



JENA ECONOMIC RESEARCH PAPERS



2007 – 085

A Theory of Destructive Entrepreneurship

by

**Sameeksha Desai
Zoltan J. Acs**

www.jenecon.de

ISSN 1864-7057

The JENA ECONOMIC RESEARCH PAPERS is a joint publication of the Friedrich-Schiller-University and the Max Planck Institute of Economics, Jena, Germany. For editorial correspondence please contact m.pasche@wiwi.uni-jena.de.

Impressum:

Friedrich-Schiller-University Jena
Carl-Zeiß-Str. 3
D-07743 Jena
www.uni-jena.de

Max-Planck-Institute of Economics
Kahlaische Str. 10
D-07745 Jena
www.econ.mpg.de

© by the author.

A Theory of Destructive Entrepreneurship

October 2007

Sameeksha Desai

Max Planck Institute of Economics
and George Mason University

Zoltan J. Acs

George Mason University
and Max Planck Institute of Economics

Abstract

Policy interest since the early 1980s has focused in different ways on the creation of a large, productive, taxable economy – in which entrepreneurship plays a role for employment, income growth and innovation. The current understanding of various forms of entrepreneurship remains incomplete, focusing largely on productive and unproductive entrepreneurship. However, destructive entrepreneurship plays an important role in many, if not most, economies. This paper addresses the conceptual gap in the allocation of entrepreneurship by proposing a theory of destructive entrepreneurship.

JEL-classification: O17, O20, P00

Keywords: destructive entrepreneurship, allocation of entrepreneurship, rent-seeking, rent-destroying, incentives, institutions, property rights, contractual enforcement, conflict, social capital, trust, ethnic capital

Acknowledgement: We thank William Baumol for his insight in general, and for specific comments on this paper. We also thank Roger Stough and David Audretsch for useful discussion on this topic. The first author is grateful for generous research funding from the Kauffman Foundation and Max Planck Institute, as well as to participants of the 2007 Ratio Institute Colloquium for Young Social Scientists.

Contact: Sameeksha Desai: desai@econ.mpg.de
Zoltan Acs: zacs@gmu.edu

Introduction

In a seminal article in the *Journal of Political Economy*, titled “Entrepreneurship: Productive, Unproductive and Destructive,” William Baumol proposed a theory of the allocation of entrepreneurship (1990). He begins his paper with a powerful observation otherwise often ignored by entrepreneurship research: Although entrepreneurship is typically associated with higher incomes, innovation and economic growth, the entrepreneur is fundamentally engaged in activity aimed at increasing wealth, power and prestige (1990: 898). Therefore, entrepreneurship is not inherently economically healthy and in fact, can be allocated among productive, unproductive and destructive forms.

The framework presented by Baumol is useful because it brings to attention the importance of the full range of entrepreneurial activity. The tradeoff between productive and unproductive activity has typically been studied in developed countries, most often from the perspective of economic organization. Strong regulatory regimes, combined with the lengthy evolution of legal protections and social norms, shape the direction of entrepreneurship in these economies - many developed countries have designed economic policies specifically for the purpose of minimizing the ability of entrepreneurs to engage in what are considered to be detrimental activities, and to create environments that support entrepreneurship. In fact, research on allocation in developed countries typically focuses on rent-seeking activities, like excessive litigation, versus growth-oriented activities, such as research and development in the natural sciences. This direction of analysis is reflective of the relatively strong institutional environments existing in developed countries.

In many developing countries – including those with strengthening institutional and policy conditions – unproductive and *destructive* activities are substantial components, if not *the* substantial components in the economy. The tradeoff in these countries is very different, logically, than the tradeoff in developed countries. Even in rapidly developing countries, opportunities for profit can outpace the evolution of institutions, and this mismatch widens the scope of rent-seeking or worse activities. In underdeveloped countries, many of which are politically unstable or have actively hosted civil conflicts in the post-World War II period, economic activities are often predatory and extractive. At even a basic theoretical level, the very existence of these countries means that the standard tradeoff between productive and unproductive entrepreneurship is not the full story. There is growing acknowledgement that economic factors underlie conflict, and that the surface political and social factors commonly identified as causes may be merely secondary factors (Collier et al, 2003). At an analytical level, the dynamics of regional security and conflict spillovers, which are closely related to overall regional wealth, justify investigation into the economic activities that characterize these areas. This is especially important when more than 50 countries have hosted significant periods of conflict between 1980 and 2000 (Wolfenson, 1998). Each developing country, peaceful or in conflict, has a vastly different economic profile but the general commonality is a growing gap between rich and poor.

Baumol makes several useful propositions about productive and unproductive entrepreneurship (which we discuss in the next section), but he does not elaborate on destructive entrepreneurship. Although it is implied to be “more bad” than unproductive entrepreneurship, he makes no specific comment on the nature or effect of such activity

on the economy. There has been some work on “destructive entrepreneurship” by other scholars, who generally follow the implicit definition that comes from Baumol (1990). Such research has examined destructive entrepreneurship, still from a developed country perspective, and has not contributed to the critical gap in our understanding of *what* it is and *how* it works, beyond merely comprising activity that is “bad.” The policy applications of a framework of entrepreneurial allocation are limited, then, for developing and underdeveloped countries.

The topic of destructive entrepreneurship fits well within existing research on entrepreneurship and economic development, its allocation and forms, its political economy determinants and conditions, and finally, its general dynamics within the economy. A substantial focus has emerged on the ability and process of entry for entrepreneurs. For example, De Soto (1990) focused on corruption as a determinant of entry, and later, on institutions like property rights as the key to converting *dead capital* for developing country populations¹. Djankov et. al. (2002) examine regulation of entry and find high costs of entry in most countries. They find that countries with more burdensome regulation of entry also have more corruption and larger unofficial economies. In a theoretical paper, Acemoglu and Verdier (1998) examine enforcement of contracts between entrepreneurs and the ability of state employees to misuse power for the enforcement of property rights. They find that “it may be optimal to allow some

¹ Although economic thought has tended to favor inadequate capital investments as the explanation for poor economic performance many developing countries, De Soto’s idea of dead capital suggests that institutions, not capital, are the problem (2000). He argues that dead capital exists where the land and assets owned by the poor cannot be leveraged within the formal mechanisms of the market because they are informal. Dead capital cannot be used for credit because they have no value as collateral. Therefore, poor people are prevented from participating in economic advancement. This is worse in developing countries undergoing macroeconomic reforms with the goal of streamlining governance and institutional structures. In these countries, reducing institutional stickiness necessarily means formalization of channels of economic activity - and the inability to “keep up” is what ultimately prevents the poor from realizing economic opportunity.

corruption and not enforce property rights fully (1998: 1381)” and also, that some developing economies may choose some combination of strengths of these two institutions.

In addition, rent-seeking has become an important theme in the economic development literature. It is commonly understood as “any redistributive activity that takes up resources (Murphy et al., 1993: 409),” and is at the core of what Baumol labels unproductive entrepreneurship. Murphy et. al. (1993) present a theoretical model of the effects of rent-seeking on growth, and suggest that rent-seeking is indeed so costly to growth because it has natural increasing returns (and thus, becomes increasingly attractive compared to productive activity) and hurts innovative activities more than everyday production activities². An important component of the literature on rent-seeking is the allocation of talent. Murphy et. al. (1991) find that rent-seeking rewards talent more than entrepreneurship in many countries. In their approach, the tradeoff is between entrepreneurship (starting firms that innovate and foster growth) and rent-seeking (redistributing wealth and reducing growth). Rent-seeking is treated as distinct from entrepreneurship in most studies. Bhagwati (1982) proposes the concept of *directly unproductive, profit-seeking* (DUP) activities, in which rent-seeking is generally treated as a subset. His paper, which is useful for a developed country framework, examines the welfare effects of DUP activities, including lobbying, tariff evasion and premium seeking for import licenses.

² Specifically with respect to the tradeoff between productive and rent-seeking activities, the authors note: “... as more resources are allocated to rent-seeking, returns to production, as well as to rent-seeking, fall. Over some range, as more resources move into rent-seeking, returns to productive may fall faster than returns to rent-seeking do, and so the attractiveness of productive *relative* to rent-seeking will fall as well, even though both productive and rent-seeking exhibit diminishing-returns neoclassical technologies. When this happens, rent-seeking exhibits general equilibrium increasing returns, in the sense that an increase in rent-seeking lowers the cost of further rent-seeking (Murphy et al., 1993: 409).”

Although there has been a wide range of research that touches, in some way, upon destructive entrepreneurship, there is no comprehensive conceptual framework to explain this phenomena. Foss et al. (2007) package the idea of proxy entrepreneurship that affects firm value, and examine beneficial or harmful entrepreneurship *to the firm*. Although they present a useful approach to judgment and employee decision-making within the firm, their treatment of “destructive entrepreneurship” does not shed much light on its dynamics as an economic activity.

