1. Opening remarks: corruption and economic analysis

The first scholarly research into the causes and the consequences of corruption date back several decades. Scott's (1972) seminal work on political corruption, for example, dealt with a wide array of aspects of corruption. Until the 1980s, however, academic research on corruption was mostly confined to the domains of sociology, political science, history, public administration, criminal law, and criminology.

Campos and Bhargava (2007a), who have reviewed the evolution of the economic analysis of corruption, emphasize that the earlier systematic studies on the economics of corruption, although extensive and enlightening, were weak on measurement and quantification. The raw material for those studies largely relied on journalism to supply the facts and their results, because there were no statistical efforts to measure the harm caused by corruption. The closest were studies by Krueger (1974) and Bhagwati (1982) that attempted to provide a cautious measure of the volume of rent-seeking and illegal transactions in international trade by making use of the two sets of books available internationally in exporting and in importing countries. Then some authors argued that there was a rather limited quantity of definitive economic analysis. Sanchez and Waters (1974: 249) explained the scarcity of definitive economic studies regarding the impact of corruption on economic performance, suggesting that: “corruption is like sex was in Victorian England: it absorbs intense activity and is the subject of much speculation, but it is seldom considered a suitable topic for serious economic analysis.” Since then, an increasing number of economists have focused on this topic, largely because of its increasingly evident link to economic performance.

The economic part of our work builds on and expands the existing literature through the analysis and elaboration of an extensive data set of micro, macro, and institutional variables. It was mainly in the early 1990s that the economic community witnessed the emergence of cross-country, perception-based, quantitative assessment of country governance and

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1 This chapter was jointly written by Marco Arnone and Leonardo Borlini.
Corruption. The best-known and most referenced corruption index to date, TI’s corruption perceptions index (CPI), started its annual survey in 1995. The annual CPI ranked more than 150 countries (in 2009 it included 180 countries) in terms of perceived levels of corruption, as determined by expert assessments and opinion surveys. The CPI is a questionnaire-based survey, which assesses perceived corruption on a scale of 0 to 10. Ten refers to a (perceived) corruption-free country; zero refers to countries where corruption is perceived as extremely pervasive.

Shortly afterwards, the World Bank (WB) succeeded in developing a more inclusive data set covering broader governance concerns providing a better picture of the overall state of governance in a country, which is split up into six dimensions: control of corruption, rule of law (ROL), government effectiveness, regulatory quality, voice and accountability, and political stability and the absence of violence. With the aid of these data sets, researchers have achieved major strides in assessing the macroeconomic impact, and understanding the microeconomic effects, of corruption.

More to the point, the macro-level econometric findings have been able to establish a material etiological link between corruption and, more broadly, weak governance, on the one hand, and poor private investment and growth, on the other. Empirical research shows that corruption

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2 Since corruption is often concealed (corruption is illegal, and it must therefore be kept secret) and its appreciation is inherently subjective, the measure of corruption is often a problem. Most assessments use perception-based measures of corruption. There exist many polls that measure the level of corruption. These surveys are based on different criteria. Some consist of assessments by country risk analysts based in the home country or abroad. Others are surveys of local or expatriate businessmen, while there are also methodologies based on local residents. The three most popular surveys are from the Economist Intelligence Unit, the International Country Risk Guide, and TI’s CPI. Although different surveys are collected by different methods, ratings from different polls show a high degree of correspondence with each other. Treisman (2000) remarks that indices of corruption that come from surveys of businessmen conducting business in a country are highly correlated with the indices of corruption that come from surveys of the citizens in the same countries. To sum up, although the corruption indices at issue are subjective measures of individuals’ perception, they appear to capture an important conceptual framework, which manifests itself in a variety of other forms in society. From the analysis of the related literature, it unambiguously emerges that the social and economic effects of corruption are significant, pervasive and generally negative. The CPI is a sort of “poll of polls”, condensing composite information from up to 12 individual surveys and ratings. The respondents are business people, risk analysts, and the general public. A country must be covered by at least three surveys to be included in the CPI. Thus, we chose this index mainly because of its comprehensive coverage, and because it incorporates the outcomes of the other major indices.
affects the allocation of resources, by diverting budgetary funds toward activities where bribes and illegal commissions can more easily be made.

