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Conflict and Entrepreneurial Activity in Afghanistan

Findings from the National Risk Vulnerability Assessment Data

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Abstract

The paper examines the relationship between conflict and entrepreneurial activity in Afghanistan, drawing upon a unique data set, the National Risk and Vulnerability Assessment household survey 2005. Afghanistan is severely underdeveloped and poor. Conflict has persisted in vast swathes of the country for decades, so that Afghanistan may be more appropriately described as an in-, rather than post-, conflict country.
At the same time, qualitative (and anecdotal) evidence suggests that entrepreneurial activity is ubiquitous, although mainly due to survival strategies rather than a spirit of entrepreneurialism…/

Keywords: entrepreneurship, conflict, Afghanistan, national risk vulnerability assessment

JEL classification: L26, D1, O12, O15, O17

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We empirically explore whether conflict affects the likelihood of a household to engage in entrepreneurial activity, proxied by sources of income coming from holding a small business.
We control for the household characteristics and those of the environment, such as social capital, access to resources and infrastructure, as well as the presence of a minimal institutional governance system, to isolate the impact of conflict on household entrepreneurial behaviour.
We find that the direct negative effect of the conflict on entrepreneurship is very small. The results on the control variables suggest that (i) the generation of entrepreneurship has seen conflict and instability for a whole life,(ii) a small business is a mean of surviving in a situation where any other support is lacking, (iii) it is a viable strategy when the household can cover some of the associated risks, (iv) there is no indirect effect of conflict via institutions and infrastructure, and (v) entrepreneurial activity may substitute for lacking markets and governance institutions. These results call for further and more in-depth research on Afghanistan as an overlooked area of study by the academic and development research community despite representing a priority for internationally supported reconstruction.

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1 Introduction

Prior to the fall of the Taliban in late 2001, much of Afghanistan's infrastructure and state institutions had been destroyed by intent or neglect of the warring factions in the preceding three or so decades of conflict. Afghanistan remains one of the poorest countries in the world with an estimated per capita income of 300 US dollars, average mortality age of 47 years, high rates of infant mortality and, in many of its provinces, void of anything that approximates the minimum necessary formal and informal structures to serve as a foundation for developing a severely underdeveloped economy.

By all accounts, progress to date for moving Afghanistan out of poverty and on to a path of economic and socio-political recovery, has been arduous and slow. It has been suggested that ongoing government and donor supported programmes and policies are likely to have more significant and longer lasting impact if they are supportive of adaptive and resilient entrepreneurial activity, which is argued to be a necessary, though not sufficient, condition to begin the process of reconstruction (Iyigun and Rodrik, 2004; UNDP, 2004; Naudé, 2007).

However, a sufficiently clear picture of what the main areas of intervention might be, is still lacking, due largely to a void of reliable empirical evidence (and analysis) on the current state of Afghanistan in many respects. Access to appropriate data is limited and there is a lack of in-depth reflection on the peculiarities of Afghanistan as compared to other countries in the literature on economic reconstruction of in- and post-conflict countries. The traditional distinction between in- and post-conflict or fragile state does not seem in fact to fit well in the case of Afghanistan, which is best described as a country where conflict to varying degrees has persisted since the early 1980s, changing only in intensity from time to time.

Anecdotal data have attributed the lack of entrepreneurial activity—a necessary ingredient in many prescriptions for economic recovery—to the lack of security and the absence of minimal infrastructure such as roads and electricity and weak or inappropriate institutions. The same anecdotal information also points to sustained entrepreneurial activity. A look around any major population centre or some rural areas reveals numerous cases of innovativeness, particularly among the small-scale producers across the country, engaged in businesses that generate value added in a wide range of activities, from dairy and poultry production to carpet weaving, iron mongering, auto repair and parts production, and carpentry.

The first aim of this work is therefore to corroborate this qualitative evidence by analyzing the available micro dataset on households in Afghanistan, the National Risk and Vulnerability Assessment (NRVA) 2005. Based on this data we consider the boundaries of entrepreneurial activity to be represented by the mere holding of a small business as a source of income for the household, although this choice is more conservative with respect to the traditional literature on entrepreneurialism in developed, developing, in- and post-conflict countries (Audretsch and Keilbach, 2008; Casson et al., eds, 2008). Second,

we identify the conditions under which entrepreneurial activity is more likely to exist despite the burden of ongoing conflict (e.g. Baumol, 1990; Acs, 2006; Naudé, 2007). A key objective in this paper is to qualify the impact of security, inadequate infrastructure and institutional arrangements on the presence of entrepreneurial activity to identify entry points for intervention through policy conducive to increased entrepreneurship.

We partly refer to the conceptual framework proposed by Binzel and Brück (2007) and Justino (2009), who identify not only the direct and indirect effects of conflict on the households' welfare, but also the possible types of coping strategies households might develop as a result of conflict, among which is the entrepreneurial activity. Specifically, based on the NRVA (2005) dataset, we explore the following questions:

- Are there any direct effects of the ongoing conflict on the likelihood of households engaging in entrepreneurial activities?
- What is the relevance of direct and indirect effects of conflict on entrepreneurship?
- What other factors—e.g., infrastructure, social capital, access to finance, formal institutions, markets—affect entrepreneurship at the household, village, and provincial levels?

The first, tentative picture of the micro level effect of armed conflict on entrepreneurship provided in this work should be of particular interest to the Government of Afghanistan and the donor programmes of reconstruction since we investigate whether and how Afghanistan aligns to some of the consolidated evidence from developed and other developing countries and whether idiosyncratic aspects are to be emphasized in the case of Afghanistan (UNDP, 2004; World Bank, 2005). Our analysis is intended to contribute to the micro level evidence on armed conflict and its effect on entrepreneurship as a basis for (better) informed development policy making.

This paper is organized as follows. In Section 2 we articulate our working definition of entrepreneurship and reflect on the extent to which definitional boundaries are to be stretched when considering entrepreneurship in developing, in-, and post-conflict contexts. We do this by selectively reviewing the literature on the impact of conflict on economic activity and household welfare in general and on entrepreneurial activities in particular. We also provide an overview of whether entrepreneurship can ease the consequences of conflict and, if so, under which conditions. Section 3 highlights some of the main peculiarities of the Afghan context by providing a brief historical overview of the decades long conflict. Section 4 provides the details of the methodology employed. Additional material on methodology and analysis is relegated to the technical appendix. Section 5 provides the results of the empirical analysis while Section 6 summarizes the results to address the key questions (above) guiding this research.

2 Entrepreneurship, economic development, and conflict

2.1 The "consensus" on entrepreneurship and economic development

There is a large literature on the individual characteristics of an entrepreneur, starting from the seminal works of Schumpeter (for example Schumpeter, 1949), who regarded the entrepreneur as a sort of heroic adventurer with a forward-looking vision. Cross-disciplinary contributions about entrepreneurs have sparkled in other social sciences such as psychology, anthropology and cognitive behaviour and nurtured the most recent contributions on the individual characteristics and the internal cognitive processes which make an individual an entrepreneur (Cordes, 2005; Wadeson, 2008).

According to Baumol the entrepreneur is the most elusive and yet intriguing character in the "cast which constitute the subject of economic analysis" (p. 64 Baumol, 1968): "It is his job to locate new ideas and to put them into effect. He must lead, perhaps even inspire; he cannot allow things to get into a rut and for him today's practice is never good enough for tomorrow. In short, he is the Schumpeterian innovator and some more."

Veblen (2004) had already instilled in this elusive character an "instinct of workmanship", and the ability to balance the "self-regarding" and the "other-regarding' instincts, resulting in group-beneficial behaviour (Cordes, 2005).

For the purposes of the present work we do not focus solely on the individual characteristics that determine the entrepreneurial decision to assume (economic) risks, though the issue of risk-taking is undoubtedly of interest in understanding how to stretch and apply the concept of *entrepreneurial opportunities* to developing and in-conflict countries where risk is more spread and has a higher cost, such as hunger. Rather, we focus on the resulting entrepreneurial behaviour of these individual characteristics—i.e., identifying entrepreneurial opportunities, starting up a new firm and, possibly, being "group-beneficial", to use Veblen's words—and analyze their relation with strategies to cope with risk and lack of alternative sources of livelihood. We also focus on how the operating environment affects the likelihood of engaging in entrepreneurial activities, enhancing or counteracting the effect of conflict.

Most of the sizeable economic literature on entrepreneurship has focused on the entrepreneurial history of advanced countries and the contribution of entrepreneurship to economic growth in developed country contexts. Recent appraisals of this literature (Acs, 2006; Audretsch et al., 2006; Boettke and Leeson, 2009; Casson et al., eds, 2008) point to entrepreneurship and the entrepreneurial firm as being a driving engine of economic growth.[1] In this respect, some scholars and a good deal of research supporting the policy design of such entities as the United Nations, the World Bank, and a host of other major donors and NGOs have come to conclude that entrepreneurship is a necessary condition for generating economic growth and thus catching-up (UN-DESA, 2007; Hausmann

[1] Audretsch and Keilbach (2008) identify entrepreneurship as the creation and exploitation of the ensemble of *entrepreneurial opportunities*, processes which are not necessarily the exclusive domain of large incumbent corporations which can afford to spend in R&D but also, and mostly, of small new firms.

and Rodrik, 2003; Iyigun and Rodrik, 2004; UNDP, 2004).

Lazonick (2008) offers an interesting perspective on the role of entrepreneurship in economic development, based on his previous work on historical and comparative studies of development in industrialized countries (see for instance Lazonick, 2007). The basic argument is that in developing countries, entrepreneurial activity is more an innovating activity dictated by necessity and aimed at surviving and overcoming constraints, rather than an innovating activity aimed at capturing profitable opportunities within set and reasonably operating stable parameters, as is usually the case in industrialized economies. In the absence of a "developmental state", complete with its established operating parameters as enforceable rules and regulations, entrepreneurship may become "institutional entrepreneurialism" (Boettke and Leeson, 2009) whereby entrepreneurs self-organize to undertake both productive and non-productive economic activity (Baumol, 1990).

Following on from Baumol (1990) and Lazonick (2008), a crucial point in our approach is the felt need to move away from the account of entrepreneurship incentives in developed countries, evident in much of the literature (Audretsch et al., 2006; Casson et al., eds, 2008; Acs, 2006), to the design of the conditions that favour productive entrepreneurship and contribute to the stability of the "developmental state" (UNDP, 2004; Iyigun and Rodrik, 2004; UN-DESA, 2007; Naudé, 2007). Contextualized in, and regulated by, the developmental state entrepreneurship could have immeasurable potential for preventing, managing, and transforming conflicts (Justino, 2009) which are often rooted in poverty and bolstered by unstable, unpredictable, and uncertain operating environments characteristic of new, failing or failed states. We will turn to this in next section.

2.2 Entrepreneurship in in-conflict, post-conflict, and fragile countries

Entrepreneurship in non-conflict, industrialized contexts is underpinned by capital accumulation, concentration of assets, sufficient degrees of sophistication in infrastructure development and the mode of governance, and a high level of social cohesiveness which collectively allow for further accumulation of both physical and social capital. The success of a developmental state can only be measured if its actions are conducive to productive entrepreneurial activity. And, it is only under a successful developmental state that non-productive entrepreneurship is discouraged. This is unlikely to occur under a condition of conflict, civil conflict, or enduring war.

Indeed, the causes of violent conflict and more generally the "context of war" (Naudé, 2007) have been underlined as crucial aspects to be considered in designing reconstruction policies aimed at facilitating entrepreneurial activity. While the next section provides a brief historical account of the conflict in Afghanistan, in the rest of this section we review the conceptual and empirical literature that have identified the most relevant effects of conflict—war and armed civil conflict—on the welfare and behaviour of households and, as a consequence, on the necessary conditions to ease barriers or provide incentives for starting an entrepreneurial activity.

Conflicts may have many origins. Gurr (1970) defines conflict in relation to deprivation,

looking at the extreme end of the spectrum of income distribution and not excluding the potential contribution of ethnicity, religious segregation, political and ideological grouping and country-based or regional divides.[2] Conflicts also have many consequences on economic development (Chen et al., 2007). Most of the literature analyzing the effects of conflict deals with issues of security and reconstruction at the macro level and with the role of the state agency (e.g. Collier, 1999; Cramer, 2006). Much less has been said about the microeconomic impact of conflict and the extent to which it deters or defines entrepreneurial activity.

Justino (2009), Binzel and Brück (2007), and Brück and Schindler (2009) provide extensive overviews of the effects of conflict on household welfare and household coping strategies, subject to the constraint that conflict is endogenously rooted in household behaviour and thus very difficult to capture empirically. Justino (2009) suggests a distinction between the *direct* and *indirect* effects of conflict on households as a means to improve inference on the impact.

Direct effects of conflict on household welfare are those related to the immediate destruction of the household assets, both physical and human, due to violence and forced displacement. This is very likely to have a strong and negative impact on the likelihood of starting or continuing entrepreneurial activity, even when such activity is the only available coping strategy. The degree to which violence affects a household is also a function of the initial conditions of the household prior to violence: belonging to a specific ethnic or religious group, the presence of males rather than females or of adults rather than children might make the household more prone to becoming a target of and affected by violence or forced displacement. Food, security, and health deprivation due to conflict also heterogeneously affect the composition of the surviving household and the likelihood of having resources to cope. Binzel and Brück (2007) refer to these as the impacts of conflict via the "shock component" on the overall vulnerability and risk exposure of the household. They also take into account the "institutional component" which affects—indirectly through the ex ante and ex post coping strategies—the household vulnerability.

The indirect effects of conflict are related to the institutional, market, political and distributional disruptions which might indirectly affect the general level of household welfare (Justino, 2009) and the likelihood of engaging in entrepreneurial activities. Conflict might indirectly affect the potential to start entrepreneurial activities through the destruction of social networks due to forced displacements and migration (Amuedo-Dorantes and Pozo, 2006). Further, migrant refugees are likely to "re-appear" in the form of remittances to the households remaining in the conflict area and this might have a double-sided effect: one in terms of contribution to the reconstruction of households' financial assets, the other on the lowering of incentives to start entrepreneurial activity as a survival strategy. This has been a particularly overlooked area in the empirical literature, to which this work aims to contribute. A different problem occurs when internally displaced persons (IDP)

[2]On the link between income inequality and conflict see also Ravallion (1988), Cramer (2006), Justino (2008).

(non-migrants) return to their original home, inducing disputes on the allocation of assets and resources they owned before they were forced to leave.

One of the most complex of the indirect effects of conflict on household welfare relates to the labour and goods markets as well as infrastructure for market access. According to Justino (2009) and consistent with Baumol (1990) and Naudé (2007), the type of response that households might develop in reaction to violent and persistent conflict depends on the ability of shifting to alternative economic activities, either to benefit from predatory behaviour, rent-seeking and illegal activities during armed conflict, or to engage in some form of legal coping strategy which might include the start of a new business. There is no consensus on this, however, given the problems of endogeneity of household behaviour in a conflict context and the initial conditions of the individual household, which surely shapes the reaction to negative shocks such as persistent conflict.

