

Determinants of Corruption in OPEC and Eurozone Countries: Does Religion Make a
Difference?

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Introduction:

Over the last several decades, technological advances along with the development of free trade have increased the reliance of countries on foreign trade. Investors look abroad for opportunity with far more comfort, yet uncertainty still exists. Uncertainty, or the risk associated with investing abroad, institutionally has a negative effect on investment.

The economic conditions and economic environment in a foreign country can affect the economy of the home country and subsequently the perception of risk associated with that country. A large concern for investors is the existence of corruption and lack of control an investor has on corruption in a foreign country. Yet, there exists a great deal of doubt as to what extent corruption affects a particular country.

For the purpose of our study, corruption is “the misuse of public power for private benefit.” Public power usually refers to institutional means of exploiting position and bureaucratic influence. The relevant institutions and the individuals that comprise those institutions derive private benefit by manipulating those at the mercy of the public power. Corruption negatively affects a country, even if it is only through perception. The perceived existence of corruption often creates political unrest and citizen dissatisfaction.

However, there is no definitive answer on the effects of corruption on economic growth. Most would agree that corruption negatively affects an economy. Corruption on its own does not impede growth; instead corruption leads to the distortion of market signals that interfere with free market principles. This causes a misallocation of resources in the market. Unfortunately, the losses incurred due to this effect of corruption are hard to measure and the literature on the subject fails to pinpoint the adverse effects of corruption on growth. In fact, some studies have even shown that

corruption positively effects growth through the efficiency it creates in otherwise overly bureaucratic societies. (Svensson, 2005).

Corruption does affect the foreign investment in a country and ultimately the prosperity of a country. Again, investors have to account for the perceived corruption within a country and the costs that are connected to the corruption. This is especially true for companies investing in countries with high or volatile levels of corruption because of the greater degree of uncertainty.

Though many studies look at the roots of corruption, it is difficult to determine why corruption is so prevalent in certain situations. The roots of corruption are planted far in history, so human nature certainly plays a large role in the existence of corruption. However, it is unclear why corruption is so much worse in one situation than it is in another. (Lambsdorff, 2007).

Understanding the impact of corruption is important because it helps us decide why and how we need to fight corruption. Equally important is to understand what factors most contribute to corruption. Alternatively, what country characteristics and economic indicators can best predict the extent of corruption in a country? How may indicators vary between different sets of countries? By looking at economic variables and characteristics of certain countries, we may be able to predict corruption in a country.

This paper will examine if GDP growth, inflation, per capita income, media freedom, oil export volume as a percentage of GDP and the percentage of the population that is Muslim are significant indicators of corruption within the OPEC countries (Algeria, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela)

between the years of 2003-2007. The study will also do a comparison to the original twelve Eurozone countries (Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal and Spain). For these countries, the study will look at GDP growth, GDP per capita, media freedom, and the percentage of the population that practices the most popular religion in that country.

Literature Review:

Many studies look at the various aspects of corruption. It is safe to assume that corruption is bad for a country, but it is hard to estimate to what extent corruption affects the economy. Moreover, it is interesting to see what factors most contribute to corruption. What types of governments, or even what economic factors are the best predictors of corruption? While our study focuses on the indicators of corruption in the OPEC countries, other studies have looked at related issues.

Shleifer and Vishny (1993) emphasize the negative results of corruption and the reasons it is so costly for countries. The authors show that the secrecy involved in corruption distort market signals and can steer investment and growth away from more profitable and beneficial industries into industries that are more accessible to corruption. The authors also show that corruption exposes the weaknesses in the central government as independent parts of the government have autonomy and control beyond reason due to their demand of bribes. The government essentially becomes too powerful, with power concentrated in parts of the government that are not particularly deserving of the power.

That power is derived from the institution's ability to demand a bribe rather than any real authority they may have. This will inhibit investment, as companies become detracted from dealing with so many entities that need to be bribed. Additionally, investors are forced to be at the mercy of the power yielding institutions. This creates an environment that is significantly more uncertain and risky than an environment without corruption

Samanta and Breslin (2007) investigate the effect of corruption on foreign direct investment in several African countries. This study differed from several others because it focused on countries that were not developed. Their hypothesis was that corruption has a negative effect on foreign direct investment. Corruption discourages investment through the risk and uncertainty it creates, as mentioned earlier. The study's statistical analysis, however, was not consistent with the theory. The authors suggested that the data limitations were possible causes, but there may be other explanations related to the countries lack of development.

