

# GOVERNANCE AND GROWTH IN THE CARIBBEAN SMALL STATES – EVIDENCE FROM GLOBAL INDICATORS

**Lino Briguglio, Carmen Saliba and Melchior Vella**

Islands and Small States Institute, University of Malta

## ABSTRACT

The paper assesses the state of governance in thirteen Caribbean Small States (CSS) by comparing these states among themselves, utilising global indicators relating to political governance, economic growth and GDP per capita. The main finding is that the governance scores and the GDP per capita in these states differ considerably, but there is a positive correlation between the two variables. On the other hand, the governance scores in the CSS tend to be negatively correlated with economic growth. These correlation patterns are similar globally. The paper delves deeper into the correlation between governance and economic growth and postulates that economic growth is related to improvements in governance and not the level of governance, arguing that a given governance improvement effort is likely to have a higher effect in a country with a lower level of governance. This assumption is termed “diminishing marginal governance effect”. The test of this assumption indicates that economic growth does indeed relate to improvements in governance, keeping the stage of development constant.

**JEL Classification:** O16- Economic Development and Governance; O43 - Institutions and Growth; E02 – Institutions and the Macroeconomy;

## 1. INTRODUCTION

The paper assesses the state of governance in 13 Caribbean Small States (CSS) by comparing these states among themselves, utilising global indicators relating to political governance, economic growth and GDP per capita.

The governance indicator used in this study is the Rule of Law dimension of the Worldwide Governance Indicators. The study also correlates this index with GDP per capita and economic growth, so as to comment on the presumption that good political governance is associated with these two variables. The simple correlations indicate that there is a positive relationship between governance levels and GDP per capita but a negative relationship between governance levels and economic growth.

The paper delves deeper into the correlation between governance and economic growth and postulates that economic growth is related to improvements in governance and not the level of governance, arguing that a given governance improvement effort is likely to have a higher effect in a country with a lower level of governance. This assumption is termed “diminishing marginal governance effect”. The test of this assumption indicates that economic growth does indeed relate to improvements in governance, keeping the stage of development constant.

The paper is organised in six sections. Following this introductory section, an overview of the thirteen CSS is presented. This is followed, in Section 3, by a brief literature review focussing on matters relating to the theme of the paper. Section 4 describes governance indicator used in this study and compares the governance scores among the CSS. Section 5 presents a deeper

look at the relationship between economic growth and governance, arguing that change in governance is the right variable to utilise when correlating it with economic growth. Section 6 summarises the main tendencies derived from the previous section and derives a number of implications for the CSS.

## 2. OVERVIEW OF THE ECONOMIES OF THE CSS

### 2.1 Countries differences

The thirteen Caribbean Small States (CSS) covered in this study include five high income economies (HIE) namely Antigua/Barbuda, Barbados, Bahamas, Saint Kitts/Nevis and Trinidad/Tobago, seven upper-middle-income economics (UMIE), namely Belize, Grenada, Jamaica, St Lucia, St Vincent/Grenadines and Suriname and one lower-middle-income economy, namely Guyana.<sup>1</sup>

Over the 5-year period to 2013, the total population registered in CSS has increased by 0.2 million to reach 7.1 million. As illustrated in Figure 1, total population differs considerably across CSS. In particular, in 2013, Jamaica recorded the largest population close to 2.8 million while St. Kitts/Nevis registered the lowest population at approximately 58 thousand. The GDP per capita of the CSS in 2013 differed considerably between one country and another as shown in Figure 2, with the Bahamas and Barbados registering the highest and Guyana, Belize, Suriname and Jamaica the lowest per capita income. The fastest growing countries between 2009 and 2013 were Guyana, Suriname and Belize (as can be seen in Table 1), which have a relatively low GDP per capita, which would seem to suggest a negative correlation between these two variables. This matter will be discussed further below.

These differences between the individual CCS indicate that the averages for the whole group of countries should be interpreted with caution.

Figure 1: Population (thousands)

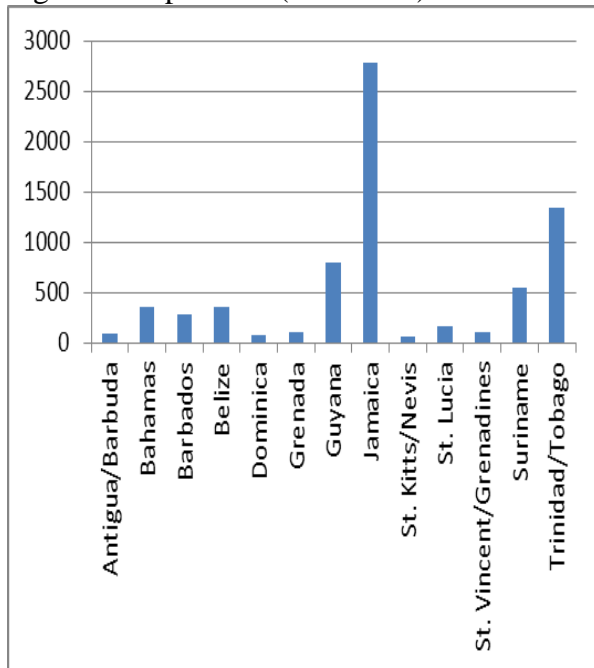
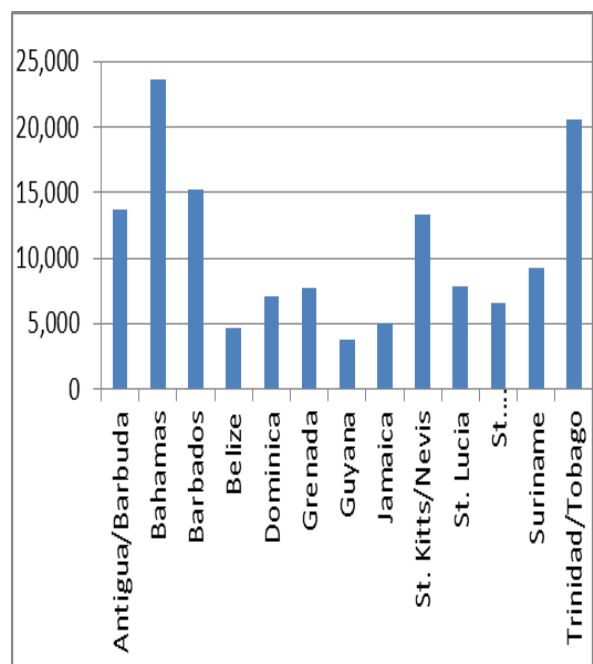


Figure 2: GDP per Capita (US\$)



The CSS also differ in their economic structure, with Belize, Guyana, Suriname, and Trinidad and Tobago together produce oil/gas, minerals, and agricultural goods, and generally have registered higher growth rates than the other CSS, one reason being the positive impact of high commodity prices. The other CSS are mainly service-based economies, highly dependent on tourism and financial services, and highly exposed to external shocks.