Finally, and of much interest to this paper, long term conflict is argued to be the key cause of persistent poverty traps into which vast swathes of the population around the globe seem to have fallen in the aftermath of/or during conflicts, which seriously hamper policies aimed at reconstruction and poverty elimination (Ravallion, 1988; Hoeffler and Reynal-Querol, 2003; Banerjee and Duflo, 2007; Justino, 2008).[3] Empirical analysis has shown that long term conflicts in such cases as Cambodia, Zimbabwe, Rwanda, and Burundi have all caused destruction of households' physical human and social capital and rendering them increasingly poor and irredeemably vulnerable.

Naudé (2007) elaborates on some of the policy areas underlined by Justino (2009) and addresses more specifically the conditions that would be conducive to (continued or increased) entrepreneurial activity. Drawing on Baumol (1990), Naudé (2007) is cautious in promoting entrepreneurship in the abstract and "institutional entrepreneurialism" as the pro-growth engine and panacea for development and reconstruction efforts within in- and post-conflict countries, as sometimes is argued (Acs, 2006; Audretsch and Keilbach, 2008; Iyigun and Rodrik, 2004; Lazonick, 2008). In severe in-conflict cases such as Afghanistan, entrepreneurship has a tendency to be driven by an instinct to survive and some might become destructive or unproductive. As such, cases like Afghanistan would be expected to have numerous examples of rent-seeking behaviour as the main driver of (destructive and unproductive) entrepreneurial activity (see for instance Cooper, 2006; Khan and Jomo, 2000; Khan, 2005).

From the reconstruction and development policy perspective, it certainly makes sense to distinguish between different types of entrepreneurship and nurture (through intervention) activities more consistent with reconstruction objectives. However, in the case of Afghanistan as a country suffering from chronic conflict, it might still be appropriate and relevant to consider survivalist entrepreneurial activities—where this does not include rent-seeking or illegal activities—as desirable and, at least potentially, development enhancing.

[3]The case of Afghanistan should be best taken into account in a dynamic perspective, considering the nature, causes, and patterns of the violent conflict affecting this country. Unfortunately, access to NRVA data has been very arduous. A dynamic perspective to the present analysis will be attempted in our future work once we have completed access to past and future rounds of NRVA survey.

Even "unproductive" entrepreneurs—in Baumol's (1990) words—can be relevant in a context which is persistently in-conflict, fragile, and developing (Banerjee and Duflo, 2007), or in transition (Smallbone and Welter, 2001; Kalantaridis and Labrianidis, 2004; Estrin et al., 2006). In this respect, our argument is in line with the idea that stretching the definition of entrepreneurship to include small business is important, not only from the empirical point of view when measuring entrepreneurship on the basis of household surveys but also from a policy perspective. While "it is important not to romanticize these penniless entrepreneurs" (Banerjee and Duflo, 2007), we must take into account the U-shaped relationship found between entrepreneurship and development (Acs, 2006).[4]

Naudé (2007) emphasizes the importance of understanding the context of conflict and the opportunities it offers for rent-seeking or productive entrepreneurial activity. In-depth understanding of the context would allow for inferring the likelihood of success for reconstruction programmes in countries with fragile states and/or the possibility of relapse into disorder and conflict. The emphasis on the context recalls the indirect effects of conflict on household welfare (Binzel and Brück, 2007; Justino, 2009) and on the likelihood of engaging in small business and entrepreneurial activity, which is the focus of this paper. Nevertheless, in assessing these indirect effects we must bear in mind that they are endogenous both to household welfare and entrepreneurship, as are the type and quality of institutions, and their dynamics alongside the various stages in the course of development.[5]

Empirical investigation of the issues discussed above on conflict and entrepreneurship requires data that is not available from official surveys. A few of the reviewed contributions call for attempts to be made to develop new databases or complementary methodologies for the assessment of the impact of conflict at the micro (household) level of analysis (Binzel and Brück, 2007; Brück and Schindler, 2009; Justino, 2008; Justino, 2009). Most of the traditional literature on security and reconstruction policies deals with the role of the state and state agencies in facilitating or curtailing development and, as a consequence, on areas of policy intervention at the macro level (Chen et al., 2007; Collier, 1999; Cramer, 2006). The challenge is therefore to collect reliable data on neglected countries, such as Afghanistan, and to be able to conduct empirical evidence on the effect of conflict on household deprivation. Despite the fact that the boundaries between firms and households are often blurred in conflict and fragile contexts, it is nevertheless important to maintain a focus on micro level analysis as a crucial methodological priority, as this is the level at which the roots and sources of entrepreneurial activity can be discerned. This work is an attempt to face this challenge, and a contribution to filling the gap in economics research on the direct and indirect effects of enduring conflict on household's wellbeing and on their capability to conduct value adding activities.

[4] According to Acs (2006) the lack of formal sector employment in a severely underdeveloped country lowers the opportunity cost of entrepreneurship. Along with development, the formal sector grows and entrepreneurship rates, measured by self-employment, will decrease, only to increase again at a later stage of development, with increased number of start-ups and new opportunities for profit making activities.

[5] See Cimoli et al. (2006), Parto et al. (2005) and Parto (2008) for extensive and critical discussion on this issue.

3 Afghanistan: A brief history of conflict

The current Afghan boundaries were set in 1893 through a treaty with Britain and as part of an attempt by Britain to create a buffer between its interests in India and Russia's territorial ambitions to the south. One important feature of the treaty was the splitting up of the Pashtun ethnic group along the infamous "Durand Line" between Afghanistan and British India, which at the time included the present-day Pakistan. With Pakistan emerging as a nation in 1948 and increased tensions between Pakistan and Afghanistan, Afghanistan shifted its foreign policy toward the Soviet Union and started an intermittent period of modernization. A number of economic and political crises led to a coup in 1978 and the 1979 invasion by the Soviet Union. The chaos and anarchy that followed the ouster of the last remaining Soviet-backed president (Najibullah) in 1991 lasted until 1996 when a group of largely Pashtun fundamentalist extremists backed by Pakistan, Saudi Arabia, and the United Arab Emirates took power and declared Afghanistan an Islamic Emirate. The seeds of what became the Taliban, however, had been sewn in the 1980s in Pakistan as part of the Cold War policy of creating formidable local resistance to, and aggression toward, the Soviet Union in Central Asia: scores of the Taliban had taken religious and military instructions at the many thousands of Madressas set up in the mid to late 1980s by the fundamentalist Pakistani military dictator, Zia ul-Haq, with approval and financial support from his anti-Soviet sponsors.[6]

When not blowing up Buddha statues, beating on women wearing white socks, or carrying out ethnic cleansing, the Taliban did little or nothing to regenerate economic development. In fact, there are numerous accounts of the Taliban attempting to systematically "cleanse" Afghanistan of its anti-Islamic ways and less desirable (non-Pashtun and non-Sunni Muslim) citizens, often through wholesale destruction of the social networks and the economic bases of the targeted communities, including burning or dousing with diesel farms and vineyards. The destruction that ensued under the Taliban was compounded by a persistent drought in many parts of the country with millions of Afghans migrating to the neighbouring Pakistan and Iran. The economy remains largely in ruins with most of the government services either non-existent or not conducive to productive entrepreneurial activity. Regional warlords remain in power in large swathes of the country, many of which were declared as "Taliban-free" soon after the fall of the Taliban in 2002. While the threat of an even more brutal return by the Taliban remains real and a major source of anxiety for Afghans and non-Afghans, it has to be pointed out that Afghanistan's current problems stem from three main factors: ineffective government, a general and widespread lack of security due to increased levels of criminality (such as kidnapping) aimed at anyone or anything that could yield some economic rent through extortion, and the failure for a sound economic base to emerge following the ouster of the Taliban in 2002.

Against this background we undertook to examine how entrepreneurial activity has been affected and whether or not there is a relationship between entrepreneurial activity

[6]For a detailed and excellent account of regional geopolitics centred on Afghanistan see Coll (2004).

and the many facets of conflict as briefly described in the preceding paragraphs.

4 Data and methodology

We use the 2005 National Risk and Vulnerability Assessment (NRVA) to examine the relation between the intensity of conflict and the likelihood that a household holds an entrepreneurial activity across the districts of Afghanistan. In this section we provide a brief introduction to the NRVA database and the sample (4.1), and describe the sets of control variables used to explain the likelihood of entrepreneurial activity (4.2).

4.1 NRVA data

4.1.1 Survey design

NRVA is an extensive national household survey, conducted by the Ministry of Rural Rehabilitation and Development (MRRD) and the Central Statistics Office (CSO) with the support of the European Union (EU) across the whole country (e.g. MRRD and CSO, 2007). The survey was carried out in 2003, 2005, and 2007-8. In this paper we use data only from the 2005 dataset since the 2003 dataset used a substantially different set of questions and sampling strategy and the 2007 data have not been publicly released yet. NRVA 2005 was collected by 650 interviewers of both genders and at two main levels: the community/village and the household. The interviews for community/village data were held with local governing bodies, known as *shuras*, while quasi-randomly selected households were used to collect household data, in the same village. The sample consists of 30,822 households from the rural, urban, and Kuchi (nomadic) communities across all 34 provinces and all except 6 districts as officially defined in 2005 for a total of 392 districts.

The survey has a complex design, divided into 45 strata (the 34 provinces plus the urban areas). In each stratum a number of clusters (primary sample units—PSU) of 12 households were randomly selected, to achieve a balanced sample across strata. The large difference of the population size across strata has required a deviation from the balanced sample (for very large and very small strata), which was controlled by use of sampling weights.[7]

4.1.2 Sample

The 30,822 households make up 227,070 individuals over a population of approximately 22.1 million people.[8]

[7]The household selection follows a quasi random process: the total number of dwellings in a community (PSUs) was divided by 12, and the resulting number was to account for the distance between two interviewed households so as to spread the information collected within a PSU. Further details are available from MRRD and CSO (2007).

[8]Estimates from the official census the Central Statistics Office of Afghanistan (CSO) is undergoing: `http://www.cso-af.net/cso/index.php?page=14&language=en&block=2&menutitle=Census` accessed February 2009.

The Kuchi (1,735 households, 5.63 percent) were dropped from the sample for two main reasons. First, being nomadic, the Kuchi move across districts and provinces, making the intensity of conflict an endogenous variable (if one were to assume that the Kuchi are likely to move to areas with better economic prospects). Second, as shown in Figure 5 in Appendix D, the distribution of activities through which households gain their first source of income is quite different between the Kuchi and the rest of the population. Only a small number of Kuchi households rely on small businesses to generate income.[9]

Dropping the households with missing values further reduces the sample to 24,496 households with 979 missing answers on the dependent variable (source of income), and the remaining missing values distributed across various regressors. With respect to the entrepreneurship variable, we do not find any evident source of bias in the missing response. With reference to the independent variables, missing values do not alter significantly the distribution of values across strata (see Figure 2, Appendix A), apart from a 1 percent point reduction for the Kabul population, and are not missing for security reasons. See Appendix A for more details on the distribution of missing observations.

4.2 Variables and econometric strategy

4.2.1 Variables

An entrepreneurial household (*EntrBus*), henceforth used interchangeably with entrepreneur, is defined as one that earns parts or all its income from a small business.[10] We have no information about the size of the business, the sector, or the proprietary structure. To reduce the noise of definition fuzziness we exclude income from wage labour, growing crops, raising livestock or food production and sale, opium production and sale, small services such as milling, petty trade, sale of wood or transportation, and handicrafts.[11] Those services are in fact closer to a definition of self-employed than entrepreneur, and are more likely to be temporary activities. We are not claiming these activities would not be interesting to analyse. Based on the discussion in Section 2 we prefer to limit the study to the determinants of more formally defined business activities, and leave the analysis of the effect of conflict on self-employment for further analysis. Based on interviewees responses, only 9 percent of the households in Afghanistan rely on a small business as a source of income (Table 2), which are very unevenly distributed across the provinces (Figure 6) and districts.

The main determinant we want to test for is the intensity of conflict. This is measured in various ways and with reference to a number of different data source to control for the variability in data collection and reporting (Table 1). None of the sources can in fact be safely assumed to be current and complete as far as reporting on the conflict. To

[9] Most of their income derives from sale (7) and own consumption (2) of livestock, and shepherding (11). All activities that, on the contrary, generate income for a very small portion of both urban and rural households.

[10] Mentioned as "small business" in the questionnaire.

[11] For a full list of income sources among which the respondents could choose see MRRD and CSO (2007).

compensate for this, we use various indicators from various years, reflecting the different aspects of the conflict and violence in relation to human wellbeing. In Section 5.1 we compare the measures in Table 1 and select "Insecurity Shock" (*ShockInsec*) as the variable with the highest precision with respect to our analysis. This variable reports, the direct household's experience of a shock due to violence in the year preceding the interview. There are at least two advantages in using this indicator. First, it originates from the same household that also responds to questions on undertaking entrepreneurial activity and other control variables and thus increases data coherence. Second, it also has the largest sample coverage.

Table 1: Conflict intensity indicators

	Level	Year	Description	Measure	Source
			Objective measures		
Days war	District	2002	Days from first to last episode of exposure to hostilities	Relative to max. district average (across villages)	BM
Victims	District	2002	Number of killed or injured from direct violence	Relative to max. district average (across villages)	BM
Ground operations	District	2002	Community has seen at least one ground operation	percent of villages within the district	BM
Mines victims	District	2002	Community had a large number of victims from landmines/UXO 1 year before 9/11	percent of villages within the district	BM
Incidents	Province	2007	Number of security incidents	Relative to max. province	AFM
Taliban AGE	Province	2007	Number of attacks carried out by Taliban or Anti-Government Elements	Relative to max. province	CS
HR violations	Province	2007/08[12]	Total number of violations of human rights	Relative to max. province	AIHRC
Attack education	Province	2006	Number of attacks on educational facilities	Relative to max. province	HRW
			Subjective experience		
Insecurity shock	District	2005	The households has experienced a shock due to insecurity/violence	percent of HH sampled in the district	NRVA
Violence	District	2006	At least one member was victim of physical aggression, in the village	percent of HH sampled in the district	AF

Continued on next page...

[12] 1386 in the Persian calendar.

[12] Violations include right to: life, personal integrity, security of person, due process of law, property, housing, education, adequate standard of leaving, health, marriage, freedom of movement, and work.

... Table 1 continued

	Subjective evaluation				
Security problem	District	2006	Security is the biggest problem in the area[13]	percent of HH sample in the district	AF
Expected conflict	District	2006	Security and conflict related issues are the biggest problem in the area[14]	percent of HH sampled in the district	AF
Perceived security	District	2006	Rate of the security situation (1-4 scale)	Relative to max district average	AF

Sources: own elaboration on BN (Benini and Moulton, 2004), AFM (Afghan Conflict Monitor—`http://www.afghanconflictmonitor.org/incidentsbyprov07.jpg`), CS (Campbell and Shapiro, 2009), AIHRC (Afghanistan Independent Human Rights Commission, 2008), HRW (Human Rights Watch, 2007), NRVA (National Risk and Vulnerability Assessment), AF (The Asian Foundation household survey).

As seen in previous sections, the conflict can have a direct and indirect effect on a household's economic and survival decisions. These can depend on household features and individual characteristics, as well as on the state of the environment, and the relation of the household with the environment. Conflict may have a complementary or substitute effect on entrepreneurial decision, with respect to other environmental features. In order to correctly assess the effect of conflict on entrepreneurial activity and to which extent this goes unimpeded despite the conflict, and to identify the conditions under which entrepreneurial activity is more likely to exist throughout the country, we control for five different dimensions. A full list and description of the variables used for each of the five dimensions is given in Table 2. The table also reports the descriptive statistics.

