

# Does Corruption Affect Social and Commercial Entrepreneurs Differently?

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# Abstract

This article investigates the relationship between corruption and entrepreneurship on the macro level. This relationship has been scarcely investigated so far, and little is known of it besides a hypothesized negative effect on entrepreneurship. In particular, what we do not know is whether corruption affects social and commercial entrepreneurship differently. Given the inability of governments worldwide to effectively tackle social issue, discovering the determinants of a potential solution - social entrepreneurship - is highly relevant. Although research exists which includes corruption in its analysis, corruption itself is not the main variable of interest – marking a research gap. The following analysis is based on the internationally comparable data of the General Entrepreneurship Monitor (GEM) 2009, and encompasses 48 countries at different levels of development. Moreover, the main theoretical framework is build upon the institutional void and support theories. That is, this paper posits the discussion about corruption and entrepreneurship in the context of the on-going debate for the determinants of social entrepreneurship. Based on multiple regression analysis, the findings suggest a negative relationship between social early-stage entrepreneurship (SEA) and corruption, while total early-stage entrepreneurship (TEA) is positively related with corruption levels. These findings contribute to the support of the institutional support theory over the institutional void theory, and pave an avenue for further study of the relationship between entrepreneurship, income, and corruption.

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If you go out into the real world, you cannot miss seeing that the poor are poor not because they are untrained or illiterate but because they cannot retain the returns of their labor.

— *Muhammad Yunus, Banker to the Poor: Micro-Lending and the Battle Against World Poverty*

# Chapter 1

## Introduction

In the past 20 years, there has been wide interest in the determinants of social entrepreneurship (Bergmann & Stephan, 2013; Zahra & Wright, 2011; Storey & Greene, 2010). While many scholars have pointed to the positive effect of a supportive government on social entrepreneurship (Stephan, Uhlane, & Stride, 2014; Hoogendoorn & Hartog, 2010; Djankov, La Porta, Lopez-de Silanes, & Shleifer, 2002). Several researchers have proclaimed the lack of functioning (non-corrupt) institutions to be the key reason for social initiatives – the so-called institutional void hypothesis (Kerlin, 2009; Mair & Marti, 2006; Zahra, Rawhouser, Bhawe, Neubaum, & Hayton, 2008)

In the following, I will carefully analyze the effect of corruption - one often overlooked macro determinant - on social/commercial entrepreneurship, highlighting the more complex nature of institutional factors. Moreover, no consensus is present as to what are the underlying reasons for different rates of social and commercial entrepreneurship across countries (Bruton, Ahlstrom, Li, & ., 2010). While some emphasize the role of corruption to increase the uncertainty of business success, others point to the institutional void corruption represents and its potential positive effect on social and commercial opportunities. Thus, the intriguing question arises of whether corruption affects the rates of social and commercial entrepreneurship differently? To find out whether there is indeed a difference is the main objective of this study.

Although the academic literature tries to clearly separate the two types of entrepreneurship, the branches are highly related because they are influenced by similar factors, e.g. rule of law, available funds, etc. (Naudé, 2010; Blanchflower & Oswald, 1998; Storey & Greene, 2010). Commercial and social entrepreneurs are distinguished by their primary objectives (profits and

social wealth respectively) (Estrin, Mickiewicz, & Stephan, 2013). However, little research has been done on the exact relationship of the two, and on the ways they either complement or dissuade each other (Zahra & Wright, 2011; Welter, 2011; Blanchflower & Oswald, 1998; Estrin, Mickiewicz, & Stephan, 2013).

The research is set up around the analysis of data from 48 countries based on the General Entrepreneurship Monitor (GEM) report. The analysis itself will be carried out by means of multiple regressions, the results of which will be presented along with a discussion.

### **Academic relevance**

There are three main gaps in the existing literature my paper aims to fill. Firstly, none of the discussed studies take corruption as a main variable. By providing further elaboration on corruption, my study may help to contextualize earlier research and draw new insights. Secondly, there is very limited understanding on the relationship between social entrepreneurship and corruption. By revising the results of Griffiths, Gundy, and Kickul (2013) my study will contribute to the development of the subject. Thirdly, no study comparatively examines whether corruption affects different types of entrepreneurship differently. Thus my paper has the potential to help determine common grounds for analysis between commercial and social entrepreneurship. Last but not least, this study will give empirical weight to the institutional void/support debate that is discussed in more detail in a following sections.

### **Social Relevance**

Generally speaking, corruption suppresses economic growth (Djankov, La Porta, Lopez-de Silanes, & Shleifer, 2002; Meyskens, Robb-Post, Stamp, Carsrud, & Reynolds, 2010a; Aidis, Estrin, & Mickiewicz, 2012). Additional knowledge of how this happens can help policy makers by providing more accurate policy instruments. For example, grants that may influence social but not commercial entrepreneurs. It also can contribute to the understanding of social entrepreneurship as part of economic development. (Banerjee & Duflo, 2011; Wennekers, Uhlaner, & Thurik, 2002). In other words entrepreneurs would make successful businesses if conditions allowed it. Perhaps, if there was less corruption? Or perhaps, there would be more social but less commercial entrepreneurship? Moreover, increased global competition makes

knowledge diffusion, innovation, and entrepreneurship essential for development (Gilbert, Audretsch, & McDougall, 2004; Acs, Desai, & Hessels, 2008). Thus, researchers study ways for the government to influence entrepreneurship rates (Stel, Storey, & Thurik, 2007; Carree, van Stel, Thurik, & Wennekers, 2002). My paper can contribute to this process by investigating a scarcely researched avenue of study. In particular, does corruption affect social and commercial entrepreneurship differently?

### **Structure**

This paper is organized as follows. Chapter 2 begins with a contextualization of social and commercial entrepreneurship. Thereafter, it explores some of the more complicated relationships between economic determinants and entrepreneurial incidence. The first part of Chapter 3, discusses the data used in the study, while the second part of it provides a description of the methodology. Thereafter, Chapter 4 presents the results of the carried out analysis. Chapter 5 is devoted to the discussion. Finally, Chapter 6 provides section on limitations and suggestions for further research, followed by a conclusion.

# Chapter 2

## Literature Review

This section introduces social and commercial entrepreneurship. It further presents the current research on the determinants of entrepreneurship and corruption. Thereafter, hypotheses are formed to answer: Does corruption have different effects on social and commercial entrepreneurship?

### Background

#### What is entrepreneurship?

Entrepreneurship is starting a business. It is the pursuit of economic goals, guided by self-interest. Formally said - ‘the efforts towards the creation of viable business resulting from an individual’s occupational choice to work for his/her own account’ (Estrin, Mickiewicz, & Stephan, 2013). However, starting a business includes hiring workers, signing contracts, and maintaining market position. Thus, it is a continuous process and not an act (Bergmann & Stephan, 2013; Zahra & Wright, 2011). This makes entrepreneurship difficult to define and measure (Storey & Greene, 2010; Blanchflower & Oswald, 1998; Global Entrepreneurship Research Association, 2013; Parker, The economics of entrepreneurship, 2009). Here an entrepreneur is ‘someone who has either started or is in the process of starting a company’.

