

**PARLIAMENTARISM, FREEDOM FROM CORRUPTION,  
FOREIGN DIRECT INVESTMENT, AND PER CAPITA  
PURCHASING POWER PARITY: THE CAUSAL NEXUS\***

by

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***Abstract.** One hundred ninety six (196) countries were investigated. Data for the year 2012 were used in this study. Stepwise ordinary least squares (OLS) multiple regression analysis was sequentially used to test the causal hypotheses. The findings are: first, per capita purchasing power parity (treated with natural logarithmic transformation) appears to be a direct function of the three conceptualized primary independent variables which are parliamentarism, freedom from corruption (FC), and foreign direct investment (FDI); second, foreign direct investment appears to be a direct function of just one independent variable, that is, freedom from corruption (parliamentarism not directly significant); and third, freedom from corruption appears to be a direct function of parliamentarism. Likewise, it appears that the parliamentary form of government is a superior structure in terms of curbing corruption and increasing the per capita purchasing power parity of the people.*

This study examines the hypothesized causal nexus involving the parliamentary system of government, freedom from corruption, foreign direct investment (FDI), and per capita purchasing power parity (the dependent variable). It is theorized that the parliamentary system of government brings about greater freedom from corruption; and which in turn, directly and/or indirectly brings about greater per capita purchasing power parity (per capita PPP)—isolating the extraneous effects of a set of control variables.

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## RELATED LITERATURE AND STUDIES

### **The Parliamentary System and Freedom from Corruption**

The romantic notion is that public office is a public trust, but the unfortunate hard reality is that public office is a potential locus of betrayal thereof, a potential breeding ground and situs of corruption. Corruption exists in all human organizations, throughout history and in all countries; but some organizations, some countries are more corrupt than others. There is the almost self-evident proposition that the ease of a public officer's removal from office is directly proportional to the propensity of him engaging in acts of corruption. Equivalently, the more difficult it is for him to be held accountable for his acts in office would mean the greater likelihood, *ceteris paribus*, for him to act improperly, illegally, and corruptly. And this is particularly true of those whose term of office is protected by the constitution, particularly the impeachable officers. Apparently what operates in the mind of an ill-motivated impeachable officer, knowing that it is improbable for him to be removed, given the design of the existing impeachment mechanism, is, to use a metaphor, to make hay while the sun shines, that is, while he is in office. Further, such an officer could be emboldened to do so by a constitutional provision that gives him immunity from criminal suit while serving his fixed term of office.

Early on it was theorized that parliamentary democracy would have a positive impact on easing the problem of corruption because of the relatively greater ease of removing leaders of the executive branch than that which obtains in a presidential democracy, as evidenced by the great difficulty (small probability) of removing an errant president or Supreme Court justice or any other impeachable officer via the present impeachment mechanism. The finding, among others, is that parliamentary systems are associated with lower incidence of corruption. Equivalently the conclusion is that "within democracies, presidential systems—as opposed to parliamentary systems—raise the probability of high levels of corruption" (Kaufmann, Kraay, and Zoido-Lobaton (1999)).

This supports the expectation that political structures play a significant role in the quest to minimize the incidence of corruption in government. That political institutions matter in the occurrence or even prevalence of corruption is also a finding that has been previously shown in the World Bank cross-country panel study of Lederman, Loayza and Soares (November 2001). The results of their study show that political institutions are extremely

important in determining the prevalence of corruption, with the conclusion that “democracy, parliamentary systems, political stability, and freedom of the press are all associated with lower corruption.”

The effect of parliamentarism, alongside with that of territorial sovereignty (unitary or federal), is likewise shown in the study of Gerring and Thacker (2004) who “find that unitary and parliamentary forms of government help reduce levels of corruption.”

Examining the effects of electoral rules and presidentialism, as well as their interaction, on the incidence of corruption, Jana Kunicova and Susan Rose-Ackerman (2005), using 94 democracies, find that “the systems most prone to corruption are presidential systems with closed-list proportional representation,” and which, according to them are “associated with higher levels of corrupt political rent-seeking.”