## 2.2 Country similarities

A characteristic of the CSS is their high debt/GDP ratio. Ten of the 13 CSS had a gross debt ratio which was about or exceeded 60%, with Grenada, Jamaica and St Kitts/Nevis topping the list with a debt ratio of about 100% or over as can be seen from Figure 3.

Yet, another characteristic is their negative current account balance. Almost all the CSS registered negative current account balance as an average over the 4 years between 2009 and 2013, as can be seen from Figure 4, which expresses the current account balance as a percentage of GDP. The only exceptions were Suriname and Trinidad and Tobago.

Figure 3: Gross Debt /GDP (%)

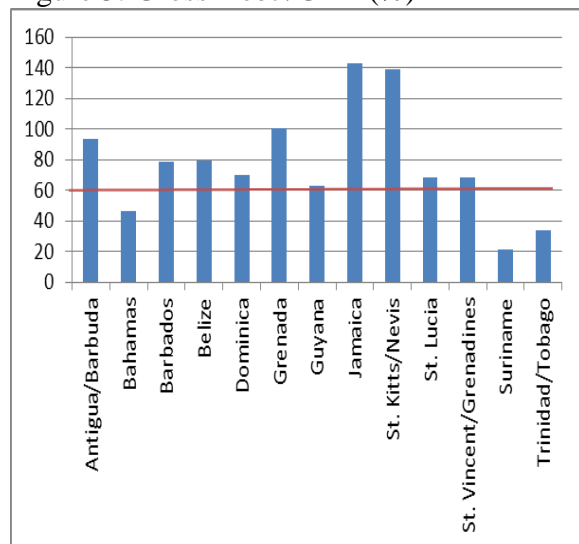
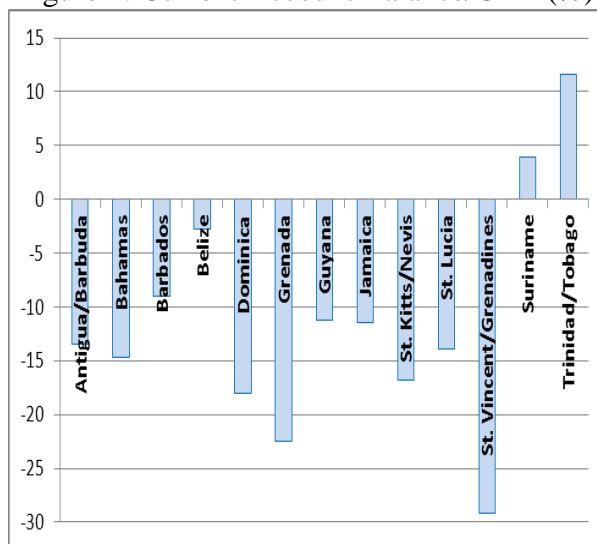


Figure 4: Current Account Balance/GDP (%)



The CSS are often considered as highly economically vulnerable countries. This means that CSS are inherently prone to exogenous economic shocks. Such vulnerability arises from the fact that the economies of small states are, to a large extent, shaped by forces outside their control. According to Briguglio (2014), such vulnerability is associated with for indicators namely trade openness, export concentration, dependence on strategic imports and proneness to natural disasters, the four of which are relatively high in the CSS, as shown in Figure 5, 6, 7 and 8.

Figure 5: Trade Openness (%) <sup>2</sup>

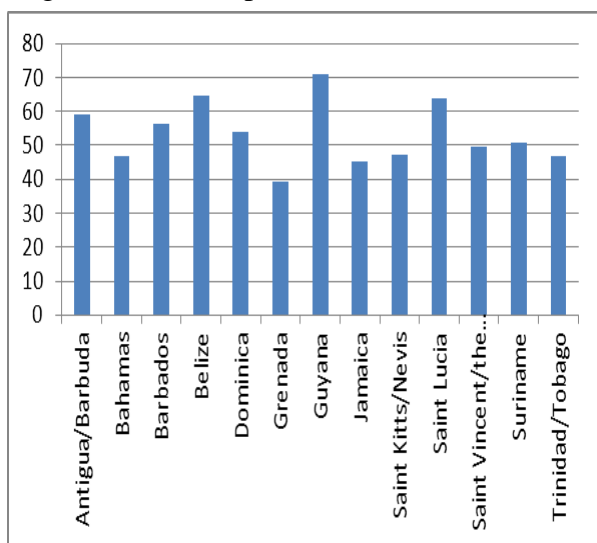


Figure 6: Export Concentration (%) <sup>3</sup>

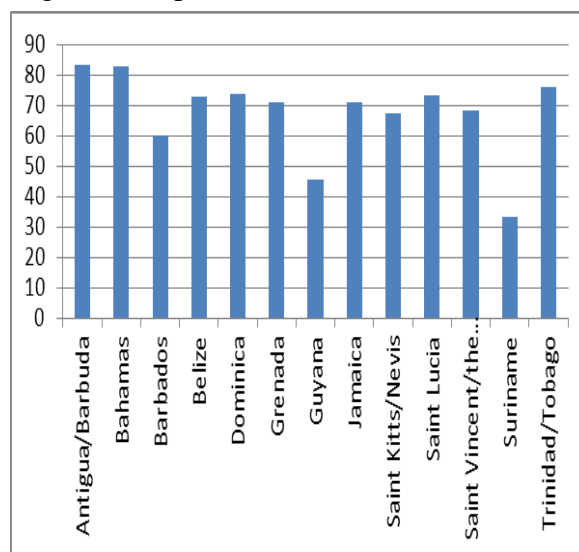


Figure 7: Dependence on Strategic imports (%) <sup>4</sup>

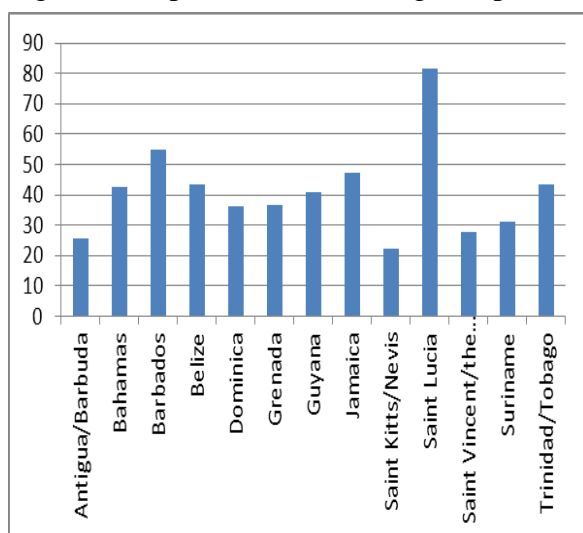
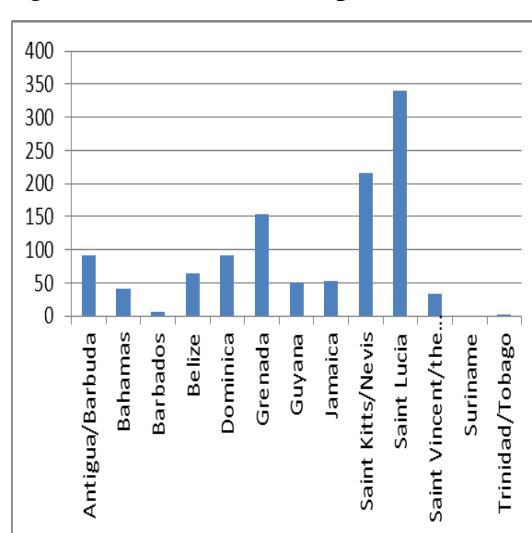


Figure 8: Natural disaster proneness (%) <sup>5</sup>



According to Briguglio (2014) these realities rendered the thirteen Caribbean Small States amongst the most economically vulnerable countries in the world.