Podobnik, Shauo, Njavro, Ivanov, and Stanley (2008) also try to determine the influence of corruption on economic growth and foreign investment. This study differs from the Samanta and Breslin study because it looks at all the countries in the world. The authors determine that there is a statistically significant relationship between changes in the corruption index and GDP per capita growth rate. Interestingly enough, the study determines that the extent of corruption's effect on GDP per capita growth is greater in European countries than it is for the world as a whole. They also determine that there is a significant relationship between foreign direct investment per capita and corruption as well. This is a possible explanation for the discrepancy between the theory Samanta and Breslin propose and the actual statistical data. In the same way all the countries in the

world are more affected by corruption than just the European countries, than perhaps the lack of development in Africa creates a situation where corruption becomes almost insignificant.

While the development of a country wasn't explored, the relationship between corruption and openness was examined in a study (Neeman, Paserman, and Simhon, 2004). They conclude that in an open economy corruption has a negative correlation with GNI per capita, while in a closed economy there is no relationship. So, the prosperity of the people is only relevant in terms of corruption when a country is open. This makes sense because the wealth is only a useful tool against corruption when there exists an open economy that allows for the wealth to be used against corruption. The study also concludes that the magnitude of corruption's effect on output is significantly influenced by the openness of the country. Corruption, therefore, has a greater impact in countries that have economies that are less open. It could be that there is a relationship between the openness, development, and corruption in a country that shows that less developed and less open countries are not as impacted by countries as more developed and open countries are.

The determinants of corruption in developing countries were also examined in a study (Khan 2006). Khan proposes that the determinants of corruption in a developed country are different than the determinants of corruption in developed country. Khan's study was also significant for his emphasis on determining the cause of corruption as a means to fighting corruption. He argues that by isolating the reasons as to why certain countries are more corrupt than others, policy can be modified to fight against those roots. This is especially important in developing countries as they try to overcome the

obstacles involved in maturing to a successful, prosperous nation. While Khan's study is more a political analysis rather than an economical one, it is still valuable for the differentiation he establishes between the more and less prosperous nations.

Another study examined the link between corruption and the extent of competition in a country (Montinola and Jackman, 2002). Interestingly, this study concludes that countries with moderately democratic institutions have *higher* levels of corruption than countries that are less democratic. However, once these moderately democratic societies pass a certain point they become significantly *less* corrupt than authoritarian countries. Thus, the relationship between democracy and corruption is not linear but higher levels of democracy are associated with lower corruption. Although the study is inconclusive in its analysis of government size in relation to corruption, it does show that OPEC membership significantly increases the level of corruption in a country. The authors decide that government control of "a dominant sector of an economy" increases the amount of corruption in a country.

This is similar to the conclusion of the Andres and Ramlogan-Dobson (2008) study in regards to the privatization of industry in a country. Andres and Ramlogan-Dobson looked at corruption and its effect on income equality. Their investigation examined income inequality in Latin America and its relationship to corruption. Oddly, this study concludes that income inequality increases when corruption is reduced. The authors propose that a decrease in corruption leads to the privatization of industries. This leads to income inequality as the government is unable to control the spread of wealth. In other words, a society that is more open is less prone to corruption, but is more prone to an unequal spread of wealth.

Countries with a larger private sector are more open, and are therefore less likely to be corrupt. The OPEC countries are dominated by the oil industry that is part of the public sector. This is closely related to the Neeman, Paserman, and Simhon study that studied the relationship between corruption and openness. The studies seem to be consistent with one another. An open government is less likely to be corrupt, but the effects of corruption are far more pronounced than in a closed government.

The effect of OPEC membership on corruption makes it interesting to look at the levels of corruption among those same countries. OPEC countries tend to be less open and democratic. The degree of development within these countries varies. What are the determinants of corruption in those particular countries?

While not looking at just the OPEC countries, some studies tried to find a relationship between corruption and cultural and societal characteristics rather than economics data (Mocan, 2008; Sanyal and Samanta, 2002). The Mocan study concluded that personality and country traits affect the amount of corruption in a country. For instance, stronger institutions in a country decrease the amount of corruption and so do education levels. This raises the question of how income levels affects corruption in a country. Are more prosperous countries less likely to have corruption? What kind of role does religion play in terms of corruption?

