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# The Nature, Causes, Consequences, and Mitigation of Corruption: A New Paradigm and Role for Accounting

A thesis

submitted in partial fulfilment
of the requirements for the Degree of
Doctor of Philosophy in Accounting

at
Lincoln University

by Mahir Khamis Sumar Al Zadjali

Lincoln University 2010

This thesis is dedicated to my Mum and Dad.

Abstract of a thesis submitted in partial fulfilment of the requirements for the Degree of Doctor of Philosophy in Accounting

#### **Abstract**

# The Nature, Causes, Consequences, and Mitigation of Corruption: A New Paradigm and Role for Accounting

#### By

#### Mahir Khamis Sumar Al Zadjali

Corruption is increasingly seen as a pivotal issue on which, depending on their response to it, societies rise, decline, or (even) collapse. Accounting's 10 millennia role in generating trust and information for decision makers makes it a natural social institution for suppressing corruption or at least mitigating its harm. Corruption, a furtive act (needing darkness, deception, denial and treachery), is incompatible with good accountability, because it does not long survive exposure of its infidelity, betrayals and defalcations. However, accounting has few effective anti-corruption tools and (as many studies show) accountants are themselves subject to being corrupted. While much has been written on corruption and its consequences, accounting studies on corruption have mostly either relied on extant definitions of corruption or focused on how some accountants have betrayed the trust of their clients and profession by facilitating the corrupt. After reviewing such well-trod paths, this thesis uses a mixed-methods research approach to: 1) consider why accounting and other control measures have tended to be ineffective after centuries, if not millennia, of application; 2) re-examine corruption from a first-principles perspective; 3) evaluate the socio-economic harm generated across a range of corruption (i.e. is corruption ever beneficial or trivial?); 4) propose a shift in the extant corruption paradigm, as a means to make the anti-corruption efforts of accountants and others more cost-effective.

While morality and ethics are vital considerations in any review of corruption, they are too culturally and context sensitive to yield an unambiguous definition of corruption, needed to shape and form operational anti-corruption efforts. Efforts to contain corruption via tools arising from extant definitions and/or legal semantics are all too often *a day late and a dollar short*. In its review of the literature on corruption, this study found that all the reviewed

definitions of corruption focus on attributes of the perpetrators of corruption, most include the intent to obtain a self-regarding wrongful gain, and many are restricted to public office. This thesis contends that the current paradigm of corruption imposes attributes on the corruption definitions that unnecessarily make prosecution of the corrupt nearly impossible, unless those who are being prosecuted are inept or very unlucky. This thesis proposes a new paradigm of corruption where the focus is on victims of corruption—in particular, on the harm they suffer as a result of a breached duty of care. This paradigm fits corruption within the tort *breach of duty of care* and proof of that tort rest on three legs that are individually necessary and, in combination, sufficient to define any and all types of corruption. This paradigm side-steps the emotive and cultural baggage found in most definitions of corruption and, as such, gives a focus to attack this ancient social evil at its root, instead of the thousands of current attacks on its branches, twigs, and leaves.

Social attitudes to corruption range from tolerance to revulsion. This study seeks to focus the struggle against corruption by using quantitative analyses of the output and indices from a range of studies to count the socio-economic cost of corruption and to illustrate how it always harms society. The analysis suggests that businesses use a variety of ways to ameliorate the harm of corruption, however, those means are never fully effective, and the cumulative effects of their competitive bidding for the services of the corrupt eventually precipitate multiple cascading failures in the infrastructure and foundations of society. This study suggests that an accounting of the socio-economic consequences of corruption should include measures of: increased violence, reduced satisfaction with life, and reduced growth, all of which perpetuate or deepen poverty. Thus, corruption despoils the means to increase and maintain wealth and social well-being.

Six cases were developed to test the proposed paradigm. It was found that if the new paradigm had been applied, the corruption in the case would have been cleaned with little or no effort by the government or its institutions—also, the deterrent effect on those considering a gain from corruption would likely be greater than the current anticorruption approach.

This study concludes that corruption can be cost-effectively resolved if a new paradigm of corruption is developed where corruption is seen as a breach of a duty-of-care and the civil courts are used to impose retribution on the guilty and provide their victims with restitution.

**Keywords**: Corruption, Tort, Duty of care, Economic growth, Violence, Social well-being, Corporate social responsibility, Social responsibility accounting, Trust, Transaction cost, Morality, Ethics.

#### **Acknowledgements**

There are a number of people who have contributed in many ways to the completion of this thesis; in particular, I would like to thank the following people.

First, to my great supervisory team of Prof. Chris Wright, Mr. Jack Radford and Mr. Murray Clark: Chris you were like a captain of the ship who really worked day and night to rescue the ship from sinking in rough waters and to ensure its safety. So I would like to acknowledge your valuable time and advice as well as your intellectual support and encouragement throughout my research journey. Chris, I would also like to express my great appreciation to your wife (Dr. Samantha Hettihewa) for her kindness and welcome through my study trips and for creating a great study environment. Jack, I would like to acknowledge your very gentle, welcome support and suggestions. Murray, your dedicated assistance and ongoing support through to completion contributed greatly to the success of my doctoral degree.

I would also like to thank members of Faculty of Commerce, who have been instrumental in providing a pleasant, warm and stimulating studying environment. In particular, I wish to thank Dr. Jamal Roudaki, Senior Lecturer and Accounting postgraduate's adviser, for his continuing assistance and support at many stages of this study and to Professor Ross Cullen, for his continuing care and understanding.

I am grateful to Dr. Peter B Olufemi Oyelere for helpful comments, encouragement, and support at crucial moments and for the criticisms, suggestions, and perspectives provided by Dr. Robert Ochoki Nyamori. These external reviewers significantly improved the presentation and overall contribution of this thesis.

My gratitude also extends to Muscat Municipality which supported me and gave me the opportunity to complete my PhD study. I would like to express my thanks to all who helped me for their tolerance, encouragement and support before, during, and after my research period. Without the assistance of all these people, this study could not have been completed. Special thanks go to my good friend Tariq J. Al-Raisi who-was indeed a friend in need and supported me throughout my study.

Finally, I would like to thank my family who supported me throughout the process and most especially my wife and kids who took care of and encouraged me. Without their support and forbearance, this thesis would never have been completed.

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#### **ABBREVIATIONS**

CIA Central Intelligence Agency

CPI Corruption Perception Index

CSR Corporate Social Responsibility

DTI Department of Trade and Industry

FFC Freedom from Corruption Index

HRW Human Rights Watch

IMF International Monetary Fund

OECD Organisation for Economic Co-operation and

Development

SRA Social Responsibility Accounting

SWL Satisfaction with Life

TI Transparency International

UN United Nations

WHO World Health Organization

WTO World Trade Organization

#### **LEGISLATION**

The legislation referred to in this thesis includes:

- UK Corporations Act (2006), and
- UN Proposal Defining Corporate Social Responsibility for Human Rights (2008).

#### بسم الله الرحمن الرحيم

{ وَلا تَأْكُلُوا أَمْوَالَكُمْ بَيْنَكُمْ بِالْبَاطِلِ وَتُدْلُوا بِهَا إِلَى الْحُكَامِ لِتَأْكُلُوا فَريقاً مِنْ أَمْوَالِ النَّاسِ بِالْإِثْمِ وَأَنْتُمْ تَعْلَمُونَ } 1-

#### **Chapter 1**

#### Introduction and Initial Literature Review

#### 1.1 Introduction

Increasingly corruption is seen as a pivotal issue on which societies rise, decline or even collapse, depending on their success in mitigating it, or at least the worst aspects of its harm. Accounting was established as a Social Institution over 10 millennia ago to facilitate transactions and trade, by providing information and trust (Wright and Sayed, 2003). The success and importance of the *Social Institution of Accounting* can be seen in how society seems to stall in its development until Accounting methods catch up with and mitigate a particularly pernicious limiting issue (e.g. agency issues in multi-city empires; Wright and Sayed, 2003). At a recent CPA Australia workshop, where CPA members were informed about the current struggle against corruption and the role of Accounting in that struggle, it was noted that:

"Corruption is a serious challenge in the contemporary world. It undermines good government, fundamentally distorts public policy and leads to the misallocation of resources. Controlling it is only possible with the cooperation of a wide range of stakeholders." (Lindsay, 2010).

This thesis seeks to contribute to the Accounting anti-corruption role by reviewing and developing an understanding of: the nature of corruption; common extant definitions of corruption; the socio-economic consequences of corruption; and how the focus in the accepted definitions of corruption influence or limit design choices in anti-corruption tools. The understanding is used in an inductively reversed-engineer definition of corruption that can be used to shape and inspire cost-effective anti-corruption tools. The definition and the anti-corruption approaches that it inspires are tested deductively via five cases that include three well-known instances of corruption plus an extension into two well-known situations that may be perceived as corrupt under the proposed new

<sup>&</sup>lt;sup>1</sup> "And eat not up your property among yourselves in vanity, nor seek by it to gain the hearing of the judges that ye may knowingly devour a portion of the property of others wrongfully." The Qur'an, Al-Baqara: Verse 188.

definition/paradigm reverse-engineered in this thesis. The following initial literature review begins the journey.

#### 1.2 Common Extant Views of 'What is and is not Corruption'

Corruption is at least as old as human society (Rider, 1997; Bardhan, 1997, Campos, and Bhargava, 2007), may (per many religions; see, for example., the Qur'an citation, in note 1) be as old as humanity, and it blights every-day life in developed and developing countries at a macro- and a micro-level. As asserted by Amundsen (1999, p. 1) corruption "...eats into the culture, political and economic fabric of society, and destroys the function of vital organs". In addition, Wolfensohn (1996, p. 27) asserts: "Corruption is a problem that all countries have to confront". Mauro (1995) and Lambsdorff (1999) found that corruption is an obstacle for investment and it reduces the economic growth rate (see, also, Campos, *et al.*, 1999). A high-level of bribes to civil servants ultimately reduces the productivity of public investment, which then saps/sandbags growth (Tanzi and Davoodi, 2002). In addition, Myrdal (1968) asserts that corrupt officials cause unnecessary bureaucratic delays and increase transaction costs in doing business.

Mauro (1998a) posits that corruption, in conjunction with other (often related) forms of institutional inefficiency (e.g. political instability, red tape, weak legislative and judicial systems), leads to low levels of economic growth. As Myint (2000), Rose-Ackerman (2002 and 2004), Habib and Zurawicki (2002), and Weber and Getz (2004) assert, there is a need to resolve the issue of corruption and its negative impact on domestic and international business. Pantzalis, *et al.* (2008, p. 388) state that "corruption has become a prominent issue of concern within international institutions and with firms active in foreign markets". Tanzi (1998) added that corruption reduces public revenue and increases public spending. Laffont (1998, p. 21) suggests that: "...corruption entails a favouritism that can be very costly because it induces an inefficient allocation of resources. An inefficient contractor may be selected simply because he is willing to pay bribes."

Corruption acts as *sand in the gears of an economy* (Myrdal, 1968; Braguinsky, 1996; Lambsdorff, 1999; Méon and Sekkat, 2005; Zarb (2005); Goolsarran, 2006), and its control and/or eradication "...has become the focus of more intensive research efforts as the world economies became more globalized" (Wu, 2003, p.3). However, these studies

have left such unanswered questions as how corruption is generated or how it can be successfully fought (Clarke and Xu, 2004)? Levi, et al. (2007, p.389) assert that:

"More needs to be done to encourage cross-border cooperation and to protect those who report and investigate corruption and money laundering. However, we lack solid information on which techniques are most effective."

The importance, scope, and scale of the harm caused by corruption is evidenced by the large number of government, nongovernment and other independent organizations actively involved in curing this *blight*—e.g. the World Bank, International Monetary Fund (IMF), Organisation for Economic Co-operation and Development (OECD), World Trade Organization (WTO), United Nations (UN), Human Rights Watch (HRW), Transparency International (TI), and Interpol. Much of the interest from development agencies arises because empirical studies indicated that corruption distorts the allocation of resources by diverting funds toward activities where bribes and illegal commissions can be more easily made—e.g., from recurrent expenditures to capital investments (see, e.g., Tanzi and Davoodi 2002; Mauro 1998).

The ancient and pervasive phenomenon of corruption has drawn the interest of academics from a wide array of disciplines—e.g. Political Science, Sociology, Criminal Law, Economics, and Ethics. These disciplines have overlapping but unique insights on the nature, consequences, causes and control of corruption. Accounting has, from ancient times, had a unique role in the struggle against corruption that is reviewed in the following subsection.

#### 1.3 The State of Knowledge, in Accounting, on Corruption

Accounting (along with other disciplines) is a key player in the anticorruption struggle.

"Most national organizations of accountants, as well as the International Federation of Accountants, have developed a variety of standards that are designed to combat corruption" (Anonymous, September, 1999, p. 96).

Accounting is often seen as a guardian in the struggle against corruption and many accountants and accounting academics accept that role (Zarb, 2005: Everett, *et al.*, 2007, p. 514). Throughout the book "The Many Faces of Corruption" (Campos and Pradhanl, 2007), contributors asserted that improved accounting was vital to reduce corruption—perhaps naively, none of them saw accounting as a cause or as adding to corruption. A similar situation was found for the book "Performance Accountability and Combating Corruption" (Shah, 2007). The accounting researchers Malagueño, et al. (2010) share this benign view of accounting, as evidenced by their assertion that:

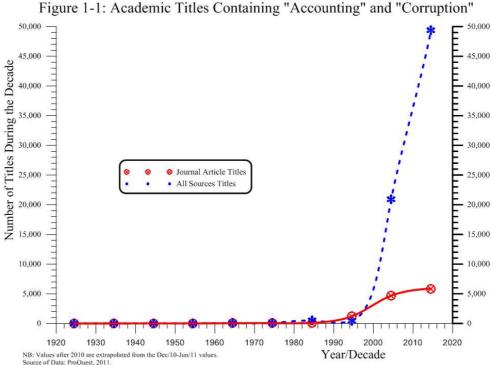
"If an effective accounting system is in place, the likelihood that someone can engage in corrupt acts without being discovered decreases. As a result, Jain's [2001] *probability of detection* is increased, the misallocation of assets is more readily brought to light, and less corruption should be the result" (Malagueño, et al., 2010, p. 374).

Thus, while many non-accountants put great faith in control systems, accountability and accountants as guardians against corruption, as Zarb (2005, p. 6) notes, accounting, "...on both the national and international level, has not escaped unscathed" from neither the depredations nor the influence of corruption. Further, while "...accounting rules can play a key role in curbing corruption" (Heimann, 1997, p. 159), the current accounting tools, control systems and its underlying paradigm appear to be insufficient to sustain a guardian role against corruption. These insufficiencies are apparent in Khan and St Petersburg (2006, p. 4) assertion that the "...rules, regulations, procedures and operational standards ... often leave lacunae [gaps], which create opportunities for corruption or at [the very] least protect corruption". And as Kreikebaum (2008, p. 82) notes, "...even companies applying sophisticated control measures experience a fairly high amount of yet unknown corruptive actions and actors." Auditor independence is a well-known concern in the private sector with recent rules requiring a change in auditors every five to seven years. Gendron, et al. (2001) put a new twist on this issue by noting that with value-for-money auditing, the government audit office become so closely associated with the public management they advocate, that it is difficult for them to sustain the claim of being independent of the public-sector administration that they audit.

Asien and Nuri (2010, p. 3), in their study on the "Effects of Institutional Structures on Accounts Manipulation" suggest that accounting has not contributed significantly to the literature on controlling corruption. The outcome of a review of ProQuest (2011) titles (in their ABI/Inform Complete database) is illustrated in Figure 1-1 and shows a rapid increase interest in the Accounting-Corruption interface that starts in the mid-1990s and flattens out for academic journals in the second decade of the 21st Century, but continues rising rapidly for popular interest.

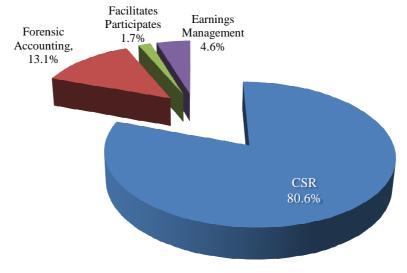
Figure 1-2 separates out, by topic, the 20,905 titles published from 2000-09 (inclusive) and indicates a massive interest in Corporate Social Responsibility (CSR), significant interest in forensic aspects of Accounting, but little interest in accountants facilitating/participating in corruption and little or no interest in Accounting as a guardian against

corruption. The majority of reviewed articles that saw accounting as a guardian against corruption were economic or political in nature, not accounting.



NB: Values after 2010 are extrapolated from the Dec/10-Jun/11 values. Source of Data: ProQuest, 2011.

Figure 1-2: Focus of the 20,905 titles (2000-09) with **Accounting and Corruption on the Title** 



Source: ProQuest, 2011.

In all the reviewed titles on accounting and corruption, the definition of corruption was a serious limiting factor in the discussion of how corruption might be controlled. The 30 definitions of corruption (listed in Table 2-1, Chapter 2 of this thesis) are generally representative of the definitions used in 2,000 of the 4,691 journal articles with accounting and corruption in their title and published between 2000 and 2009, inclusive. More articles would have been checked, except by 1,800 articles the definitions were essentially represented by the 30 selected for Table 2-1 (i.e. a few words changed but the meaning and content remained covered by the 30 definitions). It is obvious from this outcome that accounting scholars, like many other scholars, tend to use earlier accepted definitions for thorny issues like corruption. A quick review found a similar outcome for the non-academic titles containing accounting and corruption and published between 2000 and 2009, inclusive. This finding also appears to be consistent for non-accounting academic journal articles on corruption (please note, the review sample in this later case was very much smaller—only a few hundred).

In Figure 1-3, the 30 reviewed definitions of corruption (listed in Table 2-1, Chapter 2, this thesis) are linked into a Phylogenetic Tree to illustrate the flow of the notions they represent. It is clear in Figure 3-4 that all of the notions in the reviewed definitions of corruptions arise from a single paradigm/(root-stock definition) where corruption is defined and/or identified by the attributes of perpetrator(s) and gain(s) of corruption.

Root Stock Concept
Morel and Ethical 8-18-19
Public Scott (18-78-10)
Public Scott (18-78-10)
Public Scott (18-78-10)
Public Scott (18-78-10)
Pincipal/Agent (18-24-31)
Pincipal/Agent (18-24-31)
It is a second to Table 1

Current Paradigm
A focus on the
Attributes of the
Perpetrator

New Paradigm
A focus on Victim
and Consequences

Figure 1-3: A Phylogenetic Tree Depiction of Reviewed Corruption Definitions

When ethical/Moral definitions are considered, it is clear in Figure 1-3, that the common practice of defining/identifying corruption by the attributes of perpetrator(s)

and gain(s) of corruption is ancient. Given that this approach has (over many thousands of years) had little joy in stemming the tide of corruption, it is likely time to formulate a new paradigm/(root-stock definition) of corruption. Corruption has at least two sides—the perpetrator(s) and the victim(s). In developing a new paradigm of corruption, this thesis flips the old paradigm and defines corruption in terms of the victim(s) and consequences of corruption.

Stapenhurst and Dye (1998) assert that, for it to meaningfully contribute to the struggle against corruption, accounting must move from its traditional observer/historian role. However, as Belkaoui (2004) notes, the levels of accounting quality and corruption are highly correlated—which suggests that, if well implemented, the supporting observer/historian role of Accounting may well prove to be decisive in the struggle against corruption. Pearson (1995, p.23) posits that "... the law will never be wholly effective in eliminating transgressions, and even where it does seem appropriate—for example, in cases of fraud—its application is often extremely cumbersome and expensive." A well-developed and received literature by Critical Accounting Theorists, Positive Accounting Theorists and others, suggests that at least some corruption is created, facilitated, ignored or abetted by accountants (Hooper and Pratt, 1995; Neu, 2000; Wyatt and Gaa, 2004; Christensen, 2007; Sikka, 2008, 2010, and 2001; Mitchell, et al., 1998). While this area of study is important to accounting, it is far outside the stated scope of this thesis.

As discussed above, an overview of 2,000 of 4,691 journal articles (42.6 percent) with the words *accounting* and *corruption* in their title and published during 2000-09 showed that all relied on definitions that were derived from a root focus on the attributes of the perpetrator of corruption and ignored the attributes of and/or harm to the victims (see Figure 1-3). In many cases, the definitions are variants of a definition developed by the World Bank (1997, p. 8) and International Monetary Fund (2005) with corruption being "the misuse (or abuse) of public office for private ends (or gain)". As discussed in the next subsection and developed in detail later in this thesis, crucial limitations and flaws in this family/paradigm of corruption definitions unnecessarily limit the scope of what is seen as corrupt and can make the prosecution of corruption onerous to the point of being nearly impossible.

Given the outcome illustrated in Figures 1-1 through 1-3 and in Table 2-1 (Chapter 2), it became apparent that no gap in the accounting literature was going to provide a venue

to research a solution to corruption. As a result, the focus of the research shifted away from accounting literature on corruption to a detailed exploration of corruption definitions in other disciplines and a review of the nature and effects of corruption. Eventually, this expanded search would lead to the conclusion that the current corruption paradigm was deeply and fundamentally flawed and that another study using that paradigm would only add another log to the current log-jam on anticorruption research—a new paradigm on corruption is needed. As McSweeney and Duncan (1998) note, an understanding of something is profoundly shaped by the prior images of those seeking the understanding. If the prior image is fundamentally flawed, a new paradigm is needed to facilitate a new understanding of, and approach to, corruption.

#### 1.4 Defining Corruption

Much of the literature on corruption suggests that its study must be a *multidisciplinary* phenomenon (Ijiri 1973; Jain, 2001; Lee-Chai and Bargh, 2001). Working from that premise, this study reviews and considers a range of corruption paradigms (from and across an array of disciplines) so as to penetrate the heart of corruption and, from that vantage point, develop a broad, general and sufficient definition of corruption.

Fraud is broadly defined as using deceit (by commission or omission) to alter the mix of entitlements, either in one's favour or to the disadvantage of another individual or group. However, that definition is far too vague to be a decisive contribution to the struggle against corruption—a more rigorous and inclusive paradigm on corruption is needed to focus the effort to cost-effectively control corruption. The search for such a paradigm, in this thesis, begins within the accounting discipline and rapidly branches out into the wisdom and experience of other disciplines.

While the quest for a definition of corruption has a long history in many disciplines (especially moral philosophy), few researchers explicitly examine its nature or details (Bac, 1998; Aidt, 2003; Miller, 2004; Calderón-Cuadrado and Alvarez-Arce, 2006). As noted by Leys (1965, p. 215) "...the general problem in writing about corruption was that *the facts cannot be discovered, or that if they can, they cannot be proved.*" Further, there are suggestions that broad and fuzzy "...definitions of corruption may be one reason why [effective] prosecutions are so low..." (Glossaries, 2008, p. 21). As Klaus-Henning (2007, p. 9) notes:

"Audits can be successful only if auditors [and prosecutors] understand the nature of corruption, recognize circumstances suggestive of corruption, and know how to proceed if clues are identified".

Setting a "...need to define *concrete results* might appear to be a tall order in an area where quantification is difficult" (Mauro, 1998b, p. 14). However, Calderón-Cuadrado and Alvarez-Arce (2006) assert that, because the complexity of corruption contributes greatly to gaps, discrepancies, and failures in how it is resolved, there is a desperate need to understand that complexity. Deflem (1995, p. 244) added that "most studies of corruption begin with some definition of corruption, often indicating how difficult it is to ascribe a clear-cut meaning to the term." Thus, a corruption paradigm that can encompass or subsume its complexity (Khan and St Petersburg, 2006) is an essential requirement for accounting to develop cost-effective tools to fulfil its anticorruption-guardian role.

One way of considering why Accounting might need a new paradigm of corruption is to review Kuhn's (1996) concept of a *paradigm shift*. Hairston, (1982, p. 77) states that:

"Kuhn believes that because these shifts are so disruptive, they will occur only when the number of unsolved problems in a discipline reaches crisis proportions and some major figures in the field begin to focus on those un-solved problems."

The literature on corruption contains several definitions derived by looking at specific examples or defining it relevant to the researcher's area of interest (Jain, 2001) and, as noted by Jain (1998, p. 13) "...almost everyone who writes about corruption attempts to first define it". However, these definitions often stand alone and there appears to be little or no first principles review of why and how corrupt acts came about or how the extant definitions were developed or are related. Further, as asserted by Tanzi (1998, p. 564) corruption "...has been defined in many different ways, each lacking in some [critical] aspect". As illustrated by Friedrich (1972) that:

"Any attempt to analyze the concept of corruption must contend with the fact that in English and other languages the word *corruption* has a history of vastly different meaning and connotations."

Seeking to better understand the nature of corruption and the relationship between various definitions of corruption, a few economics studies (Becker and Stigler, 1974; Banfield, 1975; Rose-Ackerman, 1975, 1978, 2008a; Klitgaard, 1988, 1991) have sought to extend the principal-agent model. Other researchers analysed the demandand/or supply-side of corruption in making a contribution to the analysis of the nature of corruption (Andvig and Moene, 1990; Pacini, *et al.*, 2002; Mohtadi and Roe, 2003;

Bose, et al., 2008; Gorodnichenko and Sabirianova, 2007). However, these studies all defined corruption using variants of the World Bank definition—that corruption "...is the abuse of public power for private benefit". This very widely used definition of corruption leaves open the issue of just what is meant by abuse, suggests that corruption occurs only in the public sector (i.e. is not present in private sector transactions) and does not tie-down what constitutes a private benefit (e.g. it leaves open the possibility that corruption is tolerable or even acceptable if it provides significant benefits to many at a small cost to a few). The obvious existence of corruption within private corporations (domestic and/or international) shows the first part of this definition to be fatally flawed. As asserted by Tanzi (1998, p. 564) that "...corruption clearly does exist" in the private sector. Svensson, (2005, p. 21) suggests that "...corruption can also take the form of collusion between firms or misuse of corporate assets that imposes costs on consumers and investors" (see also Argandona, 2003). Thus, the World Bank definition of corruption focuses only on a small subset of the range of situations where corruption can and does exist—as such, it is fatally and irretrievably flawed.

Transparency International provides an operating definition of corruption as "the misuse of entrusted power for private gain". Although this definition is not as limiting as the World Bank definition of corruption, it is also fatally flawed because, like the World Bank definition, it makes private gain a required outcome for there to be corruption. Specifically, private gain does not always eventuate from corruption, even though it is often the likely original intent of corruption. Further, as Tanzi (1998, p. 564) notes, corruption in the form of "...the abuse of public power is not necessarily for one's private benefit but for the benefit of one's party, class, tribe, friends, family, and so on".

Shleifer and Vishny (1993) distinguished two kinds of corruption (with- theft and without- theft) within a government arena. With theft corruption occurs when a government official takes a bribe in exchange for reducing payments which the briber owes to the government (i.e. taxes or tariffs). Whereas, corruption without theft occurs when a government official takes some additional money from the briber—who is willing to pay—to get the goods or services. In the case of corruption without theft, it happens when the markets are competitive. Although, Rose Ackerman (2008b, p. 334) argued that "competitiveness reduces corruption" (see, also, Ades and Di Tella, 1999; Sandholtz and Koetzle, 2000; Blake and Martin, 2002). In counterpoint, Pearson (1995) argues that competition, by its very nature, often creates a morally ambiguous business

environment. Kulik, *et al.* (2008, p. 720) concluded that "there are limits to the benefits of competition in organizations". Shleifer (2004, p. 418) added in his description of relationship between unethical and consequences of market competition is that "...competition is likely to promote ethical behaviour in the long run".

Klitgaard (2010, p. 3) suggests that "we must understand corruption as a phenomenon of systems, rather than (just) of immoral individuals." The Theory of Planning Behaviour asserts that the individual person or firm is dedicated to winning and if an individual expects to lose, s/he may immediately espouse the behaviour of the winner, even if that stance involves the acceptance of unethical behaviour.<sup>2</sup> Sethi and Sama (1998) argue that corporate actions are not only influenced by internal considerations, but that those actions are also significantly affected by alternative external market conditions (such as the competitive conditions). They were searching for "the types of actions that might be more effective in improving business ethical conduct under varying sets of markets based competitive conditions." Kulik, et al. (2008, p. 720) posit that "...while it may be that beneficial effects of competition can be observed in interorganizational interactions, intra-organizational competition at the individual level may instead negatively affect an organization's efficiency, effectiveness and ethical climate". Etzioni (1982, p. 26) argued (from a social science perspective) that "a more effective approach is prevention grounded in an understanding of the constituencies involved in constituency analysis can identify the constellations of social and political power that sustain existing opportunities for fraud and abuse, and those that will support countermeasures".

As suggested above, and as asserted by Svensson (2005, p. 21), no current widely accepted "...definition of corruption is completely clear-cut". Further, as Sandholtz and Koetzle (2000, p. 3) note "...a definition of corruption that is portable across cultures [and/or situations]" is very much needed.

The relationship between accounting (traditional, social and environmental) and social problems (e.g. poverty, race, corporate social responsibility and corruption) are relatively new notions in accounting literature (see Kamla, 2008 and Spence, 2009). Accounting and accountants are major contributors to how society functions, via their process, practices and profession. Critical accounting provides insight into some of these issues. Laughlin (1999, p. 73) defined the critical role of accounting as:

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<sup>&</sup>lt;sup>2</sup> For comprehensive surveys of this literature, see Ajzen (1985, 1987, and 1991).

"A critical understanding of the role of accounting processes and practices and the accounting profession in the functioning of society and organisations with an intention to use that understanding to engage (where appropriate) in changing these processes, practices and the profession".

In addition, Laughlin (1999) argues that, in its role in resolving social problems, accounting requires intellectual borrowings from other disciplines to give theoretical and methodological perspectives to address these complex agendas. Similarly, Ijiri (1973, p. 23) suggests that in considering unsolved issues within accounting, it is "...an accountant's responsibility to [search]...for useful theories in the..." disciplines surrounding accounting. Shleifer and Vishny (1993, p. 604) added that "...the first step to reduce corruption should be to create an accounting system that prevents theft from the government". Laughlin (1999, p. 74), also, asserts that accounting should "...look outwards to other 'mature' disciplines for...guidance on how to address the complexity with which they are dealing". In recognition of the effects of accounting on society, Ijiri (1973, p. 24) asserts that "accounting changes cannot be made without due consideration of their effects upon the interest of various parties [stakeholders] involved". Lehman (2005, pp. 675-676) posits that "Accounting is a social practice with people, cultures, and myths performing the dance and concert that create relationships, collaborations, harmonies, and conflicts". Wright and Sayed (2003, p.125) state that "instability in accounting should not be an issue—rigidity in the face of change is a liability. Specifically, in a changing social climate, social institutions evolve to meet challenges or disappear via replacement, irrelevancy, or the collapse of the society they failed". Verschoor (2010, p. 14) added that "...corruption also hinders companies from acting as good corporate citizens." While Accounting has over the last ten millennia evolved to meet society's information and trust needs as they arose, over the next decade it must raise its game. Specifically, in a rapidly changing society (Wright, et al. 2008), Accounting must shift from a reactive response to corruption to a proactive one. This thesis seeks to aid that process by helping Accounting develop via the formation of a new paradigm of corruption. That paradigm should define and challenge corruption at its root, rather than reacting to the ever mutable categories, variants, and individual instances of corruption that in response to limited responses to corruption evolve away from those limits into new but equally pernicious forms.

The emergence of a new paradigm in defining corruption is needed because current definitions of corruption have not helped to find an appropriate means to mitigate it.

Thus, this study will continue its search for a workable definition of corruption by following approaches from several disciplines and using a descriptive studies format.

#### 1.5 Exploring the Nature of Corruption

Corruption has been defined differently, depending on where and when it occurred, or was investigated. This study found those definitions to be generally excessively over-informative. Specifically, they provide more perspective than understanding and offer little in the way of a working solution. In accounting, as Sterling (1975, p.28) observed, problems are often defined in such a way as to make them "unresolvable". In the case of corruption, the most widely accepted definition of corruption being *the misuse* (or abuse) of public office for private ends (or gain) creates significant problems—e.g.:

- The phrase "public office" is too limiting—corruption can occur outside such roles,
- Gain is a *red herring*—while gain is a common intent of corruption, corruption does not always lead to gain, and not all gain is corrupt, and
- Proof of intent places an unfair and excessive burden of proof on an accuser such proof is almost always difficult to obtain, especially in a corrupt environment.

Corruption tends to be so twisted, convoluted and confused that the struggle against it needs a general and unambiguous definition of corruption. A key thesis developed in detail later in this study, and its major contribution to accounting, is that the notion of tort provides such a definition. When conceived of as a tort, corruption has three legs that must all stand for a given situation/action to be deemed corrupt. Specifically, an accusation of corruption requires proof that:

- i. A duty of care existed,
- ii. The duty of care was breached, and
- iii. Harm arose from the breached *duty of care*.

The first two *legs of proof* (immediately above) are mostly involved with the *merit* of an accusation of corruption—as questions of fact they are reasonably easy to prove or disprove. Harm and its cause (as the third *leg of proof*) have some involvement with merit but are mostly to do with measuring *quantum*. There is extensive debate on the harm of corruption and a few researchers even claim that low levels of corruption may even foster economic growth (Leff, 1964; Huntington, 1968; Yoshihara, 1988; Coppier and Michetti, 2006). However, most academic research is critical of the perceived negative effects of corruption on economic growth and social development. Until

recently, few researchers believed there were any beneficial effects from corruption. Recent corruption research has been increasingly inclusive of the possibility that corruption may have redeeming elements (Tanzi, 1998). However, governments in most developed and developing nations condemn any and all forms and levels of corruption.

Corruption has been a popular subject of research over the last two decades because the expansion of the global markets and global citizenship has increased awareness that different cultures can have different views on the nature, consequences and tolerability of corruption. Based on the assumption that development best proceeds in a trustworthy environment, some researchers have focused on the negative effects of corruption, while others are reconsidering the effect of corruption.

Many corruption definitions focus on the divergence between the principal's interests and those of the agent (e.g. "Corruption occurs when an agent betrays the principal's interests in pursuit of her own"; Klitgaard, 1988, p. 24); Corruption is behaviour which deviates from the duties of public role (elective or appointive) to serve private-interest (Gillespie and Okruhlik, 1988). In a fine tuning of this definition, the World Bank (1997, p. 8) and IMF (2005) defined corruption as "the misuse (or abuse) of public office for private ends (or gain)". Fundamental problems with this definition of corruption are:

- 1) It is far too narrow, in that it restricts the definition of corruption to public office (e.g. if a government function is privatized the corruption remains but has been defined away);
- 2) It requires an accuser to prove the defendant gained via corruption;
- 3) It requires an accuser to prove the defendant intended to gain via corruption.

Kingshott and Dincer (2008, p. 70) suggest that "...by understanding the variety of antecedent conditions leading to corrupt acts our managers and policy makers can take necessary remedial action". Lehman and Okcabol (2005, p. 614) assert that "accounting practice has always been concerned with fraud, and has always been effected by financial collapses, management transgressions, and misstatements by corporate officers." Therefore, this thesis seeks to develop a corruption definition that will be sufficiently unambiguous, general and broad in scope to help accountants focus their struggle to reveal and/or contain and control corruption.

#### 1.6 The Purpose of this Research

It was not possible to define the purpose of this study until the initial literature reviews were complete and were integrated into an over-view of corruption. The overall purpose of this study is to develop an understanding of corruption, its nature, and its socio-economic consequences—the ultimate intent is to develop or improve anti-corruption controls, to enhance the ability of Accounting to meet its perceived social obligation to identify and contain, control, and/or mitigate corruption. The first hurdles to attaining these goals are the lack of a viable extant definition of corruption and the complexities, ambiguities and cultural imperatives that tend to make developing a general definition of corruption very difficult. If accounting is to develop general and cost-effective anti-corruption solutions, the discipline must move from being reactive to apparent social needs, to search out a more proactive means to define and fight corruption. This thesis, to contribute to this process, is organised to:

- Illuminate the nature of corruption via a literature review, speculative thought, analysis, and case-studies.
- Propose an effective, general, and unambiguous definition of corruption.
- Quantify the economic consequences of corruption via related indices.
- Quantify the social consequences of corruption and its effect on the well-being of the societies concerned.
- Examine moral and ethical issues associated with corruption and determine whether an ethical/moral solution is practical for corruption.
- Propose how accounting and law can provide a cost-effective control of corruption.
- Validate the thesis by applying its notions and conclusions in case studies.

#### 1.7 The Research Questions Being Investigated

Yin (2003) and Maxwell (2005) posit that the research question defines/limits what a researcher wants to learn or understand. They suggest that these questions establish an overall guide for the conduct of the research. As Yin (2003) notes, the literature review for a case study is intended to develop relevant and insightful research questions about the topic being researched. The initial review of research literature in this study resulted in the thesis being re-structured and re-directed to resolve:<sup>3</sup>

- 1) What is corruption?
- 2) How have others defined corruption—what are the strengths and weaknesses of those definitions? (See question 5, below).
- 3) How this study defines corruption?
- 4) What are the socio-economic and political consequences of corruption?

<sup>&</sup>lt;sup>3</sup> While this study recognises the importance of the history of accountants facilitating and otherwise engaging in corruption, that issue is outside the research question of this thesis and is mostly left to future research.

- 5) What are the ideal attributes of a cost-effective solution to corruption?
- 6) Can a solution be developed that achieves most of those attributes?

#### 1.8 The Relevance and Significance of this Research

This research is important, from both an academic and practical perspective, because:

- From an academic standpoint it:
  - Provides a source of reliable and valuable secondary data for researchers.
  - Devises an alternative definition/paradigm of corruption.
  - Allows future researchers and academics to be aware of some consequences of corruption and its relationship to socio-economic development.
  - Is consistent with an international accounting focus, in that it seeks a principles-based, not a procedures-based definition of corruption.
- From a practical standpoint it:
  - Enables organizations to enhance their awareness of their *duty of care* and consequences that may arise from a failure in that duty.
  - Enables government and non-government organizations to be aware of the potential consequences of corruption on their constituencies and on society in general.
  - Warns that even the richest countries may suffer great harm and/or reduced wellbeing from corruption.
  - Enables organizations which conduct surveys to have a more practical means of measuring the existence and level of corruption.
  - Proposes a viable practical solution to corruption.

#### 1.9 The Contribution of this Research

This research considers various aspects of corruption so as to discover/create insights to benefit academics, accounting practitioners and the general populous. It seeks to make a contribution to the literature by synthesising a review of the literature on corruption within accounting and several other disciplines. That synthesis (see Chapter 4) suggests that:

- 1. The battle against corruption is often fought on moral rather than economic grounds. However, reality frequently shows that economic factors are important elements in the struggle against corruption, in terms of both motivation and consequences.
- 2. A review, discussion and synthesis of extant literature on corruption combine to form a reasonable base for further research.
- 3. Summarization and categorization of different corruption measurements and indices help researchers (new to the study of corruption) become aware of possible limitations to measurement in their studies.
- 4. There is a strong negative correlation between corruption and socio-economic growth and development. The correlation is strong enough that developed and developing countries need to be aware of the harmfulness of corruption and need to be proactive in mitigating corruption if they want continued, strong economic growth.

- 5. A study of the economic and social development costs of corruption may be more meaningful than the common simplifying portrayal of corruption as a cancer within society. It is noted that a key cost/consequence of corruption is its disruption of trust and the resulting increase in transaction costs.
- 6. The ultimate aim of this thesis is to facilitate the anti-corruption role of accounting by introducing a new paradigm on corruption that may assist in the development of cost-effective means to resolve or mitigate corruption.

#### 1.10 Structure of the Thesis

This research investigates the nature of corruption to provide insights and a definition that may assist in the development of a cost-effective accounting/legal resolution to corruption. Results from this study are presented: starting with a statement of the problem, a literature review on the received knowledge on corruption; a gathering of information about the nature of corruption and a framework of how the research methodology was selected. An analysis of the various published indices considered the cost and consequences of corruption on the economy and the well-being of society. Then five case studies are used to evaluate the validity of the thesis findings and suggested solutions. The chapter arrangement is as follows:

Chapter 1 provides an introduction, a summary of the initial literature reviews, an overview of the purpose, research questions, and relevance of the research, and an outline of the structure of the thesis.

Chapter 2 summarises and analyses the literature review performed concerning the debate surrounding the various definitions of corruption that for one reason or another have been unable to overcome their shortcomings in dealing with corruption. Also, this chapter reviews literature on the cost and consequences of corruption on socio-economic factors. Additionally, it provides a brief description on two corruption indices (CPI and FFC) that are used widely in the literature and applied throughout this study.

Chapter 3, after summarising the research problem, explains why a mixed-methods research approach are chosen and presents various procedures that are considered for use in this study (to resolve the research problem). The reasons behind the choice of method used to select, collect and analyse data are explained, and the research problem is discussed/analysed in terms of the research methodologies chosen.

Chapter 4 summarises the literature review to illuminate the nature of corruption and set requirements that any definition of corruption must meet (if it is to provide the basis of a cost-effective anti-corruption solution). Extant definitions of corruption are gathered from a wide array of disciplines and evaluated against the proposed set of requirements, and a corruption definition is refined to meet the proposed requirements.

- Chapter 5 provides a rationale for why corruption should be resolved, an analysis of the cost/consequences of corruption on the economy and wellbeing of society. This chapter provides an analysis of corruption indices and other macroeconomic, political, social and other data, and a discussion of how that data was reorganised, to facilitate various regressions to investigate the causes and consequences of corruption on those countries.
- Chapter 6 details and discusses a literature review of moral, ethical, and socio-cultural aspects of corruption. Recognising that this line of enquiry is likely to remain ineffective for a generation or so, this study shifts its focus to the search for an interim solution, via accounting and law.
- Chapter 7 provides an application of the research to five selected case studies (WorldCom, Enron, Goldman Sachs vs. Bear Stearns, British Petroleum's (BP) Deep-water Horizon oil-spill debacle in the Gulf of Mexico, and Bofors-India Scandal) to illustrate the relevance and usefulness of the proposed paradigm shift and to contrast the effect of the new paradigm against the actual outcome of the current paradigm.
- Chapter 8 draws conclusions, highlights the contribution of the research, considers the policy implications arising from the research, presents limitations which became apparent during the process of this study and provides suggestions for future research.

#### **Chapter 2**

#### The Debate on Corruption as a Phenomenon

#### 2.1 Introduction

While the terms *corruption* and *fraud* are often used interchangeably, they are far from being synonyms. Khan and St Petersburg (2006, p. 4) assert that "corruption' takes place in the form of bribery, kickbacks, commissions, or other benefits without leaving any trace in the official records". Khan and St Petersburg (2006, p. 4) also claim that "...fraud consists of deriving undue benefit by bypassing some controls or bending some rules". Many other common definitions of corruption were enumerated, evaluated and compared in the previous chapter. However, those definitions of corruption tend to show it as a more general notion; whereas, definitions of fraud tend to suggest that fraud is a subcategory of corruption. Also, corruption is almost always considered to be a social wrong, but it is not always unlawful. In contrast, fraud is almost always seen as a breach of law. This study focuses on the more general (e.g. root) concept of corruption.

Corruption has been a popular subject of research over the last two decades because of expanding global markets. Based on the assumption that development best proceeds in uncorrupted environments, some research focuses on the negative effects of corruption and other reconsider the effect of corruptions. The literature review, consistent with the findings of Klitgaard (1988), found the field to be relatively tentative and thin, with few theoretical frameworks, international comparisons, or careful case studies.

The remaining sections of this chapter: investigate the nature of corruption; separate and allocate corruption into rational classifications; debate the nature of corruption; provide a detailed discussion on 30 extant definitions of corruption; highlight socio-economic consequences of corruption; discuss how corruption can be measured; and provide a summary of, and conclusion to, the chapter.

#### 2.2 Nature of Corruption

The literature on corruption contains several definitions derived by looking at specific examples or defining it relevant to the topic for the research study (Jain, 2001). Corruption has existed for ages, and it appears in various forms in different periods or, within a given era, with a variety of faces. Corruption is connected to administration,

politics, economics and society (Tiihonen, 2003). Corruption is as old as government itself (Klitgaard, 1988).

All the above statements and others examined but not included in this study are answers to the question: "...how can corruption be defined?" However, as asserted by Jain (1998, p. 13) "almost everyone who writes about corruption attempts to first define it". There is no theory of why and how corruption arose or how the development of World Bank definition of corruption as "misuse of public office for private gain" came about. However, the World Bank definition of corruption has become very dominant even though it is limited to wrongful acquisition of economic benefits from the institutional power inherent in political and bureaucratic appointments and excludes corruption involving other relationships.

This study, to understand the nature of corruption and the relationship between different definitions of corruption, initially extended the principal-agent model. Many researchers have advocated the principal-agent model of corruption (e.g. Becker and Stigler, 1974; Banfield, 1975; Rose-Ackerman, 1975 and 1978; Klitgaard, 1988 and 1991). The next focus was to understand the relationship between corruption and demand-and-supply models which analyse the nature of corruption via demand and supply dimensions. The following sections briefly view these models and their contribution to the understanding of corruption.

#### 2.3 Review of Studies that Define/Examine Corruption's Nature

The literature review starts with studies giving a general discussion and/or analysis of the causes and the consequences of corruption on a country's economy, on society and on humanity. Studies articulating the nature and effects of corruption were gathered, compared and contrasted. Common, well known, and general definitions of corruption include 'the misuse of power for private gain' or 'the misuse of public office for private benefit or private interest'. Much of the literature on the consequences of corruption is from economics and tends to focus more on the economic consequences of corruption than considering the nature and/or definition of corruption. This dearth of first-principles research on corruption redirected this study into a focus on the nature of corruption, the purpose being to develop a taxonomy for corruption to act as a focus in the search for its costs, consequences and cure and led to the development of Figure 1-3.

Ambiguity present in extant definitions of corruption tends to create major confusion in the literature and research as to what is and is not corruption. That confusion is reflected in the diversity of attitudes to corruption (e.g. is it a problem for an agent to receive a benefit/gift if the agent still serves the principal's best interests?). Further, weak and situation-specific definitions of corruption greatly add to the complexity that cultural norms and values add to corruption and, as a result, confound corruption control efforts. A more general definition of corruption is needed to transcend culture and situation and to make corruption an unambiguous *bad*. As such, a clear definition is an important part of focusing efforts to measure and mitigate the costs and consequences of corruption.

Ambiguity, confusion and stealth facilitate the corrupt by frustrating efforts to regulate, document, and control the use of power and authority. The author has personal experience where accounting rules and regulations were met in terms of the documentation processes and authorization signatures, but ambiguity remained in the actual process—as a result, projects were finalized and completed without a tender being issued and/or payment was made on fictitious projects. Thus, ambiguity frustrates the proof of the discharge of a *duty of care* and/or an accounting of the harm and consequences arising to individuals and society from a breach of a duty of care. As asserted by Everett, Neu, and Rahaman, (2007, p. 514):

"The open-ended nature of the term, the ambiguity surrounding just what it is exactly that constitutes a corrupt act, should be of concern to anyone involved in attaining the status of 'improver', that is, to anyone wishing to 'fight' corruption'.

A trans-national and trans-cultural review of corruption and attitudes on corruption provides a path to a general understanding of corruption's nature and consequences. Different forms and definitions of, and attitudes to, corruption appear in different countries, and each of these countries has its own approach to dealing with corruption—including it being an accepted norm.

Funded organizations (e.g. World Bank, IMF) and scholars of many fields (economics, anthropology, criminology, sociology, etc.) have long espoused an interest in resolving corruption—as can be seen in the works of Aidt (2003), Jain (2001), Lambsdorff (1999), Tanzi (1998), Kaufmann (1997), Mauro (1995), Alatas (1990), Klitgaard (1988) and Rose-Ackerman (1978 and 1999). While such assertions and efforts have not deterred corruption, they have succeeded in highlighting the problems of corruption.

A major failing in the above studies is their focus on symptoms of corruption, rather than the developing of a practical and workable definition of corruption. The common

definition of "a misuse of public office for private gain" focuses on gain while a modified version includes the "intent to gain". Both these common definitions are fatally flawed because (in part) the gain to the corrupt is often a mere fraction of the harm caused and (mostly) intent is almost impossible to prove, unless the corrupt are very stupid, ignorant, or naive. Thus, these definitions add ambiguity to the issue of corruption and make it harder to prosecute and/or control.

Focusing on the harm created by corruption is suggestive of corruption being defined as: a breach of duty of care resulting in harm to those whom one owes that duty of care. Having found an effective operating definition of corruption, the next step is to analyse corruption's cost and consequences on business, the economy and society. Corruption has multiple complex paths of harm—Alatas (1990, p. 9) suggests that corrupt act corruption cascades into "....numerous other kinds of corruption, leading to crime, vice, anti-society practices and other harmful consequences".

The use of secondary data sources (e.g. corruption, mortality, satisfaction-with-life, natural-resources, and oil-production indices from official websites of the UN, WHO, TI, CIA, Heritage Foundation, World Bank, etc.) greatly expanded the scope, range, and time coverage of this study.

The literature review, in the initial stages of this research, found a plethora of studies on the effects and morality of corruption, but a dearth of literature on its general nature and causes. While detailed empirical research via questionnaires would be useful, it is important to note that because corruption is a sensitive, shameful and potentially criminal issue, it is difficult, potentially offensive, and often risky to conduct interviews or ask people why they choose to be corrupt. This study examines reviews from a variety of disciplines and the results of world surveys (done or funded, at enormous cost, by various think-tanks and world bodies) to identify and collate commonalities and trends into a new overarching perspective of corruption. The intent of this research is to organise an array of views on corruption into an archetype-template, from which future research can draw and coordinate effective ways to resolve corruption.

The literature review of moral, ethical, and socio-cultural aspects of corruption was over-informative—i.e. it provided more perspective than understanding or solutions. Weick (1989) provided insight into the information overload problems with such a review when he noted "...theorists both choose the form of the problem statement and

declare when their thought trials have solved the problem they pose". The literature on the moral, ethical, and socio-cultural notions on corruption is prodigiously fruitful. However, as suggested in the Figure 3-1 framework (synthesized during the literature review to organise the moral and ethic issues raised about and/or associated with corruption) this super-abundance of often cultural- and situation- imperative outcomes can be problematic when seeking to formulate a generally acceptable, cost-effective, solution to corruption.

After extensively reviewing literature on the moral and ethical aspects of corruption and developing the above framework, it became apparent that these aspects of corruption are so intangible and situational and culturally-specific that it will likely take generations to develop an operational definition and solution to corruption. This realisation shifted the focus in this study from morality and ethics to how economic, behavioural, legal, and accounting principles might be used to develop a cost-effective interim means to control corruption—until a more permanent moral, ethical, and socio-cultural solution is found.

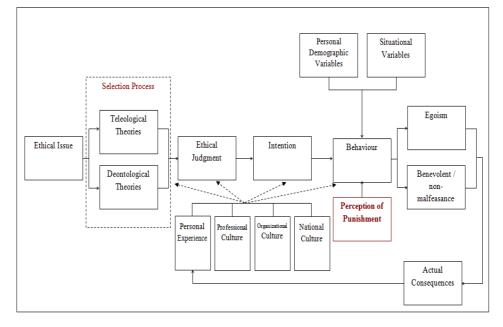


Figure 2-1: Outline of key elements contributing to moral and ethical decision making

As will be discussed in chapter 4, in terms of its effects and legal remedies, corruption is a form of tort. Advanced content analysis will be used in chapter 4 to develop logic for the grounded theory that corruption can be treated as the tort *failure of a duty of care*. Content analysis is a methodology to:

- Structure, summarise, and analyse written materials,
- Provide knowledge, new insights into the representation of facts, and a guide to practical action,

- Sift through large volumes of data with relative ease in a systematic fashion (General Accounting Office, 1996); however, the technique can only be applied to data that are durable in nature, and
- Accentuate the attitude or perception of the author of the material under review.

#### 2.3.1 Principal-Agent Relationship Approach

Principal-agent relationship is examined and derived from several disciplines such as law, finance, accounting, and economics. In addition, this model is the basis for a large set of corruption-related studies, as mentioned above. Perrow (1986, p.224) asserts:

"In its simplest form, agency theory assumes that social life is a series of contracts. Conventionally, one member, the "buyer" of goods or services, is designated the *principal*, and the other, who provides the goods or service is the *agent*... The principal-agent relationship is governed by a contract specifying what the agent should do and what the principal must do in return."

As an example of how this model works, Kautilya (a head of adviser of an ancient king in India) wrote that "...it is impossible for one dealing with government funds not to taste, at least a little bit, of the king's wealth" (Kaufmann, 1997, p. 114).