In this paper, we present a Theory of Destructive Entrepreneurship in a conceptual framework that fills the current gap in the literature. In order to build our theory, we use three important assumptions. First, we make a simple assumption of utility-maximization and second, we accept Baumol’s proposition of a fixed supply – but varying allocation – of entrepreneurship in the economy. Our third assumption is the key conceptual bridge that allows us to extend Baumol’s framework: We assume conditions of uncertain political economy. Thus, we are able to focus on conflict and postconflict economies, where the full range of entrepreneurial choices includes activities that go beyond even rent-seeking and resource capture.

In our model, destructive entrepreneurship has a negative effect on GDP and is rent-destroying. We consider productive entrepreneurship as rent-creating and unproductive entrepreneurship as rent-seeking, and we suggest that destructive entrepreneurship is rent-destroying. Destructive entrepreneurship diminishes the inputs for production; we are specifically concerned with more traditional economies, so these inputs are land, labor and capital. We also posit that destructive entrepreneurship is contextual, meaning that the entrepreneurial act may be rent-creating in one place but

rent-destroying somewhere else. Finally, we suggest that there is some optimal combination of (formal and informal) institutions that determines how entrepreneurship is allocated.

In the second section, we outline Baumol's original contribution. In the third section, we present our three assumptions and propose our theory of destructive entrepreneurship. In the fourth section, we discuss the incentive structure as an extension of Baumol's original conception, and suggest that institutions are reflective of this structure. In the fifth section, we present several relevant institutions for the institutional infrastructure, using the context of conflict as an example. In the sixth section, we discuss the public policy implications and specifically, the relevance of the tradeoff between unproductive and destructive entrepreneurship versus the current paradigm. We conclude with a summary of our theory and the major research agendas that emerge from this new conceptual framework.

Productive Vs. Unproductive Entrepreneurship

Baumol originally proposed a framework to understand the allocation, rather than the supply, of entrepreneurship. He assumes that entrepreneurs exist – and hold some generally substantial role - across societies. With this important assumption, he is able to look beyond the volume of entrepreneurial activity, and instead focus on the allocation of activities. With respect to the full range of entrepreneurship, Baumol hypothesizes that the allocation of entrepreneurship, i.e., the full range of potential entrepreneurial activities, is influenced by structure of rewards in the economy. He suggests that the

ultimate effect of the entrepreneurial activity for the economy is determined by the rules of the game, rather than the objectives or supply of the entrepreneurs themselves:

How the entrepreneur acts at a given time and place depends heavily on the rules of the game – the reward structure in the economy – that happens to prevail. Thus the central hypothesis here is that it is the set of rules and not the supply of entrepreneurs *or the nature of their objectives* that undergoes significant changes from one period to another and helps to dictate the ultimate effect on the economy via the allocation of entrepreneurial resources.

(1990: 894)

Baumol arrives at this hypothesis by building upon the five forms of entrepreneurship originally proposed by Schumpeter (1934)³. According to Baumol, the original analysis was not elaborate enough because it did not place value on moving between these forms of entrepreneurship. Aside from changes in monopolies, Schumpeter’s model provides “no obvious reason to make much of a shift of entrepreneurial activity aware from, say, improvement in the production process and toward the introduction of new products (1990: 897).” Baumol notes that such shifts imply little for traditional topics in economic research. He suggests that entrepreneurs act in ingenious and creative ways to increase their wealth, power and prestige – and not with regard to some consideration of the overall effect of their activities on the economy. If

³ The original five forms proposed by Schumpeter are:

- (1) Introduction of a new good – that is one with which consumers are not yet familiar – or of a new quality of a good.
- (2) The introduction of a new method of production, that is one not yet tested by experience in the branch of manufacture concerned, which need by no means be founded upon a discovery scientifically new, and can also exist in a new way of handling a commodity commercially.
- (3) The opening of a new market, that is a market into which the particular branch of manufacture of the country in question has not previously entered, whether or not this market has existed before.
- (4) The conquest of a new source of supply of raw materials of half-manufactured goods, again irrespective of whether this source already exists or whether it has first to be created.
- (5) The carrying out of the new organization of any industry, like the creation of a monopoly position (for example through trustification) or the breaking up of a monopoly position (Baumol quoting Schumpeter, 1912/1934: 66)

activities are chosen based on perceived opportunity for profit, it is not implicit and should not be assumed that these activities will be of a certain type. For this reason, Baumol extends Schumpeter's list of entrepreneurial activities to include activities of "questionable value" to society, such as innovative new practices of rent-seeking (1990: 897). These activities of questionable value form Baumol's conception of unproductive entrepreneurship. Specifically, he refers to innovations in rent-seeking procedures, such as a "previously unused legal gambit that is effective in diverting rents to those who are first in exploiting it (1990: 897)."

This extension of Schumpeter is a key contribution of Baumol's paper: It reminds those engaged in the research, practice and policy planning of entrepreneurship that entrepreneurial activities are not fundamentally "good" and should be examined in their entirety⁴. Further, Baumol offers excellent justification for examining the underlying structure of incentives determining the allocation of entrepreneurship:

If the rules are such as to impede the earning of much wealth via activity A, or are such as to impose social disgrace on those who engage in it, then, other things being equal, entrepreneurs' efforts will tend to be channeled to other activities, call them B. But if B contributes less to production or welfare than A, the consequences for society may be considerable.

(1990: 898)

With this in mind, Baumol makes the following three propositions (1990: 899, 909):

Proposition 1 The rules of the game that determine the relative payoffs to different entrepreneurial activities *do* change dramatically from one time and place to another.

⁴ The field of entrepreneurship certainly needs this reminder – even now – as it has overwhelmingly focused on productive entrepreneurship, such as those that occur in high-growth industries, create jobs and lead to technological innovations.

Proposition 2 Entrepreneurial behavior changes direction from one economy to another in a manner that corresponds to the variations in the rules of the game.

Proposition 3 The allocation of entrepreneurship between productive and unproductive activities, though by no means the only pertinent influence, can have a profound effect on the innovativeness of the economy and the degree of dissemination of its technological discoveries.

His first proposition parallels a contextual approach to decision-making within economic systems – i.e, circumstances under which economic decisions are made change as conditions related to specific times and places are different. Second, he suggests these decisions themselves also vary, as the “rules of the game” change. Third – and this highlights once again why the allocation of entrepreneurship is so important – Baumol suggests that the allocation of entrepreneurship between *productive and unproductive* activities can greatly affect both the innovativeness of an economy as well as the eventual dissemination of technological progress. He notes that there has been a strong correlation between the historic payoffs to productive entrepreneurship and a record of technological innovation, an argument that appears to be generally supported by the continued and increasing sourcing of research activities to the private sector in many advanced economies.

When he refers to unproductive entrepreneurship, Baumol refers to a range of activities that threaten productive entrepreneurship⁵. Specifically, he notes rent-seeking, tax evasion and avoidance as the dominant forms of unproductive entrepreneurship.

Within rent-seeking, he includes excessive legal engagement; within taxation, he notes that high-tax societies host a certain set of incentives for entrepreneurial effort. Indeed,

⁵ For detailed treatment of the difference between productive and unproductive economic activities, see Nunn, 2007; Murphy et. al., 1991, 1993; Grossman and Kim, 1995; Skaperdas, 1992; Hirshleifer, 1991.

these factors are important conditions in many countries - most of which are developed – where they reflect a permanent balancing act between mechanisms of regulation and public support, and those to encourage competition⁶.

For this reason, the stakes – and the policies that may ultimately influence outcomes – are high. In addition to the importance of underscoring that entrepreneurship does not always have a positive effect on the economy, and in addition to the conceptual clarity on the nature of entrepreneurship, Baumol’s extension of Schumpeter identifies a crucial role for public policy. He notes that “the prevailing rules that affect the allocation of entrepreneurial activity can be observed, described, and, with luck, modified and improved... (1990: 894).” Further, he notes that the real hope for policy planners – and ultimately for economic development and economic growth – is that it becomes possible to change the rules determining entrepreneurial activity, rather than the goals of the entrepreneurs themselves. Simply put, we should focus on understanding and molding the overarching “rules of the game” rather than attempting to control, shape or influence human nature.

A Theory of Destructive Entrepreneurship

The importance of Baumol’s theory is clear for countries primarily engaged in the tradeoff between productive and unproductive activities. In order to shed light on entrepreneurship that is not captured in his existing framework, we propose the theory of

⁶ Numerous studies have examined the effect of lawyers (and lawyering) on economic growth. Some have examined lawyers and economic growth, while others have examined litigation activities in relation to other activities, such as medical or research. For a thorough discussion of the literature within this research topic, see Sander (1992).

destructive entrepreneurship. We begin with three fundamental assumptions: (1) Assumption of rent-capturing, (2) Assumption of constant supply but varying allocation and (3) Assumption of unpredictable political economy.