Business can also have a social purpose. For example, providing free education, saving wildlife, or giving loans to the destitute. This is social entrepreneurship. (Mair, Battilana, & Cárdenas, 2012; Bornstein, 2007) It “encompasses the activities and processes undertaken to discover, define, and exploit opportunities in order to enhance social wealth by creating new ventures or managing existing organizations in an innovative manner” (Zahra, Gedajlovic, Neubaum, & Shulman, 2009). Put simply, a social entrepreneur is someone who goes into



businesses with a social goal (Dacin, Dacin, & Tracey, 2011). Some argue social and commercial entrepreneurship are indistinguishable (Dacin, Dacin, & Matear, 2010) and question social entrepreneurship's legitimacy as field of science. (Sud, van Sandt, & Baugous, 2009) However, the general academic attitudes are supportive of the acts and study of social entrepreneurship (Mair & Marti, 2006; Bornstein, 2007; Bornstein, 2007; Lepoutre, Justo, Terjesen, & Bosma, 2013).

## **Determinants**

The process of entrepreneurship is complex and many researchers have sought its determinants (Stephan, Uhlaner, & Stride, 2014; Hoogendoorn & Hartog, 2010; Katre & Salipante, 2012; Lepoutre, Justo, Terjesen, & Bosma, 2013). A wide array of these determinants has been researched: income, government expenditure, social capital, social infrastructure, etc. (Blanchflower & Oswald, 1998; Bowen & De Clercq, 2008; Hoogendoorn & Hartog, 2010) Unsurprisingly different authors emphasize different factors, e.g. social context over entrepreneurial talent (Levie & Autio, 2011; Welter, 2011; Baker, Gedajlovic, & Lubatkin, 2005). These dimensions are reflected in the literature (Hoogendoorn, Pennings, & Thurik, 2010). For example, Stephen et al. (2014) argue that national context drives individual engagement in SE mainly through resource-based mechanisms such as government expenditure. Strong (property rights enforcement) and smaller governments benefit entrepreneurial aspirations (Estrin, Korosteleva, & Mickiewicz, 2013). The same holds for rule of law and government activism (Estrin, Mickiewicz, & Stephan, 2013). These articles are empirical, but most social entrepreneurship papers are conceptual. (Short, Moss, & Lumpkin, 2009; Salamon & Anheier, 1998) My study thus aims to contribute to the lacking empirical literature.

## **Corruption, Commercial Entrepreneurship, and Social Entrepreneurship**

Corruption is often associated with “*dishonest or fraudulent conduct by those in power, typically involving bribery*” (Oxford Dictionary). However, it involves almost all sections of government efficiency and economic activity (Mauro, 1995). Several papers (Stephan,

Uhlener, & Stride, 2014; Griffiths, Gundy, & Kickul, 2013; Estrin, Mickiewicz, & Stephan, 2013) discuss the effect of corruption on commercial entrepreneurship. These studies have found that corruption is like a progressive tax on entrepreneurial firms, which have to establishing mitigating contacts and networks (Estrin, Korosteleva, & Mickiewicz, 2013). The presence of corruption limits both entry and expansion opportunities for all types of entrepreneurship. (Bowen & De Clercq, 2008; Aidis, Estrin, & Mickiewicz, 2012), Because of the resulting uncertainty of securing gains, corruption diminishes entrepreneurship levels in general (Anokhin & Schulze, 2009) while also inhibiting entrepreneurial aspirations (Mair & Marti, 2006).

In addition, the academic literature discusses the indirect effects corruption might have on entrepreneurship. According to Naude (2010) constraints on growth are channeled through the entrepreneur. For example, by promoting rent seeking which is more attractive than working. (Murphy, Shleifer, & Vishny, 1993; Stephan, Uhlener, & Stride, 2014) The resulting higher transaction costs reduce trade, innovation, and finance (Anokhin & Schulze, 2009). All of these damage entrepreneurial prospects (Estrin, Korosteleva, & Mickiewicz, 2013; Bowen & De Clercq, 2008; Kaufmann, Kraay, & Mastruzzi, 2011) because they diminish social capital and business opportunities. Moreover, to the best of my knowledge, studies involving social entrepreneurship and corruption exclusively are none existent. The single study that treats this issue has found that although corruption is not in itself significant, the factors that construct it are, e.g. rule of law (Griffiths, Gundy, & Kickul, 2013).

## **Hypotheses formation:**

Here the main theoretical framework is discussed. Two theories are introduced – institutional void theory and institutional support theory. Hypotheses formulation follows.

## **The failure thesis and institutional void theory**

The failure thesis connects the size of the non-profit sector to government activity (Nissan, Castaño, S., & Carrasco, 2012; Weisbrod, 1977). The thesis states that dissatisfaction with government performance raises the demand for public goods (e.g. national defense) and quasi-public goods (e.g. roads, bridges, education) (Hoogendoorn & Hartog, 2010). Essentially when governments and markets fail to provide socially desirable outcomes the non-profit sector increases to compensate. The part of this thesis pertinent to social entrepreneurship is the institutional void theory (DiDomenico, Haugh, & Tracey, 2010; Dorado & Ventresca, 2013; Kerlin, 2009; Mair & Marti, 2009). By institutional void here is meant a situation in which official institutions such as courts, police, and state administration do not fulfill their purpose well, i.e. protect citizens, ensure equality in front of the law, provide public goods, etc. (Mair & Marti, 2009). Because badly function intuitions tend to be very corrupt, high corruption can be seen as an indicator of institutional voids. Moreover, according to this theory the lack of a well functioning state incentivizes people to become social entrepreneurs. In other words, because the government fails to provide public good, people organize to provide them – becoming social entrepreneurs (Hoogendoorn & Hartog, 2010; Bruton, Ahlstrom, Li, & ., 2010). Not only that, but a large welfare state may actually crowd out social entrepreneurship (Warr, 1982; Van Stel & Storey, 2004). There is some but limited support for this theory (Nissan, Castaño, S., & Carrasco, 2012). For instance, less active governments are correlated with larger non-profit sectors (Matsunaga, Yamauchi, & Okuyama, 2010). Also, the lack of support does not seem to affect the revealed preferences towards social entrepreneurship (Ferri & Urbano, 2011)

This thesis logically leads us to conclude that there will be more social entrepreneurship when governments are ineffective, i.e. there is institutional void. For example, Zimbabwe should see high rates of social entrepreneurship because government spending on public goods is limited, the government is very corrupt, and infrastructure is poor (International Monetary Fund, 2009). In a way, good governance and corruption are opposite sides of the same coin – you can only have one of them. On the one hand, corruption negatively impacts commercial entrepreneurship (Stephan, Uhlaner, & Stride, 2014; Estrin, Mickiewicz, & Stephan, 2013). As shown in the literature, corruption limits commercial entrepreneurs' aspirations, entry, and gains (Bowen & De Clercq, 2008; Aidis, Estrin, & Mickiewicz, 2012; Mair & Marti, 2009) On

the other, if institutional void theory is correct, corruption should have a positive effect on social entrepreneurship. To test whether corruption affects commercial and social entrepreneurship differently, I formulate the following hypothesis.