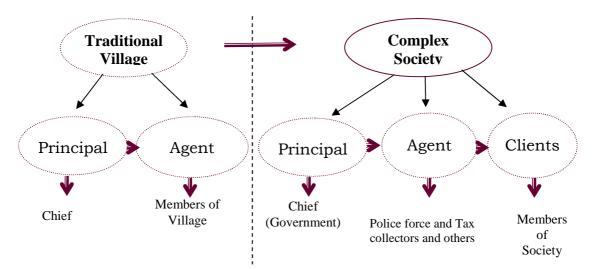


Figure 2-2: Moving from Traditional Village toward complex Society.

Laffont (2006, pp. 161-162) suggests that opportunities arise out of the need for complex societies—e.g. Per Figure 2-1, the chief (the principal) in a traditional village can directly monitor the behaviour of the members of the village (the agents), and has the right to impose, and collect directly, the penalties to reduce behaviour that benefits individuals but harms the village as a whole. As the village grows into a city, the chief's direct control is eroded by the need to delegate authority to an increasing number of administrators (e.g. a police force and tax collectors) to set, monitor, and enforce rules. As a result, the chief suffers information asymmetries as the administrators have

increasing discretion as to whether and/or how to report issues and may choose to sell that discretion for personal gain.

Much of the corruption literature defines corruption in term of the divergence between the interests of the principal and those of the agent. For example, corruption occurs when an agent betrays the principal's interests in pursuit of his/her own (Klitgaard, 1988); Corrupt behaviour deviates from the found duties of public role (elective or appointive) because of private-regarding (personal, close family, private clique) wealth or status gains. Johnson, *et al.* (1998) added their contribution to define corruption as the abuse of public roles or resources for private benefit (Robinson, 1998). Wherever an agent is given discretionary authority, corruption provides a way for the objectives of a higher authority to be undermined (Rose-Ackerman, 1978, p. 2).

As noted by Shleifer and Vishny (1993, p. 599) models of corruption mainly focus:

"...on the relationship between the principal...and the agent..., who takes the bribes from the private individual interested in some government-produced good".

In addition, Lane (2005, p. 59) notes that a primary concern is where an agent abuses power via a hidden action—so the government (as principal) must find ways to stop or at least reveal such hidden actions. Brown (2006, p. 71) suggests that "no agent will ever behave entirely altruistically but will *always* be motivated towards maximising private gain". Thus, as Lancaster and Montinola (1997, p. 190) suggest "from ... a principal-agent perspective, corruption occurs when agents renege on their agreements with a principal in favour of their personal interests."

# 2.3.2 Demand and Supply Side of Corruption Approach

In a demand-oriented perspective, conceptualising corruption focuses on one side of the corrupt act and on *the corrupted*. However, as Stevulak and Campbell (2008, p. 34) note, corruption "can be described in terms of both supply and demand dimensions" where the demand side asks for (and/or received) a bribe, to deliver an illegal or legal service to the supply side. The supply side of corruption (*the corrupters*) mainly offers (and/or pays) bribes, so as to gain unwarranted advantages. As Beets (2005, p.66) notes:

"A corrupt transaction typically involves a supply side, i.e. the payer of a bribe, and a demand side, i.e., the recipient of the bribe."

Some studies focus on supply side of corruption, to analyse and investigate corruption or to develop an anti-corruption strategy (e.g. Erard and Feinstein, 1994; Weber and Getz, 2004; Beets, 2005; Stevulak and Campbell, 2008; Cleveland, *et al.*, 2009). Other

researchers focus on the demand side of corruption, in an effort to create appropriate anti-corruption tools (e.g. Krueger, 1974; Besley and McLaren, 1993; Bliss and Tella, 1997; Ades and Tella, 1999; Burguet and Che, 2004). However, George, *et al.* (2000, p. 486) note that focusing on only one side of corruption is unlikely to yield an effective solution. Thus, as part of developing a cost-effective multifaceted strategy to address corruption, this thesis considers the supply and demand sides of corruption.

#### 2.3.3 Plato's Ring of Corruption Approach

Philosophical models have been formulated to create clarity in a conceptual framework of corruption. Spence (2007, p. 36) applied a philosophical approach and "an analysis of the myth of Gyges in Plato's Republic, [to identify]...essential features that characterise corporate and other types of corruption".

By clarifying the Myth of Gyges – as related by Glaucon to Socrates in Book II of Plato's Republic, five essential features emerge that characterise corruption:

- 1. **The possession of power:** Power defined "as the possession of the ability or capacity to act in a manner capable of bringing about a certain intended desired outcome" (Spence, 2007, p. 37).
- 2. **A disposition to exercise that power:** the willingness to purposefully exercise that power.
- 3. **An opportunity to exercise that power:** the opportunity to engage in some activity.
- 4. **Invisibility or concealment:** the ability to keep the motives and identity of actions invisible.
- 5. **Self-regarding gain:** monetary or non-monetary gain to the agent and/or a member of his/her group, resulting from an action s/he or they perpetrated.

Spence argued an additional feature – drawn from Gyges model – that should be added to the above five features is: "...a socially pre-established fiduciary relationship of trust between the corrupt person or group and the person or persons or group who are harmed in some way by the corrupt person's or the corrupt group's action" (Spence, 2007, p. 39). This last feature is a critical element in the definition developed in this thesis.

# 2.3.4 Habermas' Communication-Theoretical Approach to Society

A social-science concept of corruption is developed using the Habermas (1981) theory of communicative action. The linking of Habermas' concept to the vague issue of corruption, considered corruption "...as a type of social interaction circumventing legal

procedures through the monetarization [sic] and bureaucratization of social relations" (Deflem, 1995, p. 244). The theoretical concept of rationality and social action, and Habermas' two-level approach to society were used in the model to clarify the notion of corruption.

Rationalizing societies is a core focus in Habermas' theoretical approach—"...the problem of rationality offers the best entry into the study of society because it reveals the way in which statements on social reality can be grounded (i.e. how social order is possible)" (Deflem, 1995, p. 245). As Habermas asserted, based on his approach, that society's "...actions are guided by the rational motivation to (dis)agree with speech acts in relation to any of the validity claims" (Deflem, 1995, p. 246). In addition, the validation of the claims should be based on truth, rightness, and truthfulness.

On the basis of communication-theoretical terms, corruption is "...strategic action in which two or more actors undertake an exchange relation by way of successful transfer of steering media (money or power) which sidesteps the legally prescribed procedure to regulate the relation" (Deflem, 1995, p. 248).

Corruption is considered as falling within one of two types of social action:

- 1) Monetary corruption via a transfer of money in which "the exchange relation is carried out by way of a successful transfer of the steering medium of money, in particular, a transfer of a sum of money in return for a service or commodity, which bypasses the legal procedure to acquire that service or commodity" (Deflem, 1995, p. 248);
- 2) Bureaucratic corruption, involving a transfer of power, "in which the exchange relation is carried out by way of a successful transfer of the steering medium of power, in particular, a transfer of a position of power (an office) in return for power-supportive behaviour (loyalty), which bypass the legal procedure to acquire the position" (Deflem, 1995, p. 249). In these cases, the victim of the corruption is unaware of the harm done to him or her, and corruption is considered as a strategic interaction.

# 2.4 Alternative Classifications of Corruption

Each of the many definitions of corruption found within the literature affects the choice of anti-corruption intervention strategies that government might utilize—i.e., public and private corruption, grand and petty corruption, political and bureaucratic/administrative corruption, and facilitation of corruption. A brief description of each follows.

# 2.4.1 Public and Private Corruption

The World Bank (1997, p. 8) defines corruption as "...the abuse of public office for private gain." This definition of corruption can be related to the combination of private

corruption and public corruption, so public-government-corruption is the breaking of trust by a public person—for the sake of private financial or political gain—of the rules of conduct in public affairs prevailing in a society in the period under consideration (Neild, 2002).

As added by Shleifer and Vishny (1993, p.599), corruption is defined as "...the sale by government officials of government property for personal gain", according to marginal cost of transaction corruption classified into corruption with- and without-theft (i.e. government receives the price of its good or services, whereas, in case of corruption with theft, little or nothing is paid to the government). In Private-Business-Corruption, a corrupt act occurs in the private sector, between corporate agents and stakeholders.

#### 2.4.2 Grand and Petty Corruption

Petty corruption occurs when there is more demand and less supply (e.g. corruption is widely distributed among government officials). Mostly, as asserted by Matsheza (2007), it happens in less developed countries where public officials often supplement their often inadequate salaries via bribes. Although it is called petty and the amounts involved are often small, the accumulated amount often reaches billions of dollars.

Grand corruption occurs when demand is much greater than supply (e.g. often with a powerful decision-making individual, in the private or public sector, with significant influence over contracts and other services). While an instance of grand corruption can involve a huge amount of money, the cumulative effects may be less than that of petty corruption.

# 2.4.3 Political and Bureaucratic/administrative Corruption

Løvseth (2001, p. 3) defined political corruption as "...illegal actions with private gain as the main goal, performed by public employees or holders of elected positions". Also, politicians using their position for private benefit may use their power to ensure that they will remain in office for an extended period (Tanzi, 1994; Rose-Ackerman, 1978). Goudie and Stasavage (1997, p. 11) defined administrative or bureaucratic corruption as "...the of office involving use public for pecuniary gain". Thus, bureaucratic/administrative corruption is often defined as being restricted to a public employee who has responsibilities or duties to the public interest. Deflem (1995, p. 243) suggests that bureaucratic corruption involves the "transfer of power."

#### 2.4.4 Facilitation Corruption

This type of corruption involves assistance in the obtaining of a service or good. The form of corruption can occur when an individual pays to obtain a legitimate benefit to which s/he is entitled, but is having difficulty obtaining it due to either bureaucratic procedures or other entanglements. On the other hand, it can occur when an individual wants to obtain something to which he/she is not entitled (e.g. bribing a government official to put you in running for a contract even though you do not fulfil the required attributes and/or conditions).

#### 2.5 Definitions of, and Debate on the Nature of, Corruption

The significant definitions of corruption that have been developed over the past three decades by scholars, in a variety of disciplines, have all struggled to capture the nature of corruption and have failed to encompass all of the natural complicity, ambiguity and potential variability of various forms of corrupt acts. Many researchers have sought to overcome the vague nature of corruption. However, as Lyles (1981, p. 74) suggests, "...the more ill-defined the nature of the problem, the more political will be the problem formulation process." Lancaster and Montinola (1997) assert that corruption essentially denotes a deviation from, or a perversion of, some ideal state or natural condition. However, scholars appear to have a variety of notions on that ideal.

An ideal definition of corruption needs to transcend cultural and timing components and issues (i.e. it must be usable worldwide with slight amendments that leave the essence of the definition unchanged). As suggested by Sandholtz and Koetzle (1998, p. 3) an ideal "...definition of corruption [must be] ... portable across cultures."

Roy (2005, p. 6) maintains that "...traditional definitions of corruption in literature do not reflect the far reaching consequences of corruption in business." Thus, the current definitions of corruption are too narrow and so focused on particular things that they are one-dimensional and lack clear and operational descriptions of what does and does not constitute corruption. Leijonhufvud (1999, p.127-8) in describing potential government to government corruption (see also, Andreski (1969), Klitgaard (1988), and Theobald (1990)) noted that:

"Officials within the organization can take undue advantage of their position. A bigger problem yet is constituted in the fact that the responsible authorities in a Member State may turn a blind eye to irregularities, or submit their own misrepresentations, so that the Member State will receive too big a share of the EU

funds. In relation to the EU the governments of the Member States have a position similar to that of a national authority vis-à-vis its national government."

A most important limitation of corruption definitions is that *private benefit* is not always the nucleus of a corrupt action (e.g. the intent of the action may be to benefit either a family member or a friend or a peer). In addition, the claim that corruption only occurs in public office (either elected or appointed) is not sufficient in that corrupt acts can occur in private-sector transactions. Leijonhufvud (1999, p. 131) added that "A closer look at the phenomena that are regarded as corruption in the public sector does not make the picture clear-cut and unambiguous." Goudie and Stasavage (1997, p. 11) noted that:

"Corruption is most commonly referred to as a public sector phenomenon, but it is also an important fact of life in the private sectors of both developed and developing countries."

In addition, variance in the culture norms from one country to another mean that what is considered corrupt in one country may not be seen as corrupt in another. As suggested by Lancaster and Montinola (1997, p. 188) "...not all illegal acts are corrupt, and conversely, not all seemingly corrupt acts are illegal". In other words, a public official could receive a gift or a favour for one of their family members and this act might be seen as corrupt in one culture, but be acceptable in another—different societies tend to have different norms.

Some definitions of corruption simplistically assume that corruption is always due to behavioural issues. However, because corruption is almost always a hidden action, it is difficult to prove intent. Roy (2005, p. 6) asserts that "...corruption needs to be redefined in terms of the resulting implications of a corrupt act on part of a decision-making manager." However, corrupt behaviour is almost never provable by behaviour (especially if intent must be proved), but is more easily proven in terms of *action*, outcomes, and/or consequences. Any definition of corruption must be operationally viable.

The common restriction of corruption to public office is far too limiting and a less restrictive definition is needed (e.g. corruption in a private firm involves the resources of a business and/or the rights of stakeholders). Lancaster and Montinola (1997, p. 188) note that one of "...definitional problems is rooted in the fact that the term [corruption] is meaningless without its positive referent." However, even a massively inclusive listing of corrupt acts is still insufficient in that it is unwieldy, difficult to apply, and given the infinite variability in corruption, non-exhaustive. Thus, there is a need for a

root definition of corruption that encompasses the infinite variability in corrupt acts. Such an idyllic definition is likely to spawn anti-corruption controls that are sufficiently broad as to prevail over all the potential variability and dimensions within which a corrupt act can occur.

The overwhelming issue of extant definitions of corruption centres on *ambiguity and vagueness*. Where a definition avoids this central issue, it usually falls afoul of being too specific to be of value in unexpected and/or unspecified situations. Efforts to overcome the twin issues of too specific and too ambiguous usually involved creating a clear listing and definition of the various factors involved in a corrupt act. For example, corruption defined as an 'abuse of *public power* for *private benefit* is vague about what is really meant by public power and *private benefit* is far too narrow as the potential beneficiaries of corruption. Kreikebaum (2008, p. 82) claims that "the term *corruption* covers a wide range of elements..." and Leijonhufvud (1999, p. 131) adds that "... phenomena that are regarded as corruption in the public sector do not make the picture clear-cut and unambiguous."

Other published definitions have included moral and ethical issues within the context of definitions listed by Kreikebaum (2008, p. 85) in his assertion that corruption "...is deeply rooted in personal greed [and in the] prevailing methodological individualism." Morality and ethics are vague in their effectiveness and their meanings; therefore, using them in definitions of corruption increases the fuzziness of those definitions and limits the use of those definitions to specific nations, cultures, or situations.

Corruption occurs on a daily basis all around the world in developed and developing countries. A CEO or farmer might be involved in a corrupt act (as perpetrator or victim), regardless of their culture. Thus, it is important to establish a *generalisable* and *broad* definition that transcends differing social and cultural norms. Current definitions lack this trait in that they may pinpoint particular areas but do not cover others (i.e. public office is the core focus of most of many extant definition that ignore the private sector). Other definitions assert that government resources are the only asset being misused. You and Sanjeev (2005, p. 137) note there is no "...reason to exclude corporate embezzlement." Fraud in the not-for-profit sector and NGOs must be a part of the definition which must also transcend national borders to capture a fuller range of corruption. While some researchers provide some elements within the context of their definition, they have not stated how such factors are linked to one another in an

integrated whole. There is a critical need for a *clear relationship between all elements* included within a definition of corruption, so that it will be easier to understand and correlate them to one another. Ideally, there should be an integrated relationship between each element in a definition so that all elements must occur for an act to be deemed corrupt.

Corruption is the outcome of a corrupt act. Previously, the corrupt act was described as simply a behavioural aspect involving the misuse or abuse of power. However, power, misuse, and abuse are ill-defined and many potentially corrupt actions are not highlighted as being corrupt. It is important for an ideal definition of corruption to identify and highlight corrupt acts as corrupt. This can best be done by examining a large variety of corrupt acts and searching for a common root. If corruption is seen as a breach of law, then a basic principle of most criminal laws is that, to be found guilty, an offender must have intended the act that breached the law—if intent could not be formed (e.g. under age or drunk) or if an offender's intent cannot be proven *beyond a reasonable doubt* (i.e. 90 to 95 percent confidence) then they must be found not guilty. Thus, fuzzy, ambiguous, culturally-focused, or situationally-fixed extant definitions of corruption make criminal prosecution of corruption very difficult and costly.

An ideal definition of corruption will benefit society by allowing victims of corruption to more easily identify that they were harmed, who harmed them, how they were harmed, and the quantum. That definition will also allow those who are in a position of power to identify and avoid actions that might be deemed as corrupt and to document how they discharge their duties. Thus, the most important contribution of an effective definition of corruption is (by making both parties aware of their responsibilities and obligations) it reduces the opportunities for, and the risks of, corruption.

The key desirable attributes of an ideal definition of corruption are derived from the forgoing discussion and outlined below:

- 1) Unambiguous (clearly differentiates corrupt and non-corrupt situations),
- 2) Transcends Cultural Differences (i.e. not reliant on inferred cultural values),
- 3) Generally Applicable Across most Situations,
- 4) Clear Linkage between Actions and Outcomes,
- 5) Considers Actions and Outcomes rather than Intent,
- 6) Quantum (i.e. the harm must be measurable), and
- 7) Retribution and Restitution Solutions must be available for Victims.

Thirty extant definitions of corruption plus the definition developed in this thesis are judged in Table 2-1 against the above desirable attributes (in terms of each desired outcome, a "X", " $\checkmark$ ", or "n" denote, respectively, a failure, a success, and neutral).

Table 2-1: Evaluation of 30 Extant Definitions of Corruption against Seven Desirable Attributes of an Ideal Definition of Corruption

	Extant Definition of Corruption	Desirable Attribute					oute	;	Fatally	Flawed	Viable
	•	1	2	3	4	5	5 6 7		Flawed		
:	"A public official is corrupt if he accepts money or money's worth for doing something that he is under duty to do anyway, that he is under duty not to do, or to exercise a legitimate discretion for improper reasons." <i>McMullan</i> (1961, pp. 183-184)	X	X	X	X	X	X	X	X		
	"A corrupt civil servant usually regards his public office as a business through which he will seek to maximize payments for favors given related to his position. The office then becomes a maximizing unit. The size of his income depends upon the market situation and his talent for finding the point of maximal gain on the public's demand curve" Van Klaveren (1963).	X	X	X	X	X	X	X	X		
	"Corruption is an extra-legal institution used by individuals or group to gain influence over the actions of the bureaucracy. As such, the existence of corruption per se indicates only that these groups participate in the decision-making process to a greater extent than would otherwise be the case." <i>Leff</i> (1964, p. 8)	X	X	X	X	X	X	X	X		
	"behaviour which deviated from the normal duties of a public role because of private-regarding (family, close private clique), pecuniary or status gains, and violated rules against the exercise of certain types of private-regarding influence." <i>Nye</i> (1967)	X	n	X	X	X	X	X	X		
	"A corrupt act violates responsibility toward at least one system of public or civic order andA system of public or civic order exalts common interest over special interest." Rogow and Laswell (1970, p. 54)	X	n	X	X	X	X	n	X		
	"Corruption, we would all agree, involves a deviation from certain standards of behaviour." <i>Scott</i> (1972, p. 3)	X	X	X	X	X	X	X	X		
	"the abuse of public power and influence for private ends." <i>Waterbury (1973, p. 533)</i>	X	X	X	X	X	X	X	X		
	"An agent is a person who has accepted an obligation to act on behalf of his principal in some range of matters and, in doing so, to serve the principal's interests as if it were his own. An agent is <i>personally corrupt</i> if he knowingly sacrifices his principal's interest to his own. He is <i>officially corrupt</i> if, in serving his principal's interest, he acts illegally or unethically albeit in his principal's interest." <i>Banfield</i> (1975, pp. 587-588).	X	n	n	X	<b>✓</b>	X	X		X	
	"Corruption is defined as the moral incapacity of citizens to make reasonably disinterested commitments to actions, symbols and institutions which benefit the substantive common welfare."	X	n	n	X	X	X	X		X	

Extant Definition of Corruption	Desirable Attribute					oute	:	Fatally	Flawed	Viable
	1	1 2 3 4 5 6 7		Flawed						
Dobel (1978, p. 958)										
10) " (1) the sacrifice of the principal's interest for the agent's, or (2) the violation of norms defining the agent's behavior." <i>Alam</i> (1989)	X	n	n	X	<b>✓</b>	X	X		X	
11) "an immoral and unethical phenomenon that contains a set of moral aberrations from moral standards of society, causing loss of respect for and confidence in duly constituted authority." <i>Gould</i> (1991, p. 468)	X	X	X	X	X	X	X	X		
12) "transactive corruption, were there is a mutual arrangement to the advantage of the agent and the party directly served." Alatas (1991)	X	X	X	X	X	X	X	X		
13) "the sale by government officials of government property for personal gain." <i>Shleifer and Vishny</i> (1993, p.599)	X	X	X	X	X	X	X	X		
"corruption is a colonization of social relations in which two or more actors undertake an exchange relation by way of a successful transfer of the steering media of money or power, thereby sidestepping the legally prescribed procedure to regulate the relation." <i>Deflem</i> (1995, p. 243)	X	n	n	X	X	X	X		X	
15) "is the abuse of public power for private benefit". <i>World Bank</i> (1997)	X	X	X	X	X	X	X	X		
16) "deviation (for private gain) from bidding rules, the arbitrary exercise of discretionary powers and illegitimate use of public resources." <i>Shihata</i> (1997, p. 257)	X	X	X	X	X	X	X	X		
17) "the use of public office for private gains." <i>Bardhan</i> , <i>P.</i> (1997)	X	X	X	X	X	X	X	X		
18) "the improper use of public office for private gain." Sandholtz and Koetzle (1998, p. 4)	X	X	X	X	X	X	X	X		
19) "Corruption involves an exchange between individuals or groups in violation of an obligation or duty." <i>Carvajal</i> (1999, p. 139)	X	n	n	X	<b>✓</b>	X	X		X	
20) "the abuse of power, most often for personal gain or for the benefit of a group to which one owes allegiance" <i>Stapenhurst and Kpundeh</i> (1999)	X	X	X	X	X	X	X	X		
21) "use of official position, rank or status by an office bearer for his own personal benefit." <i>Myint (2000)</i>	X	n	n	X	X	X	X		X	
22) "illegal actions with private gain as the main goal, performed by public employees or holders of elected positions." <i>Løvseth</i> , <i>T.</i> (2001, p. 3)	X	X	X	X	X	X	X	X		
23) "corruption refers to act I which the power of public office is used for personal gain in a manner that contravenes the rules of the game." <i>Jain</i> (2001, p. 73)	X	X	X	X	X	X	X	X		
24) "Corruption is behavior of public officials which deviates from accepted norms in order to serve private ends" <i>Huntington</i> (2002, p. 253)	X	X	X	X	X	X	X	X		
25) "The misuse of entrusted power for private gain." <i>Transparency International (2004)</i>	X	n	n	X	X	X	X		X	
26) "the abuse of public roles or resources for private benefit" <i>Zarb</i> (2005, p. 6)	X	X	X	X	X	X	X	X		
27) "as the misuse of public office for private financial gain by an elected official." <i>Kunicova and Rose</i> -	X	X	X	X	X	X	X	X		

Extant Definition of Corruption			Desi	irab	le A	ttril	oute		Fatally Flawed	Flawed	Viable
	Ackerman (2005, p. 577)		2	3	4	5	6	7	Tawea		
28)	"Corruption occurs amongst the networks of professional managers and their associates, who use their positions of power and authority for their own collective and individual political and economic interest." Ayius (2007, p. 1)	X	n	n	X	X	X	X		X	
29)	"Corruption is operationally defined as the abuse of entrusted power for private gain." <i>Transparency International.</i> (2010)	X	<b>✓</b>	1	X	X	X	X		X	
30)	"Corruption is generally defined as abusing governmental positions for serving personal interests." <i>Ahmadi and Homauni</i> (2011, p. 119)	X	n	X	X	X	X	X		X	
31)	Corruption is harm arising from a breached duty of care (this Thesis, 2010)	<b>✓</b>	<b>✓</b>	1	<b>✓</b>	<b>✓</b>	<b>✓</b>	✓			<b>✓</b>

In Table 2-1, 20 of the 30 extant definitions reviewed are fatally flawed and 10 flawed in terms of seven desirable attributes of an ideal definition of corruption. As a result, these definitions are unable to provide a solid working basis for anti-corruption tools—of the 30 extant definitions of corruption reviewed, Transparency International's (2010) definition is the closest to being viable. However, its use of *private gain* in the definition is a serious flaw that makes the identification and prosecution of many types of fraud difficult or even impossible. The definition of corruption developed in this thesis (that corruption is harm arising from a breached duty of care) provides all seven of the desired attributes.<sup>4</sup>

The lack of clarity in extant definitions of corruption allows the corrupt to operate in the dark and grey places that are poorly illuminated by those definitions and victims of corruption have had difficulty in seeking retribution for those who harmed them and restitution for that harm. In some cases, ambiguous definitions of corruption may lead to those creating the harm failing to realise that their actions are wrong. Such ignorance is all the more likely, given that, as Upton Sinclair (1935) noted:

"It is difficult to get a man to understand something when his salary [/living] depends upon his not understanding it."

Thus, the very virtues of defining corruption as a tort may make acceptance of that approach more difficult, as it may prove inconvenient to those who profit from the current definition of corruption being ambiguous. Further, what constitutes successful problem formulation? Although a number of investigators have examined factors that

<sup>&</sup>lt;sup>4</sup> The capacity of a definition to achieve a desirable attribute was determined by logical inspection of the definition.

impact on problem formulation (e.g., Boland, 1978; Niederman and DeSanctis, 1995; Volkema and Gorman, 1998), clear criteria by which to establish successful problem formulation have not yet emerged (Mason and Mitroff, 1981).

#### 2.6 Socio-economic Costs and Consequences of Corruption

Corruption has long been condemned as being wrong on a moral basis. This subsection considers the socio-economic consequences of corruption. Key economic factors (e.g. growth, investments and government expenditure) are considered and then the impact of corruption on social factors is reviewed. Original empirical research in this area is far outside of the scope of this thesis and would be prohibitively costly and possibly very dangerous—it would also waste resources (it would be a very inadequate duplication of existing studies were and are being performed by teams of well resourced researchers). Instead, this thesis reviews, draws from, and coordinates this wealth of literature into an over-view of the socio-economic costs and consequences of corruption.

#### 2.6.1 Economic Costs and Consequences of Corruption

Corruption acts as a *cancer* (Batalla, 2000; Dwight, 2000; Harrison, 2004; Onwuka, *et al.*, 2009) and damages the wealth creation potential of a country. In addition, it reduces the confidence and the trust of stakeholders of the public and private sector in both developed and developing countries. A comprehensive research assessment produced by Mauro (1995) suggests there is a significant negative relation between corruption and rates of growth. See also: Mauro (1997 and 2004), Campos, *et al.*, (1999). Mauro (1997, p. 87) concluded that:

"...improvement in the corruption index causes investment to rise by 5 percent of GDP and the annual rate of growth of GDP per capita to rise by half a percentage point."

Corruption appears to negatively affect levels of investment (Mauro, 1995)—when high levels of corruption are evident, investment is low. Although, corruption may raise the level of public investment, it has a negative impact on government efficiency and competence (Tanzi and Davoodi, 2002). As stated by Del Monte and Papagni (2001, p.2) "...corruption also has strong negative effects on economic growth by lowering the amount and quality of public infrastructure and services supplied to the private sector."

<sup>&</sup>lt;sup>5</sup> For comprehensive surveys of the literature on corruption, see Rose-Ackerman (2006), Lambsdorff (1999) and Jain (2001).

Devarajan, et al. (1996) found high public investment is associated with low growth, with the growth rate also being negatively correlated with the level of corruption and the level of corruption being positively correlated with the level of public expenditure. There is also a significant correlation between corruption and the consistency of foreign direct investments (Wei, 1997; Alesina and Weder, 2002; Habib and Zurawicki, 2002). Goel and Nelson (1998) using the number of public officials convicted for abuse of their authority as an indicator of corruption in some states of USA, argued that public spending can encourage corruption from rent-seeking activities. However, the use of convictions as a corruption-index indicator is, per Lambsdorff (1999), an inadequate indicator for the actual levels of corruption—as it also is a reflection of the efficiency of the legal and judiciary system.

Many studies have evaluated the correlation between a nation's economic development and the quality of its institutions (e.g. Ades and Tella, 1997; Johnson, et al., 1998). A significant number of these studies have found that corruption indices are negatively related with many socioeconomic factors in general and with the quality of the legal system, in particular. Thus, while corruption greases the wheel, it does little for the country as a whole. This notion was also asserted by Babalola (1994), Mauro (1995), Harriss-White and White (1996), Buscaglia (2001), Herzfeld and Weiss (2003), Abdiweli and Hodan, (2003). A few studies found a positive correlation between corruption and the unofficial economy—i.e. corruption greases the wheel (Leff, 1964; Treisman, 2000; Coppier and Michetti, 2006). Leff (1964) views corruption as grease money to lubricate the squeaky wheels of a rigid administration (Coppier and Michetti, 2006). Others have also asserted that corruption may aid growth by relaxing the rigidity of bureaucracy (Huntington, 1968). This claim is widely criticized by Tanzi (1998), who suggests that "...when rules can be used to extract bribes, more rules will be created." Thus, the actual causal relationship between corruption and institutional quality remains vague and continues to be debated.

Low wages are likely to encourage individuals whose main role is to collect tax and/or perform other administrative duties to either supplement their incomes with bribes or to dally in the performance of their duties (Gould and Amaro-Reyes, 1983; Goode, 1984; Besley and McLaren, 1993). Chetwynd, *et al.* (2003, p. 7) suggest that "...firms and activities are driven into the informal or gray sector by excessive rent taking and taxes are reduced in exchange for payoffs to tax officials"

Most of the studies on the effects of corruption use various types of indices and the ready availability of such indices encouraged debate on the relationship of corruption with key socioeconomic indicators. However, some of the indicators are misleading, or confusing, or fail to mean what they purport to mean. Also, some of the indices have an indirect rather than a causal relationship with corruption (i.e. both run in a cycle that may be driven by a third factor). Thus, there is still a need for clear evidence on the socio-economic effects of corruption. However, as the World Bank (2007, p. 259) notes "...measuring the quality of ...corruption... is difficult and often subject to margins of error, whether based on objective or subjective information."

#### 2.6.2 Social Costs and Consequences of Corruption

Over the years it has been difficult to accurately gauge the effects of corruption on society. However, because of the role corruption plays in many societies, there is a need to reveal the extent and cost of corruption on society. As Deflem notes (1995, p. 243): "...corruption is a long-standing topic of sociological reflection, and numerous studies have demonstrated the extent to which corruption continues to be an important issue in contemporary society."

Awareness of the socio-economic consequences of corruption is increasing and with that rising awareness has been an increase in the number of corrupt acts prosecuted and/ or publicly documented. As a result, the struggle against corruption is becoming ever more important to most societies as they seek to improve the quality of life of their members. An example of a direct social cost of corruption can be found in the misallocation of natural resources. As Charlick (1993) notes:

While corruption is manifest in every society, and in democratic as well as authoritarian regimes, systematic corruption is a deadly sign that a society can no longer effectively manage its resources for public purposes.

Bhargava (2005, p. 3) suggests that "...this diversion of resources typically comes at the expense of the less corruptible social sectors, such as health and education, and thus at the expense of the country's development." Further, in societies where corruption is rife, it is also likely that violent crime is also rife. Maetens and Anstey (2007, p. v) note that "...murder and robbery rates are higher in countries with low economic growth..." Huntington (2002, p. 257) maintains that "...the society which has a high capacity for corruption also has a high capacity for violence." Furthermore, Bhargava (2005, p. 3) suggest that countries "...with high levels of corruption can become targets for crime

networks, as has happened, for example, in Russia and Ukraine." Thus, corruption contributes to two indicators of social misery—violent crime and unemployment.

Corruption must be clearly and easily identified if it is to be fought. As Margaret (1997, p. 158) notes "...the greater the ability to corrupt, the greater the ability to remain invisible, or to be seen to be legitimate – unless the entire system is blatantly corrupt and has redefined payoffs and the like as publicly recognized business procedures." Margaret (1997, p. 158) further suggests that, at its "...most sophisticated integrated level, the ability to corrupt enables one to control the definitions of what is or is not defined as corruption." Stier and Richards (1987, p. 65) observe that:

"In its most advanced form organized crime is so thoroughly integrated into the economic, political, and social institutions of legitimate society that it may no longer be recognizable as a criminal enterprise. Such integration represents the most serious potential for social harm that can be caused by racketeers. However, the criminal justice system is least effective in dealing with organized crime when it reaches this level of maturity."

Fisman and Gatti (2006, p. 137) claim that "predictable bribes that permit the avoidance of regulations may be socially damaging." Thus, corruption begets violence and both do more than break the rules of society—they degrade the trust, institutions and confidence that bind a society together (e.g., corruption driven degradation of trust, institutions and confidence increases the cost of transactions and those rising costs will increasingly diminish the number of successful deals). Arrow (1972, p. 357) posits that:

"...virtually every commercial transaction has within itself an element of trust, certainly any transaction conducted over a period of time. It can be plausibly argued that much of the economic backwardness in the world can be explained by the lack of mutual confidence."

Thus, rising trust and confidence lead to more economic activities and eventually more social stability and loops back to more trust and confidence to form a virtuous cycle of rising growth and social well-being. Whereas, in low or no trust environments, deals cost more, citizens feel little or no obligation toward the future of their society and this can loop back into falling trust and confidence to form a vicious cycle of falling living standards and social well-being. Bhargava (2005, p. 3) suggests this pattern by asserting that "...widespread corruption ... undermines the shared values of the society and the mutual trust that makes social and economic relationships possible." Further, declining trust and confidence increases the alienation of citizens with their government and with each other.

Corruption can be perceived differently, depending on the cultural background of the viewer. Some forms of corruption may be accepted as a cultural norm in one culture while being considered an illegal act in another. As Lo (1999, p. 63) notes in his study on the political-criminal nexus (PCN), "corruption became entrenched as an acceptable social norm in the community, paving the way for the development of the PCN."

Tänzler (2007) asserts that "Corruption is primarily a problem of definition that differs from time to time, from place to place, and even between social (sub) groups of a single society." Johnson (1985) suggests that while bribery is regarded with great aversion in US, in other countries it is considered to be a culture norm (see, also, Hofstede, 1997; Tsalikis and Nwachukwu, 1991).

It has been debated via few studies that corruption leads to poverty such as Gupta, *et al.* (2000). However, corruption produces poverty as a result of corruption's impact on economic and governance indicators. Chetwynd, *et al.* (2003, p. 5) assert "...countries experiencing chronic poverty are seen as natural breeding grounds for systemic corruption due to social and income inequalities and perverse economic incentives." You and Sanjeev (2005, p. 136) argue there is a relationship between corruption and inequality:

"Inequality fosters a norm of corruption as acceptable behavior, that corruption is likely to reinforce or widen existing inequalities, and that vicious circles of inequality-corruption-inequality are thus likely to manifest."

You and Sanjeev (2005) were also concerned that extant definitions of corruption do not capture the important and necessary elements needed to precisely describe its nature.

In summary, as claimed by Deflem (1995, p. 243), corruption research "...has generally failed to develop a clear theoretical perspective of what corruption is and how its social implications can be illuminated." A viable definition of corruption is critical, because (as noted by Margaret, 1997, p. 169) "...the societally approved of, or at least socially ignored, forms of corruption will be missed in the debate."

#### 2.6.3 Various Indices

Over the last decade, empirical research on corruption has dramatically increased; as have efforts to determine the causes and socio-economic consequences of corruption. In main, these studies performed cross-country analysis on the relationship between the level of corruption in a country and other factors (e.g. macroeconomic, political or social outcomes). The next section in this thesis will highlight the corruption perception

indices and use them as a key driving-variable in modelling the effects of corruption. This section will briefly describe other variables used in previous studies to investigate the causes of corruption and its socio-economic consequences.

Although, many current studies on corruption use the corruption perception index (CPI) as the independent driving variable, a few use other indices—e.g. Brunetti and Weder (1998) use the Political Risk Service (PRS) data cross-section regression study of 122 countries. Other examples of indices and data sources include the World Economic Forum (WEF), the Harvard Institute for International Development (HIID), and Kaufmann and Wei (2000) use of the 1997 Global Competitiveness Report (GCR97), 1996 Global Competitiveness Report (GCR96), and 1997 World Development Report (WDR97). Kaufmann and Wei (2000) used these sources to examine the relationship between bribe payment, management time wasted by bureaucrats and the cost of capital. They concluded from the analysis that firms that face more bribe demands are also likely to spend more (not less) time with bureaucrats to negotiate regulations and face higher (not lower) costs of capital. However, Lambsdorff (1999, p. 1-2) cautioned that because "...many other explanatory variables are absent ... such correlations risk being misleading, in that they present spurious relationships." Johnston (2001) noted that these perception-based indicators are very blunt when he asserted that:

"Perhaps the most serious drawback of the CPI [Corruption Perception Index] and similar indices is what might be called the "single-number problem." It is a precision issue, but one with validity and reliability implications as well. Actual corruption varies in many ways: there are many forms and contrasts within most societies. No single national score can accurately reflect contrasts in the types of corruption found in a country." (Johnston, 2001, p. 163)

# 2.7 Measuring Corruption

As a complex phenomenon, corruption is difficult to measure accurately and, even more so, because of difficulties in obtaining precise information on the corruption level in a country. However, as noted by Wei (1998, p. 4), "...one can still get useful information on the seriousness of corruption in a country by surveying experts or firms in that country". Further, as Weber (2007) notes:

"Given the influence of indices based on perceptions on the public opinion of each particular country and even on informing policies from governments and donor

<sup>&</sup>lt;sup>6</sup> For a comprehensive literature about alternative indices used in various studies in the analysis of causes and consequences of corruption, see Lambsdorff (1999).

agencies ... [however]... testing the matter using only the data leading to those indices is impossible, because they are limited to opinions."

Lambsdorff (2006, p. 81) notes that few areas are "...as complex and controversial as corruption." Most surveys on corruption are perception surveys, across many countries. While such perception-based indices have made vital contributions to understanding the pervasiveness of corruption, they are, however, not problem free. "One issue refers to the fact that these indices do not relate directly to factors that are responsible for causing corruption" (Dreher, Kotsogiannis, and Mc Corriston, 2007).

Two survey-based measures of *corruption indices* commonly used, in the literature on corruption, are the Corruption Perception Index (CPI) and the Freedom from Corruption (FFC) index. This study uses both indices because of their coverage and their extensive use in previous research. A brief description of them follows in the next subsection.

#### 2.7.1 Transparency International: Corruption Perception Index

Business International (BI) was one of the first organizations to provide a cross-country index of corruption. Mauro (1995), using that early index to investigate the impact of corruption on investment over a cross-section of countries indices, concluded that corruption negatively impacts the ratio of investment to GDP. After its inception in 1995, Transparency International (TI) established the cross-country Corruption Perception Index (CPI) and it is among the most widely accepted indices. TI has also been involved in facilitating research into the causes and consequences of corruption and into finding cures for it. The goal of TI is to raise awareness about corrupt activities within a country or from one country to another. The CPI index is based on a weighted average survey (it consists of credible sources using diverse sampling frames and different methodologies) of varying sources; such as the Asian Development Bank (ADB), World Bank (IDA and IBRD) African Development Bank (CPIA), Political and Economic Risk Consultancy (PERC), United Nations Economic Commission for Africa (UNECA), and World Economic Forum (WEF). The CPI ranks countries on a scale from zero to ten; where 10 is (low corruption) and 0 is (high corruption).

However, corruption as the misuse of public power for private benefit is generally used in all the sources. Further, each of the sources also assesses the *extent* of corruption among public officials and politicians in the countries. Because the CPI consists of varying forms of survey year to year, the latest correlation process may introduce new measuring errors. Thus, it is better to use the index in cross-sectional studies and may

not be advisable to use time-series studies to measure changes in corruption over time for a particular country. Also, the number of surveys used to assess a country's performance can be variable. For example, per Table 2-2, from 3 to 11 surveys were used—three surveys was the lower limit for a country to be included in the CPI assessment, for years 2007, 2008, and 2009.

Table 2-2: Number of Surveys used to determine the CPI for 2007, 2008 & 2009.

No.	Country/Territory	Surveys Used 2007	Surveys Used 2008	Surveys Used 2009
1	Angola	7	6	5
2	Australia	8	8	8
3	Bangladesh	7	7	7
4	Belarus	5	5	4
5	Belgium	6	6	6
6	Benin	7	6	6
7	Chad	7	6	6
8	China	9	9	9
9	Canada	6	6	6
10	Denmark	6	6	6
11	Dominica	3	3	3
12	Gabon	5	4	3
13	India	10	10	10
14	Indonesia	11	10	9
15	Sweden	6	6	6
16	United Kingdom	6	6	6
17	United States	8	8	8
18	Uruguay	5	5	5
19	Yemen	5	5	4
20	Zimbabwe	8	7	7

Data Source: Transparency International (TI) – Corruption Perception Index (CPI) 2007 2008 and 2009. http://www.transparency.org/

# 2.7.2 Heritage Foundation – Index of economic freedom: Freedom from Corruption (FFC)

The index of economic freedom is the average of 10 individual freedom indicies (i.e. business freedom, trade freedom, fiscal freedom, government size, monetary freedom, investment freedom, financial freedom, property rights, freedom from corruption, and labour freedom).

The Freedom from Corruption (FFC) index combines quantitative data to assess the perception of corruption in the business environment (includes: governmental, legal,

judicial, and administrative corruption).<sup>7</sup> The Freedom from Corruption index is used in this study.

#### 2.8 Chapter Conclusion

As Svensson (2005) emphasised "...no [current] definition of corruption is completely clear-cut". As this chapter and other chapters in this thesis show/indicate, there are serious limitations in the reviewed extant definitions of corruption (e.g. the reviewed definitions were ambiguous, situationally specific, limited to the abuse of public office, focused on the gain that perpetrators received or intended to receive). As it became increasingly clear that such flaws compromised the capacity of extant definitions of corruption to foster the formulation of cost-effective anticorruption solutions, this thesis became a search for a definition of corruption that had the capacity to form the basis for anti-corruption tools.

This factor relies on Transparency International's Corruption Perceptions Index (CPI) in scoring freedom from corruption, FFC is a convert of each these raw CPI data to a 0 to 100 scale by multiplying the CPI score by 10. 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 such as, U.S. Department of Commerce, Country Commercial Guide, 2004–2007; Economist Intelligence Unit, Country Commerce, Country Profile, and Country Report, 2004–2007; Office of the U.S. Trade Representative, 2007 National Trade Estimate Report on Foreign Trade Barriers; and official government publications of each country. Source: Heritage Foundation. Web: http://www.heritage.org/index/.

# **Chapter 3**

#### PHILOSOPHY AND METHODOLOGIES

#### 3.1 Introduction

The purpose of this thesis is to assist accounting in its anticorruption role. The research began with a review of accounting literature to find a research gap that can explain the observed current and historic lack of success in the struggle against corruption. During that review, over 20,000 recent titles were examined and 4,691 recent journal articles were considered (see Figure 1-1). The review of those items and of earlier accounting articles indicates that accounting draws its corruption definitions from other disciplines. A greatly expanded review of literature from multiple disciplines (including references to sources centuries and millennia old), revealed a profoundly disturbing pattern that suggests why anti-corruption efforts have been generally ineffective. Specifically, the corruption definitions in the reviewed literature appear to all be focused on and/or be derived from attributes of perpetrators of corruption—including, in a majority of cases, a focus on the creation of and/or intent to create a wrongful gain. It was found during the literature review on corruption that the 30 definitions listed in Table 2-1 effectively represent the vast majority of corruption definitions in the thousands of titles reviewed. While a detailed statistical content analysis of the definitions used in those titles would yield a useful quantification of the phenomena, it is outside the intended scope of this thesis, peripheral to accounting research, and is left for future research. However, this phenomenon, as illustrated by Figure 1-3, suggests that the current corruption paradigm is so widely applied, developed, and accepted that there are few over-looked niches/ gaps within the paradigm. Thus, filling a gap in the accounting literature gap is unlikely to provide cost-effective-anti-corruption ideas nor are such ideas likely to be found by filling a gap in the literature of other disciplines. As such, the search for cost-effective solutions to corruption is likely to be more fruitful within a new paradigm and finding and exploring new paradigms for corruption became the overarching theme of this thesis. While this search is difficult and risky, Brown's (1983, p. 68) caution that insanity "...is doing the same thing over and over again but expecting different results..." suggests that the need for such a search is both clear and pressing.<sup>8</sup>

<sup>&</sup>lt;sup>8</sup> Variants of this statement have been attributed to Albert Einstein or Benjamin Franklin, but (unlike the Brown citation) there is no firm evidence for those attributions.

The search for a new corruption paradigm involved extensive use of grounded theory to: explore existing notions and research on corruption and to combine that knowledge into a meaningful story, from which speculative thought can be used to draw out and infer coherent archetypes for viability testing as a new paradigm on corruption. Once a candidate paradigm was selected, quantitative analysis of current and historic data sets was used to ascertain if corruption is still a socio-economic problem under the new paradigm. Thus, the methodology of this thesis is best seen as a mixed-methods approach with *grounded theory* serving as a foundation that enables forays into specific enquires via *content analysis* to identify areas of interest and followed-up with quantitative methods to explore the areas and notions identified via *speculative thought* as being of interest. Grounded theory is then used to draw the various pieces into a coherent paradigm that is tested for validity and utility using a case approach.

#### 3.2 Overview of the Literature Reviews

The literature review in this study was done in following three stages:

- The first literature review examined the perceived role of accounting in combating corruption. This review was most disturbing in that it suggested an excessive optimism about the capacity of accounting to resolve corruption (e.g. the informative role of financial accountants was all too often confused with the review and guardian role of auditors). Another concern arising from this review was that (consistent with the next literature review) all the reviewed literature used definitions that were related to (i.e. derived from) a definition developed by the World Bank (1997, p. 8) and International Monetary Fund (2005) with corruption being "the misuse (or abuse) of public office for private ends (or gain)". As discussed in Chapter 2, several serious flaws in the World Bank and IMF corruption definitions makes their operationalisation, as a means to control corruption, impractical and makes prosecution of corruption nearly impossible.
- The second literature review considered the available literature on corruption published in soft disciplines such as social science, socio-economics, psychology, etc. The content of this literature was found to be *over-informative* in that it tended to contain poorly-supported and often debatable statements that did not flow into practical conclusions. A review of that research was, however, useful in that it provided general insights into the nature, scope, and consequences of corruption.
- The third literature review looked for solutions to corruption but found that the use of the vague and ambiguous World Bank and IMF definition of corruption had flowed through into many proposed solutions. As a result, those solutions are neither clear nor effective. Several studies took the supply side of corruption i.e. a corporate or individual (corruptor) who bribes to obtain an unlawful service or receive goods without having a clear right to them. Researchers have focused mainly on the supply side to tackle corruption and this focus has resulted in an increase in the cost of fighting corruption without obvious gain. On the other hand, the demand side of corruption (i.e. those who ask for or receive bribes to provide an unlawful service or goods) is considered to be a difficult approach to fight corruption. Consequently, there is an imbalance in the strategies to control the supply and demand side of corruption (Everett, et al., 2007).

# 3.3 Overview of Methodology and Research Design

This thesis is designed to be like the chambers of a nautilus shell—while each section is mostly self-contained, each section draws key elements from the previous section(s) and then leads into and is a key part of the integrity of the next section(s). All sections are integrated into a pattern that forms the whole of the thesis. This study subsumes four papers into four chapters, with significant intentional overlap, that are integrated via chapters that provide an introduction, an overview of the thesis philosophy and methodology, case studies and conclusion. Redundancy occurs frequently to: emphasise and reiterate difficult concepts, enhance understanding and readability, and to reduce the frequency of having to refer to earlier parts of the thesis. While some readers (especially those reading it from beginning to end) may find the repetition/redundancies excessive others (especially those who are periodically referring to isolated sections) will find them useful—the author apologises to the former and is happy to be of service to the latter. As the author's supervisors are among the latter, it was expedient to have more, rather than less, repetition.

The research design is an inductive illustration of some examples with embedded study where multiple sources are used to expand the breadth and depth of data collection and combine the richness of often diverse data into an apex or archetype of under-standing via triangulation (see, Scholz and Tietje, 2002; Yin, 2003). A strength of this approach is its capacity to combine a wide variety of qualitative and quantitative information sources. An embedded methodology allows the development of richer and more accurate models by a step-wise uncovering of aspects of a phenomenon being studied. Corruption is a vague and complex phenomenon that is unlikely to be defined by, or within, a preconceived theoretical framework. The main data source for this study is developed using an archival approach were data is drawn from the database sources, of various disciplines, such as ABI Inform and Science Direct (a comprehensive repository of articles for items from economics, business ethics, accounting, law, crime and criminology, social sciences and other disciplines. The archival sources were also complemented by well-known and widely-used finance and economic magazines to provide insight into current public concerns and trends. While academic sources are more respected in academic works, they are often out of date by two or more years by the time they are published.

The process of formulating research problems is done simultaneously through the overlap of four activities (see, Van de Ven, 2007):

- 1) Recognizing and situating a problem,
- 2) Gathering information to provide a grounding for the problem and its setting,
- 3) Diagnosing the information to ascertain the relevant characteristics/symptoms, and
- 4) Deciding what actions or questions should be pursued to resolve the research problem.

The first activity seeks to recognise and define the problem under study and the nature of corruption being illuminated. This activity follows the archival research approach whereby numerous sources, such as historical documents, texts, journal articles, corporate reports, company disclosures and the like, are used to answer research questions or to generate and/or develop a theory (Smith, 2003).

The second activity seeks a correlation between different socio-economic factors, via a search of extant data collections—through content analysis, which is about using a set of sources to produce inferences and/or an answer to the research question(s). The main focus in this activity is corruption and the data is drawn from the Transparency International (TI) *Corruption Perception Index* (CPI) and from the Heritage Foundation *Freedom from Corruption* (FFC) index.

Other variables used in this study are gathered from government and non-government sources or NGOs or other organizations. The main economic development index is GDP per capita and some other economic, accounting, legal, and other socio-economic development indices from CIA World Fact book, Nation Master, World Bank Group, World Health Organization and from literature Review on Corruption (economic, accounting, legal, and other socio-economic development).

The third activity reviews and analyses alternative literature and other studies in a search for a cost-effective operating solution for corruption. A great deal of effort was invested in the areas of morality and ethics. However, the intangible and contextual nature of morality and ethics was found to be so ambiguous that, even though they may eventually provide a major contribution to the struggle against corruption, that contribution may take a generation or more to become viable. Consequently, this thesis shifted the search for a more immediate, pragmatic interim solution to the disciplines of accounting and law.

The fourth and final activity seeks to evaluate the validity and effectiveness of the interim solution (to mitigating corruption) via case studies of three well-publicised

allegations of corruption (WorldCom, Enron, and Goldman Sachs vs. Bear Stearns). A fourth case study considers if the corruption appellation can and should be applied to British Petroleum's (BP) Deepwater Horizon oil-spill debacle in the Gulf of Mexico. The fifth case study considers the Bofors-India Scandal. These case studies provide a means to test the corruption paradigm, practical definition, and proposed corrective actions suggested in this thesis.

This study accesses data from a large number of studies to leverage its power and reach. As noted in preceding sections, if enough scientists become convinced that the new paradigm works better than the old one, they will accept it as the new norm. As claimed by Hairston (1982, p. 77) "...most of the resistance to the new paradigm will dissipate when its advocates can demonstrate that it will solve problems that the traditional paradigm could not solve". Therefore, five cases in this study seek to illustrate that the new definition of corruption and the analysis of its nature in this study when applied to those cases will open new cost-effective paths to resolution. Thus, if this study sees further "...it is by standing on the shoulders of giants" (Weber, 1973, p. 192).

### 3.4 Grounded Theory

Unlike most traditional modes of research, Grounded Theory does not begin with a hypothesis. The intent is to let data that has been collected through a variety of methods, speak to the researcher without the corrupting influence of hypotheses. As the data is gathered and reviewed, the key traits and attributes are noted and grouped into similar concepts (so as to make them more workable). From these concepts, categories/archetypes are formed and become the basis for formulating a theory. Thus, in Grounded Theory, the intent is to reverse engineer a hypothesis from trends observed in data gathered and correlated from a variety of sources and/or methods. This approach is particularly useful if a long period of applications of traditional methods have failed to yield a useful outcome. As Brown (1983) noted, expecting a different outcome from repeating the same thing again and again is a sign of madness.

