Chapter 1

Setting the Scene

“How do I tell the story of trillions of dollars of dirty money lodged around the world, derived from many types of illegal activities, shifting across some 200 countries, affecting both economic and political affairs?”

Raymond W. Baker (2005)

1.1 Basic Story

Corruption is one of the unholy trinity of dirty money, together with criminal and illegal commercial activities (Baker, 2005). It is a dark side of society, claimed to cause people in corrupt countries to stay poor and illiterate, and to suffer from high infant and child mortality rates, low birth-weight babies, as well as high dropout rates in primary schools (Kaufmann et al., 1999; Gupta et al., 2001). Not only that, corruption is also said to deteriorate countries’ distribution of income (Li et al., 2000), quality of public infrastructure (Tanzi and Davoodi, 1997), and productivity (Lambsdorff, 2003a). Clearly, it is a serious problem and nothing good can be expected from corruption. As Tanzi (1997: 164-165) states:

“I must confess that I have little patience for those who try to find benefits in corruption. These individuals are often addressing artificial or unusual situations. Unfortunately, when corruption exists, it is often widespread. It affects not just some decisions or sectors but many decisions and most
sectors. Thus, in reality, corruption is likely to distort markets and to impose major costs on the economy.  

As corruption is a world-wide phenomenon, not surprisingly it has attracted a lot of attention in both the policy and academic arenas. Some decades ago, there were only a few studies on corruption. Since then, numerous academic articles have been published. This partly reflects an increased public concern for the problems caused by corruption, and partly explains the emergence of various perceived-corruption indexes that have made corruption measurable.

Today, the world is still split in countries that are governed by clean governments and those that are not. The group of clean countries mainly consists of Western nations, while the group of dirty countries predominantly contains African, Asian, and Latin American nations. The International Country Risk Guide (ICRG) that produces a perceived-corruption index reports that 79 per cent of the around 140 nations in the world (2005-2006) are run by corrupt bureaucrats. An aggregated corruption index of Kaufmann et al. (2007) of the World Bank (WB) gives a lower figure: 59 per cent of 207 countries and territories are corrupt. Figure 1.1 shows the 10 most and least corrupt countries in 2005-2006 according to both indexes. Finland is always regarded as the cleanest country by these indexes. Meanwhile, Somalia is the most corrupt country according to the WB index, and Zimbabwe according to the ICRG data.

But, what is corruption? Corruption can be viewed from different angles. A commonly accepted view is Waterbury’s (1973: 533) definition explaining corruption as “the abuse of public power and influence for private ends.” Jain (2001) gives a socio-political context of corruption, namely discretionary power, economic rents, and a weak judicial system in defining

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1 The Google Scholar search engine (12 November 2007) indicated some 157,000 articles on corruption in social sciences, arts, and humanities.
2 Later, we will show that there is a tendency of convergence via upward and downward dynamics.
3 The ICRG index is scaled between 0 and 6, while the WB index ranges between $-2.5$ and $+2.5$, where a higher score denotes less corruption. The division of the countries into corrupt and clean countries and territories is based on the middle score of each index.
Figure 1.1: 10 Most Corrupt and Cleanest Countries 2005-2006
corruption. He (p. 73) defines corruption as an act “in which the power of public office is used for personal gain in a manner that contravenes the rules of the game.”

Corruption also reflects poor governance of government, i.e., public officials are not qualified, laws are not adhered to, and lack of public transparency and accountability. Government governance itself refers to the process of decision-making by the government and the process by which decisions are implemented (or not implemented). Poor governance is often regarded as one of the root causes of all evil within societies. Although definitions of governance differ, there seems to be broad consensus that good governance has various characteristics: It is accountable, transparent, responsive, effective and efficient, and follows the rule of law, thereby assuring that corruption is minimized.

Clearly, corruption is a failure of good governance or a manifestation of poorly functioning state. How corruption reflects poor governance is indicated by Hassan (2004: 32). In his words,

In the political realm, corruption undermines democracy and good governance by subverting formal processes and rules of conduct. It erodes the institutional capacity of government as established procedures are disregarded, resources are siphoned off, and officials are assigned or promoted without regard to performance. Corruption in elections usually elects the wrong people, those who are parasites and put personal greed over national interests. Corruption in legislative bodies undermines accountability and representation in policy making. In the administrative realm, corruption results in the unequal provision of services, which undermines the States legitimacy and, in extreme cases, may render a country ungovernable and lead to political instability and social conflict. Corruption in the judiciary circumvents the rule of law, and justice is often delivered late or even denied.