**Hypothesis 1:**

*Corruption is positively related to levels of SE and negatively to CE*

**Institutional support theory**

Institutional support theory states that social entrepreneurship thrives on government help (Matsunaga, Yamauchi, & Okuyama, 2010; Young, 2008; Nissan, Castaño, S., & Carrasco, 2012). In this view, governments and social entrepreneurs are natural partners. The government provides grants, subsidies and alternative funding for social goals. In return, social entrepreneurs spot opportunities, find motivated people, and become sustainable. Corruption disrupts this partnership because bureaucrats care more about enriching themselves. According to the tollbooth theory, bureaucracy limits business formation (Djankov, La Porta, Lopez-de Silanes, & Shleifer, 2002). The main function of bureaucracy in this view is to benefit politicians and incumbent firms. In practice, more bureaucratic countries tend to be poorer and more corrupt. One can thus argue that the institutions of a country direct the entrepreneurship towards a more/less desirable business venture (Bowen & De Clercq, 2008).

However, business formation is more affected by perceived than actual corruption (Estrin, Korosteleva, & Mickiewicz, 2013; Treisman, 2000). When people perceived lower corruption levels, i.e. more trust in the state, they see more entrepreneurial opportunities (Kwon & Arenius, 2010). According to the institutional support perspective, countries, which are less corrupt, should have higher rates of social entrepreneurship. This is because the quality of supportive services delivered by the government is inversely connected to the level of corruption. The more bureaucrats care about enriching themselves, the less they about providing public goods (Djankov, La Porta, Lopez-de Silanes, & Shleifer, 2002) and engaging

the wider population to tackle issues collectively. Consequently, corrupt countries will provide less grants, education, and administrative support for pro-social activity. Moreover, as discussed earlier, corruption is expected to negatively impact commercial entrepreneurship. Thus the following hypothesis is formulated.

***Hypothesis 2:***

*Corruption is negatively related to levels of SE and CE*

Both theories have been widely discussed in the academic literature, however the institutional support theory, has so far received wider support. (Hoogendoorn & Hartog, 2010) Although these theories are targeting social entrepreneurship they are valuable to understanding the field in general, as all types of entrepreneurship are connected.

# Chapter 3

## Methodology and data description

This section introduces the data and variables used. Afterwards, it establishes the methodology for hypotheses testing.

### The Data

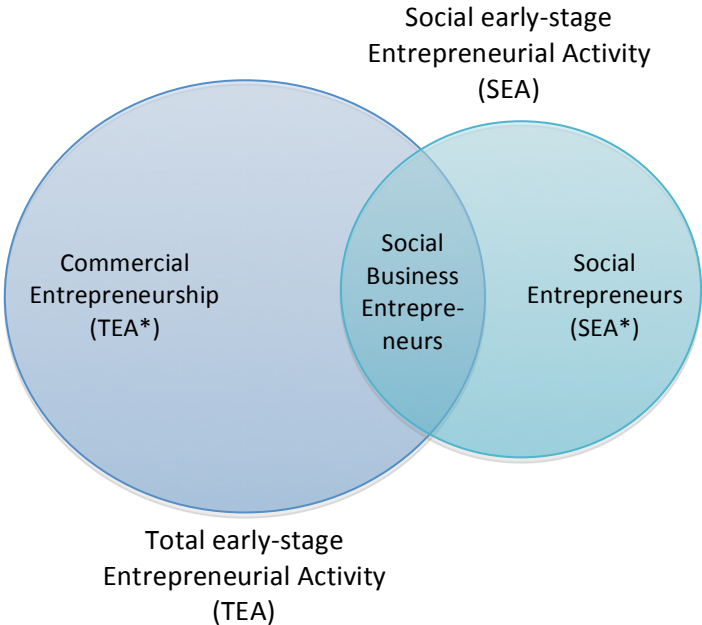
Entrepreneurship data comes from the General Entrepreneurship Monitor (GEM) 2009. This secondary data is based on the Adult Population Survey (APS) and presents uniformed annual numbers on entrepreneurial levels internationally. The sample covers 48 countries, among them the United States, The Netherlands, and Chile. Moreover, in each country at least 2000 adults were interviewed to build the extensive data set, making sure local conditions are taken into account. Thus, the General Entrepreneurship Monitor aims at establishing a worldwide comparison data set that can help in the study, exploration, and prediction of entrepreneurship rates. It, furthermore, gauges attitudes towards entrepreneurs, the prevalence of self-employment, and entrepreneurial characteristics. GEM's main statistic is the Total Early-Stage Entrepreneurial Activity (TEA) scale. This scale records the people who are in the process of starting/running a business, which is less than 3.5 years old. On a practical level, the question used to distinguish entrepreneurs is: *'are you alone or with others, currently trying to start a new business or owning and managing a company, including any self-employment or selling any goods or services to others'*. The formal definition of Total Early-Stage Entrepreneurial Activity (TEA) is *'the proportion of people aged 18-64 who are involved in entrepreneurial activity as a nascent entrepreneur or as an owner-manager of a new business.'* (Bosma & Levie, 2010).

Moreover, the 2009 GEM also records social entrepreneurship. The study is again based on similarly collected interviews and has been widely used to conduct research in this area (Lepoutre, Jousto, Terjesen, & Bosma, 2013). Practically speaking, people are social entrepreneurs if they say yes to: *'Are you, alone or with others, currently trying to start or*

currently owning and managing any kind of activity, organization or initiative that has a particularly social, environmental or community objective?’ Thus, Social Early-Stage entrepreneurial Activity (SEA) refers to the aggregate of nascent entrepreneurship and young business entrepreneurship up to 3.5 years, which has a social goal.

Some respondents do indeed classify themselves as both social and commercial entrepreneurs both. For them social and commercial entrepreneurship are the same (Lepoutre, Jousto, Terjesen, & Bosma, 2013). This is the overlapping territory in the graph bellow.

**Figure 1: Early Stage Entrepreneurship**



Source: adapted from Hoogendoorn & Hartog (2010)

The GEM 2009 further provides a control question to separate the two categories of social entrepreneurs. There are those who start a social business – Social Business Entrepreneurs (i.e., percentage of the adult population that is actively involved in starting or owning-managing a business with a particularly social, environmental or community objective). And there are those who are just involved in a social activity, here referred to as Social Entrepreneurs (i.e., percentage of the adult population that is actively involved in starting or

*owning-managing any kind of activity or initiative that has a particularly social, environmental or community objective*) (Hoogendoorn B. , 2011). This is the light blue part of the circle above, which has no overlap. These groups are distinguished here, as in the GEM report, because they are likely influenced by different factors and under the influence of different considerations.

Furthermore, data on corruption and the control variables come from the World Bank website for 2009 Archives. This corruption index describes how corrupt a country is based on an array of measures such as rule of law, political accountability, etc. The source is widely used and provides relevant information on the 48 GEM countries.