Grounded Theory is not a descriptive method, instead it seeks to conceptualize complex processes and/or patterns of behaviour by asking such questions as: "What is going on?" and "What are the central concerns of the participants and how do they seek to resolve

Paraphrased in 1676, by Sir Isaac Newton from John of Salisbury (in 1159), who was likely paraphrasing even earlier philosophers from Classical Greece. them, irrespective of time and place?" In most variants of behavioural research, the unit of analysis is individuals or group; In Grounded Theory, the incident (in this case the act of corruption) is the unit/focus of analysis.

While Grounded Theory was founded by Glaser and Strauss (1967) in the mid1960s, there was a serious split between the founders—as evidenced by Strauss (1987), Strauss and Corbin (1990), and Glaser's (1992 and 1998) rebukes. Given that this thesis is working from an accounting perspective (rather than a sociological view), does not use a well-defined quantitative coding paradigm and is looking for general trends rather than a systematic examination of the data, the Grounded Theory approach in this thesis is closer to that of Glaser than of Strauss and/or Strauss and Corbin. Given the sheer size of the data being reviewed (e.g. see Figure 1-1), the open coding approach suggested in the original Grounded Theory work and continued by Glaser is more practical than the more detailed quantitative coding proposed by Strauss and Corbin.

While Grounded Theory can be useful as an inductive and systematic approach to theory building, in this thesis, it is used to foster a theory/paradigm of corruption via the process of problem formulation through the gathering of data and knowledge about corruption (the phenomena under consideration; see Alvesson, 2004; Van de Ven, 2007).

# 3.5 Inductive and Deductive Research in Accounting

Grounded Theory is mostly an inductive research approach. The main characteristic of the inductive research approach is that it is free from a hypothesis. Harrast (1999, p. 13) asserts that "inductive research is hypothesis free allowing the data to speak and reveal underlying relationship that might go unnoticed because they are unexpected." The evolution of inductive research allows accounting researchers to apply it within accounting concepts.

The methodology involved in inductive research is complicated and time consuming, as it consists of the researchers searching for relationships in a near limitless amounts of data. However, it "...can highlight an important aspect of the empirical systems that may otherwise be neglected" (Ijiri, 1975). A notable difference between inductive and deductive methods is that an inductive method induces hypotheses from direct observation of the data, whereas, a deductive method deduces hypotheses from theory (that was often formed in earlier inductive research). An inductive methodology is

categorised as an exploratory analysis. This analysis starts by gathering data and during the process discovers something previously unknown. In contrast, deduction (as a confirmatory analysis) either confirms or rejects existing hypotheses.

Many accounting scholars currently use a deductive approach to their research and many accounting journals do not welcome inductive research (Ou and Penman, 1989). Reforms initiated by the Ford Foundation in 1953, caused a paradigm shift that encouraged many academics to embrace the scientific method and, as a result, to be more comfortable with deductive rather than inductive research approaches. Before that shift, many theories articulated in accounting literature were generally descriptive and normative in nature (Zeff, 1984).

This study is inductive and normative in nature as its main aim is to search for, or develop, a new paradigm of corruption. In Normative-Inductive research, the use of hypotheses can be highly corrupting, as it may limit or otherwise prejudice the scope of the researcher's choice of research question, methods and/or the data reviewed. In his review of the Philosophy of Science, Margenau (1966, 1983) suggests an initial general review by inductive means opens the vistas of a researcher's mind to choosing an optimal question to research, often by deductive means; reversing the process risks a researcher either being overwhelmed by minutia or surrendering to using a locally-rather than a globally-optimal question.

Another critical advantage of the inductive approach is its encouragement of the use and incorporation of existing research on the topic under research. This approach is consistent with, as Jain (2001) notes, the increasing number of academic articles now being published across disciplines. The search for a new paradigm of corruption in this study begins with the accounting discipline and expands into the enquiries and thoughts on corruption posited by other disciplines. As Tanzi (1998, p. 587) notes "...corruption is a complex phenomenon that is almost never explained by a single cause. If it were, the solution would be simple." Therefore, this study's search for a precise definition of corruption must consider the phenomena from a variety of perspectives.

# 3.6 Research Objectives

After investigating the literature on debate surrounding the nature of corruption and its definition, the following research questions were established.

1) How have others defined corruption?

- 2) What are the attributes of an ideal definition of corruption?
- 3) Given item 2, what are the strengths and weaknesses of the extant definitions?
- 4) What are the socio-economic and political consequences of corruption?
- 5) Using the above information, what is an ideal definition of corruption?
- 6) How can an ideal definition be used to develop anti-corruption tools?
- 7) Are the chosen ideal definition and the anti-corruption tools derived from it relevant to actual cases of corruption and how does that relevance contrast with the relevance of the existing paradigm?

This study addresses the above questions by illuminating the nature of corruption via a literature review, inductive analysis, and five case-studies. The goal of this study is to create a new paradigm on corruption that allows an effective, general and unambiguous definition of corruption to be formulated along with cost-effective anti-corruption accounting tools.

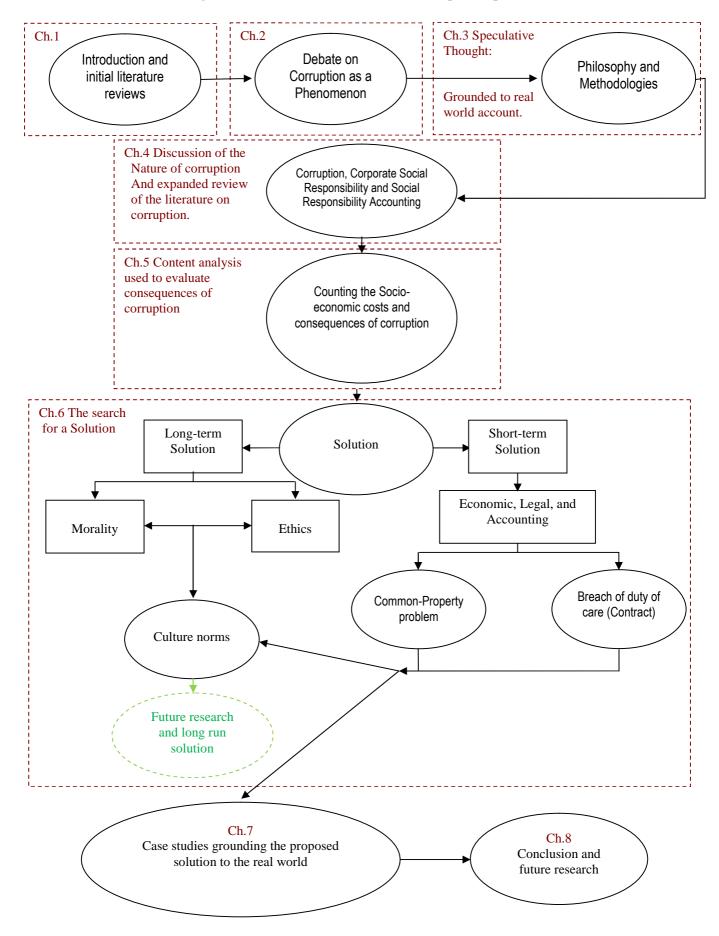
## 3.7 Procedures Employed in this Study

An outline of how components in this thesis are integrated, and how previous discussed methods are integrated in each stage of the research, is presented in Figure 3-1. A commentary to Figure 3-1 is provided below. One of the issues with inductive research is that the Philosophy and Methodology chapter is almost inevitably descriptive (e.g. what was done, where it was done, and what it lead to—by its nature, inductive research is difficult to pre-plan).

The introduction (Chapter 1) provides an over-view of the research, initial literature reviews, discusses the purpose of the research and the questions asked, and summarises the coverage in each chapter. Chapters 2, 4 and 5 discuss corruption in ever increasing detail, including the socio-economic consequences of corruption.

Chapter 3 discusses the philosophy and mix of methodologies used in the thesis, including Grounded Theory (Glaser variant), archival approach, speculative thought, thought experiments, inductive vs. deductive research, quantitative methods, and case study approaches. Chapter 6 re-introduces moral and ethical approaches to resolving corruption and suggests that such solutions are likely to continue being ineffective for many more generations and then pulls the work from earlier chapters together to suggest an alternative approach to resolving corruption. Chapter 7 applies the new paradigm of corruption to four well-known case studies on corruption and to a fifth case that the new paradigm suggests is corruption. Chapter 8 summarises the thesis and suggests avenues for future research.

Figure 3-1: Visualization of the thesis concepts and processes



#### 3.8 Chapter Conclusion

This chapter describes how others have defined corruption by synthesising literature on corruption and in particular literature on Accounting and corruption. While extensive literature was found on Accounting and corruption (Figure 3-2), most of that literature tended to focus on CSR and the Forensic aspects of Accounting (Figure 3-3) and very little accounting literature discusses what is needed for Accounting to participate in the control of corruption. Much of the research on corruption is done from an Economic or a Socio-political perspective. It was found that all of the reviewed literature employed a definition of corruption that flowed from a single paradigm (root-stock definition) that focuses on the attributes/gain of the perpetrator. Given that this definition lineage has, over the several millennia it has been evolving, had little joy in resolving corruption, it is an opportune time to shift to another paradigm of corruption. This thesis proposes to flip the old corruption paradigm from its traditional focus on perpetrators and their gains to re-define corruption in terms of the victims and consequences of corruption. It is hoped that, over the next few decades, a framework for resolving corruption will evolve from this new paradigm. The United Nations (2011) Global Compact discusses the need for transparency and anti-corruption efforts by business but its efforts appear to be focused on CSR rather than on the victims and consequences.

# **Chapter 4**

# Corruption, Corporate Social Responsibility, and Social Responsibility Accounting

#### 4.1 Introduction

In common English, corruption, *decay* and *rot* are synonymous and to corrupt is to *infect with decay and rot*. Consistent with this pejorative view, most studies see socioeconomic and political corruption as an unclean, unmitigated social ill. Research on corruption tends to focus on the perceived negative impact it has on socio-economic growth and development—for example, the preamble to the *UN Convention against Corruption* (UN, 2003, p. 1) noted harm to "sustainable development" in two of three listed concerns. Recently, a few researchers have been more inclusive of the notion that some types and/or levels of corruption may have a modicum of redeeming value (Tanzi, 1998). Despite such research, the majority of governments and researchers continue to condemn all forms and levels of corruption. This majority view appears to have responded to the more inclusive corruption research (e.g. less critical of corruption) by expanding its criticism of corruption to encompass the more inclusive studies of corruption as an unwarranted obstruction to the crusade against corruption, e.g.:

"...the diverging opinion of the global community regarding the definition of corruption and what constitutes its externalities, as well as the written work of several academics suggesting that corruption has positive ramifications for society, have significantly contributed to the lengthy delay [in its resolution]" (Feng, 2004).

Corruption is as old as humanity (Rider, 1997, p. 1) and, in one guise or another, is likely to always be with us. Efforts to distinguish different variants of corruption appear to be a confusing waste of time (Alatas, 1990, p. 3) that misdirects much of the effort to eradicate, or at least contain, this ancient and pervasive evil, i.e.:

"There are a thousand hacking at the branches of evil to one who is striking at the root..." (Thoreau, 1854, p. 80).

The intent of this study is to identify and expose the root of corruption so that, from an understanding of its nature and effects, appropriate pan-cultural approaches to its mitigation can be devised and applied.

#### 4.2 Common Perspectives on Corruption

Corruption is often defined as a misuse of power, against the public interest, for private gain, where public interest is defined widely to include the master-servant and agency relationships found in both the public and private sectors. This general definition encompasses the varied specific definitions found in the academic and professional literature such as:

- "...deviation (for private gain) from bidding rules, the arbitrary exercise of discretionary powers and illegitimate use of public resources" (Rider, 1997, p. 257),
- "...use of official position, rank or status by an office bearer for his own personal benefit" (Myint, 2000, p.35), and
- "...acts in which the power of public office is used for personal gain in a manner that contravenes the rules of the game" (Jain, 2001, p.73).

Wu's (2003, p. 3) suggestion that most theoretical and empirical work on corruption done over the last 15 years drew from previous work that focused on defining corruption and delimiting its scope is confirmed by this study. Literature on corruption tends to define it via specific examples, classes of examples, or in terms of a specific area being researched—however, until this study, little effort had gone into tracking the taxonomy of corruption to a common root (see Figure 3-4, p.49; for a phylogentic tree of 31 extant corruption definitions..

Corruption is as old as government itself (Klitgaard, 1988)—it appears in various forms and guises in all ages and cultures. Its parochial definition and how it is perceived depend on the customs, history, and social mores of each time and place (Tiihonen, 2003). Public corruption, as a crime, has been defined as the illegal use of public office for private gain (Ghosh, 2007). Current corruption definitions often focus on a divergence between the interests of the agent and those of the principal—e.g. "Corruption occurs when an agent betrays the principal's interests in pursuit of her own [interests]" (Klitgaard, 1988) and corrupt behaviour deviates from the expected duties of a public role, either to serve a private regard for wealth or status gains or to otherwise violate rules against the exercise of private interest (Gillespie and Okruhlik, 1988). Robinson (1998) similarly defines corruption as the abuse of public roles or resources for private benefit. Neild (2002) sees public corruption as a breach of trust by a public person, for the sake of a private financial or political gain, but acknowledges that the rules of conduct in public affairs can be affected by local customs and social mores.

This idea of private benefit gained at unwarranted cost to a principal has been the focus of much of the struggle against corruption (see Figure 1-3 and Table 2-1). This study considers that approach to be unsound: while a private gain may be the intent of corruption, the actuality may prove otherwise, and intent is harder to prove than the associated act or outcome. Thus, definitions of corruption with a focus on intent leave enormous unenforceable grey areas, in which the corrupt can operate with impunity and from which they can strike back at those who have accused them of corruption, but were unable to meet the beyond-a-reasonable-doubt burden of proof. The struggle against corruption requires a definition that is easy to operationalize to a clear beyond-areasonable-doubt standard of what is, and is not, corrupt. Such a definition must focus on the provable facts of obligations and outcomes, rather than the fuzzy, shifting vagaries of intent.

Figure 4-1: Examples of Dichotomy in Classifying Corruption

Arena

Corruption occurs in the public arena by politicians, civil servants, and/or bureaucrats and in the private arena, by agents, employees, or servants.

#### Scope

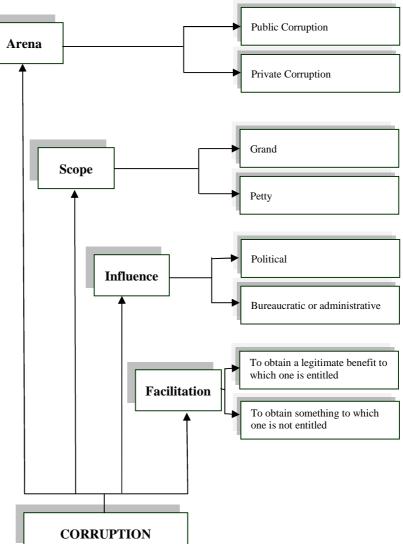
Corruption can be either grand or petty, in amount and/or effect.

#### **Influence Peddling**

Political corruption is the sale of high influence and bureaucratic or administrative corruption is the sale of low influence.

#### **Facilitation**

Facilitating someone to get something to which s/he is either entitled, or not entitled.



A first step to an inclusive definition of corruption is a clear understanding of what gives rise to corruption. Corruption occurs when a person of little or no integrity has power or authority allowing them to offer "...the ability or capacity to act in a manner capable of bringing about a certain intended desired outcome" (Spence, 2007, p. 37). One way for such authority to arise is for an agent to be given discretionary authority. Corruption then provides a way for an agent to profit by selling frustration of the intent of his/her principal (Rose-Ackerman, 1978, p. 2). Shleifer and Vishny (1993) suggest that public authority gives control over the sale of government assets, authority and influence: any resulting corruption then occurs with-theft or without-theft (i.e. the government either does or does not receive a fair price for its goods or services). Other dichotomies can be applied to an understanding of corruption—per Figure 4-1, corruption occurs in many forms, it can be classified via the arenas in which it occurs and/or by its magnitude (i.e. as grand or petty). Corruption can also be seen in terms of *influence peddling* or *facilitation*.

### 4.3 What is Corruption?

"If you know the enemy and know yourself, you need not fear the result of a hundred battles. If you know yourself but not your enemy, for every victory gained you will also suffer a defeat. If you know neither the enemy nor yourself, you will succumb in every battle" (Sun Tzu, 6<sup>th</sup> Century BCE, p. 34).

Many documents dealing with corruption tend to define it inductively via a descriptive listing of acts considered corrupt (e.g. UN, 2003). However, this approach, in a variant of Peer's Law (i.e. the solution to the problem, changes the problem; Lyall, 1986; Rawson, 2002), runs a real risk of being a perverse prescriptive roadmap of how to be corrupt, while staying within the pale of the law and social mores. As suggested by Baer, et al. (2008, p. 17), an understanding of the formulations that encompass the root causes of a problem is likely to engender the discovery of more valuable solutions to that problem. Thus, a root definition of corruption is needed to encompass all variants of corruption and focus anticorruption efforts on the root causes of corruption. All of the reviewed extant definitions appear to flow from a common root-stock that focuses on the attributes of the person who is corrupt. Recognising that this focus has not yielded a cost-effect solution to corruption, this study proposes shifting the focus from the perpetrators to a definition that focuses on the victims and consequences of corruption.

Consistent with an international accounting focus, this study seeks a principles-based, not a procedures-based, definition of corruption. The former succinctly encompasses

any and all variants of corruption and the latter is an ever-expanding morass of ill-defined, overlapping and often conflicting descriptions/prescriptions that have, in practice, been *a day late and a dollar short* in the struggle against corruption.

#### 4.4 Corruption Defined in Terms of Victims and Direct Harm

A review of literature from an array of disciplines suggests the concept that became the keystone of this thesis – that corruption is a tort that flows from:

- 1) A duty of care, that
- 2) Is breached by intent or negligence (e.g. a reckless disregard), that
- 3) Directly and/or indirectly harms an individual, group, and/or society that had reasonable expectation they would not be so harmed.

These elements (harm via commission or omission which breaches a duty of care) form the three legal legs of a tort. This study argues that corruption is a tort (with three legs, individually *necessary* and in combination *sufficient*, to define corruption) and the violated duty of care is what emotes the view of corruption as being heinous.



Figure 4-2: Illustration of Corruption as a Tort with Three Legs

The oft-applied criminal offence definition of corruption is a *red herring*, in that all corruption is always a social wrong that needs redress. However, only a few variants of corruption are legislated into being criminal acts. Also, proof of criminal corruption

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<sup>&</sup>lt;sup>10</sup> Tort is a legal term for a tortuous act (e.g. causing an injury or other harm).

requires (in countries following an English-based jurisprudence) evidence *beyond a* reasonable doubt of criminal intent. A claim of stupidity is often an effective defence against a charge of criminal corruption (for example Premier Vander Zalm of British Columbia, Canada, in the 1990s, successfully claimed a defence that amounted to an admission he was too stupid to know that being given \$10,000 in an unmarked envelope in return for a favour from his office, was a bribe; (Pynn, 2007 and personal memory). As noted previously, a root definition of corruption needs to encompass all variants: the associated three legs must, in combination, always correctly signal the presence of corruption, and the absence of one or more of these legs must always correctly signal the absence of corruption. The definition in this study can only be validated via time and experience but, as part of that process, several more examples of corrupt acts are considered, from a variety of perspectives:

- 1. Shleifer and Vishny (1993) cite an example of a bottle-labelling machine bought in Mozambique, even though it was several times the price of another equally good machine. Allegedly, the decision was made because "...buying a fancier machine offered the manager (and the ministry officials) much better opportunities for corruption". This example fits neatly into the notion of a breach of a duty of care.
- 2. Tanzi (1998), in defining corruption as the misuse of power for private gain, gave examples in procurement and hiring where authority was misused for personal gain—again these are breaches of a duty of care.
- 3. Ghosh's (2007, p.270) definition of corruption as "...the illegal use of public office for private gains" is consistent with public corruption being a breach of a public sector duty. However, the harm is often more dispersed and less clear than it would be in the private sector corruption. In some cases, the corruption is of second or even third order where a person, harmed by earlier corruption, must pay to regain what has wrongfully been taken from them and/or to gain what should rightfully be given to them. <sup>11</sup>
- 4. Tazni (1998) gave as an example of corrupt abuse of a public position: a public employee who claims to be sick but goes on vacation. This is clearly a breach of trust with resulting harm which can apply equally well to private sector employees. However, in both the public and the private-sector situations, *quid pro quo* issues need to be considered.
- 5. A president of a country, or a senator, who has an airport built in his small town, is breaching a national duty-of-care to serve the interests of local constituents—local politicians (mayors or aldermen) do not face this conflict of interest or opportunity for corruption.
- 6. The Thai Supreme Court (criminal division for holders of political positions), found Wattana guilty of abuse of power in connection with the 1992-1993 purchase of land at a wastewater site that was resold to the government at highly inflated prices (Associated Press, 2008).

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<sup>&</sup>lt;sup>11</sup> It is likely second- or third-order public corruption that gives rise to the notion that some corruption can be beneficial. However, corruption that reduces hardship from prior corruption is not proof that low levels of corruption benefit society. Also, competition for *corrupt-favours* can often precipitate cascading failure though society.

Having defined corruption as being, at root, harm arising from a breached duty of care, the next step is to validate that definition by showing that it can transcend cultural differences and can suggest cost-effective ways to combat corruption. The definition is invariant across all cultures in that any and all harm arising from a breached duty of care is corrupt. However, the concept/details of what is a duty of care may vary across cultures—thus, the definition transcends culture but details of its implementation may vary. Three refinements should be considered in future research: 1) the consideration of how the concept of duty of care varies across culture; 2) the choice of which duty of care definition prevails when transactions cross borders (NB: the issues of which law prevails has been extensively debated and could provide insights); 3) the capacity to form a duty of care should be carefully considered—can those who lack such a capacity be considered corrupt via the breach of a duty they cannot form?

### 4.5 Corruption Defined in Terms of Social Harm

As an alternative paradigm to the traditional one (i.e. a focus on attributes of the corrupt and/or a focus on a wrongful gain) this thesis proposes a paradigm that focuses on the victims and/or direct harm. An alternative to these paradigms is to consider corruption's harm to society as a whole. Such harm is clearly shown to exist and to be potentially very large in Chapter 5 of this thesis and in a host of other research. However, much of the social harm from corruption is so dispersed that very few of those harmed by this process are likely to be aware of the harm. Harm to direct victims of corruption tends to be more concentrated and those victims are more likely to take action against those who have harmed them, if the tools are provided to enable them to take action. Thus, the paradigm of corruption as harm to society is an interesting concept that is worthy of future research and is likely to reinforce the need/desire for society to contain and control corruption, but it is unlikely to yield much in the way of tools or precepts to fight corruption. In the rest of this thesis, social harm arising from corruption will be used to reinforce the need and duty of society to punish the corrupt and provide for their victims via the tort process.

## 4.6 Corruption and Social Responsibility Accounting

Corruption has been re-defined in this thesis as being essentially a breach of trust, with harm resulting where a duty of care was owed. This breach becomes possible because in "...a social relationship in which one person makes herself vulnerable to another who

can do her harm if the trust is misplaced....[,the] second person is either trustworthy or not" (Levi, et al., 2001).

Trust is a fundamental prerequisite to commerce, trade, and other transactions that underpin a civilized society. From a social perspective, the harm accruing from corruption to individuals, groups, and organizations is, in net terms, mostly zero-sum (i.e. offset by benefits accruing to the corrupted, the corruptor, and/or mostly innocent third parties). The net social harm from corruption is, therefore, mostly in reduced allocative efficiency and increased transaction costs, resulting from trust being fouled. As Figure 4-3 illustrates, corruption always harms business performance and it only has market value to a corruptor if it is rare and unexpected. As it becomes commonplace, its value declines exponentially and the net total harm to the economy increases (at a declining rate) toward the total potential value of the economy. Validation of these assertions is in Figure 4-3, where the Business Freedom Index falls exponentially (in the form of  $Y = c(1-e^{-b(X-a)})$ ) as Freedom from Corruption falls.

Ultimately, corruption without an underlying threat of violence is madness: how can those who accept bribes to breach trust be trusted? One of the many ways in which corruption harms business activity is seen in Figure 4-4, where the time it takes to start a business rises exponentially toward infinity (in the form of  $Y = a(x-c)^{-b} - g$ ), as corruption rises.

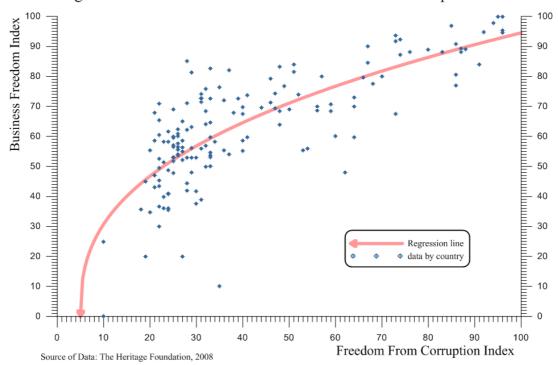


Figure 4-3: Business Performance as a Function of Corruption Level

Figure 4-3 clearly shows that rampant corruption begets a vicious downward spiral of declining value in which even the market value of corruption becomes exhausted. The way corruption is defined in this study (i.e. a breach of trust giving rise to harm where a duty of care was owed) suggests that most social harm associated with business (bribery, environmental harm, human rights violations, shoddy/dangerous products, etc.) would be greatly curtailed if corruption in businesses was controlled.

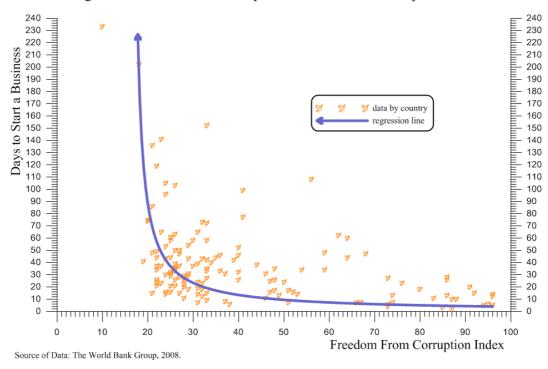


Figure 4-4: Business Start-up as a Function of Corruption Level

This tautology appears to be an unstated driving force behind a new class of legislation and declarations of fundamental human, social, and environmental rights (Epstein and Hanson, 2006) that are likely to transform business and accounting—for example:

- Section 172 of the UK Companies Act of 2006, redefines fiduciary duties by requiring that for directors to act in good faith in promoting the success of their firm they must have regard as to "...the impact of the company's operations on the community and the environment." A caveat in an earlier version of this legislation, intended to limit this responsibility to "...so far as reasonably practicable", was removed—signalling intent of the government to rigorously enforce compliance. (Cook and Prescott, 2007; Lipton and Schwartz, 2008)
- The intent and expectations of the UK Government in its Companies Act of 2006 is set out in more detail by the [UK] DTI (2004). The UK Government clearly believes there is a business case for Corporate Social Responsibility (CSR) and that, as corporations are made aware of this case, the world will become better for everyone, as businesses all move to *Best Practices*.
- The UN Proposal Defining Corporate Social Responsibility for Human Rights (Lipton and Schwartz, 2008) is urging Nation States "...to improve their

protection against corporate human rights abuses by fostering corporate cultures in which respect for rights is an essential part of doing business ....[via an expansion of] fiduciary duties to include the obligation to consider the human rights impact of corporate activities."

However, legislating Corporate Social Responsibility (CSR) is likely to generate interesting unintended consequences for example:<sup>12</sup>

- The ideals expressed in the DTI (2004) document indicate that it was framed by people with a *left-of-centre* economic view—however, a very similar policy approach was promulgated by the *ultra-right-wing* Chicago School of Economics in the 1970s under the moniker *Laissez-faire*—this *business knows best* ideal opened the way for the *greed is good* decades of the 1980s and 1990s which, in turn, made the need for CSR very apparent, by its general absence.
- A policy of CSR is no substitute for fair dialogue, legislation, and other governance by government (Wright and Smallman, 2008). In the absence of accountability (i.e. well defined/measurable deliverables, reporting standards, verification, and harsh and certain consequences for defalcations), CSR is likely to degenerate into mere feel-good corporate-promotion puffery.
- If the UN proposal is able to establish its intent of an effective "...means for those who believe they have been harmed to bring this to the attention of the company and seek remediation, without prejudice to legal channels available" it may increase poverty in many third-world nations, as responsible corporations internalize the added transaction costs and/or uncertainty of investing in nations with shaky Human Rights histories.
- The UN proposal will likely have little or no effect on irresponsible corporations, who will continue to operate as normal but with subsidiaries to buffer them from Human Rights consequences. Also, there may be a major increase in the mortality rate for active and potential plaintiffs (Collingsworth, 2008, pp. 7-10).

"The substance of social responsibility arises from concern for the ethical consequences of one's acts as they might affect the interest of others" (Davis, 1967, p. 46). CSR, a decades old concept where businessmen are expected to "...oversee the operation of an economic system that fulfils the expectations of the public [and] ... that the economy's means of production should be employed in such a way that production and distribution should enhance total socioeconomic welfare" (Frederick, 1960), is becoming an increasingly important tool in the struggle against a host of social and environmental ills. However, the new focus on legislated CSR is a major

<sup>&</sup>lt;sup>12</sup> The Doctrine of Unintended Consequences is collection of cautionary laws and sayings, for example:

<sup>•</sup> Burn's Law: "The best-laid schemes o' mice an' men gang aft agley" (Rawson, 2002, p. 38).

<sup>•</sup> Murphy's Law: "If anything can go wrong, it will" (Rawson, 2002, p. 162).

<sup>•</sup> Hardin's Law: "You can never do more than one thing" (Rawson, 2002, p. 225).

<sup>•</sup> Spencer's Law: Every cause produces more than one effect" (Rawson, 2002, p. 229).

<sup>•</sup> Crumbpacker's Law: "Murphy was an optimist" (Lyall, 1986).

departure from what has, historically, been a mostly voluntary activity. This legislative focus will require that Social Responsibility Accounting (SRA) be developed to add rigour to CSR. Specifically, an operational system of SRA must have an unambiguous statement of obligations, clear performance criteria, effective means of validation, and harsh and certain consequences for defalcation.<sup>13</sup>

#### 4.7 Chapter Conclusion

A new class of legislation and declarations of fundamental human, social, and environmental rights appear to be seeking to explicitly induce a general acknowledgment that most social harm associated with business arises via corporate breach of a duty of care torts. As part of this acknowledgment, the new legislation is seeking to create venues for those harmed to seek redress from those benefiting from that harm. In the absence of a rigorous system of Social Responsibility Accounting, (e.g. with an unambiguous statement of obligations, clear performance criteria, effective means of validation, and harsh and certain consequences for defalcation), Corporate Social Responsibility merely adds another venue for government and corporate corruption.

Corruption, despite assertions in many earlier definitions, is not about private gain. Specifically: "There is nothing wrong in making partial decisions in return for favours on the grounds that *it harms nobody*" (Amos, 1982). Corruption needs to be defined as a breach-of-trust tort that causes harm where a duty of care was reasonably expected. As such, all corruption results in harm that is a social wrong and venues for redress of that harm need to be developed. As an aside, efforts to legislate Corporate Social Responsibility may prove to be an interesting first step on a path to eliminate corruption, along with a host of related social ills, but only if Social Responsibility Accounting is developed as an effective tool.

<sup>13</sup> The need for Social Responsibility Accounting (SRA) to give CSR teeth is a recommendation in this thesis. The literature review found a number of articles on SRA, but in each case it was used as a synonym to CSR rather than being a key requirement for CSR to be effective.

## **Chapter 5**

# Counting the Socio-economic Costs and Consequences of Corruption

#### 5.1 Introduction

While research on corruption has tended to focus on its perceived negative impacts on socio-economic development and growth (e.g. UN, 2003), some research has included a notion that corruption may have some redeeming value (Tanzi, 1998). However, most governments and researchers continue to condemn all variants and levels of corruption some even extending their condemnation to encompass the recent, more inclusive research, as being a confounding or at least a confusing factor:

"...the diverging opinion of the global community regarding the definition of corruption and what constitutes its externalities, as well as the written work of several academics suggesting that corruption has positive ramifications for society, have significantly contributed to the lengthy delay [in its resolution]" (Feng, 2004).

This study combines and analyses output and indices from a range of studies to illustrate how corruption, at all levels and situations, causes net harm to society. The adaptation mechanisms, used by businesses to ameliorate corruption's harmful effects, are never fully effective and, in themselves, have cumulative effects that eventually precipitate multiple cascading failures in the infrastructure and foundations of society.

#### 5.2 The Issue of Trust

Trust is fundamental to commerce, trade and other transactions that underpin a civil society. From a social perspective, the individual harm and gains accruing from corruption, mostly net-out to a zero-sum game—thus, the net social harm from corruption is mostly in the form of reduced allocative efficiency and increased transaction costs, arising from betrayal corrupting trust (Covey, 2006). In Figure 5-1, the Business Freedom Index (Heritage Foundation, 2007 and 2008) is used as a proxy for the social harm of corruption and as the Freedom from Corruption (FFC) falls the Business Freedom Index appears to fall in the form of:

$$Y = c(1-e^{-b(X-a)})$$
 Y = Business Freedom Index  
 $X = Freedom From Corruption$   
 $a,b,c = parameters$  (1)

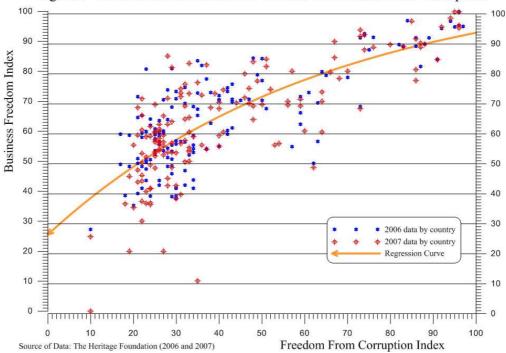
When equation (1) was regressed against the data in Figure 5-1 the results were:

Statistical Measures Goodness of Fit		PARAMETERS		t-STATISTIC
$R^2 = 0.5868$	c	Maximum Y	111.45	7.5864
LM Statistic = $2.7013E-10$	b	Slope	0.015308	2.7183
Durbin-Watson Statistic = 1.7014	a	X Intercept	17.013	2.0941
CHI <sup>2</sup> test on normality of residuals				
= 4.78127 with 27 degrees of freedom				

When the above results are substituted into equation (1), the result is:

$$Y = 111.45(1 - e^{-0.015308(X - 17.013)})$$
(1a)

Figure 5-1: Business Freedom as a Function of Freedom from Corruption



While the overall fit of equation (1) to the Figure 5-1 data is fair, several key issues prevent it from being good for example, the data in the lower and upper ranges of the X-axis is poorly described by the function. The maximum value of Y (the Business Freedom Index) exceeding 100 is not sensible, and the Y-intercept being greater than zero is illogical. Also, (visually) two functions appear to be at play in Figure 5-1—with one dominant in the upper range, another dominant in the mid-to-lower range, and both at play in the upper-mid range. If the corruption effects are separated into initial effects and a business compensating response (respectively, equation (2) and equation (3), below), the fit to the data in Figures 5-1 and 5-2 greatly improves and a clear/sensible view of the nature and effects of corruption emerges.

$$C = g/(1 + (d/X)^n)$$
(2)

$$A = Xe^{a(1-X/b)} - c$$
 (3)

 $C = 1^{st}$  order effects of corruption  $A = 2^{nd}$  order effects of corruption

a,b,d,n = parameters

$$Y = g/(1 + (d/X)^{n}) + Xe^{a(1-X/b)} - c$$
(4)

The regression of equation (4) against Figure 5-1 data generates disappointing results—i.e. some parameter values and signs are illogical—indicating severe multicollinearity between the variables in equations (2) and (3). This issue was

resolved by using a double-bootstrapping process to isolate and analyse the effects of equations (2) and (3)—where:

- Parameter values for equation (2) were guestimated, then
- Values from that equation were deducted from the values in Figure 5-1, and equation (3) was regressed against the residuals to generate estimates of its parameter values, then
- Those values were substituted into equation (3) and values from that equation were deducted from the values in Figure 5-1, and equation (2) was regressed against the residuals to generate estimates of its parameter values, then
- Those values were substituted into equation (2) and values from that equation were deducted from the values in Figure 5-1, the negative residuals were converted to zero (on the assumption that businesses are rational wealth maximisers), and equation (3) was regressed against the residuals to generate estimates of its parameter values, then
- Those values were substituted into equation (3) and values from that equation were deducted from the values in Figure 5-1, and equation (2) was regressed against the residuals to generate estimates of its parameter values.

After using the above process in two bootstrap iterations, the regression results for equation (2) were:

Statistical Measures Goodness of Fit	PARAMETERS			t-STATISTIC
$R^2 = 0.8832$	G	Maximum Y	134.58	5.9260
LM Statistic = 7.64665E-16	D	Inflection point	76.899	10.593
Durbin-Watson Statistic = 2.0016	N	Slope	4.0195	8.3657
CHI <sup>2</sup> test on normality of residuals	P	Rho error	0.31283	5.7337
= 66.5765 with 27 degrees of freedom				

And, the regression results for equation (3) were:

Statistical Measures Goodness of Fit	PARAMETERS		t-STATISTIC	
$R^2 = 0.7530$	a	Slope	2.1303	33.084
LM Statistic = $1.8424E - 14$	b	Y=X point	69.288	17.409
Durbin-Watson Statistic = 1.9900	c	Shift	43.321	5.2350
CHI <sup>2</sup> test on normality of residuals	ρ	Rho error	0.37996	7.1892
= 125.8135 with 27 degrees of freedom				

$$C = 134.58/(1 + (76.899/X)^{4.0195})$$
 (2a)

$$A = Xe^{2.1203(1-X/69.288)} - 43.321$$
 (3a)

$$Y = 134.58/(1 + (76.899/X)^{4.0195}) + Xe^{2.1203(1-X/69.288)} - 43.32$$
 (4a)

The initial effect of corruption is damage to trust, which reduces the effectiveness of business. This is captured in Figure 5-2 via equation (2). Business, rather than remaining a passive victim of corruption, responds with competitive corruption and this is captured in Figure 5-2 via equation (3). However, this compensating response to initial corruption restores only some, not all, of the business effectiveness and efficiency lost to corruption. Thus, while some individuals may benefit from corruption, per Figure 5-2 and equation (4a), society and business activity as a whole are always harmed. Further, the net social harm arising from corruption rises with the

level of corruption because corruption only has a market value to a corruptor (equation (3a)) if it is rare and unexpected. As it becomes commonplace, its value declines exponentially and the net harm to business increases at a declining rate, until businesses are unable to function. Along with the Freedom from Corruption Index (FFC; devised by a US somewhat right-of-centre Think-tank) there is the Corruption Perception Index (CPI; devised by a European Think-tank)—Figure 5-3 shows that the two measures are sufficiently similar and that there is no problem with this study shifting to the more complete and somewhat more politically neutral CPI.

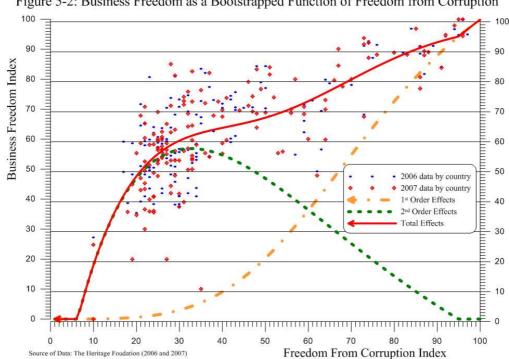


Figure 5-2: Business Freedom as a Bootstrapped Function of Freedom from Corruption

A lack of trust "...will destroy the most powerful government, the most successful business, the most thriving economy, the most influential leadership, the greatest friendship, the strongest character, the deepest love" (Covey, 2006, p.1). Trust effects are at the core of the harm from corruption. Corruption damages trust, impaired trust increases uncertainty, which raises the transaction cost of doing business.<sup>14</sup>

Businesses respond to corruption by trying to re-establish trust—however, corrupt dealings are (by their very nature) difficult to enforce. Specifically, courts in most jurisdictions refuse to enforce unlawful or shameful agreements (Rose-Ackerman, 1999, pp.92 and 96; Dick, 1995, p.26).

Uncertainty is far more damaging than risk—risk can be estimated and discounted, uncertainty (by definition) cannot be estimated and, as such, it chills and eventually kills trade and business.

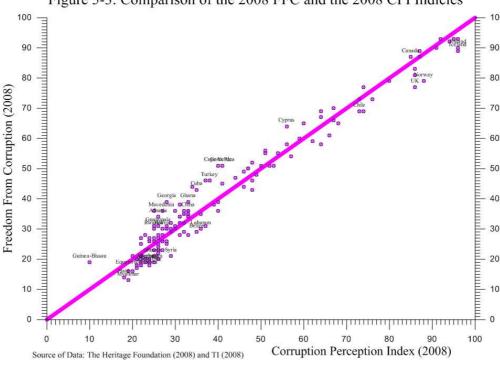


Figure 5-3: Comparison of the 2008 FFC and the 2008 CPI Indicies

The lack of effective legal or social recourse means corruption tends to engender threats and violence (Lambsdorff, 2002). Figures 5-4 and 5-5 show that corruption, violence, and poverty appear to be linked in a vicious spiral of degradation and misery. Fisman and Miguel (2008) suggest that corruption and violence are "...the twin causes of...the poverty of nations". The increase in violence associated with increased corruption can be seen in Figure 5-4—where the violent death rate (excluding suicide) can be described by:

$$Y = a(x-c)^{-b}$$
 
$$Y = violent \ deaths \ per \ 100,000 \ people \ pa$$
 
$$X = Freedom \ from \ Corruption$$
 
$$a,b,c,g = parameters$$
 
$$ln(Y) = ln(a) - b[ln(x-c)]$$
 
$$(5a)$$

When equation (5) is logged into a power function (equation (5a), above) and regressed against the data in Figure 5-4, the equation and results are:

Statistical Measures Goodness of Fit	PARAMETERS			t-STATISTIC
$R^2 = 0.4853$	A	Intercept parameter	128.50	13.588
LM Statistic = $6.9024E-16$	В	Slope	0.29376	11.639
Durbin-Watson Statistic = 2.0015	C	X-shift parameter	21.141	27.443
CHI <sup>2</sup> test on normality of residuals	P	Rho error	5.7573	0.71869
= 15.4530 with 12 degrees of freedom				
$Y = 128.50(x - 21.141)^{-0.2937}$	6			(5b)

Corruption is an excellent predictor of violence—for example, given that the Y-axis in Figure 5-4 is in log<sub>10</sub>, violent deaths (excluding suicide) tend to increase, in the form

of a double exponential, as corruption rises. Also, the regression errors show a strong log-normal distribution—where its amplitude rises exponentially as corruption increases. This outcome likely occurs because, as a society becomes more corrupt, its infrastructure (including the investigating and reporting of violent death) becomes ever less reliable.

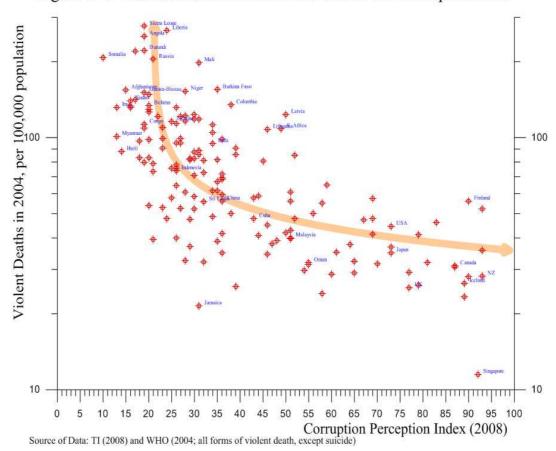
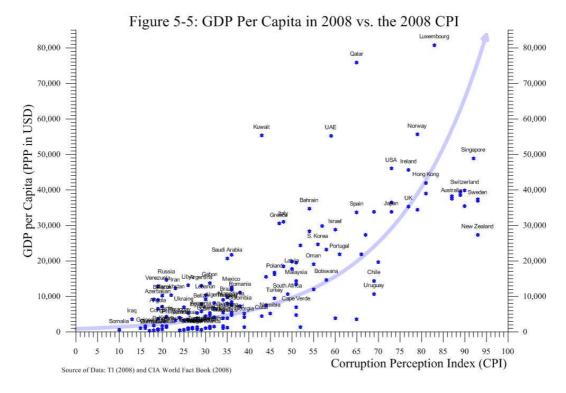


Figure 5-4: Violent Death Rate as a Function of the Corruption Rate

## 5.3 The Economic Consequences of Corruption

The high correlation between poverty and corruption (Figure 5-5) is an increasingly well-known concern (Graeff and Mehlkop, 2003) and has caused corruption to be condemned as *a crime against humanity* (Acquaah-Gaisie, 2005; Bantekas, 2006) for example Diamond (2004) called corruption a crime "... *against development*.... [and when] you have rapacious corruption, which exists in many parts of the developing world, this is on the level of a crime against humanity."

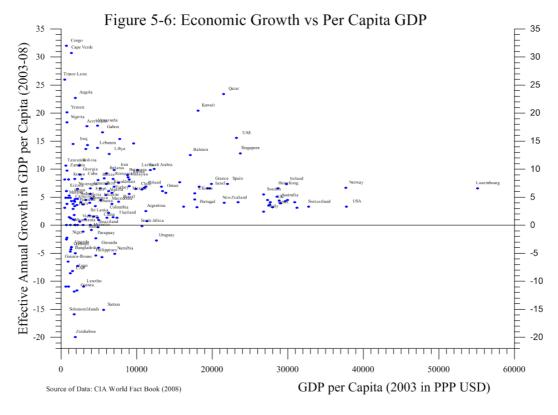


However, using the strong *per-capita wealth and corruption* correlation as an argument that corruption is the main cause of poverty is premature. First, correlation provides little insight into causality (i.e. poverty may cause corruption); Second, several confounding factors further obscure the issue. Specifically:

- Poor developing countries tend to grow faster than richer developed ones a well accepted basic tenant from early development economics. Logically, poor undeveloped countries, working from a smaller wealth-base (the denominator), tend to grow faster than wealthier developed countries. Thus, in theory, all nations should eventually be equalised by their growth rates and should eventually approach a common situation of high wealth and relatively low growth (Chenery, 1960 and 1979; Chenery and Syrquin, 1975).
  - This effect can be seen in Figure 5-6, but there are also offsetting effects that cause some poor countries to have low or negative growth and others to have high growth.
- Economic growth is often stunted in nations with major natural resource endowments. Even though this effect is counter intuitive (i.e. high levels of natural resources, per the basic tenets of traditional neoclassical economics, should make economic growth easier, faster, and higher), it is found in empirical study after study (Leite and Weidmann, 1999; Sachs and Warner, 2001; Diamond, 2004) and clearly shown in Figures 5-7 and 5-8.
  - One theory as to why this process occurs is a *crowding-out effect*, often called the Dutch Disease—attributed to the Economist (1977), by Barder (2006)—where the finding of sudden great wealth causes other, more sustainable, aspects of an economy to either not be developed or to wither.
  - Another common theory of why economic growth is stunted in countries that experience a sudden inflow of natural wealth is that corruption can cause them to "... experience lower innovation, lower entrepreneurial activity, poorer governments and lower growth." (Sachs and Warner, 2001, p. 835).

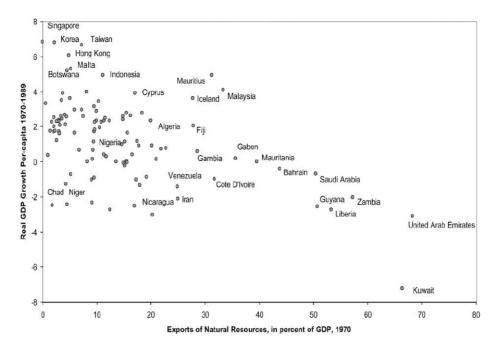
- Fortuitous price increases in natural resources can create high short-term growth, by offsetting or even reversing the issues immediately above. During the period being studied (2003 to 2008), oil (after an extended period of weak prices) more than doubled in price per barrel.
- Peace, order, and good governance are vital to wealth creation and their opposites, tend to blight economic growth. Figure 5-9, suggests that economic growth is an inverse function of the rate of murder-and-war deaths. Thus, even though for most of the last five millennia, war and murder were common means of acquiring and/or securing wealth, power and position, it has become increasingly apparent in the last two centuries that those means often damage the sources of wealth creation and tend to destroy, squander, or lose much of the wealth being fought over.
- The previous section and Figure 5-4 show that violence varies strongly with corruption and the mayhem that afflicts nations as their CPI falls from 30 toward what appears to be a limit near 10 is well described in Yeats' (1920) poem on the end of times:

Things fall apart; the centre cannot hold;
Mere anarchy is loosed upon the world,
The blood-dimmed tide is loosed, and everywhere
The ceremony of innocence is drowned;
The best lack all conviction, while the worst
Are full of passionate intensity.



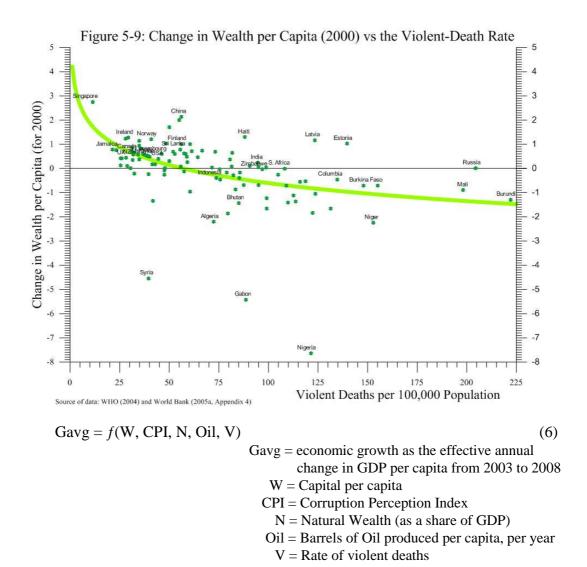
However, Figure 5-4 shows that not all highly-corrupt nations experience correspondingly high rates of violent death. A key question for future research will be: Is relative peace a matter of luck, is it *the calm before the storm* (i.e. are corrupt countries *storing up trouble for the future*), or must corruption infect both a government and those it governs before violence becomes endemic?

Figure 5-7: Growth and Natural Resource Abundance 1970-1989



Source: Sachs and Warner, 2001, p. 829.

Figures 5-4 and 5-6 through 5-9, suggest simple economic growth is not a simple function—instead causal strings come together and enfold one another, in a tangled correlation knot. Multiple-non-linear regression, inference, and even bootstrapping are needed to cut the correlation knot and separate the effects on economic growth of wealth per capita, corruption, violence, and endowments of natural wealth.



Figures 5-4 and 5-6 through 5-9 provide insight into how various socio-economic factors affect the growth rate. Specifically:

- 1) Wealth is clearly an increasing exponential as CPI improves (Figure 5-5),
- 2) GDP per capita (a proxy for wealth) was excluded because poverty and economic growth are so highly auto-correlated with corruption (Figures 5-5 and 5-6) that including both wealth per capita and corruption will confound the analysis,
- 3) V is excluded because it is so highly correlated with corruption (see Figure 5-4) that its effects can be subsumed in the corruption variable, and
- 4) N can reduce growth via both the Dutch-Disease process and via corruption. However, massive increases in the price of oil in 2003-08 produced a significant effect on growth. The major producers of oil experienced significant growth and countries without major oil production suffered significant reductions in growth. It should be noted that if the price of oil falls this result is likely to be reversed—as evidenced by the relative position of oil-rich nations in Figures 5-7 and 5-8.

$$Gavg = a + bOil - ce^{-dOil} - g(CPI-h)^{-j}$$
(7)

In regressing equation (7) against the data in Figure 5-10, the value for Somalia was excluded to eliminate the effect of gains from piracy and the Zimbabwe 2008 CPI

rating was adjusted down from 18 to 11 in reflection of the currency collapse; land thefts; political murder; crop failures; destruction of the judiciary and sundry other crimes against humanity—NB: the CPI for Zimbabwe is critical as an anchor variable. The result of the regression is:

Statistical Measures Goodness of Fit	PARAMETERS			t-STATISTIC
$R^2 = 0.3748$	A	Constant	10.821	4.5693
LM Statistic = $8.5942E-05$	В	Scaling parameter	0.027240	2.9727
Durbin-Watson Statistic = 1.9924	C	Scaling parameter	6.5646	4.3587
CHI <sup>2</sup> test on normality of residuals	D	Scaling parameter	0.33252	1.5074
= 15.3400 with 11 degrees of freedom	G	Scaling parameter	5.0855	3.1168
	Н	Shift parameter	10.993	326.69
	J	Power parameter	0.31841	1.0810
	P	Rho error	0.012369	0.15759

$$G_{avg} = 10.821 + 0.027240 \text{Oil} - 6.5646 e^{-0.33252 \text{Oil}} - 5.0855 (\text{CPI-10.993})^{-0.31841} \tag{7a}$$

The last term in eqn (7) implies that corruption has profoundly adverse effects on economic growth in the form of:

$$L = -5.0855(CPI-10.993)^{-0.31841}$$

$$L = Loss in G_{avg} from corruption$$
(8)

Another effect needs to be considered in that many studies suggest that economic growth rates should be higher in poor countries than in richer countries and that, as a result, countries will eventually all equalize at a common wealthy per capita level. However, this levelling is not happening: as Landes (1998, p. xx) notes:

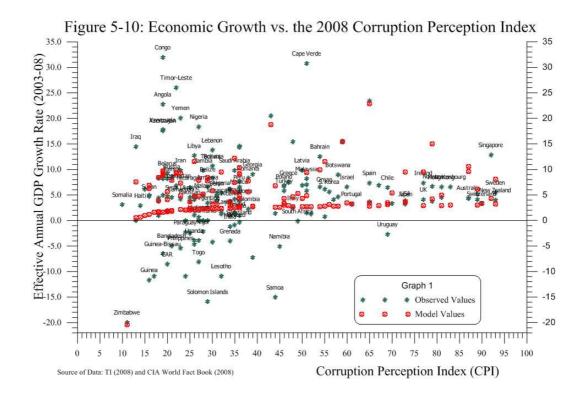
"Two hundred and fifty years ago, [the]...gap between richest and poorest was perhaps 5 to 1, ....[currently] the difference in income per head between the richest industrial nation, say Switzerland, and the poorest nonindustrial country, Mozambique, is about 400 to 1..."