The Sanyal and Samanta study shows that both economic and social characteristics are significant determinants of corruption in a country. The results are consistent in these studies to the extent that they both suggest that corruption is a product of social and institutional facets of a country. The study specifically looks at culture through the dimensions developed by Hofstede (power distance, individualism and

collectivism, masculinity and femininity, and uncertainty avoidance). The economic factors they discuss are per capita income, foreign trade and income distribution.

Our study focuses on a specific, closely related group of countries to try to isolate some variables that are significant determinants of corruption. The OPEC countries are unique because oil is a large part of the economy for all the countries. Additionally, the dominance of oil creates a situation in which the public sector has a great deal of control over the economy. While studies have shown that OPEC membership is a determinant of corruption, this study will try to determine why corruption varies between those countries. The unique nature of the OPEC countries suggests that a different set of variables are significant in the determination of the levels of corruption. GDP per capita and the extent of oil's dominance of the economy may be more important than GDP growth rates. Additionally, media freedom may also play a significant role in determining the corruption as several of the countries have authoritarian governments.

This study also adds to the literature by looking at the percentage of Muslims in the country. A high percentage of Muslims tends to indicate a theocratic society and therefore would usually indicate that the government has more control over the markets. Theoretically, it seems a higher percentage of Muslims in these countries would lead to more corruption.

The data from the OPEC countries is then compared to similar data from the original Eurozone countries. The Eurozone countries tend to be more economically diverse, which spreads the power around within the country. The study looks to see if this affects the determinants of corruption compared to that of the OPEC countries. For

these countries, petroleum as a percentage of GDP is excluded, and the religion variable is modified.

The independent variables are a mix of economic (GDP growth, GDP per capita, the value of petroleum exports divided by the GDP, and inflation), social (religion), and institutional data (press freedom). The study will try to determine some possible explanations for varying levels of corruption within our particular set of countries.

Model and Data Sources:

Our model will first examine the predictors of corruption in the twelve OPEC countries (Algeria, Angola, Ecuador, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela). While the data is complete for the most part, there is missing data for Ecuador and Angola. Both of these countries joined OPEC in 2007 so the data for value of petroleum exports divided by the GDP was not computed due to insufficient information. Additionally, the limitations on data for the corruption perceptions index for these countries forced us to limit the analysis to the years 2003-2007. Similar data was obtained for their original Eurozone countries (Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal and Spain)

The dependent variable for both sets of countries will be corruption, with the Corruption Perceptions Index (CPI) used as the measure of corruption. The Transparency International Organization determines the Corruption Perceptions Index through “expert assessments and opinion surveys.” The CPI is supposed to be an

accurate indicator of the extent of corruption in a country. Many studies employ the CPI as the standard index of corruption, and it is considered a reliable indicator.

The independent variables for the OPEC countries in the study are **GDP growth, gross domestic product per capita (PPP), inflation, value of petroleum exports divided by GDP, percentage of population that is Muslim, and press freedom.**

For the Euro countries, the petroleum variable is excluded and rather than looking at the percentage of the population that is Muslim, the study looks at the percentage of the population that is of the most popular faith within that country. In other words, it becomes a proxy for religious diversity.

GDP growth statistics were obtained through the World Bank's statistical database. GDP growth is relevant because it could theoretically have a positive or negative effect on corruption. Many developing countries tend to grow at very high rates while they are in the first stages of development. These countries are also prone to corruption as the structure of the government and other institution are not sophisticated and are prone to manipulation. The counter argument would say that countries with higher growth rates are more developed and stable. The stably high growth rates discourage corruption as the institutions are protected by the prosperity of the population. It will be interesting to see how GDP growth rates effects these particular countries because as their growth is often highly dependent on oil prices. The study will attempt to determine if spikes in GDP are significant determinants of corruption.

The rationale behind gross domestic product per capita as an independent variable is similar to that of GDP growth. When the citizens of the country are richer, the people are less accepting of corruption. The wealth of the citizenry serves as a tool against

corruption and manipulation. Also, countries with high GDP per capita tend to have I have a higher standard of living. This would promote a society corruption would be less beneficial as the people are well off anyway. The GDP per capita numbers came from the International Monetary Fund's World Economic Outlook 2008.