## **Definition of variables**

### **Dependent variable**

To test the aforementioned hypotheses, two dependent variables will be used: Social Early-Stage entrepreneurial Activity (SEA) and Total Early-Stage Entrepreneurial Activity (TEA). In particular, both SEA and TEA will be presented without the overlap they share with each other. That is SEA\* is SEA minus social business entrepreneurs (overlap). The same transformation is carried out for the other dependent variable TEA\* - it has the overlap shared with SEA subtracted. Put differently, the first dependent variable will represent early stage strictly social entrepreneurs, while the second dependent variable will stand for the percentage of early-stage commercial entrepreneurs. This group refers to the percentage of active entrepreneurs that are in the process of starting a business or commercial initiative that does not have a social goal. The overlapping region Social Business Entrepreneurs (see Figure 1) is excluded from this analysis to separate the two types of entrepreneurship more clearly, and prevent methodological ambiguity by ensuring no shared cases between the two.

As can be seen in Table 1, the amounts of SEA\* differ significantly between countries. Low-income countries have on average a lot less social entrepreneurs than high-income countries (0.9% compared to 1.5%). The opposite is true of entrepreneurship in general – TEA\* is substantially higher in low-income countries than it is in high-income ones. This can be seen in



the second column of Table 1. TEA\* in low-income countries is on average 16.5%, while it is only 6.1% in high-income countries.

**Table 1. Rates of Social Early-Stage Entrepreneurship, Total Early-Stage, Commercial Entrepreneurship (TEA\*), Social Initiators (SEA\*), and Social Business Entrepreneurs (Overlap)**

	Social early-stage Entrepreneurial Activity (SEA)	Total early-stage Entrepreneurial Activity (TEA)	Commercial Entrepreneurship (TEA minus overlap) TEA*	Social Entrepreneurship (SEA minus overlap) SEA*	Social Business Entrepreneurs (Overlap)
Low income countries	1.3	16.9	16.5	0.9	0.4
Middle income countries	1.8	11.3	10.7	1.2	0.6
High income countries	1.9	6.6	6.1	1.5	0.4
<i>Overall (unweighted) average</i>	<b>1.8</b>	<b>10.7</b>	<b>10.2</b>	<b>1.2</b>	<b>0.5</b>

Source: Global Entrepreneurship Monitor, 2009.

As a final remark, the study thus focuses on young and nascent rather than established entrepreneurs because of the time dimensions -established entrepreneurs do not reflect current entrepreneurial levels, corruption and macro-economic conditions but ones relatively far from the present (e.g. things were simply different in 1960). The study, moreover, uses SEA\* and TEA\* interchangeably with social and commercial entrepreneurs respectively. That is those two refer to the same groups.

## **Variable of interest**

### ***Corruption***

Corruption is complex, multidimensional, and difficult to measure. The metric used in this analysis is based on data of the World Bank for 2009. A time lag is not considered, as corruption does not fluctuate much in short periods of time (Treisman, 2000), and this paper focuses only on young and nascent entrepreneurs, i.e. those affected by recent corruption levels. The World Bank data notes six dimensions related to good governance: Voice and

Accountability (VA), Political Stability and Absence of Violence/Terrorism (PV), Government Effectiveness (GE), Regulatory Quality (RQ), Rule of Law (RL) and Control of Corruption (CC). These variables are extensively described in the description of variables table in Appendix B (Kaufmann, Kraay, & Mastruzzi, 2011). Each is measured on a scale of -2.5 (weak) to 2.5 (strong). Previous research has focused on a single measure of corruption (Estrin, Mickiewicz, & Stephan, 2013; Griffiths, Gundy, & Kickul, 2013). This thesis will also use Control of Corruption (CC) as its main variable of interest. The variable is defined here as: “the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as “capture” of the state by elites and private interests.”

### **Corruption corrected for GDP per capita**

As noted in the academic literature, corruption and GDP per capita are highly correlated (Easterly, 2006; Stephan, Uhlane, & Stride, 2014). Academia describes this as a ‘chicken and egg problem’, i.e. it is unclear which comes first – corruption or poverty (Banerjee & Duflo, 2011). This can also be seen in the correlation matrix in Table 2. The correlation between LnGDP per capita and corruption is 0.804 – very high (column 3, row 4 in Table 2)

**Table 2. Bivariate correlations between the dependent and independent variables**

Variable	1.	2.	3.	4.	5.	6.	7.
1. SEA*	1						
2. TEA*	.085	1					
3. Control of Corruption	.246	-.477**	1				
4. LnGDP per Capita 2009	.225	-.702**	.804**	1			
5. Government Expenditure 2009	.235	-.554**	.238	.456**	1		
6. Unemployment 2009	.11	-.168	-.195	-.198	.195	1	
7. GDP growth 2009	-.227	.486**	.344**	-.497**	-.498**	-.211	1

\*\* Correlation is significant at the 0.01 level (two-tailed)

\* Correlation is significant at the 0.05 level (two-tailed)

This combination is problematic because it poses a problem of multicollinearity. To get around this and extract the pure effect of corruption I will represent corruption in terms of GDP per capita. That is,  $Corruption = \beta(LnGDP\ per\ capita) + u$

The ‘u’ variable captures the corruption effect unexplained by GDP per capita, allowing for a solution of the problem of multicollinearity.

### **Control variables**

The following variables will be held constant to test the relative impact of corruption and control for different confounding factors in the analysis.

#### ***GDP per capita***

GDP per capita describes average income (measured in US dollars), which has been associated with the prevalence of SEA and TEA (Aidis, Estrin, & Mickiewicz, 2012; Levie & Autio, 2011; Uhlaner & Thurik, 2007). GDP per capita is included in the analysis because it has been shown to influence the levels of SEA and TEA (Lepoutre, Jousto, Terjesen, & Bosma, 2013). For instance, a study of OECD countries by Parker and Robson (2004) found that higher levels of GDP per capita are associated with high entrepreneurship rates. Similar outcomes are shown by Fisman and Sarria-Allende (2004). Thus, GDP per capita is included to deal with the potential endogeneity of national wealth (Stephan, Uhlane, & Stride, 2014). Furthermore, GDP per capita will be used in a natural logarithm form (lnGDP per capita) to match the scale of variables measured – the majority of data is in percentage form.

#### ***Unemployment***

Unemployment (measured in % of working population) is defined as ‘*those who are looking for work, but cannot find it*’. It can turn people to entrepreneurship out of necessity (Storey & Greene, 2010). This is different from pursuing self-employment to make a difference, as in the case of social and commercial (opportunity) entrepreneurship. Is an increase in entrepreneurship on the basis of unemployment or corruption? For example, with high unemployment people may decide to become commercial entrepreneurs, at the expense of social entrepreneurs. This can influence the relative importance of corruption, and is therefore controlled for by including unemployment in the model.