First, *household features* usually explain a large extent of the probability to start an entrepreneurial activity.[15] With the aim to assess similarities and peculiarities of the Afghan case, we control for features such as gender, marriage status, education, age, health, and urban location. Assets are relevant in signalling for financial constraints (Evans and Jovanovic, 1989), but are also likely to represent a higher risk under insecure and conflict conditions (Brück, 2004; Bundervoet, 2007). As first indicators of the entrepreneurial motives, we also control for crowding in or out effects of social contributions and aid programmes, and for the risk exposure proxied by the household size and the diversification of income sources.

Second, *access to resources* is of clear importance to be able to start and run a business (Evans and Jovanovic, 1989). We analyse the effect of different formal and informal

[13]Includes security issues/attacks/violence, kidnapping of children and innocent people being killed by Americans.

[14]Includes security issues/attacks/violence, presence of warlords, Taliban, kidnapping of children, American soldiers searching houses without permission, and innocent people being killed by Americans.

[15]Standard references that employ a similar set of variables are, among others, Evans and Jovanovic (1989), Evans and Leighton (1989), and Astebro and Bernhardt (2003).

potential sources of credit,[16] access to a loan, its use, and the local availability of credit institutions. Remittances represent another source of financing which may support private investment (e.g. Funkhouser, 1992), or crowd it out (e.g. Amuedo-Dorantes and Pozo, 2006), and represent a relevant aspect of conflict induced forced migration.

Moving to less tangible assets, *social capital* is one of the channels through which conflict affects households indirectly. Although relations with friends are not always valued more by entrepreneurs (e.g. Djankov et al., 2006), in developing economies the possibility to rely on friends or family members may reduce the risk of private investment (Ravallion and Lokshin, 2005). Access to information is also a crucial aspect of entrepreneurial activity, and in the absence of infrastructure information may more easily flow through informal channels built on social capital.[17] We control for both mutual help and information channel to assess this effect in the conflict conditions of Afghanistan.

Similarly, formal *governance institutions* represent the main channel through which conflict indirectly affects households and entrepreneurship behaviour (Binzel and Brück, 2007; Justino, 2009). We control for the effect of different institutional settings, capturing some aspects of local conflict, representativeness, and rent-seeking summarized in Naudé (2007) as drivers of unproductive entrepreneurship:[18] government participation, community representation and decentralized decision making,[19] and return of displaced households.

The fifth dimension covers the physical capital households can access to via *infrastructure*. Infrastructure are also the main obstacle to entrepreneurial activity—another indirect product of conflict—indicated by Afghan people (e.g. Parto et al., 2007; IRIN, 2009). We control for road infrastructure, access to markets, and access to electricity via public provision, community, and private investment.

Table 2: Variables description

Variable	Description	Mean	St. D.	Min.	Max.
DEPENDENT					
EntrBus (H) [1]	A small business is a (partial) source of income	0.089	0.284	0	1
CONFLICT INTENSITY					

Continued on next page...

[16] Astebro and Bernhardt (2003) show that in the US the second main source of debt for start-ups is other family members, followed by refinanced homes and friends. In emerging markets the informal sources of external capital are 87 to 100 percent (Lingelbach et al., 2005).

[17] For example Gomez and Santor (2001) show the positive effect of informal business relations on self-employment in Canada.

[18] See also Khan and Jomo (2000) and Khan (2005).

[19] Formal institutions and rule of law have recently gained a huge attention in the development literature and policy (e.g. Besley, 1995; Glaeser et al., 2004; Easterly and Levine, 2003).

... Table 2 continued

Variable	Description	Mean	Std. Dev.	Min.	Max.
ShockInsec0 (D) [%]	no HH sampled in the district have experienced in $t-1$ a shock due to insecurity (*reference dummy*)	0.555	0.497	0	1
ShockInsec05 (D) [%]	less than 50 percent of HH sampled in the district have experienced in $t-1$ a shock due to insecurity	0.421	0.494	0	1
ShockInsec1 (D) [%]	more than 50 percent of HH sampled in the district have experienced in $t-1$ a shock due to insecurity	0.024	0.155	0	1
Priority_Disarm (V) [1]	disarmament is a priority for the Shura (male or female)	0.063	0.243	0	1
HOUSEHOLD FEATURES					
MenOnly (H) [1]	more than 50 percent of the income generating activities are conducted by men only	0.91	0.289	0	1
Literacy (H) [1]	more than 50 percent of the HH members are literate	0.213	0.41	0	1
Priority_Edu (V) [1]	education is a priority for either the male or the female Shura	0.648	0.477	0	1
HHMemb2 (H) [1]	HH members are less than 3 (*reference dummy*)	0.018	0.131	0	1
HHMemb5 (H) [1]	HH members are between 3 and 5	0.224	0.417	0	1
HHMemb10 (H) [1]	HH members are between 6 and 10	0.637	0.481	0	1
HHMemb15 (H) [1]	HH members are between 11 and 15	0.103	0.304	0	1
HHMemb22 (H) [1]	HH members are more than 15	0.018	0.135	0	1
Age (H) [R]	log of the average age of the HH members	3.023	0.322	0	4.454
SocialContr (H) [1]	the HH receives government benefits or a pension	0.007	0.087	0	1
Activities (H) [R]	number of income generating activities per number of HH member	0.264	0.156	0.045	2
Urban (H) [1]	the household lives in a urban area	0.166	0.373	0	1
Assets (H) [N]	total number of assets owned by the HH	1.695	0.410	0	3.178
ACCESS TO RESOURCES					
Credit_None (H) [1]	No potential source of credit (*reference dummy*)	0.085	0.278	0	1
Credit_Inform (H) [1]	family (informal) as potential source of credit	0.772	0.420	0	1
Credit_Lender (H) [1]	money lenders as potential source of credit	0.133	0.339	0	1
Credit_Bank (H) [1]	micro credit and banks as potential source of credit	0.003	0.054	0	1

Continued on next page...

... Table 2 continued

Variable	Description	Mean	Std. Dev.	Min.	Max.
Credit_Other (H) [1]	other potential sources of credit	0.008	0.09	0	1
Loan (H) [1]	the HH has obtained a loan in $t-1$	0.386	0.487	0	1
LoanInvest (H) [1]	loan obtained is used for business investment	0.015	0.12	0	1
Priority_Credit (V) [1]	micro credit is a priority for either the male or the female Shura	0.036	0.186	0	1
RemitContr (H) [1]	remittances are among the HH income sources	0.072	0.258	0	1
SOCIAL CAPITAL					
InfoNews (H) [1]	media sources of HH information (*reference dummy*)	0.40	0.49	0	1
InfoForm (H) [1]	formal sources of HH information (mainly formal institutions)	0.106	0.307	0	1
InfoInfor (H) [1]	informal sources of HH information (mainly friends, market and associations)	0.478	0.5	0	1
InfoBus (H) [1]	business and work associate source of HH information	0.015	0.120	0	1
HelpFriends (H) [N]	number of ways in which HH give/receive help to/from friends	0.96	1.811	0	19
INSTITUTIONS					
MemberGov (H) [1]	the HH participates in one of the local government bodies	0.213	0.409	0	1
Decisions (V) [N]	total number of decisions taken by each government body present in the community	3.441	2.682	0	22
ShockReturn (D) [%]	percentage of HH within the district that have experienced in the previous year a shock due to returnees	0.006	0.016	0	0.13
Returnees (V) [R]	log of returned HH to the community in the last three years	2.312	1.673	0	7.314
Returnees_Go (V) [R]	log of returned HH to the community in the last three years that have left again	0.741	1.267	0	5.994
INFRASTRUCTURE					
MktClose (V) [1]	market is close to the community (less than 1 hour)	0.493	0.5	0	1
ElectrNo (H) [1]	HH has no access to electricity (*reference dummy*)	0.761	0.426	0	1
ElectrPub (H) [1]	HH has public access to electricity	0.150	0.357	0	1
ElectrPriv (H) [1]	HH has private access to electricity (private generator)	0.035	0.183	0	1

Continued on next page...

... Table 2 continued

Variable	Description	Mean	Std. Dev.	Min.	Max.
ElectrComm (H) [1]	HH has community access to electricity (community generator)	0.054	0.225	0	1
RoadKm (V) [R]	log of the km distance of the closest drivable road	0.818	1.016	0	4.605

Notes: Squared terms of variables inserted in the analysis are not listed here. (H): information across households; (V): information across villages; (D): information across districts. [1]: Dummy; [%] ratio; [N] count data; [R] continuous.

4.2.2 Econometric strategy

To analyse the impact of conflict, and the above set of control variables, on the probability that a household has an entrepreneurial activity we run a Complementary log-log (CLogLog) model.[20] In formal terms we define $Y = 1$ when a household earns parts or all its income from a small business, where Y is the dependent variable *EntrBus*. We estimate the probability that $Y = 1$, conditional to the state of conflict intensity and of the five sets of control variables listed above (X):

$$Pr\left(Y = 1|X\right) = 1 - \exp\left[-\exp\left(X\beta\right)\right]$$

The predicted probability of each household l can thus be expressed as:

$$\log\left[-\log\left(1 - p_l\right)\right] = \alpha + \beta_c c + \sum \beta_h H + \sum \beta_r R + \sum \beta_s S + \sum \beta_i I + \sum \beta_f F + \sum \beta_p P$$

where α is a constant, c is the indicator of conflict intensity, H is the set of household variables, R the access to resources variables, S social capital variables, I formal institutions variables, F the infrastructure variables, and P a set of provincial dummies; the different β are the corresponding coefficients.

The complex design used for data collection (see Section 4.1.1) requires some corrections in the estimations: most importantly, sample weights to obtain estimates representative of the whole population, a correction of the variance estimation that takes into account the higher similarity of data clustered in PSU,[21] and the fact that sampled households are

[20] The CLogLog model is better suited to deal with skewed dichotomous dependent variables such as ours, as it is asymmetric around zero (as opposed to symmetric Probit and Logit models) (Cameron and Trivedi, 2009). More importantly, the CLogLog model assumes that the residuals can be represented by an extreme value distribution (Powers and Xie, 2000), which is crucial when the latent variables in our estimate is much closer to such an asymmetric distribution than to a normal or logistic symmetric distribution. Although we finally opted for this econometric model to be on the safe side, comparisons between Probit, Logit, and CLogLog show that with the latter the marginal effect are usually smaller, and the predicted probability of a positive event always higher. Nonetheless, for the purposes of this paper the differences in the results across models are negligible, and the significant role of variables, as well as the directions of their impact, never differ.

[21] Which implicitly corrects for heteroskedasticity using Huber-White computation (Gould et al., 2006).

drawn from a finite population without replacement (FPC correction).[22] Therefore, all following results that use the household data are obtained using survey techniques, unless differently specified.[23]

5 Results

5.1 Location of conflict and entrepreneurial activity

To answer our first question on the relation between conflict and entrepreneurial activity we establish whether there is evidence of a relationship between the number of entrepreneurs and the intensity of conflict in different areas of Afghanistan. In Figure 1 we compute the non-parametric, locally weighted regression (LOWESS) on the relation between a number of indicators of conflict intensity[24] and the percentage of entrepreneurs within a district or province. We derive two fundamental results from this univariate relation. First, overall the percentage of households involved in entrepreneurial activity in a district or province is barely affected by the intensity of the conflict in the same region (district or province). Second, the subjective experience and the perception of conflict (full series) have a (mild) negative impact on the number of households involved in entrepreneurial activity for a large spread of violence within a district, or high levels of insecurity perceived. In most cases the pattern is slightly concave. On the contrary, objective indicators of the conflict intensity (dashed lines) all show no effect on the concentration of entrepreneurial activity.[25]

To confirm this finding we regress the relation between the percentage of entrepreneurial household per district, and the different conflict indicators. Figure 7 in Appendix D shows the results from a quantile regression using a subset of the conflict indicators. In particular, we drop the indicators that have a pairwise correlation higher than 0.5 (Table 4) and all those from the Benini and Moulton (2004) data, which cover a small sample in any case. Figure 7 strongly confirms the lack of relation between the percentage of entrepreneurs among the households and the intensity of conflict, regardless of how conflict is measured.[26] The quantile regression also confirms that while objective conflict measures have absolutely no effect, the subjective perception and the direct impact of violence on

[22] See Deaton (1997) for a full discussion on the treatment of survey data.

[23] All analysis uses the survey settings implemented in Stata 10.

[24] See Table 1 for a definition of the indicators.

[25] Two caveats need to accompany these findings with respect to the objective measures. First, the years from which the data have been drawn are different than the year for which the NRVA data (2005) is available (see Table 1). In particular, the Benini and Moulton (2004) data are from 2002, while the other provincial indicators refer mainly to 2007. Second, Benini and Moulton (2004) collected data only from communities that were previously classified as conflict areas and covering only about 30 percent of the districts sampled for NRVA 2005. Despite these limitations, the common trend of all the indicators for different years and areas produces a robust result. Moreover, the conflict areas did not change substantially between 2005 and 2007. The current intensification of conflict began in earnest in early 2008.

[26] To check the robustness of this result we ran several regressions with several specifications, including and excluding correlated and the Benini and Moulton (2004) variables. We used the logarithm of the non-percentaged variables and standardized values for all variables. The result does not change, even if we control for provincial effects.

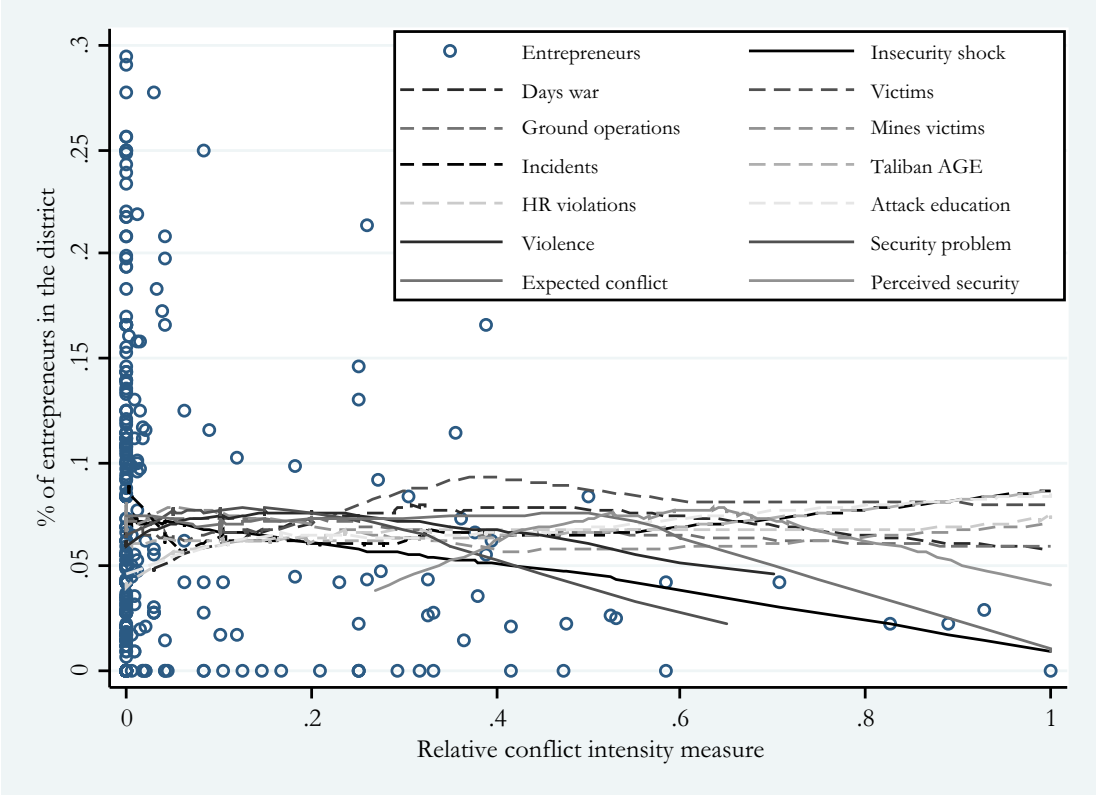

Figure 1: *Relation between local conflict intensity and entrepreneurship: LOWESS curve.* On the horizontal axis different indicators of district or province relative conflict intensity. On the vertical axis the percentage of entrepreneur in the same area. Dots refer to the relation between the percentage of HH experiencing violence within a district, and the percentage of entrepreneurs.

