
|---|---|---|---|---|
| Panel n | 63 | 30 | 13 | 17 |
| n | 1276 | 453 | 261 | 340 |
| Constant | 1.8589 | 1.3741 | 1.5839 | 1.5951 |
| **LogGNSGDP(-1)** | **0.1879** | **0.1310** | **0.1607** | **0.1252** |
| t | (6.829) | (4.903) | (3.609) | (3.243) |
| Gr | (11.661) | (7.006) | (1.312) | (3.718) |
| **LogTRDEP** | **0.5902** | **0.8310** | **0.8809** | **0.7944** |
| t | (20.991) | (23.116) | (20.860) | (20.241) |
| Gr | (1.643) | (1.995) | (0.424) | (1.410) |
| **logECFREE** | **0.3385** | **0.6557** | **-0.4448** | **-0.1463** |
| t | (5.351) | (6.110) | (3.097) | (1.091) |
| Gr | (25.855) | (2.457) | (8.746) | (0.127) |
| **logDEMOC** | **0.1789** | **0.0555** | **-0.1076** | **0.0191** |
| t | (4.582) | (0.930) | (1.846) | (0.376) |
| Gr | (9.676) | (0.970) | (1.088) | (0.108) |
| Adjusted $R^2$ | 0.8615 | 0.9006 | 0.8774 | 0.8542 |
| SEE | 0.2101 | 0.1466 | 0.1631 | 0.1629 |

In this version, the savings rate and trade dependency are statistically significant for all regions, even though Granger causality tests are weak for trade dependency. As to the institutional variables, economic freedom reduces the rate of economic growth in Asia and in Central and Latin America, while democracy appears to reduce the rate of economic growth in Asia and is statistically insignificant in Africa. When the savings rate and trade dependency are dropped, economic freedom and democracy do expand the rate of economic growth, but democracy is not statistically significant for Africa, Asia, and Central and Latin America, as are Granger null causality test results.

One of the major debates on globalization is the role of aid in promoting economic freedom, democracy, and growth as globalization proceeds. Since economic freedom and democracy often are the focus of international aid, we reformulate our institutional model to include their impact on the rate of economic growth. We do so in two steps. The first is to examine the significance of aid directly on the rate of economic growth, followed by the significance of aid on the savings rate and on the level of trade dependency. Results are summarized in Tables 3 and 4.

**Table 3**

**Economic Freedom, Democracy, AID, and Economic Growth**

**Random Effects Panel Regression Estimates**

| | Global | Africa | Asia | C&L America |
|---|---|---|---|---|
| Panel n | 63 | 30 | 13 | 17 |
| n | 1335 | 506 | 286 | 374 |
| Constant | 2.7965 | 2.9350 | 2.9281 | 2.8305 |
| **logECFREE** | **0.7799** | **0.5487** | **1.5570** | **1.5912** |
| t | (12.890) | (3.955) | (9.455) | (10.763) |
| Gr | (25.855) | (2.457) | (8.746) | (0.127) |
| **logDEMOC** | **0.1580** | **0.0401** | **0.2654** | **0.1777** |
| t | (4.597) | (0.542) | (3.161) | (2.613) |
| Gr | (9.676) | (0.970) | (1.088) | (0.108) |
| **logAIDGNI** | **-0.3410** | **-0.4361** | **-0.6706** | **-0.5883** |
| t | (27.494) | (12.918) | (11.182) | (11.333) |
| Gr | (6.489) | (3.731) | (1.681) | (4.117) |
| Adjusted $R^2$ | 0.8585 | 0.8058 | 0.6965 | 0.6953 |
| SEE | 0.1935 | 0.2027 | 0.2551 | 0.2332 |

International aid reduces the rate of economic growth at statistically significant levels across all regions, even though economic freedom and democracy appear to contribute to a higher rate. The way in which aid appears to reduce the rate of growth is through its effects on both the national saving rate and on the level of trade dependency, as is shown in Table 4.

**Table 4**

**The Impact of International Aid on Saving and Trade Dependency**

**Random Effects Panel Regression Estimates**

| | Gross National Saving Rate | | | | Trade Dependency Ratio | | | |
|---|---|---|---|---|---|---|---|---|
| | Global | Africa | Asia | C&L America | Global | Africa | Asia | C&L America |
| Panel n | 63 | 30 | 13 | 17 | 63 | 30 | 13 | 17 |
| n | 1287 | 475 | 274 | 357 | 1335 | 506 | 286 | 374 |
| Constant | 1.1649 | 1.1571 | 1.1865 | 1.1492 | 1.2647 | 1.5557 | 1.5375 | 1.5176 |
| **logAIDGNI** | **-0.1169** | **-0.1938** | **-0.1988** | **-0.1574** | **-0.1302** | **-0.3596** | **-0.3815** | **-0.3581** |
| t | (8.238) | (4.875) | (3.026) | (2.609) | (8.785) | (12.810) | (4.732) | (5.311) |
| Gr | (3.870) | (0.214) | (1.337) | (2.457) | (2.439) | (2.077) | (0.891) | (2.267) |
| Adjusted $R^2$ | 0.5436 | 0.5085 | 0.4091 | 0.3960 | 0.5585 | 0.7016 | 0.3927 | 0.4013 |
| SEE | 0.2269 | 0.2575 | 0.2766 | 0.2696 | 0.2334 | 0.1761 | 0.3458 | 0.3073 |

While Granger null causality tests do not provide conclusive evidence, it is clear that international aid does not result in a higher rate of economic growth. This finding is consistent with the emphasis on privatization as part of globalization, and given the fact that historically, international aid has been designed to accomplish a multiplicity of outcomes, of which the concern for economic growth has been balanced with concerns for international security, among other considerations.