First, entrepreneurs, i.e, private sector agents, operate to maximize utility. Although this seems obvious for the study of most economic behavior, it is necessary to state because it reiterates that entrepreneurship is not, by nature, positive. For example, Murphy et. al. (1991) treat rent-seeking and entrepreneurship as two separate activities, stating that talent will allocate to either activity, depending on where there is larger wealth available for taking (1991: 520). However, we view rent-seeking within the spectrum of entrepreneurial activity (as does Baumol). Therefore, we find it important to assume that entrepreneurs are driven by rents, and that this holds true across the range of allocation.

Second, we accept Baumol's proposition that the supply of entrepreneurs remains relatively constant. By assuming this, we are able to (for the sake of conceptual clarity) remain free of the other, largely individual-level factors that drive entrepreneurial decisions – i.e, we assume that the same people will be entrepreneurs, regardless of incentives, but it is the chosen type of entrepreneurship that will change. Murphy et. al. note similarly that talent tends to be general and not occupation-specific (1991: 505).

Third, we find that most treatments of allocation or of entrepreneurship assume the existence of occupational choice, which limits applicability to a range of political economies. In fact, most models of entrepreneurship are useful only with respect to developed economies that are focusing on innovative, high-growth industries – and where the citizens can choose between entrepreneurship and wage employment, for example.

Conditions of political instability and/or economic underdevelopment create very real constraints on individual occupational choice⁷ and thus, entrepreneurial choices. Murphy et. al. note that “when they are free to do so, people choose occupations that offer them the highest returns on their abilities (1991: 503).” However, we assume that people are *not* always free to choose, and that not all types of entrepreneurship are available to them at any given time. This is the key assumption of our model that allows us to extend Baumol’s framework. This directs us to examine the context of conflict as the ideal “natural experiment” for the allocation of entrepreneurship. We use conflict as the institutional setting for our discussion, examining specifically some institutions that emerge in the immediate postconflict setting, in contrast to most developed country perspectives.

Our new context allows us to shift the lens from Baumol’s focus on entrepreneurship that creates output (productive) and entrepreneurship that is redistributive (unproductive). This assumption allows us to extend Baumol’s work in a substantial way, and to expand our understanding of the allocation of entrepreneurship. We are now operating in economies where institutions are weak, at best, and where high-technology, high-growth sectors are not significant components. To reference a popular term in the entrepreneurship literature: We are no longer in the “knowledge economy.” Instead of lawyers and bankers engaging in rent-seeking activity that redistributes wealth among actors, we are interested in the primary sector and natural resources – ie., oil in Iraq, diamonds in Africa, drugs in Afghanistan. We create a conceptual continuum by making the following proposition:

⁷ See Ghatak and Jiang (2002) for a discussion of the effects of the poverty trap.

Proposition 1: Destructive entrepreneurship has a negative effect on GDP⁸.

This is implicit both in Baumol and in related treatments of the concept. Foss and Foss (2000) suggest that destructive entrepreneurship occurs when an individual captures economic rights (attributes) and reduces joint monetary surplus. However, we suggest the following additional proposition to clarify *why* it has a negative effect on the economy:

Proposition 2: Destructive entrepreneurship is rent-destroying.

The distinction between unproductive and destructive entrepreneurship has been tenuous (and therefore, often ignored) because the furthest frontier of research tends to end with “rent-seeking.” Research focuses on formal vs. informal, illegal vs. legal, i.e., the difference between registered firms in high-growth industries (which provide a tax base and contribute to sector-specific innovation and competition) versus actors engaged in rent-seeking, illegal and/or unofficial activity. For example, Murphy et. al. (1993) modeled the effect of rent-seeking economic activities on growth in two ways: First, there are general equilibrium increasing returns to scale⁹ and second, bureaucratic agents engaged in rent-seeking stifle innovation by discouraging entrepreneurship (i.e. through corruption). These effects of rent-seeking (stifling innovation and creating inefficiencies such as corruption) prevent the proverbial “pie” from growing, thereby generating unproductive overall results. However, this does not explain the existence of entrepreneurship which leads to actual *shrinking of the pie*. We consider destructive entrepreneurship to have a negative effect on GDP because the activity is not merely rent-

⁸ The conceptualization of destructive entrepreneurship as activity with a negative overall effect on GDP was suggested by William Baumol, in personal correspondence with the authors.

⁹ Their general equilibrium model suggests that as more resources are focused on rent-seeking activities, the returns to productive activities can fall more rapidly than the resulting returns to rent-seeking. This can, then, trigger additional rent-seeking activities.

seeking, it is *rent-destroying*. We outline the principal differences in forms of entrepreneurial allocation below:

	<i>Productive entrepreneurship</i>	<i>Unproductive entrepreneurship</i>	<i>Destructive entrepreneurship</i>
How does the entrepreneur treat rents?	Rent-creating	Rent-seeking	Rent-destroying
Does the entrepreneur capture rents?	Yes	Yes	Yes
Net effect on GDP	(+)	(0)	(-)

In all cases, we broadly accept the entrepreneur to engage creatively to increase wealth, power or prestige (Baumol, 1990) and to be motivated to capture rents. However, in the case of productive entrepreneurship, the entrepreneur is rent-creating, whereas he is rent-destroying as a destructive entrepreneur. As an unproductive entrepreneur, he is still rent-seeking, which remains consistent with Baumol's conception.

We suggest further the following proposition to describe *how* destructive entrepreneurship creates its eventual negative effect on GDP.

Proposition 3: Destructive entrepreneurship comprises entrepreneurial activities that diminish inputs for production.

Our assumption of uncertain political economy means that destructive entrepreneurship is most likely to occur in developing countries with some degree of political instability (although it is likely to occur in some form across countries). Most developed countries have evolved formal institutions to prevent rent-destroying behavior (even rent-seeking behavior), so it is simply less obvious in these places. We suggest that it is pervasive in the most poor and the most underdeveloped countries¹⁰. As these

¹⁰ The literature on political economy (specifically on economic development and political instability) indicates overwhelmingly that poorer countries are more prone to political instability. For excellent studies

countries tend to rely on primary and secondary economic industries, inputs for tertiary and quaternary sector activities are not of immediate relevance. Therefore, we emphasize the effect of destructive entrepreneurship on traditional inputs of production in the following corollary:

Corollary 1: Destructive entrepreneurship shrinks land, labor and capital.

This interpretation somewhat parallels the idea of sustainability that gained widespread attention in the international development community in the 1980s, though our specific focus is on entrepreneurial acts. Natural resource endowment offers a tempting base for short-term profit in many countries and especially in countries of conflict, where it has been associated with high levels of colonial extraction and a resulting legacy of underdevelopment (Nunn, 2007; World Bank, 2003). Activities dependent largely upon extraction of natural resources fall within this conception of destructive entrepreneurship¹¹. This is particularly the case for non-renewable resources, and destructive entrepreneurs around the world have harnessed these resources with little regard to sustainability.

Unchecked extraction of natural resources necessarily means there is demand, i.e., they must be going somewhere. In the former colonies, most resources were inputted into supply chains or directly processed for sale and use in the colonizing country. This has not changed – in fact, with globalization and the movement of people and ideas, there has been increased movement of goods across countries. The effects of moving goods or raw

on economic development and political instability, see Collier and Hoeffler (1998), Berdal and Malone (2000). Most conflict countries are poor and underdeveloped (World Bank, 2003).

¹¹ Dynamite fishing, practiced commonly by indigenous farmers (and necessity entrepreneurs) in the Philippines, is one such example. Logging companies – again in the Philippines – have destroyed large amounts of forests at rates faster than their growth. Slash-and-burn agriculture is another example.

materials across countries are, logically, different based on context. Therefore, we propose the following corollary:

Proposition 4: Destructive entrepreneurship is contextual – what is destructive in one place may be productive elsewhere.

One of the earliest examples of destructive entrepreneurship as a contextual activity is the slave trade in Africa. The depletion of the labor pool (a critical input for production) is the obvious consequence, along with the institutionalization of exploitative labor practices and potentially, a path-dependent tendency towards human trafficking. Costs of production in Africa increased (Darity, 1982) and GDP suffered as production of other goods fell¹². In the years between 1806 and 1821, rice and wheat exports from Quelimane¹³ declined by 88 per cent and 95 per cent, respectively – and slave exports increased by 240 per cent (Austen, 1987: 68-71). Nunn (2004) found that across countries involved in slave trade in Africa, there has been a negative relationship with economic performance: The greater the number of slaves removed for trade, the poorer the economic performance of the originating country. On the supply side, the effects of the slave trade in African countries meant that productivity fell as the best workers were removed. On the demand side, however, a reliable supply of workers contributed to regional and local comparative advantages because of the relatively low marginal cost to maintain this kind of labor. The United States is the obvious example of a different contextual situation in which the slave trade led to increased productivity.