Note: The figure is rescaled between 0 and 30 percent for a more focused comparison between LOWESS patterns, but the actual percentage of entrepreneurs per district reaches 92 percent. Source: see Table 1.

the households have a negative impact on the percentage of entrepreneurs in the area for very large shares of households experiencing the insecurity, or households worried by events related to insecurity. Indeed, the very large confidence intervals for the largest quantiles also suggest that this negative effect is very mixed. In fact, none of these conflict indicators is ever significant.

The above findings raise a few important questions: first, does after 30 years of conflict a different intensity still have an effect on entrepreneurial behaviour? Second, if the intensity of conflict does not hamper entrepreneurial activity across different locations in Afghanistan, what does? Third, does conflict have an indirect negative effect on entrepreneurship through other dimensions?[27] And, does the conflict have a "positive" effect on entrepreneurship as a survival coping strategy, such as the the negative and "positive" effect cancel out?

In what follows we present the results from our analysis of the determinants of en-

[27] In line with what Binzel and Brück (2007) and Justino (2009) indicate as the indirect effects of conflict to be taken into account within a micro-level framework.

trepreneurial activity across households controlling for household features, access to resources, social capital indicators, formal institutions and infrastructure. We mainly answer the second question and identify the factors that explain the likelihood of a household undertaking entrepreneurial activity through running a small business as the main or part of its income generating activities. On the basis of these results, we then speculate on the indirect effects that the conflict intensity may have on entrepreneurship, via the most relevant of the household and environmental determinants, and on the survival motivations.

5.2 The determinants of entrepreneurship in Afghanistan

Table 6 (Appendix C) lists the CLogLog estimates for the five sets of regressors, while Table 3 shows the marginal and impact effects, together with goodness of fit measures for the different model specifications.[28] Table 7 reports the matrix of pairwise correlations between all regressors.

The multivariate estimates substantially confirm the very weak negative relation between entrepreneurship and conflict intensity also when controlling for all sets of variables, although this effect doubles for districts with a very high diffusion of violence (*ShockInsec1*). More surprising is the prediction of a higher probability for entrepreneurial activity when the village sees disarmament as one of its priorities. As if the priority is referred to armed groups that actually maintain a quite secure environment, which ease the activity of entrepreneurs. We will come back in the end to the direct effect of conflict, after completing the picture with the most interesting results from the five dimensions of controlling variables.

Table 3: CLogLog marginal effects: comparing sets

	HH	Res	SC	Inst	Infr
VARIABLES	(1)	(2)	(3)	(4)	(5)
ShockInsec05	-0.024***	-0.023***	-0.021***	-0.018***	-0.016***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
ShockInsec1	-0.042***	-0.041***	-0.040***	-0.039***	-0.038***
	(0.011)	(0.010)	(0.010)	(0.011)	(0.011)
Priority_Disarm	0.042***	0.037***	0.035***	0.036***	0.028**
	(0.014)	(0.013)	(0.013)	(0.013)	(0.012)
MktClose					0.017***
					(0.005)
ElectrPub					0.023***
					(0.008)
ElectrPriv					0.003
					(0.010)
ElectrComm					0.024**
					(0.010)
RoadKm					-0.017***

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[28] Province dummies are omitted from the marginal effects table.

... Table 3 continued

					(0.005)
RoadKm2					0.007***
					(0.002)
MemberGov				0.008*	0.008*
				(0.005)	(0.005)
Decisions				-0.005***	-0.004***
				(0.002)	(0.002)
Decisions2				0.000***	0.000**
				(0.000)	(0.000)
ShockReturn				-0.418**	-0.383**
				(0.191)	(0.184)
Returnees				0.005***	0.004***
				(0.001)	(0.001)
Returnees_Go				-0.004**	-0.003**
				(0.002)	(0.002)
InfoForm			-0.012**	-0.011**	-0.009*
			(0.006)	(0.005)	(0.005)
InfoInfor			0.005	0.004	0.006
			(0.004)	(0.004)	(0.004)
InfoBus			0.054***	0.048***	0.053***
			(0.017)	(0.016)	(0.017)
HelpFriends			-0.002*	-0.002*	-0.002
			(0.001)	(0.001)	(0.001)
Credit_Inform		0.020***	0.021***	0.021***	0.020***
		(0.005)	(0.005)	(0.005)	(0.005)
Credit_Lender		0.009	0.011	0.013	0.012
		(0.008)	(0.008)	(0.008)	(0.008)
Credit_Bank		-0.017	-0.016	-0.016	-0.016
		(0.022)	(0.022)	(0.022)	(0.021)
Credit_Other		0.001	0.001	-0.001	0.001
		(0.019)	(0.019)	(0.018)	(0.018)
Loan		-0.024***	-0.023***	-0.022***	-0.020***
		(0.004)	(0.004)	(0.004)	(0.004)
LoanInvest		0.109***	0.105***	0.100***	0.095***
		(0.021)	(0.020)	(0.020)	(0.019)
Priority_Credit		-0.008	-0.007	-0.007	-0.007
		(0.010)	(0.009)	(0.009)	(0.009)
RemitContr		-0.033***	-0.032***	-0.032***	-0.030***
		(0.006)	(0.006)	(0.006)	(0.006)
MenOnly	0.039***	0.039***	0.039***	0.038***	0.037***
	(0.005)	(0.004)	(0.004)	(0.004)	(0.004)
Literacy	0.013***	0.012***	0.012***	0.010**	0.008**
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Priority_Edu	-0.009**	-0.008**	-0.008*	-0.007*	-0.007*
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
HHMemb5	0.061***	0.064***	0.065***	0.068***	0.070***
	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)
HHMemb10	0.059***	0.061***	0.062***	0.064***	0.066***
	(0.013)	(0.012)	(0.012)	(0.012)	(0.012)

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... Table 3 continued

HHMemb15	0.108***	0.121***	0.125***	0.130***	0.135***
	(0.035)	(0.036)	(0.037)	(0.038)	(0.038)
HHMemb22	0.109**	0.130**	0.136**	0.141**	0.141**
	(0.053)	(0.058)	(0.059)	(0.061)	(0.060)
Age	0.010	0.011	0.006	0.002	0.012
	(0.050)	(0.050)	(0.047)	(0.043)	(0.047)
Age2	-0.004	-0.003	-0.003	-0.002	-0.004
	(0.008)	(0.008)	(0.008)	(0.007)	(0.008)
SocialContr	-0.036***	-0.036***	-0.034***	-0.035***	-0.034***
	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
Activities	0.203***	0.206***	0.207***	0.213***	0.217***
	(0.032)	(0.033)	(0.033)	(0.033)	(0.033)
Activities2	-0.076**	-0.081***	-0.081***	-0.083***	-0.089***
	(0.029)	(0.030)	(0.031)	(0.031)	(0.031)
Urban	0.071***	0.063***	0.062***	0.064***	0.038***
	(0.010)	(0.009)	(0.009)	(0.009)	(0.010)
Assets	0.105***	0.098***	0.096***	0.085***	0.084***
	(0.028)	(0.027)	(0.027)	(0.026)	(0.026)
Assets2	-0.028***	-0.028***	-0.027***	-0.023***	-0.024***
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Observations	24496	24496	24496	24496	24496
F-adjusted H-L[29]	1.314	1.384	1.79	1.579	1.755
p-value[30]	.224	.189	.065	.116	.072
LL[31][32]	-865811	-856335	-854237	-850619	-844343
McFadden R2	0.074	0.084	0.086	0.090	0.096
BIC'[33]	-136862	-155734	-159888	-167065	-179556

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

5.2.1 Household features

Concerning the household features, only for some of the variables do we obtain results in line with the usual household determinants of entrepreneurial activity found in developed and stable countries. These are: the positive effect of access to education, higher male participation, urban location, and wealth indicator. Quite interestingly, wealth has a non-linear relation, implying that for households with the highest wealth the opportunity cost of an entrepreneurial activity is too high. Contrary to the standard results, we do not find any effect of age, marriage, and health.[34]

[29] F-adjusted Hosmer-Lemeshow test for survey data (Archer and Lemeshow, 2006).

[30] Of the H-L test.

[31] All following diagnostic are obtained from a CLogLog with sampling weights and robust variance estimation for clustered data (as opposed to the full survey design estimations.)

[32] Log-Likelihood for the CLogLog.

[33] Bayesian information criterion. For a precise definition see Long and Freese (2006).

[34] The last two variables have been dropped due to their bad fit.

More interestingly, we find some preliminary evidence on the survivalist characteristic of entrepreneurial activity among households in Afghanistan. The variables that have by far the strongest impact on the likelihood of undertaking entrepreneurial activity are those that proxy for the household size and the number of different activities on which the household relies for income generation (proportionally to the number of members)[35]. In a country in which the supply of labour is not lacking the fact that large households are more likely to have a small business seems to be linked to survival and risk diversification. This is in line with the crowding out effect of aid and state pension contributions, which reduce the need to carry on an entrepreneurial activity. The large and positive effect of the number of income generating activities provides convincing evidence on the need to share the risk of the entrepreneurial activity with other sources of income. The non-linear relation once more confirms that, provided the minimum income for a living is already granted, there is no need for a small business.

5.2.2 Access to resources

The intensity of conflict does not seem to have an indirect effect through the access to resources: resource variables do not affect the sign and intensity of the impact of conflict on entrepreneurship. The role of the two factors seems to be independent. Despite this, the access to resource variables do play some role in explaining entrepreneurial activity. The credit *sources* of small business owners do not differ from those of non-entrepreneurs, apart from the higher likelihood of non-entrepreneurs to use informal sources such as family or friends. We also note that although the difference is not significant, formal credit sources are used less by entrepreneurial households. Here also the results seem to indicate risk-averse entrepreneurship. Entrepreneurs are also less likely to *receive* a loan than non-entrepreneurs although the amount of the loan, corrected for the equivalence scale, is the same. This result reflects the predominant use of loans for food consumption and is consistent with findings in other studies of credit in Afghanistan.[36] Indeed, when we turn to the *use* of the loan, business investment is the stronger predictor of entrepreneurial activity among credit variables.

Finally, all migration related variables (migrants and remittances) have a negative impact on entrepreneurship, as also reported by Amuedo-Dorantes and Pozo (2006), with respect to migration. The negative effect of remittances and migration[37] supports our conjecture that entrepreneurship is a strategy to cope with poverty and insecurity, rather than a wealth accumulating activity. Remittances from emigrants, in fact, seem to reduce the incentives to start up a small business. As mentioned in Section 2, this area of research is particularly overlooked in the conflict literature, although forced displacement

[35] We have tried many different specifications of the two variables to avoid a correlation effect, using the number of working members instead, dropping one or the other variable, a continuous value, but the results do not change.

[36] See, for example, Klijn and Pain (2007) and Parto and Regmi (2009).

[37] The latter variable is dropped from the regression due to the high correlation with remittances, but when introduced alone it also has a significant negative impact on entrepreneurship.

and migration do play a significant role on the entrepreneurial decision.

5.2.3 Social capital

Maybe due to incorrect measurement or the actual absence therein, social capital appears to add very little to the explanation of entrepreneurial activity. There is also very little evidence that the intensity of conflict acts on entrepreneurship indirectly via social capital, as the impact of the conflict variable is only slightly reduced by the addition of social capital variables. It may well be the case that after more than 30 years of conflict it makes no difference for an entrepreneur to have the support of relatives and neighbours while this support may be of relative importance in actual conflict situations. If anything, entrepreneurs appear to be slightly less likely to give to and receive help from friends.

Concerning the access to information, entrepreneurs are more likely to refer to media channels (the reference dummy), as opposed to other formal information sources such as mullahs and government representatives. Business associations play a much more important role as far as knowledge provision, as pointed out in much of the literature in developed and developing countries.

5.2.4 Formal institutions

The introduction of institutional variables induces the largest reduction in the effect of the conflict indicator on entrepreneurship. This occurs mainly through another shock to which households are subject: the return of the displaced households. We observe a very small positive effect on the likelihood of entrepreneurial activity from the appearance of a large number of returnees in a village. Conversely, we observe a small negative effect on entrepreneurship when the returnees are forced to leave again, signalling a conflict. Most importantly, the fact that ethnic tension may be related to continuous displacements, and that this has a negative impact on the entrepreneurial activity, is confirmed by the large negative marginal effect of the proportion of households in a district that has experienced a negative shock due to a large influx of returnees. Put differently, a high number of displaced households returning to a community are not per se a source of conflict. But when this is the case, it is negatively related to local household entrepreneurial activities.

We now turn to the effect of governing bodies and household participation. After controlling for a number of indices and specifications, all the indicators such as government bodies, number or type of decisions taken, and election of the bodies are negatively related to entrepreneurial activity but none in a relevant way, and most of them not significantly. The only variable that was significant (total number of decisions taken by government bodies—*Decisions*) has a significant, albeit small, negative impact. Overall, the results on formal institutions seem to indicate that entrepreneurial households have a weak preference for communities with lower security for property rights, larger possibility of regulatory capture and rent-seeking, and a smaller participation of the rest of the community to the process of public policy making. Along with this finding, we also observe a small but

weakly significant positive relation between being part of a government body and having a small business. The two effects together may well point to the fact that entrepreneurial households are in favour of decisions being taken by formal governing bodies, but only when they are part of them. The fact that the effects of formal institutions are so small may again be related (as for social capital) to an institutional setting that has de-constructed during a long time of conflict, and that does not recognize the value of formal institutions. Although Reynolds et al. (2004) also find no evidence of an impact of protection of property rights and level of corruption on entrepreneurship in developing countries, and Djankov et al. (2006) find mixed results for China and Russia.