Thus, corruption's full impact on growth is made more apparent if equation (8) is adjusted for the effect of wealth on growth—for example if one assumes that a nation with little or no wealth can grow at 18 percent, that very wealthy nations grow at 2.0 percent, that a totally corrupt nation (for example a CPI of 0.0) has little or no wealth and that a nation with no corruption is either wealthy or soon will be wealthy (see Figure 5-5), then equation (8) can be adjusted to: 15

$$L = 3.2184 - 5.0855(CPI-10.993)^{-0.31841} - 18e^{-0.02197CPI}$$
(8a)

-

<sup>&</sup>lt;sup>15</sup> The first term in the left hand side of equation (8a) is a notional value to create the logic that the loss arising from corruption is zero when the CPI is 100 (i.e. a CPI of 0.0 means total corrupt).



The Figure 5-11 illustration of the profound harm that corruption has on growth is consistent with the net effect that corruption has on the Business Freedom Index in Figure 5-2—the lightly-shaded yellow area illustrates the loss of added growth that is otherwise be expected in smaller economies. This pattern occurs because, by reducing growth, corruption tends to keep small economies small or makes them smaller.

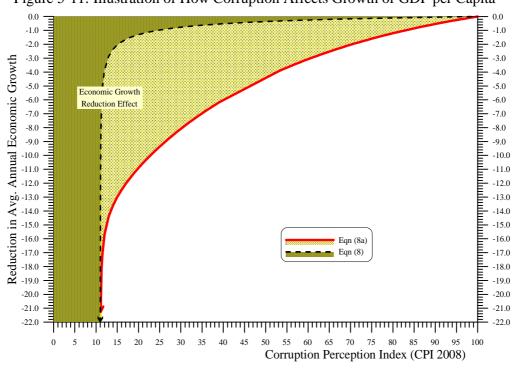


Figure 5-11: Illustration of How Corruption Affects Growth of GDP per Capita

Rising rates of corruption are a persistent, accelerating drag on an economy—there is no *sweet spot* where a low level of corruption helps an economy. In Figure 5-11 and Figures 5-2, 4, and 10, as a nation's CPI moves from 15 to 10, its economic growth of legitimate activities goes into free-fall and it is at increasing risk of becoming a failed state.

The effect of poorer economies growing faster than richer ones, netted against the offsetting effect of corruption on economic growth, means that poor (and in socio-economic terms) relatively virtuous countries tend to become rich in just a few decades (e.g. Japan, Singapore and South Korea) and poor relatively corrupt countries remain poor, or become even poorer (e.g. Nigeria, Zimbabwe, and Myanmar).

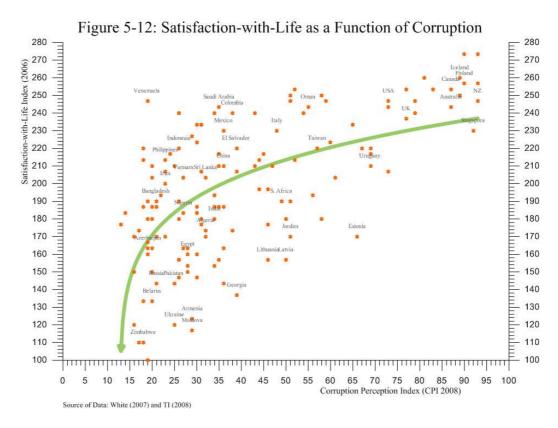
This caution is for rich as well as poor countries. Throughout history there are many examples of corruption making rich countries less rich, or even poor—such as, mid-20<sup>th</sup> Century Philippines, early 20<sup>th</sup> Century Argentina, the Turkish empire in the 19<sup>th</sup> Century, 17<sup>th</sup> Century Spain, several West African empires in the 16<sup>th</sup>-17<sup>th</sup> Centuries, 15<sup>th</sup> Century China and Byzantium, 13<sup>th</sup> Century Anasazi, 9<sup>th</sup> Century Moche, 6<sup>th</sup> Century Teotihucán, 5<sup>th</sup> Century Rome.

## 5.4 The Social Consequences of Corruption

Violence and poverty are highly correlated with corruption (Figures 5-4 to 5-5). When the injustice and loss of basic human rights associated with corrupt acts and the coverup of corruption are included, it is unsurprising that Satisfaction with Life (SWL) index is negatively correlated with corruption (Figure 5-12).

Six countries (Lithuania, Latvia, Estonia, Armenia, Ukraine, Moldova and Georgia) in Figure 5-12 have SWLs that are much lower than what might be expected, given their CPI. These outliers may be due to Russia's willingness to meddle in the affairs of what it calls near-away countries (e.g. its recent invasion of Georgia). Higher than expected SWLs may be explainable via relative depravation—for example: significant improvements occurred in the quality of life of their average citizen over the last generation—and/or a failure of the population to realise that some popular practises of their governments may not be sustainable (e.g. Venezuela's nationalisation and taxation practises). While the fit of the trend-line in Figure 5-12 is generally good, there are a few concerns. Specifically, the fit as the CPI approaches 100 (very low corruption) is clearly poor and the spread in the error widens as the CPI approaches

10. Similar concerns, noted for Figure 5-1, were attributed to the presence of two or more interacting functions. Future research should explore that possibility and its implications for the SWL vs. CPI function.



## 5.5 Chapter Conclusion

This study analysed and combined output and indices from a range of studies to develop an overview of the socio-economic effects of corruption. While a few studies have suggested that some level of corruption may benefit society by *greasing the wheels* of enterprise, this study found corruption to be pernicious at all levels and that there is no corruption sweet-spot.

The fundamental harm in corruption is its erosion of the trust that enables business and social dealings—as trust erodes, transaction costs increase at an escalating rate. Figure 5-2 suggests that the business response to corruption of competing in the market-for-bribes rapidly runs afoul of how does one trust those whom one has bribed to breach trust? Thus, while corruption may give a temporary gain to the corrupt it is always a negative-sum game to society as a whole.

Figures 5-4, 5-5, and 5-12 suggest that countries with a high level of corruption are likely to be very violent, be very poor, and have a low SWL.

The correlation between corruption and poverty is clear in Figure 5-5, and the mechanism by which corruption deepens and potentiates poverty is shown in Figures 5-10 and 5-11. Specifically, corruption stunts and can even reverse economic growth. In Figures 5-2, 4, 10, 11 and 12, as the CPI moves from 15 toward 10, a nation's business prospects, growth of legitimate economic activities and SWL goes into free-fall and it is at rising risk of becoming a failed state.

The effect of corruption on compounding rates of economic growth can be seen in how:

- Poor countries tend to grow at a faster rate than rich countries,
- Poor relatively virtuous countries tend to become rich in just a few decades,
- Poor corrupt countries tend to remain poor, or become even poorer, and
- There are many examples, throughout history, of corruption making rich countries less rich, or even poor.

It is unsurprising, given the association of corruption with violence, poverty, and abuse of basic human rights, that there is a negative correlation between it and satisfaction with life. Thus, leaders who truly care for their people and the future of their nations will seek all means and measures to combat and mitigate corruption, at any and all levels.

Additional research is needed on such things as:

- The effects of corruption on trust, transactions costs, and other costs of doing business (Figure 5-2),
- How to develop a more complete specification of economic growth as a function of corruption, endowments of natural wealth (including oil), violence, wealth per capita, etc. (Figure 5-10),
- Means to develop a more formal estimate of the effect of corruption on economic growth (Figure 5-11),
- Why the satisfaction with life of some nations is less affected by corruption than others (Figure 5-12),
- Whether relative peace is a matter of luck, the calm before the storm (i.e. are corrupt countries storing up trouble for the future) or must corruption infect both a government and those it governs before violence becomes endemic, and
- The longitudinal correlation between the CPI and economic growth, violence, and satisfaction with life.

## **Chapter 6**

# Morality, Ethics and Accounting's Socio-economic Role in the Control and Mitigation of Corruption

#### 6.1 Introduction

Control and containment of corruption, one of Accounting's more important roles in society, is fraught with difficulties and temptations that put accountants at risk of being sidetracked, confused or (worse yet) corrupted. As Lambsdorff and Schramm (2005, p.1) assert:

"...the world is not short of ideas on how to tackle corruption. While good intentions abound we currently know little about their likely success"

This chapter evaluates what accountants can and should do about corruption. The limited success of previous research in this area likely arises from three main factors—that research:

- Started from the most common definition of corruption as "the misuse of power or public office for a private gain or interest", rather than searching for a first-principles definition,
- Presumed that corruption is always wrong and focused on what accounting <u>can</u>
   <u>do</u> about it, rather than considering socio-economic and moral aspects of
   corruption so as to expand the research scope to what accounting <u>can and should</u>
   <u>do</u> about corruption, and
- Further limited its scope to the supply-side of corruption (e.g. developing strategies to raise the overall cost of being corrupt) rather than considering both the supply-and the demand-side of corruption.

This chapter draws from previous chapters in this thesis (on corruption's socio-economic and moral aspects) to justify redefining corruption as the tort "harm arising from a breach of an owed duty of care" (Alzadjali, *et al.*, 2009a). That definition:

- Eases difficulties in proving the existence of corruption,
- Directs the search for perpetrators and victims of corruption and suggests the appropriate restitution,
- Enables ex-post controls by creating significant financial risks for the corrupt, and
- Provides insights on the creation of cost-effective *ex-ante* controls.

While a strong moral-and-ethical case can be made that society should limit, mitigate, or, where possible, eradicate corruption, the intent of this chapter is to work from a clear and useful definition of corruption to develop practical and viable means for

<sup>&</sup>lt;sup>16</sup> As noted in Figure 3-3, 1.7 percent of the 20,905 articles listed in ProQuest as being from 2000-2009 and containing the words accounting and corruption were about accountants facilitating corruption and a further 4.6 percent were about earnings management.

accountants to work via, and with, the law and other authorities to contain and control the blight of corruption. "research has shown that the initial formulation of a problem is not only one of the most significant determinants of its solutions, both in term of quantity and quality, but also profoundly determines *what* problem is solved" (Baer, *et al.* (2008 p. 2); see also: Einstein and Infeld, 1938; Ackoff and Emery, 1972; Boland and Greenberg, 1988; Churchman, 1971; Csikszentmihalyi and Getzels, 1971; Dewey, 1938; Duncker, 1945; Hines, R. (1988); Lipshitz and Bar-Ilan, 1996; Loasby, 1976; Nutt, 1992; Simon, 1973; Simon and Hayes, 1976; Volkema, 1983).

#### 6.2 Moral and Ethical Dimensions

Morality and ethics have historically contributed greatly to the corruption-control strategies of Accounting. These controls have usually been accreted in successive layers of regulation and controls—with new layers being added when and as new corruption-driven outrages highlighted failings in the extant controls. Typically, these controls impair efficiency, but when and as they are (in turn) shown to be subject to circumvention, they are added to, rather than replaced. Given that all controls ultimately fail, there is usually a deep succession of controls with most adding cost, but (sooner or later) being of little or no value. Thus, a major cost of corruption is the inefficiency imposed on society by the vast and ever growing morass of rules, regulations, controls and norms established to contain and control corruption but never quite succeeding. If a magic-bullet was found for corruption, the resulting rise in trust and fall in transaction costs would likely spawn a socio-economic and cultural Renaissance by freeing most of humanity from the spectres of hunger, poverty, and privation.

The interest in morality and ethics as a potential *magic bullet* for corruption is evidenced by the rising number of academic studies—e.g. Flory, *et al.* (1992), De Sardan (1999), Eskeland and Thiele (1999), Thorne and Hartwick (2001), Lewis (2005), and Smith (2006). However, the subjectivity associated with morality and ethics tends to cause such studies to be fuzzy and inconclusive at best. Many organisations seek to ease this subjectivity by codifying what is moral and ethical behaviour. However, as Davies (1991; per Andrew, 1998) notes, these codes tend to be widely ignored within their own organisations, are rarely enforced to any degree or consistency and almost never influence the actions and choices of corporate decision makers. Such revealed preference strongly suggests that *morality-and-ethics codes* are

established more for public relations and display, than for any real, sustained use as a guide, boundary, constraint, or control on organisation thinking, decisions and actions.

As far back as Plato (429-347 BCE), Aristotle (384-322 BCE), Augustine (354-430 CE) and Aquinas (1225–1274 CE), morality was authoritative in judging if an action was right or wrong and ethics has long been associated with assessing the nature of individuals. Thus, morality and ethics combine to form the core of how many individuals perceive, interpret, and judge their own behaviour and actions. Shared morality and ethics foster and encourage the many different human values that form any given culture. Thus, any attempt to fight corruption, via morality and ethics, is likely to be deflected by serious issues relating to individual and cultural values. For example, one of many attempts to define the nature of Thai corruption, focused on the perceptions and experiences of public officials, highlighted that most "...respondents thought corruption was part of life in Thai society..... [and that bribery] was seen as customary" (Bhargava and Bolongaita, 2004, p. 174). 17

Morality and ethics are intangibles that are often context sensitive and tend to arise from a long history that may not be apparent to an observer or (even) to the actual actors. As a result, efforts to combat corruption via morality and ethics tend to be deflected by the enormous difficulty and inertia of displacing extant, but often implicit, cultural values and norms.

Morality and ethics are the focus in a large number of corruption studies across a wide array of disciplines (sociology, criminology, psychology, political science, etc) but, because of the aforementioned issues, these studies tend to be ineffective and/or situational specific. Morality and ethics may ultimately provide a long-term means to resolve corruption. However, currently unresolved, conflicting and compounding issues confound the search for a workable moral and ethical resolution to corruption. Thus, in the short-to-intermediate term, a workable resolution to corruption is more likely to arise from a combination of the more focused and applied accounting and law disciplines.

While a strong moral and ethical case can and has been made for limiting, mitigating, and (where and as possible) eradicating corruption, there are currently no means to effect such aspirations. Less elegant, more practical, temporary means are needed in

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<sup>&</sup>lt;sup>17</sup> This study was conducted as part of a Civil Service Commission research project on strategies for combating corruption.

the interim to control and contain corruption, while the more elegant long-term corruption-control strategies are developed to change attitudes and behaviour.

Stapenhurst and Kpundeh (1999, p.8) conclude that "...curbing corruption is not merely about ethics and morality; it is about sound governance and the effective, efficient use of public resources for the public good". Wright and Sayed (2003assert that "...deviations from fairness break trust, increase transaction costs and, when breaches in trust become endemic ...our civilization will lose legitimacy and then fail." This notion is consistent with the definition, mentioned earlier, that corruption is a breach of a duty of care. Accounting can, in fulfilling other roles (e.g. providing information and organising control systems), implement strategies to help participants more easily prevent or resolve corruption by identifying and avoiding such situations, providing exit strategies (for situations where corruption is foreseeable), or exposing/documenting corruption when it occurs. Numerous scholars have recently suggested that it is critically important to develop theory which not only advances fundamental understanding, but also enhances practice (e.g., Rynes, et al., 2001; Van de Ven and Johnson, 2006). In terms of corruption, a theory is needed to help Accounting cost-effectively mitigate corruption via prevention (where possible) or help to identify, convict, and strongly discipline perpetrators after they commit corrupt acts.

#### 6.2.1 Moral and Ethical Dimensions of Corruption Resolution

While the next section shows how trust is essential to most successful relationships, Everett, *et al.* (2007, p. 521) assert in counter-point that a reduction of trust can reduce opportunities for corruption and suggest that eliminating subsidies, lowering trade barriers, privatising government assets, and minimising regulation will "... *unambiguously* reduce opportunities for corruption". However, corruption in these examples is less a matter of trust gone wrong and more an example of the old Roman adage *quis custodiet ipsos custodes*?<sup>18</sup> This is a common issue—e.g. the police have a duty to protect the public and catch criminals, but there is a risk they will use their authority to become criminal, so the police have an internal affairs department, who may be tempted by corruption, and so forth. Thus, the only effective way to reduce the opportunity for corruption is to attack corruption at its root. However, as Thoreau

<sup>&</sup>lt;sup>18</sup> Who will guard the guards themselves? From the Roman satirist Juvenal, 55-127 CE.

(1854, p. 80) noted: "There are a thousand hacking at the branches of evil to one who is striking at the root..."

In a variant of the above issue, Sterling, (1971, p.34 and 1975) asserts that accountants conceive of "...issues in such a way that they in principle are unresolvable [and, as a result,] ... move from one unresolved issue to another, while the stock of unresolved issues continues to increase." Accounting, in developing a resolution to corruption, should recognize that the needs of the direct and indirect victims of corruption may differ from the general needs of society. It is also important to note that, as Alzadjali, *et al.* (2009b, p. 14) found, corruption is never victimless, it is "...pernicious at all levels...there is no corruption sweet-spot". Thus, any resolution of corruption must not only contain and control it, but also inform its victims in such a way as to assist them in demanding and winning restitution.

Although, "the formulation of a problem is often more essential than its solution..." (Einstein and Infeld, 1938, p. 92). However, Everett, et al. (2007) suggest that to precisely address corruption we should consider three broad categories of solution: control, exit, and voice. The definition of corruption used in this paper considers these possible strategies so as to provide accountants with more control and information to make better judgments. In addition, it helps provide an appropriate exit from corrupt situations and enables victims (individual and/or groups) to voice their losses and needs so as to claim restitution from those who have harmed them and/or otherwise failed to discharge a legitimate duty of care. A large part of the corruption controls will be embedded in written or implied legal and social contracts that explicitly state what duties of care are owed, by whom and to whom. The greatest harm to society from corruption is not in what is stolen (i.e. in economic terms, it merely transfers value and, thus, nets to a zero-sum game), but rather in what is destroyed, and trust is one of the greatest values destroyed by corruption. As asserted by Zaghloul and Hartman (2003): "[in] the absence of trust in business relationships .... [there] is significant need for a good and powerful control system to manage and administrate the contracting process". An additional significant advantage of inherent or enforced trust is that it greatly reduces information and transaction costs and, thus, significantly reduces the cost of doing business.

#### 6.3 Trust vs. Transaction Cost

As illustrated in Figure 6-1 (below), trust between parties helps minimize information and transaction costs in most situations (see, also, Akerlof, 1970).

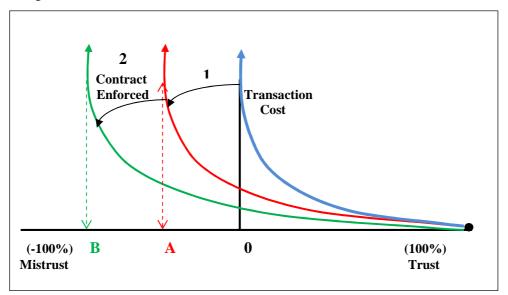


Figure 6-1: The Effect of the Trust-to-Mistrust Gradient on Transaction Costs

Mistrust increases costs in several ways (per Zaghloul and Hartman, 2003) including: uncertain work conditions; delaying events; indemnification; liquidated damages; and excessive documentation. The main points drawn from Figure 6-1 are:

- Trust reduces transaction costs: As trust declines, transaction costs rise exponentially and approach infinity as trust approaches nil. Actual or potential corruption makes it difficult and/or unwise to sustain trust.
- Accounting and a trustworthy legal system complement or enhance trust: This causes the transaction-cost curve to rotate downward and even allows transactions to occur where a minor degree of mistrust exists. However, as shown in Figure 6-1, mistrust imposes serious costs on business and makes transactions too costly where the mistrust is high.
- If high and certain cost are imposed on trust breakers, transactions are viable even with great mistrust: This situation can occur where there is effective accounting and law (i.e. contract enforcement via a trusted, effective, efficient and timely legal system) or by brutal extralegal systems. However, in the latter case, the enforcement system must be both feared and trusted—which may explain why many organised-crime groups tend to use codes and neo-feudal systems of interlocking entitlements and cross-obligations.

While both legal and extra-legal (organised crime) approaches can reduce transaction costs to where transactions are viable even if there is great mistrust, Figures 6-2 and 6-3 show that extra-legal approaches to enforcing contracts in highly corrupt societies tend to be associated with a huge increase in violence and a significant reduction in satisfaction with life.

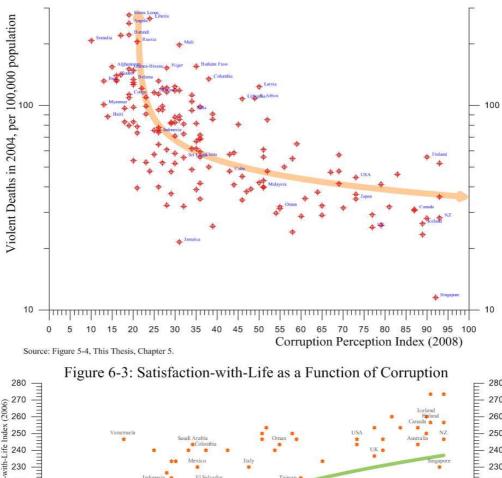
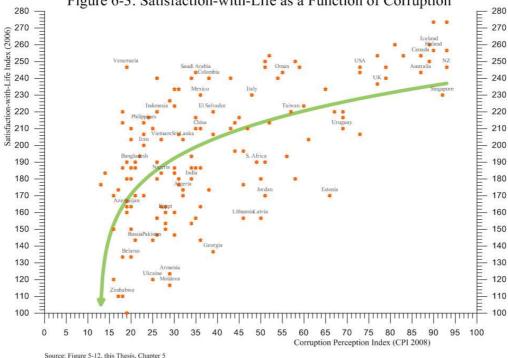


Figure 6-2: Violent Death Rate as a Function of the Corruption Rate



Thus, extra-legal approaches to managing corruption do not resolve it, but merely change its form and shift its costs to different victims. Ultimately, extra-legal approaches to corruption compound the problem and can eventually destabilise a country by undermining its critical social institutions; which allow violently-corrupt individuals to usurp wealth, power, and authority; which may accelerate a vicious downward corruption and violence spiral.

# 6.4 A Solution to Corruption that Integrates Economic, Legal and Accounting Dimensions

In a high-trust environment transaction costs are considerably lower, because trust reduces the perceived need for validation, cross-checks, and documentation. Dyer and Chu (2003) support this notion in their study on the role of trust in transactions. As previously noted, transaction costs rise dramatically as trust declines and trade eventually becomes non-viable unless trust can either be re-established, replaced, or complemented by other factors.

The operating and enforcement costs of a trustworthy legal system are negligible in comparison to the rise in transaction costs imposed by a lack of trust or the violence and socially corrupting effects of extra-legal approaches to resolving a lack of trust. As Williamson (1979) notes: "...agreements and contracts can be best and almost costlessly enforced within the legal system". However, the main issue regarding the legal system is only rarely its existence or cost. Most nations have a legal system; however, many are ineffective because they are seen as corrupt, less-than competent, too slow, and/or generally untrustworthy. Thus, the legal systems of many countries have become so entangled in corruption that they no longer provide a viable solution. Such legal systems need to be revived and made cost-effective, impartial, timely and trustworthy. Tyler (1990) argues that people respect the law because they believe that the justice system is fair and that they have been and/or will be treated fairly. The key to less corruption (and more trust) then, is an effective system of property rights and the rule of law (Lambsdorff, 1999; Leite and Weidmann, 1999; Treisman, 2000). An interesting flow-of-causation issue is: Are trusting societies (as Uslaner (2004, p. 2) concludes) less corrupt or are less corrupt societies more able to trust?

#### 6.4.1 Defining Corruption to Facilitate Control, Exit, and Voice

Corruption, despite assertions in many earlier definitions, is not about private gain. Specifically: "There is nothing wrong in making partial decisions in return for favours on the grounds that *it harms nobody*" (Amos, 1982, p. 123). Corruption tends to be so twisted, convoluted and confused that the struggle against it needs to be clearly focused around a definition that is general and unambiguous. As noted previously, this study suggests that the notion of corruption as a tort provides such a definition. Corruption, as a tort, balances on three legs where all three must all stand for a

situation or action to be deemed corrupt. Specifically, as illustrated in Figure 6-4, an accusation of corruption requires proof that:

- A duty of care existed,
- The duty of care was breached, and
- Harm arose from the breached *duty of care*.

Figure 6-4: Illustration of Corruption as a Tort Standing on Three



The first two legs, in Figure 6-4, involve proving or disproving the merit of the tort via simple questions of fact (i.e. a duty either exists or does not and, if a duty exists, it was honoured, breached, or still pending). A few researchers suggest that small levels of corruption are harmless and may even benefit society by working around bureaucratic blockages to economic growth (Leff, 1964; Huntington, 1968; Yoshihara, 1988; Coppier, and Michetti, 2006). However, such claims are hotly disputed by most researchers and are irrelevant to the tort approach to corruption. Specifically, the third leg of the corruption tort involves proving the existence of harm arising from the breach of duty (again merit) and determining its amount (the *quantum* of the tort). Thus, proof of corruption requires that all three legs be present and those

three legs of corruption identify the *perpetrator*, the *victim* and the *quantum* of harm. If any of these items is unproven there is no corruption. Essentially, the focus in corruption as a tort is all about *harm occurring where there was a legitimate reason to expect care*. While unwarranted gain may be the intent of corruption, it is neither necessary nor sufficient to prove corruption.

The violated duty of care is what emotes the perception of corruption as being heinous and such outrage often fuels strident demands for legal action and retribution. However, defining corruption as a criminal offence is a red herring. All corruption is a social wrong that needs redress, but only a few variants of corruption are legislated into being criminal acts. Proof of criminal corruption requires (in countries with an English-based jurisprudence) evidence beyond a reasonable doubt (usually seen as  $\geq$ 95 percent confidence) of criminal intent, and a claim of stupidity is often a low-cost but sufficient defence against charges of criminal corruption. A tort/civil lawsuit requires only a probable level of evidence (usually 50<sup>+</sup> percent confidence) and (other than prison) offers a wider array of remedies. Thus, a tort approach to resolving corruption offers retribution and restitution in the form of damages and it is important to note that damages from corruption can often exceed what the perpetrator gained by a multiple of two to five. Consequently, civil convictions for corruption will be easier to achieve, be cost-effective, and may bankrupt those who are convicted. As a side benefit, in a situation like that of the Enron fraud, hundreds of employees could be brought before the courts, convicted, and punished—rather than only the top few. Thus, the potential cost of participating in, or otherwise benefiting from, organizations committing fraud would rise to a point of being an untenable risk.

One weakness, common to both criminal and civil systems of law, is that victims need to become aware they have been harmed before they can argue for restitution and evidence must be gathered on the nature and extent of the harm. Thus, anti-corruption legislation needs to be written so as to make substantiation of the offence, perpetrator, and harm, easy to perform.

A new class of legislation and declarations of fundamental human, social, and environmental rights appear to be seeking to explicitly induce a general acknowledgment that most social harm associated with business arises via corporate breach-of-a-duty-of-care torts. Furthermore, (as part of this acknowledgment) venues are being created for those harmed by such torts to seek redress from those benefiting

from that harm. In the absence of a rigorous system of Social Responsibility Accounting, (for example an unambiguous statement of obligations, clear performance criteria, effective means of validation, and harsh and certain consequences for defalcation) Corporate and Individual Social Responsibility merely add another venue for corruption.<sup>19</sup>

Social Responsibility Accounting can be ordered into what Everett, *et al.* (2007) have called control, exit, and voice—where:

- Control involves traditional accounting methods and approaches to prevent or
  detect defalcations like corruption—this stage provides a statement of responsibility
  and evidence of due diligence in completing a duty of care,
- Exit involves gathering and providing information so that individuals and organisations can identify situations that are corrupt or risky and either avoid them or exit from them before harm occurs, and
- Voice involves providing individuals and organisations with the information they
  need to give voice to either the harm that they or others have experienced from those
  who have failed in their duty of care or to prove that they have completed their duty
  of care with due diligence.

The beauty of the tort approach to corruption is that it makes intent irrelevant—what counts are obligations, outcomes, and a defendant having to prove due diligence if a contracted intent was not achieved (NB: a contract in this case might be an actual contract, a social contract or a legislated contract inferred by social norms or legislated Corporate and Individual Social Responsibility). Thus, the onus of proof for harm and a breach of a duty of care should rest with the plaintiff and, once those are proven, the onus of proving due diligence should rest with the defendant.

Accountants are well positioned to develop appropriate reporting and controls for Corporate and Individual Social Responsibility—the accounting professional associations provide a clear statement and guideline of the responsibility and ethics of accountants. Specifically, accountants are required to report annually on how they have kept their knowledge current via professional development, and accounting clients can file a complaint and/or ask for arbitration from the association if they feel

<sup>&</sup>lt;sup>19</sup> As previously discussed, the need for Social Responsibility Accounting (SRA) to give CSR teeth is a recommendation in this thesis. The literature review found a number of articles on SRA, but in each case SRA was used as a synonym to CSR rather than being a key requirement for CSR to be effective.

that an accountant has not been professional and/or otherwise failed to diligently discharge his/her duties.

#### 6.5 Chapter Conclusion

Corruption has plagued and impoverished humanity since time immemorial. Many studies and sermons have been written and presented to condemn corruption and to seek a solution, but have changed little. Accounting has, for millennia, sought to contain and control corruption. The corrupt, however, gather wealth, power and authority and use those means to corrupt and subvert the systems and processes setup to fight corruption. Corruption is an enormous drag on society that destroys far more wealth than that gathered by the corrupt. This study found that, while corruption can be soundly condemned on moral and ethical grounds, those grounds are too culturally and context sensitive to provide an unambiguous paradigm from which to fight corruption.

This study suggests that tort law be used in civil courts to fight corruption. After legislation firmly establishes the nature and context of a *duty of care*—precedents in case law will soon fill in the details of who owes what to whom and will keep that process up-to-date. The risk of lawsuits is likely to have a salutary effect on those who might be tempted to benefit via corruption. Accounting will need to develop Social Responsibility Accounting to keep the system fair, reasonable, and relatively free from frivolous and vexatious tort lawsuits.

Social Responsibility Accounting will require a clear accounting of who owes what duty to whom and what constitutes due diligence in fulfilling those duties. Such accounting will arise from the activities of control, exit, and voice. Voice is the most important of those activities, because it enables and empowers victims of corruption to denounce and seek restitution from those who betrayed their trust. However, this process will not work unless the courts are seen as cost-effective, impartial, timely and trustworthy.

# Chapter 7

# **Application of Research to Several Cases**

#### 7.1 Introduction

Previous chapters in this thesis introduced corruption, discussed its nature, used an inductive research approach to review the extant literature, empirical research and other studies on corruption,<sup>20</sup> and used quantitative approach to deduce the socioeconomic costs and consequences of corruption. The intent of this study is to initiate a paradigm shift on how corruption is perceived. In the search for new precepts, initially an inductive approach is crucial. Specifically, as Yu (2006, p. 53) notes, "...deductive reasoning cannot lead to the discovery of knowledge that is not already embedded in the premise." However, once inductive insights are developed, a deductive approach is ideal for evaluating their capacity to meet deliverables. Later in this Chapter, a deductive case study approach is applied to examine how well the tort paradigm of corruption meets the following deliverables that were inductively inferred, earlier in this thesis:

- A practical definition of corruption, as the tort breach of a duty of care.
- A definition of the three legs of this tort, in such a way as to delineate *merit* and *quantum* for the civil courts.
- A review of the socio-economic cost and consequences of corruption, using received literature and other studies, from a wide range of sources.
- An examination of moral and ethical issues surrounding corruption, that found them too fuzzy and/or situational-and-culturally specific to be useful in developing an immediate and rigorous means to resolve corruption.
- A finding that various legal systems are evolving toward a tort approach to resolving corruption, via corporate and individual social responsibility. However, in the absence of *Social Responsibility Accounting*, laws requiring corporate and individual social responsibility are likely to rapidly devolve into just another venue for corruption and/or corporate puffery.
- A finding that a broad definition of the attributes Social Responsibility Accounting is needed, to make corporate and individual social responsibility approaches viable and enforceable.

The above (initial) deliverables were combined and extended to infer a cost-effective means by which societies can forestall corruption and its effects from overwhelming

<sup>&</sup>lt;sup>20</sup> An inductive research approach uses a broad initial literature review to formulate questions and to direct the review of those questions via a detailed literature review and/or an analysis of extant data.

their opportunities to grow and provide their citizens with the incentive and means to create and enjoy a high-quality of life. This approach requires that a society's legal system be of sufficient competence, authority, merit, and fairness to give good reason for its citizens, and others relying on it, to be confident that it will be: cost-effective, impartial, timely, and worthy of trust. Social Responsibility Accounting and the legal system can then be a reasonably certain and cost-effective means for the victims of corruption to seek fair restitution and retribution against their tormentors.<sup>21</sup> If this anti-corruption path is valid, and given that the harm of corruption is often many times greater than the gain to the corrupt, this approach will tend to bankrupt the corrupt, remove their power/authority, and, thereby, reduce their power to corrupt and afflict society. However, research has social utility only when it is relevant and can be reasonably tied back to reality. Figure 7-1 illustrates how theory can arise from a review of extant empirical studies/analysis and/or be developed from real-world questions. Ideally, after a theory is formulated, it should be evaluated by testing its capacity to predict, explain, or influence real-world experiences and outcomes.

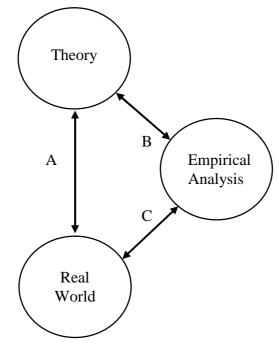


Figure 7-1: Development and Grounding of Theory

Source: Adapted from Birks (2009, p. 2).

Social Responsibility Accounting (SRA) is a phrase developed in Chapter 4 of this thesis were SRA provides an unambiguous statement of obligations, clear performance criteria, effective means of validation, and harsh and certain consequences for defalcation. Occasional references to SRA in the Accounting Literature as a synonym to Corporate Social Responsibility is neither logical nor useful as a notion.

One of the key limitations of inductive methods, as argued by Hume (1777-1812), is that "...things are inconclusive by induction because ... there are always new cases and new evidence". Hacking (1975) suggested that this issue is also known as "...the sceptical problem about the future". However, deductive enquiry is not entirely free of being part of a progression toward infinity—as Hoffmann (1997) notes: the main role of the deductive method is to test the validity of one truth, and as it does so, it reveals another truth, to be validated and so forth—on to infinity or to when the basic premise or paradigm is exhausted and requires replacement or renewal via inductive means.

This chapter uses deductive methods, via case studies, to illustrate the applicability of the outcome/deliverables of this study (listed above) and to evaluate their validity and usefulness. The cases develop five well-known situations to provide a low-cost and low-risk means for this evaluation. As with any new paradigm, testing and adaptation are ongoing processes until the paradigm is invalidated or superseded by yet another paradigm. It is important to note that this thesis does not assert that the corruption paradigm it develops is superior in all ways to the current paradigm, only that the new paradigm provides new approaches and tools to identify and resolve corruption that are, in many cases (but not all), more efficient and/or effective than those associated with the extant paradigm.

## 7.2 Case Studies – Fraud and/or Other Financial Malfeasance

This section uses five relevant cases (WorldCom, Enron, Goldman Sachs vs. Bear Stearns, the BP Deepwater Horizon Gulf of Mexico Oil-spill Debacle, and the Bofors-India Scandal) to evaluate the validity of this study's deliverables. These particular cases are chosen because they are frequently and widely cited by many researchers. Also, a number of references are made to other case studies, drawn from well-known examples of scandal around the world, to illustrate how corrupt acts can occur and the socio-economic consequences of such acts.

## 7.2.1 Case 1: WorldCom

WorldCom became a giant in the wildly expanding telecom industry, in part, because legal and regulatory barriers in its markets were relaxed or eliminated. Acquiring and merging with a large number of other large telecom providers enabled WorldCom to, very quickly "...become the 25<sup>th</sup> largest firm in America, the world's largest internet

backbone provider and largest carrier of international voice traffic, and in its home market, the second largest provider of long distance service" (Clarke, 2007, p. 331).

In their early years, WorldCom leased enormous amounts of communications capacity and forecast that they would grow into it via optimistic forecasts that telecom service demand would grow at 400 percent, or more, per year. In such a scenario it was both reasonable and permissible under (the then) US GAAP for them to capitalize large fractions of their system lease-and-development costs, until demand growth for their products flattened-out (Economist, 29 June, 2002b p. 57). However, demand slowed and stalled far earlier than expected and WorldCom should have immediately started to expense all subsequent system-development costs and amortized those that had previously been capitalized. Instead it continued capitalizing those costs and began to book fictitious revenues (Economist, 29 June, 2002a, p. 13, 20 July 2002b, p. 9). The WorldCom situation became grossly untenable after a technical advance raised potential physical-system utilization 100-fold. Combined with the physical increases in communication networks, this advance increased telecom capacity by over 500 fold. The resulting 50,000 percent increase in capacity swamped the 400 percent rise in demand that had occurred over the previous three years – the resulting decline in service prices finished WorldCom (Economist, 20 July 2002a, pp. 59-61).

Top executives of WorldCom, in dealing with these issues, worried more about their own wealth than about serving the security and long-term future of the company and its shareholders. In serving their own narrow interests, WorldCom top management repeatedly sought to hide or obfuscate facts via inflated or false claims and reports that exaggerated revenues and under-reported costs. As Clarke (2007, p. 338) notes "...the capitalisation of WorldCom's operating expenses enabled the company to claim ... that the cost would be spread out over several years instead of immediately". These breaches of duty of care to its shareholders and stakeholders, via false claims and management of (and/or outright manipulation of) financial statements, resulted not only in approximately \$9 billion in losses in WorldCom but also the "...accounting fraud destroyed at least \$7.8 billion of shareholder wealth in other American telecommunication companies" (Sidak, 2003, p. 235).

While WorldCom top executives prospered (by selling their WorldCom shares, at highly inflated prices, before the company was forced into bankruptcy), WorldCom's employees lost their jobs and the value of the WorldCom stock that many held as a

large part of their 401K retirement portfolios. This case is a clear example of the harm that arises from a breach of a *duty of care* by the principals of a corporation to their employees and other stakeholders. These breaches occurred because the interests of WorldCom stakeholders were poorly served by the company's top management and those who assisted them in hiding the truth. Thus, this harm to the stakeholders of WorldCom is easily tied to breaches of duty of care by the WorldCom principals that, along with the resulting harm, would be relatively easily documented and proven in a civil court—which would then lead to extant assets and/or future earning being seized for distribution to those harmed.

In this case, use of the traditional approach to corruption dramatically reduced the scope of the scope of the corruption investigation, the number of recognised victims, the quantum of the damages and the pool of assets that could be seized to effect restitution. Forcing the victims and/or their advocates to prove beyond a reasonable doubt, the existence of a wrongful private gain and/or the intent to corruptly create a private gain, dramatically reduced the numbers of perpetrators who were tried for corruption and/or other forms of malfeasance. The paradigm developed in this thesis would have greatly eased the way and reduced the cost of bringing these perpetrators to account for the harm they created.

## 7.2.2 Case 2: Enron

The extensive documentation and study of Enron makes it an ideal case study for this thesis—for a more detailed discussion of Enron please see Fusaro and Miller, 2002; Arnold and de Lange, 2003; Currall and Epstein 2003, Fox, 2003; McLean and Elkind, 2004; Dembinski, 2006.

Enron was a natural-gas-utility firm that on-sold natural gas from producers to power utilities and other end-users. Historically, such utilities are ultra-low risk and have low returns. Traditionally, such utilities eliminate price-risk for producers by purchasing-forward (for a block of time, often five years) large volumes of natural gas and reduce end-user cost/risk by matching forward purchases with set-price forward sales, for a similar period. This hedging eliminates risk by matching the equal but opposite price and costs risks of producers and end-users. The utility earns its income from the producer-buyer spread (often only a fraction of a percent or at most a few percent) and from transporting the product to the end-user. As noted, immediately above, the returns from such utilities are normally predictable, dull, low, and stable.

The senior managers and board of directors of Enron, after noting that for an extended period the price of natural gas had been rising, decided to jazz-up the firm's financial performance by forward buying massively more natural gas than their forward-salescontract commitments and re-selling the intended excess in gas spot markets, as the forward purchase contracts came due. Enron was lucky for many years and gained spectacular profits from what was, in substance, gambling. US GAAP, at that time, did not require such high-risk and highly irregular gains to be differentiated from regular business income in the annual financial statements and did not require that the associated risks be reported. The Enron principals were hailed as financial wizards (for generating profits that were far out-of-proportion to their assets) and responded by developing an ever-greater appetite for risk and continually expanded Enron's unhedged forward natural gas commitments. While it might be argued that, to this point, no fraud had been committed, the Enron principals had clearly breached their duty of care to their shareholders, via an ongoing failure to fully disclose that Enron's rapidly increasing windfalls were highly risky and did not arise from normal business operations. However, as long as Enron was spectacularly profitable there was little likelihood of complaints against them. That is the nature of gambling—if you win, you are a hero and all is forgiven, but if you lose, you are a bum (and if you keep gambling, sooner or later, you will lose—unless you cheat, then sooner or later you will get caught and be a cheating bum along with being a loser bum).

Enron's troubles began when the spot price of gas fell and their huge, rising windfall gains reversed into truly prodigious losses. Rather than accept that they had lost their gamble, the Enron principals started manipulating natural gas prices, via the creation of artificial spot shortages that enabled their losses to be recouped. This scandalous behaviour expanded Enron's breach of duty of care to include harm to its customers, arising from artificial shortages, high prices, and misallocation of resources.

After re-establishing its ability to generate massive profits, Enron engaged in another bout of gambling and found that its rising share prices created another opportunity for the principals to enrich themselves. Cornford (2006, p. 21) suggests that "Enron's conduct was similar to that of many firms in the 1990s, deriving from the links between stock prices and executives' remuneration and wealth, above all through stock options". However, the sheer size and weight of the energy markets in which Enron participated eventually overwhelmed its ability to manipulate US natural gas

prices, the spot price dropped below the forward price, and Enron faced *snowballing* losses that threatened to avalanche through and wreck it operations.

Unlike the previous debacle, more than market and stock manipulations were needed to salvage Enron's situation. In response, among many other accounting and financial statement manipulations, Enron used non-consolidated special purpose entities (SPEs) to shift losses and liabilities from its published financial statements (Economist, 19 January 2002, pp. 57-58, 2 February 2002, p. 70, 16 February 2002, pp. 57-58, 31 August 2002, p. 55). Schwarcz (2002, p. 1309) more bluntly asserts that "...Enron engaged in a range of complex transactions, designed to achieve accounting rather than operating results", and Ijiri (2005, p. 271) even more harshly observed "...how skilfully it [Enron] took advantage of fine details of US accounting standards and manipulated accounting at the threshold of legal and illegal treatments" (see also Donelson, *et al.*, 2009).

The external auditors, supposedly the guardians of financial reporting, recognised that they were hired by Enron's principals (e.g. the CEO and Board), that typically they earned more from consulting than by auditing (Economist, 2002a, 9 February, p. 9 and 2002, 20 July, p. 70), and chose to enrich themselves as accomplices instead of serving as dutiful guardians. Enron claimed that their auditors (Anderson Accounting) consulted with them on how to creatively *beat* the GAAP safeguards with Chewco and other SPEs (Economist, 9 February 2002b, p. 57, 22 December 2001, p. 84). Thus, Enron compounded its earlier breach of duty to its shareholders and creditors by blatantly lying to them in its financial statements and Anderson Accounting breached its duty of care to Enron's stakeholders by participating in some lies and *turning a blind eye* to others. It is clear that corruption begets corruption and can engender cascading failures throughout society's systems and safeguards.

During the investigation of Enron, many of its documents were shredded—this destruction (of the evidence of what actually happened) breached the duty of Enron and Anderson Accounting to stakeholders and society, to maintain clear records of Enron's transaction and dealings.

The Enron debacle makes it clear that high-minded codes of conduct often mean little—Schwarcz, (2002, p. 1312) observed that Enron's senior executives "...seemed to have a somewhat casual approach towards compliance with Enron's Code of

Conduct". Enron's many breaches of duty led to its final collapse in early 2002, spawned losses of \$60-100 billion USD, and badly shook confidence in the integrity of US financial markets. Only a small part of those losses were recovered and only a very small fraction of the perpetrators, their accomplices, and/or those who knowingly gained from those corrupt deeds were ever brought to account for their actions or inactions. Worse soon followed—2002 was a very bad year; in which the now wary markets found that a lack of integrity had corrupted many big firms (Adelphia, AOL, Bristol-Myers Squibb, CMS Energy, Duke Energy, Dynegy, El Paso Corporation, Freddie Mac, Global Crossing, Halliburton, Homestore.com, ImClone Systems, Kmart, Merck and Co, Merrill Lynch, Mirant, Nicor, Peregrine Systems, Qwest Communications, Reliant Energy, Sunbeam, Tyco International, etc.).

A number of lessons can be drawn from the above case and discussion:

- 1) High-minded codes of conduct provide little or no protection—the corrupt are always happy to declare (to stakeholders, regulators, and/or anyone else) that they subscribe to the highest moral standards and then lie, cheat, squander, and worse.
- 2) The principals, managers, and associates of Enron committed a number of breaches of duty of care that harmed shareholders, creditors, suppliers, customers, financial markets, accountant reputations, and society in general.
- 3) Enron's principals took a dull, boring, and stable utility on a wild ride of risk by gambling on rising natural gas spot prices with un-hedged futures. Their initial success created an illusion of profitability that encouraged them to take ever greater undisclosed risks with assets entrusted to them by stakeholders. When the markets turned on them, the Enron principals compounded their initial breach of duty of care by manipulating prices in the end-user markets and by manipulating their stock. Eventually, out of desperation, the Enron principals started manipulating their financial statements and corrupted their external audit firm (Anderson Accounting).
- 4) Corruption begets corruption—success gives the corrupt power, authority and the means to be even more corrupt and to corrupt those around them or to destroy those who refuse to be corrupted. As Machiavelli (1532, p. 93) noted a person: "...who wishes to profess the good [to act virtuously] in everything needs must fall among many who are not good [and thus come to his ruin]."
- 5) When corruption becomes endemic, trust and confidence are destroyed—which spawns cascading failures through markets and society.
- 6) Efforts to restore confidence via trickery and/or other corrupt means eventually compound and deepen the costs and consequences of corruption.
- 7) Corruption must be resisted at any and all levels. As Nehru (1942, p. 280) asserted "Evil unchecked grows, Evil tolerated poisons the whole system". Arendt (2005, pp. 271-272) warns that we must not become "...blind to the numerous small and not so small evils with which the road to hell is paved". In the case of Enron only the most corrupt were prosecuted, the costs of the prosecutions (being criminal and with significant threatened punishments) were prohibitively costly, little was recovered to

compensate the victims, and the majority of those who participated in and/or knowingly benefited from the corruption were left free to infect other firms with their depravity and cupidity.

- 8) The tort approach to controlling corruption proposed in this thesis would have involved the victims in claiming restitution and retribution from their tormentors, would have brought the majority (if not vast majority) of Enron perpetrators to account for their actions and/or inactions, would have multiplied the recovered restitution many-fold, and greatly reduced the harm that continues to be inflicted on society by those who escaped prosecution and consequences for their malfeasance at Enron.
- 9) A breach of duty of care where the harm involves increased risk may not cause noticeable/tangible losses for many periods. Thus a system that relies on those who are harmed by corruption coming forward to claim restitution and retribution from their tormentors is necessary and sufficient to control corruption ex post, but regulators are still needed for ex ante controls on corruption.

The insights generated/raised in this thesis provide new ways to identify, consider, regulate, and control corruption, both ex ante and ex post. The traditional approach to dealing with corruption very clearly failed in the Enron case—very few of those who gained from the corruption in Enron were brought to justice and the victims received little compensation from those who wrongfully gained at their cost. The efforts to prevent future Enron-like debacles (e.g. legislation like the Sarbanes-Oxley act) are proving costly to society, are not particularly effective, and are subject to dilution or reversal as those who are regulated capture the regulators (see, Stigler, 1971).

The approach in this thesis clearly defines corruption as harm arising from a breached duty of care and if it had been used in the Enron situation it would have dramatically reduced the cost of prosecutions, increased the numbers of individuals held culpable for the greatly expanded harm recognised as be created by Enron. In this approach, a plaintiff need only prove on the preponderance of evidence, in a civil court, that a defendant owed a duty of care, breached that duty of care, and that harm arose from that breached duty of care. The restitution is then based on the quantum of the harm rather than that of the often much lesser amount of the gain and can be funded by the full range of the assets owned by the much larger pool of defendants. It is clear from the above analysis (in the case of the Enron defalcation) the anti-corruption tools provided by the extant paradigm of corruption are costly, difficult to apply and of only limited effect as compared to the potential of the proposed paradigm.

## 7.2.3 Case 3: Goldman Sachs vs. Bear Stearns

Goldman Sachs, the world's most powerful investment bank, was founded in 1869 in Manhattan by a German immigrant Marcus Goldman and his son-in-law Samuel Sachs. The main activity of the bank was to lend money in short-term IOUs to traders. Over the years, Goldman Sachs shifted its market to enter the housing mortgage market. In 2005/06, the principals of Goldman Sachs began to worry that the US mortgage market was heading into a liquidity crunch with a three-fold set of problems:

- 1) Too much money had been extended to homebuyers who were very-poor to impossibly-poor credit risks. As long as house prices had been rising such poor quality borrowers had not been a major issue, because failed-borrowers could quickly sell at a higher price than their purchase price,
- 2) The housing market was looking more and more like a bubble that was running out of soap, and
- 3) Goldman Sachs was over-exposed in mortgage lending and a large part of that loan-portfolio investment looked like it would become worthless.

Believing that the housing mortgage market was nearing collapse, Goldman Sachs started bundling much of their mortgage investment, so that it could be off-loaded on to other investors. Goldman Sachs' awareness of just how bad a deal they were selling their clients is evidenced in an email by Tom Montag (then co-head of Goldman's trading division) which read: "Boy that Timberwolf [sic] was one shitty deal" (Francesco and Henny, 29 April, 2010, p. 1).

The impact of those deals can be seen in the following citations:

"Goldman was the underwriter and sole marketer of the Timberwolf deal, which lost 80 percent of its value within five months of its March 2007 closing. The so-called hybrid collateralized debt obligation was liquidated in early 2008, months before the U.S. government averted an AIG bankruptcy.... In all, Goldman sold some \$600 million worth of the Timberwolf securities to investors. The now-defunct Bear Stearns hedge funds were the biggest buyer, gobbling up a \$300 million slug. Another busted hedge fund, Australia's Basis Yield Alpha Fund, bought about a \$100 million piece of the deal. The other buyers are not known (Goldstein, 29 April, 2010).

While offloading what it had to know were toxic investments on it clients is clearly a breach of duty of care, that breach went two steps further:

- It appears that Goldman Sachs was so certain of the poor quality of its Timberwolf bundle that it shorted the deal (i.e. bet against its own product succeeding; Goldstein, 29 April, 2010), and
- "[Goldman's] misuse of exotic and complex financial structures helped spread toxic mortgages throughout the system, [said Mr Levin, and when] .... the system finally collapsed ... Goldman profited from the collapse." (Francesco and Henny, 29 April, 2010, p. 1)

Bear Stearns Asset Management bought heavily into the Goldman Sachs hedge funds and when those supposedly safe investment funds eventually went belly-up, so did Bear Stearns—that failure touched-off a world credit crisis, that cascaded into a near systemic failure of the world financial system and the first depression in 80 years.