If economic growth is but one of several objectives of international aid, what, then, of the role of international aid in promoting one of its pre-requisites, namely, economic freedom, or its role in promoting democracy, which is often cited as one of its major objectives. We reformulate our estimates to provide separate estimates of the impact of international aid alone on economic freedom, and separately on democracy. Results are reported in Table 5.

**Table 5**
**The Impact of International Aid**
**on Economic Freedom and Democracy**
**Random Effects Panel Regression Estimates**

| | Economic Freedom | | | | Democracy | | | |
|---|---|---|---|---|---|---|---|---|
| | Global | Africa | Asia | C&L America | Global | Africa | Asia | C&L America |
| Panel n | 63 | 30 | 13 | 17 | 63 | 30 | 13 | 17 |
| n | 1335 | 506 | 286 | 374 | 1335 | 506 | 286 | 374 |
| Constant | 0.2279 | 0.2452 | 0.1758 | 0.1889 | 0.5189 | 0.5485 | 0.3265 | 0.3565 |
| **logAIDGNI** | **-0.0229** | **-0.0778** | **-0.0206** | **-0.0146** | **0.0078** | **-0.0534** | **0.0555** | **0.0373** |
| t | (3.927) | (7.371) | (0.940) | (0.787) | (0.764) | (2.753) | (1.276) | (0.920) |
| Gr | (4.613) | (3.265) | (0.964) | (0.496) | (9.198) | (3.882) | (0.520) | (3.444) |
| Adjusted $R^2$ | 0.6647 | 0.6933 | 0.5990 | 0.6105 | 0.5415 | 0.4890 | 0.4278 | 0.3837 |
| SEE | 0.0901 | 0.0667 | 0.0914 | 0.0821 | 0.1599 | 0.1272 | 0.1840 | 0.1832 |

The impact of international aid on economic freedom and democracy is mixed. While not statistically significant for Asia and Central and Latin America, international aid appears to reduce economic freedom in all regions. While international aid represents an aggregate of public capital from all sources including multilateral and bilateral programs, the negative impact of aid on economic freedom seems surprising. Given the time period under review, since the first ten years corresponded to the end of the Cold War era, it may be that aid was less focused on the pre-requisites for economic growth than it has since become.

The impact of aid on democracy is also somewhat surprising. It exerts a negative influence in Africa, even though there is a positive association for other regions. However, the results are statistically insignificant for the global sample, for Asia and for Central and Latin America. Taken together, we find the impact of international aid on economic growth, economic freedom, and democracy either negative or weakly positive.

In our view, one reason for this finding may be that the impact of aid on risk has not been taken more explicitly into account.

**Table 6**

**Economic Growth and Globalization with Risk**

**Random Effects Panel Regression Estimates**

| | Global | Africa | Asia | C&L America |
|---|---|---|---|---|
| Panel n | 63 | 30 | 13 | 17 |
| n | 1338 | 475 | 274 | 357 |
| Constant | 3.1370 | 2.5062 | 2.0408 | 1.8746 |
| **LogGNSGDP** | **0.2193** | **0.1508** | **0.1128** | **0.1156** |
| t | (8.360) | (5.164) | (2.417) | (2.959) |
| Gr | (11.661) | (7.006) | (2.957) | (3.718) |
| **LogTRDEP** | **0.5331** | **0.8209** | **0.8802** | **0.7700** |
| t | (20.599) | (22.245) | (21.330) | (22.673) |
| Gr | (1.643) | (1.995) | (0.424) | (1.410) |
| **LogCCRISK** | **-0.6779** | **-0.6103** | **-0.2584** | **-0.1578** |
| t | (13.478) | (5.188) | (1.667) | (1.138) |
| Gr | (15.844) | (12.005) | (2.957) | (0.727) |
| Adjusted $R^2$ | 0.8712 | 0.8837 | 0.8654 | 0.8499 |
| SEE | 0.2023 | 0.1584 | 0.1712 | 0.1655 |

We now reformulate our growth model using an index of country composite risk as a determinant, results for which are reported in Table 6. Holding constant the level of risk, the national saving rate and trade dependency exert a stronger influence on the rate of growth. Moreover, the higher is the level of risk, the lower is the rate of growth, given a region's saving rate and trade dependency level. We qualify these findings in noting, however, that country composite risk is not statistically significant in the Asia and Central and Latin America panels.

**Table 7**

**The Impact of Risk on Major Growth Determinants**

**Random Effects Panel Regression Estimates**

| | Gross National Saving Rate | | | | Trade Dependency | | | |
|---|---|---|---|---|---|---|---|---|
| | Global | Africa | Asia | C&L America | Global | Africa | Asia | C&L America |
| Panel n | 63 | 30 | 13 | 17 | 63 | 30 | 13 | 17 |
| n | 1338 | 475 | 274 | 357 | 1386 | 506 | 286 | 374 |
| Constant | 1.4283 | 1.3574 | 1.8905 | 2.0677 | 2.0733 | 2.2367 | 3.0737 | 2.8745 |
| **LogCCRISK** | **-0.1914** | **-0.2237** | **-0.5388** | **-0.6510** | **-0.5374** | **-0.6056** | **-1.1478** | **-1.0297** |
| t | (3.355) | (1.206) | (2.204) | (2.998) | (9.943) | (4.225) | (3.866) | (4.212) |
| Gr | (6.347) | (3.717) | (0.192) | (1.193) | (2.414) | (1.258) | (2.182) | (2.033) |
| Adjusted $R^2$ | 0.5447 | 0.4910 | 0.3953 | 0.3946 | 0.5720 | 0.6104 | 0.3769 | 0.3844 |
| SEE | 0.2274 | 0.2620 | 0.2798 | 0.2699 | 0.2305 | 0.2012 | 0.3503 | 0.3116 |

We further examine separately the impact of risk on the saving rate and on the level of trade dependency. Results are reported in Table 7. Here we find that risk exerts a negative impact on the savings rate in all regions and is statistically significant in all cases except Africa. In turn, risk exerts a consistently and statistically significant negative effect on the level of trade dependency in all regions, even though Granger null tests are not statistically significant for Africa.