### ***Government Public Spending***

According to Williamson (2000) and Baumol (1990) regulatory frameworks shape the incentives of entrepreneurs. In particular, the role of government activism is pivotal (Estrin, Korosteleva, & Mickiewicz, 2013; Fogel, Hawk, Morck, & Young, 2006) For one thing, government activism promote business (Stephan, Uhlane, & Stride, 2014). It also helps to create better hospitals, schools, and social security, thus increasing human and social capital. Both Aidis et al. (2012) and Fogel et al. (2006) identify government public spending as an adequate measure of government activism. Government spending is mentioned in the institutional void and failure theses as clearly impacting entrepreneurship levels (Stephan, Uhlane, & Stride, 2014). In keeping with the academic literature on social and comparative entrepreneurship (Aidis, Estrin, & Mickiewicz, 2012; Nissan, Castaño, S., & Carrasco, 2012), here government spending is included as a control variable to isolate the relative effect of corruption. For the purpose of this study government spending (measured as % of GDP) is defined as: *payments for operating activities of the government in providing goods and services*. It includes compensation of employees (such as wages and salaries), interest and subsidies, grants, social benefits, and other expenses such as rent and dividends. Last but not least, since Government Spending is related to GDP, it is not surprising to find medium levels of correlation between it and GDP growth (0.456) and GDP per capita (-0.498) (see Table 2). However, some correlation is always to be expected and in this is not too high (Baguley, 2012). Thus, this does not pose problems for the subsequent analysis. To separate the effect of corruption, Government Spending (% GDP) will be a control variable.

### ***GDP growth***

GDP growth (measured in %) can influence SEA and TEA rates (Estrin, Korosteleva, & Mickiewicz, 2013; Hoogendoorn & Hartog, 2010; Stel, Storey, & Thurik, 2007). Moreover, entrepreneurship is related to levels of development (Lepoutre, Jousto, Terjesen, & Bosma, 2013; Naudé, 2010) Not only that, but periods of growth, may be followed by stagnation that destroys businesses (Shane, 2009) Thus, in line with research carried out by Aidis et al. (2012) and Autio et al. (2013) GDP growth (%) is included as a control variable.

## **Methodology**

The hypotheses are tested using multivariate regression analysis. Given the nature of the data and the focus of the study (country level macro analysis), this approach is consistent with that used in the academic literature (Storey & Greene, 2010). Model 1 is build to test the relationship between Total Early-Stage Entrepreneurial Activity and Corruption. Model 5 does the same, but for Social Early-Stage Entrepreneurial Activity. Both models are designed to provide a reference point for the study of the hypotheses. Models 2 and 6 are augmented with control variables to further explore the tested relationship. These variables are Government Expenditure, Unemployment, and GDP growth. Thereafter, Models 3 and 7 introduce an additional control variable – LnGDP per capita – to test the results of the previous models. Finally Models 4 and 8 are built to test the effect of corruption not related to GDP per capita, in other words ‘u’, on Social Entrepreneurs and Commercial Entrepreneurs.

# Chapter 4

## Results

Tables 3 and 4 bring a summary of the regression analysis. In particular, the models show the percentage change in the dependent variable (TEA\* or SEA\*), given a unit change in the variable of interest (Control of Corruption). This, however, does not constitute causality, as there may be a spurious relationship or an omitted variable bias that simply cannot be captured by the data. The Models try to find a relationship between Control of Corruption and the relative prevalence of commercial and social entrepreneurship.

**Table 3: Explaining total entrepreneurship TEA\* using aggregate level conditions.**

	Model I	Model II	Model III	Model IV
	Coefficient (std. error)	Coefficient (std. error)	Coefficient (std. error)	Coefficient (std. error)
Intercept	11.324 <sup>c</sup> (1.068)	20.495 <sup>c</sup> (3.128)	64.289 <sup>c</sup> (11.167)	54.680 <sup>c</sup> (7.510)
Control of Corruption	-3.171 <sup>c</sup> (0.965)	-2.509 <sup>c</sup> (0.927)	1.42 (1.244)	
GovernmentExpenditure		-0.221 <sup>c</sup> (0.095)	-0.088 (0.086)	-0.088 (0.086)
Unemployment		-0.207 <sup>b</sup> (0.180)	-0.338 <sup>b</sup> (0.154)	-0.338 <sup>b</sup> (0.154)
GDP growth		0.285 (0.200)	0.095 (0.173)	0.095 (0.173)
LnGDP per Capita			-5.184 <sup>c</sup> (1.285)	-4.110 <sup>a</sup> (0.802)
U (corruption without GDP)				1.420 (1.244)
R <sup>2</sup>	0.221	0.487	0.653	0.653
Adj. R <sup>2</sup>	0.210	0.429	0.602	0.602
N	48	48	48	48

Notes: <sup>a</sup> Significant at 10% level; <sup>b</sup> Significant at 5% level; <sup>c</sup> Significant at 1% level; t-values are between brackets \*. Countries excluded from total sample due to incomplete data: West Bank & Gaza Strip

**Table 4: Explaining social entrepreneurship SEA\* using aggregate level conditions.**

	Model V	Model VI	Model VII	Model VIII
	Coefficient (std. error)	Coefficient (std. error)	Coefficient (std. error)	Coefficient (std. error)
Intercept	1.093 <sup>c</sup> (0.135)	0.762 (0.474)	2.627 (2.032)	-0.144 (1.367)
Control of Corruption	0.266 <sup>b</sup> (0.122)	0.239 <sup>a</sup> (0.141)	0.410 <sup>a</sup> (0.226)	
GovernmentExpenditure		0.007 (0.014)	0.012 (0.016)	0.012 (0.016)
Unemployment		0.014 (0.027)	0.008 (0.028)	0.008 (0.028)
GDP growth		-0.021 (0.03)	-0.029 (0.032)	-0.029 (0.032)
LnGDP per Capita			-0.225 (0.234)	0.085 (0.146)
U (corruption without GDP)				0.410 <sup>a</sup> (0.226)
R <sup>2</sup>	0.111	0.158	0.180	0.172
Adj. R <sup>2</sup>	0.087	0.062	0.060	0.078
N	48	48	48	48

Notes: <sup>a</sup> Significant at 10% level; <sup>b</sup> Significant at 5% level; <sup>c</sup> Significant at 1% level; t-values are between brackets  
\*. Countries excluded from total sample due to incomplete data: West Bank & Gaza Strip

Model 1 (Table 3) finds a coefficient for Control of Corruption of -3.171 in relation to Total Early-Stage Entrepreneurial Activity (TEA\*). This means that for every unit decrease in Corruption measure (for instance from 0.5 to 1.5), TEA\* will decrease with -3.171 %. Put simply, *Corruption* ↑ = *TEA* ↓. Furthermore, Model V (Table 4) the coefficient of Control of Corruption is 0.266, and it is significant at a 0.05 level. Given the nature of the Corruption variable (-2.5 to 2.5 scale, where -2.5 is the most corrupt), this Model shows a negative relationship between Social Early-Stage Entrepreneurial Activity (SEA\*) and Corruption. In the form of an equation this looks like this *Corruption* ↑ = *SEA* ↓. The more negative the ratings of a country the more corrupt it is. Because of this, a unit increase in corruption ratings (from -0.5 to -1.5 for instance) will result in a 0.266 % point decrease in SEA\*. Therefore, Models 1 and 5 reject Hypothesis 1 and partially support Hypothesis 2.

Extending the models to include GDP growth, Unemployment, and Government Expenditure raises the explained variation. There is also a change in R<sup>2</sup> - from 0.221 (Model 1) and 0.111 (Model 5), to an Adjusted R<sup>2</sup> of 0.429 (Model 2) and 0.062 (Model 6). The relationships established between Corruption and the dependent variables still holds, and is significant. In addition to that Government Expenditure is show to be negatively related to TEA\*. This

relationship is also significant. Thus, the added effect of control variables again rejects Hypothesis 1 and partially supports Hypothesis 2.