Bear Stearns was founded in 1923 as an investment bank and it mainly traded in bonds. In the last part of the 20<sup>th</sup> Century, it moved into asset management, traded in a variety of stocks, bonds and derivatives, and became the fifth largest investment bank in Manhattan, USA. At the turn of the 21<sup>st</sup> Century, Bear Stearns responded to the busting of the tech bubble by shifting its focus to the housing investment market. The logic in that move is captured by Snider and Howard (2010, p. 13) who note that, in 2001, "...not only was the economy headed downward, but the large pool of IPOs that banks had facilitated for new technology companies dried up". Although, high-yield bonds had been previously profitable for the investment banks, this source faded after investors adjusted their risk expectations during the 2001 recession. In their search for areas of high profit and low risk "...investment banks saw the U.S. housing market as an area with significant profit potential, given that increasing home values led to a very low default rate on mortgages" (Snider and Howard, 2010, p. 14). However, the investment bankers under-estimated the financial and agency risks that are inherent in housing mortgage market and expected that housing prices would continue to rise, for at least a while longer. Mortgage brokers compounded these problems by seeking easy commissions, by failing to adequately qualify those applying for mortgages. As a result, the quality of subprime mortgages began to fall in terms of risk<sup>22</sup>—this was not a problem during the 20 year ramp-up in housing prices in the USA but once house prices began to fall in 2006 the opportunity to sell houses without a loss evaporated and mortgage risk-quality became a binding issue. As Friedland (2009, p. 49) notes, after "...2007 many lenders have been reluctant to extend credit to counter-parties, especially if highly leveraged."

Goldman Sachs created Timberwolf I Ltd and other *equity puts* to sell them to clients, like Bear Stearns, to reduce Goldman Sachs overexposure to subprime mortgages. When the two Goldman Sachs sponsored mortgage funds (in which Bear Stearns had heavily invested) failed, Bear Stearns was unable to meet its pledge "...to fork over

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<sup>&</sup>lt;sup>22</sup> Subprime mortgages are mortgages issued to less credit-worthy people. Often these individuals have histories of failure to re-pay debt or have declared bankruptcy.

more than \$3 billion...to bail out one of its two hedge funds that" relied heavily on Goldman Sachs subprime loans (Burroughs, 2008, p. 106). After the proposed Federal Reserve bailout of Bear Stearns failed at the 11<sup>th</sup> hour, Bear Stearns was acquired for a pittance by J.P. Morgan and Chase and Co.

While Goldman Sachs cannot be reasonably held responsible for the Global Financial Crisis that engulfed the world after the collapse of Bear Stearns, if there is fairness and truth to the US Senate hearings on this matter, then Goldman Sachs likely breached its duty of care to Bear Stearns and many other clients when it sold them what it knew, or should have known, were toxic investments that were comprised of assets that it felt were too risky to hold.

The harm to Bear Stearns can be measured in the potential loss of 14,000 jobs and the loss of value in the Bear Stearns shares held by its employees and other stakeholders (Kerr, et al., 2008). Near the end of 2007, Bear Stearns stocks fluctuated between \$110 and \$115, JPMorgan and Chase and Co. acquired the firm by paying just \$2 a share for the 85 year old investment bank. Thus, Bear Stearns stakeholders lost over \$5.2 billion on their holdings in the company (Kerr, et al., 2008). How much of that loss is real and how much is due to the early price being inflated by unrealistic expectations about Bear Stearns' prospects is unclear. What is clear is that Goldman Sachs breached its duty of care to Bear Stearns when its employees exaggerated the safety and returns of Timberwolf to the Bear Stearns employees.

The traditional approach of looking to the attributes of the alleged perpetrators was unable to prove malfeasance beyond a reasonable doubt as to who did what to whom. First, it was difficult to disentangle the gains between normal profits and wrongful gains. Second, while the fake product (Timberwolf) shows a clear prior knowledge on the part of Goldman Sachs, of just how bad their products actually were, the difficulty of proving beyond a reasonable doubt the intent of Goldman Sachs to de-fraud Bear Stearns and other clients was problematic. The breached-duty—of-care approach that is proposed in this study would dramatically reduce the cost of prosecuting Goldman Sachs. Further, the clarity that would have been created by that approach (as to what constitutes corruption) may have encouraged Goldman Sachs to treat its clients better.

The paradigm in this thesis shifts the focus in a corruption investigation from gain and intent to the harm Goldman Sachs caused to Bear Stearns and others. Intent (i.e. the

guilty mind) is not relevant in a tort civil suit—what matters is the presence of a breached duty of care as a proximal cause of harm. Further, limits on what a plaintive can use as an effective defence make the approach cost-effective. Specifically, once harm is proven (based on a preponderance of evidence rather than beyond a reasonable doubt) to be caused by a breached duty of care, the defendant must compensate the victim—regardless of intent. In this approach to corruption, the only effective defence is to disprove one of the three legs of the tort (Figure 4-2) and/or prove that the defendant was incapable of forming a duty of care.

## 7.2.4 Case 4: BP Deepwater Horizon Oil-spill Debacle

This case was added to explore whether the concept of corruption as a breach of duty of care could be extended into non-financial areas.

The *Deepwater Horizon*, a nine-year-old semi-submersible mobile deepwater offshore drilling unit, was operating 66 km off the Louisiana (USA, Gulf of Mexico) coast drilling-down 5,600 metres (inclusive of 1,500 metres in the water column) when, on 20 April 2010, the rig exploded—killing 11 workers and injuring 17 others. The resulting oil spill is the largest in US history and released an estimated 4.9 million barrels (775,000 m³) of oil during the three months from 20 April to 15 July, 2010.

Any death, or injury, or oil spill is a terrible loss that should (if reasonably possible) be avoided. However, most commercial ventures involve risks and if you take enough risks sooner or later accidents will happen and lives or property will be damaged or lost. What matters (in terms of duty of care) are—did the company:

- 1) Take all reasonable precautions to lessen, manage, and control the risks,
- 2) Reasonably inform those at risk (and/or their agents) of the risks and what precautions they might take to mitigate those risks, and
- 3) Have reasonable response measures in place for when the inevitable happens or did they just hope that it would not happen on their watch.

In terms of the second duty of care (above), in February 2009, BP filed and gained approval for a 52 page exploration and environmental impact plan with the Minerals Management Service (US Dept of the Interior) that asserted that it was "...unlikely that an accidental surface or subsurface oil spill would occur from the proposed activities" and should an accident occur, the well was 48 miles from shore and given the response capabilities that would be implemented, no significant adverse impacts were expected (Burdeau and Mohr, 2010). Given the level of damage that actually

occurred, from 20 April to 15 July, 2010, the above filing appears to have been either intentionally or negligently less than truthful. Further, the filing appears to contain a promise of disaster-response capacity that did not exist or was grossly exaggerated.

In terms of the first duty of care, the title and content of the Gold and Casselman (28 April, 2010) Wall Street Journal (i.e. Leaking oil well lacked safeguard device) raise serious concerns over whether BP was sufficiently prudent in how it designed and ran the Deepwater Horizon operation. These concerns are compounded by issues raised over the design and implementation of the cement lining around the drill hole that was intended to contain natural gas—to prevent it from being an explosion hazard (Urbina, 2010). In summary, it appears that in 2009 there were worries that the metal casing around the drill hole might collapse under high pressure but BP gave special permission to use the casing even though it violated the company's safety policies and design standards. Concerns were expressed about the capacity of the nitrogen foamed cement (used to plug drill hole casing) to contain natural gas.

In terms of the third duty of care, there had been substantial problems with the well as early as 2008, there were a number issues in the month prior to the explosion but less than half of the workers interviewed said they felt they could report actions leading to a potentially *risky* situation without any fear of reprisal or fear of heavy objects that might be *accidently* dropped from heights (Langford, 2010). As a result of such fears, many rig workers entered fake data—which further distorted BP's perception of safety on the rig. The rig workers indicated that there was little or no preventative maintenance and that "Run it, break it, fix it" was the standard MO. In at least five decisions, BP appears to have put keeping costs down ahead of safety (Daly, 14 June 2010). The inability of BP to shutdown the oil leak for nearly three months and its inability to effectively contain or remove the 850,000m³ of leaked oil indicate that despite its earlier assurances to the contrary, it was very much unprepared for a spill of this magnitude.

The consequences of the explosion and oil spill are immense:

- "Under the Oil Pollution Act of 1990, a company that spills oil can be fined up to \$1,000 per barrel of oil, or up to \$3,000 per barrel in cases of gross negligence." (Rickman, 2010). Thus the fines to BP could range from \$4.9 to 14.7 billion USD.
- Estimates of the economic losses from the spill range from \$12 to 30 billion USD (Bergin, 2010).
- BP's stock lost nearly half its value after the oil spill into the Gulf of Mexico and that translates to a loss of \$94 billion USD to BP shareholders (Peridot Capitalist, 09 June, 2010).

The traditional approach to corruption does not easily fit in this case. Specifically, where is the gain, how can the gain be separated between normal drilling profits and wrongful gain, and there was no intent to harm people and the environment by causing a massive oil spill. However, none of these factors of traditional proof in a traditional approach to prosecuting corruption are relevant to a tort. The corruption in this case is wilful or negligent pursuit of profit ahead of the three duties of care previously listed in this case. The oil spill is directly due to bad luck and the breach of the first listed duty of care (reasonable precautions); harm from the spill was greatly magnified by misinformation given to the potential victims and/or their agents (breach of the second listed duty of care); efforts to mitigate the harm from the oil spill were hamstrung by the lack of reasonable response measures in place (breach of the third listed duty of care). The US Federal Government, after finding that there were no effective means available to bring BP to account for the harm that it caused, imposed massive special legislation on BP. That legislation may not have been needed as the BP head office, horrified by the harm it had created, made massive allowances to reduce and compensate for that harm. Special legislation would not have been needed if the approach suggested in this study had been applied and if BP had been made fully aware of its duties of care, the whole debacle might have been avoided or, at least, reduced. The special legislation that the US Federal government imposed on BP is clear evidence that the extant tools for identifying, discouraging, and resolving the negligent indifference displayed by BP prior to the Deepwater Horizon Oil-spill are inadequate and would be greatly supplemented by the paradigm developed in this thesis.

The approach suggested in this thesis is likely to greatly expand what is considered to be corrupt behaviour. Initially, until precedence becomes well established, the civil courts are likely to be very busy establishing that precedence. However, once the concept becomes well established in the law/precedence, responsible firms will seek means to: 1) identify their duties of care; 2) establish the discharge of those duties; and 3) verify that duties of care to them have been adequately discharged. These critical tasks can be cost-effectively done by a process proposed Chapter 4 in this thesis, that it calls Social Responsibility Accounting.

## 7.2.5 Case 5: The Bofors-India Scandal

Among "...the worst scandals [to afflict India] was Bofors' export of war equipment to India in the mid-1980s" Larsson (2005, p. 135). The Scandal occurred in 1986, when India purchased 400 155mm howitzers from the Swedish firm Bofors AB, for \$1.4 billion. Rajiv Gandhi (then the Prime Minister) and other prominent politicians were accused of receiving kickbacks from Bofors AB for *facilitating* a bid to supply the howitzers to the Indian army. It has been speculated that the facilitation payments were on the scale of Rs. 400 million (around 9 million USD). This scandal was a direct cause of the defeat of Rajiv Gandhi's ruling Indian National Congress party in general elections.

Prior to the alleged facilitation payments, the Rajiv Gandhi government was dithering over whether to buy British, Austrian or Swedish howitzers. In the second half of 1985, AE Services (AES), a shell company, proffered an offer to Bofors: "If we get you the deal by March 31, 1986, give us a fee of three per cent. If not, don't pay" (Bhagat, 2011). Bofors accepted the offer and signed up with the AES shell on October 15, 1985. A latter investigation showed that Ottavio Quattrochi (an Italian businessman, close to the Gandhi family and a powerful broker in the 1980s between big businesses and the Indian government) acted as a middleman in what was soon called the Bofors Scam. AES shell did get the Rajiv government to sign the contract with Bofors on March 22, 1986 (seven days ahead of the March 31, 1986 deadline). Within six months, AES got the first of its fee of \$7.3 million and much of that fee flowed on to Quattrochi—showing he was the man behind the shell.

KPMG reported that "high-level corruption and scams are now threatening to derail the country's [India's] credibility and [its] economic boom" Colvin (2011). Hadjikhani and Hakansson (1996, p. 434) asserted that "Rajiv Ghandi had earlier declared that he was going to fight against corruption and now he himself was accused of being involved in corruption by possibly receiving money through the agents for the contract." As a result, "Bofors and the Indian defence Ministry became a major issue in the Indian political and social system" (Hadjikhani and Hakansson, 1996, p. 433).

Gandhi was assassinated in 1991 and was cleared of the corruption charges against him in 2004. In 2005, the charges against the Hinduja brothers were dismissed by the Delhi High court. "All of them had allegedly received crores of rupees .... [but] were

let off by the court because the CBI [Central Bureau of Investigation, India] could not (or did not?) find any corroborative evidence"<sup>23</sup> (Businessline, 2000).

The Bofors-India Scandal is typical of many public-sector scandals in developing and emerging countries in that, while large sums were involved, the harms was diffused over large numbers of people (if not the whole country) and it is difficult for the victims of this corruption to know that they have been harmed and to what extent. Such cases frequently involve "...a decision taken by the government authority, which imposes a social loss. This could take many forms including procuring poor quality material and needlessly expensive provision among other things.....The main issue... [often] involves acceptance of bribes by government officials towards defense procurement" (Vaidya, 2005).

The use of the traditional focus on the attributes of the alleged perpetrators and their wrongful gains created a major weakness in the investigation and prosecution of the Bofors-India Scandal. Although this act happened in the public arena, no one could prove that corruption had occurred. The private gain was not clear either as to how it happened or how to measure it. Further, the alleged perpetrators were so powerful and the harm so diffuse that the supreme courts were less willing to prosecute.

If the investigation had focused on the harm, the results may have been very different. Specifically, the harm to India in the Bofors-India Scandal was likely concentrated in:

1) the acquisition of howitzers that were inferior and/or badly suited to the needs of India's military; 2) the payment of too much for the howitzers; 3) the loss of potential vendors who will not compete through bribery. This scandal is all the more serious because it involves those who have a duty of care to the nation to minimise and punish corruption. Thus, a "...country needs a system that allows the charges of corruption against the highest official to be probed without interference..."

Businessline (2000).

The paradigm in this thesis allows interested parties to focus in on the harm, to tie that harm back to a breached duty of care and then to initiate a civil lawsuit to recover damages and impose a penalty on the perpetrators of the corruption. One of the most important failings in the traditional approach to corruption is the need to prove that an alleged perpetrator of corruption intended to obtain a wrongful gain from the corrupt

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 $<sup>^{23}\,</sup>$  A crore is 10 million rupees or 100 lakhs in India and Pakistan.

action or inaction. The case of Cooper v Slade (1857) suggests that corruption and dishonest intent are not coterminous concepts. However, Scanlan (2004) suggests that the Cooper v Slade (1857) precedent is of little value because it fails to provide a sound definition for corruption. The approach in this thesis avoids the need to prove wrongful intent and clearly defines corruption as harm arising from a breached duty of care—thus, a plaintiff need only prove that a defendant owed a duty of care, breached that duty of care, and that harm arose from that breached duty of care. Given that the tort is prosecuted in civil court, only a preponderance of evidence is needed rather than the beyond a reasonable doubt level needed in criminal court.

Another critical issue in the Bofors-India Scandal is the dispersed nature of the harm arising from the scandal. A class-action is a common way of resolving this issue and if a law firm can be paid on contingency, law firms may gather the plaintiffs together to initiate cases against those who are alleged to be corrupt.

Ultimately, the approach suggested in this thesis is cost-effective because, as noted above, the plaintiffs and/or lawyers initiate the civil proceedings against those they allege to be corrupt and they gather evidence – society is cleaned of corruption with little or no effort by its institutions and those considering gain from corruption are likely to be deterred by the risks and consequences of being sued for breach of duty of care. While in this case it can be argued that the traditional tools developed from the extant paradigm of corruption failed to provide a remedy for the corruption, it is likely that tools derived from the new paradigm would be ineffective—given the apparent capacity of the rich and powerful to influence the decisions of the courts. However, the new paradigm generates lower cost prosecutions with a lower burden of proof on the part of the prosecution and a shift in the burden of proof to the defence, once the three legs of the tort breach of duty of care has been proven.

# 7.3 Chapter Conclusion

A comparative analysis was done comparing Cases 1 through 5 to link the patterns in those to the framework developed in this study. The above cases exemplify how significant harm to shareholders, creditors, suppliers, customers, financial markets, accountant reputations, and society in general could be traced back to a series of breaches of duty of care by the principals of a variety of large firms. In each of the examples, the harm was traced back to one or more breaches of a duty of care. In

several examples, traditional approaches to prosecuting corruption resulted in many, if not most of those who gained from breaching a duty of care not being prosecuted—it was too difficult and costly to prove they intended to gain from corruption. The harm generated in the five cases of corruption reviewed above was often massive and affected large portions of the economy. Perhaps the greatest harm from the traditional approach to prosecuting corruption is that in many cases only the top of the pyramid of corrupt individuals is every brought to book for their actions and the great mass of individuals in the rest of the pyramid of corruption retain their ill-gotten gains—giving them even more power and wealth by which to corrupt and afflict society. The approach suggested in this study would make the entire pyramid of corrupt people in a situation like Enron subject to prosecution in civil court and the likely seizure of their assets, as restitution to those harmed by corruption, would reduce the harm of that corruption and reduce their capacity to engage in further corrupt acts.

In summary, all five examples (including the BP case) clearly tie the harm back to breaches of one or more duties of care. In all five examples, proving a breach of duty of care and the resulting harm would be a relatively easy task—as would tying the breach back to specific agents/employees within the company. As a result, the pool of assets from which restitution could be claimed would be greatly increased and those guilty of breaching a duty of care would be less able to inflict future harm.

## **Chapter 8**

# Discussion, Conclusions, Recommendations, Limitations, and Suggestions for Future Research

### 8.1 Discussion

Corruption is a worldwide endemic affliction, which arises because people place trust in those holding positions of power and sometimes trust is betrayed, with negative consequences for those who were owed a duty of care and for honest stewards seeking a position of power.

A review of 30 extant definitions of corruption revealed a lack of convergence and consistency between the definitions and actual cases—more importantly, flaws in the extant definitions carried through to create flawed anticorruption tools that were too situation specific, allowed many types of corruption to slip through unchallenged or were too difficult and/or costly to implement. This finding redirected the study to a search for a more succinct and general definition for corruption that could embrace all variants and aspects of corruption, across cultures and situations.

The literature review on corruption, sourced from different disciplines, indicates that a morality and ethics approach is unlikely to generate a cost-effective general solution to corruption in the next few generations. It is suggested that a more timely definition and solution could be based on actions and outcomes rather than (difficult to prove) intent. Corruption was defined as a tort, with three legs that must all stand for a given situation, or action, to be deemed corrupt. Specifically, to be successful an accusation of corruption should prove that:

- A duty of care existed (proof of merit),
- The *duty of care* was breached (proof of *merit*), and
- That harm arose from the breached *duty of care* (proof of *merit* and *quantum*).

The notions behind this framework were developed via speculative thought, which allowed the researcher to *bootstrap* a solid resolution from fuzzy and often conflicting studies. This approach has a long history of producing solutions for complex issues and generating theories with real-world value. Essentially, it is a means to progress from thought through to practice and vice versa.

As this study progressed, it gathered evidence of the socio-economic consequences of corruption. Content analysis was used to combine and contrast published indices of key variables and relations for use in quantitative analysis to show how corruption negatively affects the economy and society (e.g. via business, death rates, and satisfaction-with-life). While a few researchers claim that some types or levels of corruption might actually help foster economic development, this study shows that corruption always has net adverse and potentially severe socio-economic effects on society. Specifically, poor relatively-virtuous countries tend to become rich in just a few decades and poor highly-corrupt ones remain poor, or become even poorer. The harm from corruption is not restricted to poor nations—throughout history, corruption has made many rich countries less rich and made others poor.

After delineating the nature, causes, consequences of corruption, this study shifted to a search for appropriate solutions to contain, control and/or resolve corruption. Most of the reviewed studies of corruption focus on morals and ethics as a dual function with the potential to mitigate corruption and provide insight into its nature. Initially, this study (working from similar beliefs) focused on morals and ethics as the core elements in the fight against corruption. However, as the study progressed it became clear that, while morals and ethics may eventually provide a solution for corruption, they are so culturally and context sensitive that they will likely take generations to have any significant effect on attitudes and behaviour. In response, this study shifted away from morals and ethics to focus on a search for more immediate solutions.

Trust is paramount to successful transactions as it minimizes transaction costs. Those costs increase as relations move from high levels of trust toward mistrust. Thus, a mechanism is required, in situations of mistrust, to help minimize transaction costs and/or revive trust between the parties. Contracts are often an effective way to create trust between parties via a clear expression of their intent and remedies if the intent is not realised. While contracts do not contain the power or means to fulfil the intended conditions, they work in concert with the law, which does have the power to enforce the contracted intent. This integrated contract and law solution only works with a clear statement of the intended obligations and duties each party owes the other.

The corruption definition developed in this thesis and the derived framework for the resolution of corruption has real-world implications that can rapidly adapt to changing

circumstances. The different elements of the framework were proven and cross-linked to scenarios in accounting and other disciplines. The three legs of the framework make it strong, stable, and adaptable. Five case studies were examined to help validate the developed framework and to consider how duty of care and breach of that duty create harm and can provide viable ex post evidence of a corrupt act and the need for restitution.

The WorldCom, Enron, Goldman Sachs vs. Bear Stearns, the BP oil-spill (in the Gulf of Mexico), and the Bofors-India Scandal cases showed how the harm in all these situations arose from and could clearly be traced to breaches of duties of care toward stakeholders (e.g. shareholders, clients, customers, people reliant on the environment). In the Enron case, the original breach of duty of care resulted from the taking excess risks and the failure to report such risks. The BP situation was still before the US congress and the courts when this thesis was written, but is likely to be a similar situation of taking excess risks and the failure to adequately inform stakeholders of those risks and their potential consequences. The Bofors-India Scandal suggests that, in many cases of public sector corruption, the dispersed nature of the harm and the often relative power of potential defendants often make a satisfactory resolution difficult with either the approach suggested in this study or the traditional means of dealing with corruption. The class-action approach used in the USA may provide a solution, especially if lawyers can initiate actions on behalf of a dispersed class of victims (such as the Indian electorate in the Bofors-India Scandal case).

The cases studies suggest that commonly accepted definitions of corruption are far too ambiguous and/or are excessively focused on the perceived gain motive of corruption to be generally cost-effective in identifying and controlling petty and grand corruption. In contrast, the case studies indicated that the tort approach to defining and resolving corruption (where corruption is defined as *a breach of duty of care*, *resulting in harm to those, to whom, one owes that duty of care*) will work cost-effectively for most and possibly all types of corruption and will likely expand what is considered to be corruption.

The second part of this thesis study showed how corruption harms the socio-economic and political fabric and well-being of nations. The thesis then suggested how the information in this thesis might be combined into a cost-effective anti-corruption tool that uses civil law and accountability, rather than depending on the criminal courts or

waiting for such longer-term solution as might eventually be developed from morality and ethics.

## 8.2 Conclusions and Recommendations

The corruption-as-a-tort framework (by making all parties aware of their obligations, responsibilities and rights and by encouraging those who are harmed by corruption to bring claims before the civil courts) profoundly increases the risks to all those who act irresponsibly. The framework's attack on a root cause of corruption (i.e. opportunities to gain from acting badly) makes it a powerful, flexible and unique tool in the anti-corruption arsenal. While the growing use of Corporate-Social-Responsibility (CSR) legislation has a capacity to fulfil the contract part of the framework, it is incomplete and, thus, critically flawed. Specifically, without Social Responsibility Accounting to stiffen CSR, there is little means to define intent, measure performance, or provide rigorous evidence of either discharge or defalcation of the social responsibilities claimed by a corporation. Such flaws make CSR, at best, little more than a corporate public-relations exercise and, at worst, another venue for corporate venality.

The socio-economic harm arising from corruption is profound and includes increased violence, reduced satisfaction with life, and reduced economic growth, all of which perpetuate or deepen poverty. Thus, corruption despoils the very means by which a nation increases and maintains the wealth and social well-being of its citizens and the effectiveness of a nation's response to corruption may well be a pivotal factor in its rise, decline, or even collapse.

In summary, corruption can be cost-effectively resolved by defining it as a breach of a duty-of-care and using the civil courts to impose retribution on the guilty and provide their victims with restitution. Where a case of corruption is particularly egregious, the use of a civil-tort remedy in no way precludes the use of a criminal remedy and may even bolster any criminal proceedings.

#### 8.3 Limitations

The main limitation affecting this study is the difficulties in conducting questionnaires or holding interviews. These difficulties are created by sensitivity of the topic and the high level of secrecy surrounding it. In addition, while this study is not a new framework for resolving corruption, it is a paradigm shift that may eventually lead to such a framework.

The limited availability of literature and other materials greatly reduced the range of applicable methodologies plus some of the materials reviewed were over informative (e.g. gave more perspective than understanding or solution).

Finally, the unavailability of detailed time-series data on corruption or many socioeconomic factors for individual countries pushed the research into being crosssectional by country. Ideally, this type of research should be done on a longitudinal (over time for several countries) and cross-sectional (across many countries) basis.

## 8.4 Suggestions for Future Research

This study addressed its research questions and met its specified goals. The findings provide a new paradigm on corruption that over the next few years could provide a strategic contribution to understanding and controlling corruption and to professional practice in accounting. However as Carnap (1952) notes: induction may lead to the generalization of empirical laws but not theoretical laws. Thus, research on corruption will continue and may benefit from:

- Using this study as a starting point, from which to expand and extend into new notions on corruption and to consider what it means if a person accused of corruption lacked the capacity to form a duty of care,
- A more detailed model of the effects of corruption on trust, transaction costs and other costs of doing business,
- An examination of the definition of corruption as *a breach of a duty of care* tort in terms of the capacity of that definition to:
  - Target corruption (i.e. does it label as corrupt actions and/or outcomes which are either not corrupt or where the corruption is unclear?),
  - Transcend cultures and situations, and
  - Be used to develop a cost-effective framework for resolving corruption.
- The development of a more complete specification of economic growth as a function of corruption, endowments of natural wealth (including oil), violence, wealth per capita, etc.,
- A means to develop a more formal estimate of the effect of corruption on economic growth,
- A better specification and of understanding of the relationship between the Satisfaction with Life ranking and the Corruption-Perception Index,
- A better understanding of why the Satisfaction with Life of some nations is less affected by corruption than others,

- A better understanding of whether relative peace is a matter of luck, the calm before the storm (i.e. are corrupt countries storing up trouble for the future), or must corruption infect both a government and those it governs before violence becomes endemic. This understanding may provide interesting insights into the recent events in North Africa, Oman, Yeman, and Syria.
- A better understanding of the longitudinal correlation between the Corruption-Perception Index and a country's economic growth, violence levels and Satisfaction-with Life index, and
- A better understanding of how morality and ethics can be made more general, rigorous, and less fuzzy so that they can more effectively contribute to finding a long-run resolution to corruption—possibly, by changing the fundamental nature of humanity.

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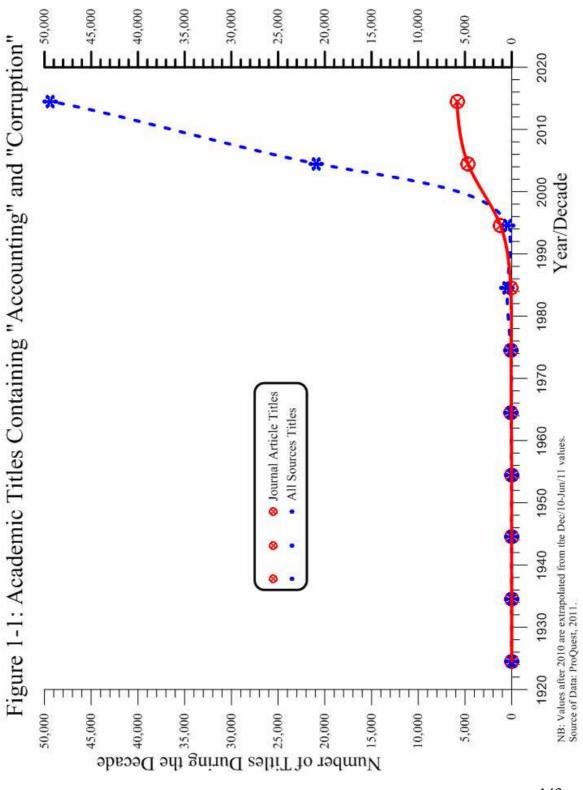
### **APPENDICES**

#### **APPENDIX A**

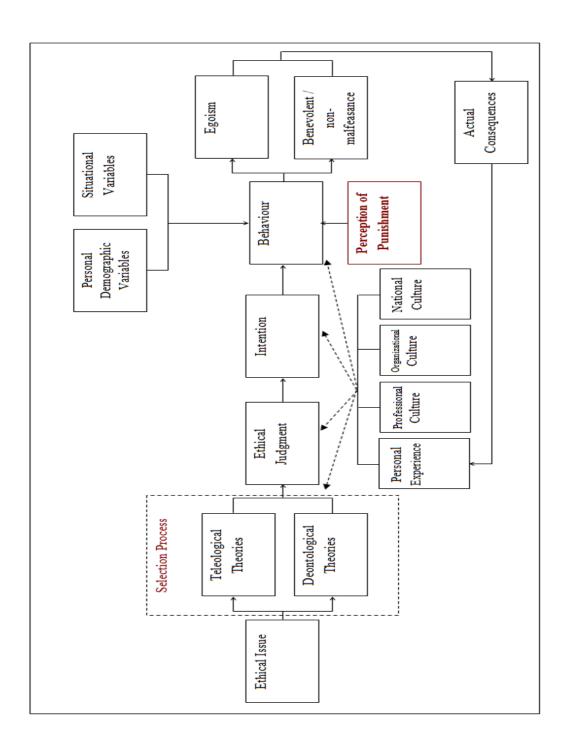
**A SELECTION OF** 

**KEY FIGURES** 

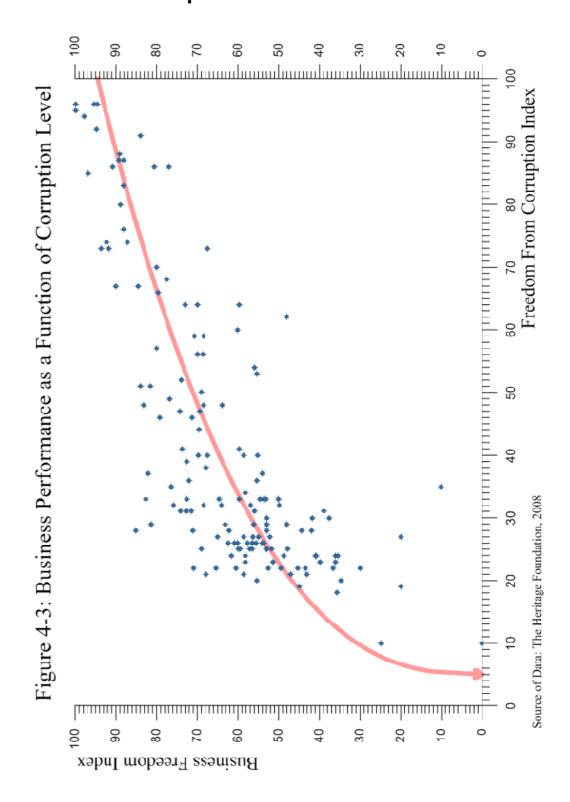
## A.1 Academic Titles Containing "Accounting" and "Corruption"



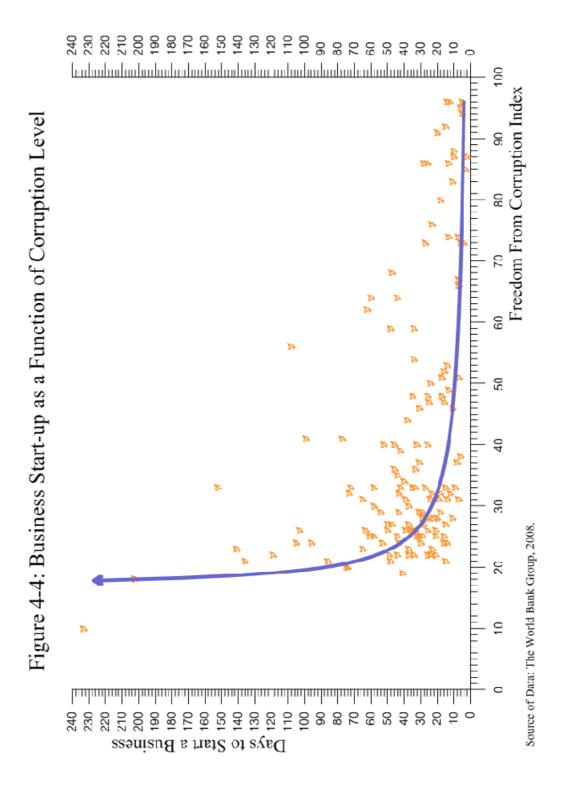
## A.2 Outline of Key Elements Contributing to Moral and Ethical Decision Making



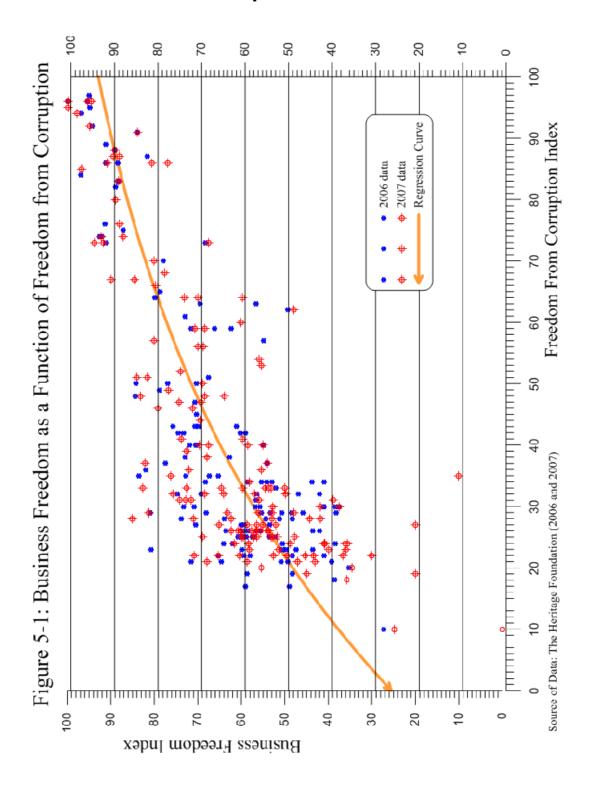
## A.3 Business Performance as a Function of Corruption Level



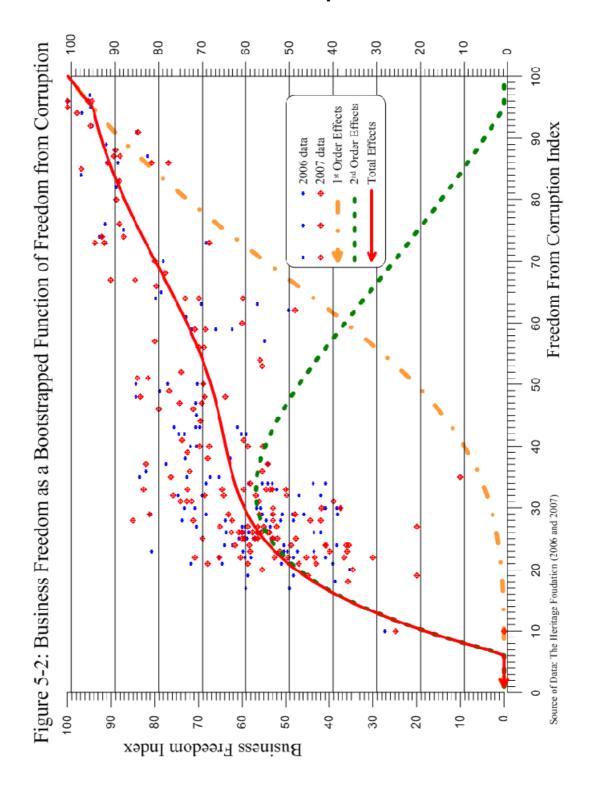
### A.4 Business Start-up as a Function of Corruption Level



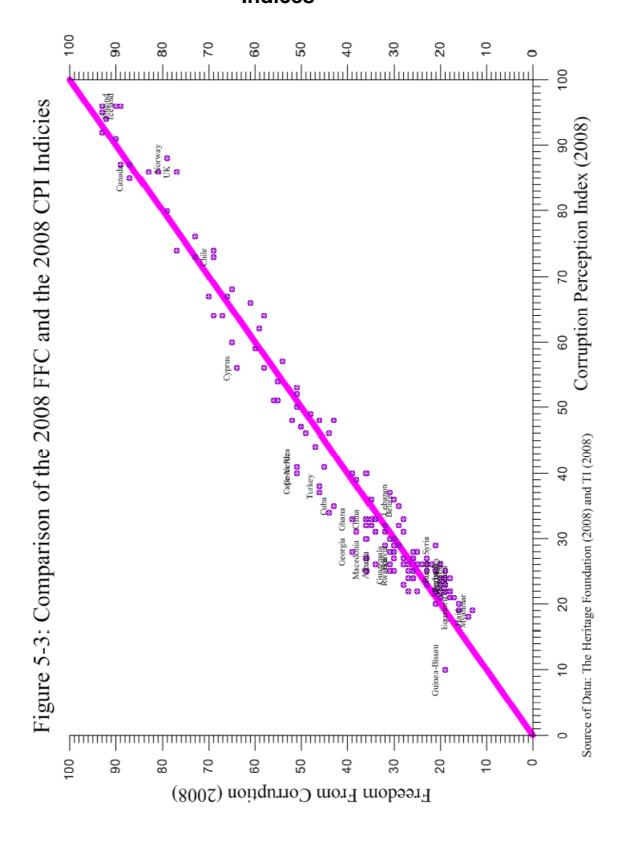
## A.5 Business Freedom as a Function of Freedom from Corruption



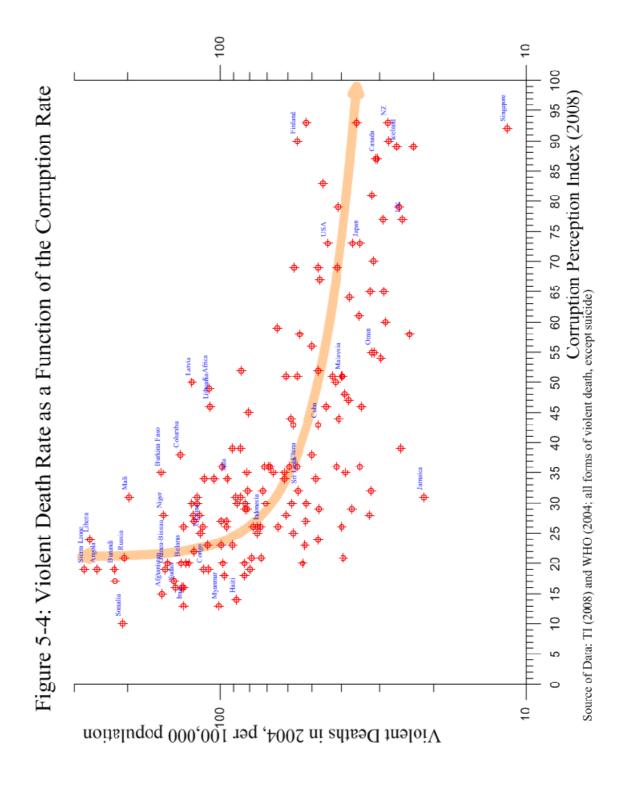
### A.6 Business Freedom as a Bootstrapped Function of Freedom from Corruption



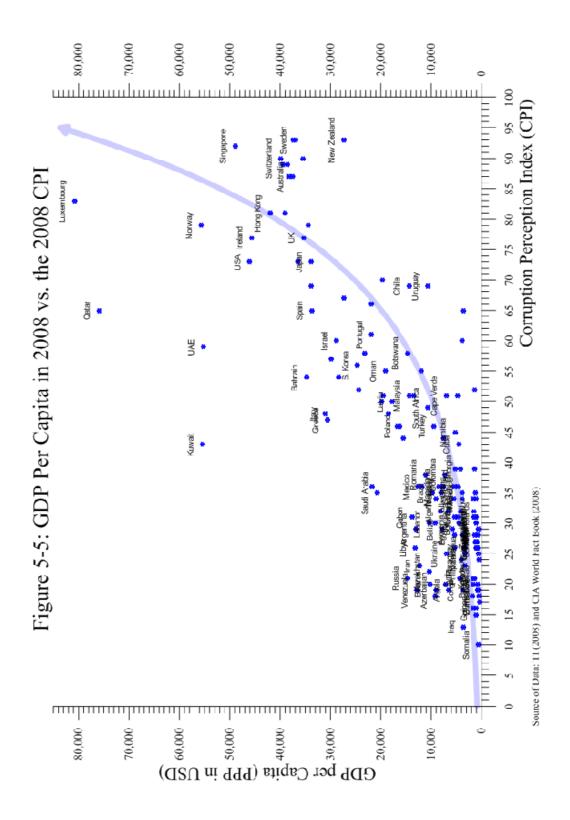
### A.7 Comparison of the 2008 FFC and the 2008 CPI Indices



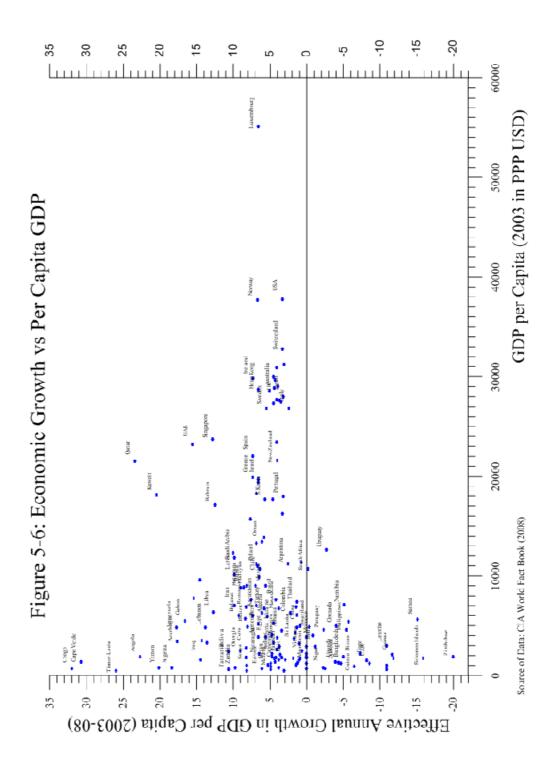
## A.8 Violent Death Rate as a Function of the Corruption Rate



### A.9 GDP per Capita in 2008 vs. the 2008 CPI

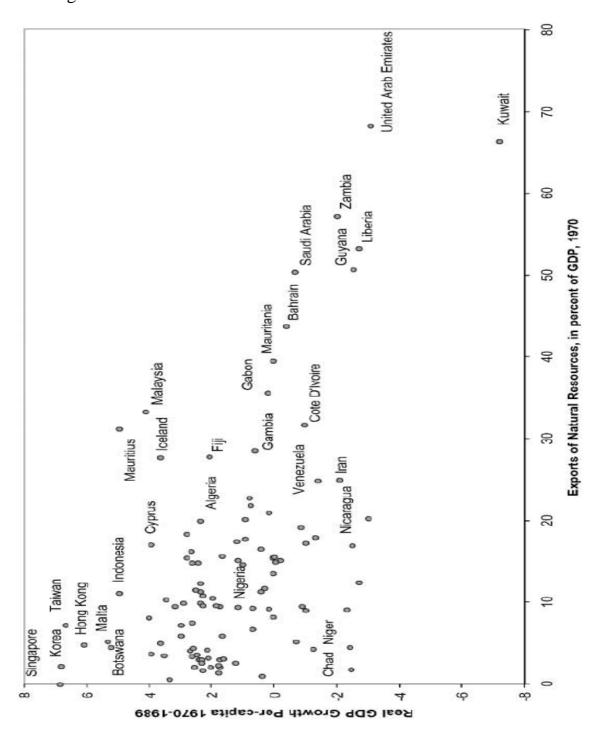


### A.10 Economic Growth vs. Per Capita GDP

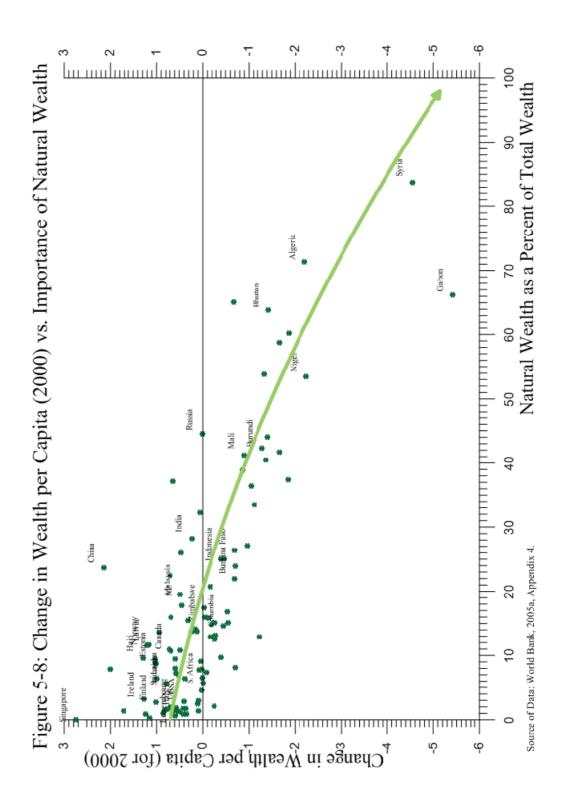


### A.11 Growth and Natural Resource Abundance 1970-1989

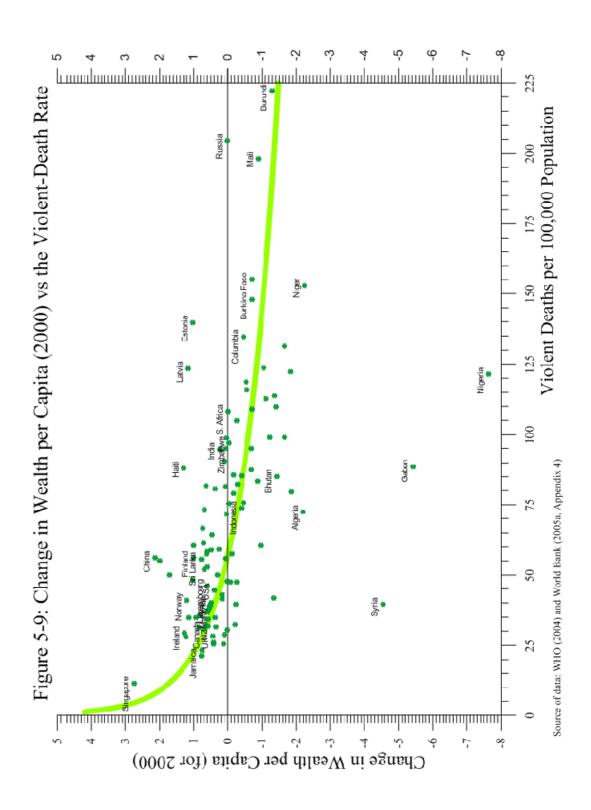
Figure 5-7: Growth and naural resources abundance 1970-1989



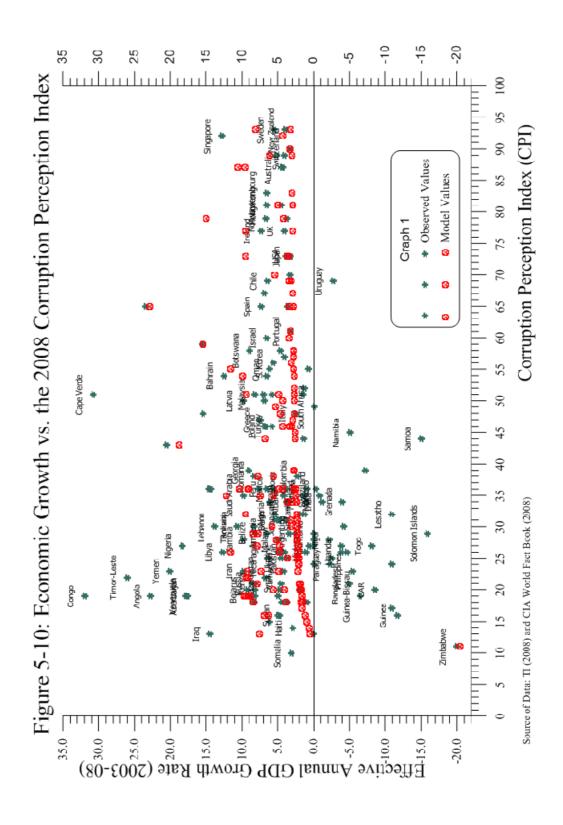
## A.12 Change in Wealth per Capita (2000) vs. Importance of Natural Wealth



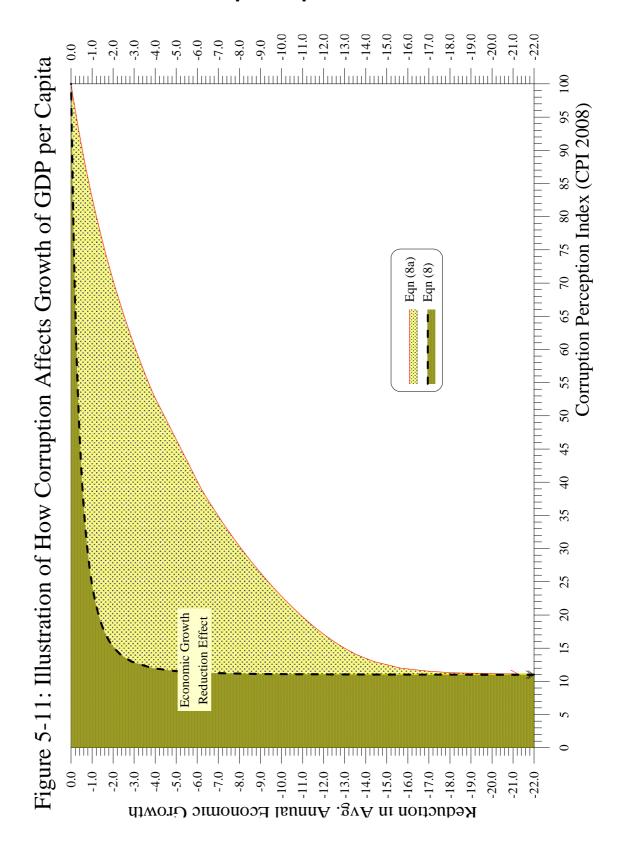
### A.13 Change in Wealth per Capita (2000) vs. the Violent-Death Rate



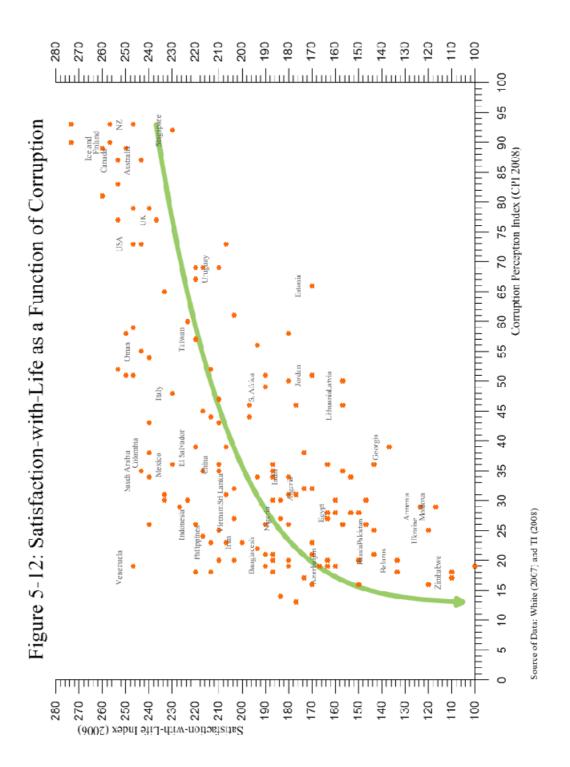
## A.14 Economic Growth vs. the 2008 Corruption Perception Index