### 3. BRIEF LITERATURE REVIEW

In this section, we consider three aspects of the literature, closely related to this study, namely (a) the state of governance in the CSS (b) the correlation between good governance and economic performance and (c) the governance record in the Caribbean Small States.

#### 3.1 State of governance in the CSS

Brown (2010) noted that the situation in the CSS is often romanticised, accompanied by pictures of white beaches, but the reality on the ground is different and characterised by a number of governance weaknesses including organizational structures that are hierarchical, bureaucratic, inflexible and paternalistic leadership at both political and bureaucratic levels.

The author identified what he calls six binding constraints which adversely affect institutional development that are needed for good governance namely that (a) government is all-pervasive in both social and economic spheres (b) per capita cost of public administration and social and economic infrastructure is higher than in larger economies due to the indivisibility problem (c) weak tax base and an over-reliance on border revenues leading to chronic fiscal vulnerability (d) general capital constraints leading to high debt levels (e) limited pool of skilled human resources to perform the vital roles of the public service and a lack of depth in specialization and (f) proneness to external shocks – including natural disasters. These realities, some of which being inherent and induced, lead, according to Brown, to weak governance in the CSS.

Over the past two decades, the economic performance of the CSS reflects deep-rooted competitiveness problems (Acevedo et al., 2013). Such macro-economic imbalance performance has translated into high current account deficits, large indebtedness vis-à-vis the rest of the world, and more generally unsustainable external positions. The authors indicate that the external current accounts of the tourism-based countries have deteriorated consistently since the early to mid-1990s mostly due to weak public finances. They further show that the public sector in the Caribbean accounts for about a third of the external imbalance, and is the largest contributor to the deficit. The authors also argue that while many of the cost disadvantages are structural, some are policy driven, including high labour costs due to a high degree of unionization, high electricity costs reflecting sector inefficiencies and monopoly powers of providers, trade protectionism through tariffs and non-price restrictions, high cost of credit brought about by, inter alia, lengthy credit recovery processes due to judicial procedures, and in some countries overvaluation of the domestic currency.

Acevedo et al. also acknowledge that many CSS attempted to reduce the debt problem by debt restructuring, but argue that lack of comprehensive economic reforms have limited the positive effects of such debt restructuring. Consequently, a number of Caribbean economies have been in a high debt-low growth trap for the past two decades, which the authors call “a silent debt crisis.” The authors further argue that reducing the high public debt in the CSS is crucial because of the risk of a fiscal crisis, the costs debt servicing, discouragement of private investment, and constraints on fiscal flexibility.

In view of these weaknesses of the CSS, Shafik (2013), in a speech during the 2013 High-Level Caribbean Forum, explained that the IMF recommends fiscal adjustment as an urgent manner through which the CSS can achieve a turnaround in the debt situation, mostly through lowering current government spending, as according to the IMF, cuts to current expenditure have been found to be the most growth-friendly approach. She stated that these countries must “do what it takes to raise growth” by improving their business environment and boost investor confidence and encourage private sector investment. Shafik also argued that the overall governance framework is critical, and the CSS must therefore strengthen technical capacities, laws and institutions to improve governance, arguing that research has linked higher public debt in small states with weak governance.

Grenade (2012) again identifies factors that undermine effective governance in the CSS, including high exposure to external shocks, proneness to natural hazards, limitations on the ability to reap the benefits of economies of scale, a narrow production base and lack of diversification possibilities. However she also argues that the self-inflicted weaknesses in governance of the CSS including limited private sector capacity, inadequate human

resources, insufficient institutional capacity, limited infrastructural development and high public debt. The author refers to other factors that weaken governance in the CSS that generate instability and insecurity, namely the growth narco-trafficking, other organised crime and corruption. In these matters, the author argues that there is the need of regional cooperation and collective action because such activities have cross-border implications.

Referring to regional governance, Grenade (2012) emphasises that this is an imperative for the Caribbean. She argues that when CARICOM was established in 1973, its original objectives were economic integration, functional co-operation and foreign policy co-ordination. Over the years, CARICOM has achieved relative successes in the realm of functional co-operation. She points out the sub-regional grouping of the Organisation of Eastern Caribbean States (OECS) is also pursuing deeper levels of integration and is strengthening its framework for sub-regional governance. Although many positive developments were registered as a result of regional cooperation, the author argues that there are major challenges that need to be addressed. The fact that CARICOM is a community of independent sovereign states, foreign policy harmonisation was often not possible, limiting the attainment of the regional potential in many economic aspects. She also argues that the adversarial political culture within member states does not lend itself to co-operation among political elites, and regional integration is thus held hostage to narrow partisan interests.

### **3.2 Governance and GDP per capita**

Simple correlations between good governance indicators and GDP per capita of countries, as done in this study, indicate that there is a high degree of correlation between the two variables. This relationship is confirmed in more rigorous and complicated studies on this issue, notably in Kaufman and Kraay (2002).<sup>6</sup>

There is however some debate about the direction of causality. Kaufman and Kraay (2002) show that per capita income and the quality of governance are strongly positively correlated across countries. They propose an empirical approach in order to assess the causality of the relationship, that is whether governance leads to prosperity or whether increases in income per capita lead to good governance. They find a strong positive causal effect running from better governance to higher per capita income, and a weak and even negative causal effect running in the opposite direction from per capita income to governance.

### **3.3 Governance and economic growth**

This study also presents simple correlation coefficients between governance indicators and economic growth, which generally indicate that the relationship is not positive, and possibly negative.<sup>7</sup>

Several publications associate good governance, and the necessary institutions for good governance, with growth. A substantial body of literature consider good governance as a precondition for growth (Kaufmann, 2005; Reynolds, 1983), and similarly with regard to governance institutions (Acemoglu et al., 2005; North; 1990; Rodrik, 1999; Aron, 2000; Commission on Growth and Development, 2008). The direction of causation of economic growth and governance is also a matter of debate, with some authors arguing in favour of the theory that growth comes first and governance and the accompanying institutions later (e.g. Durlauf et al., 2005; Glaeser et al., 2004).