However, with the introduction of LnGDP per capita in Models 3 and 7, the earlier findings are no longer robust in the case of TEA\*. In Model 3 the introduction of LnGDP per capita increases the Adjusted R<sup>2</sup> from 0.429 (Model 6) to a new value of 0.602 – increasing the explanatory power of the model. Moreover, with the inclusion of Income in the model the effect of Corruption on TEA\* becomes non-significant. In accordance with previous academic studies, the effect of GDP per capita on entrepreneurship is negative (Hoogendoorn & Hartog, 2010). That is a unit increase in LnGDP per capita results in -5.184 % decrease in TEA\*. This finding is significant at 1% level. On the other hand, in Model 7 Control of Corruption still has a positive effect on the level of SEA\*, although remaining significant only at a 10% level. The Adjusted R<sup>2</sup>, however, does not increase but remains at a low level 0.062. None of the control variables in Table 4 Model 7 are significant.

To further explain these results, Models 4 (TEA\*) and 8 (SEA\*) replace Control of Corruption with u – unstandardized residual. The residuals were obtained as outlined in the Data & Methodology section. In Model 4, the effect of ‘u’ on TEA\* is not significant. Furthermore, Model 4 shows Unemployment is negatively associated with TEA\* at 5% significance level. As can be seen in Table 4, the ‘u’ maintains the (positive) relationship between corruption and the dependent variables, while this relationship remains significant at the 10% level.

Table 5 provides a summary of the analysis and its relation to the hypotheses. The following section will discuss these results and the limitations of the study alongside suggestion for further research.

**Table 5: Overview of the hypotheses, their proposed effects, and their relation to results**

	Hypotheses	Proposed Effect	Supported
	Hypothesis 1:		
Corruption affects	TEA	-	No
	SEA	+	No
	Hypothesis 2:		
	TEA	-	No
	SEA	-	Yes



# Chapter 5

## Discussion

Overall, the analysis supports a positive association between corruption levels and Total Early-Stage Entrepreneurial Activity (TEA\*). In other words, countries that are more corrupt tend to have both larger numbers of commercial entrepreneurs. These findings support neither Hypothesis 1 nor Hypothesis 2. On the surface they appear to contradict research, which points to the negative effect corruption has on entrepreneurial entry (Djankov, La Porta, Lopez-de Silanes, & Shleifer, 2002). As argued by Aidis et al. (2012) the potential gains of entrepreneurs are diminished when corruption is higher. This should also predispose less commercial entrepreneurship. Because corruption is like a tax on economic activities, it should essentially limit all types of entrepreneurship (Estrin, Korosteleva, & Mickiewicz, 2013). The answer might lie in the fact that corrupt and poor countries see in general a different type of entrepreneurship. As argued by Williams (2008) entrepreneurs can be divided into two further classifications: opportunity and necessity. Opportunity entrepreneurs are those who pursue a specific goal, and are often going into the market to explore a particular situation (Storey & Greene, 2010). On the other hand, necessity entrepreneurs are driven to enter the market as the only means to escape absolute poverty. This means that although entrepreneurship is affected by corruption, it is the opportunity entrepreneurs that are affected most. Thus this finding is also consistent with the academic literature (Naudé, 2010).

Moreover, the results of the analysis support a negative association between the amount of Social Early-Stage Entrepreneurial Activity (SEA\*) and the level of corruption. States that tend to be more corrupt generally see less social entrepreneurship. These results support Hypothesis 2. This finding further suggests that the negative social climate corruption creates affects at

some level people's good-doing propensity. Inadvertently, these findings also favor the institutional support theory, which argues that government support, or in this case the absence of a malevolent bureaucracy and corruption, would promote social entrepreneurship (Hoogendoorn & Hartog, 2010). These findings, however, do not prove a causal relationship but rather an empirical tendency. They, moreover, fit well with previous research on entrepreneurship. That is, a well functioning government, which upholds the rule of law, is conducive of entrepreneurial aspirations (Estrin, Korosteleva, & Mickiewicz, 2013; Estrin, Mickiewicz, & Stephan, 2013). In line with Bowen and De Clercq (2008), bad institutions lead people to less desirable business ventures, i.e. they focus less on pro social initiatives. Moreover, since corruption is also ingrained in culture, this finding is related to the work Hayton et al. (2002) and its emphasis on the role of culture as a catalyst for entrepreneurship. Essentially corrupt countries, which are also poorer, tend to have not only higher levels of commercial entrepreneurship, but also lower levels of social entrepreneurial

Furthermore, a strong effect was noted in Model 2 with regards to Government Expenditure. In particular, the study has uncovered a negative relationship between level of commercial entrepreneurs and Government Expenditure. Also, as argued by Estrin et al. (2013) the negative effect of government spending is also noted on the levels of commercial entrepreneurs. This finding is compatible with the arguments made by Stel et al. (2007) that government spending can crowd out entrepreneurial initiative. Although, Government Expenditure is not show to be significantly related to SEA\* in this study, the positive relationship quoted by the academic literature (Stephan, Uhlane, & Stride, 2014) is maintained in models 5 through 8. Thus policy makers who want to incentivize social initiatives would might want to consider special grants and bursaries, which should have an effect on social entrepreneurial rates.

Although initial analysis shows that these findings are in accordance with the academic literature, they become more difficult to settle once we look at additional factors. That is when income is included in the models the effect of corruption on TEA\* stops being robust. Instead LnGDP per capita, grows in significance with respect to everything else. As argued by Aidis et al. (2012) the relationship between government quality and entrepreneurship tends to vary given different levels of national wealth. This may be due to the overshadowing effect income has on the other variables in this context. However, it may also be evidence of an omitted variable bias. More research is needed to definitively settle this relationship.

Next, the study extracts the variation in the variable of corruption to test whether it alone has any significant effects on the either Social Early-Stage Entrepreneurial Activity (SEA\*) or Total Early-Stage Entrepreneurial Activity (TEA\*). It appears that only the variation not shared with LnGDP per capita, has little explanatory power on TEA\*. However, the relationship between Control of Corruption and SEA\* remains significant. Corruption and poverty have been shown to go hand in hand (Acemoglu & Johnson, 2005), and their mutual relationship makes it difficult to for one pinpoint an exact isolated effect. Furthermore, the findings of the study partially support the results of Griffiths et al. (2013) indicating an ambiguous relationship between corruption and social entrepreneurs – in this study the relationship is only significant at a 10% and the variation explained by the model is low (0.078). By gearing the models for the study of corruption, this analysis has thus build on the work of Griffiths et al. (2013). That is when the dimensions of corruption are further explored it indeed becomes significantly related to levels of SEA\*. Thus, a potential avenue for further research would be to explore how exactly does income effect this relationship, and whether it holds universally or just in some countries.