Overall, empirical studies exploring the efficiency implications of corruption through its effects on growth and investment, composition of government expenditure, allocation of foreign direct investment (FDI), generally find that corruption reduces growth and investment, skews expenditure towards public investment and away from operations and maintenance, and redirects FDI towards countries with lower corruption. Moreover, the economic literature provides strong evidence of significant adverse distributional effects of corruption: high and rising corruption is associated with higher income inequality and poverty.

Before starting our own inquiry, it is worthwhile to review the main theoretical arguments in favor of corruption which have been put forward. In the past, indeed, views on the economic effects of corruption were not unanimous, and some economists had even found some redeeming value in it. Ehrlich and Lui (1999) argue that corrupt conduct by itself does not necessarily impose a net social cost because it involves transfer payments from bribe payers to bureaucrats. Besides, bribes could even ameliorate the deadweight cost of government intervention by directing scarce resources toward higher bidders (Leff 1964, Lui 1985).

This early stream of theoretical work suggests that corruption might serve to grease the wheels of commerce, thus reducing transaction costs and lowering the cost of capital (Leff 1964, Lui 1985). (Kaufmann and Wei 1999, and Aidt 2003 offer rebuttals.) Until the 1997 financial crisis, some South East Asian countries seemed to represent a case for the view that corruption, within restricted circumstances, might promote growth. “Indonesia, Thailand and some other countries were often mentioned as countries growing fast in spite of, or even because of, perceived high level of corruption” (Tanzi 2002: 43). Notably, “this corruption was associated with a low degree of uncertainty” (Tanzi 2002: 43). Tanzi summarizes, but does not support, the main arguments in favor of the view that corruption may promote efficiency and even growth:

1) As advanced in the 1960s by Leff (1964) and Huntington (1968), corruption can be efficiency enhancing since it removes government-imposed rigidities that impede investment and interfere with other economic decisions favorable to growth. Therefore, corruption would oil the mechanism or grease the wheel, a reasoning frequently used to explain the high rates of growth in some countries of South East Asia.

2) Theoretical models, developed by Beck and Maher (1986), and Lien (1986), show that, in bidding competitions, those who are most efficient can afford to pay the highest bribes. As a consequence, bribes
could promote efficiency by assigning projects to the most efficient firms.

3) Corruption might represent a useful political glue by allowing politicians to accumulate funds that could be used to hold a country together, and that might happen to constitute a necessary precondition for growth.

4) From the starting point that time has different value for different individuals, depending on their level of income and the opportunity cost of their time, Lui (1985) argues that corruption can be efficient since it allows the saving of time by those for whom time has the greatest utility.

5) Since corruption can supplement low wages, it can allow government to maintain a lower tax burden, which can favor growth. The issue here is whether a lower tax burden is more favorable to growth than a lower degree of corruption: a classic second-best problem.

A similar pattern is supported by Eiras (2003) in commenting on the research promoted by the Heritage Foundation/Wall Street Journal, the primary aim of which is to account for the relationship between corruption, economic freedom, and growth. The argument starts by referring to De Soto (2000), who, focusing on the importance of access to credit for economic growth, assumes that many of the poorest in the developing world own many things which, were their property rights validated, could be used as collateral to get credit access in order to start new and, likely, innovative business activities, and ends by asserting that this legal precondition is made impossible by an excessively pervasive bureaucracy.