The connection between growth and governance has been questioned by Kurtz and Schrank (2007) who doubt whether such a connection exists and queries whether the data used to measure governance as well as the methods used to estimate such a relationships are good enough.<sup>8</sup>

Rodrik (2008) argues that there are many countries that are growing rapidly despite poor governance to render suspect any general claim to the contrary and governance is generally not a prerequisite for getting growth going. Rodrik (2008) opines that as a rule, broad governance reform is neither necessary nor sufficient for growth, and therefore a broad governance agenda rarely deserves priority as part of a growth strategy, except in rare instances where “weak governance is specifically identified as a generic area of binding constraints”.

The literature on the effect of good governance on economic growth therefore sends contradictory signals, with some authors, notably Kaufman and Kraay (2002) arguing strongly in favour the connection and others, such as Rodrik (2008) and Kurtz and Schrank (2007) arguing that there is no evidence that such a connection exists.

It should be noted that the negative relationship between growth and good governance may be in line with neoclassical growth theory, given that the best-governed countries have high income economies. Theory predicts that low income countries would converge as, theoretically, they would tend to grow at a faster rate than higher income ones due to the law of diminishing marginal product with regard to capital, which is more abundant in developed countries. This neo-classical convergence theory is associated with Solow (1956),<sup>9</sup> which leads to the argument that a country's growth rate tends to be inversely related to its starting level of income per capita.

In addition, intuitively, one should think that economically backward countries can grow faster than advanced countries as the former countries can copy and adopt readily available technologies invented by countries that developed earlier. This catching-up technological laggards has been termed the “advantage of backwardness” by Gerschenkron (1952).

Another argument, to be tested in this paper, but as far as we know, has not been tested elsewhere, is that the relationship between governance and real GDP growth is likely to be between changes, and not levels of governance. It is argued that what matters for economic growth, which is improvement in economic performance, are improvements in governance. It is further argued that governance improvements may be easier to achieve from a relatively low starting point. In other words it may be more difficult to improve governance once a country reaches or almost reaches a peak when compared to a country which has considerable room for improvement – a reality which may be termed as “diminishing marginal governance effect”.

#### **4. GOVERNANCE, GDP PER CAPITA AND ECONOMIC GROWTH IN THE CSS**

The Rule of Law dimension of the Worldwide Governance Indicators was considered to be the best indicator to measure political governance, due to its definition<sup>10</sup> and also because it covers a very wide number of countries, including all the thirteen CSS.<sup>11</sup>

The Worldwide Governance Indicators (WGI)<sup>12</sup> have six dimensions of governance, namely (1) voice and accountability (2) political stability and absence of violence (3) government effectiveness (4) regulatory quality (5) rule of law and (6) control of corruption. The index covers a large number of countries. A detailed description of the methodology is given in Kaufmann et al. (2010).

Table 1 shows how the CSS fared in terms of the Rule of Law indicator mentioned above. It can be seen that Barbados registered the highest score whereas Guyana the lowest score. In the index, the highest score is 2.5 and the lowest is -2.5. It can be seen that most CSS have a score above 0.

Table 1: Rule of Law, GDP Per Capita and Economic Growth Indicators for the CSS

	Antigua/ Barbuda	Bahamas	Barbados	Belize	Dominica	Grenada	Guyana	Jamaica	St Kitts/ Nevis	St Lucia	St Vincent/ Grenadines	Suriname	Trinidad/ Tobago
<b>Score</b>	0.86	0.60	1.00	0.45	0.63	0.16	-0.52	-0.39	0.73	0.75	0.86	-0.09	0.22
<b>GDP PC \$'000</b>	13.8	23.5	15.4	4.6	7.0	7.7	3.7	5.1	13.1	7.8	6.6	9.2	20.6
<b>ΔGDP: 09-13 (%)</b>	-1.24	1.08	0.18	2.47	0.26	-0.02	4.96	-0.08	-0.69	-0.61	0.45	4.60	0.12

Sources: World Bank (2014) for the WGI and IMF (2014) for GDP data.

Table 1 also presents per capita GDP of the 13 CSS together with their real GDP average growth rate between 2010 and 2013. In the case of the growth indicators,<sup>13</sup> it appears that the fastest growth tended to occur in the countries with relatively low GDP per capita, namely Guyana, Suriname and Belize. Conversely, Barbados, Bahamas, and Trinidad and Tobago, with high GDP per capita registered relatively low GDP growth rates. Thus it appears that that there is a tendency (with the clear exception of Trinidad and Tobago) that countries with the lowest GDP per capita tended to grow fastest.

This is in line with the findings of many studies on the relationship between these variables, as indicated in the literature review. However, in the case of the CSS, a possible factor could have been that the non-commodity-exporting CSS, which are highly depend on tourism and financial services, tend to be more highly exposed to external shocks than the commodity-exporting CSS, namely Belize, Guyana, Suriname (Trinidad and Tobago is an exception). This could partially explain the poor growth performance of the non-commodity-exporting CSS.

The correlation between the governance indicators and GDP per capita in the Caribbean Small States is shown in Table 2. The correlation is positive, although it is not statistically significant.<sup>14</sup> This table also shows simple correlation coefficients between governance indicators and economic growth, which generally indicate that the relationship is possibly negative.

This tendency is also applicable globally, as shown in Table 1. Again, GDP per capita tends to be positively correlated whereas real GDP growth tends to be negatively correlated with the governance indicators.

Table 2: Correlations between Rule of Law indicators, GDP per Capita and Growth

	<b>Variable</b>	<b>Correlation with WGI-RL</b>
<b>Caribbean</b>	GPC	0.354 <sup>n</sup>



<b>Small States</b>	$\Delta$ GDP 09-13	-0.489*
<b>Global (185 countries)</b>	GPC	0.725*
	$\Delta$ GDP 09-13	-0.390*

Source: IMF (2014); calculations by authors

## 5. A DEEPER LOOK AT THE RELATIONSHIP BETWEEN ECONOMIC GROWTH AND GOVERNANCE

In this section we try to answer the question as to why governance scores and economic growth seem to be negatively correlated to each other. As has been shown above in this study, a simple correlation between economic growth and governance indicators suggest that indeed the slowest growing countries tend to have the highest governance scores. However this does not mean that good governance is bad for growth. We argue in this paper that the equation should compare like with like, that is changes in real GDP should be compared with changes in governance, and not with its levels. The hypothesis can then be stated as follows: improvement in governance leads to economic growth that is improvement in real GDP.

This assumption may also help to explain why GDP per capita is found to be positively correlated with governance scores and negatively correlated with economic growth. Although a country may register relatively low governance as well as low GDP per capita scores, it is likely to be easier for such a country to improve its governance from a relatively low starting point. In other words, a given governance improvement effort would have a higher effect in a low income and poorly governed country than in a high-income well-governed one. This possibility may be termed as “**diminishing marginal governance effect**”.

To test this assumption, we specify a simple growth equation as follows:

$$\Delta\text{GDP} = f(\Delta\text{GVN}, \text{GPC}, \text{Log P})$$

Where:

$\Delta\text{GDP}_i$  = GDP growth in real terms during a given period in country i.