Incentives

¹² For specific observations of Dutch colonizers in the 1700s, see Richards, 1980).

¹³ Port in Mozambique.

Baumol notes that incentives, and their associated institutions, determine choices between various allocations of entrepreneurship. He notes that incentives motivate potential entrepreneurs to select activities based on the overall rewards to their range of possibilities. The integral role of reward structures in determining activity (Baumol, 1990; Acemoglu, 1993; Grossman and Kim, 1995) has typically focused on the trade-off between productive and unproductive entrepreneurship. According to Murphy, Shleifer and Vishny (1991), reward structures may point actors towards activities that include rent-seeking. Baumol (1990) notes that social conceptions about government incentivized public employment as opposed to enterprise in Medieval China.

In the previous section, we noted the African slave trade as an early form of destructive entrepreneurship. The rewards structure at the time favored not only those entrepreneurs that dealt directly in slavery, but also those middlemen, bandits and thieves that acted entrepreneurially to facilitate this trade (Nunn, 2004).

It is important to note that although it remains uncertain if reward structures are initially shaped endogenously (Acemoglu, 1995) or exogenously (Baumol, 1990), they always have the potential to become endogenous due to history dependence¹⁴. This tendency to embeddedness means that reward structures are not only critical determinants of the current allocation of entrepreneurial activity, but also as potential determinants of future reward structures and related allocations (Acemoglu, 1995).

The nature of incentives, as constructs of human behavior and motivation, is reflected in the state of any given society's *rules of the game* (North, 1990): Institutions. Institutions serve as frameworks that structure economic interactions and by doing so, they determine economic performance (North, 1981: 17). In fact, they "spell out the

¹⁴ See Acemoglu (1995) for a discussion of the underdevelopment trap.

system of incentives and disincentives that guide and shape economic activity (ibid)” and are the most important ways through which transactions take place (World Bank, 2001). It is important to acknowledge the existence – and importance - of both formal institutions, such as banking structures, legal systems and regulatory regimes, as well as informal institutions, such as social norms and religious beliefs. We take North’s statement at face value and assume that the state of institutions is a direct reflection of the rewards structure.

There are two popular approaches to entrepreneurship in the formal institutional economics literature: Property rights and contractual enforcement. Some management and sociology approaches have examined the role of social capital, particularly the relationship of informal networks and venture finance, but there has not been very much exploration into informal institutions with respect to entrepreneurship. Formal institutions are not perfectly representative of the overall environment of doing business across countries simply because they do not necessarily represent the amount and nature of entrepreneurial activity actually taking place¹⁵.

In the context of uncertain political economy, which we have assumed, the role of informal institutions may be at least as important, perhaps more, as formal arrangements. For example, the *existence* of business registration facilities or licensing procedures does not itself incentivize entrepreneurship to register businesses and obtain necessary licenses, thereby participating in the formal sector. This should be clear from the cost to obtain licenses in some countries. For example, in 2005, it costs 1674% of GNI per capita

¹⁵ For example, the World Bank collects firm-level registration data to measure the number of new businesses, while the Global Entrepreneurship Monitor (GEM) collects data on early-stage entrepreneurial activity. In general, GEM numbers are higher than World Bank data, particularly in developing countries, which implies there is a robust entrepreneurial sector that is not being captured through the established formal institutions.

to obtain licenses in Angola, and 501% and 268% in Rwanda and Sierra Leone, respectively (World Bank, 2005). We cannot assume that entrepreneurship does not take place in these countries – we can only assume that the formal institutions for businesses discourage productive, taxable activity because individuals face prohibitively high financial barriers to registration, licensing, etc. The number of days to register property in 2005 are further discouraging: 252 days in Rwanda, 371 days in Rwanda and 58 days in Sierra Leone (Doing Business, 2005). Contractual enforcement under these political economy conditions is also poor (see Doing Business, 2005, for country reports), thereby making the entire set of formal institutions related to productive private sector activity quite discouraging and in some cases, perhaps irrelevant. Expensive licensing, slow property registration and weak contractual enforcement await entrepreneurs in conditions of uncertain political economy – but only if they are first able to come up with large amounts of capital investment to start the business, to begin with. The operations of formal institutions can only be blamed - in the cases of Angola, Rwanda and Sierra Leone – after the potential entrepreneur has managed to raise, respectively, 642%, 280% and 835% of GNI per capita in financial investment. Therefore, informal institutions may be playing a greater role than typically expected in more stable countries.

Let us briefly examine the practice of corruption, which reflects both state incompetence and poor market structures. The World Bank measures corruption as the exercise of public power for private gain, thereby implying that both the state and market sectors must be susceptible (Kaufmann et. al., 2005). The postconflict economy is often highly corrupt, particularly where the country is host to valuable natural resources or is situated on largely unmonitored transportation routes (for example - diamonds in West

Africa, oil in Iraq, drugs in Afghanistan). The postconflict economy serves as the perfect location for resource capture, and the lack of formal institutions allows unlimited transactions for exchange. It also allows illegal trade of goods (see Cooper, 2002, for conflict trade) to finance conflict. For example, diamonds have played a large role in supporting factions in conflict in several civil wars in Africa, most notably Sierra Leone. The lack of governance over transactions has allowed these diamonds to reach international markets through numerous untraceable transactions, and for the money to find its way back to the conflicts.

As an institution, corruption becomes embedded in the rules or norms of exchange, increasing the cost of transactions. In the political economy of conflict, corruption may be facilitated by political power struggles for economic transactions. Corruption affects not only the strength of the state sector (Evans, 1979; Freeman, 1982) but also affects entrepreneurial ability. The effects of corruption on entrepreneurship do not appear straightforward and may vary based on the type of entrepreneurial venture being undertaken¹⁶.

Therefore, we argue that informal institutions are just as important as formal institutions, and it is some combination of the two that truly determines the allocation of entrepreneurship. For this reason, we broaden the argument made by Foss and Foss

¹⁶ Corruption is found to contribute to greater unofficial economic activities, but further examination of the relationship is lacking (Schneider and Enste, 2000; Johnson et. al., 1998). Entrepreneurship in the post-Soviet region is thought to have been facilitated and maintained through corruption (Kaufmann et. al., 1999). Preliminary regression analysis suggests a U-shaped effect of corruption on entrepreneurship. Using 2004 GEM total entrepreneurial activity (TEA) data and 2004 World Bank control of corruption data, we found that countries with the highest TEA rates of also rank very poorly on control of corruption. For example, Peru reported a poor control of corruption index of -0.35 but had the highest TEA rate at 40.3 per cent. Uganda's control of corruption was also negative, at -0.71, and also boasted a high TEA rate of 31.6. In fact, the countries with the highest control of corruption rankings, Finland and Singapore (at 2.53 and 2.44, respectively) reported lower TEA rates of 4.4 per cent and 5.7 per cent respectively. This initially counterintuitive trend is likely explained by the different nature of entrepreneurial activities in developing countries versus developed countries – i.e., necessity versus opportunity entrepreneurship.

(2000) that some optimal combination of contractual settings affects the trade-off between productive and destructive entrepreneurship:

Proposition 5: The unique combination of informal and formal institutions within a country will determine how entrepreneurship is allocated – i.e, the relative share of entrepreneurship that is productive, unproductive or destructive.

Institutional Infrastructure

The single most popular institutional culprit for high transaction costs and poor private sector performance is property rights. This has been identified both in the conceptual literature¹⁷ and country studies. As mentioned earlier, for example, Foss and Foss (2006) focus almost exclusively on property rights as the major factor influencing a tradeoff in the allocation of entrepreneurship. Weak property rights are an institutional manifestation of state failure that has been the focus of much study on economic performance and political stability in general, not just within entrepreneurship. As a fundamental determinant of economic efficiency (Williamson, 1975; North, 1981), property rights govern access, ownership and use of land. De Soto (2000) suggests that formal property rights are the key to harnessing and converting dead capital to live capital for poor segments of developing countries. Once this occurs, occupational choice expands (and this widens the scope of entrepreneurship) for two reasons. First, their assets are assigned value within the market. Second, they are able to leverage these assets with some security in a formal way related to the entrepreneurial process – for example, they immediately gain access to banking and credit systems because secured assets work

¹⁷ See Williamson, 1975.

as collateral¹⁸. The ability of policy to enable the conversion of dead capital is arguably one way to encourage a shift into the productive, formal sector, especially for people that pursue entrepreneurship out of necessity.