5.2.5 Infrastructure

We do not find a substantial weakening of the conflict indicator when we control for the infrastructure variables, even if they do substantially add to the explanatory power of the model. With respect to trade infrastructure, households living in communities relatively closer to food markets have a higher probability of being entrepreneurs. The same occurs with respect to the distance of the closest drivable road, but the effect is non-linear.[38] This is probably due to the fact that the survival motivation of the entrepreneurial activity is even stronger when there is no other option to access goods and products, especially in the winter season.[39]

Similarly, access to electricity shows quite intuitive results. Households living in communities with public access to electricity have a larger probability of being entrepreneurs. Interestingly, the same occurs with regard to community generators, although we have no information on how much the entrepreneurial household actually contributes to the investment of a communal generator. Conversely, and supporting the survival hypothesis, households that have access to a private generator are not more likely to have a small business.

6 Summary of findings and discussion

In this work we have used the presence of a small business as a proxy of entrepreneurial activity. According to the NRVA data for 2005, 9 percent of Afghan households undertake some form of business activity as a source of income. The evidence suggests that entrepreneurial activity is mainly a means to survival, rather than of entrepreneurial spirit. There seems to be a strong tendency by entrepreneurs to adapt to ongoing conflict and continue to operate, mainly because continuing is the main or only source of income for the household.

This is probably one of the reasons why we find such a weak response to the first

[38] A negative effect is obtained also for very large distances of the food market. Results available from the authors.

[39] Nenova and Harford (2004) report interesting evidence of private firms substituting for non-existing services in Somalia.

question on whether there are direct effects of the ongoing conflict on the likelihood of households to engage in entrepreneurial activities. Even when controlling for different sets of variables (and conflict indicators) the results show a negative, but very small, impact of the intensity of conflict on entrepreneurship. This effect is reduced by one fourth (in terms of marginal effect) when we introduce, besides the household characteristics, the following sets of controlling variables: access to resources, social capital, formal institutions, and infrastructure. Some dimensions contribute more than others to this reduction (namely institutions, infrastructure, and social capital) but none of them can soundly be considered the transmission chain of an indirect effect of conflict. Overall, social capital, institutions, and infrastructure turn out to be more complementary than substitute explanations of conflict. The static analysis we could carry out with the currently available data thus shows a quite weak relevance also of the indirect effects of conflict on entrepreneurial activities through other channels. The conclusions are different when we reflect on the dynamic effects of the determinants of entrepreneurial activities. We sum them up in the following paragraphs, before discussing potential indirect effects and reflecting on policy implications for a sustainable reconstruction of Afghanistan.

Household related features explain the probability of holding a business to a quite limited extent. Many of the features replicate the evidence found in the standard literature on entrepreneurship, but there are also quite a few Afghan specific effects. Among these, by far the strongest positive effect on the probability of being an entrepreneur (at the mean value of the variable) is exerted by the number of activities in which the household is involved, followed by the household size: it is much easier to hold a business when the risk of incurring income losses is covered by the involvement in a large number of other activities. In other terms, the high instability constraints the set of households choices, allowing only those households that can diversify among income sources to invest in a small business. How much this is an indirect effect of conflict can be assessed by comparing those results with similar analysis in different developing and developed contexts.

The fact that entrepreneurship is mainly a coping strategy is confirmed also by the negative effect of external funds, all migration variables, and especially receiving remittances. In general, access to resources is not related to entrepreneurial activity. Even if entrepreneurs use more loans for business investment, they access loans less than non-entrepreneurs, and not through formal credit institutions, indicating risk-averse entrepreneurship due, perhaps, to uncertainty related to conflict.

A similar result applies to social capital, which does not play a big role in favouring entrepreneurship in a country that has seen conflict for an entire generation. In fact, when considering financial and social capital, none of them seem to be an indirect channel through which the intensity of conflict across districts plays a role, but this is likely to depend on the static feature of our analysis.

We do find some evidence of rent-seeking and regulatory capture, but they do have a very small effect in predicting entrepreneurial activity, such as any other institutional variable. An indirect cost of conflict is also shown by the displacement of households. Their

return has a negative impact on entrepreneurial activity, when it does create tensions in the local community.

Finally, significant effects of ongoing conflict on entrepreneurship appear to operate through the inadequate access to markets and lack of adequate infrastructure to support business activity. Arguably, these two factors are products of ongoing conflict and hence conflict has a significant but indirect effect on entrepreneurship over time. At a minimum, continued inadequacy of access to markets and infrastructure is likely to prevent the process of expansion and moving up on value chains as a key aspect of the evolution process that characterizes most productive entrepreneurial activities. The non-linear relation between trade infrastructure and likelihood of entrepreneurship reinforce the hypothesis of the survival non-productive entrepreneurialism: without any access to markets, communities rely on autarchic production.

We now turn to discussing the mixed evidences and theoretical implications of the existing literature on conflict and entrepreneurship, together with the policy implications that emerges on the debated Afghan "reconstruction". Certainly, continued conflict has generated strong incentive dynamics for non-productive and destructive entrepreneurship in Afghanistan. Numerous warlords and people of influence have benefited handsomely from the conflict through being the Jehadi facilitators assisting the CIA in its covert, and later overt, anti-Soviet campaign and later as moneyed strong persons who continued to exert their influence and do thriving business by getting involved in the many physical reconstruction projects that require local counterparts and contractors to be implemented. Corruption and nepotism are rife in all manner of aid contracting in Afghanistan. With the massive amounts of international aid money that has continued to pour into the country, first during the Cold War and recently as part of the reconstruction programme, amassing money is very likely to take precedence over undertaking productive business activity.

What can we infer from the empirical evidence to identify entry points for intervention through reconstruction and other donor programmes? This, perhaps, is the proverbial million-dollar question in the context of Afghanistan. As a formal nation state Afghanistan has a history of just over 200 years. As we point out, the country was created as a buffer state in an unruly area between two major powers, Britain and Russia, with territorial ambitions in Central and South Asia. Like many countries in the region, the borders of what constitutes Afghanistan are mere lines arbitrarily dividing ancient communities and forcing together unlikely neighbours. That neither of the two regional powers ever succeeded in keeping a foothold in the country has been often attributed to the fierceness of Afghans in guerilla warfare against all invaders and this apparent resilience of Afghans in fighting off conquest over prolonged periods of time by any power. While there has been fierceness and resilience, it is also true that much of the country has never been under consistent endogenous rule from above at a national level. Afghanistan has never fully developed the structures and institutions through which a nation can be governed and that defines a relatively coherent whole. Ruling Afghanistan has always been arduous and tenuous, even by endogenous movements and actors.

Reconstruction through development aid programmes and projects in the context just described is at best difficult. For reconstruction policy to meet its objectives, the implementation parameters have to be known and be of relative permanency. A major problem with development aid supported policies in Afghanistan is that they are based on mental models imported from elsewhere (with at least semi-definable governing institutions of a modern state) without much apparent attempt to adapt them to the local conditions. An example of this is the many faceted market-based approach in the post-2002 period to deliver services and to rebuild the industrial base. Numerous experts working for the international donor agencies in Afghanistan refer to "the Afghan people" and the positive role to be played by the private sector as if these were clearly identifiable cohesive wholes. Privatization of state-owned industries soon after the fall of the Taliban, as a donor-driven reconstruction policy to nurture the entrepreneurial spirit in the private sector, resulted in selling off numerous state assets at fire sale prices to the already powerful without generating new value adding economic activity (Paterson et al., 2006).

Afghanistan has numerous unresolved conflicts along ethnic lines and faces many challenges in reconstructing its economy, not least because of extreme poverty, resource scarcity, and a lack of adequate structures to support productive entrepreneurial activity. That this is the case does not and should not mean that intervention to reconstruct the country is ill advised or hopeless. As we have shown in our analysis, the entrepreneurial activity is largely unfazed by the ongoing conflict. Building on this entrepreneurial spirit requires careful and clear assessment of the entrepreneurs' needs, trajectories, and ambitions. While the information collected through NRVA surveys is useful in providing a picture of how things have unfolded in the socio-economy, they are insufficient as the basis on which to develop intervention strategies to introduce change aimed at supporting productive entrepreneurship. Demand assessment in labour, raw material, and product markets can provide valuable information on how development aid can bolster the ability of suppliers to meet the demands.

Given the difficult conditions for conducting complementary population surveys on specific aspects of households' behavior, the difficulty of making survey data available in a timely manner,[40] and the high probability of rapid data obsolescence due to chronic conflict, our analysis is inconclusive. Because of these constraints, a further conclusion we make is that more attention needs to be paid to narrative-based case studies of entrepreneurial activity to contextualize and accompany formal analyses based survey data such as we have attempted to do in this paper. The value of intuition based on narratives collected through case studies in territorially bounded study areas or on specific issues of interest cannot be underestimated or dismissed because of imprecision in contexts such as Afghanistan. If we want to know how entrepreneurs cope and whether they are productive, non-productive, or destructive in conflict situations, we need to ask entrepreneurs

[40]The 2007-8 NRVA dataset remains unavailable at the time of writing. In addition, there is little congruence between the datasets from 2003 and 2005 due the significant differences between the survey questions.

involved in economic activity in our areas of interest. In other words, it is at best difficult to generalize on cases like Afghanistan because it is diverse, fragmented, and fluid. Future research will need to draw on the available quantitative databases—as we have attempted to do in this paper—and on locally specific case studies of selected segments of the economy for more depth to inform intervention decision making.

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A Data preparation

A.1 Missing observations and final sample

Dependent variable

Once we drop the Kuchi population from the sample, there are 979 missing observations for the definition of Entrepreneur (*EntrBus*), 3.9 percent. Although this is not a large number, we check the pattern of the missing values. Figure 2 shows that most of the missing values for the *EntrBus* variable are concentrated in Kabul city.

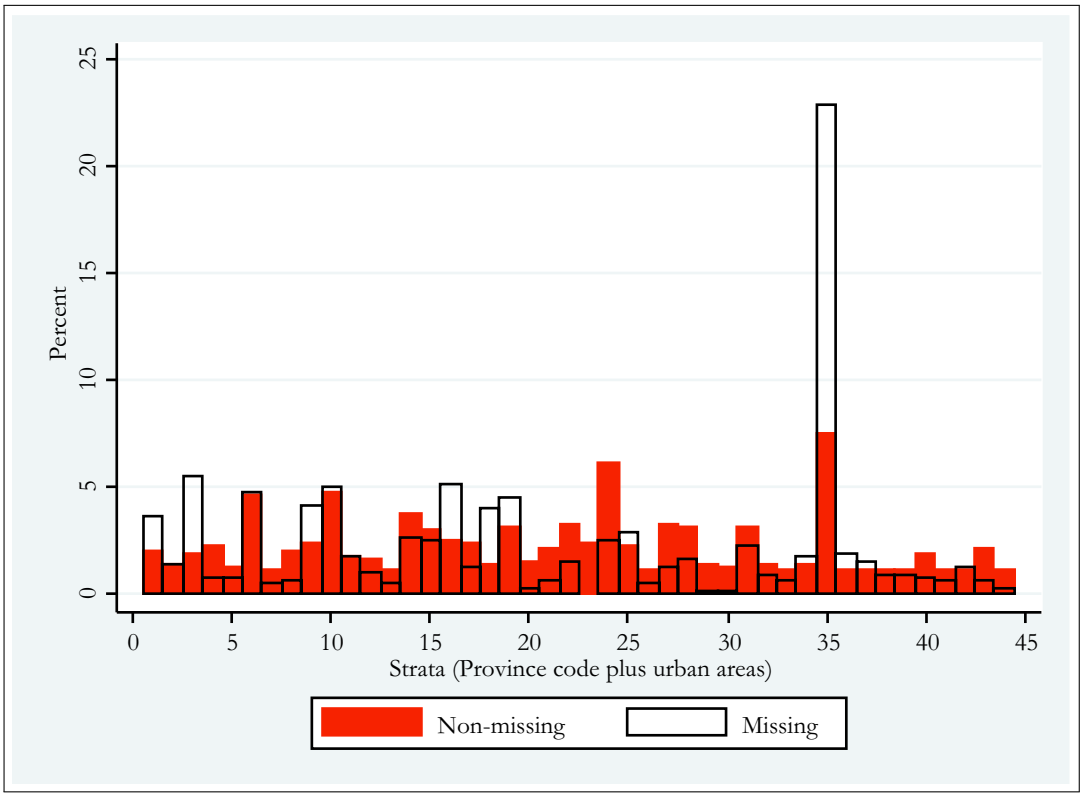


Figure 2: *Distribution of missing responses on the sources of income (definition of entrepreneur) across strata.* strata 1 to 34 represent rural observations across the 24 provinces; strata 35 to 44 represent the urban observations across provinces that have large towns.

We then check whether there are differences in the mean value of the dependent variables, between missing and non (with the exception of the variables that have coincident missing values).

```
Survey: Mean estimation

Number of strata =      44          Number of obs    =    25075
Number of PSUs   =    2385          Population size  =  3196248
                                    Design df        =     2341

           0: nomissDep = 0
           1: nomissDep = 1

-------------+
```

Over	Mean	Linearized Std. Err.	[95% Conf.	Interval]
ShockInsec05				
0	.4225518	.0280291	.3675873	.4775163
1	.4209183	.0088773	.4035101	.4383265
ShockInsec1				
0	.0141439	.0081112	-.001762	.0300498
1	.0244982	.0037495	.0171455	.0318509
Priority_Disarm				
0	.061967	.0138068	.0348921	.0890418
1	.0630778	.0052144	.0528524	.0733032
Literacy				
0	.2530773	.0209672	.2119611	.2941936
1	.2132347	.0039684	.2054528	.2210166
Priority_Edu				
0	.5705583	.0312029	.5093702	.6317465
1	.6477082	.0100597	.6279814	.6674351
HHMemb5				
0	.2282205	.0209606	.1871172	.2693238
1	.2243344	.0036146	.2172463	.2314225
HHMemb10				
0	.6301867	.0228583	.585362	.6750113
1	.6370683	.0040006	.6292232	.6449135
HHMemb15				
0	.1024661	.0138509	.0753048	.1296273
1	.1026453	.002575	.0975958	.1076948
HHMemb22				
0	.0266493	.0072319	.0124676	.040831
1	.0184445	.0016282	.0152516	.0216373
Age				
0	3.023896	.018523	2.987573	3.060219
1	3.023788	.0032657	3.017383	3.030192
Activities				
0	(dropped)			
1	.263769	.0019303	.2599838	.2675542
Urban				
0	.2425745	.0217749	.1998744	.2852745
1	.1664911	.0015467	.1634581	.1695241
Assets				
0	1.683651	.0218742	1.640756	1.726545
1	1.695264	.0050864	1.68529	1.705238
Credit_Inform				
0	.7618367	.0209291	.7207952	.8028783
1	.7717751	.0048136	.7623358	.7812145
Credit_Lender				
0	.1546304	.0169083	.1214735	.1877872
1	.1326884	.0037857	.1252647	.1401122

Credit_Bank				
0	.0059656	.0031311	-.0001745	.0121057
1	.0029125	.0004226	.0020837	.0037413
Credit_Other				
0	.0040611	.0024702	-.0007829	.0089051
1	.0081025	.0007723	.006588	.009617
Loan				
0	.3996275	.025011	.3505814	.4486736
1	.3858941	.0058109	.3744991	.3972892
LoanInvest				
0	.0162725	.0053453	.0057905	.0267545
1	.0145537	.0009424	.0127056	.0164018
Priority_Credit				
0	.0163985	.0056373	.0053438	.0274532
1	.0359375	.0037507	.0285825	.0432926
InfoForm				
0	.1186125	.0158794	.0874734	.1497516
1	.1056358	.0033671	.0990331	.1122386
InfoInfor				
0	.434259	.0284612	.3784471	.4900709
1	.4779097	.0076119	.4629829	.4928366
InfoBus				
0	.0236385	.0068796	.0101478	.0371292
1	.0147323	.0010128	.0127462	.0167183
HelpFriends				
0	.6828411	.0681843	.5491333	.8165489
1	.9577857	.0287357	.9014355	1.014136
MemberGov				
0	.2114299	.0215759	.1691202	.2537397
1	.2127466	.0052164	.2025174	.2229759
Decisions				
0	3.228172	.2274192	2.782207	3.674136
1	3.441026	.0485955	3.345732	3.536321
ShockReturn				
0	.0091578	.0008958	.0074011	.0109145
1	.006335	.000219	.0059057	.0067644
Returnees				
0	2.659879	.1229623	2.418753	2.901006
1	2.312416	.0312792	2.251078	2.373754
Returnees_Go				
0	.9815238	.0851316	.8145826	1.148465
1	.7409977	.0256323	.6907333	.7912622
MktClose				
0	.5012954	.0301582	.4421558	.5604349
1	.4931172	.0096438	.474206	.5120285
ElectrPub				

0	.1712949	.019518	.1330205	.2095694
1	.1501281	.0049052	.1405091	.1597471
ElectrPriv				
0	.0444342	.0098503	.0251179	.0637504
1	.0347151	.0023041	.0301968	.0392334
ElectrComm				
0	.036326	.009724	.0172573	.0553946
1	.0535647	.0036867	.0463352	.0607942
RoadKm				
0	.8297074	.0734572	.6856595	.9737554
1	.8177741	.0195281	.77948	.8560682

Note: variances scaled within each stage to handle strata with a single sampling unit.

