# Regulation and Corruption

Randall G. Holcombe

Florida State University

Christopher J. Boudreaux

Texas A&M International University

**Please cite as:**
Holcombe, R.G. & Boudreaux, C.J. (2015). Regulation and Corruption, *Public Choice 164*(1), pp. 75-85 DOI: 10.1007/s11127-015-0263-x

**Abstract** Higher levels of government expenditures and more regulation naturally invite corruption, because they provide the opportunity for government officials to be paid off for regulatory favors, subsidies, and government contracts. Some countries have relatively large governments but lower levels of corruption. Scandinavian countries offer examples. While institutional differences may explain some of the cross-country differences in corruption, the most consistent relationship is that high levels of regulation are associated with more corruption. When looking at the effect of the size of government, it is the regulatory state, rather than the productive or redistributive state, that is associated with corruption.

# 1 Introduction

Corruption is the misuse of government power for personal gain.[1] Viewed this way, corruption is a by-product of government activity, and the larger is the public sector, the greater is the opportunity for corruption. One rough way of looking at the relationship between government activity and corruption is to use the Fraser Institute's Economic Freedom of the World (EFW) index as a measure of the degree to which economic activity is free of government interference, which when used as the only independent variable and regressed on Transparency International's Corruption Perceptions Index yields a t-statistic of -13.07 and an $R^2$ of 0.54. More economic freedom, as measured by the EFW index, is strongly correlated with less corruption. If corruption is a by-product of government activity, the direct relationship between corruption and government activity should not be surprising. Bigger government offers more opportunities to profit from corrupt behavior. In this context, what might be surprising is the conventional wisdom – which is correct – that the big-government Scandinavian countries have relatively little corruption.

An empirical examination suggests that a possible explanation for the Scandinavian anomaly is that corruption is a feature of the regulatory state more than the productive or redistributive state. Scandinavian governments are big spenders, but those countries are relatively unencumbered by government regulation. This in turn suggests that corruption can be controlled by reducing the regulatory state without cutting government income-transfer programs.

# 2 Factors that May Affect Corruption

[1] The term has a moral connotation to it, but this paper does not consider moral corruption beyond the definition in this sentence. Private sector behavior might also be corrupt if, for example, an employee embezzles funds from his/her employer, but this is fraudulent activity done without the employer's knowledge and, significantly for present purposes, the costs are borne by the private parties involved. Fraud therefore can be viewed as the private sector analog to public sector corruption. The empirical work, in this paper and in the literature more generally, measures corruption with regard to government activities, rather than private sector fraud or moral depravity.

A substantial literature examines factors associated with corruption. Religion is one possible factor. If corruption is viewed as unethical, religious beliefs can limit corruption. La Porta et al. (1999) and Persson and Tabellini (2003) suggest that Catholicism may make people conform more with ethical norms because of its hierarchical nature. Muslims also share that characteristic, in contrast with Protestantism, which is less hierarchical. Those same authors suggest that higher GDP per capita would be associated with lower levels of corruption because more developed economies would have higher-quality governments.

Legal systems might also influence corruption. La Porta et al. (1999) find that common law legal systems are associated with less corruption, although both Treisman (2000) and Serra (2006) find that the relationship is statistically insignificant. La Porta et al. (1999) find that British colonial origins are associated with lower levels of corruption, a result that is supported by Acemoglu, Johnson, and Robinson (2001), Treisman (2000), and Serra (2006). Whether a country has a democratic government is not statistically related to corruption, according to La Porta et al. (1999), Treisman (2000), and Serra (2006), but all three report that for democratic countries, the age of democracy is a statistically significant determinant of corruption, with longer-standing democracies being associated with less corruption.

Federalism appears to result in more corruption than unitary forms of government, according to La Porta et al. (1999). Treisman (2000) suggests this is because of competition between autonomous levels of government for bribes, which leads to overgrazing the commons. If officials monopolize complementary products, they have an incentive to extract more monopoly profit than if a single monopolist controls the whole market. Extending that theory to corruption, the result would be more corruption, which would be less profitable overall to the corrupt individuals. However, if officials compete with each other, the prices they can charge and revenues they earn are driven towards zero, according to Shleifer and Vishny (1993). Fisman and Gatti (1999) in contrast, find less corruption in decentralized political structures.