We now revisit the role of international aid and ask whether international aid increases or reduces the level of risk. Results are reported in Table 8. While the Granger null can not be ruled out for Central and Latin America, international aid increases country composite risk at statistically significant levels in all of the panel regions.

**Table 8**

**The Impact of International Aid on Risk**

**Random Effects Panel Regression Estimates**

| | Country Composite Risk | | | |
|---|---|---|---|---|
| | **Global** | **Africa** | **Asia** | **C&L America** |
| Panel n | 63 | 30 | 13 | 17 |
| n | 1335 | 506 | 286 | 374 |
| Constant | 1.5794 | 1.5814 | 1.5750 | 1.5817 |
| **logAIDGNI** | **0.0417** | **0.0561** | **0.0479** | **0.0481** |
| t | (6.829) | (5.932) | (3.019) | (3.387) |
| Gr | (5.444) | (4.257) | (10.623) | (0.145) |
| Adjusted $R^2$ | 0.5347 | 0.6426 | 0.5553 | 0.5332 |
| SEE | 0.0979 | 0.0604 | 0.0666 | 0.0634 |

One has to ask what are the purposes of international aid. We have noted the perverse effects on the national saving rate, on trade dependency, and risk in Table 4 and 6, as well as the weak effects on economic freedom and democracy in Table 5. We conclude that while international aid may have short-term beneficial impacts in such forms as humanitarian assistance, the net effect does not strengthen the rate of growth for countries that increase their participation in the global economy.

What determines the level of risk? While there are many components, we focus on the components of economic freedom and democracy as determinants of its level, holding constant the level of international aid, results for which are reported in Table 9.

**Table 9**

**Economic Freedom and Democracy Determinants of Risk**

**Random Effects Panel Regression Estimates**

| | Country Composite Risk | | | |
|---|---|---|---|---|
| | **Global** | **Africa** | **Asia** | **C&L America** |
| Panel n | 63 | 30 | 13 | 17 |
| n | 1335 | 506 | 286 | 374 |
| Constant | 1.7976 | 1.7519 | 1.7151 | 1.7250 |
| **logAIDGNI** | **0.0249** | **0.0443** | **0.0499** | **0.0470** |
| t | (4.150) | (4.907) | (3.224) | (3.438) |
| Gr | (5.444) | (4.257) | (10.623) | (0.145) |
| **logPROPRT** | **-0.2916** | **-0.2798** | **-0.1605** | **-0.1764** |
| t | (8.452) | (6.992) | (3.138) | (4.105) |
| Gr | (10.823) | (3.366) | (1.767) | (5.003) |
| **logJUDIND** | **-0.1344** | **-0.0681** | **-0.1232** | **-0.1140** |
| t | (5.197) | (2.189) | (2.819) | (3.065) |
| Gr | (12.841) | (4.631) | (4.890) | (3.236) |
| Adjusted $R^2$ | 0.5713 | 0.6711 | 0.5801 | 0.5672 |
| SEE | 0.0940 | 0.0579 | 0.0647 | 0.0616 |

| | Country Composite Risk | | | |
|---|---|---|---|---|
| | **Global** | **Africa** | **Asia** | **C&L America** |
| Panel n | 63 | 30 | 13 | 17 |
| n | 1335 | 506 | 286 | 374 |
| Constant | 1.5903 | 1.5873 | 1.5809 | 1.5878 |
| **logAIDGNI** | **0.0416** | **0.0556** | **0.0492** | **0.0491** |
| t | (0.006) | (5.811) | (3.079) | (3.436) |
| Gr | (5.444) | (4.257) | (10.623) | (0.145) |
| **logCIVLIBS** | **0.0205** | **-0.0074** | **-0.0164** | **-0.0146** |
| t | (0.027) | (0.279) | (0.492) | (0.530) |
| Gr | (2.963) | (1.851) | (0.324) | (2.594) |
| **logPOLRTS** | **-0.0425** | **-0.0036** | **-0.0014** | **-0.0028** |
| t | (0.021) | (0.129) | (0.051) | (0.121) |
| Gr | (2.941) | (1.183) | (0.413) | (0.598) |
| Adjusted $R^2$ | 0.5353 | 0.6412 | 0.5521 | 0.5308 |
| SEE | 0.0978 | 0.0605 | 0.0669 | 0.0636 |

Holding constant the level of international aid, stronger property rights and judicial independence are important determinants that reduce the level of country composite risk. While the Granger null tests do not hold for aid in Central and Latin America, and while the Granger null is not satisfied for property rights in Asia, and for judicial independence in Central and Latin America, all results are statistically significant. This suggests that economic reform, whether sustained through international aid or through domestic measures alone, should place priority emphasis on strengthening property rights and judicial independence, which reduces the level of risk, and thus raises the growth rate of per capita income.