The results are quite contradictory. Non-respondents live in slightly more secure areas, with better access to education, have a higher literacy rate, and slightly less assets. The area features, together with the significantly large proportion of urban households are due the large concentration of non-response in Kabul. In terms of access to resources, there is no significant difference in the loan access, although non-respondents are more likely to access credit via formal institutions (again a Kabul effect) but leave in areas with a higher priority for credit markets. There is some difference in terms of migration rate, with non-respondents having a quite lower number of migrants.[41] In terms of social capital, non-respondents are more likely to rely on formal information sources and less keen in helping friends. Concerning the institutional environment, non-respondents leave in areas with a slightly larger number of returnees, and slightly lower participation of governing bodies. Finally, non-respondents leave in areas with slightly better infrastructure, which is again a Kabul effect.

Overall, a comparison of the mean differences in the dependent variables between respondents and non-respondents do not allow to define any particular pattern. These figures allow us to exclude any bias in the reported analysis due to missing values in the dependent variable.

We test if there is any difference in the income, corrected by equivalence scales, and non-respondents report only a slightly lower income. This figure should be taken with a lot of caution, as the income data for the NRVA 2005 is quite unreliable (MRRD and CSO, 2007). Rather, we compute the ratio of households reporting an income higher than 0: among the non-respondents only 39 percent report a positive income, while for respondents the figure increases to 71 percent. This might suggest that non-respondents are not able to indicate a source of income.

To sum up, with respect to the entrepreneurship variable, we do not find any evident source of bias in the missing response, or at most is related to wealth (e.g. it might that data is missing because the household had no source of income in that year). Given that this paper is not concerned with any wealth implication, this would not represent a

[41] Results available from the authors.

problem for the analysis.

Independent variables

Given the large size of the sample, we avoid data imputation, as most variables are quite hard to impute without introducing a lot of noise: the community or district level information should not differ between households of the same community/districts (which with would happen with both simple, multiple or hotdeck, imputation using households information). Second, many of he remaining variables are either subjective evaluations (like experiencing a shock) or related to environmental conditions (like access to credit).

Missing observations do not alter significantly the distribution of observations across strata (Figure 2 in Appendix A), a part from a 1 percent point reduction in the Kabul population. More importantly, the missing observations in the different groups of explanatory variables (including households and resources, and environmental determinants) are not related to the intensity of the conflict. It is not the risky environment that hampers the collection of data, or influences the propensity of the household to answer given questions. In Figure 3 we compare the original sample distribution across strata (without the Kuchi) and the sample distribution when the observations with missing values in both the dependent and the independent variables are dropped. This shows that the original representation holds, although in Kabul the sample is reduced by one percentage point.

In order to make sure that we are not missing observations exactly because of the high intensity of the conflict, which may hamper the survey procedures, or households and Shura willingness to respond to certain aspects of the questionnaire, we analyse the correlation between the conflict indicators and the observations with missing variables, for the different groups of variables (household, access to resources, social capital, institutions, and infrastructure) in Table 4: correlations are very weak, and positive coefficients, indicating a positive correlation between non-missing and conflict intensity, are more frequent than negative coefficients.

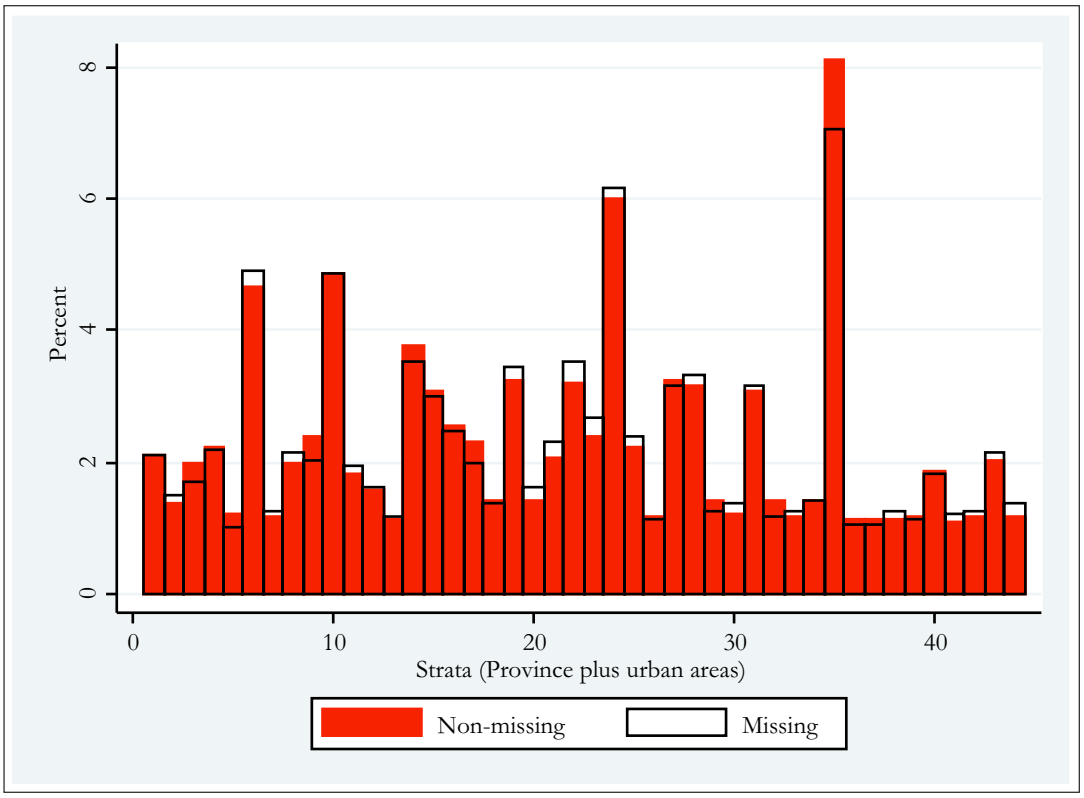


Figure 3: *Distribution of the sample across strata with and without missing values in both dependent and independent variables.* strata 1 to 34 represent rural observations across the 24 provinces; strata 35 to 44 represent the urban observations across provinces that have large towns. Full bars show the distribution of the original sample, while the black contours the distribution when observation with missing values are dropped.

Table 4: Correlation between missing values and conflict indicators

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
Insecurity shock (1)	1.00																				
ShockInsec05 (2)	0.21	1.00																			
	(0.00)																				
ShockInsec1 (3)	0.69	-0.12	1.00																		
	(0.00)	(0.00)																			
Days war (4)	-0.20	-0.09	-0.09	1.00																	
	(0.00)	(0.00)	(0.00)																		
Victims (5)	0.02	-0.04	-0.01	0.14	1.00																
	(0.06)	(0.00)	(0.12)	(0.00)																	
Ground operations (6)	0.05	-0.15	0.01	0.14	0.33	1.00															
	(0.00)	(0.00)	(0.37)	(0.00)	(0.00)																
Mines victims (7)	-0.11	-0.11	-0.04	0.32	0.43	0.45	1.00														
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)															
Incidents (8)	0.15	0.24	-0.00	0.00	-0.29	-0.40	-0.27	1.00													
	(0.00)	(0.00)	(0.51)	(0.95)	(0.00)	(0.00)	(0.00)														
Taliban AGE (9)	0.28	0.21	0.05	-0.17	-0.23	-0.31	-0.25	0.89	1.00												
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)													
HR violations (10)	-0.21	0.14	-0.15	0.32	-0.01	-0.05	-0.01	0.24	-0.08	1.00											
	(0.00)	(0.00)	(0.00)	(0.00)	(0.09)	(0.00)	(0.16)	(0.00)	(0.00)												
Attack education (11)	0.10	0.14	0.01	-0.30	-0.16	-0.13	-0.19	0.44	0.42	0.17	1.00										
	(0.00)	(0.00)	(0.06)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)											
Violence (12)	0.15	-0.02	0.04	-0.06	-0.11	-0.05	-0.09	0.11	0.16	-0.06	0.09	1.00									
	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)										
Security problem (13)	0.10	0.11	0.03	-0.22	-0.19	-0.29	-0.16	0.26	0.42	-0.27	0.24	0.13	1.00								
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)									
Expected conflict (14)	0.22	0.07	0.07	-0.23	-0.11	-0.25	-0.12	0.26	0.44	-0.31	0.33	0.19	0.82	1.00							
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)								
Perceived security (15)	0.19	0.07	0.05	-0.32	-0.05	-0.14	-0.17	0.23	0.40	-0.36	0.25	0.28	0.58	0.57	1.00						
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)							
MV entrepreneur (16)	0.04	-0.02	0.01	-0.08	0.03	0.02	-0.04	-0.02	0.01	-0.05	0.02	0.03	0.02	0.03	0.04	1.00					
	(0.00)	(0.00)	(0.03)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.21)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)						
MV HH (17)	0.02	-0.03	0.01	-0.01	0.02	-0.01	0.01	-0.01	0.02	-0.04	0.02	0.03	0.02	0.03	0.04	0.14	1.00				
	(0.00)	(0.00)	(0.05)	(0.16)	(0.07)	(0.31)	(0.52)	(0.32)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)					
MV resources (18)	0.02	-0.01	0.00	-0.01	0.03	-0.04	-0.01	-0.01	0.01	-0.05	0.01	0.01	-0.02	-0.01	-0.01	0.52	0.14	1.00			
	(0.00)	(0.03)	(0.53)	(0.16)	(0.00)	(0.00)	(0.30)	(0.09)	(0.37)	(0.00)	(0.33)	(0.03)	(0.01)	(0.17)	(0.04)	(0.00)	(0.00)				
MV Soc Cap (19)	0.03	-0.03	0.01	-0.03	0.04	0.02	0.01	-0.02	0.01	-0.04	0.04	0.03	0.01	0.02	0.03	0.21	0.12	0.16	1.00		
	(0.00)	(0.00)	(0.04)	(0.00)	(0.00)	(0.03)	(0.13)	(0.01)	(0.19)	(0.00)	(0.00)	(0.00)	(0.06)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)			
MV Inst (20)	0.00	-0.02	0.00	0.04	0.01	0.02	0.01	-0.02	-0.03	0.01	-0.01	-0.00	0.02	0.02	-0.03	-0.00	-0.00	-0.00	0.01	1.00	
	(0.40)	(0.00)	(0.63)	(0.00)	(0.39)	(0.04)	(0.15)	(0.00)	(0.00)	(0.03)	(0.22)	(0.69)	(0.01)	(0.00)	(0.00)	(0.52)	(0.77)	(0.75)	(0.33)		
MV Infr (21)	0.02	-0.00	0.00	-0.01	0.06	-0.03	0.04	0.02	0.03	-0.03	0.02	-0.02	0.02	0.02	0.02	0.10	0.05	0.12	0.12	0.09	1.00
	(0.00)	(0.50)	(0.85)	(0.54)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)	(0.02)	(0.00)	(0.02)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	

Note: MV ... are dummies equal to 1 when the observation is not missing for a given group of variables (household, access to resources, social capital, institutions and infrastructure). Due to the very limited coverage of the Benini and Moulton (2004) data, there are few strata with a single PSU: given there is no way to work around this issue for pairwise correlations using complex survey design in Stata, we report a correlation matrix computed without the survey settings. We compare with a correlation matrix obtained controlling for the survey design (excluding Benini and Moulton (2004) data) and results provide the same information for both coefficients (weights) and standard errors (variance correction). Source: see Table 1.

We also check if the mean of the conflict variables differ for missing values in the infrastructure variables, to control for a bias due to failure in capturing information in the most troublesome villages/districts. The opposite actually turns out to be the case: missing values of the environmental variables that refer to infrastructure are more concentrated in districts with lower values of the conflict indicators: information is not missing because of the difficult war conditions.[42] The same applies to missing values in the other environmental variables: social capital and resources.

B Robustness checks

B.1 Model specification

For each set of variables (household features, access to resources, social capital, formal institutions, and infrastructure) we have chosen the specification with

- no problems of multicollinearity,
- better goodness of fit measures,
- better prediction when comparing actual and predicted value of Y,
- comparatively lower mean or residuals (using the generalized residuals as computed in Gourieroux et al. (1987)),
- for which variables were significant at least under some of the specifications (i.e. deleting removing tat were robustly non-significant),
- lower number of missing observations.

Among the different comparisons for all for all continuous and count data we have tested the significance of squared terms, as well as of different categorical transformations.

When two specifications were highly comparable (had very similar fit) we have tested them both when subsequently adding variable sets, and always found equivalent results. This was the case, for example, for the continuous values of household size, and the amount of the loan.

B.2 Missing values

In order to confirm the lack of bias of missing values on the final results, we have compared the estimation for each set of variables with all available observations, with the estimations obtained dropping observations for which values are missing for the new added variables. For example, the first specification controlling only for the households features (column 1 in Table 6) has been analyzed with 27973 observations and the 24496 observations available when all variables sets are estimated (and all intermediate sample sizes). Results are highly robust to those sample variations, as shown in Table 5.

[42] Results not presented for reasons of limited space, are available from the authors.