What does the analysis show with regards to the institutional void/institutional support debate? Essentially, the study supports the institutional support thesis. The fact that corruption at some level negatively associated with Social Early-Stage Entrepreneurial Activity (SEA\*) shows that good governance can positively influence the level of social initiatives. The study further finds evidence against the institutional void theory. If this theory were true, then countries where the institutions are bad, i.e. more corrupt, should have higher levels of SE. But they do not. Countries in which the state presence was ‘lacking’ exhibited relative higher levels of commercial entrepreneurs, and lower levels of social entrepreneurs. These results are clearly preliminary and more study is needed to settle the on going debate to a satisfying conclusion. There is a multitude of factors discussed in the literature, which point alternative explanations of social entrepreneurship levels (Ragin, 2008). For example, there might be a mix of cultural and institutional factors, which explain this relationship better. Therefore, there are a multitude of further avenues, which can be pursued to definitively answer the research question. Although the study’s findings are in line with previous research, there is a big potential for further scientific enquiry.

# Limitations and Suggestions for further research

This study is subject to several limitations. Firstly, social entrepreneurship is only imperfectly defined and measured. The GEM study is an extremely valuable asset to researchers of social entrepreneurship, but it also has drawbacks (Bergmann, Mueller, & Schrettle, 2013). For instance, it harmonizes data on 48 countries. This can make finding common determinants of entrepreneurship difficult, as the conditions in each country are quite diverse. That is measuring something so particular on a global scale may invalidate the measurement itself (Bacq, Hartog, & Hoogendoorn, 2013). To illustrate, a comparison of the beauty of sunsets would be a similar type of study. When collecting the data, we have to bear in mind that social and commercial goals can mean different things to different people. This is not only true for people in different countries, but also for different people in the same country. Moreover, the qualitative distinction of social entrepreneurs, social business entrepreneurs, and commercial entrepreneurs remains ambiguous for the same reasons as the GEM data is – the same things can mean different things to different people. For one thing, the group social business initiators were too small to be included separately in the statistical studies. Further qualitative study is needed.

Furthermore, a major setback is the time scope of the study. It only covers the year 2009. This partly explains the low levels of explained variations, which are problematic. With more available data, the study can expand to test whether the uncovered results are indeed robust, or just happened in the aftermath of 2009. Not only that, but 2009 can have very particular socio-economic characteristics, which have only manifested themselves at the beginning of the Financial Crisis. It is not unlikely that the financial crisis has had a profound effect on entrepreneurial levels. Thus this is a potential opportunity for further research.

Moreover, a multitude of unexplored by this study variables that can influence entrepreneurial rates: strength of civil society, capitalism, etc. Although these variables can theoretically influence results, data sets do not exist that would measure them fully. In other words, there is simply no data available.

In addition, many of the countries are OECD, and the number of observations is not that large. The amount of rich countries is over-represented, while the amount of poorer economies is under-represented. The field is still in its infancy and thus can benefit of a more extensive study focusing on the effect on developing countries exclusively. Studies on larger data sets would prove particularly useful.

Another limitation is the subjectivity of the data in relation to the variable of interest. Corruption is only imperfectly measured. Thus the relationship would have been clearer if this was not a social science paper. It is so difficult to establish a proper measurement of corruption and perhaps future research can find more easily usable indicators.

More limitations include the potential spurious relationship between the variables. We do not know whether a third variable is not causing both difference and corruption to react to changes. For example, access to technology could be a big factor that this paper did not research. There can further be an Omitted Variables Bias, which either underestimates or over-estimates the potential result. Further research can focus on this. Last but not least, the study has found the relationship between income and entrepreneurship more complex than anticipated. Thus, there is big potential for the investigation of a link in the triangle of corruption, income and social entrepreneurship.

# Chapter 6

## Conclusion

The challenges of the 21<sup>st</sup> century are social and environmental – inequality, discrimination, global warming, etc. Therefore, for both academics and policy makers it becomes of utmost importance to understand the ways in which people self-organize to tackle these issues. More importantly, why does pro-social self-organization happen in some places but not others? Country specific conditions differ significantly, but some countries appear more conducive of social entrepreneurship than others, e.g. Finland when compared to Greece. This paper studies the effect of one state-defining characteristic (corruption) on the rate of early-stage social and commercial entrepreneurs. This knowledge can ultimately help us stimulate social activities and involve the wider population into solving the world's most pressing issues.

This study makes a number of contributions. Firstly, it addresses a gap in the literature concerning the effect of corruption on social entrepreneurship. As such it fits in line with the wider academic focus on uncovering the determinants of social and commercial entrepreneurship. In particular, the study explores whether corruption affects social and commercial entrepreneurs differently. The results of the analysis confirm the notion that different countries have different specific macro-factors that affect the incidence of social and commercial entrepreneurs. Thus the study answers the main research question: Does corruption affect social and commercial entrepreneurship differently? Yes it does. The study finds a positive association between the level of corruption and commercial entrepreneurs, while social entrepreneurs rates are lower when corruption levels rise.

Secondly, the study explores a scarcely researched dimension of the institutional void and institutional support theory debate. Namely, the analysis finds support for the institutional support theory: the share of social entrepreneurs is negatively affected by a low quality (corrupt)

state. Moreover, the amount of government expenditure has a somewhat positive influence on the amount of social entrepreneurs, while it somewhat suppresses commercial entrepreneurial rates. Thus, this study re-affirms the results of Hoogendoorn and Hartog (2010), on the effects of government expenditure on social entrepreneurial entry, and adds an additional layer of analysis by comparing the effects for social and commercial entrepreneurs. The study, however, finds the relationship between corruption and entrepreneurial composition complicated. Following additional control variable addition, the effect of corruption changes its significance. This effect is in line with the research by Griffiths et al. (2013), which shows corruption affects social entrepreneurship in more complicated ways than previously thought. This research has built on the earlier findings of this study, namely that the dimensions of corruption affect social entrepreneurship, by creating a more thorough corruption measure.

Additional research is clearly needed to understand in what ways do the different factors of corruption affect self-organizing social initiatives. Does corruption limit pro-social initiatives because it suppresses pro-social values? How does the composition of entrepreneurship differ in different income groups of countries? How is corruption related to the level of government expenditure in the context of social entrepreneurship? Given the pressing social, ecological, and political needs of both developed and developing contrives, this study can pave an avenue for future research that could ultimately help in establishing ways in which people can tackle those issues together.