The results for the democracy determinants are much weaker. While the expansion of civil liberties reduces the level of risk in African, Asian, and Central and Latin American countries, the results are not statistically significant nor do they meet the Granger null causality test. As to political rights, while their expansion also reduces country composite risk, the results are not statistically significant, and only for the global sample does the result meet the Granger null test.

Should countries ignore political reform in pursuit of economic growth and development? Clearly the answer is no unless greater democracy reduces the rate of economic rate of growth by some significant level. On the other hand, it is clear that expanding economic freedom through strengthened property rights and judicial independence can lead to significant outcomes on the rate of economic growth.

Strengthening property rights and judicial independence represent important steps in the expansion of economic freedom, which in turn expand the rate of savings and the level of trade dependence[13]. These variables carry more important positive impacts on the rate of growth than efforts to raise the saving rate and trade dependency alone. In terms of risk management tools, it is important not just to emphasize property rights and judicial independence. It also is important to strengthen financial integration. Yet for financial integration to succeed, it also is important to expand ways of managing risk. This can occur not just through deposit, life, and property insurance programs, but also through the extension of risk management products to other stages in the resource allocation process. Shiller (2003) points to an expanding range of contracts through which we can better manage risk. The question is how to translate these innovations into useful products that can be used in the global economy, particularly those developing economies who are engaged in reforms designed to increase their participation in international trade and investment.

**Figure 5**


Figure 5 illustrates the range of areas for which risk management innovation strategies are appropriate. As globalization proceeds, for countries that depend on a focused range of exports, creating and sustaining markets for forward and futures contracts represents an important complement to the ongoing process of promoting foreign direct investment and the promotion of local equity markets.

## V. Conclusion

As the literature on financial economics has shown, while risk can not be eliminated, it can be minimized through diversification, through the creation of risk management contractual instruments, and through prudential management of economic policy. In turn, risk management also implies good governance of the political sphere, which is where concern over democratization comes into play. Democracy per se does not imply a higher or lower level of risk since countries may choose policies that are inconsistent with achieving sustainable rates of growth.

The challenge of globalization involves not just expanding international trade and investment. It also involves risk. Successful globalization will require a reformulation of economic policy to take into greater consideration the role of risk. Until now, most policies for globalization have been established either on purely economic determinants alone, or with some role for institutional reform. The next step is to factor risk more explicitly into the process of economic policy and institutional reform.

# Appendix

## Data Sources

Data used in this analysis have been compiled from several sources. We list below the variable and the source. All variables have been transformed into log values. The time period selected is 1980-2002.

### Table A.1
### Variables, Index Scales, and Sources

| Variable | Definition | Index Scales Low | Index Scales High | Source: |
|---|---|---|---|---|
| logRPCGDP | $U.S. 1995 real per capita GDP at official rates of exchange | * | * | WorldBank,World Development Indicators |
| logCCRISK | Country Composite Risk Index | 1.00 | 100.00 | ICRG, International Country RiskGroup,Syracuse, New York |
| logPOLRTS | Political Rights | 1.00 | 7.00 | Freedom House, the Heritage Foundation, and the Wall Street Journal |
| logCIVLIBS | Civil Liberties | 1.00 | 7.00 | Freedom House, the Heritage Foundation, and the Wall Street Journal |
| logDEMOC | Democracy Index | 1.00 | 49.00 | Product of political rights and civil liberties |
| logECFREE | Economic Freedom Index | 1.00 | 5.00 | Freedom House, the Heritage Foundation, and the Wall Street Journal |
| logTAXBURD | Tax Burden = Ratio of Taxes to GDP | 0.99 | 33.89 | World Bank, World Development Indicators |
| logAIDGNI | International Aid to Gross National Income ratio | -0.47 | 82.52 | World Bank,World Development Indicators |
| logGNSGDP | Gross National Saving Rate | -26.55 | 58.20 | World Bank, World Development Indicators |
| logTRDEP | Trade Dependency Ratio = share of GDP originating in international trade | 1.94 | 354.80 | WorldBank,World Development Indicators |
| logDEBTSRAT | Debt Service Ratio, as a percentage of Gross National Income | 0.01 | 81.27 | World Bank,World Development Indicators |
| logIRSPRD | Interest Rate Spread (LIBOR minus local Lending Rate) | -11.83 | 580.97 | WorldBank,World Development Indicators |
| LogREALINRAT | Real Interest Rate | -98.15 | 789.80 | WorldBank,World Development Indicators |
| logPROPRT | Property Rights Index | 1.00 | 5.00 | Freedom House, the Heritage Foundation, and the Wall Street Journal |
| logJUDIND | Judicial Independence index | 1.00 | 10.00 | ICRG, International Country RiskGroup,Syracuse, New York |

### Table A.2
### Descriptive Statistics

| | RPCGDP | CCRISK | POLRTS | CIVLIBS | DEMOC | ECFREE | TAXBURD |
|---|---|---|---|---|---|---|---|
| Mean | 3070.993 | 40.254 | 3.959 | 3.830 | 3.926 | 1.810 | 14.917 |
| Median | 724.733 | 42.138 | 4.000 | 4.000 | 4.000 | 1.810 | 14.798 |
| Maximum | 43483.320 | 89.500 | 7.000 | 7.000 | 7.000 | 3.250 | 33.891 |
| Minimum | 84.723 | 6.000 | 1.000 | 1.000 | 1.000 | 0.100 | 0.990 |
| Standard Deviation | 6477.576 | 12.131 | 2.031 | 1.642 | 1.801 | 0.581 | 5.506 |
| Skewness | 3.840 | -0.230 | 0.005 | 0.113 | 0.061 | 0.080 | 0.182 |
| Kurtosis | 18.690 | 3.950 | 1.620 | 2.198 | 1.815 | 2.778 | 2.610 |
| Jarque-Bera | 18423.190 | 67.208 | 115.064 | 41.927 | 85.627 | 4.520 | 17.232 |
| Count | 1449 | 1449 | 1449 | 1449 | 1449 | 1449 | 1449 |