In the political realm of elections, Abdukadirov (2007), writing about corruption in the conduct of elections in the transition personalistic regimes of Central Asia, concludes that:

*“Under the presidential system in Central Asian states, the elite factions agree upon a presidential candidate before the elections and then ensure their candidate’s victory by manipulating the elections. As the cost of exclusion in this process is very high, every elite faction is forced to collude with the other factions. Under a parliamentary system, bargaining among the elites in selection of the head of state would occur after the elections as the elites would have to first secure parliamentary seats to be able to vote for the head of state. Such process would reduce the stakes in each particular election, making it harder for the elites to manipulate elections yet safer to allow some opposition. Furthermore, the balance of power among the elites in parliament would be decided by the people, giving them a voice in the process.”*

Moreover, according to Abdukadirov, the difficulty and therefore the cost of such a manipulation is higher under a parliamentary system. Under a presidential system, the dominant factions have to manipulate the outcome of only one election, that of the president. However, in a parliamentary system, there are dozens or even hundreds of elections of members of parliament that need to be manipulated by the dominant central elites. Further, given the lower stakes in each district election, the dominant central elites are more likely to

compromise—but only after the people have already expressed their will and voice in the electoral process, that is, in the parliamentary elections.

Furthermore, and very recently, Alicias (2012), analyzing 2005 World Bank governance data on control of corruption and using 192 countries, among others, finds that three parliamentary forms, namely: the commonwealth parliamentary, constitutional monarchy, and parliamentary republic show significantly better control of corruption as compared to the full presidential system. However, he finds that proportional representation (PR) electoral system appears to have a better control of corruption than the first-pass-the-post (FPTP) plurality system of election—different from the aforementioned finding of Kunicova and Rose-Ackerman that the closed-list PR system appears more hospitable to corruption.

### **The Parliamentary System and Purchasing Power (Per Capita PPP)**

Political institutions, e.g., forms of government, play an important role in economic growth; and in practical terms, upon the people's purchasing power—which may be validly measured by per capita purchasing power parity (per capita PPP). An expectation of this sort may be inferred from the aforementioned studies showing the positive connection between the parliamentary system of government and freedom from corruption, and which freedom is further expected to be either a concomitant or even causal antecedent of national income level. (This will be treated more extensively in the next section.)

There is the conventional belief that increased investment in physical and/or human capital brings about economic progress, as may be measured by a country's gross domestic product, either in nominal terms or purchasing power parity (PPP). One study that is supportive of this belief is that of Glaeser, et. al. (2004) that shows that: first, human capital is a more basic source of growth than are institutions, second, poor countries get out of poverty through policies often pursued by dictators, and third, subsequently their political institutions improve. Until recently this has been the observed empirical pattern involving many countries—with the exception of a few countries, particularly the Philippines where there has been a negative correlation between educational (human capital) development and economic development.

Why is this so?

Capital accumulation and/or investment may not be all that matters in economic growth (development). What seems also important is the optimal allocation and implementation thereof. And, quite obviously, this is the province of the political institutions. The nature and form, the structure of political institutions do play a very important role in resource management and program or project implementation; and therefore in creating a propitious environment for economic growth and prosperity.

Quite clearly the economic prosperity of countries is dependent on the effectiveness, efficiency, and efficacy of economic institutions. But the nature and form of these economic institutions proceed from the decisions and choices of political institutions and political actors. In short, as Acemoglu and Robinson (2007) assert, “the economic institutions of a society depend on the nature of political institutions and the distribution of political power in society.”

Indeed, it is not just capital accumulation and its deployment anywhere here or there that matters. Not surprisingly, in this connection, there is recent evidence to show that “increases in capital do not always lead to increases in output.” In this respect, the West Virginia University economists Hall, Sobel, and Crowley (2010) report the summary of their findings, thus:

*“...increases in physical and human capital lead to output growth only in countries with good institutions. In countries with bad institutions, increases in capital lead to negative growth rates because additions to the capital stock tend to be employed in rent-seeking and other socially unproductive activities.”*

The quality of institutions—in particular, at the fundamental level, the quality of political constitutions—plays a significant role in nation-building, particularly in terms of economic growth. Echoing the position of Easterly (2001b), the trio of Easterly, Ritzan, and Woolcock (2006) later on asserted, thus:

*“...politicians can choose to build good institutions [like good constitutions], unify fractionalized peoples, and defeat the average tendency to divide and rule. In fact where institutions are sufficiently well developed [say, optimally designed], there is no adverse effect of ethnolinguistic diversity on growth. The corollary is that good institutions are most necessary and beneficial where there are ethnolinguistic divisions.”*