Serra (2006) reports evidence that corruption increases as political instability increases because instability can enhance incentives for bribery. According to Kauffman et al. (2005), political stability and the absence of domestic violence “reflects perceptions of the likelihood that

the government will be destabilized or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism." Peace and stability should reduce corruption.

An abundance of natural resources can be a curse, which in turn may lead to more corruption because government officials do not have to rely on the productivity of the economy to generate taxable wealth, according to Ades and Di Tella (1999). They also find that countries more open to trade are less corrupt, measuring openness as imports as a share of GDP. Ethnic fractionalization can also lead to corruption because those in political power may be more inclined to use it to take advantage of people in ethnic groups different from their own, according to Mauro (1995) and Alesina (2003).

Political institutions may also play a role. Using the graft index from Kauffman et al. (2005), Persson and Tabellini (2003) find a negative relationship between presidential democracy and corruption, but no relationship with respect to countries that have adopted plurality versus proportional electoral systems. Lederman, Loayza, and Soares (2005) found that presidential democracies are more corrupt than closed-list parliamentary or mixed systems. Similarly, Kunicová and Rose-Ackerman (2005) find that closed list parliamentary systems have less corruption and mixed systems with proportional representation attributes also exhibit less corruption than presidential systems. Rock (2009) finds that the relationship between democracy and corruption takes the shape of an inverted U-shaped curve over time, so countries become more corrupt immediately after democratization but eventually become less corrupt after the democracy gains stability.

This review shows that the public choice literature on corruption has a strong empirical flavor, looking at factors that are correlated with government corruption, but the results are not always consistent from one article to the next. Building on that literature, the following section considers another empirical regularity: that Scandinavian countries appear to have less corruption than would be expected, considering the sizes of their governments.

# 3 The Scandinavian Factor

The introduction suggested that because corruption is a by-product of government intervention in economic activity, bigger government should be more corrupt. One puzzle, then, is why Scandinavian countries, which have reputations for being big government countries, also have reputations for being relatively free of corruption. Table 1 undertakes an empirical analysis to frame that question. Economic data are for 2010, and data sources are reported in the paper's appendix. Corruption is the dependent variable in all seven regressions, as measured by the World Bank's index of corruption (Kaufmann et al. 2005). To examine directly the question of whether Scandinavian countries are less corrupt, where corruption is denoted by *C* and *S* is a dummy variable for Scandinavian countries, regression 1 estimates

$$C = \alpha + \beta S + \varepsilon \qquad (1)$$

to confirm the conventional wisdom that Scandinavian countries are indeed less corrupt than other countries on average, using a dataset of 147 countries.

[Table 1 about here.}

When looking at the relationship between size of government and corruption, this analysis departs from the earlier literature by dividing government into two components: expenditures, denoted *G*, and regulation, *R*. The idea behind this is that while expenditures can be targeted toward particular cronies and can lead to corruption, spending programs are often designed to provide broad benefits. The cost is the taxation that pays for the programs; much spending is targeted to the general public rather than aimed at special interests. While this is not always true, regulation is more likely to lead to corruption because regulations are designed to impose costs on some for the benefit of others.

Regulation, by its nature, is designed to keep people from making choices they would have made in the absence of the regulation. That supplies incentives for people to engage in activities that generate regulatory benefits for themselves, or avoid regulatory costs, following Stigler's (1971) capture theory of regulation, or McChesney's (1987, 1997) model of rent extraction. Regression 2 divides government size into spending and regulation to look at their separate effects, estimating

$$C = \alpha + \beta_1 G + \beta_2 R + \varepsilon. \qquad (2)$$

The negative sign on *G* in regression 2 from Table 1 indicates more government spending is associated with less corruption. The regulatory variable, which is a component of the EFW index, assigns a higher numerical score to countries with less regulation, so the negative sign on *R* indicates that less regulation is associated with less corruption.[2] Dividing government into spending and regulatory components, this regression indicates that it is the regulatory state that is associated with higher levels of corruption. Because Scandinavian countries are big spenders, perhaps the negative relationship between government spending and corruption explains the reason why Scandinavian countries appear to have lower levels of corruption. Regression 3 estimates

$$C = \alpha\ \beta_1 S + \beta_2 G + \beta_3 R + \varepsilon \qquad (3)$$

to show that this is not the case. When accounting for government spending and regulation separately, Scandinavian countries still are less corrupt.