### A.15 Illustration of How Corruption Affects Growth of GDP per Capita



### A.16 Satisfaction-with-Life as a Function of Corruption



### **APPENDIX B**

### **TABLES**

### B.1 Sources for the TI 2007 – Corruption Perception Index (CPI).

Number	1	2	3
Abbreviation	ADB	AFDB	BTI
Source	Asian Development Bank	African Development Bank	Bertelsmann Foundation
Name	Country Performance Assessment Country Policy and Be Ratings Institutional Assessments		Bertelsmann Transformation Index
Compiled / published	2006/2007	2005/2006	2007/2008
Internet	http://www.adb.org/Documents/Reports/Country-Performance-Assessment-Exercise/IN76-07.pdf	http://www.afdb.org/portal/page? _pageid=293.158705&_dad=port al&_schema=PORTAL&focus_it em=9912322&focus_lang=us	http://www.bertelsmann- transformation- index.de/11.0.html?&L=1
Who was surveyed?	Country teams, experts inside and outside the bank	Country teams, experts inside and outside the bank	Network of local correspondents and experts inside and outside the organization
Subject asked	Corruption, conflicts of interest, diversion of funds as well as anti- corruption efforts and achievements	Corruption, conflicts of interest, diversion of funds as well as anti-corruption efforts and achievements	The government's capacity to punish and contain corruption
Number of replies	Not applicable	Not applicable	Not applicable
Coverage	26 countries /territories	52 countries /territories	125 countries /territories

Number	4	5	6
Abbreviation	CPIA	EIU	FH
Source	World Bank (IDA and IBRD)	World Bank (IDA and IBRD) Economist Intelligence Unit	
Name	Country Policy and Institutional Assessment	Country Risk Service and Country Forecast	Nations in Transit
Compiled / published	2006/2007	2007	2007
Internet	http://web.worldbank.org/WBSITE/EXTERNAL/EX TABOUTUS/IDA/0_content/MDK_20933600-mem PK_2626968~pagePK_51236175~piPK_437394-theS itePK:73154.00.html	www.eiu.com	http://www.freedomhouse.hu/ index.php?option=com_conte nt&task=view&id=84
Who was surveyed?	Country teams, experts inside and outside the bank	Expert staff assessment	Assessment by experts originating or resident in the respective country.
Subject asked	Corruption, conflicts of interest, diversion of funds as well as anti- corruption efforts and achievements	The misuse of public office for private (or political party) gain	Extent of corruption as practiced in governments, as perceived by the public and as reported in the media, as well as the implementation of anticorruption initiatives
Number of replies	Not applicable	Not applicable	Not applicable
Coverage	77 countries /territories	166 countries /territories	29 countries /territories

Number	7	8	9
Abbreviation	GI	IMD	
Source	Global Insight, formerly World Markets Research Centre	IMD International, S Competitiven	,
Name	Country Risk Ratings	IMD World Competi	tiveness Yearbook
Compiled / published	2007	2006	2007
Internet	http://www.globalinsight.com	www.imd.ch/wcc	
Who was surveyed?	Expert staff assessment	Executives in top and middle management; domestic and international companies	
Subject asked	The likelihood of encountering corrupt officials, ranging from petty bureaucratic corruption to grand political corruption  Bribing and corruption exist/do not		n exist/do not exist
Number of replies	Not applicable	More than 4000	
Coverage	203 countries /territories	**	

Number	10	11	12
Abbreviation	MIG	PERC	
Source	Merchant International Group	Political & Economic Risk Consultancy	
Name	Grey Area Dynamics	Asian Intelligence	Newsletter
Compiled / published	2007	2006	2007
Internet	www.merchantinternational.com	www.asiarisk.com/	
Who was surveyed?	Expert staff and network of local correspondents	Expatriate business executives	
Subject asked	Corruption, ranging from bribery of government ministers to inducements payable to the "humblest clerk"	f  How serious do you consider the problem of corruption to the public sector?	
Number of replies	Not applicable	More than 1,000 1476	
Coverage	155 countries /territories	15 countries /territories 15 countries /terr	

Number	13	14
Abbreviation	UNECA	WEF
Source	United Nations Economic Commission for Africa	World Economic Forum
Name	Africa Governance Report	Global Competitiveness Report
Compiled / published	2005/2006	2006/2007
Internet	http://www.uneca.org/agr/	www.weforum.org
Who was surveyed?	National expert survey (between 70 and 120 in each country)	Senior business leaders; domestic and international companies
Subject asked	"Corruption Control". This includes aspects related to corruption in the legislature, judiciary, and at the executive level, as well as in tax collection. Aspects of access to justice and government services are also involved	Undocumented extra payments or bribes connected with various government functions
Number of replies	Roughly 2800	Ca. 11,000
Coverage	28 countries /territories	125 countries /territories

Source: Transparency International (TI) – Sources for Corruption Perception Index (CPI) 2007. <a href="http://www.transparency.org/">http://www.transparency.org/</a>

# B.2 Sources for the TI 2008 – Corruption Perception Index (CPI).

Number	1	2	3
Abbreviation	ADB	AFDB	BTI
Source	Asian Development Bank	African Development Bank	Bertelsmann Foundation
Name	Country Performance Assessment Ratings	Country Policy and Institutional As- sessments	Bertelsmann Transformation Index
Compiled / pub- lished	2007/2008	2007/08	2007/2008
Internet	http://www.adb.org/Documents/Report s/ADF/2007-ADF-PBA.pdf	http://www.afdb.org/pls/portal/docs/PAG E/ADB ADMIN PG/DOCU- MENTS/NEWS/2007%20COUNTRY%2 0PERFOR- MANCE%20ASSESSMENT%20NOTE. DOC	http://www.bertelsmann- transformation- index.de/11.0.html?&L=1
Who was surveyed?	Country teams, experts inside and outside the bank	Country teams, experts inside and outside the bank	Network of local correspondents and experts inside and outside the organization
Subject asked	Corruption, conflicts of interest, diversion of funds as well as anti- corruption efforts and achievements	Corruption, conflicts of interest, diver- sion of funds as well as anti-corruption efforts and achievements	The government's capacity to punish and contain corruption
Number of replies	Not applicable	Not applicable	Not applicable
Coverage	29 countries (eligible for ADF fund- ing)	52 countries	125 less developed and transition countries

Number	4	5	6
Abbreviation	CPIA	EIU	FH
Source	World Bank (IDA and IBRD)	Economist Intelligence Unit	Freedom House
Name	Country Policy and Institutional As- sessment	Country Risk Service and Country Forecast	Nations in Transit
Compiled / pub- lished	2007/2008	2008	2008
Internet	http://web.worldbank.org/WBSITE/EXT ER- NAL/EXTABOUTUS/IDA/0.,contentMD K:20933600~menuPK:2626968~pagePK: 51236175~piPK:437394~theSitePK:7315 4,00.html	www.eiu.com	http://www.freedomhouse.hu/index.php?opt ion=com_content&task=view&id=196
Who was surveyed?	Country teams, experts inside and outside the bank	Expert staff assessment	Assessment by experts originating or resident in the respective country.
Subject asked	Corruption, conflicts of interest, diversion of funds as well as anti-corruption efforts and achievements	The misuse of public office for private (or political party) gain	Extent of corruption as practiced in gov- ernments, as perceived by the public and as reported in the media, as well as the imple- mentation of anticorruption initiatives
Number of replies	Not applicable	Not applicable	Not applicable
Coverage	75 countries (eligible for IDA fund- ing)	170 countries	29 countries/territories

Number	7	8	9
Abbreviation	GI	IMD	
Source	Global Insight	IMD International, Switzerland, World Competitiveness Center	
Name	Country Risk Ratings	IMD World Compete	itiveness Yearbook
Compiled / pub- lished	2008	2007	2008
Internet	http://www.globalinsight.com	www.imd.ch/wcc	
Who was surveyed?	Expert staff assessment	Executives in top and middle management; domestic and internate companies	
Subject asked	The likelihood of encountering corrupt officials, ranging from petty bureau- cratic corruption to grand political corruption	- Category Institutional Framework - State Efficiency: "Bribing and	
Number of replies	Not applicable	More than 4000	
Coverage	203 countries	55 countries 55 countries	

Number	10	11	12
Abbreviation	MIG	PERC	
Source	Merchant International Group	Political & Economic Risk Consultancy	
Name	Grey Area Dynamics	Asian Intelli	gence Newsletter
Compiled / pub- lished	2007	2007	2008
Internet	www.merchantinternational.com	www.asiarisk.com/	
Who was surveyed?	Expert staff and network of local correspondents	Expatriate business executives	
Subject asked	Corruption, ranging from bribery of government ministers to induce- ments payable to the "humblest clerk"	How serious do you consider the problem of corruption to be in the pu sector?	
Number of replies	Not applicable	1476	1400
Coverage	155 countries	15 countries	15 countries

Number	13	
Abbreviation	WEF	
Source	World Economic Forum	
Name	Global Competitiveness Report	
Compiled / pub- lished	2007/2008	
Internet	www.weforum.org	
Who was surveyed?	Senior business leaders; domestic and international companies	
Subject asked	Undocumented extra payments or bribes connected with 1) exports and imports, 2) public utilities, 3) tax collection, 4) public contracts and 5) judicial decisions are common/never occur	
Number of replies	11,406	
Coverage	131 countries	

Source: Transparency International (TI) – Sources for Corruption Perception Index (CPI) 2008. <u>http://www.transparency.org/</u>

# B.3 Sources for the TI 2009 – Corruption Perception Index (CPI).

Number	1	2	3
Abbreviation	ADB	AFDB	BTI
Source	Asian Development Bank	African Development Bank	Bertelsmann Foundation
Name	Country Performance Assessment Exercise 2008	Country Policy and Institutional Assessments 2008	Bertelsmann Transformation Index 2010
Compiled / published	2008/2009	2008/09	2009
Internet	http://www.adb.org/Documents/R eports/Country-Performance- Assessment-Exercise/default.asp	http://www.afdb.org/fileadmin/uploa ds/afdb/Documents/Project-and- Operations/AfDB 2008 Governanc e.xls	http://www.bertelsmann- transformation- index.de/11.0.html?&L=1
Who was surveyed?	Country teams, experts inside and outside the bank	Country teams, experts inside and outside the bank	Network of local correspondents and experts inside and outside the organization
Subject asked	Transparency, Accountability, and Corruption in the Public Sector" is especially relevant, as explained by the guidelines	Corruption, conflicts of interest, diversion of funds as well as anti- corruption efforts and achievements	The government's capacity to punish and contain corruption
Number of replies	Not applicable	Not applicable	Not applicable
Coverage	27 Asian countries	53 countries	128 less developed and transition countries

Number	4	5	6
Abbreviation	EIU	FH	GI
Source	Economist Intelligence Unit	Freedom House	Global Insight
Name	Country Risk Service and Country Forecast	Nations in Transit	Country Risk Ratings
Compiled / published	2009	2009	2009
Internet	www.eiu.com	http://www.freedomhouse.hu/index.php ?option=com_content&view=article&id= 242:nations-in-transit- 2009&catid=30&Itemid=92	http://www.globalinsight.com
Who was surveyed?	Expert staff assessment	Assessment by experts originating or resident in the respective country.	Expert staff assessment
Subject asked	The misuse of public office for private (or political party) gain	Extent of corruption as practiced in governments, as perceived by the public and as reported in the media, as well as the implementation of anticorruption initiatives	The likelihood of encountering corrupt officials, ranging from petty bureaucratic corruption to grand political corruption
Number of replies	Not applicable	Not applicable	Not applicable
Coverage	158 countries	29 countries/territories	203 countries

Number	7 8				
Abbreviation	IMD				
Source	IMD International, Switzerland, \	Norld Competitiveness Center			
Name	IMD World Competitiveness Yearbook				
Compiled / published	2008 2009				
Internet	www.imd.ch/wcc				
Who was surveyed?	Executives in top and middle management; domestic and international companies				
Subject asked	Category Institutional Framework - State Efficiency: "Bribing and corruption exist/do not exist"				
Number of replies	More than 4,0	00 executives			
Coverage	55 countries	57 countries			

Number	9 10			
Abbreviation	F	ERC		
Source	Political & Econor	mic Risk Consultancy		
Name	Asian Intellig	ence Newsletter		
Compiled / published	2008	2009		
Internet	www.asiarisk.com/			
Who was surveyed?	Expatriate business executives			
Subject asked	How serious do you consider the problem of corruption to be in the public sector?			
Number of replies	1,400	1,750		
Coverage	15 countries	16 countries		

Number	11	12	13	
Abbreviation	WB	WEF		
Source	World Bank (IDA and IBRD)	Worl	d Economic Forum	
Name	Country Policy and Institutional Assessment 2008	Global Competitiveness Report		
Compiled / published	2008-09 / 2008	2008-09 2009-10		
Internet	http://web.worldbank.org/WBSITE/ EXTERNAL/EXTABOUTUS/IDA/0,, contentMDK:21359477~menuPK:2 626968~pagePK:51236175~piPK:4 37394~theSitePK:73154,00.html	www.weforum.org		
Who was	Country teams, experts inside and	Senior business lea	aders; domestic and international	
surveyed?	outside the bank		companies	
Subject asked	Corruption, conflicts of interest, diversion of funds as well as anti- corruption efforts and achievements	Undocumented extra payments or bribes connected with 1) exports and imports, 2) public utilities, 3) tax collection, 4) public contracts and 5) judicial decisions are common/never occur		
Number of replies	Not applicable	12,297	Over 12,614	
Coverage	75 countries (eligible for IDA funding)	134 countries	133 countries	

Source: Transparency International (TI) – Sources for Corruption Perception Index (CPI) 2009. <u>http://www.transparency.org/</u>

# B.4 Number of Surveys used to determine the score for some countries for years 2007, 2008, and 2009.

No.	Country/Territory	Surveys Used 2007	Surveys Used 2008	Surveys Used 2009
1	Afghanistan	4	4	4
2	Albania	6	5	6
3	Algeria	6	6	6
4	Angola	7	6	5
5	Argentina	7	7	7
6	Armenia	7	-	7
7	Australia	8	8	8
8	Austria	6	6	6
9	Azerbaijan	8	8	7
10	Bahrain	5	5	5
11	Bangladesh	7	7	7
12	Barbados	4	4	4
13	Belarus	5	5	4
14	Belgium	6	6	6
15	Benin	7	6	6
16	Bhutan	5	5	4
17	Bolivia	6	6	6
18	Bosnia and Herzegovina	7	7	7
19	Botswana	7	6	6
20	Brazil	7	7	7
21	Brunei Darussalam	-	-	4
22	Bulgaria	8	8	8
23	Burkina Faso	7	7	7
24	Burundi	7	6	6
25	Cambodia	7	7	8
26	Cameroon	8	7	7
27	Canada	6	6	6
28	Cape Verde	3	3	3
29	Central African Republic	5	5	4
30	Chad	7	6	6
31	Chile	7	7	7
32	China	9	9	9
33	Colombia	7	7	7
34	Comoros	3	3	3
35	Congo Brazzaville	6	6	5
36	Costa Rica	5	5	5
37	Côte d'Ivoire	6	6	7
38	Croatia	8	8	8
39	Cuba	4	4	3
40	Cyprus	3	3	4
41	Czech Republic	8	8	8

43         Denmark         6         6         6           44         Djibouti         3         4         4           45         Dominican         3         3         3           46         Dominican Republic         5         5         5           47         Ecuador         5         5         5           48         Egypt         7         6         6           49         El Salvador         5         5         5           50         Equatorial Guinea         4         4         3           51         Eritrea         5         5         5         5           50         Equatorial Guinea         4         4         3         4         4         4 <t< th=""><th>42</th><th>Democratic Republic of Congo</th><th>6</th><th>6</th><th>5</th></t<>	42	Democratic Republic of Congo	6	6	5
44         Djibouti         3         4         4           45         Dominica         3         3         3           46         Dominican Republic         5         5         5         5           47         Ecuador         5         5         5         5           48         Egypt         7         6         6         6           49         El Salvador         5					
45   Dominica   3   3   3   3   46   Dominican Republic   5   5   5   5   5   5   5   5   5			1		
46         Dominican Republic         5         5         5           47         Ecuador         5         5         5           48         Egypt         7         6         6           49         El Salvador         5         5         5           50         Equatorial Guinea         4         4         3           51         Eritrea         5         5         4         3           52         Estonia         -         8         8         8         5         5         7         7         5         4         3         5         1         4         4         3         5         5         5         4         3         5         5         5         4         3         5         5         5         4         3         5         5         5         4         3         5         5         5         4         3         5         8         8         8         7         7         6         6         6         6         6         6         6         6         6         6         6         6         6         6         6         6         6					
47         Ecuador         5         5         5           48         Egypt         7         6         6           49         El Salvador         5         5         5           50         Equatorial Guinea         4         4         3           51         Eritrea         5         5         5         4           52         Estonia         -         8         8         8         5         7         7         6					
48         Egypt         7         6         6           49         El Salvador         5         5         5           50         Equatorial Guinea         4         4         3           51         Eritrea         5         5         4           52         Estonia         -         8         8           53         Ethiopia         8         7         7           54         Finland         6         6         6           55         France         6         6         6         6           55         France         6         6         6         6         6         6           55         France         6 <td></td> <td></td> <td></td> <td></td> <td></td>					
49         El Salvador         5         5         5           50         Equatorial Guinea         4         4         3           51         Eritrea         5         5         4           52         Estonia         -         8         8           53         Ethiopia         8         7         7           54         Finland         6         6         6           55         France         6         6         6           6         6         6         6         6           56         FYR Macedonia         6         6         6           57         Gabon         5         4         3           58         Gambia         6         5         5           59         Georgia         6         7         7           60         Germany         6         6         6           61         Ghana         7         6         7           62         Greece         6         6         6         6           63         Guatemala         5         5         5         5           64         Guinea					
50         Equatorial Guinea         4         4         3           51         Eritrea         5         5         5         4           52         Estonia         -         8         8         7         7         7         5         4         5         5         5         4         3         8         7         7         7         7         7         7         7         7         7         7         8         8         8         8         7         7         7         7         7         7         7         7         7         7         7         7         8         8         8         7         7         7         7         7         6         <					
51         Eritrea         5         5         4           52         Estonia         -         8         8           53         Ethiopia         8         7         7           54         Finland         6         6         6         6           55         France         6         6         6         6           56         FYR Macedonia         6         6         6         6           56         FYR Macedonia         6         6         6         6           57         Gabon         5         4         3         3           58         Gambia         6         5         5         5         5         5         6					
52         Estonia         -         8         8           53         Ethiopia         8         7         7           54         Finland         6         6         6         6           55         France         6         6         6         6           56         FYR Macedonia         6         6         6         6           57         Gabon         5         4         3         3           58         Gambia         6         5         5         5         5         5           59         Georgia         6         7         7         7         6			5	5	
54         Finland         6         6         6           55         France         6         6         6           56         FYR Macedonia         6         6         6           57         Gaboni         5         4         3           58         Gamol         6         7         7           60         Germany         6         6         6         6           60         Germany         6         6         6         6         6           61         Ghana         7         6         6         7         7         6	52	Estonia			
54         Finland         6         6         6           55         France         6         6         6           56         FYR Macedonia         6         6         6           57         Gabon         5         4         3           58         Gambia         6         5         5           59         Georgia         6         7         7           60         Germany         6         6         6           61         Ghana         7         6         6           61         Ghana         7         6         7           62         Greece         6         6         6         6           63         Guatemala         5         5         5         5           64         Guinea         6         6         5         5         5           65         Guinea-Bissau         3	53	Ethiopia	8	7	7
56         FYR Macedonia         6         6         6           57         Gabon         5         4         3           58         Gambia         6         5         5           59         Georgia         6         7         7           60         Germany         6         6         6         6           61         Ghana         7         6         7         7           62         Greece         6         6         6         6           63         Guatemala         5         5         5         5           64         Guinea         6         6         6         5           65         Guinea-Bissau         3         4         4         4         4         4         4         4	54		6	6	6
57         Gabon         5         4         3           58         Gambia         6         5         5           59         Georgia         6         7         7           60         Germany         6         6         6         6           61         Ghana         7         6         7         7           62         Greece         6         6         6         6           63         Guatemala         5         5         5         5           64         Guinea         6         6         6         5           63         Guatemala         5         5         5         5           64         Guinea         6         6         6         5           65         Guinea-Bissau         3         8         8         8         8         8         8         8         8         8	55	France	6	6	6
57         Gabon         5         4         3           58         Gambia         6         5         5           59         Georgia         6         7         7           60         Germany         6         6         6         6           60         Germany         6         6         6         6         6           61         Ghana         7         6         7         7         6         7         7           62         Greece         6 <td></td> <td></td> <td></td> <td>6</td> <td>6</td>				6	6
59         Georgia         6         7         7           60         Germany         6         6         6           61         Ghana         7         6         7           62         Greece         6         6         6           63         Guatemala         5         5         5           64         Guinea         6         6         5           65         Guinea-Bissau         3         3         3           66         Guinea-Bissau         3         3         3           66         Guyana         4         4         4         4           67         Haiti         4         4         4         3         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         3         8				4	
59         Georgia         6         7         7           60         Germany         6         6         6           61         Ghana         7         6         7           62         Greece         6         6         6           63         Guatemala         5         5         5           64         Guinea         6         6         5           65         Guinea-Bissau         3         3         3           66         Guinea-Bissau         3         3         3           66         Guyana         4         4         4         4           67         Haiti         4         4         4         3         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         3         8	58			5	5
60         Germany         6         6         6           61         Ghana         7         6         7           62         Greece         6         6         6         6           63         Guatemala         5         5         5         5           64         Guinea         6         6         6         5           65         Guinea-Bissau         3         3         3         3           66         Guyana         4         3         8         8         8         8         8         8         8         8         8         8         8         8         8         8         8         8         8         8	59	Georgia			
61         Ghana         7         6         7           62         Greece         6         6         6           63         Guatemala         5         5         5           64         Guinea         6         6         5           65         Guinea-Bissau         3         3         3           66         Guyana         4         4         4         4           67         Haiti         4         4         4         3           68         Honduras         6         6         6         6         6           69         Hong Kong         8 <td< td=""><td></td><td></td><td></td><td>6</td><td>6</td></td<>				6	6
63         Guatemala         5         5         5           64         Guinea         6         6         5           65         Guinea-Bissau         3         3         3           66         Guyana         4         4         4         4           67         Haiti         4         4         4         3           68         Honduras         6         6         6         6           69         Hong Kong         8         8         8         8           70         Hungary         8         8         8         8         8         8         7         7         1         10         11         10         <	61		7	6	7
64         Guinea         6         6         5           65         Guinea-Bissau         3         3         3           66         Guyana         4         4         4         4           67         Haiti         4         4         4         3           68         Honduras         6         6         6         6           69         Hong Kong         8         8         8         8           70         Hungary         8         8         8         8           70         Hungary         8         8         8         8         8           71         Iceland         6         5         5         4         10         11         10         9         9         11         10         12 <t< td=""><td>62</td><td>Greece</td><td>6</td><td>6</td><td>6</td></t<>	62	Greece	6	6	6
65         Guinea-Bissau         3         3         3           66         Guyana         4         4         4         4           67         Haiti         4         4         4         3           68         Honduras         6         6         6         6           69         Hong Kong         8         8         8         8           70         Hungary         8         8         8         8           71         Iceland         6         5         4         4         7         10         11         10         10         12         12         12         12         12	63	Guatemala	5	5	5
66         Guyana         4         4         4           67         Haiti         4         4         3           68         Honduras         6         6         6           69         Hong Kong         8         8         8           70         Hungary         8         8         8           71         Iceland         6         5         4           72         India         10         10         10           73         Indonesia         11         10         9           74         Iran         4         4         3           75         Iraq         4         -         3           76         Ireland         6         6         6           7         Israel         6         6         6           78         Italy         6         6         6           79         Jamaica         5         5         5           80         Japan         8         8         8           81         Jordan         7         7         7           82         Kazakhstan         6         6         6	64	Guinea	6	6	5
66         Guyana         4         4         4           67         Haiti         4         4         3           68         Honduras         6         6         6           69         Hong Kong         8         8         8           70         Hungary         8         8         8           71         Iceland         6         5         4           72         India         10         10         10           73         Indonesia         11         10         9           74         Iran         4         4         3           75         Iraq         4         -         3           76         Ireland         6         6         6           7         Israel         6         6         6           78         Italy         6         6         6           79         Jamaica         5         5         5           80         Japan         8         8         8           81         Jordan         7         7         7           82         Kazakhstan         6         6         6	65	Guinea-Bissau	3	3	3
67         Haiti         4         4         3           68         Honduras         6         6         6           69         Hong Kong         8         8         8           70         Hungary         8         8         8           70         Hungary         8         8         8           71         Iceland         6         5         4           72         India         10         10         10           73         Indonesia         11         10         9           74         Iran         4         4         3           75         Iraq         4         -         3           76         Ireland         6         6         6           78         Italy         6         6         6           78         Italy         6         6         6           79         Jamaica         5         5         5           80         Japan         8         8         8           81         Jordan         7         7         7           82         Kazakhstan         6         6         6	66				
69         Hong Kong         8         8         8           70         Hungary         8         8         8           71         Iceland         6         5         4           72         India         10         10         10           73         Indonesia         11         10         9           74         Iran         4         4         3           75         Iraq         4         -         3           76         Ireland         6         6         6           7         Israel         6         6         6           78         Italy         6         6         6           79         Jamaica         5         5         5           80         Japan         8         8         8           81         Jordan         7         7         7           82         Kazakhstan         6         6         7           83         Kenya         8         7         7           84         Kiribati         3         3         3           85         Korea (South)         9         9         9<	67		4	4	3
70         Hungary         8         8         8           71         Iceland         6         5         4           72         India         10         10         10           73         Indonesia         11         10         9           74         Iran         4         4         3           75         Iraq         4         -         3           76         Ireland         6         6         6           7         Israel         6         6         6           78         Italy         6         6         6           79         Jamaica         5         5         5           80         Japan         8         8         8           81         Jordan         7         7         7           82         Kazakhstan         6         6         7           83         Kenya         8         7         7           84         Kiribati         3         3         3           85         Korea (South)         9         9         9           86         Kuwait         5         5         5 <td>68</td> <td>Honduras</td> <td>6</td> <td>6</td> <td>6</td>	68	Honduras	6	6	6
71         Iceland         6         5         4           72         India         10         10         10           73         Indonesia         11         10         9           74         Iran         4         4         3           75         Iraq         4         -         3           76         Ireland         6         6         6         6           71         Israel         6         7         7         7         7         7         7         7         7         7         7         7         7	69	Hong Kong	8	8	8
71       Iceland       6       5       4         72       India       10       10       10         73       Indonesia       11       10       9         74       Iran       4       4       3         75       Iraq       4       -       3         76       Ireland       6       6       6         7       Israel       6       6       6         78       Italy       6       6       6         79       Jamaica       5       5       5         80       Japan       8       8       8         81       Jordan       7       7       7         82       Kazakhstan       6       6       7         83       Kenya       8       7       7         84       Kiribati       3       3       3         85       Korea (South)       9       9       9         86       Kuwait       5       5       5         87       Kyrgyzstan       7       7       7         88       Laos       6       6       6       4	70		8	8	8
73         Indonesia         11         10         9           74         Iran         4         4         3           75         Iraq         4         -         3           76         Ireland         6         6         6           70         Israel         6         6         6           78         Italy         6         6         6           79         Jamaica         5         5         5           80         Japan         8         8         8           81         Jordan         7         7         7           82         Kazakhstan         6         6         7           83         Kenya         8         7         7           84         Kiribati         3         3         3           85         Korea (South)         9         9         9           86         Kuwait         5         5         5           87         Kyrgyzstan         7         7         7           88         Laos         6         6         4	71		6	5	4
74         Iran         4         4         3           75         Iraq         4         -         3           76         Ireland         6         6         6           77         Israel         6         6         6           78         Italy         6         6         6           79         Jamaica         5         5         5           80         Japan         8         8         8           81         Jordan         7         7         7           82         Kazakhstan         6         6         7           83         Kenya         8         7         7           84         Kiribati         3         3         3           85         Korea (South)         9         9         9           86         Kuwait         5         5         5           87         Kyrgyzstan         7         7         7           88         Laos         6         6         4	72	India	10	10	10
75         Iraq         4         -         3           76         Ireland         6         6         6           77         Israel         6         6         6           78         Italy         6         6         6           79         Jamaica         5         5         5           80         Japan         8         8         8           81         Jordan         7         7         7           82         Kazakhstan         6         6         7           83         Kenya         8         7         7           84         Kiribati         3         3         3           85         Korea (South)         9         9         9           86         Kuwait         5         5         5           87         Kyrgyzstan         7         7         7           88         Laos         6         6         4	73	Indonesia	11	10	9
76         Ireland         6         6         6           77         Israel         6         6         6           78         Italy         6         6         6           79         Jamaica         5         5         5           80         Japan         8         8         8           81         Jordan         7         7         7           82         Kazakhstan         6         6         7           83         Kenya         8         7         7           84         Kiribati         3         3         3           85         Korea (South)         9         9         9           86         Kuwait         5         5         5           87         Kyrgyzstan         7         7         7           88         Laos         6         6         4	74	Iran	4	4	3
77         Israel         6         6         6           78         Italy         6         6         6           79         Jamaica         5         5         5           80         Japan         8         8         8           81         Jordan         7         7         7           82         Kazakhstan         6         6         7           83         Kenya         8         7         7           84         Kiribati         3         3         3           85         Korea (South)         9         9         9           86         Kuwait         5         5         5           87         Kyrgyzstan         7         7         7           88         Laos         6         6         4	75	Iraq	4	-	3
78         Italy         6         6         6           79         Jamaica         5         5         5           80         Japan         8         8         8           81         Jordan         7         7         7           82         Kazakhstan         6         6         7           83         Kenya         8         7         7           84         Kiribati         3         3         3           85         Korea (South)         9         9         9           86         Kuwait         5         5         5           87         Kyrgyzstan         7         7         7           88         Laos         6         6         4	76	Ireland	6	6	6
79         Jamaica         5         5           80         Japan         8         8           81         Jordan         7         7           82         Kazakhstan         6         6         7           83         Kenya         8         7         7           84         Kiribati         3         3         3           85         Korea (South)         9         9         9           86         Kuwait         5         5         5           87         Kyrgyzstan         7         7         7           88         Laos         6         6         4	77	Israel	6	6	6
80       Japan       8       8         81       Jordan       7       7         82       Kazakhstan       6       6       7         83       Kenya       8       7       7         84       Kiribati       3       3       3         85       Korea (South)       9       9       9         86       Kuwait       5       5       5         87       Kyrgyzstan       7       7       7         88       Laos       6       6       4	78	Italy			
81       Jordan       7       7         82       Kazakhstan       6       6       7         83       Kenya       8       7       7         84       Kiribati       3       3       3         85       Korea (South)       9       9       9         86       Kuwait       5       5       5         87       Kyrgyzstan       7       7       7         88       Laos       6       6       4	79	Jamaica			
82       Kazakhstan       6       6       7         83       Kenya       8       7       7         84       Kiribati       3       3       3         85       Korea (South)       9       9       9         86       Kuwait       5       5       5         87       Kyrgyzstan       7       7       7         88       Laos       6       6       4	80	Japan			
83       Kenya       8       7       7         84       Kiribati       3       3       3         85       Korea (South)       9       9       9         86       Kuwait       5       5       5         87       Kyrgyzstan       7       7       7         88       Laos       6       6       4	81	Jordan	7	7	7
84       Kiribati       3       3       3         85       Korea (South)       9       9       9         86       Kuwait       5       5       5         87       Kyrgyzstan       7       7       7         88       Laos       6       6       4	82	Kazakhstan		6	
85       Korea (South)       9       9       9         86       Kuwait       5       5       5         87       Kyrgyzstan       7       7       7         88       Laos       6       6       4	83	Kenya		7	7
86       Kuwait       5       5       5         87       Kyrgyzstan       7       7       7         88       Laos       6       6       4	84	Kiribati		3	
87         Kyrgyzstan         7         7         7           88         Laos         6         6         4	85	Korea (South)	9		
88 Laos 6 6 4	86	Kuwait			
	87	Kyrgyzstan			
89 Latvia 6 6 6	88	Laos	6	6	4
	89	Latvia	6	6	6

90	Lebanon	4	4	3
91	Lesotho	6	5	6
92	Liberia	4	4	3
93		4	5	6
93	Libya Lithuania	7	8	8
95	Luxembourg	5	6	6
96	Macau	4	4	3
97	Madagascar	7	7	7
98	Malawi	8	6	7
99	Malaysia	9	9	9
100	Maldives	4	4	4
101	Mali	-	6	6
102	Malta	4	4	4
103	Mauritania	6	7	7
104	Mauritius	-	5	6
105	Mexico	7	7	7
106	Moldova	7	7	6
107	Mongolia	6	7	7
108	Montenegro	4	5	5
109	Morocco	7	6	6
110	Mozambique	8	7	7
111	Myanmar	4	4	3
112	Namibia	7	6	6
113	Nepal	7	6	6
114	Netherlands	6	6	6
115	New Zealand	6	6	6
116	Nicaragua	6	6	6
117	Niger	7	6	5
118	Nigeria	8	7	7
119	Norway	6	6	6
120	Oman	4	5	5
121	Pakistan	7	7	7
122	Panama	5	5	5
123	Papua New Guinea	6	6	5
124	Paraguay	5	5	5
125	Peru	5	6	7
126	Philippines	9	9	9
127	Poland	8	8	8
128	Portugal	6	6	6
129	Puerto Rico	-	4	4
130	Qatar	4	4	6
131	Romania	8	8	8
132	Russia	8	8	8
133	Rwanda	5	5	4
134	Saint Lucia	3	3	3
135	Saint Vincent and the	3	3	3
133	Grenadines			
136	Samoa	3	3	3
130	Dalifou			<u> </u>

137	Sao Tome and Principe	3	3	3
138	Saudi Arabia	4	5	5
139		7	7	7
140	Senegal Serbia	6	6	6
141	Seychelles	4	4	3
142	Sierra Leone	5	5	5
143	Singapore	9	9	9
144	Slovakia	8	8	8
145	Slovenia	8	8	8
146	Solomon Islands	3	3	3
147	Somalia	4	4	3
148	South Africa	9	8	8
149	Spain	6	6	6
150	Sri Lanka	7	7	7
151	Sudan	6	6	5
152	Suriname	4	4	3
153	Swaziland	5	4	3
154	Sweden	6	6	6
155	Switzerland	6	6	6
156	Syria	4	5	5
157	Taiwan	9	9	9
158	Tajikistan	8	8	8
159	Tanzania	8	7	7
160	Thailand	9	9	9
161	Timor-Leste	3	4	5
162	Togo	5	6	5
163	Tonga	3	3	3
164	Trinidad and Tobago	4	4	4
165	Tunisia	6	6	6
166	Turkey	7	7	7
167	Turkmenistan	5	5	4
168	Uganda	8	7	7
169	Ukraine	7	8	8
170	United Arab Emirates	5	5	5
171	United Kingdom	6	6	6
172	United States	8	8	8
173	Uruguay	5	5	5
174	Uzbekistan	7	8	6
175	Vanuatu	3	3	3
176	Venezuela	7	7	7
177	Vietnam	9	9	9
178	Yemen	5	5	4
178	Zambia	8	7	7
180	Zimbabwe	8	7	7
10U			CDI 2007 2008 -	/

Source: Transparency International (TI) – Corruption Perception Index (CPI) 2007 2008 and 2009. http://www.transparency.org/

# B.5 Natural Wealth per Capita and Change in Wealth per Capita for 2000

country	Natural Wealth/pc	TCap00	Change in Wealth/pc	NW/TW
Albania	3892	17312	122	22.48151571
Algeria	13200	18491	-409	71.38607971
Argentina	10312	139232	-109	7.406343369
Australia	24167	371031	46	6.51347192
Austria	7174	493080	2831	1.454936319
Bangladesh	961	6000	41	16.01666667
Barbados	1388	146737	520	0.94591003
Belgium	3030	451714	2649	0.670778413
Belize	6950	52936	-150	13.12906151
Benin	1333	7895	-42	16.88410386
Bhutan	4945	7747	-111	63.83116045
Bolivia	4783	18141	-127	26.36569098
Botswana	3183	40592	814	7.84144659
Brazil	6752	86922	64	7.76788385
Bulgaria	3448	25256	238	13.65220146
Burkina Faso	1219	5087	-36	23.96304305
Burundi	1210	2859	-37	42.32249038
Cameroon	4733	10753	-152	44.01562355
Canada	34771	324979	2221	10.69946058
Cape Verde	711	32942	-81	2.158338899
Chad	1861	4458	-74	41.74517721
Chile	10944	77726	129	14.08023055
China	2223	9387	200	23.68168744
Colombia	6547	44660	-205	14.65965069
Congo	9330	3516	-727	265.3583618
Costa Rica	8527	61611	107	13.84006103
Côte d'Ivoire	3121	14243	-100	21.91251843
Denmark	11746	575138	4014	2.042292459
Dominican Republic	3176	33410	198	9.506135887
Ecuador Ecuador	13117	33745	-293	38.87094384
Egypt	3249	21879	-45	14.84985603
El Salvador	912	36476	37	2.500274153
Estonia	6283	66769	681	9.410055565
Ethiopia	796	1965	-27	40.50890585
Finland	11445	419346	4236	2.729249832
France	6335	468024	2951	1.353563065
Gabon	28586	43168	-2341	66.22034841
Gambia	514	6365	-45	8.075412412
Georgia	1799	13036	16	13.80024547
Germany	4445	496447	2071	0.895362446
Ghana	1336	10365	-18	12.88953208
Greece	4554	236972	1327	1.921746029
Guatemala	2971	30480	-123	9.747375328
Guyana	10301	15810	-108	65.15496521
Haiti	793	8235	106	9.62962963
Honduras	3005	11567	53	25.97907841
Hungary	4947	77072	765	6.418673448
India	1928	6820	16	28.26979472
Indonesia	3472	13869	-56	25.03424904
	14105	24023	-398	58.71456521
Iran Ireland	10534	330490	4199	3.187388423
	3999			
Israel		294723	268	1.356867296
Italy	4678	372666	1947	1.255279526

Jamaica	2627	47796	371	5.496275839
Japan	1513	493241	5643	0.306746601
Jordan	931	31546	28	2.9512458
Kenya	1368	6609	-11	20.69904675
Latvia	5485	47198	551	11.62125514
Luxembourg	3030	451714	2649	0.670778413
Madagascar	1681	5020	-56	33.48605578
Malawi	785	5200	-29	15.09615385
Malaysia	9103	46687	227	19.49793304
Mali	2157	5241	-47	41.15626789
Mauritania	2982	7959	-147	37.46701847
Mauritius	642	60284	514	1.064959193
Mexico	8493	61872	155	13.72672614
Moldova	3260	8771	56	37.1679398
Morocco	1604	22965	117	6.984541694
Mozambique	1059	4232	-20	25.02362949
Namibia	2352	36907	140	6.372774812
Nepal	1229	3802	2	32.32509206
Netherlands	6739	421389	3176	1.599234911
New Zealand	43226	242934	1082	17.79331012
Nicaragua	2092	13214	-18	15.83169366
Niger	1975	3695	-83	53.45060893
Nigeria	4040	2748	-210	147.0160116
Norway	54828	473708	5708	11.57421872
Pakistan	1368	7871	-2	17.38025664
Panama	5051	57663	585	8.759516501
Paraguay	5372	35600	-93	15.08988764
Peru	3575	39046	15	9.155867438
Philippines	1549	19351	114	8.004754276
Portugal	3629	207477	750	1.74910954
Romania	4508	29113	89	15.48449146
Russia	17217	38709	4	44.47802837
Rwanda	2066	5670	-60	36.43738977
Senegal	1272	10167	-27	12.51106521
Singapore	0	252607	6949	0
South Africa	3400	59629	-2	5.701923561
South Korea	2020	141282	2415	1.429764584
Spain	4374	261205	1663	1.674546812
Sri Lanka	817	14731	116	5.546127215
Swaziland	1267	27739	8	4.567576337
Sweden	7950	513424	4191	1.54842781
Switzerland	5943	648241	8020	0.916788663
Syria	8725	10419	-473	83.74124196
Thailand	3936	35854	259	10.97785463
Togo	915	7109	-88	12.87100858
Trinidad&Tobago	30977	57549	-774	53.82717337
Tunisia	3939	36537	176	10.78085229
Turkey	3504	47859	273	7.321506927
UK	7167	408753	1725	1.753381627
Uruguay	9279	118463	20	7.832825439
USA	14752	512612	2020	2.877810118
Venezuela	27227	45196	-847	60.24205682
Zambia	1779	6564	-63	27.1023766
Zimbabwe	1531	9612	-4	15.92800666
Community of the control of the cont	05 1' . 4	, , , , ,	•	12.72000000

Source: World Bank, 2005a. Appendix 4.

# B.6 GDP per Capita 2003 and Effective Annual Growth in GDP per Capita (2003-2008)

No.	Country	GDP/pc03 (PPP USA)	G.avg
1	Afghanistan	700	6.1248
2	Albania	4500	3.4011
3	Algeria	5900	5.4238
4	Angola	1900	22.7514
5	Argentina	11200	2.5150
6	Armenia	3900	6.5291
7	Australia	28900	4.4373
8	Austria	30000	4.4698
9	Azerbaijan	3400	17.6144
10	Bahrain	17100	12.5181
11	Bangladesh	1900	-4.9623
12	Barbados	16200	3.3138
13	Belarus	6000	9.2467
14	Belgium	29000	3.9080
15	Belize	4900	8.0562
16	Benin	1100	5.3052
17	Bhutan	1300	1.2428
18	Bolivia	2400	10.6302
19	Bosnia and Herzegovina	6100	1.3217
20	Botswana	8800	8.9279
21	Brazil	7600	4.1501
22	Bulgaria	7600	7.6080
23	Burkina Faso	1100	1.4608
24	Burundi	600	4.9115
25	Cambodia	1700	0.9572
26	Cameroon	1800	4.1700
27	Canada	29700	4.2840
28	Cape Verde	1400	30.7660
29	CAR	1200	-8.5916
30	Chad	1200	4.9115
31	Chile	9900	6.4440
32	China	5000	0.9759
33	Colombia	6300	2.2505
34	Comoros	700	-2.5365
35	Congo	700	31.9828
36	Congo, Democratic Rep.	600	-10.9101
37	Costa Rica	9000	6.9913
38	Cote d'Ivoire	1400	4.2775
39	Croatia	10700	6.3713
40	Cuba	2800	8.2287
41	Czech Republic	15700	7.6255
42	Denmark	31200	3.0670
43	Djibouti	1300	-4.2785
44	Dominica	5400	-5.6884
45	Dominican Republic	6000	7.3840
46	Ecuador	3300	13.6207

47	Egypt	3900	5.5735
48	Egypt El Salvador	4800	1.3430
49	Eritrea Eritrea	700	6.1248
50	Estonia		
		12300	10.0082
51	Ethiopia	700	0.0000
52	Finland	27300	4.4747
53	France	27500	3.4977
54	Gabon	5500	16.5698
55	Gambia, The	1700	-11.8058
56	Georgia	2500	9.0314
57	Germany	27600	3.7389
58	Ghana	2200	-7.2563
59	Greece	19900	7.3761
60	Grenada	5000	-4.0565
61	Guatemala	4100	4.6972
62	Guinea	2100	-11.6316
63	Guinea-Bissau	900	-6.5345
64	Guyana	4000	4.8019
65	Haiti	1600	2.9056
66	Honduras	2600	4.0535
67	Hong Kong	28700	6.5519
68	Hungary	13900	5.8043
69	Iceland	30900	4.1333
70	India	2900	-1.1839
71	Indonesia	3200	1.0155
72	Iran	7000	9.8503
73	Iraq	1600	14.4714
74	Ireland	29800	7.3474
75	Israel	19700	6.5339
76	Italy	26800	2.4561
77	Jamaica	3800	3.9704
78	Japan	28000	3.1873
79	Jordan	4300	1.4935
80	Kazakhstan	7000	6.8208
81	Kenya	1000	8.1484
82	Kiribati	800	3.7891
83	Korea, South	17700	5.6397
84	Kyrgyzstan	1600	3.7891
85	J UJ		
	Kuwait	18100	20.4595
86	Kuwait Laos	18100 1700	20.4595 1.8710
86 87	Laos	1700	1.8710
87	Laos Latvia	1700 10100	1.8710 9.8016
87 88	Laos Latvia Lebanon	1700 10100 4800	1.8710 9.8016 13.7537
87 88 89	Laos Latvia Lebanon Lesotho	1700 10100 4800 3000	1.8710 9.8016 13.7537 -10.9101
87 88 89 90	Laos Latvia Lebanon Lesotho Liberia	1700 10100 4800 3000 1000	1.8710 9.8016 13.7537 -10.9101 -10.9101
87 88 89 90 91	Laos Latvia Lebanon Lesotho Liberia Libya	1700 10100 4800 3000 1000 6400	1.8710 9.8016 13.7537 -10.9101 -10.9101 12.6804
87 88 89 90 91 92	Laos Latvia Lebanon Lesotho Liberia Libya Lithuania	1700 10100 4800 3000 1000 6400 11200	1.8710 9.8016 13.7537 -10.9101 -10.9101 12.6804 6.8849
87 88 89 90 91 92 93	Laos Latvia Lebanon Lesotho Liberia Libya Lithuania Luxembourg	1700 10100 4800 3000 1000 6400 11200 55100	1.8710 9.8016 13.7537 -10.9101 -10.9101 12.6804 6.8849 6.5884
87 88 89 90 91 92 93 94	Laos Latvia Lebanon Lesotho Liberia Libya Lithuania Luxembourg Macau	1700 10100 4800 3000 1000 6400 11200 55100 19400	1.8710 9.8016 13.7537 -10.9101 -10.9101 12.6804 6.8849 6.5884 6.5580
87 88 89 90 91 92 93 94 95	Laos Latvia Lebanon Lesotho Liberia Libya Lithuania Luxembourg Macau Macedonia	1700 10100 4800 3000 1000 6400 11200 55100 19400 6700	1.8710 9.8016 13.7537 -10.9101 -10.9101 12.6804 6.8849 6.5884 6.5580 3.8407
87 88 89 90 91 92 93 94 95 96	Laos Latvia Lebanon Lesotho Liberia Libya Lithuania Luxembourg Macau Macedonia Madagascar	1700 10100 4800 3000 1000 6400 11200 55100 19400 6700 800	1.8710 9.8016 13.7537 -10.9101 -10.9101 12.6804 6.8849 6.5884 6.5580 3.8407 3.7891
87 88 89 90 91 92 93 94 95 96	Laos Latvia Lebanon Lesotho Liberia Libya Lithuania Luxembourg Macau Macedonia Madagascar Malawi	1700 10100 4800 3000 1000 6400 11200 55100 19400 6700 800 600	1.8710 9.8016 13.7537 -10.9101 -10.9101 12.6804 6.8849 6.5884 6.5580 3.8407 3.7891 4.9115
87 88 89 90 91 92 93 94 95 96 97	Laos Latvia Lebanon Lesotho Liberia Libya Lithuania Luxembourg Macau Macedonia Madagascar Malawi Malaysia	1700 10100 4800 3000 1000 6400 11200 55100 19400 6700 800 600 9000	1.8710 9.8016 13.7537 -10.9101 -10.9101 12.6804 6.8849 6.5884 6.5580 3.8407 3.7891 4.9115 8.1484
87 88 89 90 91 92 93 94 95 96	Laos Latvia Lebanon Lesotho Liberia Libya Lithuania Luxembourg Macau Macedonia Madagascar Malawi	1700 10100 4800 3000 1000 6400 11200 55100 19400 6700 800 600	1.8710 9.8016 13.7537 -10.9101 -10.9101 12.6804 6.8849 6.5884 6.5580 3.8407 3.7891 4.9115

101	M-14-	17700	4.6120
101	Malta	17700	4.6130
102	Mauritania	1800	0.0000
103	Mauritius	11400	0.7180
104	Mexico	9000	5.6277
105	Moldova	1800	3.4011
106	Mongolia	1800	8.2732
107	Morocco	4000	-0.8512
108	Mozambique	1200	-4.6816
109	Myanmar	1900	0.0000
110	Namibia	7100	-5.0582
111	Nepal	1400	-3.9397
112	Netherlands	28600	5.1244
113	New Zealand	21600	3.9804
114	Nicaragua	2200	6.4440
115	Niger	800	-2.2009
116	Nigeria	800	18.3647
117	Norway	37700	6.6896
118	Oman	13400	6.0852
119	Pakistan	2100	3.6237
120	Panama	6300	6.1248
121	Paraguay	4600	-2.3024
122	Peru	5200	6.5291
123	Philippines	4600	-5.3851
124	PNG	2200	4.7119
125	Poland	11000	6.6646
126	Portugal	18000	3.2438
127	Qatar	21500	23.3958
128	Romania	6900	8.2461
129	Russia	8900	8.5993
130	Rwanda	1300	-4.2785
131	Saint Vincent & the Grenadines	2900	3.6694
131	Samoa Samoa	5600	-15.0809
133	San Tome and Principe	1200	0.0000
134	Saudi Arabia	11800	9.8200
135	Senegal	1600	1.0155
136	Seychelles	7800	15.3773
137	Sierra Leone	500	8.1484
138	Singapore	23700	12.8306
139	Slovakia	13300	6.8568
140	Slovenia	18300	6.8937
141	Solomon Islands	1700	-15.9346
142	Somalia	500	3.0853
143	South Africa	10700	-0.1564
144	Spain	22000	7.3663
145	Sri Lanka	3700	1.7256
146	Sudan	1900	4.6802
146 147			
146	Sudan	1900	4.6802
146 147	Sudan Suriname	1900 3500	4.6802 14.2890
146 147 148	Sudan Suriname Swaziland	1900 3500 4900	4.6802 14.2890 -0.3431
146 147 148 149	Sudan Suriname Swaziland Sweden	1900 3500 4900 26800	4.6802 14.2890 -0.3431 5.4748
146 147 148 149 150	Sudan Suriname Swaziland Sweden Switzerland	1900 3500 4900 26800 32800	4.6802 14.2890 -0.3431 5.4748 3.2765
146 147 148 149 150 151	Sudan Suriname Swaziland Sweden Switzerland Syria Taiwan	1900 3500 4900 26800 32800 3300	4.6802 14.2890 -0.3431 5.4748 3.2765 4.5103
146 147 148 149 150 151 152	Sudan Suriname Swaziland Sweden Switzerland Syria	1900 3500 4900 26800 32800 3300 23400	4.6802 14.2890 -0.3431 5.4748 3.2765 4.5103 4.1118

155	Thailand	7400	1.3078
156	Timor-Leste	500	25.9921
157	Togo	1500	-8.1614
158	Tonga	2200	0.0000
159	Trinidad and Tobago	9600	14.5596
160	Tunisia	6900	1.3994
161	Turkey	6700	5.8056
162	Turkmenistan	5700	8.3059
163	UAE	23200	15.5425
164	Uganda	1400	-3.9397
165	UK	27700	4.1236
166	Ukraine	5300	4.4950
167	Uruguay	12600	-2.6874
168	USA	37800	3.3263
169	Uzbekistan	1700	4.3908
170	Vanuatu	2900	0.0000
171	Venezuela	4800	17.7592
172	Vietnam	2500	0.6558
173	Yemen	800	20.0937
174	Zambia	800	9.7757
175	Zimbabwe	1900	-19.9485

Source: CIA Word Fact Book (2008).