# Appendices

## Appendix A: Descriptives

Table A

Prevalence of Early-Stage Social Entrepreneurial Activity minus Overlap (SEA\*),  
by Stage of Economic Development

Low income countries		Middle income countries		High income countries	
Country	SEA*	Country	SEA*	Country	SEA*
Algeria	1.1	Argentina	3.6	Belgium	1.4
Guatemala	0.1	Bosnia	0.8	Finland	2.5
		Herzegovina			
Jamaica	1.5	Brazil	0.4	France	1.7
Lebanon	0.8	Chile	2.2	Germany	0.5
Morocco	0.3	China	2	Greece	1.4
Saudi Arabia	0.2	Colombia	0.6	Hong Kong	0.3
Syria	0.9	Croatia	2	Iceland	3.2
Uganda	1.7	Dominican	2	Israel	1.6
		Republic			
Venezuela	1.8	Ecuador	0.3	Italy	0.9
West Bank and	0.3	Hungary	1.8	Korea	0.2
Gaza Strip					
		Iran	0.8	Netherlands	0.9
		Jordan	0.5	Norway	0.4
		Latvia	1.7	Slovenia	1.9
		Malaysia	0.2	Spain	0.3
		Panama	0.6	Switzerland	1.4
		Peru	1	United Arab	2.8
				Emirates	
		Romania	1	United	1.9
				Kingdom	
		Russia	0.3	United States	3.4
		Serbia	1.1		
		South Africa	1		
		Uruguay	1.9		
<b>(Unweighted)</b>	<b>0.9</b>	<b>(Unweighted)</b>	<b>1.2</b>	<b>(Unweighted)</b>	<b>1.5</b>
<b>average</b>		<b>average</b>		<b>average</b>	
				<b>Overall</b>	<b>1.2</b>
				<b>(unweighted)</b>	
				<b>average</b>	

Source: Global Entrepreneurship Monitor, 2009



## Table B

### Prevalence of Early-Stage Total Entrepreneurial Activity minus Overlap (TEA\*), by Stage of Economic Development

Low income countries		Middle income countries		High income countries	
Country	TEA*	Country	TEA*	Country	TEA*
Algeria	16.7	Argentina	14.1	Belgium	3.2
Guatemala	25	Bosnia Herzegovina	4.4	Finland	5.1
Jamaica	20.8	Brazil	15.3	France	3.8
Lebanon	15	Chile	14.6	Germany	3.9
Morocco	15.6	China	18.2	Greece	8.3
Saudi Arabia	4.7	Colombia	19.6	Hong Kong	3.5
Syria	8.5	Croatia	5	Iceland	10.7
Uganda	33.2	Dominican Republic	17.3	Israel	5.8
Venezuela	16.9	Ecuador	15.6	Italy	3.4
West Bank and Gaza Strip	8.5	Hungary	8.2	Korea	6.5
		Iran	11.5	Netherlands	7.1
		Jordan	10.1	Norway	8.1
		Latvia	10.3	Slovenia	5.2
		Malaysia	4.4	Spain	4.9
		Panama	9	Switzerland	6.4
		Peru	18.4	United Arab Emirates	11.8
		Romania	4.5	United Kingdom	5.5
		Russia	3.5	United States	3.4
		Serbia	4.9		
		South Africa	5.1		
		Uruguay	11.5		
<b><i>(Unweighted) average</i></b>	<b>16.5</b>	<b><i>(Unweighted) average</i></b>	<b>10.7</b>	<b><i>(Unweighted) average</i></b>	<b>6.1</b>
				<b><i>Overall (unweighted) average</i></b>	<b>10.2</b>

Source: Global Entrepreneurship Monitor, 2009

Table C

## Control of Corruption, by Stage of Economic Development

Low income countries		Middle income countries		High income countries	
Country	CoC	Country	CoC	Country	CoC
Algeria	-0.55	Argentina	-0.5	Belgium	1.43
Guatemala	-0.48	Bosnia Herzegovina	-0.37	Finland	2.3
Jamaica	-0.33	Brazil	-0.12	France	1.42
Lebanon	-0.38	Chile	1.35	Germany	1.72
Morocco	0.3	China	-0.54	Greece	0.01
Saudi Arabia	-0.01	Colombia	-0.31	Hong Kong	1.9
Syria	-1.07	Croatia	-0.1	Iceland	2.06
Uganda	-0.89	Dominican Republic	-0.72	Israel	0.75
Venezuela	-1.16	Ecuador	-0.89	Italy	0.13
West Bank and Gaza Strip	-0.45	Hungary	0.34	Korea	0.48
		Iran	-0.86	Netherlands	0.9
		Jordan	0.22	Norway	0.4
		Latvia	0.13	Slovenia	1.02
		Malaysia	-0.03	Spain	1
		Panama	-0.32	Switzerland	2.09
		Peru	-0.34	United Arab Emirates	0.95
		Romania	-0.27	United Kingdom	1.6
		Russia	-1.09	United States	1.26
		Serbia	-0.31		
		South Africa	1		
		Uruguay	1.19		
<b>(Unweighted) average</b>	<b>-0.52</b>	<b>(Unweighted) average</b>	<b>-0.127</b>	<b>(Unweighted) average</b>	<b>1.26</b>
				<b>Overall (unweighted) average</b>	<b>0.63</b>

Source: World Bank Development Indicators, 2009

## Appendix B: Variable Description

### Description of Variables For Regression Models

Variable	Description	Source
<i>Dependent Variables</i>		
Social Early-Stage Entrepreneurial Activity (SEA*)	The 2009 GEM also records social entrepreneurship. The study is again based on similarly collected interviews and has been widely used to conduct research in this area (Lepoutre, Jousto, Terjesen, & Bosma, 2013). Practically speaking, people are social entrepreneurs if they say yes to: <i>'Are you, alone or with others, currently trying to start or currently owning and managing any kind of activity, organization or initiative that has a particularly social, environmental or community objective?'</i>	Adult Population Survey (APS) of GEM 2009
Total Early-Stage Entrepreneurial Activity (TEA*)	This scale records the people who are in the process of starting/running a business, which is less than 3.5 years old. On a practical level, the question used to distinguish entrepreneurs is: <i>'are you alone or with others, currently trying to start a new business or owning and managing a company, including any self-employment or selling any goods or services to others'</i> . The formal definition of Total Early-Stage Entrepreneurial Activity (TEA) is <i>'the proportion of people aged 18-64 who are involved in entrepreneurial activity as a nascent entrepreneur or as an owner-manager of a new business.'</i> (Bosma & Levie, 2010).	Adult Population Survey (APS) of GEM 2009
<i>Variables of Interest</i>		
Control of Corruption	The extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests. It is measured on a scale of -2.5 (weak) to 2.5 (strong).	<a href="#">Worldwide Governance Indicators</a>
'u' - Unstandardized residual	Describes the effect of corruption which is not related to LnGDP per capita	<a href="#">Worldwide Governance Indicators</a>

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<i>Control Variables</i>		
GDP growth rate	This the growth of gross domestic product as a percentage	<a href="#">World Bank Data</a> 2009
Unemployment	This is the percentage of the population which is not registered as employed	<a href="#">World Bank Data</a> 2009
LnGDP per capita	Furthermore, GDP per capita will be used in a natural logarithm form (lnGDP per capita) to match the scale of variables measured – the majority of data is in percentage form.	<a href="#">World Bank Data</a> 2009
Government Public Spending	Expense is cash payments for operating activities of the government in providing goods and services as a percentage of gross domestic product. This includes compensation of employees (such as wages and salaries), interest and subsidies, grants, social benefits, and other expenses such as rent and dividends.	<a href="#">World Bank Data</a> 2009

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<i>Corruption levels</i>		
<i>Explanation</i>		
Voice and Accountability (VA)	Captures perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media	<a href="#">Worldwide Governance Indicators</a>
Political Stability and Absence of Violence/Terrorism (PV)	Capturing perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism.	
Government Effectiveness (GE)	Captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation	
Regulatory Quality (RQ)	Captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.	
Rule of Law (RL)	Captures perceptions of agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.	

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