The literature suggests that parliamentary democracies are less corrupt, so adding *P* as a binary variable denoting parliamentary democracies, regression 4,

$$C = \alpha + \beta_1 S + \beta_2 P + \varepsilon \qquad (4)$$

confirms that parliamentary democracies tend to have less corruption. Regression 5 shows that the effect of parliamentary democracies remains when accounting for both measures of government size. Because Scandinavian countries are parliamentary democracies, regression 6 includes both the Scandinavian and parliamentary democracy variables and shows that when the parliamentary democracy variable is added to the first regression, Scandinavian countries are still less corrupt. Regression 7 enters all four explanatory variables, and every coefficient in Table 1 is significant at better than the .01 level. Regression 7 shows that parliamentary democracies tend to be less corrupt than other governments, that higher levels of government spending are associated with less corruption, and that more regulation is associated with more corruption.

---

[2] The regulatory component of the EFW index aggregates 15 individual components into three broad areas: credit market regulations, labor market regulations, and business regulations, so it includes regulations on economic activity but not regulations on social or other activity. Construction of the index is described in Gwartney, Lawson and Hall (2014).

Even taking these factors into account, Scandinavian countries are less corrupt than other countries.

## 4 Factors Associated With Corruption

Table 2 includes a vector of additional variables, *X*, suggested by the literature on corruption to estimate the relationship

$$C = \alpha\ \beta_1 S + \beta_2 G + \beta_3 R\ \beta_4 X + \varepsilon, \qquad (5)$$

with the idea of examining how these two measures of the size of government, and the Scandinavian anomaly, are affected by additional ceteris paribus factors. The literature indicates that long-standing democracies may be less corrupt, so Age of Democracy is entered. Protestant is entered because the literature on religion suggests that Protestantism is less hierarchical than other religions, which may affect corruption. Acemoglu, Johnson, and Robinson (2001) note the importance of British colonial origins to institutional development. Per capita income also is included as a control variable, because of the suggestion that higher-income countries have higher-quality institutions. Population is included because the number of people in a country might affect the level of corruption. Official Development Assistance (% of GDP) – foreign aid – is included with the thought that countries that receive more foreign aid might assign less value to domestic economic efficiency, and thus be more corrupt. Natural resource income as a share of GDP is included because it is possible that the resource curse that makes an economy less reliant on efficient production could increase corruption.

The first three columns of Table 2 use the same dependent variable as Table 1, with the additional independent variables included. In the first regression, the Scandinavia variable is significant at the 0.10 level, but when parliamentary democracy is added in the second regression, it is no longer statistically significant. Age of Democracy is strongly significant, as is per capita income. Protestant religion and British colonial origins variables do not appear to have much effect. The population and foreign aid variables never are statistically significant, while the natural resources variable is significant in the first three regressions, indicating the possibility of a curse that leads to more corruption.

[Table 2 about here.]

The first two regressions also show that the government size variables remain significant and carry the same signs. More government spending is associated with less corruption, but more regulatory intervention is associated with more corruption. The third regression adds integrity of the legal system, as measured by the EFW index's Area 2E. This has two subcomponents: "strength and impartiality of the legal system," and "popular observance of the law." Corruption is a feature of the administrative functions of government, and the legal system variable holds constant cross-country differences in the legal and judicial functions. The variable is significant, and has some effect on the other statistically significant variables. Per capita income and age of democracy remain significant, but including the legal system variable eliminates the statistical significance of the government spending variable. Taking account of legal institutions, higher levels of government spending do not have a statistically significant effect on corruption. It also reduces somewhat both the coefficient and t-statistic of the regulatory variable, although it remains significant at the .05 level. The statistical significance of the two size of government variables in regression 3 are intuitively plausible, in that there is no reason to think more government spending reduces corruption, but there is some reason to think that more government regulation creates more opportunities for bribes and other corrupt behavior to avoid regulatory constraints.