$\text{GPC}_i$  is GDP per capita in country i.

$\Delta\text{GVN}_i$  = changes in governance during the same period in country i.

$\text{Log P}_i$  = Log of the population size in country i.

In this exercise,  $\Delta\text{GDP}$  is measured by percentage changes in GDP in real terms average over the years 2009 to 2013 (that is the period following the global financial crisis).

As already explained, GDP per capita (GPC) is included in the equation as a proxy for the stage of development of a country, in order to allow for the possibility that low income countries would tend to grow at a faster rate than higher income countries in line with the so-called convergence theory and to the possibility that backward countries tend to catch-up technologically, by amongst other things adopting technological advances previously created by more advanced countries. The sign of the coefficient on GPC is therefore expected to be negative. GDP per capita is measured in US dollars for the year 2013.

Changes in governance are measured in terms of the Rule of Law dimension of the Worldwide Governance Indicators (WGI) between 2009 and 2013. This index was chosen because its implications for political governance, because it has a wide coverage of countries

and also because it was produced by and large consistently during each year of the period under consideration. The variable  $\Delta\text{GVN}$  is expected to have a coefficient with a positive sign, capturing the effects of governance improvements on growth

The population variable was introduced in the equation to allow for the various constraints faced by small states, including their high exposure to external shocks and their limited ability to reap the benefits of economies of scale (Briguglio 2014). The sign of the coefficient on this variable is expected to be positive. It is measured in logs to allow for the possibility that a country twice the size of another is less than twice disadvantaged in terms of growth.

The GDP and population data was sourced from the IMF World Economic Outlook Database (IMF, 2014) and the Governance data was sourced from World Bank (2014). All data is presented in Appendix 1.

The equation was first applied to the 13 Caribbean small states. The results, shown below, were not very promising in terms of statistical significance, although the signs of the coefficients on  $\Delta\text{GVN}$  and on  $\text{GPC}$  were respectively negative and positive as expected.

$$\Delta\text{GDP}_i = -1.59 - 0.09 \text{GPC}_i + 6.58 \Delta\text{GVN}_i + 1.44 \text{LogPi}$$

$$\begin{matrix} & -0.5 & -0.9 & 0.2 & 1.1 \end{matrix}$$

$R^2 = 0.27; \quad N=13$

The numbers in italics under the coefficients are t-statistics, indicating that the coefficients are not statistically significant at the 95% level of significance. This is not surprising, given that small number of countries involved.<sup>15</sup>

The same equation was applied for 185 countries, and the results indicate that the coefficients were statistically significant, as shown below:

$$\Delta\text{GDP}_i = 1.07 - 0.04 \text{GPC}_i + 13.31 \Delta\text{GVN}_i + 0.85 \text{LogPi}$$

$$\begin{matrix} & 1.1 & -3.5 & 2.8 & 3.6 \end{matrix}$$

$R^2 = 0.17; \quad N=185$

The correlation coefficient improved considerable when a dummy variable (D) was introduced to capture the effect of the austerity programme which 5 euro-area countries were obliged to follow during the growth period under consideration. These are Cyprus, Ireland, Greece, Portugal and Spain. These results are shown below:

$$\Delta\text{GDP}_i = 1.06 - 0.03 \text{GPC}_i + 11.48 \Delta\text{GVN}_i + 0.87 \text{LogPi} - 4.91 \text{Di}$$

$$\begin{matrix} & 1.2 & -3.1 & 2.5 & 3.8 & -4.1 \end{matrix}$$

$R^2 = 0.28; \quad N=185$

## 6. MAIN IMPLICATIONS AND CONCLUSIONS

### 6.1 Correlation between Governance, GDP per Capita and growth

The indicators presented above, show first and foremost that desirable governance scores, be they political, economic or social, are correlated with GDP per capita. This would seem to suggest that good governance is associated with economic prosperity. This conclusion, also

often found in the literature, supports intuitive thinking, given that good governance is likely to mean responsive administration, better institutional set-ups and more efficient utilisation of resources.

The governance indicator considered in this study seems to be negatively correlated with economic growth among the thirteen CSS as well as at the global levels. In the case of the CSS, Guyana and Suriname, which received relatively low governance scores, are the fastest growing economies among the CSS. Conversely Barbados and The Bahamas, the fastest growing CSS, registered relatively low growth rates.

This would seem to contradict a commonly held view that growth and good governance go hand-in-hand. As has been shown in this paper, the relationship between governance and real GDP growth is likely to be between changes (and not levels) in the governance variables, given that governance improvements are more difficult to achieve in a country with high governance standards when compared to a country which has considerable room for improvement in this regard.

Thus it makes sense to argue that improvement in governance is likely to improve the chances of economic growth, other things remaining constant. For example if one compares economic growth between two countries, A and B, which are in the same level of development and with the same level of governance, one would expect that country A would register a higher growth rate than country B during a given period, if country A improves its governance more than country B.

A related argument is that if country A is less developed than country B, its catching-up performance is likely to improve with the same effort to improve governance due to the fact that a given governance effort is likely to have a higher affect in the country with a low level of governance when compared to the other country. As already explained this has been termed “diminishing marginal governance effect”

Therefore the result of a negative correlation between GDP growth and governance should not be interpreted as an indication that good governance is undesirable for growth, and that it should not, therefore, be pursued. On the contrary, the fact that good governance and economic prosperity are correlated, in that the best governed countries tend to enjoy the highest standard of living, can be seen as a sign that well-governed countries do reap benefits in the form of high income per capita. This conclusion applies to the CSS, where the most prosperous small states are the best governed economies.

The interesting results produced in this study, namely that improvements (as against levels) in political governance have a positive statistically significant effect on economic growth, given the stage of development, can be considered as an added piece of evidence that it pays to improve governance. There is some evidence that this tendency also applies to the CSS, but the relationship tested in this study for the thirteen small states lacked statistical significance, possibly due to the small number of observations.