Inflation was calculated as the percentage increase in the GDP deflator from one year to another. Again, the inflation numbers came from the World Bank. Inflation numbers are relevant because high inflation creates less purchasing power and makes the people feel poorer. The perceived, or real, decrease in wealth can create incentive for corruption.

Several of the OPEC countries are predominantly Muslim, so it was interesting to take a look at the impact of Islam on the degree of corruption in a country. The variable was originally going to be a binary variable comparing the predominantly Muslim countries (Algeria, Iran, Kuwait, Libya, Saudi Arabia, and the United Arab Emirates) to the countries with no relevant Muslim population (Ecuador and Venezuela). However, the inclusion of Nigeria (50% Muslim), Qatar (78% Muslim), and even to a certain extent Kuwait (85% Muslim) made it valuable to have the variable numeric as the percentage of the population that was Muslim. Most of the predominantly Muslim countries leaned towards theocratic styles of government. Authoritarianism is associated with a closed economy and studies have shown that closed economies tended to have more corruption. As such, I'd expect a higher Muslim population to indicate more corruption. The religion data was obtained from the CIA World Factbook 2008, and the percentage was held constant throughout the relevant time-period. This is because none of the countries experienced any drastic religious demographic changes over the relevant seven years.

For the Eurozone countries, the study looks at religion data from the same source, but rather than looking at the Muslim population, the study looks at the percentage of the population that ascribes to the most popular religion. Different denominations of Christianity were looked at as separate religions, as most of the countries had one particular denomination of Christianity that dominated. The Netherlands served as an interesting anomaly, as 42% of the population affiliated themselves with no religion. Roman Catholicism was the most popular religion a following of 31% of the population. This study uses the 31% as the percentage, because of the rationale of adding a variable such as this for religion. It would seem that a country with a large majority of the population following one religion would have more corruption. This is because a lack of religious diversity creates a more homogeneous and often tight-knit community. Close ties within a community can lead to corruption as citizens attempt to help each other and look out for one another. The same logic would apply to the OPEC data with the Muslim percentage.

The study also includes an independent variable for media freedom. Media freedom is measured by “Reporters Without Borders” and is an index designed to measure the amount of freedom the press has in a country. The index “reflects the degree of freedom that journalists and news organisations enjoy in each country, and the efforts made by the authorities to respect and ensure respect for this freedom.” It is calculated through a detailed questionnaire completed by various correspondents and partnering organizations throughout the world. A high degree of press freedom would likely decrease the degree of corruption in a country. A free press is more likely to expose corruption and thus make it more difficult for the culprits to get away with their offenses.

Finally, the study uses a calculation to determine the percentage of the GDP that comes from petroleum exports. Using data from OPEC, the study divided the value of petroleum exports for each country and divided that by that particular country's GDP at market price for that year. That gave us a determination of petroleum dominance of the economy. Previous studies would probably suggest that a higher degree of dominance would lead to more corruption. This is because the country's political and economical power is concentrated in one particular sector of the economy. The imbalance would lead to an abuse of power within that sector.

A regression was run on data on ten of the twelve OPEC countries (Algeria, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela) over the last six years (2002-2007). Angola and Ecuador were excluded because they only joined OPEC recently, and insufficient data was available for these countries. Data was also tabulated for the twelve original Eurozone countries (Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal and Spain).

First, a simple regression was run including all the variables (GDP per capita, GDP growth, religion, inflation, media freedom, and petroleum exports as a percentage of GDP) for the OPEC countries. The results showed that GDP per capita and religion were significant indicators of corruption. GDP per capita was significant at 5%, while religion was significant at the 10% level. However, this data was flawed as the computations did not account for panel data or heteroskedasticity within the data.

Then, a simple regression was run including all the variables (GDP per capita, GDP growth, inflation, and media freedom) for the Eurozone countries. The regression showed that all the variables except inflation were significant at the 5% level. Unlike the

OPEC countries GDP growth and media freedom were both significant. Again, the results were not conclusive because of heteroskedasticity and lack of panel estimation.

A panel estimation was attempted, but because of the limitations of data, a panel estimation could not be run. So, the data was split up by years. The study, therefore, looked at the particular variables individually for every year. This was done for the OPEC countries and the Eurozone countries. The limited data forced the study to be selective with variables, as they needed to be enough degrees of freedom to have accurate results.