As a robustness check, Transparency International's corruption perceptions index (CPI, www.transparency.org/cpi2014) is substituted for the World Bank's measure of corruption as the dependent variable in regressions 4, 5, and 6. The CPI ranks countries on a scale from 100 (very clean) to 0 (highly corrupt) based on external surveys and assessments from 13 reputable international organizations. The independent variables remain the same. The results are roughly similar, with two notable exceptions. First, government spending is no longer statistically significant in any of the regressions, so when corruption is measured this way, the level of government spending has no effect on the level of corruption. This corresponds with the result in regression 3. The regulation variable remains statistically significant, again indicating that corruption is positively correlated with the size of the regulatory state. The other notable exception

is that the Scandinavian variable is statistically significant in regressions 4 and 5. In regression 6, which includes the full set of independent variables, the Scandinavian indicator no longer is statistically significant.

Looking at all the results in Table 2, only three of the variables are statistically significant in all six specifications – age of democracy, per capita income, and regulation – so the most robust empirical conclusions from the regressions in Table 2 are that countries with long-standing democratic governments tend to have less corruption, countries with higher per capita incomes tend to have less corruption, and countries with more government regulation tend to have more corruption. Scandinavian countries appear to be less corrupt than other countries, looking at regressions 1, 4, and 5, but when parliamentary democracy and integrity of the legal system are entered as independent variables, the Scandinavia variable becomes insignificant. This shows the importance of two institutional factors – parliamentary democracy, and the integrity of the legal system – that explain the apparent anomaly of big-government Scandinavian countries having relatively little corruption. The most striking finding, however, is that it is the size of the regulatory state, rather than size of government measured by government spending, that is associated with corruption. By this measure – the regulatory state – Scandinavian countries are relatively small government countries, which contributes toward their having relatively little corruption.

## 5 Size of Government and Corruption

Plausible arguments can be made that the causal relationships between corruption and income, and corruption and regulation, run in both directions. For example, low levels of corruption might steer people away from rent-seeking and other unproductive activities, to apply the ideas of Tullock (1967), Krueger (1974), and Baumol (1990, 1993), toward productive activity that increases per capita income. One might also conjecture, following Stigler (1971), that more corruption could increase the demand for regulation, because it would be easier for those who are regulated to capture regulators and get them to implement regulation that works in their favor. Thus, a more corrupt political environment could lead to more regulation.

The same policy implications follow regardless of the direction of causation, so from a public policy standpoint there is no need to determine the direction of causation, and doing so would be a challenge in any event. Policies that increase income are desirable regardless of whether they affect the level of corruption and, conversely, policies that reduce corruption are desirable even if they do not increase income. The relationship between the regulatory state and corruption also has clear policy implications regardless of the direction of causation. If regulation causes more corruption, reducing regulation will have the desirable result of reducing corruption. If corruption leads to more regulation, then reducing regulation would be desirable because it would directly reduce a by-product of corruption.

Regulation opens the door to corruption, because without regulation, there are no regulators to bribe. A substantial amount of literature also supports the idea that corruption generates regulation. Stiglitz (2012, p. 59) says, "It's one thing to win a 'fair' game. It's quite another to be able to write the rules of the game—and to write them in ways that enhance one's prospects of winning. And it's even worse if you can choose your own referees." Discussing government regulation in various sectors of the economy, Stiglitz goes on to note, "The problem is that leaders in these sectors use their political influence to get people appointed to the regulatory agencies who are sympathetic to their perspectives." Echoing Stigler (1971), Stockman (2013, p. 169) says that public policies to try to regulate markets "…fail to recognize that the state bears an inherent flaw that dwarfs the imperfections purported to afflict the free market; namely, that policies undertaken in the name of the public good inexorably become captured by special interests and crony capitalists who appropriate resources from society's commons for their own private ends."

Both Stiglitz, writing from the political left, and Stockman, writing from the political right, argue that a corrupt political system leads to more regulation; specifically, regulation to benefit the elite, who are able to design regulation for their benefit. A considerable literature supports this idea coming from both left-leaning and right-leaning writers. On the left, Kolko (1977) argues that Progressive Era regulation in the United States was designed to benefit the economic elite, and more recently, Bartels (2008) and Hacker and Pierson (2010) make arguments along the same lines regarding contemporary politics. On the right, Allison (2013) and Schweizer (2013)

document the way a corrupt government leads to regulations that benefit the elite. There are good theoretical reasons to believe that the empirical relationships between income and corruption, and regulation and corruption, are bicausal, but because the policy implications are the same regardless of the direction of causation, the question of causation has limited policy relevance.