However, the positive effects of subconstitutional institutions (e.g., anti-corruption agencies, ethics offices, and ombudsmen) appear moderated or even turn out to be the opposite of what is intended (productive instead of more corruption), depending upon the intensity of corruption that obtains in a particular country. Huther and Shah (2000) earlier on made this conclusion, thus:

*“In a largely corruption-free environment, anti-corruption agencies, ethics offices, and ombudsmen strengthen the standards of accountability. In countries with endemic corruption, however, the same institutions function in form but not in substance; under a best-case scenario such institutions might be helpful, but the more likely outcome is that they help to preserve social injustice.”*

In short, in corruption-infested countries, such anti-corruption agencies get entangled and co-opted into the pervasive web of corruption, thus becoming integral parts of the problem rather than being solutions thereof; in effect becoming institutionalized condoners or coddlers of grafters and corrupters, for and in consideration of the “right price,” woefully at the painful expense of the taxpayers. But, of course, as will be treated more extensively in the next section, this ultimately impacts negatively on economic performance like growth and people’s purchasing power.

In the empirical-based essay of Arend Lijphart (1991) on constitutional choices in new democracies--the first version of which was presented to the Philippine Council for Foreign Relations—he concluded that the combination of the parliamentary form of government and the proportional representation (PR) electoral system “is clearly better than the major alternatives in accommodating ethnic differences, and it has a slight edge in economic policy making as well.’ Moreover, he issued a caveat to constitution makers in new democracies that they would do themselves and their countries a great disservice by ignoring this attractive democratic combination. However, he remained silent on the direct effect, if any at that time, of parliamentarism on national income (gross domestic product).

About a decade later, Knutsen (2011) reports essentially similar findings, namely: that electoral rules and form of government have important economic effects, particularly on taxation and public spending. He finds no robust effect of presidentialism or parliamentarism on economic growth. However, he finds a very robust positive and quite substantial effect of

proportional representation (PR) on economic growth.

Another connection, albeit indirect, between parliamentarism on one hand and economic affluence and growth on the other was observed earlier on by Przeworski, Alvarez, Cheibub and Limongi (1996) who, in answer to the question “what makes democracies endure?”, asserted: “democracy, affluence, growth with moderate inflation, declining inequality, a favorable international climate, and parliamentary institutions.” If both affluence & growth and parliamentary institutions are significantly directly connected to democratic endurance, then probably they are also at least correlated with each other.

Apparently, unambiguous evidence of the direct positive connection between government form (particularly parliamentarism) and economic performance appeared when Gerring, Thacker and Moreno (2009), analyzing World Bank data, found that the parliamentary performs better than the presidential system, particularly in the aspects of economic and human development. Their conclusion reads as follows, to wit:

*“The evidence presented here suggests that to the extent that the nature of the executive makes a difference, parliamentary systems offer significant advantages over presidential systems. In no case examined here does parliamentary rule seem to detract from good governance. In most policy areas, particularly in the areas of economic and human development, parliamentary systems are associated with superior governance.”*

Their conclusion appears corroborated by the subsequent study of Alicias (2012). He finds that the parliamentary form of government is positively correlated (probably causally related) with high national income level, measured in terms of per capita purchasing power parity. Analyzing 1997 and 2006 data, he finds that, among others, the parliamentary republic has a significant advantage over the full presidential form in terms of per capita purchasing power parity, and that said advantage appears in both the analyses of 1997 and 2006 data.

### **Enhanced Purchasing Power: The Need for a Corruption-Free Environment**

Corruption is at face and by its nature socially undesirable, if not reprehensible. It attacks, socks the body politic, sucks society’s lifeblood of fairness, of justice. Established rules

and procedures—say, the constitution and a slew of statutes, as well as established items of jurisprudence—are in full many a time ignored, short-circuited, twisted, and circumvented for and in consideration of, say, an ounce of gold and/or even a pound of flesh. Even the constitutional principle of rule of law, of due process of law is cavalierly, if not unabashedly used to cover up previous infractions of the law, of the rule of law.

There is no question that laws and rules are needed to establish order and discipline, resulting in social peace and tranquility. However, these laws and rules must obviously be facilitative rather than restrictive of man's innate freedom—to preserve himself, to develop his inborn talents, to express himself, to make himself socially, politically, and economically productive.