If property rights and their contractual enforcement are popular formal institutions, then trust and social capital are their informal counterparts. Trust and social capital are thought to have a positive effect on economic performance¹⁹ and social and economic relations²⁰. The concepts overlap and strong social capital, manifestations of trust in particular, can lower transaction costs and increase production efficiency. Economic agents (including entrepreneurs) prefer to engage in transactions with people of “good reputation,” i.e. that may be trusted, and tend to extend this social assessment to economic activity (Granovetter, 1985). Social capital – the numerous horizontal connections that exist between people (Putnam, 1993) – typically comprises a range of subsets, such as connections on the basis of religion, gender, profession and leisure activity. In the context of conflict and due to the nature of ethnic cleavages, we find it necessary to extract the concept of ethnic capital, which has a different effect on entrepreneurial allocation. Therefore, for the purposes of this analysis on postconflict societies, we consider social capital the range of associations between people, with the exception of those based on ethnicity. It follows, logically, that ethnic capital is the range of associations between people based on ethnicity.

¹⁸ The catch – and there always is – is the difficulty in *formalizing* property rights in developing countries, so they are governed in a way that is universally understood and standardized (de Soto, 2000). When property rights are formalized, ownership can be validated and the rules governing exchange of property for credit become standardized. This is de Soto’s theoretical solution to dead capital, although he notes that the methods that have evolved in developed countries are not applicable to circumstances of ownership in developing countries.

¹⁹ See Easterly, 2004; Knack and Keefer, 1997.

²⁰ See Fukuyama, 1995 and Granovetter, 1985.

The establishment of trust during an economic transaction is an essential condition of the success of that transaction. For example, if entrepreneur A is considering sourcing to entrepreneur B, he must have confidence that B will deliver. In addition, B must believe that A can pay for his materials, if B does not pay fully up front. Aside from some kind of interaction history, A and B can only rely on reputation and reciprocity (Fukuyama, 1995; Ostrom and Ahn, 2003). Where social capital and trust are weak, and where the environment is chaotic with limited likelihood of reciprocity, the incentives encourage parties to cheat during transactions. It is well accepted that social policies and informal support networks are not inclusive after conflict (Collier et al, 2003).

Reputation is important both at the front end and the back end of the transaction equation, meaning that entrepreneur A will trust B based on what he has heard about him, i.e. his reputation. He not only expects this reputation to be a function of B's experience with previous transactions, but he will be able to report on B after his interaction. This whole process ultimately depends upon the ability of the social structure to censure those that violate trust – i.e., the ability to alter reputation. Transactions are carried out with the assumption that people have been honest about others, that they will engage in business transactions with integrity, that A will pay half now and half later as promised, and that B will not run off with his supplies. If either party violates the agreement, there will be general shame, contempt and disgust (Platteau, 2000: 251), and embarrassing loss of reputation. Operating within general norms and observing the framework imposed by social capital becomes necessary for entrepreneurs interested in multiple transactions. It is exactly this ability (or threat thereof – a sort of social contract) – to hold people accountable by fear of reputation – that is missing in the postconflict context.

In addition to smaller world of economic transactions, the postconflict society is dealing with an extremely distorted operation of human interaction. Weapons used during conflict are not only guns and landmines, but also ethnic cleansing by rape and gender-based violence. Trust is fundamentally destroyed in conflict²¹ and the “intimate exposure to brutality... leaves individuals psychologically scarred and the intricate network of social interaction deeply torn (McDonald, 2002: 4).” The damage to social capital and the incentives structure in this highly traumatized context is deep – and may be motivated by need for revenge and a wide range of post-traumatic stress behaviors. This means destructive entrepreneurship may be attractive for economic reasons, and for reasons that are not purely economic, especially if its effects are immediately obvious. Social capital is a key institution that can bring people together to counter destructive entrepreneurship.

Although social capital needs to be strengthened, we suggest that ethnic capital be extricated for conceptual reasons because it has the opposite effect due to the dynamics of ethnicity in conflict. If the conflict has a strong history of ethnic confrontation, this stunts the full potential of small businesses by undermining necessary interpersonal relationships (see Harris, 2002). Even broad constructs of ethnicity suggest that it is defined by self awareness as part of a group, as well as external awareness (Yinger, 1985). Instrumentalist perspectives on ethnicity suggest that it serves as the mechanism from which power may be derived for personal or group gain (Glazer and Moynihan, 1975; Rothchild, 1986).

²¹ For example, more than 200,000 female refugees were raped during the conflict in Rwanda (Carballo and Solby, 2001). An innovation in the “technology arsenal” of war has been the purposeful transmission of HIV: “There is documented testimony from female survivors of rape in Rwanda that the transmission of HIV was a deliberate act. According to some accounts, HIV-positive Hutu men would tell women they were raping that they would eventually suffer an agonizing death from AIDS.... Some of the rapists allegedly said *We are not killing you. We are giving you something worse. You will die a slow death* (Elbe, 2002: 168).”

Norms, which we treat as a special subset of social capital, are often shaped by cultural elements such as religion, tribal history, class and values. As a phenomenon shaped at least in part by ethnicity, norms within an ethnic group are strengthened by the divisiveness of conflict, and in this case, the institution can be exclusive (World Bank, 2001: 174). Research on Tutsi and Hutu groups in Rwanda documents the development of “strong exclusionary social capital”, which we identify specifically as ethnic capital (Colletta and Cullen, 2000). In Rwanda, “high levels of social capital existed both vertically and horizontally among Hutu ranks,” i.e. strong ethnic capital, and “bridging social capital that linked Hutu with Tutsi was all but eliminated,” i.e. overall social capital that includes trust (Collier et al., 2003). Ethnic networks are often used to consolidate and organize violence in conflict zones (Gurr, 2000), thereby solidifying group identity *against* other.

There are a number of tools with which one may arrive at an understanding of how ethnic capital operates. Within the conflict literature, the idea of chosen trauma is a popular approach to group identity. This is similar to the previous discussion of moral worlds versus a moral universe. Chosen trauma – the shared mental consciousness of enemy-inflicted suffering – is a group-level reaction to threats to group identity (Volkan, 2001). It strengthens over generations, so groups embed an inward focus and/or by demonstrating psychological aggression to the group that inflicted the suffering. As the inward focus grows, groups concentrate their emotional and other resources within their members. In terms of establishing trust, it may be easier to get information about group members for transactions through informal networks. Ties within the group solidify, both in the country of conflict and across borders. Although this builds trust and encourages

transactions *within* the group, it necessarily creates and maintains distance from *other* groups. Strong ethnic capital can destroy economic networks and trading activity that crosses ethnic groups (Goodhand et. al., 2000). This distance, logically, magnifies in areas of conflict, where the “other” groups are former enemies.

Further, group cohesion is thought to be strengthened by economic exclusion (Aldrich and Waldinger, 1990), meaning that underdeveloped countries hosting conflict are likely to have strong ties within ethnic groups. Though not specific to conflict, the mainstream entrepreneurship literature generally maintains some consensus that ethnic factors are important determinants of entrepreneurship behavior. Although research into this subject has focused largely on ethnic and immigrant entrepreneurship in developed countries, it suggests that strong ethnic ties serve as an important driver and source of strength for entrepreneurs. This may be the case because of a protected market, where demand originates (Light, 1972) and may remain captive market (Aldrich and Waldinger, 1990). In addition, disadvantage theory posits entrepreneurship to be the result of poor opportunities and compensation for wage labor in the “regular” economy.

The distinction of ethnic capital is critically important to this analysis, as it works against overall social capital. Collier (2001) finds evidence that ethnically diverse societies may have private sector advantages based on ethnic networks, but that broad national activity is difficult. This suggests that incentives within groups may be positive, but those between groups are not. Simply put, this means the opportunity for private gain, even or especially where it negatively impacts land, labor and capital availability for other groups, is attractive for the potential entrepreneur. Incentives support destructive

entrepreneurship, where in other countries they would at least generate some kind of greater social disapproval.

So, if we return to entrepreneurs A and B, and assign them both to the same ethnic group, the existence of strong networks as well a similar moral world may facilitate the transaction. If we introduce entrepreneurs C and D, and assign them to the “other” group in the postconflict setting, strong ethnic capital would still bring A to B. The question that arises from the role of ethnic capital in business transactions is: If C or D can produce more cheaply for A, will A still source from B? And, more interesting, is there a “tipping point” for this decision? This tipping point, if it exists, reflects the exact point at which incentives for this transaction have shifted. Will A source from B, despite it being more expensive, to a certain level? At what point, if at all, does the lure of profit overtake the strength of ethnicity?

Although there are certainly instances of noncohesive behavior within transnational ethnic groups, the ties of ethnicity existing before war, and strengthened during war, are generally very strong.

Policy Notes

As noted before, the current understanding of allocation of entrepreneurship has been limiting simply because it does not allow for another class of entrepreneur.