After running a variety of regressions, the study settled on GDP per capita, the Muslim percentage, media freedom, and petroleum as a percentage of GDP as the independent variables in the OPEC analysis. For the Euro countries, GDP per capita, the majority religion percentage, and media freedom were the independent variables. A simple regression was run for each year for both sets of countries with an appropriate correction for heteroskedasticity.

Conclusion:

The data for both sets of countries showed that GDP per capita was always significant in predicting a country's corruption. In fact, for most of the years GDP per capita was significant at the .01 significance level. This came as no surprise as you would expect that a more prosperous country would have less corruption. The associated wealth usually leads to higher expectations of government and bureaucratic officials. As such, the richer the people the less likely they are to put up with corruption and the more likely they are to have the means to fight corruption.

Media freedom was not significant for any of the years within the OPEC countries. However, it was significant at the .15 significance level for all but one year within the Euro countries. Our hypothesis that media freedom is a check against corruption seems to only apply to the Euro countries. A possible explanation for this is the extent of media freedom within the sets of countries. The Euro countries have a much greater degree of media freedom. In other words, the Euro countries, for the most part, have a free press relative to the OPEC countries. So, a greater degree of media freedom allows the press within the Euro countries to be more active and to essentially make corruption more difficult. The OPEC countries, on the other hand, have a relatively repressed press. So, slightly more press freedom would still not pass a hypothetical threshold where the press would be influential in preventing corruption. It seems that for the media to be effective in the fight against corruption it must have at least a certain degree of freedom. Below that point, the variations in the freedom become unimportant.

Next, the study looked at petroleum as a percentage of GDP. This was relevant because of the role petroleum played in all the economies of the OPEC countries. However, our analysis shows that this does not have an effect on the extent of corruption within the OPEC countries. As mentioned earlier, other studies have shown that OPEC membership is an indicator of corruption (Montinola and Jackman, 2002). So, it seems that being in OPEC is enough to indicate corruption. A more oil dominated economy does not lead to more corruption.

Finally, the study examines the effects of religion on corruption. Religion was never a significant indicator of corruption for the Euro countries. However, it was significant for the OPEC countries for the last three years (2005, 2006, and 2007) at the

.15 significance level. For 2007, religion was significant at the .05 significance level. It is difficult to comment on the trends towards more significance over the last few years, but newer data may be able to shed light on the possible relationship between the Muslim percentage in an OPEC country and corruption. It is also unclear why lack of religious diversity doesn't play a role in Euro countries, yet it was significant for at least three of the years for the OPEC countries. It would be easy to suggest that this arises from the nature of Islam, however, it seems more likely that it stems from the theocratic governments of the OPEC countries. No religion is as significant in government within the Euro countries as Islam is within a subset of the OPEC countries.

This study could be improved by eventually looking at more data points. This would make it possible to run panel estimation and look at the data over a set of years collectively, rather than each year individually. More data points would also allow for a greater deal of freedom with the independent variables. It would also be interesting to add some sort of variable that measured the degree of freedom women had in society (perhaps women in government). This closely relates to the cultural effects of religion, but a more powerful female population would seem to suggest a less corrupt society because of the diversity and freedom that is associated with a society that is supportive of women's rights.

The inconclusive data on the effects of religion also warrants further investigation. It is unclear what kind of role the actual religion plays in corruption as

opposed to the influence of any religion on government or the cultural characteristics of the religion.

Still, it is important to consider religion's role in corruption and the reasons for these effects. Perhaps understanding the role of religion can lead to deeper and more underlying causes of corruption that can be countered through social reforms. Though social reform is difficult, especially when dealing with countries like those in OPEC, the costs of corruption could possibly lead to reform designed to battle corruption.

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Table 1

Model: OPEC 2007
 Dependent Variable: Corruption Index

	F Value	Pr > F
Model	1713.74	<.0001

R-Square 0.9995
 Adj R-Sq 0.9990

Parameter Estimates

Variable	Estimate	t Value	Pr > t
GDP Per Capita (PPP)	0.00005330	6.52	0.0029
Muslim %	-0.01238	-3.04	0.0386
Media Freedom	-0.00827	-1.46	0.2179
Petroleum as Percentage of GDP	-0.01099	-1.86	0.1370