But what if the statutory framework gets to become too convoluted and cumbersome, too restrictive and stifling that, for example, people would prefer to engage in rent-seeking rather than productive behavior and/or for entrepreneurs to just stay in the unregistered “underground” rather than in the registered official economy? In this context, may not bribery and/or such other acts of corruption then enable one undeterred entrepreneur to quickly traverse the rotten bureaucratic gauntlet to get his business started as soon as possible? After all, as the saying goes, time is gold, meaning that it is a very valuable resource.

**“Grease-the-Wheels Hypothesis”.** This brings to the fore the “grease-the-wheels” hypothesis on the impact of corruption on entrepreneurial economic activity. This is an instance where such a stubborn entrepreneur deems it expedient to right a wrong with another wrong or even with another dose of the same wrong. This hypothesis is recently supported in the study of Dreher and Gassebner (June 2007) that involved a maximum of 43 countries over the period 2003-2005. First, they find that “more procedures required to start a business and larger minimum capital requirements are detrimental to entrepreneurship.” Second, they find that “corruption reduces the negative impact of regulations on entrepreneurship in highly regulated economies,” and thus concluding that “corruption significantly increases entrepreneurial activity.” And, if increased entrepreneurial activity is there, will enhanced people's purchasing power be far behind?

Much earlier on, a number of other scholars had held and propounded a similar position. For instance, Leff (1964) opines that “If the government has erred in its decision, the course made possible by corruption may well be the better one.” Bayley (1966) finds that



“corruption serves in part at least a beneficial function in developing societies.” And then, four years later, Huntington (1968) similarly concluded thus: “In terms of economic growth, the only thing worse than a society with a rigid, over-centralized, dishonest bureaucracy is one with a rigid, over-centralized, honest bureaucracy.” Likewise, Summers (1977), and Acemoglu and Verdier (1998)—argue that corruption (e.g., payment of bribery to bureaucrats) acts like oil that greases and facilitates the approval of projects that rev up the engine of economic growth.

There is also the supportive theoretical finding that competitive bribery does not bring about a loss of allocative efficiency as compared to what obtains as a result of competitive bidding procedures; and this is the conclusion of Beck and Maher (1986) which is subsequently corroborated by the theoretical work of Lien (1986).

**Corruption Retards Economic Growth, Purchasing Power.** The opposite school of thought holds the view that corruption retards economic growth as it adds to the cost of doing business, and introduces significant uncertainty in the decision making process, especially on matters of making investments. Those who view corruption as disadvantageous to economic growth include but are not necessarily limited to the following: Murphy et al (1993), Gould and Amaro-Reyes (1983), United Nations (1990), Mauro (e.g., 1995), Mo (2001), and Monte & Papagni (2001).

The harmful effect of corruption is likewise shown in the study of Lambsdorff (1998) where it is concluded that corruption significantly decreases the average productivity of capital and consequently gross domestic product. Further, the deleterious effect of corruption on economic growth is likewise found by Sarkar and Hasan (2001) in their study of 87 rich and poor countries that are spread in all continents of the world. According to them, the presence of corruption inflicts substantial economic costs, as it reduces both the volume and efficiency of investment.

And recently, in further support of this school of thought (negative effect of corruption), Anoruo and Braha (2005), analyzing data from 18 African countries and for the period 1984 through 2000, find that “corruption retards economic growth directly by lowering productivity, and indirectly by restricting investment.” A similar finding is obtained very recently by Aliyu and Elijah (2008) in their study of the connection between corruption and economic growth in Nigeria for the period 1986-2007. They find that “corruption exerts negative impact on both human capital development and total employment.” Moreover, they find that, because of

corruption, government capital expenditure is probably unnecessarily increased, and that about twenty percent of such increase ends up in private pockets.

More recently, Podobnik, Shao, Njavro, Ivanov, and Stanley (2008), analyzing data collected from all countries of the world for the period 1999-2004, find that on average “an increase of CPI by one unit leads to an increase of the annual GDP per capita growth by 1.7%”—where Corruption Perception Index (CPI) generated by Transparency International is such that 0 denotes highest level of corruption and 10 the lowest. Moreover, they find a “statistically significant power-law functional dependence between CPI and foreign direct investment per capita”—meaning that a lower level of corruption tends to invite more foreign direct investment.

Very recently, Alicias (2012) finds control of corruption—alongside three other governance indicators (rule of law, government effectiveness, and voice & accountability)—positively related to the natural logarithm of per capita purchasing power parity (PPP).