| | AIDGNI | GNSGDP | TRDEP | DEBTSRAT | IRSPRD | PROPRT | JUDIND |
|---|---|---|---|---|---|---|---|
| Mean | 6.577 | 16.409 | 25.411 | 5.864 | 15.243 | 2.950 | 4.685 |
| Median | 3.066 | 15.605 | 15.898 | 4.841 | 8.461 | 3.000 | 4.583 |
| Maximum | 82.524 | 58.203 | 354.804 | 81.266 | 580.975 | 5.000 | 9.304 |
| Minimum | -0.475 | -26.550 | 1.940 | 0.008 | -11.829 | 1.000 | 1.150 |
| Standard Deviation | 8.669 | 10.682 | 38.179 | 4.585 | 42.559 | 0.899 | 1.498 |
| Skewness | 2.627 | 0.492 | 5.482 | 4.472 | 7.637 | 0.596 | 0.433 |
| Kurtosis | 14.446 | 4.527 | 37.635 | 58.142 | 69.005 | 3.182 | 3.186 |
| Jarque-Bera | 9577.049 | 199.348 | 79683.550 | 188411.600 | 277118.000 | 87.735 | 47.352 |
| Count | 1449 | 1449 | 1449 | 1449 | 1449 | 1449 | 1449 |

**Table A.3**
**Country Listing by Panel**

| Global | Africa | Asia | C&L America |
|---|---|---|---|
| Africa panel | Benin | Bangladesh | Belize |
| Africa panel | Botswana | China | Costa Rica |
| C&L America panel | Burkina Faso | India | ElSalvador |
| Canada | C.Af.Repub. | Indonesia | Guatemala |
| Mexico | Cameroon | Japan | Honduras |
| United States | Chad | Korea, Rep. | Nicaragua |
| | Congo D.R. | Malaysia | Panama |
| | Congo R. | Pakistan | Argentina |
| | Côte d'Ivoire | Philippines | Bolivia |
| | Ethiopia | Singapore | Brazil |
| | Gabon | Sri Lanka | Chile |
| | Ghana | Thailand | Columbia |
| | Guinea | Vietnam | Ecuador |
| | Kenya | | Paraguay |
| | Madagascar | | Peru |
| | Malaw | | Uruguay |
| | Mali | | Venezuela |
| | Mauritania | | |
| | Mauritius | | |
| | Mozambique | | |
| | Niger | | |
| | Nigeria | | |
| | Senegal | | |
| | South Africa | | |
| | Sudan | | |
| | Tanzania | | |
| | Togo | | |
| | Uganda | | |
| | Zambia | | |
| | Zimbabwe | | |
| n = 63 | n = 30 | n = 13 | n = 17 |

## Notes

[2] International aid, which has declined as globalization has proceeded, has recently been seen as an important instrument for undertaking sustainable political transitions, although its effects are subject to much debate. Much of this debate has arisen in the recent U.S. decision to launch the MillenniumChallenge Account aid initiative.

[2] In the new institutional economics literature, the level of democracy is not easily measured. At one level is the tracking of elections in terms of participation rates, frequency, and other indications of popular participation. Ted Robert Gurr's Policy project has provided an important benchmark in the measurement of political regimes, and has a useful website with country-level estimates:
http://www.cidcm.umd.edu/inscr/polity/index.htm At the heart of the political economics literature is the debate on whether political democracy is exogenous or endogenous to growth. Much of the literature can be traced to Friedman's 1962 essay on *Capitalism and Freedom*, and which was expanded to international economic development with *Free to Choose* (1991). However, Friedman's point has been restated in terms of the distinction between whether economies have policies that support the necessary conditions for democracy and in turn whether those policies are conducive to economic growth

[3] A more explicit definition requires specification of incomplete markets and the theory of contracts (Salanié, 2000).

[4] Some of this interest may have been driven by security concerns following the events of September 11, 2001, but the agenda also seeks to encompass some of the governance issues in a more systematic way than has been done in the past.

[5] Comeau uses Raymond Gastil's Index of Political and Civil Liberties to derive a positive relationship between democratic institutions and economic growth for a sample of 82 countries in four continental regions. Boko uses the Freedom House survey of political and civil liberties (the successor to the Gastil survey) and the Polity98 indicators of democracy noted above to derive a positive relationship between democracy and economic growth for a sample of 20 countries in Africa. The measurement problem here is complicated by what Fareed Zakaria noted in his 1997 essay in *Foreign Affairs*, "The Rise of Illiberal Democracy." Zakaria pointed out that policies designed to promote open and frequent elections misses the important corollary condition of the defense of civil and property rights, whose existence depends in turns on the existence and functioning of an independent judiciary operating under internationally recognized standards of law.

As to population growth, most studies confirm that strong efforts to restrict population growth work less well than efforts to promote education and economic growth, which in turn affect the choice of family size. Whether this justifies deliberate efforts to restrict access to information on family planning is, however, a different matter.