Table 2
 Model: OPEC 2006
 Dependent Variable: Corruption Index

	F Value	Pr > F
Model	1526.16	<.0001

R-Square 0.9995
 Adj R-Sq 0.9988

Parameter Estimates

Variable	Estimate	t Value	Pr > t
GDP Per Capita (PPP)	0.00005274	4.66	0.0096
Muslim %	-0.00936	-1.79	0.1475
Media Freedom	-0.00725	-1.02	0.3657
Petroleum as Percentage of GDP	-0.00838	-0.97	0.3888

Table 3
 Model: OPEC 2005
 Dependent Variable: Corruption Index

	F Value	Pr > F
Model	10621.8	<.0001

R-Square	0.9999
Adj R-Sq	0.9998

Parameter Estimates

Variable	Estimate	t Value	Pr > t
GDP Per Capita (PPP)	0.00006631	5.53	0.0052
Muslim %	-0.00475	-1.92	0.1273
Media Freedom	-0.00157	-0.40	0.7110
Petroleum as Percentage of GDP	-0.01282	-8.64	0.0010

Table 4
 Model: OPEC 2004
 Dependent Variable: Corruption Index

	F Value	Pr > F
Model	3494.78	<.0001

R-Square 0.9998
 Adj R-Sq 0.9995

Parameter Estimates

Variable	Estimate	t Value	Pr > t
GDP Per Capita (PPP)	0.00008581	3.79	0.0193
Muslim %	-0.01370	-0.79	0.4746
Media Freedom	0.01572	1.09	0.3379
Petroleum as Percentage of GDP	-0.01699	-1.20	0.2953

Table 5
 Model: OPEC 2003
 Dependent Variable: Corruption Index

	F Value	Pr > F
Model	7325.44	<.0001

R-Square 0.9999
 Adj R-Sq 0.9998

Parameter Estimates

Variable	Estimate	t Value	Pr > t
GDP Per Capita (PPP)	0.00013294	6.12	0.0088
Muslim %	-0.00372	-0.22	0.8395
Media Freedom	0.00846	0.92	0.4272
Petroleum as Percentage of GDP	-0.01715	-1.36	0.2658

Table 6
 Model: Euro 2007
 Dependent Variable: Corruption Index

	F Value	Pr > F
Model	471.75	<.0001

R-Square 0.9963
 Adj R-Sq 0.9942

Parameter Estimates

Variable	Estimate	t Value	Pr > t
GDP Per Capita (PPP)	0.00004499	3.72	0.0075
Dominant Religion %	-1.49344	-1.57	0.1607
Media Freedom	-0.15859	-1.93	0.0946

Table 7
 Model: Euro 2006
 Dependent Variable: Corruption Index

	F Value	Pr > F
Model	886.14	<.0001

R-Square	0.9980
Adj R-Sq	0.9969

Parameter Estimates

Variable	Estimate	t Value	Pr > t
GDP Per Capita (PPP)	0.00005324	3.58	0.0090
Dominant Religion %	-1.93949	-1.33	0.2255
Media Freedom	-0.16911	-1.68	0.1360

Table 8
 Model: Euro 2005
 Dependent Variable: Corruption Index

	F Value	Pr > F
Model	10523.1	<.0001

R-Square 0.9998
 Adj R-Sq 0.9997

Parameter Estimates

Variable	Estimate	t Value	Pr > t
GDP Per Capita (PPP)	0.00006390	4.01	0.0051
Dominant Religion %	-2.09166	-1.54	0.1685
Media Freedom	-0.20257	-1.76	0.1223

Table 9
 Model: Euro 2004
 Dependent Variable: Corruption Index

	F Value	Pr > F
Model	163.43	<.0001

R-Square 0.9894
 Adj R-Sq 0.9834

Parameter Estimates

Variable	Estimate	t Value	Pr > t
GDP Per Capita (PPP)	0.00007527	2.21	0.0629
Dominant Religion %	-1.82540	-1.13	0.2975
Media Freedom	-0.20894	-1.22	0.2607

Table 10
Model: Euro 2003
Dependent Variable: Corruption Index

	F Value	Pr > F
Model	935.21	<.0001

R-Square 0.9981
Adj R-Sq 0.9971

Parameter Estimates

Variable	Estimate	t Value	Pr > t
GDP Per Capita (PPP)	0.00009936	6.72	0.0003
Dominant Religion %	0.62765	0.61	0.5581
Media Freedom	-0.30998	3.61	0.0086