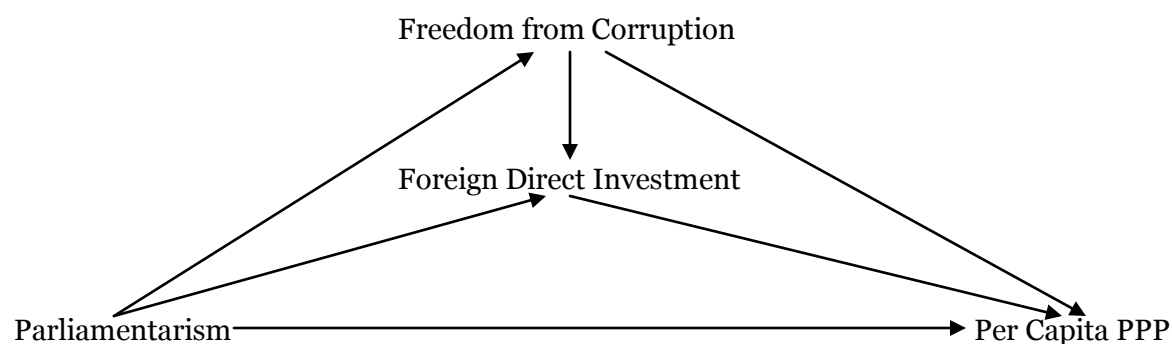
Hemmed in between these two opposing strands in the corruption-growth literature is the proposition that, on the whole, corruption is unrelated to or has a neutral effect on economic growth, particularly in democratic countries. In this respect, Drury, Krieckhaus, and Lusztig (2006), analyzing time-series cross-section data for more than 100 countries, find that “corruption has no significant effect on economic growth in democracies, while non-democracies suffer significant economic harm from corruption.”

Anyway, at the end of the day, on evaluation of research results, it appears that the weight of evidence points to the negative effect (direct and indirect) of corruption on economic growth (income).

## **THE HYPOTHESES, THE VARIABLES, AND THE DATA**

### **The Hypothesized Causal Nexus**

The hypothesized causal nexus is schematically presented hereunder:



**Figure 1. The Hypothesized Causal Nexus**

Parliamentarism is hypothesized to have a direct effect on per capita purchasing power parity (PPP). Likewise, parliamentarism is expected to have two parallel indirect effects on per capita PPP, namely: via freedom from corruption (FC) and via foreign direct investment (FDI), and a longer serial indirect effect via FC and then via FDI.

### **The Primary Independent Variables and the Dataset**

*Parliamentarism* refers to the broad category of forms which category encompasses the parliamentary republic, the constitutional monarchy, and the constitutional monarchy with active monarch. The countries in this dataset are classified into four types, namely: the parliamentary as herein broadly defined, code =3; the presidential (with and without prime minister), code = 1; the semi-presidential and/or mixed republican, code = 2; and the non-democratic (absolute monarchy, theocracy, single political movement state, and military junta state), code = 4; and which 4-category classification is the result of collapsing the eleven (11) more specific categories enumerated and defined in Wikipedia. (Retrieved on 11 April 2012 from [http://en.wikipedia.org/wiki/List\\_of\\_countries\\_by\\_system\\_of\\_government](http://en.wikipedia.org/wiki/List_of_countries_by_system_of_government)).

*Freedom from corruption* (FC) is one component of the broader 10-component Index of Economic Freedom developed and measured by The Heritage Foundation in partnership with Wall Street Journal. According to them, this index of freedom from corruption is derived primarily from the Corruption Perception Index (CPI) estimated by the Transparency

International. They describe this index as follows, to wit:

*“The CPI is based on a 10-point scale in which a score of 10 indicates very little corruption and a score of 0 indicates a very corrupt government. In scoring freedom from corruption, the Index converts the raw CPI data to a scale of 0 to 100 by multiplying the CPI score by 10. For example, if a country’s raw score is 5.5, its overall freedom from corruption score is 55.”*

*“For countries that are not covered in the CPI, the freedom from corruption score is determined by using the qualitative information from internationally recognized and reliable sources. The procedure considers the extent to which corruption prevails in a country. The higher the level of corruption, the lower the level of overall economic freedom [in respect to corruption] and the lower the country’s score.”* (Retrieved from <http://www.heritage.org/index/freedom-from-corruption> on 11 April 2012.)