## **REFERENCES**

- Acevedo, S., Cebotari, A. and Turner-Jones, T. (2013). Caribbean Small States: Challenges of High Debt and Low Growth. IMF. Available at: <https://www.imf.org/external/np/pp/eng/2013/022013b.pdf>
- Acemoglu, D., Johnson, D. and Robinson, J.A. (2005). Institutions as a Fundamental Cause of Long-run Growth.” In Aghion, P. and Durlauf, S.N. *Handbook of Economic Growth*, Volume IA. Available at : <http://economics.mit.edu/files/4469>
- Aron, J. (2000). “Growth and Institutions: A Review of the Evidence,” *The World Bank Research Observer*. Vol. 15 (1), 99-135. Available at: <http://www.ppge.ufrgs.br/giacomo/arquivos/eco02237/aron-2000.pdf>.
- Baland, J.M. Moene, K.O. and Robinson, J.A. (2009). “Governance and Development,” In Rodrik, D. and Rosenzweig, M. (Eds) *Handbook of Development Economics*. North Holland.
- Briguglio, L. (2014). “A Vulnerability and Resilience Framework for Small States,” In Bynoe-Lewis, D. *Building the Resilience of Small States: A Revised Framework*. London Commonwealth Secretariat.
- Brown, D.R. (2010). “Institutional Development in Small States: Evidence from the Commonwealth Caribbean.” *Halduskultuur – Administrative Culture* 11 (1), 44-65. Available at: <http://www.cpahq.org/cpahq/cpadocs/Institutional%20Development%20Small%20States.pdf>
- Cass, D. (1965). "Optimum Growth in an Aggregative Model of Capital Accumulation", *Review of Economic Studies*, Vol. 32: 230-240
- Commission on Growth and Development (2008). *The Growth Report Strategies for Sustained Growth and Inclusive Development*. Washington, DC: World Bank. Available at: <https://openknowledge.worldbank.org/handle/10986/6507> .
- Durlauf, S. N., Johnson P. A. and Temple, J. R. W. (2005). “Growth Econometrics”, in Durlauf S.N. and Aghion, P. (eds.), *Handbook of Economic Growth*, Elsevier.
- Gerschenkron, A. (1952). “Economic Backwardness in Historical Perspective.” In *The Progress of Underdeveloped Areas*, edited by Bert F. Hoselitz. Chicago: University of Chicago Press, 1952.
- Glaeser, E.L., La Porta, R., Lopez-de-Silanes, F. and Shleifer, A, (2004). “Do Institutions Cause Growth?” NBER Working Paper 10568. Available at: <http://www.nber.org/papers/w10568.pdf>.
- Grenade, W.C (2012). “Governance in the Caribbean: Challenges and Prospects.” In *Commonwealth Governance Handbook 2012/13* Available at: <http://www.commonwealthgovernance.org/assets/uploads/2012/10/Governance-in-the-Caribbean.pdf> .
- International Monetary Fund (2014). World Economic Outlook Database. Available online at <http://www.imf.org/external/pubs/ft/weo/2014/02/weodata/index.aspx> .
- Kaufman, D. (2005). “10 Myths about Governance and Corruption.” *Finance and Development*, Vol. 42 (3): 41–3.
- Kaufman, D. and Kraay, A. (2002). “Growth without Governance.” *Economía*, Vol. 3(1): 169–215
- Kaufman, D., Kraay, A. and Mastruzzi, M. (2010). “The Worldwide Governance Indicators: Methodology and Analytical Issues,” World Bank Policy Research Working Paper #5430. Available at: [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1682130](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1682130) .
- Klugman, J., Rodriguez, F. and Choi, H. J. (2011). “The HDI 2010: New Controversies, Old Critiques.” Human Development Research Paper 1. UNDP–HDRO, New York. [http://hdr.undp.org/en/reports/global/hdr2011/papers/HDRP\\_2011\\_01.pdf](http://hdr.undp.org/en/reports/global/hdr2011/papers/HDRP_2011_01.pdf) .

- Koopmans, T.C. (1965). "On the Concept of Optimal Economic Growth," in *The Econometric Approach to Development Planning*, North Holland, Amsterdam,
- Kurts, J.M. and Schrank, A. (2007). "Growth and Governance: Models, Measures, and Mechanisms," *The Journal of Politics*, Vol. 69 (2): 538–554. Available at: <http://politicalscience.osu.edu/faculty/mkurtz/papers/growthandgovernance.pdf> .
- North, D.C. (1990). *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.
- Reynolds, L.G. (1983). "The Spread of Economic Growth to the Third World," *Journal of Economic Literature*, Vol. 21 (3): 941-80.
- Rodrik (2008). "Thinking About Governance," in *Governance, Growth, and Development Decision-Making*, reflections by D. North, D. Acemoglu, F. Fukuyama, and D. Rodrik, The World Bank, April 2008.
- Rodrik, D. (1999). *Institutions for High Quality Growth: What They are and How They Affect Growth*, Paper prepared for the International Monetary Fund Conference on Second-Generation Reforms, Washington, D.C.: 8-9 November.
- Shafik, N. (2013). Speech at the High-Level Caribbean Forum: "Caribbean Challenges, Growth, and Progress on the Small States Initiative" September 20, 2013. Available at: <https://www.imf.org/external/np/speeches/2013/091913a.htm>
- Solow, R.M. (1956). "A Contribution to the Theory of Economic Growth," *The Quarterly Journal of Economics*, 70(1): 65-94.
- Sundaram, J. K and Chowdhury, A. (2012). *Is Good Governance Good for Development?* Bloomsbury Academic (United Nations Series on Development).
- World Bank (2014). *Worldwide Governance Indicators*. Available on line at: <http://info.worldbank.org/governance/wgi/index.aspx#home> .

**APPENDIX 1: THE DATA**

(sources and meaning of the variables are explained in the text)

Country	GRTH 09-13	GPC	$\Delta$ GVN	Log P	Dummy
AFGHANISTAN	8.1	0.68	0.059	4.51	0
ALBANIA	1.9	4.56	-0.010	3.51	0
ALGERIA	3.1	5.61	0.019	4.56	0
ANGOLA	4.8	5.96	-0.010	4.31	0
ANTIGUA AND BARBUDA	-1.2	13.73	-0.035	1.94	0
ARGENTINA	5.4	14.71	-0.006	4.61	0
ARMENIA	4.4	3.17	0.034	3.53	0
AUSTRALIA	2.7	64.58	0.005	4.36	0
AUSTRIA	1.4	49.04	0.010	3.93	0
AZERBAIJAN	3.3	7.90	0.039	3.97	0
BAHAMAS, THE	1.1	23.64	-0.046	2.55	0
BAHRAIN	3.8	27.93	-0.050	3.06	0
BANGLADESH	6.2	1.03	-0.014	5.18	0
BARBADOS	0.2	15.17	0.006	2.44	0
BELARUS	4.0	7.58	0.027	3.97	0
BELGIUM	1.0	45.54	0.012	4.05	0
BELIZE	2.5	4.62	-0.018	2.54	0
BENIN	4.2	0.81	0.010	3.97	0
BHUTAN	7.7	2.63	0.016	2.87	0
BOLIVIA	5.3	2.79	0.017	4.03	0
BOSNIA AND HERZEGOVINA	0.7	4.62	0.047	3.59	0
BOTSWANA	6.2	7.12	-0.015	3.27	0
BRAZIL	3.4	11.17	0.024	5.30	0
BRUNEI DARUSSALAM	1.3	39.66	-0.046	2.60	0
BULGARIA	0.9	7.33	-0.016	3.86	0
BURKINA FASO	7.3	0.71	-0.083	4.24	0
BURUNDI	4.4	0.30	0.026	3.94	0
CAMBODIA	7.0	1.03	0.024	4.18	0
CAMEROON	4.4	1.33	0.017	4.33	0
CANADA	2.4	52.04	-0.016	4.54	0
CAPE VERDE	1.8	3.63	0.000	2.72	0
CENTRAL AFRICAN REPUBLIC	-6.4	0.33	-0.128	3.69	0
CHAD	6.6	1.22	0.030	4.03	0
CHILE	5.3	15.78	0.018	4.24	0
CHINA	8.8	6.96	-0.034	6.13	0
COLOMBIA	4.8	8.03	-0.005	4.67	0
COMOROS	2.8	0.93	0.041	2.84	0
CONGO, DEM. REP.	7.4	0.39	0.020	4.87	0
CONGO, REP.	4.8	3.22	0.024	3.61	0
COSTA RICA	4.5	10.53	-0.010	3.67	0
CÔTE D'IVOIRE	4.3	1.33	0.083	4.37	0