Eiras (2003) goes on to highlight what seems quite a simplistic etiological relation between the size of the public sector and informal economic activities: corruption, circumvention of rules, and informal economic activities would merely be symptoms of over-regulation, representing some sort of reaction to economic repression and government actions causing undesired behavior by private actors. The gist of the thesis is that informal economic conduct, including corruption, is a recurring side-effect in economic systems where public intervention is high: regulations are mainly regarded as hurdles to economic freedom, while the negative externalities of economic activities seem to be considered less relevant.

In Chapters 2 and 3 we show that the relationships between regulations, corruption and markets, on the one hand, and corruption, public and private sectors, on the other, far from being unidirectional are rather more intricate.

This efficiency-enhancing view of corruption has found little empirical support and has largely fallen out of favor (Aidt 2003). Here, it suffices to
summarize how the main arguments in favor of corruption can easily be countered:

1) Rigidities and rules, far from being exogenous and unmovable features of a society, are created, and in fact can be intentionally created by public officials to extract bribes. In sum, “when rules can be used to extract bribes, more rules will be created” (Tanzi 2002: 44).

2) According to Tanzi, individuals and/or economic agents who can pay the highest bribes are not necessarily the most economically efficient, but rather the most successful at rent-seeking. What is more, corruptors may be associated with a wide network of organized criminal groups: in this sense corruption can have a virulent impact on the legal economy to the advantage of organizations which are inclined to exploit the system.

3) Payment of speed money may constitute a material incentive for bureaucrats to reduce the speed at which most practices are carried out, hence slowing down the average time for the whole process.

4) As emphasized by the same author, whereas it might be true that corruption may work as a political glue in the short run, it is likely to cause major problems over the long run. The experience of Zaire under Mobutu is a paradigmatic case of this dynamic.

As to the link between corruption and public sector size, let us refer to Arnone and Iliopulos (2005), who recall the well-known circumstance that Scandinavian countries are characterized by significant State intervention and low corruption. To explain this commonly held view, the two economists use the level of public revenues per individual country to proxy public sector size and public intervention. By elaborating data from TI and the WB, they show how, contrary to public opinion, large public revenues are associated with low corruption.

Similar outcomes are obtained when using tax revenues to proxy the

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3 The existence of corruption creates the wrong set of incentives in a society. As Ehrlich and Lui (1999) point out, “since bureaucratic power holds the promise of economic rents through corruption, individuals have an incentive to compete over the privilege of becoming bureaucrats.” The existing literature has referred to such activity as rent-seeking (e.g. Krueger 1974). Ng (2006: 828) remarks that rent-seeking is referred to as an “investment in political capital, [which] consumes economic resources that could otherwise be used for production or investment in human capital. This is the source of the social loss from corruption.” Along the same lines, Murphy et al. (1991: 93) argue that rent-seeking distorts the allocation of talent away from entrepreneurship and innovation, thereby reducing growth.
degree of public intervention: higher tax revenues are associated with lower corruption. Public revenue is also a reasonable proxy for public sector size: the larger the public sector, the greater the revenues needed to finance it. The analysis goes on to graph how State revenues and corruption are inversely correlated. Given that this data set also reflects the impact of income in various countries, to control for this influence, they consider another set of more recent data for OECD countries: the “empirical evidence is not sufficient to prove causation; nevertheless, it is sufficient to reject current opinion that large public sector size helps develop corruption.” Rather, “the roots of corruption are not so much in the size of the public sector, as in the discretionary powers of public officials, in the bad management of possible conflicts of interest, and in low quality governance” (Arnone and Iliopulos 2005: 78).

In Chapter 3 we also explore the relationship between economic cycles and corruption. While Akerlof and Shiller (2009) maintain with anecdotal evidence that episodes of corruption are a factor in causing or worsening economic recessions or slowdowns, with specific reference to the 2008–12 economic and financial crisis, Arnone and Davico (2005) argue more generally that causality might also run the other way around: recessions, making resources more valuable and competition stronger, contribute to the collapse of illegal agreements. Therefore, episodes of corruption emerge more easily, facilitating investigations.