The 2012 country-estimates of the freedom from corruption scores as recently released by the Heritage Foundation are adopted for this study.

*Foreign direct investment* (FDI), according to Wikipedia, is “direct investment by a company in production located in another country either by buying a company in the country or by expanding operations of an existing business in the country.” It excludes portfolio investment which is passive investment by way of buying securities of another country such as shares of stocks and bonds. It usually involves participation in management, joint-venture, transfer of technology, and infusion of expertise. (Retrieved on 17 April 2012 from [http://www.en.wikipedia.org/wiki/Foreign\\_direct\\_investment](http://www.en.wikipedia.org/wiki/Foreign_direct_investment).)

The 2012 country-estimates of the net FDI inflows as recently released by the Heritage Foundation are adopted for this study. (Retrieved on 17 April 2012 from <http://www.heritage.org/index/ranking>.)

*Per capita purchasing power parity* (PPP) “is a measure of how much goods and services can be purchased with the recorded income per capita of different countries depending on the relative prices of similar products” (Todaro, 1994, p. 698). According to Wikipedia, it “asks how much money would be needed to purchase the same goods and services in two countries, and uses that to calculate an implicit foreign exchange rate. Using that PPP rate, an amount of money thus has the same purchasing power in different countries.” (Retrieved on 17 April 2012 from [http://www.en.wikipedia.org/wiki/Purchasing\\_power\\_parity](http://www.en.wikipedia.org/wiki/Purchasing_power_parity).)

The 2012 country-estimates of the per capita PPP as recently released by the Heritage Foundation are adopted for this study. (Retrieved on 17 April 2012 from <http://www.heritage.org/index/ranking>.)

### The Control Variables

In order to enhance the internal validity of the study, per indications of preliminary analyses of data, the following control variables are included in the research design, namely: population density for the year 2010, specified and transformed into its natural logarithm in order to moderate extreme variations; literacy rate for the year 2011; the aggregate variable “fuelfoss” that indicates sufficiency of indigenous fossil sources of energy (oil, natural gas, coal); and the latitude where the country is located.

## ANALYSES AND FINDINGS

The causal nexus theorized and schematized above, including the control variables, corresponds to the following structural equations mentioned and tested as follows:

$$\text{Ln Per Capita PPP} = f(\text{parl}, \text{Ln FDI}, \text{FC}, \text{Ln popden}, \text{literate}, \text{fuelfoss}, \text{latitude}) \quad [\text{Eqn 1}]$$

$$\text{Ln FDI} = f(\text{parl}, \text{FC}, \text{Ln popden}, \text{literate}, \text{fuelfoss}, \text{latitude}) \quad [\text{Eqn 2}]$$

$$\text{FC} = f(\text{parl}, \text{popden}, \text{literate}, \text{fuelfoss}, \text{latitude}); \quad [\text{Eqn 3}]$$

where Ln Per Capita PPP = natural logarithm of 2012 per capita purchasing power parity,

parl = parliamentarism as dummy variable, alongside full presidential, and non-democratic form of government,

Ln FDI = natural logarithm of Foreign Direct Investment (2012 estimates),

FC = Freedom from Corruption (2012 estimates),

Ln popden = natural logarithm of population density (2010 estimates),

Literate = literacy rate (2011 estimates),

Fuelfoss = aggregate indicate of fossil fuels sufficiency (oil, natural gas, coal), and

Latitude = latitude where the country is mainly located, measured in degrees from the equator.

The OLS regression analyses involve the use of the stepwise method and a missing value replaced with the mean variate value of a particular variable. One hundred ninety six (196) countries constitute the population/sample of the analyses.

### **Test of Equation 1: Regression of Ln Per Capita PPP**

Table 1 shows the optimal equation (having the highest adjusted R square) arising from the stepwise algorithm.

Table 1. Table 1. Regression of Ln Per Capita PPP (N = 196)

| Independent Variable             | beta  | significance level |
|----------------------------------|-------|--------------------|
| Literacy Rate (Literate)         | 0.437 | .000               |
| Freedom from Corruption (FC)     | 0.369 | .000               |
| Natural logarithm of FDI (lnFDI) | 0.218 | .000               |
| Parliamentarism (Parl)           | 0.129 | .002               |

Adjusted R square = 0.729

F Value for ANOVA = 132.742 (p = .000)

NOTE: The referent category for the government form dummy variables is the full presidential form.