This dissertation mainly deals with the issues of corruption and governance. It raises a general question about the causes and consequences of corruption and governance. As the causes of corruption may be deeply rooted in economic, political, and socio-cultural as well as geographical environment (Rose-Ackerman, 1999; Andvig et al., 2000; Jain, 2001), the first research question that we deal with is what determines the cross-country variation in corruption.
Apart from being widespread, many authors argue that corruption is persistent. There is some theoretical support for this view (Basu et al., 1992; Tirole, 1996; Mauro, 2004; Mishra, 2006) and some scant empirical evidence as well (Herzfeld and Weiss, 2003; Alesina and Weder, 2002; Damania et al., 2004). However, like other institutions, corruption is a not static phenomenon. Over a substantial time span, we may observe a change in corruption. Hence, the second research question is whether corruption is really persistent.

As corruption is closely linked to governance, the third issue to investigate is the relationship between economic growth and government governance. Authors like Knack and Keefer (1995), Barro (1997), Keefer and Knack (1997), and Chong and Calderon (2000) argue that the impact of governance on growth is positive, but others report the opposite (Quibria, 2006). A deeper look at country cases (Qian, 2003; Pritchett, 2003) tends to support the latter view. China and Vietnam, for example, are still far away from good governance, but their growth rates are remarkable. Under the kleptocratic regime run by Soeharto, Indonesia was one of Asian ‘tigers’. Contributing to this debate, we re-examine the relationship between growth and governance.

The idea to combat corruption via the promotion of good governance has spread across the globe. At the same time, nations in the world are not isolated from international economic and political interactions. Hence, neighbors may matter in the formation of good governance to result in a spatial dependence among that are close nations. This spatial dependence may be due to spillovers and diffusion-adoption processes, as also found in democracy, war and peace, or economic liberty (O’Loughin et al., 1998; Ward and Gleditsch, 2002; Simmons and Elkins, 2004). It also can stem from policy convergence (Mukand and Rodrik, 2005), interdependency of policy decisions (Brueckner, 2003), or transmission of government forms (Starr, 1991). This implies that countries may be geographically clustered according to their quality of governance. At the same time, the effect of the determinants of governance may not be homogenous over space, i.e., the
determinants may have a different impact in different countries. These are the final issues covered in this dissertation.

To summarize, the four issues discussed in this dissertation are: (1) what determines corruption?; (2) is corruption persistent?; (3) what is the relationship between governance and growth?; and (4) does space matter in explaining cross-country variation in the quality of governance? The following section summarizes our approach and main findings.

1.2 Main Findings

1.2.1 Determinants of Corruption

As shown in Chapter 2, the theoretical literature provides many viewpoints in explaining the existence of corruption. In the absence of a theory-based consensus on what determines corruption, empirical researchers typically experiment with a set of variables that may be correlated with corruption. Others focus on a particular variable of interest, using a set of control variables. If one runs a regression using a particular combination of explanatory variables, it is possible to find that one variable of interest is significant but becomes insignificant when other combinations of explanatory variables are used. The same holds for the sign of the estimate: the impact of a variable may change if different variables are controlled for.

Using the Sensitivity Analysis (SA) of Sala-i-Martin (1997), we deal with this issue in Chapter 3. The idea behind this approach is to generate a series of estimates ($\beta$'s) of particular variables of interest using all possible combinations of control variables drawn from a pool of variables. The pool contains variables argued to be correlated with corruption. Our focus is to examine whether the distribution of $\beta$ lies on one side of the cumulative distribution function. We employ 45 variables that previously have been claimed to be significant in explaining cross-country variation in corruption. We also experiment with different numbers of observations to examine the robustness of the finding. We find that only two variables having stable coefficients, namely government effectiveness and rule of law.
To come up with the list of variables, we first survey what researchers report on the determinants of corruption. Updating surveys by Andvig et al. (2000) and Jain (2001), Chapter 2 starts with a discussion of the definition and measurement of corruption. Although there is a widely accepted definition, corruption is difficult to measure. Corruption can be indirectly measured via the perception of respondents in surveys, but there are also some studies trying to directly measure it in money metric terms. Nowadays, perceived-corruption indexes have been widely used. At the same time, these indexes have been criticized. Some scholars criticize such indexes from a technical point of view (Galtung, 2006; Kurtz and Schrank, 2007), others from a more substantive perspective (Olken, 2006; Donchev and Ujhelyi, 2007). Some of these criticisms, however, have limited validity.