### B.7 Violent Deaths in 2004, per 100,000 population

Country	Traffic Accidents	Poisonings	Falls	Fires	Drowning	Other	Subtotal
Afghanistan	36.7	4.4	5.6	5.3	10.3	17.1	79.4
Albania	2.5	1.3	0.7	0.3	1.2	47.4	53.4
Algeria	17.2	3.1	2.4	3.9	3.7	10.8	41.1
Angola	58.0	9.1	5.2	11.6	17.9	28.9	130.7
Argentina	11.5	0.5	1.0	1.3	2.5	17.0	33.8
Armenia	10.6	2.4	1.4	1.6	2.2	14.2	32.4
Australia	8.6	4.2	3.3	0.5	1.2	10.1	27.9
Austria	10.4	1.0	11.4	0.7	1.0	6.4	30.9
Azerbaijan	5.4	1.2	0.3	4.7	0.5	7.9	20.0
Bahrain	12.0	0.1	0.9	0.0	0.9	14.0	27.9
Bangladesh	13.4	4.6	5.8	10.9	5.8	15.5	56.0
Barbados	6.6	0.0	3.0	0.2	4.0	5.6	19.4
Belarus	17.2	39.8	7.4	8.3	17.2	30.5	120.4
Belgium	13.5	1.4	11.1	1.0	0.6	5.6	33.2
Belize	32.1	0.0	1.5	0.0	7.0	10.9	51.5
Benin	31.5	4.7	3.1	7.4	7.7	28.3	82.7
Bhutan	14.5	6.0	7.9	12.4	6.2	19.2	66.2
Bolivia	17.7	0.9	0.5	1.5	6.4	36.9	63.9
Bosnia & Herzegovina	4.3	0.5	0.4	0.5	6.8	15.9	28.4
Botswana	16.3	3.8	1.6	3.6	6.5	14.1	45.9
Brazil	19.8	0.2	3.4	0.8	4.4	11.5	40.1
Bulgaria	12.1	2.0	3.6	1.4	2.4	9.3	30.8
Burkina Faso	40.3	6.1	3.7	9.3	9.9	36.1	105.4
Burundi	27.2	5.0	2.4	5.8	10.3	12.9	63.6
Cambodia	20.0	0.7	3.1	0.8	9.7	5.9	40.2
Cameroon	32.0	5.2	3.5	7.3	7.7	29.7	85.4
Canada	8.7	2.9	5.2	0.8	0.9	9.3	27.8
Cape Verde	9.6	0.4	0.9	1.7	1.2	16.2	30.0
CAR	34.6	7.0	3.2	6.7	12.8	14.9	79.2
Chad	35.0	5.3	3.5	8.2	8.6	31.3	91.9
Chile	14.8	1.0	2.0	1.8	3.2	9.4	32.2
China	19.2	5.4	7.4	1.0	8.7	10.7	52.4
Colombia	18.5	0.3	3.2	0.5	3.2	10.6	36.3
Congo	23.3	4.6	2.1	5.0	9.0	10.9	54.9
Congo D. Rep.	37.1	11.3	3.0	7.1	14.1	20.6	93.2
Costa Rica	18.1	0.4	2.4	0.2	4.2	10.3	35.6
Côte d'Ivoire	37.7	7.6	3.3	6.8	14.4	15.6	85.4
Croatia	12.8	1.7	11.9	1.3	2.4	8.5	38.6
Cuba	13.1	0.3	14.9	0.8	2.6	10.0	41.7
Cyprus	26.9	0.2	0.6	1.2	4.4	0.8	34.1
Czech Republic	10.0	3.1	17.2	0.6	2.1	13.2	46.2
Denmark	8.6	2.5	30.6	1.2	0.9	3.1	46.9
Djibouti	33.2	3.9	5.0	4.2	9.6	15.8	71.7
Dominican Republic	24.1	0.3	0.2	0.7	0.4	10.8	36.5
Ecuador	14.6	1.9	3.6	1.4	4.3	23.5	49.3
Egypt	12.3	1.9	2.1	0.7	4.4	5.7	27.1
El Salvador	29.8	0.2	2.9	0.7	5.1	2.1	40.8
Equatorial Guinea	38.6	5.1	3.6	7.7	7.5	44.2	106.7
Eritrea	22.1	4.3	1.9	4.7	8.7	18.1	59.8
Estonia	15.4	32.2	10.8	12.8	10.5	42.0	123.7
Ethiopia	26.1	3.5	2.3	5.4	5.3	19.3	61.9
Finland	8.6	11.1	20.3	1.0	2.8	8.6	52.4
France	13.9	1.2	16.8	0.8	1.0	18.5	52.2
Gabon	26.3	5.1	3.3	5.4	5.6	25.6	71.3

Georgia 6.1 1.0 0.3 1.9 1.3 10.1 20.7 Georgia 8.6 0.7 8.9 0.6 0.6 5.0 24.4 Georgea 9.1 0.6 0.6 5.0 24.4 Georgea 19.6 2.4 4.2 2.8 5.8 6.2 24.0 69.4 Greece 19.6 2.4 4.8 1.0 3.8 4.8 36.4 Guatemala 6.5 0.4 4.0 0.2 1.2 19.1 31.4 Guinea 34.9 5.7 3.4 7.0 7.6 19.5 78.1 Guinea 19.5 0.6 12.5 0.9 4.7 29.2 58.4 Haiti 8.0 0.6 6.8 41.0 56	Gambia	30.1	5.0	3.2	6.6	7.0	27.7	79.6
Germany         8.6         0.7         8.9         0.6         0.6         5.0         24.4           Ghana         26.4         4.2         2.8         5.8         6.2         24.0         69.4           Greece         19.6         2.4         4.8         1.0         3.8         4.8         36.4           Guinea         34.9         5.7         3.4         7.0         7.6         19.5         78.1           Guinea Bissau         34.9         4.3         3.0         6.6         6.8         41.0         96.6           Givana         10.5         0.6         12.5         0.9         4.7         29.2         58.4           Haif         8.0         0.4         1.5         2.6         0.2         3.2         15.9           Honduras         15.0         0.7         0.9         0.7         3.6         11.6         32.5           Hungary         16.0         0.9         28.7         1.7         2.2         8.4         57.9           Iceland         7.2         3.3         5.1         0.6         0.8         8.2         25.2           India         18.0         7.3         8.8         14.								
Ghana         26.4         4.2         2.8         5.8         6.2         24.0         69.4           Greece         19.6         2.4         4.8         1.0         3.8         4.8         35.4           Guiatemala         6.5         0.4         4.0         0.2         1.2         19.1         31.4           Guinea Bissan         34.9         5.7         3.4         7.0         7.6         19.5         78.1           Guyana         10.5         0.6         12.5         0.9         4.7         29.2         288.4           Haiti         8.0         0.4         1.5         2.6         0.2         3.2         15.9           Honduras         15.0         0.7         0.9         0.7         3.6         11.6         32.5           Honduras         16.0         0.9         2.87         1.7         2.2         8.4         57.9           Iceland         7.2         3.3         5.5         6.0         0.8         8.2         252.2           India         18.0         7.3         8.8         14.0         6.6         21.6         76.3           Iria         19.5         2.6         5.7				_				
Greece         19.6         2.4         4.8         1.0         3.8         4.8         36.4           Guatemala         6.5         0.4         4.0         0.2         1.2         19.1         31.5         78.1           Guinea         34.9         5.7         3.4         7.0         7.6         19.5         78.1           Guinea-Bissau         34.9         4.3         3.0         6.6         6.8         41.0         96.6           Giwana         10.5         0.6         12.5         0.9         4.7         29.2         58.4           Haiti         8.0         0.4         1.5         2.6         0.2         3.2         15.9           Honduras         15.0         0.7         0.9         0.7         3.6         11.6         32.5           Hungary         16.0         0.9         2.8.7         1.7         2.2         8.4         5.9           Ideland         7.2         3.3         5.1         0.6         0.8         8.2         2.2           Idada         18.0         7.3         8.8         14.0         6.6         21.6         7.6           Infa         5.5         5.0         4								
Guaremal         6.5         0.4         4.0         0.2         1.2         19.1         31.4           Guinea         34.9         5.7         3.4         7.0         7.6         19.5         78.1           Guinea-Bissau         34.9         4.3         3.0         6.6         6.8         41.0         96.6           Guyana         10.5         0.6         12.5         0.9         4.7         29.2         58.4           Haiti         8.0         0.4         1.5         2.6         0.2         3.2         15.9           Honduras         15.0         0.7         0.9         0.7         3.6         11.6         32.5           Hongary         16.0         0.9         2.87         1.7         2.2         8.4         57.5           Iceland         7.2         3.3         5.1         0.6         0.8         8.2         25.2           India         18.0         7.3         8.8         14.0         0.6         21.6         7.6           India         18.0         7.3         8.8         14.0         0.6         21.6         27.5           India         18.2         2.6         5.7 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>								
Guinea         34.9         5.7         3.4         7.0         7.6         19.5         78.1           Guinea-Bissau         34.9         4.3         3.0         6.6         6.8         41.0         96.6           Guyana         10.5         0.6         12.5         0.9         4.7         29.2         58.4           Haiti         8.0         0.4         1.5         2.6         0.2         3.2         15.9           Hongary         16.0         0.9         2.8.7         1.7         2.2         8.4         57.9           Hungary         16.0         0.9         2.8.7         1.7         2.2         8.4         57.9           Iceland         7.2         3.3         5.1         0.6         0.8         8.2         25.7           India         18.0         7.3         8.8         14.0         6.6         21.6         7.5           India         18.0         7.3         8.8         14.0         6.6         21.6         7.6           India         18.0         7.3         8.4         6.5         19.2         9.8         18.1           Inda         5.9         2.6         5.7         8.6								
Guinea-Bissau         34.9         4.3         3.0         6.6         6.8         4.10         96.6           Guyana         10.5         0.6         12.5         0.9         4.7         29.2         58.4           Haifi         8.0         0.4         1.5         2.6         0.2         3.2         15.9           Honduras         15.0         0.7         0.9         0.7         3.6         11.6         32.5           Hungary         16.0         0.9         2.87         1.7         2.2         8.4         57.9           Iceland         7.2         3.3         5.1         0.6         0.8         8.2         25.2           Iceland         1.7         2.3         3.3         5.5         6.0         4.8         7.0         50.5           Iran         1.5         2.6         5.7         8.6         3.3         11.6         91.3           Iran         59.5         2.6         5.7         8.6         6.3         3.11.6         91.3           Iran         10.1         0.9         9.9         1.3         1.5         3.4         27.1           Iran         10.1         0.9         9.9 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
Guyana         10.5         0.6         12.5         0.9         4.7         29.2         58.4           Haiti         8.0         0.4         1.5         2.6         0.2         3.2         15.9           Honduras         15.0         0.7         0.9         0.7         3.6         11.6         32.5           Hungary         16.0         0.9         28.7         1.7         2.2         8.4         57.9           Iceland         7.2         3.3         5.5         6.0         0.8         8.2         25.7           India         18.0         7.3         8.8         14.0         6.6         21.6         76.3           Indonesia         23.9         3.3         5.5         6.0         4.8         70.9         50.3           Iran         59.5         2.6         5.7         8.6         3.3         11.6         91.3           Iran         59.5         2.6         5.7         8.6         3.3         11.6         91.3           Iran         59.5         2.6         5.7         8.6         3.3         11.6         91.3           Iran         6.6         6.4         1.5         9.8								
Haifi								
Hondars								
Hungary								
Iceland		16.0	0.9	28.7			8.4	
India		7.2	3.3	5.1	0.6	0.8	8.2	
Iran	India	18.0	7.3	8.8	14.0	6.6	21.6	76.3
Ireland	Indonesia	23.9	3.3	5.5	6.0	4.8	7.0	50.5
Ireland	Iran	59.5	2.6		8.6	3.3	11.6	91.3
Israel	Iraq	52.7	4.1	5.9	8.4	6.5	19.2	96.8
Italy	Ireland	10.1	0.9	9.9	1.3	1.5	3.4	27.1
Jamaica	Israel							
Japan	,			17.0				36.0
Jordan	Jamaica							
Kazakhstan         16.0         58.3         3.2         4.5         9.8         8.4         100.2           Kenya         22.4         2.7         2.1         4.8         4.5         15.8         52.3           Kuwait         15.5         0.6         1.8         1.1         0.8         4.1         23.9           Kyrgyzstan         12.5         13.3         4.1         1.3         9.1         14.3         54.6           Laos         22.2         5.9         9.0         13.7         11.7         21.2         83.7           Latvia         25.0         15.5         19.3         9.1         13.7         27.6         110.2           Lebanon         41.2         3.0         4.6         6.1         3.5         13.2         71.6           Lebanon         23.6         4.9         2.6         5.0         8.4         17.8         62.3           Liberia         48.1         7.7         4.3         10.6         11.9         28.5         111.1           Libya         17.6         1.7         2.2         3.1         2.4         9.1         36.1           Libya         17.6         1.7         2.2	Japan				1.2	4.6	12.5	
Kenya         22.4         2.7         2.1         4.8         4.5         15.8         52.3           Kuwait         15.5         0.6         1.8         1.1         0.8         4.1         23.9           Kyrgyzstan         12.5         13.3         4.1         1.3         9.1         14.3         54.6           Laos         22.2         5.9         9.0         13.7         11.7         21.2         83.7           Latvia         25.0         15.5         19.3         9.1         13.7         27.6         110.2           Lebanon         41.2         3.0         4.6         6.1         3.5         13.2         71.6           Lesotho         23.6         4.9         2.6         5.0         8.4         17.8         62.3           Liberia         48.1         7.7         4.3         10.6         11.9         28.5         111.1           Libya         17.6         1.7         2.2         3.1         2.4         9.1         36.1           Lithuania         20.4         19.3         14.3         5.0         13.2         24.6         96.8           Luxembourg         14.0         4.7         8.6 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
Kuwait         15.5         0.6         1.8         1.1         0.8         4.1         23.9           Kyrgyzstan         12.5         13.3         4.1         1.3         9.1         14.3         54.6           Laos         22.2         5.9         9.0         13.7         11.7         21.2         83.7           Latvia         25.0         15.5         19.3         9.1         13.7         27.6         110.2           Lebanon         41.2         3.0         4.6         6.1         3.5         13.2         71.6           Lesotho         23.6         4.9         2.6         5.0         8.4         17.8         62.3           Liberia         48.1         7.7         4.3         10.6         11.9         28.5         111.1           Libya         17.6         1.7         2.2         3.1         2.4         9.1         36.1           Lithuania         20.4         19.3         14.3         5.0         13.2         24.6         96.8           Luxembourg         14.0         4.7         8.6         0.9         0.6         14.7         43.5           Macedonia         5.4         0.8         3.								
Kyrgyzstan         12.5         13.3         4.1         1.3         9.1         14.3         54.6           Laos         22.2         5.9         9.0         13.7         11.7         21.2         83.7           Latvia         25.0         15.5         19.3         9.1         13.7         27.6         110.2           Lebanon         41.2         3.0         4.6         6.1         3.5         13.2         71.6           Lesotho         23.6         4.9         2.6         5.0         8.4         17.8         62.3           Liberia         48.1         7.7         4.3         10.6         11.9         28.5         111.1           Libya         17.6         1.7         2.2         3.1         2.4         9.1         36.1           Libya         17.6         1.7         2.2         3.1         2.4         9.1         36.1           Libya         17.6         1.7         2.2         3.1         2.4         9.1         36.1           Libuania         20.4         19.3         14.3         5.0         13.2         24.6         96.8           Luxembourg         14.0         4.7         3.1	Kenya			2.1	4.8	4.5	15.8	52.3
Latos         22.2         5.9         9.0         13.7         11.7         21.2         83.7           Latvia         25.0         15.5         19.3         9.1         13.7         27.6         110.2           Lebanon         41.2         3.0         4.6         6.1         3.5         13.2         71.6           Lesotho         23.6         4.9         2.6         5.0         8.4         17.8         62.3           Liberia         48.1         7.7         4.3         10.6         11.9         28.5         111.1           Liboya         17.6         1.7         2.2         3.1         2.4         9.1         36.1           Lithuania         20.4         19.3         14.3         5.0         13.2         24.6         96.8           Luxembourg         14.0         4.7         8.6         0.9         0.6         14.7         43.5           Macedonia         5.4         0.8         3.3         0.6         1.2         15.4         26.7           Madagascar         30.4         4.7         3.1         7.1         7.4         27.9         80.6           Malawi         27.3         1.0								
Latvia         25.0         15.5         19.3         9.1         13.7         27.6         110.2           Lebannon         41.2         3.0         4.6         6.1         3.5         13.2         71.6           Lesotho         23.6         4.9         2.6         5.0         8.4         17.8         62.3           Liberia         48.1         7.7         4.3         10.6         11.9         28.5         111.1           Libya         17.6         1.7         2.2         3.1         2.4         9.1         36.1           Lithuania         20.4         19.3         14.3         5.0         13.2         24.6         96.8           Luxembourg         14.0         4.7         8.6         0.9         0.6         14.7         43.5           Macedonia         5.4         0.8         3.3         0.6         1.2         15.4         26.7           Madagascar         30.4         4.7         3.1         7.1         7.4         27.9         80.6           Malawi         27.3         1.0         2.6         5.9         16.4         19.8         73.0           Malia         38.8         5.8         3								
Lebanon         41.2         3.0         4.6         6.1         3.5         13.2         71.6           Lesotho         23.6         4.9         2.6         5.0         8.4         17.8         62.3           Liberia         48.1         7.7         4.3         10.6         11.9         28.5         111.1           Libya         17.6         1.7         2.2         3.1         2.4         9.1         36.1           Lithuania         20.4         19.3         14.3         5.0         13.2         24.6         96.8           Luxembourg         14.0         4.7         8.6         0.9         0.6         14.7         43.5           Macadonia         5.4         0.8         3.3         0.6         1.2         15.4         26.7           Madagascar         30.4         4.7         3.1         7.1         7.4         27.9         80.6           Malawi         27.3         1.0         2.6         5.9         16.4         19.8         73.0           Malia         38.8         5.8         3.6         8.8         12.0         33.0         102.0           Mauritai         38.2         6.3         3.								
Lesotho         23.6         4.9         2.6         5.0         8.4         17.8         62.3           Liberia         48.1         7.7         4.3         10.6         11.9         28.5         111.1           Libya         17.6         1.7         2.2         3.1         2.4         9.1         36.1           Lithuania         20.4         19.3         14.3         5.0         13.2         24.6         96.8           Luxembourg         14.0         4.7         8.6         0.9         0.6         14.7         43.5           Macedonia         5.4         0.8         3.3         0.6         1.2         15.4         26.7           Madagascar         30.4         4.7         3.1         7.1         7.4         27.9         80.6           Malawi         27.3         1.0         2.6         5.9         16.4         19.8         73.0           Malia         38.8         5.8         3.6         8.8         12.0         33.0         102.0           Malta         4.4         1.7         10.6         0.3         2.2         3.0         22.2           Mauritius         15.0         0.2         2.4<								
Liberia         48.1         7.7         4.3         10.6         11.9         28.5         111.1           Libya         17.6         1.7         2.2         3.1         2.4         9.1         36.1           Lithuania         20.4         19.3         14.3         5.0         13.2         24.6         96.8           Luxembourg         14.0         4.7         8.6         0.9         0.6         14.7         43.5           Macedonia         5.4         0.8         3.3         0.6         1.2         15.4         26.7           Madagascar         30.4         4.7         3.1         7.1         7.4         27.9         80.6           Malawi         27.3         1.0         2.6         5.9         16.4         19.8         73.0           Malaysia         14.4         0.7         3.0         0.3         3.4         5.7         27.5           Malia         4.4         1.7         10.6         0.3         2.2         3.0         22.2           Mauritania         38.2         6.3         3.8         8.1         8.9         34.6         99.9           Mauritius         15.0         0.2         2								
Libya         17.6         1.7         2.2         3.1         2.4         9.1         36.1           Lithuania         20.4         19.3         14.3         5.0         13.2         24.6         96.8           Luxembourg         14.0         4.7         8.6         0.9         0.6         14.7         43.5           Macedonia         5.4         0.8         3.3         0.6         1.2         15.4         26.7           Madagascar         30.4         4.7         3.1         7.1         7.4         27.9         80.6           Malawi         27.3         1.0         2.6         5.9         16.4         19.8         73.0           Malawi         38.8         5.8         3.6         8.8         12.0         33.0         102.0           Malta         4.4         1.7         10.6         0.3         2.2         3.0         22.2           Mauritania         38.2         6.3         3.8         8.1         8.9         34.6         99.9           Mauritania         15.0         0.2         2.4         2.9         2.9         3.4         26.8           Mexico         12.0         0.9         2.3<								
Lithuania         20.4         19.3         14.3         5.0         13.2         24.6         96.8           Luxembourg         14.0         4.7         8.6         0.9         0.6         14.7         43.5           Macedonia         5.4         0.8         3.3         0.6         1.2         15.4         26.7           Madagascar         30.4         4.7         3.1         7.1         7.4         27.9         80.6           Malawi         27.3         1.0         2.6         5.9         16.4         19.8         73.0           Mali         38.8         5.8         3.6         8.8         12.0         33.0         102.0           Mali         4.4         1.7         10.6         0.3         2.2         3.0         22.2           Mauritius         15.0         0.2         2.4								
Luxembourg         14.0         4.7         8.6         0.9         0.6         14.7         43.5           Macedonia         5.4         0.8         3.3         0.6         1.2         15.4         26.7           Madagascar         30.4         4.7         3.1         7.1         7.4         27.9         80.6           Malawi         27.3         1.0         2.6         5.9         16.4         19.8         73.0           Malaysia         14.4         0.7         3.0         0.3         3.4         5.7         27.5           Mali         38.8         5.8         3.6         8.8         12.0         33.0         102.0           Malta         4.4         1.7         10.6         0.3         2.2         3.0         22.2           Mauritania         38.2         6.3         3.8         8.1         8.9         34.6         99.9           Mauritus         15.0         0.2         2.4         2.9         2.9         3.4         26.8           Mexico         12.0         0.9         2.3         0.6         2.7         18.6         37.1           Moldova         15.7         11.8         4.7								
Macedonia         5.4         0.8         3.3         0.6         1.2         15.4         26.7           Madagascar         30.4         4.7         3.1         7.1         7.4         27.9         80.6           Malawi         27.3         1.0         2.6         5.9         16.4         19.8         73.0           Malaysia         14.4         0.7         3.0         0.3         3.4         5.7         27.5           Mali         38.8         5.8         3.6         8.8         12.0         33.0         102.0           Malta         4.4         1.7         10.6         0.3         2.2         3.0         22.2           Mauritania         38.2         6.3         3.8         8.1         8.9         34.6         99.9           Mauritius         15.0         0.2         2.4         2.9         2.9         3.4         26.8           Mexico         12.0         0.9         2.3         0.6         2.7         18.6         37.1           Moldova         15.7         11.8         4.7         2.7         8.5         25.9         69.3           Mongolia         42.9         2.5         6.1				_				
Madagascar         30.4         4.7         3.1         7.1         7.4         27.9         80.6           Malawi         27.3         1.0         2.6         5.9         16.4         19.8         73.0           Malaysia         14.4         0.7         3.0         0.3         3.4         5.7         27.5           Mali         38.8         5.8         3.6         8.8         12.0         33.0         102.0           Malta         4.4         1.7         10.6         0.3         2.2         3.0         22.2           Mauritania         38.2         6.3         3.8         8.1         8.9         34.6         99.9           Mauritius         15.0         0.2         2.4         2.9         2.9         3.4         26.8           Mexico         12.0         0.9         2.3         0.6         2.7         18.6         37.1           Moldova         15.7         11.8         4.7         2.7         8.5         25.9         69.3           Mongolia         42.9         2.5         6.1         2.3         5.9         7.2         66.9           Morocco         19.0         1.9         2.4								
Malawi         27.3         1.0         2.6         5.9         16.4         19.8         73.0           Malaysia         14.4         0.7         3.0         0.3         3.4         5.7         27.5           Mali         38.8         5.8         3.6         8.8         12.0         33.0         102.0           Malta         4.4         1.7         10.6         0.3         2.2         3.0         22.2           Mauritania         38.2         6.3         3.8         8.1         8.9         34.6         99.9           Mauritania         15.0         0.2         2.4         2.9         2.9         3.4         26.8           Mexico         12.0         0.9         2.3         0.6         2.7         18.6         37.1           Moldova         15.7         11.8         4.7         2.7         8.5         25.9         69.9           Morocco         19.0         1.9         2.4         2.3         3.5         7.0         36.1           Mozambique         13.8         1.7         1.7         3.3         3.4         8.4         32.3           Myanmar         16.6         3.9         6.6								
Malaysia         14.4         0.7         3.0         0.3         3.4         5.7         27.5           Mali         38.8         5.8         3.6         8.8         12.0         33.0         102.0           Malta         4.4         1.7         10.6         0.3         2.2         3.0         22.2           Mauritania         38.2         6.3         3.8         8.1         8.9         34.6         99.9           Mauritius         15.0         0.2         2.4         2.9         2.9         3.4         26.8           Mexico         12.0         0.9         2.3         0.6         2.7         18.6         37.1           Moldova         15.7         11.8         4.7         2.7         8.5         25.9         69.3           Mongolia         42.9         2.5         6.1         2.3         5.9         7.2         66.9           Morocco         19.0         1.9         2.4         2.3         3.5         7.0         36.1           Mozambique         13.8         1.7         1.7         3.3         3.4         8.4         32.3           Myanmar         16.6         3.9         6.6								
Mali         38.8         5.8         3.6         8.8         12.0         33.0         102.0           Malta         4.4         1.7         10.6         0.3         2.2         3.0         22.2           Mauritania         38.2         6.3         3.8         8.1         8.9         34.6         99.9           Mauritius         15.0         0.2         2.4         2.9         2.9         3.4         26.8           Mexico         12.0         0.9         2.3         0.6         2.7         18.6         37.1           Moldova         15.7         11.8         4.7         2.7         8.5         25.9         69.3           Mongolia         42.9         2.5         6.1         2.3         5.9         7.2         66.9           Morocco         19.0         1.9         2.4         2.3         3.5         7.0         36.1           Mozambique         13.8         1.7         1.7         3.3         3.4         8.4         32.3           Myanmar         16.6         3.9         6.6         8.3         6.9         13.2         55.5           Namibia         22.9         0.9         2.2			1.0					73.0
Malta         4.4         1.7         10.6         0.3         2.2         3.0         22.2           Mauritania         38.2         6.3         3.8         8.1         8.9         34.6         99.9           Mauritius         15.0         0.2         2.4         2.9         2.9         3.4         26.8           Mexico         12.0         0.9         2.3         0.6         2.7         18.6         37.1           Moldova         15.7         11.8         4.7         2.7         8.5         25.9         69.3           Mongolia         42.9         2.5         6.1         2.3         5.9         7.2         66.9           Morocco         19.0         1.9         2.4         2.3         3.5         7.0         36.1           Mozambique         13.8         1.7         1.7         3.3         3.4         8.4         32.3           Myanmar         16.6         3.9         6.6         8.3         6.9         13.2         55.5           Namibia         22.9         0.9         2.2         4.5         2.9         8.8         42.2           Nepal         15.3         3.9         5.6								
Mauritania         38.2         6.3         3.8         8.1         8.9         34.6         99.9           Mauritius         15.0         0.2         2.4         2.9         2.9         3.4         26.8           Mexico         12.0         0.9         2.3         0.6         2.7         18.6         37.1           Moldova         15.7         11.8         4.7         2.7         8.5         25.9         69.3           Mongolia         42.9         2.5         6.1         2.3         5.9         7.2         66.9           Morocco         19.0         1.9         2.4         2.3         3.5         7.0         36.1           Mozambique         13.8         1.7         1.7         3.3         3.4         8.4         32.3           Myanmar         16.6         3.9         6.6         8.3         6.9         13.2         55.5           Namibia         22.9         0.9         2.2         4.5         2.9         8.8         42.2           Nepal         15.3         3.9         5.6         8.4         7.2         14.7         55.1           Netherlands         6.4         0.7         4.6								
Mauritius         15.0         0.2         2.4         2.9         2.9         3.4         26.8           Mexico         12.0         0.9         2.3         0.6         2.7         18.6         37.1           Moldova         15.7         11.8         4.7         2.7         8.5         25.9         69.3           Mongolia         42.9         2.5         6.1         2.3         5.9         7.2         66.9           Morocco         19.0         1.9         2.4         2.3         3.5         7.0         36.1           Mozambique         13.8         1.7         1.7         3.3         3.4         8.4         32.3           Myanmar         16.6         3.9         6.6         8.3         6.9         13.2         55.5           Namibia         22.9         0.9         2.2         4.5         2.9         8.8         42.2           Nepal         15.3         3.9         5.6         8.4         7.2         14.7         55.1           Netherlands         6.4         0.7         4.6         0.4         0.7         7.7         20.5           New Zealand         12.7         0.2         6.8								
Mexico         12.0         0.9         2.3         0.6         2.7         18.6         37.1           Moldova         15.7         11.8         4.7         2.7         8.5         25.9         69.3           Mongolia         42.9         2.5         6.1         2.3         5.9         7.2         66.9           Morocco         19.0         1.9         2.4         2.3         3.5         7.0         36.1           Mozambique         13.8         1.7         1.7         3.3         3.4         8.4         32.3           Myanmar         16.6         3.9         6.6         8.3         6.9         13.2         55.5           Namibia         22.9         0.9         2.2         4.5         2.9         8.8         42.2           Nepal         15.3         3.9         5.6         8.4         7.2         14.7         55.1           Netherlands         6.4         0.7         4.6         0.4         0.7         7.7         20.5           New Zealand         12.7         0.2         6.8         0.6         1.7         4.4         26.4           Niger         43.1         6.4         3.8								
Moldova         15.7         11.8         4.7         2.7         8.5         25.9         69.3           Mongolia         42.9         2.5         6.1         2.3         5.9         7.2         66.9           Morocco         19.0         1.9         2.4         2.3         3.5         7.0         36.1           Mozambique         13.8         1.7         1.7         3.3         3.4         8.4         32.3           Myanmar         16.6         3.9         6.6         8.3         6.9         13.2         55.5           Namibia         22.9         0.9         2.2         4.5         2.9         8.8         42.2           Nepal         15.3         3.9         5.6         8.4         7.2         14.7         55.1           Netherlands         6.4         0.7         4.6         0.4         0.7         7.7         20.5           New Zealand         12.7         0.2         6.8         0.6         1.7         4.4         26.4           Nicaragua         16.0         0.9         0.4         0.5         4.1         12.6         34.5           Nigeria         26.7         8.6         3.5								
Mongolia         42.9         2.5         6.1         2.3         5.9         7.2         66.9           Morocco         19.0         1.9         2.4         2.3         3.5         7.0         36.1           Mozambique         13.8         1.7         1.7         3.3         3.4         8.4         32.3           Myanmar         16.6         3.9         6.6         8.3         6.9         13.2         55.5           Namibia         22.9         0.9         2.2         4.5         2.9         8.8         42.2           Nepal         15.3         3.9         5.6         8.4         7.2         14.7         55.1           Netherlands         6.4         0.7         4.6         0.4         0.7         7.7         20.5           New Zealand         12.7         0.2         6.8         0.6         1.7         4.4         26.4           Nicaragua         16.0         0.9         0.4         0.5         4.1         12.6         34.5           Nigeria         26.7         8.6         3.5         8.0         16.7         17.1         80.6           Norway         7.3         1.3         20.9								
Morocco         19.0         1.9         2.4         2.3         3.5         7.0         36.1           Mozambique         13.8         1.7         1.7         3.3         3.4         8.4         32.3           Myanmar         16.6         3.9         6.6         8.3         6.9         13.2         55.5           Namibia         22.9         0.9         2.2         4.5         2.9         8.8         42.2           Nepal         15.3         3.9         5.6         8.4         7.2         14.7         55.1           Netherlands         6.4         0.7         4.6         0.4         0.7         7.7         20.5           New Zealand         12.7         0.2         6.8         0.6         1.7         4.4         26.4           Nicaragua         16.0         0.9         0.4         0.5         4.1         12.6         34.5           Niger         43.1         6.4         3.8         9.8         13.5         36.6         113.2           Norway         7.3         1.3         20.9         1.2         1.5         7.0         39.2           Oman         12.0         0.6         3.0								
Mozambique         13.8         1.7         1.7         3.3         3.4         8.4         32.3           Myanmar         16.6         3.9         6.6         8.3         6.9         13.2         55.5           Namibia         22.9         0.9         2.2         4.5         2.9         8.8         42.2           Nepal         15.3         3.9         5.6         8.4         7.2         14.7         55.1           Netherlands         6.4         0.7         4.6         0.4         0.7         7.7         20.5           New Zealand         12.7         0.2         6.8         0.6         1.7         4.4         26.4           Nicaragua         16.0         0.9         0.4         0.5         4.1         12.6         34.5           Niger         43.1         6.4         3.8         9.8         13.5         36.6         113.2           Norway         7.3         1.3         20.9         1.2         1.5         7.0         39.2           Oman         12.0         0.6         3.0         0.3         3.9         9.8         29.6           Pakistan         11.8         4.1         6.8				_				
Myanmar         16.6         3.9         6.6         8.3         6.9         13.2         55.5           Namibia         22.9         0.9         2.2         4.5         2.9         8.8         42.2           Nepal         15.3         3.9         5.6         8.4         7.2         14.7         55.1           Netherlands         6.4         0.7         4.6         0.4         0.7         7.7         20.5           New Zealand         12.7         0.2         6.8         0.6         1.7         4.4         26.4           Nicaragua         16.0         0.9         0.4         0.5         4.1         12.6         34.5           Niger         43.1         6.4         3.8         9.8         13.5         36.6         113.2           Nigeria         26.7         8.6         3.5         8.0         16.7         17.1         80.6           Norway         7.3         1.3         20.9         1.2         1.5         7.0         39.2           Oman         12.0         0.6         3.0         0.3         3.9         9.8         29.6           Pakistan         11.8         4.1         6.8								
Namibia         22.9         0.9         2.2         4.5         2.9         8.8         42.2           Nepal         15.3         3.9         5.6         8.4         7.2         14.7         55.1           Netherlands         6.4         0.7         4.6         0.4         0.7         7.7         20.5           New Zealand         12.7         0.2         6.8         0.6         1.7         4.4         26.4           Nicaragua         16.0         0.9         0.4         0.5         4.1         12.6         34.5           Niger         43.1         6.4         3.8         9.8         13.5         36.6         113.2           Nigeria         26.7         8.6         3.5         8.0         16.7         17.1         80.6           Norway         7.3         1.3         20.9         1.2         1.5         7.0         39.2           Oman         12.0         0.6         3.0         0.3         3.9         9.8         29.6           Pakistan         11.8         4.1         6.8         10.8         5.4         15.1         54.0           Panama         14.1         0.4         3.1								
Nepal         15.3         3.9         5.6         8.4         7.2         14.7         55.1           Netherlands         6.4         0.7         4.6         0.4         0.7         7.7         20.5           New Zealand         12.7         0.2         6.8         0.6         1.7         4.4         26.4           Nicaragua         16.0         0.9         0.4         0.5         4.1         12.6         34.5           Niger         43.1         6.4         3.8         9.8         13.5         36.6         113.2           Nigeria         26.7         8.6         3.5         8.0         16.7         17.1         80.6           Norway         7.3         1.3         20.9         1.2         1.5         7.0         39.2           Oman         12.0         0.6         3.0         0.3         3.9         9.8         29.6           Pakistan         11.8         4.1         6.8         10.8         5.4         15.1         54.0           Panama         14.1         0.4         3.1         0.6         5.0         7.2         30.4								
Netherlands         6.4         0.7         4.6         0.4         0.7         7.7         20.5           New Zealand         12.7         0.2         6.8         0.6         1.7         4.4         26.4           Nicaragua         16.0         0.9         0.4         0.5         4.1         12.6         34.5           Niger         43.1         6.4         3.8         9.8         13.5         36.6         113.2           Nigeria         26.7         8.6         3.5         8.0         16.7         17.1         80.6           Norway         7.3         1.3         20.9         1.2         1.5         7.0         39.2           Oman         12.0         0.6         3.0         0.3         3.9         9.8         29.6           Pakistan         11.8         4.1         6.8         10.8         5.4         15.1         54.0           Panama         14.1         0.4         3.1         0.6         5.0         7.2         30.4								
New Zealand         12.7         0.2         6.8         0.6         1.7         4.4         26.4           Nicaragua         16.0         0.9         0.4         0.5         4.1         12.6         34.5           Niger         43.1         6.4         3.8         9.8         13.5         36.6         113.2           Nigeria         26.7         8.6         3.5         8.0         16.7         17.1         80.6           Norway         7.3         1.3         20.9         1.2         1.5         7.0         39.2           Oman         12.0         0.6         3.0         0.3         3.9         9.8         29.6           Pakistan         11.8         4.1         6.8         10.8         5.4         15.1         54.0           Panama         14.1         0.4         3.1         0.6         5.0         7.2         30.4				_				
Nicaragua         16.0         0.9         0.4         0.5         4.1         12.6         34.5           Niger         43.1         6.4         3.8         9.8         13.5         36.6         113.2           Nigeria         26.7         8.6         3.5         8.0         16.7         17.1         80.6           Norway         7.3         1.3         20.9         1.2         1.5         7.0         39.2           Oman         12.0         0.6         3.0         0.3         3.9         9.8         29.6           Pakistan         11.8         4.1         6.8         10.8         5.4         15.1         54.0           Panama         14.1         0.4         3.1         0.6         5.0         7.2         30.4								
Niger         43.1         6.4         3.8         9.8         13.5         36.6         113.2           Nigeria         26.7         8.6         3.5         8.0         16.7         17.1         80.6           Norway         7.3         1.3         20.9         1.2         1.5         7.0         39.2           Oman         12.0         0.6         3.0         0.3         3.9         9.8         29.6           Pakistan         11.8         4.1         6.8         10.8         5.4         15.1         54.0           Panama         14.1         0.4         3.1         0.6         5.0         7.2         30.4								
Nigeria         26.7         8.6         3.5         8.0         16.7         17.1         80.6           Norway         7.3         1.3         20.9         1.2         1.5         7.0         39.2           Oman         12.0         0.6         3.0         0.3         3.9         9.8         29.6           Pakistan         11.8         4.1         6.8         10.8         5.4         15.1         54.0           Panama         14.1         0.4         3.1         0.6         5.0         7.2         30.4								
Norway         7.3         1.3         20.9         1.2         1.5         7.0         39.2           Oman         12.0         0.6         3.0         0.3         3.9         9.8         29.6           Pakistan         11.8         4.1         6.8         10.8         5.4         15.1         54.0           Panama         14.1         0.4         3.1         0.6         5.0         7.2         30.4								
Oman         12.0         0.6         3.0         0.3         3.9         9.8         29.6           Pakistan         11.8         4.1         6.8         10.8         5.4         15.1         54.0           Panama         14.1         0.4         3.1         0.6         5.0         7.2         30.4								
Pakistan         11.8         4.1         6.8         10.8         5.4         15.1         54.0           Panama         14.1         0.4         3.1         0.6         5.0         7.2         30.4	_							
Panama 14.1 0.4 3.1 0.6 5.0 7.2 30.4				_				

Peru	15.5	0.7	0.5	1.1	5.0	32.0	54.8
Philippines	10.0	0.4	2.3	0.2	4.6	4.6	22.1
PNG	15.3	3.5	4.9	7.9	7.3	14.2	53.1
Poland	15.6	4.2	10.0	1.1	2.9	8.8	42.6
Portugal	17.1	0.6	6.3	1.2	0.4	6.7	32.3
Qatar	21.4	0.0	1.3	0.0	2.3	2.5	27.5
Romania	12.4	5.3	6.7	2.1	5.4	14.2	46.1
Russia	30.9	46.5	11.1	9.4	12.5	48.4	158.8
Rwanda	29.9	1.2	2.5	6.1	13.9	16.2	69.8
Saudi Arabia	24.0	1.3	5.5	0.6	6.7	19.5	57.6
Senegal	31.1	5.4	2.9	7.1	7.6	27.3	81.4
Sierra Leone	64.3	11.3	5.6	11.6	15.1	39.9	147.8
Singapore	5.3	0.1	3.7	0.2	0.4	0.9	10.6
Slovakia	1.1	2.9	8.6	0.6	3.2	23.1	39.5
Slovenia	14.2	1.9	17.8	0.8	1.5	9.4	45.6
Somalia	38.4	2.1	3.5	8.7	8.7	18.3	79.7
South Africa	30.3	1.2	2.8	4.8	3.1	10.8	53.0
South Korea	22.4	1.0	7.0	1.5	3.2	12.0	47.1
Spain	15.8	1.6	3.5	0.5	1.4	7.0	29.8
Sri Lanka	8.6	1.1	3.6	1.5	4.7	16.2	35.7
Sudan	30.8	1.9	2.9	5.7	6.1	13.3	60.7
Suriname	22.1	0.0	6.6	1.5	10.5	12.5	53.2
Swaziland	22.5	3.5	1.9	6.3	8.0	18.2	60.4
Sweden	6.3	2.6	5.8	1.1	1.3	15.6	32.7
Switzerland	6.0	0.2	12.7	0.4	0.9	5.9	26.1
Syria	13.1	1.0	0.8	3.4	1.8	14.8	34.9
Tajikistan	4.1	3.0	1.0	1.3	4.5	17.9	31.8
Tanzania	27.9	6.0	2.3	5.4	9.6	16.1	67.3
Thailand	30.1	0.7	3.8	0.6	5.0	11.9	52.1
Togo	31.8	5.1	3.2	7.3	7.7	28.9	84.0
Trinidad &Tobago	12.6	0.3	3.5	0.7	4.7	4.2	26.0
Tunisia	31.3	2.5	3.6	4.3	3.1	10.3	55.1
Turkey	8.9	0.8	1.5	0.9	1.0	15.9	29.0
Turkmenistan	9.4	3.3	1.6	8.2	7.4	14.9	44.8
UAE	50.6	0.5	4.0	1.0	5.7	0.2	62.0
Uganda	27.5	9.5	2.4	6.3	7.3	13.8	66.8
Ukraine	12.8	33.9	6.4	4.5	10.4	31.5	99.5
UK	6.5	2.0	9.6	0.8	0.4	4.2	23.5
Uruguay	10.5	1.0	0.8	1.4	3.7	20.3	37.7
USA	15.5	4.6	5.0	1.3	1.3	8.9	36.6
Uzbekistan	8.5	2.3	1.2	1.7	4.4	13.1	31.2
Venezuela	27.3	0.4	3.3	0.4	2.6	6.6	40.6
Viet Nam	15.4	3.2	6.0	4.2	5.2	11.0	45.0
Yemen	39.1	3.7	4.9	5.3	8.4	15.4	76.8
Zambia	13.3	2.4	1.6	3.2	5.2	10.1	35.8
Zimbabwe	15.2	3.4	2.0	2.9	5.8	6.5	35.8

Source: WHO (2004; all forms of Violent Death, expected suicide).

Cont. B.7 Violent Deaths in 2004, per 100,000 population

Country	Self- Inflicted	Violence	War	Malnutrition	Subtotal	Total
Afghanistan	6.5	4.0	25.7	45.4	81.6	161.0
Albania	2.6	6.0	0.1	1.8	10.5	63.9
Algeria	2.9	12.0	16.1	3.2	34.2	75.3
Angola	8.1	39.6	12.5	69.4	129.6	260.3
Argentina	10.2	8.8	0.0	4.9	23.9	57.7
Armenia	3.4	3.7	0.2	0.8	8.1	40.5
Australia	11.3	1.5	0.0	1.2	14.0	41.9
Austria	18.2	0.9	0.0	0.1	19.2	50.1
Azerbaijan	4.4	2.9	0.1	4.1	11.5	31.5
Bahrain	4.4	1.1	0.0	0.7	6.2	34.1
Bangladesh	12.2	7.4	0.1	9.8	29.5	85.5
Barbados	4.2	8.5	0.0	3.6	16.3	35.7
Belarus	38.2	13.0	0.0	0.4	51.6	172.0
Belgium	20.9	1.7	0.0	1.8	24.4	57.6
Belize	2.3	12.0	0.0	18.9	33.2	84.7
Benin	4.3	10.0	0.0	26.0	40.3	123.0
Bhutan	13.5	4.4	0.0	14.6	32.5	98.7
Bolivia	2.0	4.0	0.0	19.7	25.7	89.6
Bosnia & Herzegovina	13.9	2.0	1.1	0.7	17.7	46.1
Botswana	5.0	6.2	0.0	3.0	14.2	60.1
Brazil	5.0	32.6	0.0	8.9	46.5	86.6
Bulgaria	16.9	3.0	0.0	1.1	21.0	51.8
Burkina Faso	5.2	13.1	0.0	36.5	54.8	160.2
Burundi	6.9	18.0	124.6	15.8	165.3	228.9
Cambodia	4.2	17.1	1.1	24.6	47.0	87.2
Cameroon	4.7	10.8	0.0	13.6	29.1	114.5
Canada	11.8	1.5	0.0	1.7	15.0	42.8
Cape Verde	3.3	2.2	0.0	7.5	13.0	43.0
CAR	9.4	23.5	12.2	14.4	59.5	138.7
Chad	4.8	11.6	1.4	26.6	44.4	136.3
Chile	11.2	5.5	0.0	3.8	20.5	52.7
China	20.9	3.0	0.0	0.6	24.5	76.9
Colombia	6.1	72.4	19.0	7.1	104.6	140.9
Congo	6.3	16.2	35.6	6.2	64.3	119.2
Congo D. Rep.	4.8	21.3	86.0	20.3	132.4	225.6
Costa Rica	7.7	6.5	0.0	0.8	15.0	50.6
Côte d´Ivoire	10.9	27.4	23.5	11.6	73.4	158.8
Croatia	19.9	1.9	0.2	0.2	22.2	60.8
Cuba	15.2	5.3	0.0	0.7	21.2	62.9
Cyprus	0.7	0.2	0.0	3.4	4.3	38.4
Czech Republic	16.2	1.3	0.0	0.2	17.7	63.9
Denmark	13.4	1.0	0.0	4.2	18.6	65.5
Djibouti	4.9	3.5	0.2	9.8	18.4	90.1
Dominican Republic	2.9	10.2	0.0	11.7	24.8	61.3
Ecuador	5.9	23.1	0.0	10.9	39.9	89.2
Egypt	1.5	1.2	0.0	4.1	6.8	33.9
El Salvador	8.7	38.4	0.2	11.3	58.6	99.4
Equatorial Guinea	5.2	13.0	0.0	21.8	40.0	146.7
Eritrea	5.9	7.6	28.7	9.0	51.2	111.0
Estonia	28.7	15.4	0.2	0.5	44.8	168.5
Ethiopia	3.5	20.5	0.4	31.0	55.4	117.3
Finland	23.4	3.2	0.0	0.4	27.0	79.4
France	15.9	0.7	0.0	4.5	21.1	73.3
Gabon	4.5	9.3	0.0	8.2	22.0	93.3
Gambia	4.5	10.0	0.0	19.6	34.1	113.7
Georgia	3.3	3.8	0.9	0.2	8.2	28.9