The resulting optimal equation shown in Table 1 appears statistically significant (F = 132.742, p = .000). The 4-variable combination of regressors included therein displays a large explanatory power (72.9%) of the variance of per capita PPP, as shown by the magnitude of the adjusted R square.

All three primary independent variables appear significantly positive, consistent with and supportive of theoretical expectation. As hypothesized, freedom from corruption (FC), foreign direct investment (FDI), and parliamentarism (parl) all and/or singly appear with significant positive effects on per capita purchasing power parity (per capita PPP). Moreover, it is interesting to note that, of the three, freedom from corruption appears to have the largest independent positive effect on per capita PPP, followed by foreign direct investment (FDI) and

parliamentarism (parl) in descending order--as shown by the relative magnitudes of the beta coefficients.

This positive finding on parliamentarism vis-a-vis per capita income (PPP) corroborates those recently shown by, say, Gerring, Thacker and Moreno (2009) and Alicias (2012). Likewise, the positive finding on freedom from corruption vis-a-vis per capita income (PPP) mirrors those recently shown by, say, Aliyu and Elijah (2008), Podobnik, Shao, Njavro, Ivanov and Stanley (2008); as well as that very recently shown by Alicias (2012).

It is recalled that four (4) control variables are included in the specification of Equation 1, namely: population density (ln popden), literacy rate (literate), fossil fuels sufficiency (fuelfoss), and latitude. Now, as shown in Table 1, only one control variable appears significant, and that is literacy rate (literate). Literacy rate (literate) appears significantly positive (beta = .437, p = .000), and this is consistent with implicit expectation. And, although not at all surprising, of the four (4) regressors, literacy rate also appears as the overall largest explanator of per capita PPP, as shown by the relative magnitudes of the beta coefficients.

### **Test of Equation 2: Regression of Ln FDI**

Table 2 shows the optimal equation (having the highest adjusted R square) arising from the stepwise algorithm.

Table 2. Regression of Ln FDI (N = 196)

| Independent Variable                | beta  | significance level |
|-------------------------------------|-------|--------------------|
| Fossil fuels sufficiency (fuelfoss) | 0.454 | .000               |
| Freedom from Corruption (FC)        | 0.291 | .000               |
| Literacy rate (literate)            | 0.134 | .029               |

Adjusted R square = 0.417

F Value for ANOVA = 47.800 (p = .000)

NOTE: The referent category for the government form dummy variables is the full presidential form.

The optimal equation shown in Table 2 appears statistically significant ( $F = 47.800$ ,  $p = .000$ ). The 3-variable combination of regressors included therein displays a significant explanatory power (41.7%) of the variance of FDI, as shown by the magnitude of the adjusted R square.

There appears only one significant primary independent variable, that is, freedom from corruption (FC). It exhibits a significant positive coefficient ( $\beta = 0.352$ ,  $p = .000$ ), consistent with and supportive of the theoretical expectation. The exclusion of parliamentarism, as a result of the stepwise algorithm, means that said form of government probably has no direct effect upon the attractiveness and/or volume of FDIs moving into a particular country.

Two (2) control variables appear positively significant, namely: fossil fuels sufficiency (fuelfoss,  $\beta = 0.454$ ,  $p = .000$ ) and literacy rate (literate,  $\beta = 0.134$ ,  $p = .029$ ). It is interesting to note that foreign investors seem to put a much higher premium on the sufficiency of fossil fuels in a host country than the literacy level of the people therein. This is evident from the much greater positive beta coefficient of the former than that of the latter.

### Test of Equation 3: Regression of FC

Table 3 shows the optimal equation (having the highest adjusted R square) arising from the stepwise algorithm.

Table 3. Regression of FC (N = 196)

| Independent Variable     | beta  | significance level |
|--------------------------|-------|--------------------|
| Latitude                 | 0.249 | .000               |
| Parliamentarism (parl)   | 0.291 | .000               |
| Literacy rate (literate) | 0.216 | .001               |

Adjusted R square = 0.317

F Value for ANOVA = 31.272 ( $p = .000$ )

NOTE: The referent category for the government form dummy variables is the full presidential form.



The optimal equation shown in Table 3 appears statistically significant ( $F = 31.272$ ,  $p = .000$ ). The 3-variable combination of regressors included therein displays a significant explanatory power (31.7%) of the variance of FC, as shown by the magnitude of the adjusted R square.