CROATIA	-1.4	13.40	0.031	3.64	0
CYPRUS	-1.5	24.87	-0.048	2.94	1
CZECH REPUBLIC	0.6	18.87	0.017	4.02	0
DENMARK	0.6	59.13	-0.012	3.75	0
DJIBOUTI	4.4	1.59	-0.027	2.95	0
DOMINICA	0.3	7.03	-0.015	1.85	0
DOMINICAN REPUBLIC	4.6	5.88	0.058	4.01	0
ECUADOR	5.2	5.94	0.075	4.18	0
EGYPT, ARAB REP.	2.8	3.24	-0.136	4.92	0
EL SALVADOR	1.8	3.84	0.031	3.79	0
EQUATORIAL GUINEA	0.5	20.60	-0.018	2.87	0
ERITREA	4.8	0.54	-0.036	3.75	0
ESTONIA	4.3	18.85	0.019	3.13	0
ETHIOPIA	10.1	0.52	0.041	4.94	0
FIJI	3.0	4.58	-0.021	2.95	0
FINLAND	0.7	49.06	-0.012	3.73	0
FRANCE	1.2	44.10	-0.007	4.80	0
GABON	6.1	12.33	0.008	3.19	0
GAMBIA, THE	3.5	0.45	-0.036	3.26	0
GEORGIA	5.7	3.60	0.046	3.65	0
GERMANY	2.2	45.00	-0.006	4.91	0
GHANA	9.7	1.87	0.046	4.40	0
GREECE	-5.7	21.86	-0.045	4.05	1
GRENADA	0.0	7.70	0.002	2.02	0
GUATEMALA	3.4	3.47	-0.010	4.18	0
GUINEA	3.0	0.56	0.030	4.04	0
GUINEA-BISSAU	2.9	0.57	-0.065	3.20	0
GUYANA	5.0	3.76	0.014	2.89	0
HAITI	1.8	0.82	0.013	4.02	0
HONDURAS	3.5	2.28	-0.077	3.91	0
HONG KONG SAR, CHINA	4.0	37.96	0.015	3.86	0
HUNGARY	0.5	13.39	-0.049	4.00	0
ICELAND	0.8	45.42	-0.015	2.51	0
INDIA	6.7	1.51	-0.031	6.09	0
INDONESIA	6.2	3.51	0.010	5.39	0
IRAN, ISLAMIC REP.	0.5	4.77	-0.010	4.88	0
IRAQ	7.6	6.59	0.076	4.53	0
IRELAND	0.6	48.61	-0.005	3.66	1
ISRAEL	4.0	36.93	0.032	3.89	0
ITALY	-0.5	34.71	0.002	4.78	0
JAMAICA	-0.1	5.10	0.024	3.44	0
JAPAN	1.8	38.47	0.028	5.11	0
JORDAN	2.6	5.17	0.027	3.81	0
KAZAKHSTAN	6.5	13.51	-0.010	4.22	0
KENYA	6.3	1.32	0.077	4.62	0

KIRIBATI	2.0	1.55	-0.010	2.02	0
KOREA, REP.	3.9	25.98	-0.010	4.70	0
KUWAIT	3.9	45.19	-0.056	3.58	0
KYRGYZ REPUBLIC	3.8	1.28	0.045	3.75	0
LAO PDR	8.0	1.59	0.059	3.80	0
LATVIA	3.3	15.19	-0.013	3.31	0
LEBANON	3.5	10.08	-0.022	3.60	0
LESOTHO	5.4	1.19	-0.007	3.28	0
LIBERIA	7.6	0.48	0.041	3.60	0
LIBYA	8.5	10.70	-0.129	3.81	0
LITHUANIA	3.6	15.65	0.024	3.48	0
LUXEMBOURG	1.7	112.47	-0.007	2.72	0
MACEDONIA, FYR	2.0	4.93	0.018	3.32	0
MADAGASCAR	1.6	0.46	-0.043	4.35	0
MALAWI	4.5	0.22	-0.017	4.22	0
MALAYSIA	5.8	10.46	-0.003	4.47	0
MALDIVES	4.5	6.69	-0.128	2.52	0
MALI	2.6	0.65	-0.100	4.21	0
MALTA	2.4	22.89	-0.040	2.62	0
MARSHALL ISLANDS	2.6	3.24	0.100	1.74	0
MAURITANIA	5.5	1.13	-0.040	3.56	0
MAURITIUS	3.6	9.16	-0.013	3.11	0
MEXICO	3.6	10.65	0.007	5.06	0
MICRONESIA, FED. STS.	1.4	3.22	-0.005	2.01	0
MOLDOVA	5.5	2.24	0.016	3.55	0
MONGOLIA	12.0	4.00	-0.023	3.45	0
MONTENEGRO	1.7	7.11	-0.012	2.79	0
MOROCCO	3.9	3.16	-0.014	4.51	0
MOZAMBIQUE	7.2	0.59	-0.064	4.35	0
MYANMAR	6.7	1.11	0.063	4.80	0
NAMIBIA	5.3	5.64	0.008	3.33	0
NEPAL	4.2	0.69	0.037	4.49	0
NETHERLANDS	0.1	50.82	0.001	4.22	0
NEW ZEALAND	2.3	40.52	-0.019	3.65	0
NICARAGUA	4.6	1.83	0.036	3.78	0
NIGER	6.4	0.45	-0.056	4.21	0
NIGERIA	6.3	3.08	0.002	5.22	0
NORWAY	1.3	100.58	0.020	3.70	0
OMAN	4.9	21.46	-0.025	3.49	0
PAKISTAN	3.4	1.27	-0.009	5.25	0
PANAMA	9.4	10.88	-0.028	3.56	0
PAPUA NEW GUINEA	8.0	2.10	-0.008	3.83	0
PARAGUAY	7.4	4.28	0.033	3.82	0
PERU	6.7	6.54	0.013	4.48	0
PHILIPPINES	6.3	2.79	0.043	4.98	0