[6] Barro (1998b) cites Milton Friedman's 1962 *Capitalism and Freedom* as a forerunner of many of the ideas that have guided the research on the new institutional economics of growth. However, he seeks to distinguish between the exogeneity and endogeneity of democracy. Barro cites Seymour Martin Lipset's 1959 observation by Aristotle that prosperity inspires democracy, meaning that democracy per se is endogenous to growth. This reinforces the notion in the previous reference that sustaining civil and property rights under an independent judiciary is an important precondition not just to growth but to the emergence of democracy in its fullest potential.

[7] What makes this even more interesting is that the literature on financial economics is replete with measures and models of risk, yet there is little obvious effort to link this literature to traditional and new institutional models of economic growth.

[8] International Country Risk Group index, World Bank, Washington, D.C. We have inverted the ICRG scale of 1-100 so that a higher number indicates higher levels of risk.

[9] This measure is based on the difference between the LIBOR and the local mean central bank lending rate.

[10] Data sources and scales used are listed in the appendix.

[11] Although Granger null causality tests may have a downward bias in a pooled sample, we report them nevertheless to provide some indication of the robustness of the reported t-statistics.

[12] We have not specified other monetary variables such as the inflation and foreign exchange rate, but standard policies include emphasis on reducing the rate of inflation as well as adjusting the foreign exchange rate to internationally competitive levels.

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**References**


Acemoglu, Daron; Simon Johnson and James A. Robinson. 2002. "A Theory of Political Transitions." *American Economic Review* 91:4 (September), 938-963.

Acemoglu, Daron, Simon Johnson and James A. Robinson. 2001. "The Colonial Origins of Comparative Development: An Empirical Investigation." *American Economic Review* 91(5), December, 1369-1401.

Acemoglu, Daron, and James A.Robinson. 2001. "A Theory of Political Transitions." *American Economic Review*, September, 91(4), 938-963.

Acemoglu, Daron andThierry Verdier. 2000. "The Choice Between Market Failures and Corruption." *American Economic Review* 90:1, 194-211.

Aghion, Philippe and Peter Howitt, 1998. *Endogenous Growth Theory*. Cambridge, Mass.: MIT Press.

Allen, Douglas and Dean Leuck, 1999. "The Role of Risk in Contract Choice." *Journal of Law and Economic Organization* 15:3, 704-36.

Alston, Lee, Gary Libecap, and Robert Schneider, 1996. "The Determinants and Impact of Property Rights: Land Titles on the Brazilian Frontier." *Journal of Law, Economics and Organization*, 12:2, 25-61

Athanasoulis, Stefano and Eric van Wincoop. 1997. "Growth Uncertainty and Risksharing." New York: Federal Reserve Bank of New York, Staff Report Number 30, October.

Ayal, E.G. and G. Karras,1998. "Components of Economic Freedom and Growth: An Empirical Study." *Journal of Developing Areas*, 32: 327-338.

Barro, Robert J. 1999. "Determinants of Democracy." *Journal of Political Economy* 107(6): 301-336.

Barro, Robert J. 1998a. *Getting It Right: Markets and Choices in a Free Society*. Cambridge, Mass.: MIT Press, 1998.

Barro, Robert J. 1998b. *Determinants of Economic Growth*. Cambridge, Mass.: MIT Press,

Barro, Robert J. 1996. "Democracy and Growth." *Journal of Economic Growth*. 1:1-27.

Barro, Robert J. 1991. "Economic Growth in a Cross-Section of Countries." *Quarterly Journal of Economics*. 407-43.

Bates, Robert H. 2000. "Ethnicity and Development in Africa: A Reappraisal." *American Economic Review*, May, 90(2), 131-134.

Berthelemy, Jean-Claude, and François Bourguignon, 1996. *Growth and Crisis in Côte d'Ivoire*. Washington, D.C.: The World Bank.

Boko, Sylvain. 2002. "Institutional Reform and Economic Growth in Africa." *Journal of African Finance and Economic Development*. 5(2): 56-76.

Bordignon, Massimo and Enrico Minelli. 2001. "Rules Transparency and Political Accountability." *Journal of Public Economics* 80, 73-98.

Burnside, Craig and David Dollar. 2000. "Aid, Policies, and Growth." *American Economic Review,* September, 90(4), 847-68.

Carlsson, F. and Susanna Lundström. 2002. "Economic Freedom and Growth: Decomposing the Effects." *Public Choice*. 112: 335-344.

Carment, David. 2001. "Assessing Country Risk: Creating an Index of Severity." Carleton College, CIFP Risk Assessment Background Discussion Paper.

Casson, Robert. 1986. *Does Aid Work? Report to an Intergovernmental Task Force*. New York: Oxford University Press.

Collier, Paul, and David Dollar. 2002. "Aid Allocation and Poverty Reduction." *European Economic Review,* September, 45(1), 1-26.

Collier, Paul and Jan Dehn. 2001. "Aid, Shocks, and Growth." Washington, D.C.: The World Bank, Working Paper 2688, October.

Collier, Paul and Anke Hoeffler. 1998. "On the Economic Causes of Civil War." *Oxford Economic Papers*. 50: 563-73.

Comeau, Ludovic, Jr. 2003. "Democracy and Growth: A Relationship Revisited." *Eastern Economic Journal* 29:1 (Winter): 1-21.

Comin, Diego and Bart Hobijn. 2003. "Cross-Country Technology Adaptation: Making the Theories Face the Facts." New York: Federal Reserve Bank of New York Staff Report no. 169, June.

Commander, Simon, Hamid R.Davoodi, and Une J. Lee. 1997. "The Causes and Consequences of Government for Growth and Well-Being." Washington, D.C.: The World Bank, Working Paper 1785.