There appears only one significant primary independent variable, that is, parliamentarism (parl). It exhibits a significant positive coefficient (beta = 0.291,  $p = .000$ ), consistent with and supportive of the theoretical expectation. Of the three regressors included in the equation, it has the largest explanatory power (largest beta coefficient) vis-a-vis the variance of the dependent variable, freedom from corruption (FC).

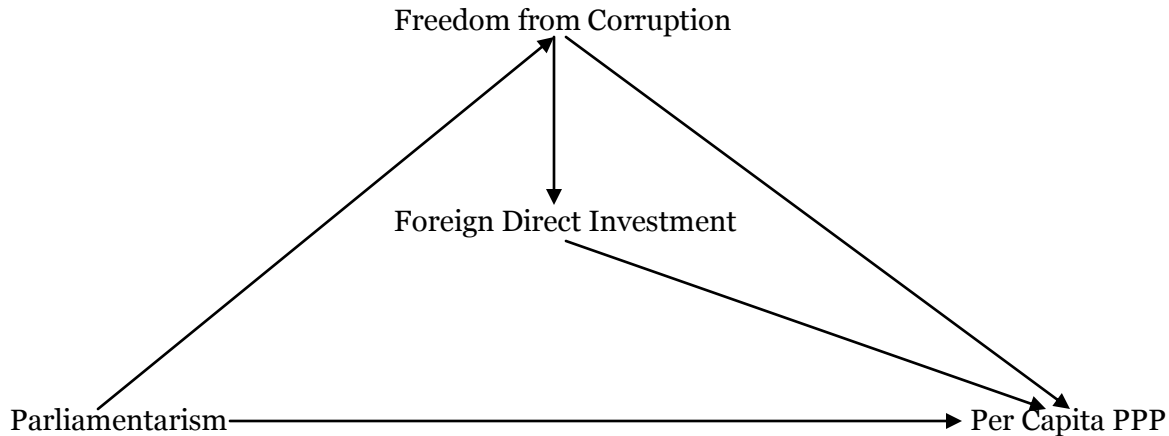
Two (2) control variables appear positively significant, namely: latitude (latitude, beta = 0.249,  $p = .000$ ) and literacy rate (literate, beta = 0.216,  $p = .001$ ). It is expected and easy to understand that countries with higher literacy rates exhibit greater freedom from corruption. However, on the other hand, it is not easy to see the direct connection between latitude and freedom from corruption. Why is it, for instance, that countries in the higher latitudes (having colder temperatures) display a lower incidence of corruption? At this juncture, the author is not able to hazard an explanation, except to speculate that latitude may be a proxy for some unspecified structural and/or policy-manipulable variables that may have direct connections to the incidence of corruption. However, the important thing is that, proxy or not, its confounding and/or extraneous effect has been isolated or accounted for—thus highlighting the causal significance of parliamentarism.

## SUMMARY OF FINDINGS AND CONCLUSION

The foregoing analyses show that: first, per capita purchasing power parity (treated with natural logarithmic transformation) appears to be a direct function of the three conceptualized primary independent variables: (a) parliamentarism, (b) freedom from corruption (FC), and (c) foreign direct investment (FDI); second, foreign direct investment appears to be a direct function of just one independent variable, that is, freedom from corruption (parliamentarism excluded); and third, freedom from corruption appears to be a direct function of parliamentarism.

It is interesting to note that, contrary to hypothetical expectation, foreign direct investment appears directly unrelated to the form of government (parliamentary structure). However, it is important to note that while foreign direct investment appears not to be directly affected by parliamentarism (in fact, not by any other form of government), FDI nonetheless appears indirectly affected via the mediation of FC which as earlier shown appears directly affected by parliamentarism.

The results are schematically shown hereunder as follows:



While the direct effect of parliamentarism ( $\beta = 0.129$ ) on per capita PPP appears roughly only a third of that of freedom from corruption, FC, ( $\beta = 0.369$ ), it also appears clear that parliamentarism ( $\beta = 0.291$ , relative to latitude and literacy rate) is the largest explainer of freedom from corruption (FC)—thus increasing so much more the total effect of parliamentarism on per capita purchasing power.

The conclusion is compelling that the parliamentary form of government is a superior structure in terms of curbing corruption and increasing the per capita purchasing power parity of the people.

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