The question of why the Scandinavian countries have low levels of corruption despite having big governments is answered in part here by highlighting the fact that their regulatory states are small. Looking at the EFW rankings in Gwartney, Lawson and Hall (2013), Denmark ranks 9$^{th}$ in regulation, Finland ranks 13$^{th}$, Iceland is 31$^{st}$, Norway ranks 50$^{th}$, and Sweden ranks 14$^{th}$. Looking only at the regulatory state, on average the Scandinavian countries are small government countries. Table 2 does show some institutional variables that set Scandinavian countries apart. Without the inclusion of the parliamentary democracy and integrity of the legal system variables, the Scandinavia variable is significant in those regressions; when they are included, Scandinavian countries appear to be no different from the rest. One would expect that, in general, institutions affect corruption, and this analysis identifies institutional features that have a significant impact.

## 6 Conclusion

The empirical analysis shows that there is a strong relationship between the amount of government regulation in a nation and the level of corruption in that nation. Countries with more regulation are characterized by more corruption. While one might conjecture that bigger government opens the opportunity for more corruption, that appears to be true with regard to the regulatory state, but not with regard to the productive state and redistributive state, as measured by the level of government expenditures. The link between regulation and corruption points to a policy recommendation of controlling corruption by limiting the size and scope of the regulatory state. If regulation causes more corruption, a reduction in the regulatory state can reduce corruption; if corruption leads to more regulation, that would also point toward reducing regulation that is the product of corruption.

Regulation can be limited by constitutional constraints that guarantee people's right to engage in voluntary exchange, without the terms of contracts or exchanges being specified or interfered with by government. The distinction Buchanan (1990) makes between constitutional rules, which can limit the regulatory state, and post-constitutional decisions that allow people to use the political process to enact restrictions for their benefit, is useful here.

When looking at the relationship between corruption and government size, one puzzle is that it appears to be the case that Scandinavian countries, which have large public sectors, also tend to be relatively free of corruption. Controlling for other factors, the regressions presented here explain this Scandinavian anomaly. The Scandinavian countries have large public sectors, measured in expenditures as shares of GDP, but tend to have relatively small regulatory states. The empirical results show that it is the size of the regulatory state, not the level of government spending, that is associated with high levels of corruption.

The policy debate between the desirability of big government and a comprehensive welfare state versus limited government and the merits of free markets is much broader than just how to control corruption, but the results here indicate that the merits or demerits of the welfare state are largely irrelevant to the issue of corruption. These empirical results indicate that more government spending is not correlated with corruption, so there is no indication that a larger welfare state leads to corruption. Rather, it is growth in the regulatory state that leads to corruption, The public choice literature on rent-seeking, regulatory capture, and interest group politics has a ready explanation for this. From a policy perspective, this paper offers an argument that both the proponents and opponents of the welfare state should favor limiting both the size and powers of the regulatory state.

**Acknowledgements** The authors gratefully acknowledge the helpful comments of two referees and the journal's editor.

Appendix Table 1 - Data Sources

| *Variable* | *Source* |
|---|---|
| Scandinavia | Iceland, Denmark, Norway, Finland, Sweden |
| Age of Democracy | PolityIV index (Marshall & Jaggers (2005)) |
| Protestant | CIA World Fact Book, Pew Research Center's Religion & Public Life Project, La Porta et al. (1998) |
| UK Colony | Klerman et al. (2009) |
| Ln PCI | GDP Per Capita, PPP (World Bank) |
| Regulation | Area 5 of EFW index |
| Government Spending (% of GDP) | World Bank |
| Ln Population | World Bank |
| Foreign Aid | Official Development Assistance, World Bank |
| Natural_Resources (% of GDP) | World Bank |
| Parliamentary Democracy | Persson & Tabellini (2003) |
| Integrity of the Legal System | Area 2E of the EFW index (2013) |
| Corruption | Transparency International, World Governance Indicators |

Note - All years 2010.

# References


Acemoglu, D., Johnson, S., & Robinson, J. (2001). The colonial origins of comparative development: An empirical investigation. *American Economic Review*, 91(5), 1369-1401.

Ades, A., & Di Tella, R. (1999). Rents, competition, and corruption. *American Economic Review*, 89(4), 982-993.

Alesina, A., Devleeschauwer, A., Easterly, W., Kurlat, S., & Wacziarg, R. (2003). Fractionalization. *Journal of Economic Growth*, 8(2), 155-194.