Coolidge, Jacqueline and Susan Rose-Ackerman, 2000. "High-Level Rent Seeking and Corruption in African Regimes." Washington, D.C.: The World Bank.

De la Croix, David and Philippe Michel. 2002. *A Theory of Economic Growth: Dynamics and Policy in Overlapping Generations*. New York: Oxford University Press.

Demirgüç-Kunt, Ash and Edward J. Kane, 2002. "Deposit Insurance Around the Globe: Where Does it Work?" *Journal of Economic Perspectives* 16:2 (Spring), 175-196.

DeSoto, Hernando. 2000. *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else*. New York: Basic Books.

*Development Assistance Committee Online*. 2002. Paris: Development Assistance Committee, (DAC).

Devarajan,Shantayanan, David R. Dollar, and Torgny Holmgren. 2001. *Aid and Reform in Africa*. Washington, D.C.: The World Bank.

Deverajan,Shantayanan, Andrew Sunil Rajkumar, Vinaya Swaroop. 1999. "What Does Aid to Africa Finance? Washington, D.C.: Development Research Group, The World Bank, Working Paper 2092.

Djankov, Simeon, Stijn Claessens, and Tatiana Nenova. 2000. "Corporate Risk Around the World." Washington, D.C.: The World Bank, Working Paper 2271.

Easterly,William, Ross Levine, and David Roodman. 2003. *"New Data, New Doubts: Revisiting "Aid, Policies, and Growth."* Washington, D.C.: The Center for Global Development.

Easterly, William, 2002, 2001. *The Elusive Quest for Growth*. Cambridge, Mass.: MIT Press.

Easterly, William and Ross Levine. 1997. "Africa's Growth Tragedy: Policies and Ethnic Divisions." *Quarterly Journal of Economics*. 112(4): 1203-50.

Eldabawi, Ibrahim A., and Nicholas Sambanis. 2000. "External Interventions and the Duration of Civil Wars." Washington, D.C.: The World Bank, Working paper 2433.

Ellman, Matthew and Leonard Wantchekon. 2000. "Electoral Competition under the Threat of Political Unrest." *Quarterly Journal of Economics*. 115(2), 499-531.

Fisman, Raymong and Roberta Gatti. 2000. "Decentralization and Corruption: Evidence Across Countries." Washington, D.C.: The World Bank, Working Paper 2290.

Freedom House. 2000. *Annual Survey of Freedom Country Scores, 1972-73 to 1999-00*. Washington, D.C. The Freedom House Publishers.

Freedom House 2000, Annual Survey of Freedom Country Scores, 1972-73 to 1999-00, and 2003.

Friedman, Milton. 1962. *Capitalism and Freedom*. Chicago: The University of Chicago Press.

_______________, and Rose Friedman. 1981. *Free to Choose*. Chicago: The University of Chicago Press.

Gastil, R. and Freedom House. *Freedom of the World: The Annual Survey of Political Rights and Civil Liberties*. New York: Raymond Gastil, 1972-1982, and Freedom House, 1983 to present.

Gurr, Ted Robert, Keith Jaggers and Monty Marshall. 2000. *Political Regime Characteristics and Transitions, 1800-1999*. College, Park: Center for International Development and Conflict Management, University of Maryland.

Gwartney, James, Robert Lawson and Dexter Samida. 2000. *Economic Freedom of the World 2000 Annual Report*. Vancouver, B.C.: The Fraser Institute.

Guillamont, Patrick and Lisa Chauvet., 2001. "Aid and Performance: A Reassessment." *Journal of Development Studies*, August 37(6), 66-92.

Hansen, Henrik and Finn Tarp. 2001. "Aid and Growth Regressions." *Journal of Development Economics*, April, 64(2), 547-70.

Hansen, Henrick and Finn Tarp. 2000. “Aid Effectiveness Disputed.” *Journal of International Development*, April, 12(3), 375-98.

Heckelman, Jac. 2000. “Economic Freedom and Economic Growth: A Short-Run Causal Investigation.” *Journal of Applied Economics*. Vol. 3(1): 71-91.

Heckelman, Jac and Michael D. Stroup. 2000. “Which Economic Freedoms Contribute to Growth.” Kyklos. 53-(4): 527-544.

Herbst, Jeffrey I. 2000. *States and Power in Africa: Comparative Lessons in Authority and Control*. Princeton: Princeton University Press.

Huther, Jeff and Anwar Shah. 2000. “Anti-Corruption Policies and Programs: A Framework for Evaluation.” Washington, D.C.: The World Bank, Working Paper 2501.

Jenkins, J. Craig and Augustine J. Kposowa. 1990. “The Political Origins of African Military Coups: Ethnic Competition, Military Centrality and the Struggle over Post-Colonial State.” *International Studies Quarterly*. 36: 271-292.

Jones, Geraint, Joel S. Hellman, and Mark Schankerman, 2000. “Measuring Governance, Corruption, and State Capture: How Firms and Bureaucrats Shape the Business Environment in Transit.” Washington, D.C.: The World Bank, Working Paper 2312.

Kamin, Steven B. 2002. “Identifying the Role of Moral Hazard in International Financial Markets. Washington, D.C.: Federal Reserve Bank Board of Governors, International Finance Discussion Paper 736, September.

Kaufmann, Daniel, Aart Kraay, and Pablo Zoido-Lobatón. 1999. “Governance Matters.” Washington, D.C.: The World Bank, Working Paper 2196.