Table 5: CLogLog marginal effects: comparing HH features with different sample sizes

	HH	Res	SC	Inst	Infr
VARIABLES	(1)	(2)	(3)	(4)	(5)
ShockInsec05	-0.022***	-0.024***	-0.024***	-0.024***	-0.024***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
ShockInsec1	-0.042***	-0.043***	-0.044***	-0.044***	-0.042***
	(0.010)	(0.010)	(0.010)	(0.010)	(0.011)
Priority_Disarm	0.029**	0.037***	0.039***	0.039***	0.042***
	(0.013)	(0.014)	(0.014)	(0.014)	(0.014)
MenOnly	0.044***	0.043***	0.042***	0.042***	0.039***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.005)
Literacy	0.015***	0.015***	0.014***	0.014***	0.013***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Priority_Edu	-0.009**	-0.009**	-0.010**	-0.010**	-0.009**
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
HHMemb5	0.062***	0.065***	0.062***	0.062***	0.061***
	(0.020)	(0.021)	(0.021)	(0.021)	(0.021)
HHMemb10	0.061***	0.061***	0.060***	0.060***	0.059***
	(0.012)	(0.013)	(0.013)	(0.013)	(0.013)
HHMemb15	0.109***	0.111***	0.109***	0.109***	0.108***
	(0.033)	(0.035)	(0.035)	(0.035)	(0.035)
HHMemb22	0.123**	0.118**	0.116**	0.116**	0.109**
	(0.054)	(0.054)	(0.053)	(0.053)	(0.053)
Age	0.023	0.029	0.022	0.022	0.010
	(0.050)	(0.057)	(0.055)	(0.055)	(0.050)
Age2	-0.006	-0.007	-0.006	-0.006	-0.004
	(0.008)	(0.010)	(0.009)	(0.009)	(0.008)
SocialContr	-0.034***	-0.034***	-0.035***	-0.035***	-0.036***
	(0.009)	(0.009)	(0.010)	(0.010)	(0.010)
Activities	0.202***	0.205***	0.208***	0.209***	0.203***
	(0.031)	(0.031)	(0.032)	(0.032)	(0.032)
Activities	-0.075***	-0.076***	-0.080***	-0.080***	-0.076**
	(0.028)	(0.029)	(0.030)	(0.030)	(0.029)
Urban	0.072***	0.072***	0.070***	0.070***	0.071***
	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
Assets	0.054***	0.109***	0.111***	0.111***	0.105***
	(0.020)	(0.028)	(0.028)	(0.028)	(0.028)
Assets2	-0.014**	-0.029***	-0.030***	-0.030***	-0.028***
	(0.006)	(0.008)	(0.008)	(0.008)	(0.008)
Observations	27973	26045	25447	25436	24496

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

B.3 Outliers

We check for outliers across the different specifications, by analysing the residuals. None of the specifications has severe outliers, but we do check for results when we drop observations with residuals that are clearly distant from the bulk. We do so for observations that appear as outliers across most sets of variables and models (Probit Logit and CLogLog), as well as for observations that are considered outliers only in two different regressions. In none of the cases those more extreme observations have any influence on the results.

For all variable sets we also check for the interquantile range of continuous variables, and mark as outliers those observation that have a value which is three interquantile ranges away from the closer quartile. All those observations have a residual which is inside the bulk of the residuals' distribution. We then assume all those observations provide useful information for the sake of the analysis.

B.4 Model fitness

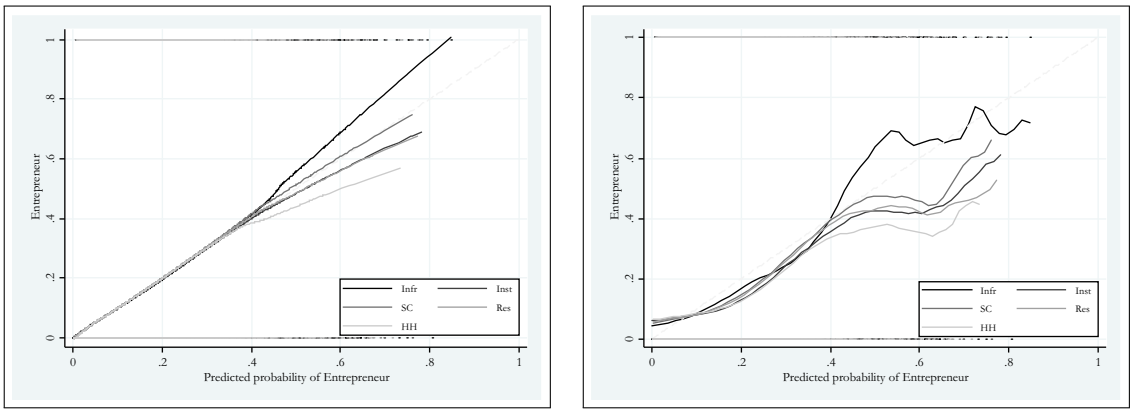
Overall, all specifications show a quite good fit, although the explanatory power, measured with the McFadden R2, is quite standard but not particularly high, even when all sets of variables are used (Table 3). Indeed, it is clear that all sets of variables add some more information on the likelihood that a household has a small business, as suggested by an increasing R2, and a strongly improving information criterion along specifications.[43] An analysis of the survey design effect (DEFF) also shows that the study is quite well designed.[44]

The relevance of each set of variables in predicting the probability that a household has a small business can be assessed by comparing the predicted outcome with the actual status of each observation. We do so with a non-parametric locally weighted regression (LOWESS): Figure 4 shows results for both a local weighting and a kernel weighting polynomial. Given the very low number of positive outputs (entrepreneurs) the figure should be taken with caution when assessing the prediction power of the specifications, but it is interesting to compare them.

The regression shows that, apart from the infrastructure variables, all variable sets tend to over-predict the entrepreneurial outcome, with respect to the actual observations: entrepreneurs are actually less than the used variables would make infer. The inclusion of different variable sets mitigates this problem, especially with respect to institutions and social capital variables. Interestingly, though, formal institutions reduce the ratio of predicted entrepreneurs, as if the small negative impact we find was already overstated. On the contrary, infrastructure variables seem to overshoot, by allowing to predict a smaller number of entrepreneurs than actually observed (a). Indeed, when we look at the more flexible polynomial relation (b) we do find that the inclusion of infrastructure allows to have the best fit between the predicted probability and the ratio of actual entrepreneurs.

[43] A comparison of an adjusted R2 gives the same result.

[44] All DEFF measures are below 3, a part from one province dummy, with most value very close to 1. Results available from the authors upon request.



(**a**) Locally weighted smoothing (**b**) Kernel weighted polynomial smoothing

Figure 4: *Relation between predicted probability and actual status of each observation for the different sets of variables. (a)* shows a locally weighted scatter plot smoothing, and *(b)* a kernel weighted polynomial smoothing.

C Tables

Table 6: CLogLog regressions coefficients: comparing sets

	HH	Res	SC	Inst	Infr
VARIABLES	(1)	(2)	(3)	(4)	(5)
ShockInsec05	-0.368***	-0.361***	-0.327***	-0.288***	-0.264***
	(0.0762)	(0.0759)	(0.0755)	(0.0765)	(0.0770)
ShockInsec1	-0.925**	-0.938**	-0.903**	-0.870**	-0.890**
	(0.364)	(0.367)	(0.363)	(0.370)	(0.374)
Priority_Disarm	0.513***	0.472***	0.455***	0.466***	0.380***
	(0.140)	(0.138)	(0.137)	(0.137)	(0.138)
MktClose					0.278***
					(0.0811)
ElectrPub					0.325***
					(0.0977)
ElectrPriv					0.0494
					(0.154)
ElectrComm					0.335***
					(0.123)
RoadKm					-0.273***
					(0.0879)
RoadKm2					0.114***
					(0.0266)
MemberGov				0.117*	0.125*
				(0.0676)	(0.0675)
Decisions				-0.0765***	-0.0718***
				(0.0263)	(0.0258)
Decisions2				0.00428***	0.00376**
				(0.00153)	(0.00147)
ShockReturn				-6.567**	-6.106**
				(3.000)	(2.934)
Returnees				0.0744***	0.0713***
				(0.0220)	(0.0210)
Returnees_Go				-0.0588**	-0.0538**
				(0.0246)	(0.0239)
InfoForm			-0.198**	-0.188*	-0.158
			(0.0991)	(0.0984)	(0.0972)
InfoInfor			0.0750	0.0596	0.0895
			(0.0661)	(0.0655)	(0.0657)
InfoBus			0.623***	0.581***	0.634***
			(0.155)	(0.154)	(0.155)
HelpFriends			-0.0348*	-0.0330*	-0.0289
			(0.0190)	(0.0195)	(0.0192)
Credit_Inform		0.332***	0.352***	0.363***	0.342***
		(0.0919)	(0.0914)	(0.0924)	(0.0909)
Credit_Lender		0.136	0.167	0.185	0.178
		(0.114)	(0.115)	(0.115)	(0.115)
Credit_Bank		-0.296	-0.282	-0.287	-0.285

Continued on next page...

... Table 6 continued

		(0.442)	(0.442)	(0.443)	(0.443)
Credit_Other		0.0109	0.00987	-0.0189	0.0163
		(0.288)	(0.289)	(0.292)	(0.290)
Loan		-0.391***	-0.376***	-0.353***	-0.329***
		(0.0670)	(0.0668)	(0.0664)	(0.0660)
LoanInvest		1.036***	1.012***	0.984***	0.961***
		(0.132)	(0.132)	(0.132)	(0.132)
Priority_Credit		-0.123	-0.122	-0.115	-0.119
		(0.164)	(0.164)	(0.161)	(0.159)
RemitContr		-0.642***	-0.630***	-0.635***	-0.614***
		(0.158)	(0.157)	(0.158)	(0.157)
MenOnly	0.767***	0.810***	0.804***	0.798***	0.784***
	(0.121)	(0.124)	(0.125)	(0.125)	(0.124)
Literacy	0.188***	0.180***	0.184***	0.152**	0.121**
	(0.0596)	(0.0595)	(0.0593)	(0.0600)	(0.0590)
Priority_Edu	-0.138**	-0.128**	-0.115*	-0.115*	-0.112*
	(0.0631)	(0.0626)	(0.0623)	(0.0620)	(0.0615)
HHMemb5	0.750***	0.790***	0.807***	0.846***	0.872***
	(0.208)	(0.207)	(0.207)	(0.208)	(0.208)
HHMemb10	0.976***	1.044***	1.066***	1.114***	1.169***
	(0.219)	(0.219)	(0.219)	(0.219)	(0.220)
HHMemb15	1.071***	1.177***	1.207***	1.249***	1.290***
	(0.237)	(0.237)	(0.237)	(0.238)	(0.239)
HHMemb22	1.021***	1.166***	1.204***	1.236***	1.252***
	(0.332)	(0.332)	(0.332)	(0.335)	(0.335)
Age	0.144	0.166	0.0923	0.0250	0.184
	(0.754)	(0.774)	(0.734)	(0.670)	(0.748)
Age2	-0.0587	-0.0537	-0.0417	-0.0340	-0.0576
	(0.126)	(0.129)	(0.123)	(0.113)	(0.125)
SocialContr	-0.749**	-0.767**	-0.734**	-0.764**	-0.747**
	(0.303)	(0.302)	(0.304)	(0.306)	(0.311)
Activities	3.056***	3.185***	3.221***	3.340***	3.471***
	(0.471)	(0.490)	(0.496)	(0.499)	(0.512)
Activities	-1.135***	-1.258***	-1.263***	-1.310***	-1.417***
	(0.439)	(0.467)	(0.477)	(0.477)	(0.499)
Urban	0.814***	0.762***	0.750***	0.774***	0.516***
	(0.0896)	(0.0906)	(0.0908)	(0.0900)	(0.111)
Assets	1.571***	1.518***	1.498***	1.333***	1.339***
	(0.423)	(0.422)	(0.423)	(0.407)	(0.413)
Assets2	-0.420***	-0.427***	-0.418***	-0.365***	-0.390***
	(0.124)	(0.124)	(0.124)	(0.119)	(0.122)
Kapisa	-0.768**	-0.618	-0.599	-0.531	-0.426
	(0.388)	(0.389)	(0.387)	(0.397)	(0.404)
Parwan	0.479*	0.503*	0.511*	0.463	0.452
	(0.283)	(0.282)	(0.283)	(0.296)	(0.301)
Wardak	0.655***	0.762***	0.827***	0.846***	0.913***
	(0.246)	(0.251)	(0.249)	(0.268)	(0.270)
Logar	0.218	0.283	0.316	0.347	0.236
	(0.311)	(0.307)	(0.306)	(0.320)	(0.316)

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... Table 6 continued

Ghazni	-0.303	-0.170	-0.152	-0.196	-0.271
	(0.213)	(0.214)	(0.214)	(0.221)	(0.220)
Paktika	-0.872*	-0.832	-0.862*	-0.942*	-0.879*
	(0.514)	(0.517)	(0.517)	(0.527)	(0.523)
Paktya	-0.134	0.0188	-0.00918	-0.0517	0.0614
	(0.287)	(0.303)	(0.305)	(0.301)	(0.316)
Khost	0.0579	0.171	0.158	0.221	0.280
	(0.265)	(0.263)	(0.265)	(0.286)	(0.285)
Nangarhar	0.0783	0.111	0.135	0.0708	0.0722
	(0.146)	(0.147)	(0.147)	(0.175)	(0.171)
Kunarha	0.379	0.445*	0.470**	0.485**	0.398
	(0.243)	(0.246)	(0.238)	(0.245)	(0.251)
Laghman	-0.376	-0.445	-0.485	-0.543	-0.433
	(0.430)	(0.423)	(0.423)	(0.435)	(0.431)
Nuristan	-1.989**	-1.837**	-1.798**	-1.664**	-2.039**
	(0.775)	(0.776)	(0.776)	(0.797)	(0.833)
Badakhshan	0.899***	0.907***	0.944***	0.944***	0.940***
	(0.204)	(0.202)	(0.201)	(0.215)	(0.197)
Takhar	0.696***	0.694***	0.695***	0.597***	0.705***
	(0.161)	(0.161)	(0.162)	(0.183)	(0.186)
Baghlan	0.969***	0.941***	0.973***	0.843***	0.880***
	(0.149)	(0.146)	(0.146)	(0.167)	(0.168)
Kunduz	-0.194	-0.222	-0.151	-0.386**	-0.334*
	(0.171)	(0.174)	(0.176)	(0.196)	(0.194)
Samangan	-0.148	-0.0227	0.00912	-0.0532	-0.132
	(0.438)	(0.434)	(0.431)	(0.453)	(0.471)
Balkh	-0.0581	-0.0617	-0.0404	-0.0853	-0.0972
	(0.147)	(0.147)	(0.146)	(0.170)	(0.170)
Jawzjan	0.767***	0.850***	0.862***	0.802***	0.795***
	(0.179)	(0.176)	(0.180)	(0.200)	(0.198)
Sar_i_Poul	0.178	0.310	0.452**	0.550***	0.645***
	(0.189)	(0.192)	(0.196)	(0.212)	(0.218)
Faryab	0.312**	0.304*	0.348**	0.220	0.280
	(0.153)	(0.156)	(0.157)	(0.171)	(0.171)
Badghis	-1.344***	-1.282***	-1.219***	-1.225***	-1.163***
	(0.389)	(0.393)	(0.390)	(0.397)	(0.402)
Hirat	0.139	0.222	0.224	0.129	0.134
	(0.143)	(0.143)	(0.145)	(0.162)	(0.161)
Nimroz	0.855***	0.812***	0.799***	0.708***	0.662***
	(0.237)	(0.232)	(0.234)	(0.242)	(0.232)
Farah	0.597***	0.533***	0.528***	0.502**	0.432*
	(0.206)	(0.201)	(0.203)	(0.214)	(0.231)
Hilmand	0.274	0.201	0.212	0.270	0.301
	(0.218)	(0.220)	(0.218)	(0.236)	(0.237)
Kandahar	0.580***	0.576***	0.591***	0.820***	0.743***
	(0.156)	(0.155)	(0.154)	(0.164)	(0.165)
Zabul	0.891***	0.741**	0.681**	0.726**	0.949***
	(0.305)	(0.310)	(0.303)	(0.325)	(0.331)
Uruzgan	-0.696**	-0.593*	-0.620*	-0.610*	-0.563