Although some perspectives on allocation treat rent-seeking as a form of entrepreneurship (Baumol, 1990), others do not even consider this redistributive type of activity within the scope of “entrepreneurship” (Murphy et. al., 2001). This is possibly

because the focus of most academic research has been on developed countries. However, the focus of development policy has obviously been on developing countries. Despite this mismatch of interest, best summarized as “R&D/innovation” versus “SMEs/export,” strikingly similar conversations have developed: Productive vs. unproductive, formal vs. informal, legal vs. illegal, taxable vs. black, opportunity vs. necessity, etc. For example, the World Bank has recently focused on one dichotomy, formal versus informal, after concentrating similarly for many years on export-oriented development. In the Overview of 2007 *Doing Business: How to Reform*, some of the following positive effects of reforms are noted: Enables the formal sector to generate more jobs, expanded scope of regulation by bringing businesses and workers into the formal sector, taxes, quality standards (Doing Business, 2007: 1). This assumes that *the* relevant problem is simply one of formalization: Help entrepreneurs join the formal sector. The problem, however, is more complicated. The existence of such similar dichotomies indicates a general convergence (whether grounded within academic research or policy perspective) to some tradeoff between two components: Good (productive) and Bad (unproductive). Activities outside these classes receive less attention.

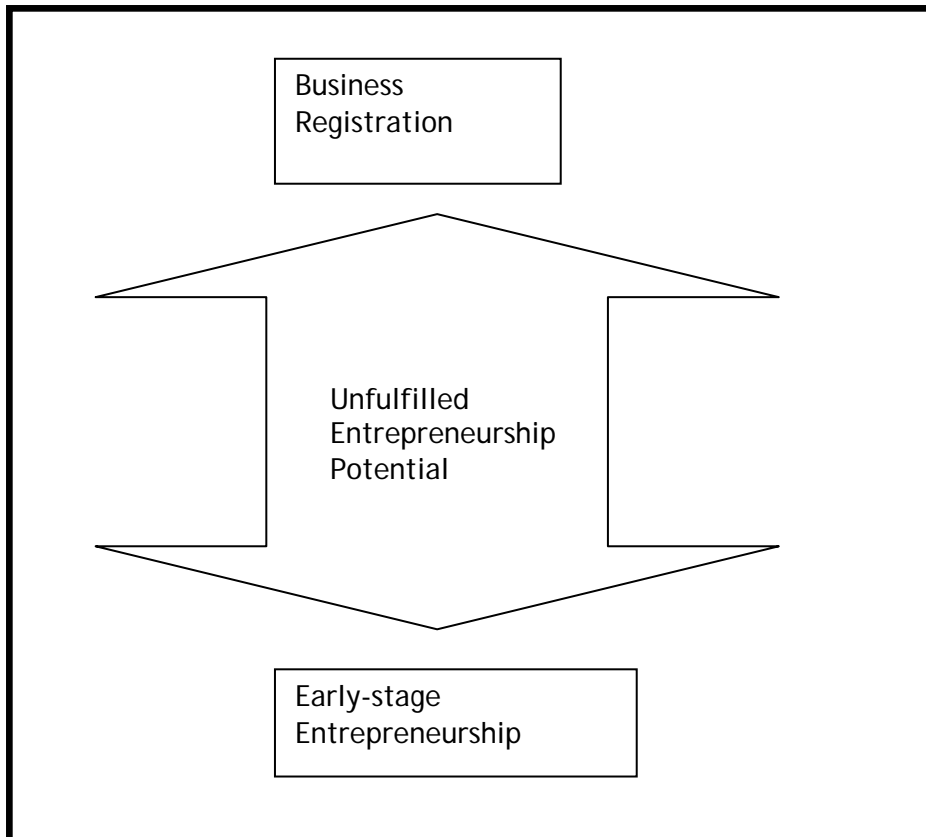
Although productive entrepreneurship can be measured through data from formal institutions, there is no deeper understanding of the *actual* distribution of remaining activities between unproductive and destructive entrepreneurship. Therefore, knowing that 50 per cent of the economy is “formal” offers no information as to the nature of the remaining activity – this is critical, because lobbying and human trafficking have vastly different effects on the economy. It is exactly this problem – the very existence of

destructive entrepreneurship – that may be the key to understanding economic development, and why so many policies have failed.

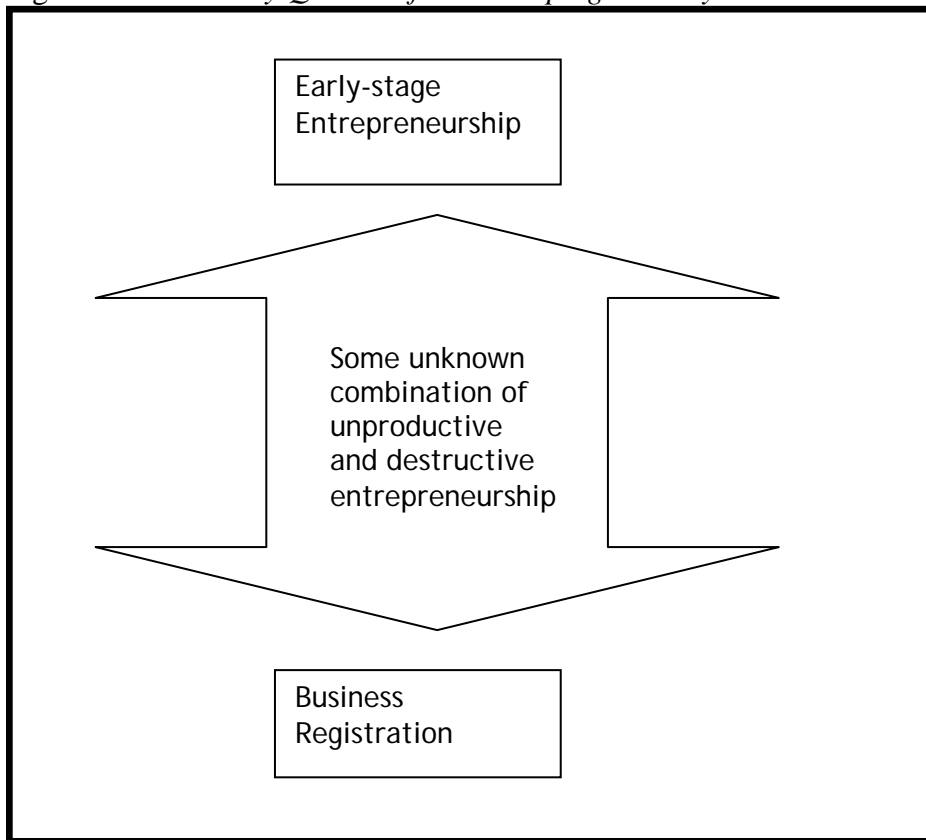
Thus, the true value-added of our theory of destructive entrepreneurship is that it provides a framework – a missing link of sorts – that can better help connect economic realities with economic development policies. Developed country trends cannot be assumed for developing countries, and this is well evidenced by different types of data that track “entrepreneurship.” Data from the Global Entrepreneurship Monitor (GEM) measures nascency, and counts a wide range of early-stage entrepreneurial behavior in its numbers. The World Bank Group collects data on official firm registration, capturing formal sector new businesses. Although both databases measure “entrepreneurship,” the numbers from GEM are consistently higher than the World Bank for developing countries, and consistently lower for developed countries (Acs, Desai and Klapper, 2007). There are two central policy themes that emerge from this comparison.

For a developed country, the gap in numbers between business registration and early-stage entrepreneurship indicates the existence of potential entrepreneurship that, for some reason, has not occurred. This can be because the entrepreneur has chosen to act informally, or has chosen not to act at all. The important policy question then, is: How can this “lost” entrepreneurship be tapped so that more early-stage entrepreneurship behavior actually translates to the formation of a new business? The goal, ultimately, is to remove early-stage entrepreneurship completely by channeling it into registered firms.