Kaufmann, Daniel, Aart Kraay, and Pablo Zoido—Lobatón (2002) “Governance Matters II: Updated Indicators for 2000/01” The World Bank

Knack, R. 2000. “Aid Dependence and the Quality of Governance: A Cross-Country Empirical Analysis.” Washington, D.C.: The World Bank, Working Paper 2396.

Knack, R., and Keefer, P. 1995. “Institutions and Economic Performance: Cross-Country Tests Using Alternative Institutional Measures.” *Economics and Politics*. 7: 207-227.

Kormendi, Roger C. and Philip G. Meguire. 1985. “Macroeconomic Determinants of Growth: Cross Country Evidence.” *Journal of Monetary Economics*. 141-27.

Krueger, Anne. 1974. “The Political Economy of the Rent Seeking Society.” *American Economic Review*, 291-303.

Lensing, Robert and Howard White. 2001. “Are There Negative Returns to Aid?” *Journal of Development Studies,* August, 37^3), 42-65.

Mbaku, John Mukum. 1997. *Institutions and Reform in Africa: The Public Choice Perspective.* Westport, Connecticut, London: Frederick A. Praeger Publishers.

Mbaku, John and Chris Paul. 1989. "Political Instability in Africa: A Rent-Seeking Approach." *Public Choice*. 63: 63-73.

Megginson, William L. and Jeffrey M. Netter, 2001. "From State to Market: A Survey of Empirical Studies on Privatization." *Journal of Economic Literature* XXXIX:2 (June), 321-389.

Mengistae, Taye. 2001. "Indigenous Ethnicity and Entrepreneurial Success in Africa: Some Evidence from Ethiopia." Washington, D.C.: The World Bank, Working Paper 2534.

Mosely, Paul, John Hudson, and Sara Horrell. 2001. "Aid, the Public Sector and the Market in Less Developed Countries." *Economic Journal*, September, 97(387), 616-41.

Moss, David A. 2002. *When All Else Fails: The Role of Government in the Allocation of Risk*. Cambridge, Mass.: Harvard University Press.

Obstfeld, M. 1994. "Risk-Taking, Global Diversification, and Growth." *American Economic Review* 84, 1310-1329.

Persson, Torsten, 2000. *Political Economics: Explaining Economic Policy*. Cambridge, Mass.: MIT Press.

Prasad, Eswar, Kenneth Rogoff, Shang-Jin Wei, and M. Ayhan Kose. 2003. "Effects of Financial Gtlobalization on Developing Countries: Some Empirical Evidence." Washington, D.C.: International Monetary Fund.

Radelet, Steven and Sheila Herring. 2003. *"The Millenium Challenge Account: Soft Power or Collateral Damage?"* Washington, D.C.: The Center for Global Development.

Rauch, James E. and Vitor Trindade. 2003. "Information, International Substitutability, and Globalization. *American Economic Review* 93:3, June, 775-791.

Recanatini, Francesca and Harry G. Broadman. 2000. "Seeds of Corruption: Do Market Institutions Matter?" Washington, D.C.: The World Bank, Working Paper 2368.

Rodrik, Dani. 2000. "Participatory Politics, Social Cooperation, and Economic Stability." *American Economic Review*, May, 90(2), 140-144.

Rodrik, Dani. 1996. "Understanding Economic Policy Reform." *Journal of Economic Literature*. 34: 9-41.

Saint-Paul, Gilles. 2000. "The 'New Political Economy': Recent books by Allen Drazen and Torsten Persson and Guiodo Tabellini." Journal of Economic Literature XXXVIII:4 (December), 112-156.

Shiller, Robert J. 2003. *The New Financial Order: Risk in the 21st Century*. Princeton, N.J.: Princeton University Press.

Soto, Hernando de 2000. *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else*. New York: Perseus Books.

Stiglitz, Joseph, 2002. *Globalization and Its Discontents*. New York: W.W. Norton Publishers.

Temple, Jonathan. 1999. "The New Growth Evidence." *Journal of Economic Literature* XXXVII:1, March, 112-156.

The Freedom House. 2000. *Annual Survey of Freedom Country Scores, 1972-73 to 1999-00*. Washington, D.C.: Freedom House.

U.N.Conference on Trade and Development (UNCTAD). 2001. *Trade Information and Analysis (TRAINS) Database*. Geneva, Switzerland.

White House, 2001. Fact Sheet on the Millenium Challenge Account. Washington, D.C. www.whitehouse.gov

Williamson, Oliver, 2000. "The New Institutional Economics: Taking Stock, Looking Ahead." *Journal of Economic Literature* XXXVIII:3 (September), 595-613.

Williamson, Oliver, 1975. *Markets and Hierarchies: Analysis and Antitrust Implications*. New York: The Free Press.

Wincoop, E. van. 1994. "Welfare Gains from International Risksharing." *Journal of Monetary Economics* 34, 175-200.

World Bank, 2002a. *Globalization, Growth and Poverty: Building an Inclusive World Economy*. Washington, D.C.: The World Bank.

World Bank, 2002b. *A Case for Aid: Building a Consensus for Development Assistance*. Washington, D.C.: The World Bank.

World Bank, 1994. *Adjustment in Africa: Reforms, Results and the Road Ahead*. New York: Oxford University Press.

World Bank, *World Development Indicators 2003*. Washington, D.C.

World Bank, Africa Key Indicators Report.
http://wbln0018.worldbank.org/afr/aftbrief.nsf/Key+Indicators.

Zakaria,Fareed, 2003. *The Future of Freedom*. New York: W.W. Norton Publishers

Zakaria, Fareed.1997. "The Rise of Illiberal Democracy." *Foreign Affairs*, 76:6, November/December, 22-43.