Allison, J.A. (2013). *The financial crisis and the free market cure*. New York: McGraw-Hill.

Bartels, L.M. (2008). *Unequal democracy: The political economy of the new gilded age*. New York and Princeton: Russell Sage Foundation; Princeton University Press.

Baumol, W.J. (1990). Entrepreneurship: Productive, unproductive, and destructive. *Journal of Political Economy,* 98(5, Part1): 893-921.

Baumol, W.J. (1993). *Entrepreneurship, management, and the structure of payoffs*. Cambridge, MA: MIT Press.

Buchanan, J.M. (1990) The domain of constitutional economics. *Constitutional Political Economy,* 1(1): 1-18.

Fisman, R., & Gatti, R. (1999). Decentralization and corruption: Cross-country and cross-state evidence. The World Bank, Washington, D.C.

Gwartney, J., Lawson, R., & Hall, J. (2014). *Economic freedom of the world 2014 annual report*. Vancouver, BC: Fraser Institute.

Hacker, J.S., & Pierson, P. (2010). *Winner-take-all politics: How Washington made the rich richer—and turned its back on the middle class*. New York: Simon & Schuster.

Kaufmann, D., Kraay, A. & Zoido-Lobaton, P. (2005). Aggregating governance indicators. Working paper no. 2195, The World Bank, Washington, D.C.

Klerman, D., Mahoney, P., Spamann, H. & Weinstein, M. (2009). Legal origin and economic growth. Unpublished manuscript.

Krueger, A.O. (1974). The political economy of the rent-seeking society. *American Economic Review,* 64: 291-303.

Kunicová, J., & Rose-Ackerman, S. (2005). Electoral rules and constitutional structures as constraints on corruption. *British Journal of Political Science*,35(04), 573-606.

Kolko, G. (1977). *The triumph of conservatism: A reinterpretation of American history, 1900-1916*. New York: The Free Press.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R.W., (1999). The quality of government. *Journal of Law, Economics, and Organization*, 15: 222-279.

Lederman, D., Loayza, N. V., & Soares, R. R. (2005). Accountability and corruption: Political institutions matter. *Economics & Politics*, 17(1), 1-35.

Marshall, M. G., & Jaggers, K. (2005). Polity IV project: Political regime characteristics and transitions, 1800-2002.

Mauro, P. (1995). Corruption and growth. *Quarterly Journal of Economics*,110(3), 681-712.

McChesney, F.S. (1987). Rent extraction and rent creation in the economic theory of regulation. *Journal of Legal Studies,* 16(1): 101-118.

McChesney, F.S. (1997). *Money for nothing: Politicians, rent extraction, and political extortion*. Cambridge: Harvard University Press.

Persson, T., & Tabellini, G. E. (2003). *The economic effects of constitutions*. MIT press.

Person, T., and Tabellini, G.E. (2004). Constitutions and economic policy. *Journal of Economic Perspectives*, 18(1), 75-98.

Rock, M. T. (2009). Corruption and democracy. *Journal of Development Studies*, 45(1), 55-75.

Serra, D. (2006). Empirical determinants of corruption: A sensitivity analysis. *Public Choice*, 126(1-2), 225-256.

Shleifer, A., & Vishny, R.W., (1993). Corruption. *Quarterly Journal of Economics*, 108(3), 599–617.

Stigler, G.J. (1971). The theory of economic regulation. *Bell Journal of Economics and Management Science,* 2(1): 3-21.

Stiglitz, J.E. (2012). *The price of inequality: How today's divided society endangers the future*. New York: W.W. Norton.

Stockman, D.A. (2013). *The great deformation: The corruption of capitalism in America*. New York: Public Affairs Press.

Schweizer, P. (2013). *Extortion. How politicians extract your money, buy votes, and line their own pockets*. Boston: Houghton Mifflin Harcourt.

Treisman, D. (2000). The causes of corruption: a cross-national study. *Journal of Public Economics*, 76(3), 399-457.

Tullock, G. (1967) The welfare cost of tariffs, monopolies, and theft. *Western Economic Journal,* 5: 224-232.