Figure 1 *Policy Question for Developed Country*



The policy theme for the developing country is actually in two parts. The dominant question is similar to the policy for the developed country, and lies at the heart of economic development policies designed to penetrate the informal economy and boost the SME sector. The similarity is reflective of formalization as an almost blanket policy approach for development and growth, both in developing and developed economies. In developing countries, policy has focused on how to increase the share of formal businesses in the economy - both through supporting the creation of new business and through formalization of existing businesses – and the relevant institutions that govern them. However, our theory of destructive entrepreneurship brings to light a more evasive policy question that must be addressed first. This is: *What is the distribution of activities between unproductive and destructive entrepreneurship?*

Figure 2 *Policy Question for Developing Country*

Unless the nature of activity is properly understood, attempts at transformation or reshaping have little chance of success. In other words, two developing countries with the same productive allocation (say, 50 per cent) may have vastly different allocations of unproductive and destructive (say, 40 per cent unproductive and 10 destructive in one, compared with 10 per cent unproductive and 40 per cent destructive in the other). This may, in fact, be an underlying reason for the differences between countries like Nigeria and India. For this reason, policies aimed at formalizing existing informal business will not be effective in mitigating destructive entrepreneurship, which in many countries is likely to comprise illegal activities. Further, differentiating between unproductive and destructive entrepreneurship is perhaps a more useful effort than addressing the informal economy. According to the ILO, 60 per cent of the workforce in Asia is in the informal

sector and “bringing informal workers into...the underlying tax base is essential for sustainability” (ILO, 2007). This figure does not reveal the nature – and GDP effects – of their activity. For example, people engaged in informal, illegal activity are unlikely to be reached through traditional economic development formalization strategies. However, people in informal self-employment that sources to the formal sector can be reached by strategies aimed at widening the tax base. Economic development policy can be made more effective by gaining the nuances of allocation, particularly if they have become oversimplified because we simply do not have enough information.

Although destructive entrepreneurship certainly exists in developed countries, most have evolved strong regulatory and legal frameworks to prevent this kind of activity. The focus on lobbying as rent-seeking (Bhagwati, 1982) is an example of the level of development in these economies. In this context, the tradeoff between unproductive and productive entrepreneurship is more useful to public policy analysis. However, our interest in developing countries, including those in the postconflict context, means that the relevant tradeoff is really between *unproductive* and *destructive* entrepreneurship. This is a key oversight both on part of academic research and international economic development policy.

If we further narrow the developing country context to the postconflict country – and we should, given that nearly half of all low-income countries have hosted major conflict since 1980 (Wolfensohn, 1999) - we can better understand why the lens of public policy should focus directly on the tradeoff between unproductive and destructive entrepreneurship. In these countries, the formal sector shrinks or often disappears during war. It may be taken over by the state or it may disintegrate due to institutional collapse.

This does mean that economic demand follows the same trend: In fact, this remains quite high during and after conflict but it is the channels of supply that have changed. This supply is, essentially, the allocation of entrepreneurship. This allocation has an added facet in conflict. The conflict country can lose “twice over” (Collier et. al., 2003) when entrepreneurship is *simultaneously* unproductive and destructive: Resources are diverted away from productive activities, and depending on the new uses, they may exert violence or further damage. This is common during conflict and is problematic when it comes time for postconflict reconstruction.

Indeed, postconflict reconstruction is one of the major challenges to economic development (Wolfensohn, 1999). Planning local reconstruction strategies means clearly understanding how the economy operates – and how it was changed during war – and a central component of this insight is in the allocation of entrepreneurship.

Conclusions

We provide this framework of destructive entrepreneurship to extend analysis on entrepreneurial allocation, which has focused overwhelmingly on productive and unproductive activities. We use the special context of conflict as the platform for our conceptualization, as it offers a strikingly different set of incentives for entrepreneurship. For this reason, we are able to distinguish destructive entrepreneurship as having a negative effect on GDP, through effects specifically on the traditional inputs of Land, Labor and Capital. We also suggest that some optimal combination of formal and informal institutions will determine the allocation of entrepreneurship in a country. As

incentives are embodied in the formal and informal institutions of a country, the quality and scope of these institutions will determine if people are motivated to engage in productive, unproductive or destructive entrepreneurship.

There are important research avenues that emerge from our theory. First, although the literature on entrepreneurial allocation and its underlying determinants is growing, the specific dynamics, causes and effects of destructive entrepreneurship remains neglected. Although incentives and institutions are increasingly studied with respect to transforming and strengthening economies, this can be greatly enhanced by first clarifying the understudied “furthest point” in entrepreneurial allocation: Destructive entrepreneurship. The role of institutions, which reflect incentives, is important across economies, whether they are developed or underdeveloped. The optimal balance of formal and informal institutions will result in various allocations of entrepreneurship, within which destructive entrepreneurship can possibly be minimized. Although the allocative trade-off in Sweden is certainly different from that in Rwanda, there may be prescriptive trends that can be applied from one context to another.

Second, significant conceptual work is necessary to understand exactly *what*, and *how*, destructive entrepreneurship is a choice. This is closely related to occupational choice or the lack thereof, in countries under conditions of uncertain political economy and poor economic development. The perspective of necessity versus opportunity entrepreneurship can be shifted to destructive activities, to clarify its underlying reasons. In many countries, participation in destructive entrepreneurship may not be a choice. It is useful to detangle *who* is the destructive entrepreneur and who the “others” are – for example, the actual acts of extractive mining of natural resources in the Congo are carried

out by poor citizens, who are coerced to work. However, the trade and rents are captured by middlemen, who are the real entrepreneurs. Though detailed tracking and tracing of specific destructive activities will be tedious, it is still necessary. This raises important empirical questions, such as measuring the share of destructive entrepreneurship as compared to other forms of entrepreneurship, as well as assessing effects on specific inputs or endowments. Trajectories of development vary depending on factors including human capital, and the allocation of entrepreneurship is likely to be closely related to such factors.

A third related question is a temporal question – ie., is “when” a relevant area of inquiry? This means, essentially, that perhaps destructive entrepreneurship and its share of total entrepreneurial activity varies not only according to country-specific factors, but to the level of economic development. Perhaps destructive entrepreneurship is greatest in the immediate 5 years after certain regulatory reforms, or perhaps it is lowest at this point. Understanding the potential relevance of time would be immensely useful for economic development planning.

Fourth, direct delineation from this theory is in the conflict field, where there are many potential research agendas. As civil conflict and global terrorism are increasingly recognized to have roots in scarcity and other important economic factors, the potential of entrepreneurship – both to help and to hinder – is key. The negative effect on inputs for production, in a context where scarcity already exists, highlights the importance of understanding destructive entrepreneurship. Total income loss during a typical conflict is shown to decrease annual GDP by about 60 per cent (Collier et. al., 2003), and this is facilitated by the shift from productive and unproductive activities to destructive

enterprise. As traditional components (market access, policy reform, aid) of economic development efforts in postconflict countries have not proven effective (World Bank, 2003), entrepreneurship offers a great deal of promise. The role of informal institutions may be especially important in the context of conflict, since these are by nature marked by state and market failures. Social capital, and trust in particular, have the potential to transform incentives for destructive entrepreneurship *if they can be transformed themselves*, which is a big question in many postconflict economies. The role of ethnicity, despite its entrenchment as a psychosocial characteristic, has implications for entrepreneurial expansion and opportunity at the individual and group levels (Mohl, 1985), as well as for a cohesive and growth-oriented postconflict economy. With respect to the complex interaction of ethnic capital, access to ownership may prove an important focus. Interethnic competition and state policy are shown to be important determinants of access to ownership (Aldrich and Waldinger, 1990). Interethnic competition, which is heightened in the postconflict context across economic and social activity, and to the point of violence, may lead either to ethnic concentration within particular activities/industries or marginalization from economic activity. The exact nature of effect should inform policy shaping access to ownership structures. Another important theme in understanding ethnic capital is the role of ethnic diasporas both in resource allocation and in conflict activity. Diaspora communities are often linked to separatist and party movements in their home countries, providing financial support when based in the U.S. and Europe (Collier et. al., 2003), and financial and other logistic support in neighbor countries. Capital flight at a rate of 10 per cent by the end of civil war (Collier et. al.,

2003) suggests that diaspora networks may be an important area of research for location and repatriation of entrepreneurship capital.

Our theory of destructive entrepreneurship can enhance our understanding of economic activity in a range of societies. Although the implications are perhaps more clear for postconflict economies, destructive entrepreneurship certainly occurs in countries across levels of development. In developed countries, the lines between unproductive and destructive may be unclear (such as the sale and use of drugs) and may simply be an empirical question. In such countries, as noted by Baumol and others, the tradeoff is largely between productive and unproductive entrepreneurship. In developing countries, and as overall development is lower, the tradeoff between unproductive and destructive entrepreneurship is unknown. In such cases, the payoffs from understanding and measuring destructive entrepreneurship are high. The postconflict economies, particularly, may benefit not only in terms of economy, but also in terms of society, security, stability, etc. For these countries, understanding destructive entrepreneurship and its more important incentives offers the potential for policies of intervention to work more effectively than they have in the past.

We began with a framework originally developed by Baumol, and it is appropriate to end in the same manner: “The overall moral, then, is we that we do not have to wait patiently for slow cultural change in order to find measures to redirect the flow of entrepreneurial activity toward more productive goals... it may be possible to change the rules in ways that help to offset undesired institutional influences or that supplement other influences that are taken to work in beneficial directions (1990: 919).”.