Schman	Germany	13.9	0.7	0.0	0.9	15.5	39.9
Greece         3.5         1.2         0.1         0.2         5.0         41.4           Guatemala         2.3         37.1         0.0         16.9         56.3         87.7           Guinea         5.1         23.8         11.7         19.3         59.9         138.0           Guinea-Bissau         4.7         12.1         0.4         42.2         59.4         156.0           Giurana         20.4         9.9         0.0         26.6         56.9         115.3           Haiti         0.7         10.2         0.0         61.9         72.8         88.7           Honduras         8.1         13.4         0.0         18.5         40.0         72.5           Hungary         28.2         2.4         0.0         0.3         30.9         88.8           Iceland         11.8         0.6         0.0         0.6         13.0         38.2           India         17.4         5.5         0.5         12.3         35.7         12.2           Inda         8.2         3.8         0.1         3.9         16.0         10.7           Ira         6.9         2.9         7.6         24.4         41.8 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
Guatemala         2.3         37.1         0.0         16.9         56.3         87.7           Guinea         5.1         23.8         11.7         19.3         59.9         138.0           Guinea-Bissau         4.7         12.1         0.4         42.2         59.4         156.0           Guvana         20.4         9.9         0.0         26.6         56.9         115.3           Haiti         0.7         10.2         0.0         61.9         72.8         88.7           Hondurs         8.1         13.4         0.0         18.5         40.0         72.5           Hondurs         8.1         13.4         0.0         0.3         30.9         88.8           Iceland         11.8         0.6         0.0         0.6         13.0         38.2           India         17.4         5.5         0.5         12.3         35.7         112.0           Indonesia         11.3         9.4         3.8         10.1         34.6         85.1           Iraa         8.2         3.8         0.1         3.9         16.0         107.3           Iraa         6.9         2.9         7.6         24.4 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>							
Guinea         5.1         23.8         11.7         19.3         59.9         138.0           Guinea-Bissau         4.7         12.1         0.4         42.2         59.4         156.0           Guvana         20.4         9.9         0.0         26.6         56.9         115.3           Haiti         0.7         10.2         0.0         61.9         72.8         88.7           Honduras         8.1         13.4         0.0         18.5         40.0         72.5           Hungary         28.2         2.4         0.0         0.3         30.9         88.8           Iceland         11.8         0.6         0.0         0.6         13.0         38.2           India         17.4         5.5         0.5         12.3         35.7         112.0           India         17.4         5.5         0.5         12.3         35.7         112.0           India         17.2         2.5         0.5         11.3         34.6         85.1           Iran         8.2         3.8         0.1         3.9         16.0         10.2           India         11.5         9.0         2.4         41.8         13.6							
Guinea-Bissau         4,7         12,1         0,4         42,2         59,4         156,0           Guvana         20,4         9,9         0,0         26,6         56,9         115,3           Haiti         0,7         10,2         0,0         61,9         72,8         88,7           Honduras         8.1         13,4         0,0         18,5         40,0         72,5           Hungary         28,2         2,4         0,0         0,3         30,9         88,8           Iceland         11,8         0,6         0,0         0,6         13,0         38,2           India         17,4         5,5         0,5         12,3         35,7         112,0           Indonesia         11,3         9,4         3,8         10,1         34,6         85,7           Iraa         8,2         3,8         0,1         3,9         16,0         107,3           Iraa         6,9         2,9         7,6         24,4         41,8         138,6           Iraa         11,7         1,0         0,0         1,2         13,9         41,0           Israel         4,8         0,7         6,6         1,6         1,6 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
Guvana         20.4         9.9         0.0         26.6         56.9         115.3           Haiti         0.7         10.2         0.0         61.9         72.8         88.7           Honduras         8.1         13.4         0.0         18.5         40.0         72.8         88.7           Hungary         28.2         2.4         0.0         0.3         30.9         88.8           Iceland         11.8         0.6         0.0         0.6         13.0         38.2           India         17.4         5.5         0.5         12.3         35.7         112.0           Indonesia         11.3         9.4         3.8         10.1         34.6         85.1           Iran         8.2         3.8         0.1         3.9         16.0         107.3           Iran         6.6         9.29         7.6         24.4         41.8         138.6           Iran         6.9         2.9         7.6         24.4         41.8         138.6           Iran         1.1         1.0         0.0         1.2         13.9         41.0           Iran         6.8         1.1         1.0         0.2         <							
Haiti							
Honduras							
Hungary							
Iceland							
India							
Indonesia							
Iran         8.2         3.8         0.1         3.9         16.0         107.3           Iraq         6.9         2.9         7.6         24.4         41.8         138.6           Ireland         11.7         1.0         0.0         1.2         13.9         41.0           Israel         4.8         0.7         6.6         1.6         13.7         33.5           Iraly         6.8         1.1         0.0         2.0         9.9         45.9           Jamaica         0.1         0.5         0.0         11.0         11.6         21.6           Japan         24.6         0.6         0.0         1.8         27.0         59.5           Jordan         17.2         2.9         0.1         1.8         27.0         59.5           Kazakhstan         37.1         19.7         0.0         1.6         58.4         158.6           Kenya         5.9         14.9         3.8         8.0         32.6         84.9           Kyrgvystan         14.8         8.9         0.0         0.9         24.6         79.2           Laos         21.2         5.7         1.0         36.0         63.9 <t< td=""><td></td><td>11.3</td><td>9.4</td><td>3.8</td><td>10.1</td><td>34.6</td><td></td></t<>		11.3	9.4	3.8	10.1	34.6	
Ireland		8.2	3.8	0.1	3.9	16.0	107.3
Israel	Iraq	6.9	2.9	7.6	24.4	41.8	138.6
Italy	Ireland	11.7	1.0	0.0	1.2	13.9	41.0
Jamaica         0.1         0.5         0.0         11.0         11.6         21.6           Japan         24.6         0.6         0.0         1.8         27.0         59.5           Jordan         17.2         2.9         0.1         1.8         22.0         73.1           Kazakhstan         37.1         19.7         0.0         1.6         58.4         158.6           Kenva         5.9         14.9         3.8         8.0         32.6         84.9           Kuwait         1.8         1.4         1.1         31.1         35.4         59.3           Kyrgyzstan         14.8         8.9         0.0         0.9         24.6         79.2           Laos         21.2         5.7         1.0         36.0         63.9         147.6           Latvia         30.5         12.6         0.1         0.6         43.8         154.0           Lebanon         6.1         2.6         5.8         2.4         16.9         88.5           Lebotho         6.6         7.5         0.0         11.5         25.6         87.9           Libra         3.9         2.5         0.0         13.7         7.4	Israel	4.8	0.7	6.6	1.6	13.7	33.5
Japan         24.6         0.6         0.0         1.8         27.0         59.5           Jordan         17.2         2.9         0.1         1.8         22.0         73.1           Kazakhstan         37.1         19.7         0.0         1.6         58.4         158.6           Kenva         5.9         14.9         3.8         8.0         32.6         84.9           Kuwait         1.8         1.4         1.1         31.1         35.4         59.3           Kuyayzstan         14.8         8.9         0.0         0.9         24.6         79.2           Laos         21.2         5.7         1.0         36.0         63.9         147.6           Latvia         30.5         12.6         0.1         0.6         43.8         154.0           Lebanon         6.1         2.6         5.8         2.4         16.9         88.5           Lesotho         6.6         7.5         0.0         11.5         25.6         87.9           Libuai         3.9         2.5         0.0         1.3         7.7         43.8           Libuai         45.5         10.7         0.0         0.3         56.5	Italy	6.8	1.1	0.0	2.0	9.9	45.9
Jordan	Jamaica	0.1	0.5	0.0	11.0	11.6	21.6
Kazakhstan         37.1         19.7         0.0         1.6         58.4         158.6           Kenya         5.9         14.9         3.8         8.0         32.6         84.9           Kuwait         1.8         1.4         1.1         31.1         35.4         59.3           Kyrgyzstan         14.8         8.9         0.0         0.9         24.6         79.2           Laos         21.2         5.7         1.0         36.0         63.9         147.6           Latvia         30.5         12.6         0.1         0.6         43.8         154.0           Lebanon         6.1         2.6         5.8         2.4         16.9         88.5           Lesotho         6.6         7.5         0.0         11.5         25.6         87.9           Liberia         6.7         32.8         59.6         62.1         161.2         272.3           Libva         3.9         2.5         0.0         1.3         7.7         43.8           Lithuania         45.5         10.7         0.0         0.3         56.5         153.3           Lusembourg         16.2         1.7         0.0         0.9 <th< td=""><td>Japan</td><td>24.6</td><td>0.6</td><td></td><td></td><td></td><td>59.5</td></th<>	Japan	24.6	0.6				59.5
Kenva         5.9         14.9         3.8         8.0         32.6         84.9           Kuwait         1.8         1.4         1.1         31.1         35.4         59.3           Kyreyzstan         14.8         8.9         0.0         0.9         24.6         79.2           Laos         21.2         5.7         1.0         36.0         63.9         147.6           Latvia         30.5         12.6         0.1         0.6         43.8         154.0           Lebanon         6.1         2.6         5.8         2.4         16.9         88.5           Lesotho         6.6         7.5         0.0         11.5         25.6         87.9           Liberia         6.7         32.8         59.6         62.1         161.2         272.3           Libya         3.9         2.5         0.0         1.3         7.7         43.8           Lithuania         45.5         10.7         0.0         0.3         56.5         153.3           Luxembourg         16.2         1.7         0.0         0.9         18.8         62.3           Macadagascar         4.3         9.9         0.0         34.1 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>							
Kuwait         1.8         1.4         1.1         31.1         35.4         59.3           Kyrgyzstan         14.8         8.9         0.0         0.9         24.6         79.2           Laos         21.2         5.7         1.0         36.0         63.9         147.6           Latvia         30.5         12.6         0.1         0.6         43.8         154.0           Lebanon         6.1         2.6         5.8         2.4         16.9         88.5           Lesotho         6.6         7.5         0.0         11.5         25.6         87.9           Liberia         6.7         32.8         59.6         62.1         161.2         272.3           Libva         3.9         2.5         0.0         1.3         7.7         43.8           Lithuania         45.5         10.7         0.0         0.3         56.5         153.3           Liwembourg         16.2         1.7         0.0         0.9         18.8         62.3           Macedonia         7.4         3.0         39.3         0.3         50.0         76.7           Madagascar         4.3         9.9         0.0         34.1         <	Kazakhstan	37.1	19.7	0.0	1.6	58.4	158.6
Kyrgyzstan         14.8         8.9         0.0         0.9         24.6         79.2           Laos         21.2         5.7         1.0         36.0         63.9         147.6           Latvia         30.5         12.6         0.1         0.6         43.8         154.0           Lebanon         6.1         2.6         5.8         2.4         16.9         88.5           Lesotho         6.6         7.5         0.0         11.5         25.6         87.9           Liberia         6.7         32.8         59.6         62.1         161.2         272.3           Libva         3.9         2.5         0.0         1.3         7.7         43.8           Lithuania         45.5         10.7         0.0         0.3         56.5         153.3           Luxembourg         16.2         1.7         0.0         0.9         18.8         62.3           Macagascar         4.3         9.9         0.0         22.1         36.3         116.9           Malawi         7.0         8.9         0.0         34.1         50.0         123.0           Malawisia         6.6         8.7         0.0         3.8	Kenya	5.9	14.9	3.8	8.0	32.6	84.9
Laos         21.2         5.7         1.0         36.0         63.9         147.6           Latvia         30.5         12.6         0.1         0.6         43.8         154.0           Lebanon         6.1         2.6         5.8         2.4         16.9         88.5           Lesotho         6.6         7.5         0.0         11.5         25.6         87.9           Liberia         6.7         32.8         59.6         62.1         161.2         272.3           Libva         3.9         2.5         0.0         1.3         7.7         43.8           Libuania         45.5         10.7         0.0         0.3         56.5         153.3           Luxembourg         16.2         1.7         0.0         0.9         18.8         62.3           Macedonia         7.4         3.0         39.3         0.3         50.0         76.7           Madagascar         4.3         9.9         0.0         22.1         36.3         116.9           Malawi         7.0         8.9         0.0         34.1         50.0         123.0           Malaysia         6.6         8.7         0.0         33.4 <t< td=""><td>Kuwait</td><td></td><td>1.4</td><td>1.1</td><td></td><td></td><td></td></t<>	Kuwait		1.4	1.1			
Latvia         30.5         12.6         0.1         0.6         43.8         154.0           Lebanon         6.1         2.6         5.8         2.4         16.9         88.5           Lesotho         6.6         7.5         0.0         11.5         25.6         87.9           Liberia         6.7         32.8         59.6         62.1         161.2         272.3           Libya         3.9         2.5         0.0         1.3         7.7         43.8           Lithuania         45.5         10.7         0.0         0.3         56.5         153.3           Luxembourg         16.2         1.7         0.0         0.9         18.8         62.3           Macedonia         7.4         3.0         39.3         0.3         50.0         76.7           Madagascar         4.3         9.9         0.0         22.1         36.3         116.9           Malawi         7.0         8.9         0.0         34.1         50.0         123.0           Malaysia         6.6         8.7         0.0         3.8         19.1         46.6           Mali         5.1         12.7         0.0         0.3	Kyrgyzstan						79.2
Lebanon         6.1         2.6         5.8         2.4         16.9         88.5           Lesotho         6.6         7.5         0.0         11.5         25.6         87.9           Liberia         6.7         32.8         59.6         62.1         161.2         272.3           Libya         3.9         2.5         0.0         1.3         7.7         43.8           Lithuania         45.5         10.7         0.0         0.3         56.5         153.3           Luxembourg         16.2         1.7         0.0         0.9         18.8         62.3           Macadonia         7.4         3.0         39.3         0.3         50.0         76.7           Madagascar         4.3         9.9         0.0         22.1         36.3         116.9           Malawi         7.0         8.9         0.0         38.1         19.1         46.6           Mali         5.1         12.7         0.0         83.4         101.2         203.2           Malatia         6.3         1.5         0.0         0.3         8.1         30.3           Mauritania         5.5         12.8         0.1         9.5 <t< td=""><td>Laos</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	Laos						
Lesotho         6.6         7.5         0.0         11.5         25.6         87.9           Liberia         6.7         32.8         59.6         62.1         161.2         272.3           Libva         3.9         2.5         0.0         1.3         7.7         43.8           Lithuania         45.5         10.7         0.0         0.9         18.8         62.3           Luxembourg         16.2         1.7         0.0         0.9         18.8         62.3           Macedonia         7.4         3.0         39.3         0.3         50.0         76.7           Madagascar         4.3         9.9         0.0         22.1         36.3         116.9           Malawi         7.0         8.9         0.0         34.1         50.0         123.0           Malawi         5.1         12.7         0.0         83.4         101.2         203.2           Malia         5.1         12.7         0.0         83.4         101.2         203.2           Mauritinia         5.5         12.8         0.1         9.5         27.9         127.8           Mauritinis         11.9         2.6         0.0         2.0							
Liberia         6.7         32.8         59.6         62.1         161.2         272.3           Libva         3.9         2.5         0.0         1.3         7.7         43.8           Lithuania         45.5         10.7         0.0         0.3         56.5         153.3           Luxembourg         16.2         1.7         0.0         0.9         18.8         62.3           Macedonia         7.4         3.0         39.3         0.3         50.0         76.7           Madagascar         4.3         9.9         0.0         22.1         36.3         116.9           Malawi         7.0         8.9         0.0         34.1         50.0         123.0           Malawi         7.0         8.9         0.0         34.1         50.0         123.0           Malia         5.1         12.7         0.0         83.4         101.2         203.2           Malita         6.3         1.5         0.0         0.3         8.1         30.3           Mauritania         5.5         12.8         0.1         9.5         27.9         127.8           Mauritus         11.9         2.6         0.0         2.0							
Libya         3.9         2.5         0.0         1.3         7.7         43.8           Lithuania         45.5         10.7         0.0         0.3         56.5         153.3           Luxembourg         16.2         1.7         0.0         0.9         18.8         62.3           Macedonia         7.4         3.0         39.3         0.3         50.0         76.7           Madagascar         4.3         9.9         0.0         22.1         36.3         116.9           Malawi         7.0         8.9         0.0         34.1         50.0         123.0           Malawi         7.0         8.9         0.0         34.1         50.0         123.0           Malawi         5.1         12.7         0.0         83.4         101.2         203.2           Malta         6.3         1.5         0.0         0.3         8.1         30.2           Mauritania         5.5         12.8         0.1         9.5         27.9         127.8           Mauritius         11.9         2.6         0.0         2.0         16.5         43.3           Mexico         3.9         10.2         0.0         12.0         <							
Lithuania         45.5         10.7         0.0         0.3         56.5         153.3           Luxembourg         16.2         1.7         0.0         0.9         18.8         62.3           Macedonia         7.4         3.0         39.3         0.3         50.0         76.7           Madagascar         4.3         9.9         0.0         22.1         36.3         116.9           Malawi         7.0         8.9         0.0         34.1         50.0         123.0           Malaysia         6.6         8.7         0.0         3.8         19.1         46.6           Mali         5.1         12.7         0.0         83.4         101.2         203.2           Malta         6.3         1.5         0.0         0.3         8.1         30.3           Mauritiania         5.5         12.8         0.1         9.5         27.9         127.8           Mauritiania         11.9         2.6         0.0         2.0         16.5         43.3           Mexico         3.9         10.2         0.0         12.0         26.1         63.2           Moldova         18.3         12.3         3.5         0.0							
Luxembourg         16.2         1.7         0.0         0.9         18.8         62.3           Macedonia         7.4         3.0         39.3         0.3         50.0         76.7           Madagascar         4.3         9.9         0.0         22.1         36.3         116.9           Malawi         7.0         8.9         0.0         34.1         50.0         123.0           Malawi         6.6         8.7         0.0         3.8         19.1         46.6           Malia         5.1         12.7         0.0         83.4         101.2         203.2           Malta         6.3         1.5         0.0         0.3         8.1         30.3           Mauritania         5.5         12.8         0.1         9.5         27.9         127.8           Mauritus         11.9         2.6         0.0         2.0         16.5         43.3           Mexico         3.9         10.2         0.0         12.0         26.1         63.2           Moldova         18.3         12.3         0.0         0.2         30.8         100.1           Moragolia         12.3         3.5         0.0         0.6         <							
Macedonia         7.4         3.0         39.3         0.3         50.0         76.7           Madagascar         4.3         9.9         0.0         22.1         36.3         116.9           Malawi         7.0         8.9         0.0         34.1         50.0         123.0           Malaysia         6.6         8.7         0.0         3.8         19.1         46.6           Mali         5.1         12.7         0.0         83.4         101.2         203.2           Malta         6.3         1.5         0.0         0.3         8.1         30.3           Mauritania         5.5         12.8         0.1         9.5         27.9         127.8           Mauritius         11.9         2.6         0.0         2.0         16.5         43.3           Mexico         3.9         10.2         0.0         12.0         26.1         63.2           Moldova         18.3         12.3         0.0         0.2         30.8         100.1           Morambique         3.6         8.8         5.2         29.3         46.9         79.2           Myanmar         10.6         16.7         8.8         20.1							
Madagascar         4.3         9.9         0.0         22.1         36.3         116.9           Malawi         7.0         8.9         0.0         34.1         50.0         123.0           Malaysia         6.6         8.7         0.0         3.8         19.1         46.6           Mali         5.1         12.7         0.0         83.4         101.2         203.2           Malta         6.3         1.5         0.0         0.3         8.1         30.3           Mauritania         5.5         12.8         0.1         9.5         27.9         127.8           Mauritius         11.9         2.6         0.0         2.0         16.5         43.3           Mexico         3.9         10.2         0.0         2.0         16.5         43.3           Mexico         3.9         10.2         0.0         12.0         26.1         63.2           Moldova         18.3         12.3         0.0         0.2         30.8         100.1           Mongolia         12.3         3.5         0.0         0.6         16.4         83.3           Morocco         2.3         1.1         0.0         1.7         5.1							
Malawi         7.0         8.9         0.0         34.1         50.0         123.0           Malaysia         6.6         8.7         0.0         3.8         19.1         46.6           Mali         5.1         12.7         0.0         83.4         101.2         203.2           Malta         6.3         1.5         0.0         0.3         8.1         30.3           Mauritania         5.5         12.8         0.1         9.5         27.9         127.8           Mauritius         11.9         2.6         0.0         2.0         16.5         43.3           Mexico         3.9         10.2         0.0         12.0         26.1         63.2           Moldova         18.3         12.3         0.0         0.2         30.8         100.1           Mongolia         12.3         3.5         0.0         0.6         16.4         83.3           Morocco         2.3         1.1         0.0         1.7         5.1         41.2           Mozambique         3.6         8.8         5.2         29.3         46.9         79.2           Myanmar         10.6         16.7         8.8         20.1         56							
Malaysia         6.6         8.7         0.0         3.8         19.1         46.6           Mali         5.1         12.7         0.0         83.4         101.2         203.2           Malta         6.3         1.5         0.0         0.3         8.1         30.3           Mauritania         5.5         12.8         0.1         9.5         27.9         127.8           Mauritius         11.9         2.6         0.0         2.0         16.5         43.3           Mexico         3.9         10.2         0.0         12.0         26.1         63.2           Moldova         18.3         12.3         0.0         0.2         30.8         100.1           Mongolia         12.3         3.5         0.0         0.6         16.4         83.3           Morambique         3.6         8.8         5.2         29.3         46.9         79.2           Myanmar         10.6         16.7         8.8         20.1         56.2         111.7           Namibia         6.7         27.0         1.6         9.8         45.1         87.3           Nepal         10.3         14.8         5.0         20.2 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>							
Mali         5.1         12.7         0.0         83.4         101.2         203.2           Malta         6.3         1.5         0.0         0.3         8.1         30.3           Mauritania         5.5         12.8         0.1         9.5         27.9         127.8           Mauritius         11.9         2.6         0.0         2.0         16.5         43.3           Mexico         3.9         10.2         0.0         12.0         26.1         63.2           Moldova         18.3         12.3         0.0         0.2         30.8         100.1           Mongolia         12.3         3.5         0.0         0.6         16.4         83.3           Morocco         2.3         1.1         0.0         1.7         5.1         41.2           Mozambique         3.6         8.8         5.2         29.3         46.9         79.2           Myanmar         10.6         16.7         8.8         20.1         56.2         111.7           Nembia         6.7         27.0         1.6         9.8         45.1         87.3           Netherlands         8.9         1.1         0.0         1.8 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>							
Malta         6.3         1.5         0.0         0.3         8.1         30.3           Mauritania         5.5         12.8         0.1         9.5         27.9         127.8           Mauritius         11.9         2.6         0.0         2.0         16.5         43.3           Mexico         3.9         10.2         0.0         12.0         26.1         63.2           Moldova         18.3         12.3         0.0         0.2         30.8         100.1           Mongolia         12.3         3.5         0.0         0.6         16.4         83.3           Morocco         2.3         1.1         0.0         1.7         5.1         41.2           Mozambique         3.6         8.8         5.2         29.3         46.9         79.2           Myanmar         10.6         16.7         8.8         20.1         56.2         111.7           Namibia         6.7         27.0         1.6         9.8         45.1         87.3           Nepal         10.3         14.8         5.0         20.2         50.3         105.4           Netherlands         8.9         1.1         0.0         1.8         <							
Mauritania         5.5         12.8         0.1         9.5         27.9         127.8           Mauritius         11.9         2.6         0.0         2.0         16.5         43.3           Mexico         3.9         10.2         0.0         12.0         26.1         63.2           Moldova         18.3         12.3         0.0         0.2         30.8         100.1           Mongolia         12.3         3.5         0.0         0.6         16.4         83.3           Morocco         2.3         1.1         0.0         1.7         5.1         41.2           Mozambique         3.6         8.8         5.2         29.3         46.9         79.2           Myanmar         10.6         16.7         8.8         20.1         56.2         111.7           Namibia         6.7         27.0         1.6         9.8         45.1         87.3           Nepal         10.3         14.8         5.0         20.2         50.3         105.4           Netherlands         8.9         1.1         0.0         1.8         11.8         32.3           New Zealand         12.2         1.2         0.0         0.6							203.2
Mauritius         11.9         2.6         0.0         2.0         16.5         43.3           Mexico         3.9         10.2         0.0         12.0         26.1         63.2           Moldova         18.3         12.3         0.0         0.2         30.8         100.1           Mongolia         12.3         3.5         0.0         0.6         16.4         83.3           Morocco         2.3         1.1         0.0         1.7         5.1         41.2           Mozambique         3.6         8.8         5.2         29.3         46.9         79.2           Myanmar         10.6         16.7         8.8         20.1         56.2         111.7           Namibia         6.7         27.0         1.6         9.8         45.1         87.3           Nepal         10.3         14.8         5.0         20.2         50.3         105.4           Netherlands         8.9         1.1         0.0         1.8         11.8         32.3           New Zealand         12.2         1.2         0.0         0.6         14.0         40.4           Nicaragua         11.9         11.4         0.1         11.6							
Mexico         3.9         10.2         0.0         12.0         26.1         63.2           Moldova         18.3         12.3         0.0         0.2         30.8         100.1           Mongolia         12.3         3.5         0.0         0.6         16.4         83.3           Morocco         2.3         1.1         0.0         1.7         5.1         41.2           Mozambique         3.6         8.8         5.2         29.3         46.9         79.2           Myanmar         10.6         16.7         8.8         20.1         56.2         111.7           Namibia         6.7         27.0         1.6         9.8         45.1         87.3           Nepal         10.3         14.8         5.0         20.2         50.3         105.4           Netherlands         8.9         1.1         0.0         1.8         11.8         32.3           New Zealand         12.2         1.2         0.0         0.6         14.0         40.4           Nicaragua         11.9         11.4         0.1         11.6         35.0         69.5           Nigeria         4.9         23.1         2.6         15.1							
Moldova         18.3         12.3         0.0         0.2         30.8         100.1           Mongolia         12.3         3.5         0.0         0.6         16.4         83.3           Morocco         2.3         1.1         0.0         1.7         5.1         41.2           Mozambique         3.6         8.8         5.2         29.3         46.9         79.2           Myanmar         10.6         16.7         8.8         20.1         56.2         111.7           Namibia         6.7         27.0         1.6         9.8         45.1         87.3           Nepal         10.3         14.8         5.0         20.2         50.3         105.4           Netherlands         8.9         1.1         0.0         1.8         11.8         32.3           New Zealand         12.2         1.2         0.0         0.6         14.0         40.4           Nicaragua         11.9         11.4         0.1         11.6         35.0         69.5           Niger         5.7         14.2         0.0         25.5         45.4         158.6           Nigeria         4.9         23.1         2.6         15.1							
Mongolia         12.3         3.5         0.0         0.6         16.4         83.3           Morocco         2.3         1.1         0.0         1.7         5.1         41.2           Mozambique         3.6         8.8         5.2         29.3         46.9         79.2           Myanmar         10.6         16.7         8.8         20.1         56.2         111.7           Namibia         6.7         27.0         1.6         9.8         45.1         87.3           Nepal         10.3         14.8         5.0         20.2         50.3         105.4           Netherlands         8.9         1.1         0.0         1.8         11.8         32.3           New Zealand         12.2         1.2         0.0         0.6         14.0         40.4           Nicaragua         11.9         11.4         0.1         11.6         35.0         69.5           Nigeria         4.9         23.1         2.6         15.1         45.7         126.3           Norway         11.3         1.1         0.0         0.8         13.2         52.4           Oman         4.0         2.1         0.0         0.2							
Morocco         2.3         1.1         0.0         1.7         5.1         41.2           Mozambique         3.6         8.8         5.2         29.3         46.9         79.2           Myanmar         10.6         16.7         8.8         20.1         56.2         111.7           Namibia         6.7         27.0         1.6         9.8         45.1         87.3           Nepal         10.3         14.8         5.0         20.2         50.3         105.4           Netherlands         8.9         1.1         0.0         1.8         11.8         32.3           New Zealand         12.2         1.2         0.0         0.6         14.0         40.4           Nicaragua         11.9         11.4         0.1         11.6         35.0         69.5           Niger         5.7         14.2         0.0         25.5         45.4         158.6           Nigeria         4.9         23.1         2.6         15.1         45.7         126.3           Norway         11.3         1.1         0.0         0.8         13.2         52.4           Oman         4.0         2.1         0.0         0.2         <							
Mozambique         3.6         8.8         5.2         29.3         46.9         79.2           Myanmar         10.6         16.7         8.8         20.1         56.2         111.7           Namibia         6.7         27.0         1.6         9.8         45.1         87.3           Nepal         10.3         14.8         5.0         20.2         50.3         105.4           Netherlands         8.9         1.1         0.0         1.8         11.8         32.3           New Zealand         12.2         1.2         0.0         0.6         14.0         40.4           Nicaragua         11.9         11.4         0.1         11.6         35.0         69.5           Niger         5.7         14.2         0.0         25.5         45.4         158.6           Nigeria         4.9         23.1         2.6         15.1         45.7         126.3           Norway         11.3         1.1         0.0         0.8         13.2         52.4           Oman         4.0         2.1         0.0         0.2         6.3         35.9           Pahistan         10.5         3.7         3.3         14.4							
Myanmar         10.6         16.7         8.8         20.1         56.2         111.7           Namibia         6.7         27.0         1.6         9.8         45.1         87.3           Nepal         10.3         14.8         5.0         20.2         50.3         105.4           Netherlands         8.9         1.1         0.0         1.8         11.8         32.3           New Zealand         12.2         1.2         0.0         0.6         14.0         40.4           Nicaragua         11.9         11.4         0.1         11.6         35.0         69.5           Niger         5.7         14.2         0.0         25.5         45.4         158.6           Nigeria         4.9         23.1         2.6         15.1         45.7         126.3           Norway         11.3         1.1         0.0         0.8         13.2         52.4           Oman         4.0         2.1         0.0         0.2         6.3         35.9           Pakistan         10.5         3.7         3.3         14.4         31.9         85.9           Paraguay         3.8         16.9         0.0         4.0							
Namibia         6.7         27.0         1.6         9.8         45.1         87.3           Nepal         10.3         14.8         5.0         20.2         50.3         105.4           Netherlands         8.9         1.1         0.0         1.8         11.8         32.3           New Zealand         12.2         1.2         0.0         0.6         14.0         40.4           Nicaragua         11.9         11.4         0.1         11.6         35.0         69.5           Niger         5.7         14.2         0.0         25.5         45.4         158.6           Nigeria         4.9         23.1         2.6         15.1         45.7         126.3           Norway         11.3         1.1         0.0         0.8         13.2         52.4           Oman         4.0         2.1         0.0         0.2         6.3         35.9           Pakistan         10.5         3.7         3.3         14.4         31.9         85.9           Paraguay         3.8         16.9         0.0         4.0         24.7         51.5           Peru         1.8         3.6         0.0         13.2         18							
Nepal         10.3         14.8         5.0         20.2         50.3         105.4           Netherlands         8.9         1.1         0.0         1.8         11.8         32.3           New Zealand         12.2         1.2         0.0         0.6         14.0         40.4           Nicaragua         11.9         11.4         0.1         11.6         35.0         69.5           Niger         5.7         14.2         0.0         25.5         45.4         158.6           Nigeria         4.9         23.1         2.6         15.1         45.7         126.3           Norway         11.3         1.1         0.0         0.8         13.2         52.4           Oman         4.0         2.1         0.0         0.2         6.3         35.9           Pakistan         10.5         3.7         3.3         14.4         31.9         85.9           Panama         5.0         9.7         0.0         8.4         23.1         53.5           Paraguay         3.8         16.9         0.0         4.0         24.7         51.5           Peru         1.8         3.6         0.0         13.2         18.6							
Netherlands         8.9         1.1         0.0         1.8         11.8         32.3           New Zealand         12.2         1.2         0.0         0.6         14.0         40.4           Nicaragua         11.9         11.4         0.1         11.6         35.0         69.5           Niger         5.7         14.2         0.0         25.5         45.4         158.6           Nigeria         4.9         23.1         2.6         15.1         45.7         126.3           Norway         11.3         1.1         0.0         0.8         13.2         52.4           Oman         4.0         2.1         0.0         0.2         6.3         35.9           Pakistan         10.5         3.7         3.3         14.4         31.9         85.9           Panama         5.0         9.7         0.0         8.4         23.1         53.5           Paraguay         3.8         16.9         0.0         4.0         24.7         51.5           Peru         1.8         3.6         0.0         13.2         18.6         73.4							
New Zealand         12.2         1.2         0.0         0.6         14.0         40.4           Nicaragua         11.9         11.4         0.1         11.6         35.0         69.5           Niger         5.7         14.2         0.0         25.5         45.4         158.6           Nigeria         4.9         23.1         2.6         15.1         45.7         126.3           Norway         11.3         1.1         0.0         0.8         13.2         52.4           Oman         4.0         2.1         0.0         0.2         6.3         35.9           Pakistan         10.5         3.7         3.3         14.4         31.9         85.9           Panama         5.0         9.7         0.0         8.4         23.1         53.5           Paraguay         3.8         16.9         0.0         4.0         24.7         51.5           Peru         1.8         3.6         0.0         13.2         18.6         73.4							
Nicaragua         11.9         11.4         0.1         11.6         35.0         69.5           Niger         5.7         14.2         0.0         25.5         45.4         158.6           Nigeria         4.9         23.1         2.6         15.1         45.7         126.3           Norway         11.3         1.1         0.0         0.8         13.2         52.4           Oman         4.0         2.1         0.0         0.2         6.3         35.9           Pakistan         10.5         3.7         3.3         14.4         31.9         85.9           Panama         5.0         9.7         0.0         8.4         23.1         53.5           Paraguay         3.8         16.9         0.0         4.0         24.7         51.5           Peru         1.8         3.6         0.0         13.2         18.6         73.4							
Niger         5.7         14.2         0.0         25.5         45.4         158.6           Nigeria         4.9         23.1         2.6         15.1         45.7         126.3           Norway         11.3         1.1         0.0         0.8         13.2         52.4           Oman         4.0         2.1         0.0         0.2         6.3         35.9           Pakistan         10.5         3.7         3.3         14.4         31.9         85.9           Panama         5.0         9.7         0.0         8.4         23.1         53.5           Paraguay         3.8         16.9         0.0         4.0         24.7         51.5           Peru         1.8         3.6         0.0         13.2         18.6         73.4							
Nigeria         4.9         23.1         2.6         15.1         45.7         126.3           Norway         11.3         1.1         0.0         0.8         13.2         52.4           Oman         4.0         2.1         0.0         0.2         6.3         35.9           Pakistan         10.5         3.7         3.3         14.4         31.9         85.9           Panama         5.0         9.7         0.0         8.4         23.1         53.5           Paraguay         3.8         16.9         0.0         4.0         24.7         51.5           Peru         1.8         3.6         0.0         13.2         18.6         73.4							
Norway         11.3         1.1         0.0         0.8         13.2         52.4           Oman         4.0         2.1         0.0         0.2         6.3         35.9           Pakistan         10.5         3.7         3.3         14.4         31.9         85.9           Panama         5.0         9.7         0.0         8.4         23.1         53.5           Paraguay         3.8         16.9         0.0         4.0         24.7         51.5           Peru         1.8         3.6         0.0         13.2         18.6         73.4							
Oman         4.0         2.1         0.0         0.2         6.3         35.9           Pakistan         10.5         3.7         3.3         14.4         31.9         85.9           Panama         5.0         9.7         0.0         8.4         23.1         53.5           Paraguay         3.8         16.9         0.0         4.0         24.7         51.5           Peru         1.8         3.6         0.0         13.2         18.6         73.4							
Pakistan         10.5         3.7         3.3         14.4         31.9         85.9           Panama         5.0         9.7         0.0         8.4         23.1         53.5           Paraguay         3.8         16.9         0.0         4.0         24.7         51.5           Peru         1.8         3.6         0.0         13.2         18.6         73.4							
Panama         5.0         9.7         0.0         8.4         23.1         53.5           Paraguay         3.8         16.9         0.0         4.0         24.7         51.5           Peru         1.8         3.6         0.0         13.2         18.6         73.4							
Paraguay         3.8         16.9         0.0         4.0         24.7         51.5           Peru         1.8         3.6         0.0         13.2         18.6         73.4							
Peru 1.8 3.6 0.0 13.2 18.6 73.4							

PNG	10.0	15.6	0.0	29.6	55.2	108.3		
Poland	17.3	1.8	0.0	0.5	19.6	62.2		
Portugal	6.7	1.4	0.0	1.3	9.4	41.7		
Qatar	4.5	1.1	0.0	0.4	6.0	33.5		
Romania	12.5	3.6	0.0	0.4	16.5	62.6		
Russia	41.0	32.9	11.9	0.9	86.7	245.5		
Rwanda	7.0	20.0	6.0	27.9	60.9	130.7		
Saudi Arabia	5.8	3.0	0.0	1.0	9.8	67.4		
Senegal	4.4	11.0	6.8	5.6	27.8	109.2		
Sierra Leone	10.1	50.3	7.1	71.3	138.8	286.6		
Singapore	10.3	0.8	0.0	0.1	11.2	21.8		
Slovakia	13.9	2.2	0.0	0.2	16.3	55.8		
Slovenia	29.5	0.8	0.0	0.8	31.1	76.7		
Somalia	7.6	33.1	72.2	22.9	135.8	215.5		
South Africa	10.5	43.2	0.0	12.1	65.8	118.8		
South Korea	18.2	1.8	0.0	1.2	21.2	68.3		
Spain	8.3	1.0	0.0	1.5	10.8	40.6		
Sri Lanka	31.9	7.9	5.0	7.0	51.8	87.5		
Sudan	7.1	30.4	46.4	12.5	96.4	157.1		
Suriname	18.1	4.2	0.0	10.9	33.2	86.4		
Swaziland	4.5	6.0	0.0	32.5	43.0	103.4		
Sweden	12.8	1.0	0.0	2.1	15.9	48.6		
Switzerland	17.9	0.9	0.0	1.1	19.9	46.0		
Syria	0.6	2.7	0.0	1.9	5.2	40.1		
Tajikistan	5.1	6.4	9.4	6.2	27.1	58.9		
Tanzania	2.3	24.0	0.3	26.8	53.4	120.7		
Thailand	11.1	9.4	1.0	4.1	25.6	77.7		
Togo	4.5	10.5	0.0	4.7	19.7	103.7		
Trinidad & Tobago	14.8	8.8	0.0	6.9	30.5	56.5		
Tunisia	4.4	1.9	0.0	1.8	8.1	63.2		
Turkey	6.7	3.4	0.2	1.8	12.1	41.1		
Turkmenistan	12.5	10.2	0.0	2.2	24.9	69.7		
UAE	3.8	1.0	0.0	1.9	6.7	68.7		
Uganda	2.0	20.8	26.5	17.5	66.8	133.6		
Ukraine	35.8	15.5	0.0	0.6	51.9	151.4		
UK	8.5	1.1	0.0	0.8	10.4	33.9		
Uruguay	17.0	5.6	0.0	4.5	27.1	64.8		
USA	10.3	5.4	0.0	2.5	18.2	54.8		
Uzbekistan	9.0	3.7	0.1	1.3	14.1	45.3		
Venezuela	6.2	35.2	0.0	3.8	45.2	85.8		
Viet Nam	11.0	4.2	0.0	3.3	18.5	63.5		
Yemen	4.9	2.1	0.1	11.9	19.0	95.8		
Zambia	3.4	3.7	0.0	21.1	28.2	64.0		
Zimbabwe	4.9	11.3	23.1	26.8	66.1	101.9		
	Source: WHO (2004; all forms of Violent Death, expected suicide).							

### **B.8 Satisfaction with Life index (2006)**

No.	Country	SWL 2006
1	Albania	153.33
2	Algeria	173.33
3	Angola	160
4	Argentina	226.67
5	Armenia	123.33
6	Australia	243.33
7	Austria	260
8	Azerbaijan	163.33
9	Bahrain	240
10	Bangladesh	190
11	Belarus	133.33
12	Belgium	243.33
13	Benin	180
14	Bolivia	183.33
15	Bosnia and Herzegovina	170
16	Botswana	180
17	Brazil	210
18	Bhutan	253.33
19	Bulgaria	143.33
20	Burkina Faso	156.67
21	Burundi	100
22	Cambodia	186.67
23	Cameroon	170
24	Canada	253.33
25	CAR	163.33
26	Chad	150
27	Chile	216.67
28	China, People's Republic of	210
29	Colombia	240
30	Congo	110
31	Costa Rica	250
32	Cote d'Ivoire	150
33	Croatia	196.67
34	Cuba	210
35	Czech Republic	213.33
36	Denmark	273.4
37	Djibouti	160
38	Dominican Republic	233.33
39	Ecuador	186.67
40	Egypt	160
41	El Salvador	220
42	Equatorial Guinea	173.33
43	Eritrea	146.67
44	Estonia	170
45	Ethiopia	156.67
46	Finland	256.67
47	France	220

40	Cohon	206.67
48	Gabon	206.67
49	Gambia	190
50	Georgia	136.67
51	Germany	240
52	Ghana	206.67
53	Greece	210
54	Guatemala	233.33
55	Guinea	170
56	Guinea-Bissau	180
57	Guyana	240
58	Haiti	183.33
59	Honduras	240
60	Hungary	190
61	Iceland	260
62	India	180
63	Indonesia	220
64	Iran	200
65	Ireland	253.33
66	Israel	223.33
67	Italy	230
68	Jamaica	233.33
69	Japan	206.67
70	Jordan	170
71	Kazakhstan	193.33
72	Kenya	186.67
73	Korea, Republic of (South	193.33
74	Kuwait	240
75	Kyrgyzstan	220
76	Laos	180
77	Latvia	156.67
78	Lebanon	186.67
79	Libya	190
80	Lithuania	156.67
81	Luxembourg	253.33
82	Macedonia	163.33
83	Madagascar	193.33
84	Malawi	153.33
85		246.67
	Malaysia Mali	
86		176.67
87	Malta	250
88	Mexico	230
89	Moldova	116.67
90	Morocco	186.67
91	Mongolia	223.33
92	Mozambique	180
93	Myanmar	176.67
94	Namibia	216.67
95	Netherlands, The	250
96	New Zealand	246.67
97	Nicaragua	210
98	Niger	150
99	Nigeria	183.33
100	Norway	246.67
101	Oman	243.33
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102	Pakistan	143.33
103	Panama	240
104	Paraguay	216.67
105	Peru	186.67
106	Philippines, The	213.33
107	PNG	210
108	Poland	196.67
109	Portugal	203.33
110	Oatar	233.33
111	Romania	173.33
112	Russia	143.33
113	Rwanda	146.67
114	Saudi Arabia	243.33
115	Senegal	186.67
116	Sierra Leone	166.67
117	Singapore	230
118	Slovak Republic	180
119	Slovenia	220
120	South Africa	190
121	Spain	233.33
122	Sri Lanka	203.33
123	Sudan	120
124	Sweden	256.67
125	Switzerland	273.33
126	Svria	170
127	Taiwan	220
128	Tajikistan	203.33
129	Tanzania	183.33
130	Thailand	216.67
131	Togo	163.33
132	Tunisia	213.33
133	Turkey	176.67
134	Turkmenistan	133.33
135	UAE	246.67
136	Uganda	156.67
137	Ukraine	120
138	United Kingdom	236.67
139	United States	246.67
140	Uruguay	210
141	Uzbekistan	213.33
142	Venezuela	246.67
143	Vietnam	203.33
144	Yemen	206.67
145	Zambia	163.33
146	Zimbabwe	110

Source: White, A. (2007)

# B.9 Freedom from Corruption and Business Freedom (2007)

No	Country	Freedom from Corruption 2007	Business Freedom 2007
1	Albania	24	64.1
2	Algeria	28	73.7
3	Angola	20	35.3
4	Argentina	28	63.9
5	Armenia	29	80.8
6	Australia	88	89.1
7	Austria	87	81.7
8	Azerbaijan	22	58.0
9	Bangladesh	17	59.1
10	Belarus	26	55.7
11	Belgium	74	92.6
12	Belize	37	77.4
13	Benin	29	48.5
14	Bolivia	25	59.9
15	Bosnia and Herzegovina	29	55.4
16	Botswana	59	66.1
17	Brazil	37	54.2
18	Bulgaria	40	70.3
19	Burkina Faso	34	43.8
20	Burundi	23	49.6
21	Cambodia	23	43.5
22	Cameroon	22	41.0
23	Canada	84	96.8
24	Cape Verde	30	55.7
25	Central African Republic	30	41.1
26	Chad	17	49.0
27	Chile	73	68.2
28	China, People's Republic of	32	46.9
29	Colombia	40	71.8
30	Congo, Republic of	23	47.3
31	Costa Rica	42	59.0
32	Croatia	34	54.2
33	Czech Republic	43	61.1
34	Denmark	95	94.8
35	Djibouti	30	38.3
36	Dominican Republic	30	56.7
37	Ecuador	25	58.8
38	Egypt	34	40.9

39	El Salvador	42	60.2
40	Equatorial Guinea	19	48.2
41	Estonia	64	79.9
42	Ethiopia	22	59.4
43	Fiji	40	70.4
44	Finland	96	95.3
45	France	75	87.2
46	Gabon	29	53.3
47	Gambia, The	27	59.4
48	Georgia	23	80.8
49	Germany	82	88.9
50	Ghana	40	54.9
51	Greece	43	69.7
52	Guatemala	25	52.3
53	Guinea	30	40.9
54	Guinea Bissau	10	27.2
55	Guyana	25	57.0
56	Haiti	18	38.6
57	Honduras	26	56.1
58	Hong Kong	83	88.4
59	Hungary	50	70.2
60	Iceland	97	94.9
61	India	29	50.8
62	Indonesia	22	48.2
63	Iran	29	55.4
64	Ireland	74	92.1
65	Israel	63	69.4
66	Italy	50	77.0
67	Jamaica	36	82.0
68	Japan	73	91.2
69	Jordan	57	54.9
70	Kazakhstan	26	58.5
71	Kenya	21	64.5
72	Korea, Republic of (South Korea)	50	84.3
73	Kuwait	47	70.7
74	Kyrgyz Republic	23	59.9
75	Laos	33	52.1
76	Latvia	42	74.5
77	Lebanon	31	56.6
78	Lesotho	34	68.2
79	Lithuania	48	84.3
80	Macedonia	27	60.1
81	Madagascar	28	51.2
82	Malawi	28	54.4
83	Malaysia	51	67.6
84	Mali	29	38.1
85	Mauritania	30	37.5
86	Mauritius	42	73.3
87	Mexico	35	83.5
88	Moldova	29	68.1
89	Mongolia	30	70.8
90	Morocco	32	74.6
91	Mozambique	28	48.2
92	Namibia	43	75.7
			,

93	Nepal	25	60.7
94	Netherlands, The	86	88.4
95	New Zealand	96	99.9
96	Nicaragua	26	56.4
97	Niger	24	38.4
98	Nigeria	19	58.6
99	Norway	89	91.1
100	Oman	63	56.6
101	Pakistan	21	71.6
102	Panama	35	72.7
103	Paraguay	21	49.3
104	Peru	35	65.2
105	Philippines, The	25	53.4
106	Poland	34	55.3
107	Portugal	65	78.6
108	Romania	30	73.2
109	Russia	24	62.0
110	Rwanda	21	51.0
111	Saudi Arabia	34	53.0
112	Senegal	32	56.4
113	Sierra Leone	24	50.5
114	Singapore	94	96.7
115	Slovak Republic	43	70.7
116	Slovenia	61	72.9
117	South Africa	45	70.4
118	Spain	70	78.0
119	Sri Lanka	32	69.2
120	Suriname	32	42.0
121	Swaziland	27	70.4
122	Sweden	92	94.2
123	Switzerland	91	84.1
124	Syria	34	58.4
125	Taiwan	59	71.6
126	Tajikistan	21	39.2
127	Tanzania	29	45.8
128	Thailand	38	73.0
129	Togo	30	37.5
130	Trinidad and Tobago	38	62.7
131	Tunisia	49	78.9
132	Turkey	35	67.4
133	Uganda	25	57.5
134	Ukraine United Arch Emirates	26	43.6
135	United Arab Emirates	62	49.3
136	United Kingdom United States	86 76	91.2
137 138	United States	59	91.4 62.2
	Uruguay Uzbekistan	22	65.2
139 140	Venezuela	23	50.4
140	Vietnam	26	59.6
141	Yemen	27	53.5
142	Zambia	26	63.6
144	Zimbabwe	26	42.0

Source: Heritage Foundation (2007).

## B.10 CPI, Freedom from Corruption Index, Business Freedom Index, Starting Business, and Growth (2008)

No.	Country	СРІ	Freedom from Corruption	Business Freedom	Starting Business	GDP per Capita (PPP)	Growth
1	Afghanistan	15.00	-	-	-	800	7.5
2	Albania	34.00	26	55.6	36	6,400	6.0
3	Algeria	32.00	31	72.7	24	7,100	3.4
4	Angola	19.00	22	36.5	119	9,100	15.1
5	Argentina	29.00	29	63.2	31	14,500	6.6
6	Armenia	29.00	29	81.3	18	6,600	9.4
7	Australia	87.00	87	89.3	2	39,300	2.5
8	Austria	81.00	86	80.6	28	39,600	2.1
9	Azerbaijan	19.00	24	61.6	30	9,500	15.6
10	Bahamas, The	-	70	80.0	-	-	-
11	Bahrain	54.00	57	80.0	-	37,200	7.0
12	Bangladesh	21.00	20	55.3	74	1,500	5.9
13	Barbados	70.00	67	90.0	-	20,200	2.8
14	Belarus	20.00	21	58.6	48	12,000	8.1
15	Belgium	73.00	73	93.7	4	38,300	1.5
16	Belize	29.00	35	76.3	44	8,500	2.4
17	Benin	31.00	25	47.7	31	1,500	5.0
18	Bhutan	52.00	-	-	-	4,800	7.8
19	Bolivia	30.00	27	58.6	50	4,700	4.8
20	Bosnia and Herzegovina	32.00	29	56.1	54	6,600	5.5
21	Botswana	58.00	56	68.7	108	15,800	5.2
22	Brazil	35.00	33	53.6	152	10,300	5.2
23	Bulgaria	36.00	40	67.5	32	13,200	6.0
24	Burkina Faso	35.00	32	49.8	18	1,300	5.1
25	Burma (Myanmar)	-	19	20.0	-	-	-
26	Burundi	19.00	24	35.5	43	400	6.0
27	Cambodia	18.00	21	43.0	86	2,100	7.0
28	Cameroon	23.00	23	39.9	37	2,400	4.0
29	Canada	87.00	85	96.7	3	40,200	0.7
30	Cape Verde	51.00	40	55.1	52	4,200	7.0
31	Central African Republic	20.00	24	40.7	14	700	4.0
32	Chad	16.00	20	34.6	75	1,600	1.7
33	Chile	69.00	73	67.5	27	15,400	4.0
34	China	36.00	33	50.0	35	6,100	9.8
35	Colombia	38.00	39	72.5	42	9,000	3.8
36	Congo	19.00	-	-	-	3,800	10.2
37	Congo, Republic of	17.00	22	45.3	37	300	6.2
38	Costa Rica	51.00	41	59.7	77	11,900	3.4

39	Côte d'Ivoire	20.00		_	_	1,700	2.5
40	Croatia	44.00	34	58.1	40	16,900	4.6
41	Cuba	43.00	35	10.0	-	12,700	5.3
42	Cyprus	64.00	56	70.0	_	29,200	3.6
43	Czech Republic	52.00	48	63.9	17	26,800	4.5
44	Denmark	93.00	95	99.9	6	38,900	0.3
45	Djibouti	30.00	30	37.5	37	3,800	6.0
46	Dominican Republic	30.00	28	62.2	22	8,800	5.5
47	Ecuador Ecuador	20.00	23	58.1	65	7,700	3.4
48	Egypt	28.00	33	59.7	9	5,500	7.0
49	El Salvador	39.00	40	58.6	26	6,400	4.4
50	Equatorial Guinea	17.00	21	47.1	136	30,200	11.5
51	Eritrea	26.00	-	-	-	700	2
52	Estonia	66.00	67	84.5	7	21,900	-1.5
53			24		16		
	Ethiopia	26.00		58.3	46	800	8.5
54	Fiji	-	40	69.7		- 20,400	- 2.4
55	Finland	90.00	96	95.2	14 7	38,400	2.4
56	France	69.00	74	87.1		32,700	0.9
57	Gabon	31.00	30	52.8	58	14,900	4.5
58	Gambia, The	19.00	25	57.1	32	1,200	4.5
59	Georgia	39.00	28	85.0	11	5,000	6.7
60	Germany	79.00	80	88.9	18	34,800	1.7
61	Ghana	39.00	33	53.1	42	1,500	6.3
62	Greece	47.00	44	69.5	38	32,800	2.8
63	Guatemala	31.00	26	54.1	26	5,400	3.9
64	Guinea	16.00	19	44.9	41	1,100	1.8
65	Guinea Bissau	19.00	10	24.8	233	600	3.9
66	Guyana	26.00	25	56.4	44	4,000	4.8
67	Haiti	14.00	18	35.7	202	1,400	2.3
68	Honduras	26.00	25	59.5	21	3,700	2.3
69	Hong Kong	-	83	88.2	11	-	-
70	Hungary	51.00	52	73.9	16	20,500	2.0
71	Iceland	89.00	96	94.5	5	42,600	2.0
72	India	34.00	33	50.0	33	2,900	7.3
73	Indonesia	26.00	24	48.8	105	3,900	5.9
74	Iran	23.00	27	55.0	47	13,100	6.4
75	Iraq	13.00	-	-	-	4,000	6.6
76	Ireland	77.00	74	92.2	13	47,800	-0.7
77	Israel	60.00	59	68.4	34	28,900	4.2
78	Italy	48.00	49	76.8	13	31,000	0.0
79	Ivory Coast	-	21	47.0	-	-	-
80	Jamaica	31.00	37	82.0	8	7,700	0.8
81	Japan	73.00	76	88.1	23	35,300	0.7
82	Jordan	51.00	53	55.4	14	5,000	4.5
83	Kazakhstan	22.00	26	56.5	21	12,000	5.0
84	Kenya	21.00	22	65.3	44	1,800	4.1
85	Korea, North	-	10	0.0	-	-	-
86	Korea, South	-	51	84.0	17	-	-

87	Kuwait	43.00	48	68.5	35	60,800	8.1
88	Kyrgyz Republic	18.00	22	60.4	21	2,200	6.0
89	Laos	20.00	26	60.8	103	2,100	6.5
90	Latvia	50.00	47	74.3	16	18,500	-0.4
91	Lebanon	30.00	36	55.4	46	11,100	4.4
92	Lesotho	32.00	32	56.9	73	1,600	5.9
93	Liberia	24.00	-	50.7	-	500	9.4
94	Libya	26.00	27	20.0	_	14,900	7.3
95	Lithuania	46.00	48	83.2	26	18,400	5.1
96	Luxembourg	83.00	86	76.9	26	85,100	4.0
97	Macedonia	36.00	27	65.1	15	9,200	4.8
98	Madagascar	34.00	31	56.0	7	1,100	7.0
99	Malawi	28.00	27	52.1	37	800	7.0
100	Malaysia	51.00	50	69.0	24	15,700	5.5
101	Mali	31.00	28	41.9	26	1,200	4.0
102	Malta	58.00	64	70.0	-	24,200	3.0
103	Mauritania	28.00	31	38.9	65	1,900	4.0
104	Mauritius	55.00	51	81.6	7	12,400	5.8
105	Mexico	36.00	33	82.6	27	14,400	2.0
106	Moldova	29.00	32	68.5	23	2,500	5.7
107	Mongolia	30.00	28	71.1	20	3,300	9.9
108	Morocco	35.00	32	75.8	12	4,000	5.3
109	Mozambique	26.00	28	53.0	29	900	6.9
110	Myanmar	13.00	-	-	-	1,200	0.9
111	Namibia	45.00	41	73.8	99	5,500	3.9
112	Nepal	27.00	25	60.0	31	1,000	4.0
113	Netherlands, The	89.00	87	88.0	10	41,300	2.1
114	New Zealand	93.00	96	99.9	12	28,500	0.6
115	Nicaragua	25.00	26	56.4	39	3,000	2.0
116	Niger	28.00	23	36.0	23	700	4.5
	Nigeria	27.00	22	52.6	34	2,200	6.2
118	Norway	79.00	88	89.1	10	57,500	2.8
119	Oman	55.00	54	55.8	34	20,400	6.2
120	Pakistan	25.00	22	70.8	24	2,600	4.7
121	Panama	34.00	31	72.8	19	11,900	8.3
122	Paraguay	24.00	26	57.6	35	4,300	4.7
123	Peru	36.00	33	64.5	72	8,500	9.0
124	Philippines, The	23.00	25	53.0	58	3,400	4.5
125	PNG	20.00	-	-	-	2,300	6.3
126	Poland	46.00	37	54.1	31	17,800	5.3
127	Portugal	61.00	66	79.6	7	22,000	0.9
128	Qatar	65.00	60	60.0	-	101,000	11.8
129	Romania	38.00	31	74.1	14	12,500	8.0
130	Russia	21.00	25	52.8	29	15,800	6.0
131	Rwanda	30.00	25	51.8	16	900	6.0
132	Saudi Arabia	35.00	33	72.5	15	21,300	6.0
133	Senegal	34.00	33	54.5	58	1,800	4.8
134	Sierra Leone	19.00	22	49.4	26	700	6.0

135	Singapore	92.00	94	97.8	5	52,900	3.0
136	Slovak Republic	50.00	47	69.3	25	22,600	7.0
137	Slovenia	67.00	64	73.0	60	30,800	4.5
138	Somalia	10.00	-	-	-	600	2.6
139	South Africa	49.00	46	71.2	31	10,400	3.7
140	South Korea	56.00	-	-	-	27,100	4.3
141	Spain	65.00	68	77.5	47	34,100	1.3
142	Sri Lanka	32.00	31	71.5	39	4,400	5.4
143	Sudan	16.00	-	-	-	2,200	5.3
144	Suriname	36.00	30	41.7	694	8,900	5.4
145	Swaziland	36.00	25	69.0	61	5,100	2.0
146	Sweden	93.00	92	94.8	15	39,600	0.9
147	Switzerland	90.00	91	83.9	20	40,900	2.0
148	Syria	21.00	29	52.9	43	4,900	2.4
149	Taiwan	-	59	70.7	48	-	-
150	Tajikistan	20.00	22	43.4	49	1,800	4.5
151	Tanzania	30.00	29	47.9	29	1,400	7.1
152	Thailand	35.00	36	72.1	33	8,700	4.8
153	Togo	27.00	24	36.0	53	900	3.2
154	Trinidad and Tobago	36.00	32	64.1	43	28,400	5.8
155	Tunisia	44.00	46	79.2	11	8,000	4.7
156	Turkey	46.00	38	67.9	6	12,900	4.5
157	Turkmenistan	18.00	22	30.0	-	5,800	7.5
158	Uganda	26.00	27	56.3	28	1,100	6.4
159	Ukraine	25.00	28	44.3	27	7,800	5.3
160	United Arab Emirates	59.00	62	47.9	62	40,400	8.5
161	United Kingdom	77.00	86	90.8	13	37,400	1.1
162	Uruguay	69.00	-	-	-	12,300	8.5
163	United States	73.00	73	91.7	6	48,000	1.4
164	Uruguay	-	64	59.8	44	-	-
165	Uzbekistan	18.00	21	67.8	15	2,700	8.3
166	Venezuela	19.00	23	51.4	141	14,000	5.7
167	Vietnam	27.00	26	60.0	50	2,900	6.3
168	Yemen	23.00	26	53.7	63	2,600	3.2
169	Zambia	28.00	26	62.4	33	1,500	6.2
170	Zimbabwe	18.00	24	41.0	96	200	-6.2
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Source: CIA World Fact Book (2008); Heritage Foundation (2008) and TI (2008).