Table 1 - Corruption and Political Institutions

| | Corruption (WB) | | | | | | |
|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| Scandinavia | -2.224*** | | -1.101*** | | | -1.768*** | -0.984*** |
| | (20.38) | | (5.22) | | | (11.23) | (4.96) |
| Gov Spending (% of GDP) | | -0.058*** | -0.046*** | | -0.049*** | | -0.04*** |
| | | (3.92) | (3.16) | | (3.27) | | (2.67) |
| Regulation (Area 5 of EFW) | | -0.657*** | -0.630*** | | -0.585*** | | -0.57*** |
| | | (9.27) | (8.87) | | (8.04) | | (7.87) |
| Parliamentary Democracy | | | | -0.897*** | -0.435*** | -0.753*** | -0.385*** |
| | | | | (5.42) | (2.90) | (4.61) | (2.58) |
| Constant | 0.0622 | 5.405*** | 5.075*** | 0.359*** | 4.943*** | 0.359*** | 4.702*** |
| | (0.77) | (12.56) | (11.59) | (4.24) | (11.04) | (4.23) | (10.49) |
| | 0.148 | 0.533 | 0.567 | 0.179 | 0.564 | 0.268 | 0.591 |
| *Adj.* $R^2$ | 0.148 | 0.533 | 0.568 | 0.18 | 0.565 | 0.268 | 0.591 |
| *N* | 147 | 126 | 126 | 147 | 126 | 147 | 126 |

Note - $|t|$ statistics in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 2 - Corruption and Political Institutions

| | Corruption (WB) | | | Corruption (TI) | | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Scandinavia | -0.443* | -0.431 | -0.249 | -1.331** | -1.236** | -0.736 |
| | (1.70) | (1.57) | (0.90) | (2.47) | (2.15) | (1.18) |
| Age of Democracy | -0.005*** | -0.005*** | -0.005*** | -0.012*** | -0.011*** | -0.011*** |
| | (3.78) | (3.72) | (3.73) | (3.89) | (3.85) | (3.69) |
| Protestant | -0.465 | -0.476 | -0.491 | -0.724 | -0.811 | -0.957 |
| | (1.40) | (1.38) | (1.48) | (1.11) | (1.20) | (1.35) |
| UK Colony | -0.0942 | -0.0947 | -0.057 | -0.260 | -0.264 | -0.172 |
| | (0.90) | (0.90) | (0.59) | (1.19) | (1.20) | (0.82) |
| Ln PCI | -0.289*** | -0.289*** | -0.237*** | -0.691*** | -0.685*** | -0.557*** |
| | (5.11) | (5.05) | (3.64) | (5.94) | (5.91) | (4.14) |
| Regulation | -0.265*** | -0.264*** | -0.147** | -0.524*** | -0.511*** | -0.307** |
| (Area 5 of EFW) | (3.91) | (3.80) | (2.34) | (4.43) | (4.14) | (2.46) |
| Government Spending | -0.02** | -0.02** | -0.006 | -0.029 | -0.027 | -0.003 |
| (% of GDP) | (2.54) | (2.53) | (0.51) | (1.89) | (1.81) | (0.13) |
| Ln Population | 0.049 | 0.049 | 0.056 | 0.076 | 0.075 | 0.086 |
| | (1.32) | (1.31) | (1.57) | (0.95) | (0.94) | (1.16) |
| Foreign Aid (% of GDP) | 0.001 | 0.001 | 0.001 | 0.003 | 0.003 | 0.001 |
| | (1.46) | (1.46) | (0.61) | (1.53) | (1.56) | (0.57) |
| Natural Resources | 0.007** | 0.007** | 0.008* | 0.00 | 0.008 | 0.011 |
| (% of GDP) | (2.20) | (2.08) | (1.89) | (1.31) | (1.07) | (0.99) |
| Parliamentary Democracy | | -0.0211 | 0.016 | | -0.165 | -0.098 |
| | | (0.19) | (0.14) | | (0.74) | (0.41) |
| Integrity of the Legal System | | | -0.14*** | | | -0.297*** |
| | | | (5.15) | | | (5.21) |
| Constant | 4.067*** | 4.058*** | 3.305*** | 5.146** | 5.078** | 3.76* |
| | (4.05) | (4.03) | (3.23) | (2.38) | (2.37) | (1.77) |
| *Adj. $R^2$* | 0.774 | 0.772 | 0.806 | 0.796 | 0.796 | 0.824 |
| *N* | 116 | 116 | 103 | 116 | 116 | 103 |

Note - $|t|$ statistics in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$