In addition, this chapter discusses determinants of corruption as found in the literature. While other categorizations are possible, we may group these determinants into four broad classes. First, economic and demographic determinants including economic institutions. Second, variables categorized as political institutions. Third, those falling in the area of judicial and bureaucracy determinants, and finally, geography and culture.

1.2.2 Corruption Persistence

Theoretical and empirical research on corruption generally concludes that corruption is persistent. However, using ICRG data for the period 1984-2003, we find strong evidence that corruption changes over time. Many corrupt countries saw their level of corruption decline, while many clean countries became less clean over the same period. We also find that this convergence process is not continuous: there has been an improvement in world corruption in the first part of our sample period, but a worsening in the second half.

We start with a simple check on the correlation between the current and past levels of corruption, and find that the correlation shrinks when the time lag increases. We also find evidence on $\beta$-convergence when we
regress the change in corruption on its initial value. Examining the trend as indicated by the standard deviation and coefficient of variation of cross-country corruption over time, we discover $\sigma$-convergence. Also, the results from a set of ordered logit and probit regressions give additional support to the conclusion that corruption is not persistence.

These findings are confirmed in our further analysis of the dynamics of the distribution of corruption data. There is a significant modality shift in the corruption distribution over time. Using a Gaussian kernel function we detect a transformation in the distribution of corruption from a bimodal to a unimodal distribution. Finally, on the basis of a Markov chain analysis, we also find interclass upward and downward shifts of countries. These issues are discussed in Chapter 4.

\subsection*{1.2.3 Governance and Growth}

The literature on the governance-growth relationship does not provide clear cut conclusions about the relevance of governance for growth. There are two issues in this debate: the robustness of the relationship and the way governance is measured. We contribute to this debate by introducing our governance index generated using Confirmatory Factor Analysis (CFA) on ICRG governance indicators, namely democratic accountability, government stability, bureaucracy quality, corruption, and law and order. CFA is a latent variable approach that can be used to analyze proxies for theoretical concept of governance. We discover that the five indicators of governance can be combined into one single index with an impressive goodness of fit.

Using our CFA-based index of governance, we test the stability of the growth-governance nexus via a set of parsimonious models, recursive regressions, and the Sensitivity Analysis of Sala-i-Martin mentioned previously. We discover that our index is fairly robust in a series of experiments using different control variables as well as different numbers and compositions of observations. In the majority of cases, we find that good governance promotes economic growth significantly. Chapter 5 discusses this issue in more
details.

1.2.4 Spatial Dimension

Researchers widely recognize the role of geography in shaping countries’ quality of governance. Several proxies have been used for geography including latitude, climate, temperature, country size, climate-related diseases, or dummies indicating that countries are landlocked, islands, or belong to a particular region (Acemoglu et al., 2001, 2002; Easterly and Levine, 2003; Rodrik et al., 2004; Olsson and Hibbs Jr., 2005). These proxies, however, do not capture the spatial dimension of governance, whereas cross-country data are generally characterized by spatial dimension.

We consider two spatial dimensions of governance, namely spatial dependence and spatial heterogeneity. While the former refers to the degree of dependence of a country’s governance on that of its neighbors’, the latter deals with varying effects of the determinants of governance. Our preliminary analysis indicates that the closer the country’s distance to the best (worst) practice of governance, the higher (lower) its level of governance. We also discover a positive global spatial dependence, where poorly (well) governed countries are geographically clustered with poorly (well) governed countries.

As a further check we apply a spatial econometric method introduced by Anselin (1988). This approach is superior to other techniques in capturing the behavior of neighbors through a weight matrix. The weight matrix does not only consist of physical-geographical distance, but also ‘political distance’ where countries’ regime types are taken into account. We find that governance in one country exhibits a positive relationship with governance in neighboring countries.

Finally, we also run Geographically Weighted Regression (GWR) of Brunsdon et al. (1999) that allows us to analyze the issue of spatial non-stationarity defined as “the variation in relationships and processes over space” (Brunsdon et al., 1999: 497). We discover that the coefficients of
the determinants of governance are not constant, but vary across observations. Chapter 6 discusses the spatial dimension of governance in more detail. Chapter 7 offers the conclusions of this dissertation.