POLAND	3.0	13.44	0.047	4.59	0
PORTUGAL	-1.0	21.00	-0.003	4.02	1
QATAR	10.6	98.99	0.008	3.26	0
ROMANIA	1.3	8.87	0.018	4.33	0
RUSSIAN FEDERATION	3.4	14.59	-0.004	5.15	0
RWANDA	6.8	0.70	0.087	4.02	0
SAINT KITTS AND NEVIS	-0.7	13.26	-0.006	1.76	0
SAINT LUCIA	-0.6	7.89	-0.025	2.23	0
SAINT VINCENT AND THE GRENADINES	0.5	6.56	-0.006	2.04	0
SAMOA	0.9	4.16	0.018	2.26	0
SÃO TOMÉ AND PRINCIPE	4.4	1.63	-0.025	2.24	0
SAUDI ARABIA	6.4	24.95	0.026	4.46	0
SENEGAL	3.2	1.05	0.024	4.12	0
SERBIA	0.9	5.90	0.025	3.88	0
SEYCHELLES	5.0	14.92	-0.005	1.96	0
SIERRA LEONE	11.7	0.81	0.010	3.79	0
SINGAPORE	6.9	55.18	0.035	3.73	0
SLOVAK REPUBLIC	2.5	17.71	-0.013	3.74	0
SLOVENIA	-0.5	23.32	-0.022	3.31	0
SOLOMON ISLANDS	6.3	1.94	0.034	2.75	0
SOUTH AFRICA	2.8	6.62	0.008	4.71	0
SPAIN	-0.8	29.15	-0.034	4.66	1
SRI LANKA	7.5	3.20	-0.051	4.32	0
SUDAN	0.6	1.94	-0.005	4.53	0
SURINAME	4.6	9.21	0.020	2.74	0
SWAZILAND	1.5	3.47	0.048	3.03	0
SWEDEN	3.0	58.01	-0.003	3.98	0
SWITZERLAND	1.9	81.28	0.009	3.90	0
SYRIAN ARAB REPUBLIC	3.4	3.00	-0.248	4.34	0
TAIWAN, CHINA	4.6	20.92	0.030	4.37	0
TAJKISTAN	7.2	1.04	-0.003	3.90	0
TANZANIA	6.8	0.72	-0.007	4.67	0
THAILAND	4.3	5.68	0.023	4.81	0
TIMOR-LESTE	9.3	4.14	-0.009	3.07	0
TOGO	5.0	0.64	-0.032	3.80	0
TONGA	1.5	4.57	0.026	2.02	0
TRINIDAD AND TOBAGO	0.1	20.62	0.002	3.12	0
TUNISIA	1.7	4.32	-0.100	4.03	0
TURKEY	6.0	10.72	-0.006	4.87	0
TURKMENISTAN	11.3	7.16	0.015	3.75	0
UGANDA	5.2	0.62	0.015	4.55	0
UKRAINE	2.4	3.93	-0.013	4.66	0
UNITED ARAB EMIRATES	4.1	44.55	0.045	3.74	0
UNITED KINGDOM	1.2	39.37	-0.013	4.80	0

UNITED STATES	2.2	53.00	-0.010	5.50	0
URUGUAY	6.0	16.42	-0.045	3.53	0
UZBEKISTAN	8.3	1.88	0.017	4.47	0
VANUATU	1.7	3.00	-0.032	2.40	0
VENEZUELA, RB	2.4	7.58	-0.050	4.47	0
VIETNAM	5.8	1.90	-0.003	4.96	0
YEMEN, REP.	0.6	1.52	-0.018	4.41	0
ZAMBIA	7.5	1.85	0.045	4.14	0
ZIMBABWE	9.3	1.01	0.068	4.11	0

<sup>1</sup> As of 1 July 2014, the World Bank defined middle-income economies are those with a GNI per capita (GNI per capita, calculated using the World Bank Atlas method) of more than \$1,045 but less than \$12,746; high-income economies are those with a GNI per capita of \$12,746 or more. Lower-middle-income and upper-middle-income economies are separated at a GNI per capita of \$4,125. The CSS do not include a low-income economy which is defined as one with a GNI per capita, of \$1,045 or less in 2013. Information available at [http://data.worldbank.org/about/country-and-lending-groups#Lower\\_middle\\_income](http://data.worldbank.org/about/country-and-lending-groups#Lower_middle_income).

<sup>2</sup> Trade openness is measured as the average of exports and imports of goods and services as a percentage of GDP. Source: <http://unctadstat.unctad.org/TableViewer/tableView.aspx?ReportId=95>.

<sup>3</sup> Export concentration is measured as the sum of the three broad groups of exports of goods and services which together take the highest percentage of total exports of goods and services. This is then expressed as a percentage of total exports of goods and services. The procedure used was to group exports into 14 categories, of which there were 10 broad groups of merchandise, as per SITC one-digit classification, and the remaining 4 were services grouped under the headings of Transport, Travel, Financial Services and Other Services. Source: <http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx> under the heading “International trade in goods and services”. The data were averaged over three years 2009-2011.

<sup>4</sup> The “dependence on strategic imports” index is measured as the imports of food and fuel as a percentage of total merchandise imports. Source: <http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx> under the heading “International trade in goods and services”. The variables were averaged over three years 2009-2011.

<sup>5</sup> The disaster proneness index was measured in terms of economic damage relative to GDP. The source of the data was the EM-DAT Database, available at: <http://www.emdat.be/database> covering a period of about three decades (1980 to 2011).

<sup>6</sup> See Baland et al (2009) for a discussion on this relationship.

<sup>7</sup> The correlation results produced in this study should be interpreted with caution as here we are not keeping control variables constant and not capturing the possible reverse casual effect of growth on governance. It is acknowledged that the approach adopted in this study is somewhat simplistic, and that regressing GDP per capita and economic growth against the governance indices listed in this study, together with a number of control variables would have produced more rigorous results. One suspects that a more rigorous approach would have yielded a similar outcome and as Rodrik (2008) argues, there is no strong econometric evidence that relates standard governance criteria to growth.

<sup>8</sup> See also Sundaram and Chowdhury (2012) for studies that question the governance and growth connection.

<sup>9</sup> See also Cass (1965) and Koopmans (1965).

<sup>10</sup> Kaufman et al. (2010) define this index as one that captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence. The indicators are based on the views of persons involved in business, ordinary citizens and expert surveys, with sources derived from various institutes, think tanks, non-governmental organizations, international organizations, and private sector firms.

<sup>11</sup> The 2013 WGI covers 215 countries and non-independent territories, but this study reduces the number to 184 independent countries for which data on GDP per capita and real economic growth were available

<sup>12</sup> The 2013 WGI scores are available at: <http://info.worldbank.org/governance/wgi/index.aspx#home>.

<sup>13</sup> As can be seen from the tables, two growth indicators were selected one representing the post-crisis years (2010-2013) and the other a longer-term period (2003-2013).

<sup>14</sup> The test of significance was conducted by regressing GDP per capita and real GDP growth on the governance indicators and finding the t-statistic relating to this relationship. The asterisk on the correlation coefficients indicates that those coefficient are different from zero at the 95% level of statistical significance, while a

---

superscripted n indicates the non-significant coefficients. It should be noted that such simple correlations should be interpreted with caution as no control variables are included in the equation.

<sup>15</sup> Panel data regression was also tried to increase the number of observations, but the results did not change markedly.