References

- Acemoglu, D. (1995) "Reward Structures and the Allocation of Talent," *European Economic Review*, 39(1): 17-33.
- Acemoglu, D. and Verdier, T. (1998) "Property Rights, Corruption and the Allocation of Talent: A General Equilibrium Approach," *The Economics Journal*, 108(45): 1381-1403.
- Acs, Z.J., Desai, S. and Klapper, L. (2007) "Comparing GEM and WBGES Datasets," Working Paper, George Mason University.
- Aldrich, H.E. and Waldinger, R. (1990) "Ethnicity and Entrepreneurship," *Annual Review of Sociology*, 16: 111-135.
- Austen, R. (1987) *African Economic History*, James Curry Publishing: London.
- Baumol, W.J. (1990) "Entrepreneurship: Productive, Unproductive and Destructive," *Journal of Political Economy*, 98(5): 893-921.
- Bhagwati, J.N. (1982) "Directly Unproductive, Profit-Seeking (DUP) Activities," *Journal of Political Economy*, 90(5): 988-1002.
- Berdal, M. and Malone, D.M. (2000) (eds) *Greed and Grievance: Economic Agendas in Civil Wars*, Boulder, CO: Lynne Rienner Publishers.
- Carballo, M. and Solby, S. (2001) "HIV/AIDS in post-conflict societies: Gender-based lessons from sub-Saharan Africa," *International Center for Migration and Health*
- Colletta, N.J. and Cullen, M.L. (2000) "Violent Conflict and the Transformation of Social Capital," The World Bank.
- Collier, P. (2001) "Implications of Ethnic Diversity," *Economic Policy*, 32: 129-155.
- Collier, P., Elliot, L., Hegre, H., Hoeffler, A., Reynal-Querol, M. and Sambanis, N. (2003) *Breaking the Conflict Trap: Civil War and Development Policy*, World Bank, Washington D.C.
- Collier, P. and Hoeffler, A. (1998) "On the Economic Causes of Civil War," *Oxford Economic Papers*, 50: 563-573.
- Cooper, N. (2002) "State Collapse as Business: The Role of Conflict Trade and the Emerging Control Agenda," *Development and Change*, 33(5): 935-955.
- Darity, W. Jr. (1982) "A general equilibrium model of the eighteenth-century Atlantic slave trade," *Research in Economic History*, 7: 287-326.

- de Soto, H. (2000) *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else*, New York: Basic Books.
- de Soto, H. (1990) *The Other Path*, HarperCollins.
- Djankov, S., La Porta, R., Lopez-de-Silanes, F. and Shleifer, A. (2002) "The Regulation of Entry," *The Quarterly Journal of Economics*, CXVII(1): 1-37.
- Doing Business (2007) *How to Reform: Comparing Regulation in 175 Economies*, Washington D.C. World Bank.
- Doing Business (2005) *Removing Obstacles to Growth*, Washington D.C, World Bank.
- Easterly, W. (2001) "Can Institutions Resolve Ethnic Conflict?" *Economic Development and Cultural Change*, University of Chicago Press, 49(4): 687-706.
- Elbe, S. (2002) "HIV/AIDS and the Changing Landscape of war in Africa," *International Security*, 27(2).
- Evans, P. (1979) *Dependent Development: The Alliance of Multinational, State and Local Capital in Brazil*, Princeton, NJ: Princeton University Press.
- Foss, K., Foss, N.J. and Klein, P.G. (2007) "Original and Derived Judgment: An Entrepreneurial Theory of Economic Organization," *Organization Studies*, 28(06): 1-20.
- Freeman, J.R. (1982) "State entrepreneurship and dependent development," *American Journal of Political Science*, 27: 90-112.
- Fukuyama, F. (1995) *Trust: Social Virtues and the Creation of Prosperity*, New York: Free Press.
- Ghatak, M. and Jiang, N.N.H. (2002) "A simple model of inequality, occupational choice, and development," *Journal of Development Economics*, 69: 205-226.
- Glazer, N. and Moynihan, D.P. (1975) *Ethnicity: Theory and Experience*, Cambridge, MA: Harvard University Press.
- Goodhand, J., Hulme, D. and Lewer, N. (2000) "Social Capital and the Political Economy of Violence: A Case Study of Sri Lanka," *Disasters*, 24(4): 390-406.
- Granovetter, M. (1985) "Economic Action and Social Structure: The Problem of Embeddedness," *American Journal of Sociology*, 91: 481-510.
- Grossman, H.I. and Kim, M. (1995) "Swords or Plowshares? A Theory of the Security of Claims to Property," *Journal of Political Economy*, 103: 1275-1288.

- Gurr, T.R. (2000) *People versus States: Minorities at Risk in the New Century*, Washington D.C, United States Institute of Peace.
- Hirshleifer, J. (1991) "The Technology of Conflict as an Economic Activity," *American Economic Review*, 81: 130-134.
- International Labour Organization (2007) "In Asia, informal work shifts but remains massive," available at [http://www.ilo.org/About the ILO](http://www.ilo.org/About_the_ILO); date last accessed 8/30/07.
- Johnson, S., Kaufmann, D. and Zoido-Labaton, P.P. (1998) "Regulatory Discretion and the Unofficial Economy," *American Economic Review*, 88: 387-392.
- Kaufmann, D., Kraay, A. and Mastruzzi, M (2005) "Governance Matters IV: governance Indicators for 1996-2004," Washington D.C., World Bank.
- Kaufmann, D., Kraay, A. and Zoido-Lobaton, P. (1999) "Aggregating Governance Indicators," Working Paper No 2195, Washington D.C. World Bank Policy Research Group.
- Knack, S. and Keefer, P. (1997) "Does Social Capital have an Economic Payoff?" *Quarterly Journal of Economics*, 112: 1251-1288.
- Light, I.H. (1972) *Ethnic Enterprise in America: Business and Welfare Among Chinese, Japanese and Blacks*, Berkeley: University of California Press.
- Macdonald, L. (2002) "The International Operational Response to the Psychological Wounds of War: Understanding and Improving Psycho-social Interventions," Feinstein International Famine Center, Working Paper 7.
- Mohl, R. (1985) "An Ethnic Boiling Pot: Cubans and Haitians in Miami," *Journal of Ethnic Studies*, 13: 51-74.
- Murphy, K.M., Shleifer, A. and Vishny, R.W. (1991) "The Allocation of Talent: Implications for Growth," *The Quarterly Journal of Economics*, 106(2): 503-530.
- Murphy, K.M. et al. (1993) "Why is rent-seeking so costly to growth?" *American Economic Review Papers and Proceedings*, 83 (2): 409-414.
- North, D. (1990) *Institutions, Institutional Change and Economic Performance*, Cambridge: Cambridge University Press.
- North, D. (1981) *Structure and Change in Economic History*, New York: WW Norton and Co.
- Nunn, N. (2007) "Historical Legacies: A Model Linking Africa's Past to Its Current Underdevelopment," *Journal of Development Economics*, 83(1): 157-175.

Nunn, N. (2004) "Slavery, Institutional Development, and Long-Run Growth in Africa, 1400-2000," Working paper, EconWPA in International Trade series, number 0411007.

Ostrom, E. and Ahn, T. (2003) *Foundations of Social Capital*, Northampton, MA: Edward Elgar.

Platteau, J.P. (2000) *Institutions, Social Norms and Economic Development*, Harwood Academic Publishers.

Putnam, R.D. (1993) *Making Democracy Work: Civic Traditions in Modern Italy*, Princeton, NJ: Princeton University Press.

Rothchild, D. (1986) "Interethnic Conflict and Policy Analysis in Africa," *Ethnic and Racial Studies*, 9.

Sander, R.H. (1992) "Do Lawyers Impair Economic Growth? Elevating the Debate on Lawyers and Economic Growth," *Law and Social Inquiry*, 17(4): 659-666.

Schneider, F. and Enste, D. (2000) "Shadow Economies: Size, Causes, and Consequences," *Journal of Economic Literature*, XXXVIII: 77-114.

Schumpeter, J.A. (1934) *The Theory of Economic Development*, Cambridge: Harvard University Press.

Skaperdas, S. (1992) "Cooperation, Conflict and Power in the Absence of Property Rights," *American Economic Review*, 82: 720-739.

Volkan, V.D. (2001) "September 11 and Societal Regression," *Mind and Human Interaction*, 12: 196-216.

Williamson, O. (1975) *Markets and Hierarchies, Analysis and Antitrust Implications*, New York: Free Press.

Wolfensohn, J.D. (1999) "Entering the 21st Century: The Challenges for Development," *Philosophical Transactions: Biological Sciences*, 354(1392): 1943-1948.

World Bank (2001) *World Development Report: The State in a Changing World*, New York: Oxford University Press.

Yinger, J.M. (1985) "Ethnicity," *Annual Review of Sociology*, 11: 151-180.