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... Table 6 continued

	(0.348)	(0.359)	(0.359)	(0.371)	(0.374)
Ghor	-0.370	-0.220	-0.179	-0.261	-0.0921
	(0.245)	(0.247)	(0.245)	(0.254)	(0.258)
Bamyan	-1.008**	-0.809**	-0.812**	-0.885**	-0.819**
	(0.402)	(0.403)	(0.402)	(0.409)	(0.410)
PanjSher	0.144	0.116	0.143	0.137	0.124
	(0.244)	(0.247)	(0.249)	(0.261)	(0.256)
Daikindi	-1.629***	-1.389**	-1.376**	-1.527**	-1.473**
	(0.604)	(0.600)	(0.600)	(0.605)	(0.610)
Constant	-6.217***	-6.504***	-6.470***	-6.225***	-6.672***
	(1.206)	(1.238)	(1.178)	(1.083)	(1.200)
Observations	24496	24496	24496	24496	24496

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 7: Correlation between all regressors

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
ShockInsec05 (1)	1.00												
ShockInsec1 (2)	-0.14*	1.00											
Priority_Disarm (3)	0.05*	0.06	1.00										
MenOnly (4)	0.02	0.01	0.02*	1.00									
Literacy (5)	0.09*	-0.06*	0.01	-0.01	1.00								
Priority_Edu (6)	-0.00	-0.05	-0.09*	-0.00	-0.02	1.00							
HHMemb5 (7)	0.01	-0.03*	0.01	-0.00	-0.00	-0.03*	1.00						
HHMemb10 (8)	0.01	0.04*	0.01	0.00	0.02*	0.02	-0.71*	1.00					
HHMemb15 (9)	-0.0096	-0.03*	-0.03*	-0.01	-0.03*	0.02	-0.18*	-0.45*	1.00				
HHMemb22 (10)	-0.0199	0.08	-0.01	-0.00	-0.03*	-0.02	-0.07*	-0.18*	-0.05*	1.00			
Age (11)	-0.02	0.03*	-0.02	0.01	0.08*	0.00	0.03*	-0.09*	0.01	0.05*	1.00		
SocialContr (12)	0.03*	-0.01*	0.01	-0.00	0.06*	-0.01	0.01	-0.00	-0.00	-0.00	0.02*	1.00	
Activities (13)	-0.06*	0.01	0.00	-0.08*	-0.01	-0.01	0.33*	-0.23*	-0.2*	-0.11*	0.11*	0.04*	1.00
Urban (14)	0.31*	-0.07*	0.02	0.02*	0.34*	-0.08*	0.08*	-0.04*	-0.04*	-0.02*	0.04*	0.05*	-0.13*
Assets (15)	0.22*	-0.02	0.06*	0.05*	0.23*	-0.02	-0.09*	0.04*	0.07*	0.05*	0.02*	0.05*	-0.02*
Credit_Inform (16)	0.08*	0.04*	0.04*	-0.03*	0.03*	-0.04*	-0.027*	0.02*	0.01	0. 00	-0.04*	0.00	0.01
Credit_Lender (17)	-0.09*	-0.04*	-0.04*	0.01	-0.04*	0.06*	0.00	0.00	-0.01	0.00	0.02*	-0.01	0.01
Credit_Bank (18)	0.02	-0.01*	-0.01	0.01	0.02*	-0.01	0.01	-0.01*	0.02	0.01	0.01	0.00	-0.01*
Credit_Other (19)	-0.01	-0.01	0.00	-0.01	-0.00	0.01	0.01	-0.02*	0.01	0.00	0.01	0.00	0.03*
Loan (20)	-0.05*	-0.04*	-0.06*	0.01	-0.03*	0.06*	-0.03*	0.01	0.02*	0.02*	-0.00	-0.01	-0.03*
LoanInvest (21)	0.04*	-0.01	-0.01	0.02*	0.04*	0.00	-0.01	0.01	0.00	0.00	-0.02*	0.01	-0.03*
Priority_Credit (22)	0.04	0.02	0.01	-0.01	-0.02*	-0.08*	0.02	-0.01	-0.00	-0.00	0.00	0.00	-0.02
RemitContr (23)	0.01	0.04	0.00	-0.02	-0.02*	0.02	-0.07*	0.03*	0.05*	0.01	0.05*	0.00	0.07*
InfoForm (24)	-0.03*	-0.05*	-0.05*	-0.00	-0.06*	0.04*	0.03*	-0.01	-0.02*	-0.02*	-0.01	0.01	0.01
InfoInfor (25)	-0.09*	-0.01	0.02	0.03*	-0.09*	-0.00	0.02*	-0.01	-0.03*	0.03*	0.04*	-0.04*	0.03*
InfoBus (26)	0.01	-0.01	0.00	0.01	-0.01	0.00	0.02*	-0.02*	0.01	-0.01*	-0.02*	-0.01	-0.01
HelpFriends (27)	0.05*	-0.04*	-0.05*	0.00	-0.03*	0.07*	-0.05*	-0.01	0.07*	0.05*	-0.01	0.01	0.05*
MemberGov (28)	0.02	-0.05*	0.01	0.01	0.04*	-0.01	-0.05*	0.02*	0.05*	0.02	0.03*	0.03*	-0.01
Decisions (29)	-0.12*	-0.06*	0.00	0.01	-0.04*	0.00	-0.06*	0.01	0.06*	0.02*	-0.03*	-0.00	0.03*
ShockReturn (30)	0.37*	0.00	0.03	-0.00	0.15*	-0.00	0.02*	0.01	-0.03*	-0.02*	-0.05*	0.04*	-0.09*
Returnees (31)	0.03	-0.08*	-0.07*	0.01	0.13*	0.03	0.00	0.00	0.00	-0.03*	-0.00	0.03*	-0.04*
Returnees_Go (32)	0.07*	-0.08*	-0.01	0.00	0.05*	0.00	0.02*	-0.02*	0.00	-0.02*	-0.02*	0.01	-0.00
MktClose (33)	0.13*	-0.1*	0.00	0.04*	0.22*	-0.07*	0.01	-0.01	0.01	-0.01	0.03*	0.02*	-0.08*
ElectrPub (34)	0.19*	-0.02	0.05*	0.04*	0.28*	-0.05*	0.04*	-0.05*	0.01	0.05*	0.04*	0.03*	-0.1*
ElectrPriv (35)	0.04*	0.02	0.02	-0.00	0.06*	-0.02	-0.02*	0.01	0.02*	-0.00	0.01	0.04*	0.01
ElectrComm (36)	-0.05*	-0.02*	-0.01	-0.04*	0.06*	0.03	-0.03*	0.03*	0.01	-0.00	-0.00	0.01	0.04*
RoadKm (37)	-0.1*	0.07*	0.03	-0.04*	-0.14*	0.06*	0.01	0.01	-0.01	-0.02	-0.02*	-0.04*	0.07*

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... Table 7 continued

Variables	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
Urban (14)	1.00												
Assets (15)	0.35*	1.00											
Credit_Inform (16)	0.04*	0.08*	1.00										
Credit_Lender (17)	-0.1*	-0.12*	-0.72*	1.00									
Credit_Bank (18)	0.05*	0.02*	-0.1*	-0.02*	1.00								
Credit_Other (19)	-0.01	0.01	-0.17*	-0.04*	-0.00*	1.00							
Loan (20)	-0.12*	-0.2*	-0.03*	0.2*	0.04*	-0.00	1.00						
LoanInvest (21)	0.07*	0.03*	0.01*	-0.00	0.05*	-0.00	0.15*	1.00					
Priority_Credit (22)	-0.00	-0.04*	0.01	0.01	-0.01*	-0.00	0.01	0.01	1.00				
RemitContr (23)	-0.1*	0.05*	0.04*	-0.04*	0.01	-0.01	0.03*	-0.02*	-0.01	1.00			
InfoForm (24)	-0.11*	-0.17*	-0.08*	0.06*	-0.01*	0.01	0.04*	-0.03*	0.01	-0.05*	1.00		
InfoInfor (25)	-0.11*	-0.11*	0.01	-0.02	-0.01	0.01	-0.01	0.01	0.00	-0.05*	-0.33*	1.00	
InfoBus (26)	-0.02*	-0.02*	-0.04*	0.01	-0.00	0.01	0.00	0.00	-0.01	-0.02*	-0.04*	-0.12*	1.00
HelpFriends (27)	-0.09*	0.07*	-0.02	0.08*	-0.01*	-0.00	0.12*	0.00	-0.02	0.04*	0.05*	0.02	0.02
MemberGov (28)	-0.11*	0.07*	-0.04*	0.04*	-0.01	-0.00	0.00	-0.01	-0.01	0.03*	0.00	-0.06*	-0.02*
Decisions (29)	-0.18*	0.02	-0.04*	0.03*	-0.02*	-0.02*	0.07*	0.02*	-0.02	0.06*	0.04*	0.00	-0.01
ShockReturn (30)	0.49*	0.19*	0.05*	-0.05*	0.01	-0.01	-0.06*	0.01	-0.03*	-0.06*	-0.04*	-0.16*	-0.02*
Returnees (31)	0.18*	0.08*	0.02	-0.02	0.01*	0.03*	0.02	0.05*	0.01	-0.04*	-0.01	-0.01	0.00
Returnees_Go (32)	0.05*	0.05*	-0.00	-0.00	-0.00	-0.01	0.05*	0.02	-0.04*	-0.03*	0.01	0.01	-0.01
MktClose (33)	0.42*	0.26*	0.05*	-0.08*	0.03*	-0.01	-0.08*	0.04*	-0.01	-0.02	-0.09*	-0.05*	-0.02*
ElectrPub (34)	0.65*	0.34*	0.04*	-0.1*	0.04*	-0.01*	-0.09*	0.06*	0.00	-0.09*	-0.09*	-0.09*	-0.02*
ElectrPriv (35)	0.04*	0.15*	0.01	-0.02*	0.02	0.03*	-0.04*	0.00	-0.01	0.02*	-0.04*	-0.04*	-0.00
ElectrComm (36)	-0.05*	0.05*	0.03*	-0.02*	-0.01	-0.00	0.02	-0.00	-0.04*	0.05*	-0.03*	-0.04*	0.01
RoadKm (37)	-0.26*	-0.17*	-0.05*	0.07*	-0.01*	-0.01	0.03	-0.03*	0.02	0.05*	0.01	0.07*	-0.02*

NOTES: (*) spots 5% significance level (s.e. corrected for survey design). Squared terms of variables are omitted.

... Table 7 continued

Variables	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)
HelpFriends (27)	1.00										
MemberGov (28)	0.19*	1.00									
Decisions (29)	0.13*	0.19*	1.00								
ShockReturn (30)	0.12*	-0.01	-0.10*	1.00							
Returnees (31)	0.03	-0.00	-0.03	0.10*	1.00						
Returnees_Go (32)	0.08*	0.07*	0.05	0.14*	0.34*	1.00					
MktClose (33)	-0.04*	-0.01	0.01	0.2*	0.16*	0.05*	1.00				
ElectrPub (34)	-0.04*	-0.07*	-0.03	0.3*	0.13*	0.04*	0.34*	1.00			
ElectrPriv (35)	0.01	0.02	-0.01	0.04*	0.02	0.02	0.06*	-0.08*	1.00		
ElectrComm (36)	0.01	0.01	-0.01	-0.00	0.00	-0.00	0.03	-0.1*	-0.05*	1.00	
RoadKm (37)	-0.02	-0.00	-0.07*	-0.11*	-0.07*	-0.03	-0.35*	-0.2*	-0.03*	-0.02	1.00

Note: (*) spots 5% significance level (s.e. corrected for survey design). Squared terms of variables are omitted.

D Figures

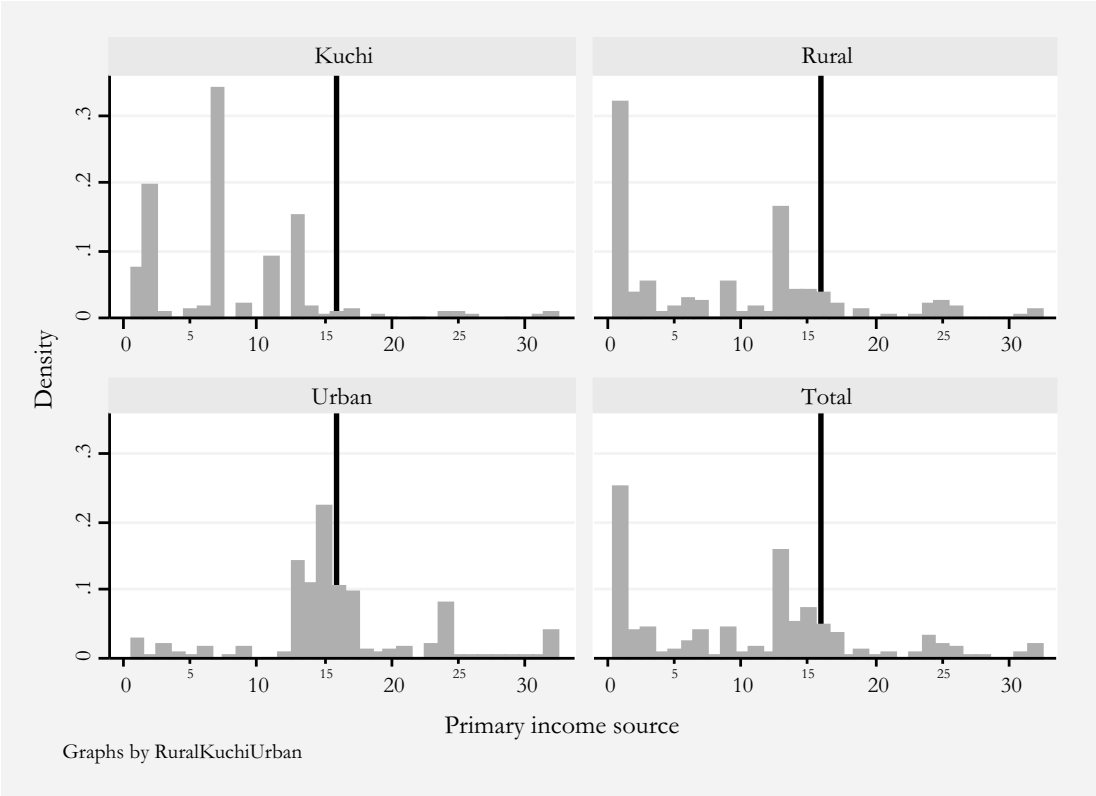

Figure 5: *Distribution of the primary sources of income for different populations.* On the horizontal axis the 32 sources are listed; the black vertical line indicates the code for the Small Business.

Source: NRVA 2005.

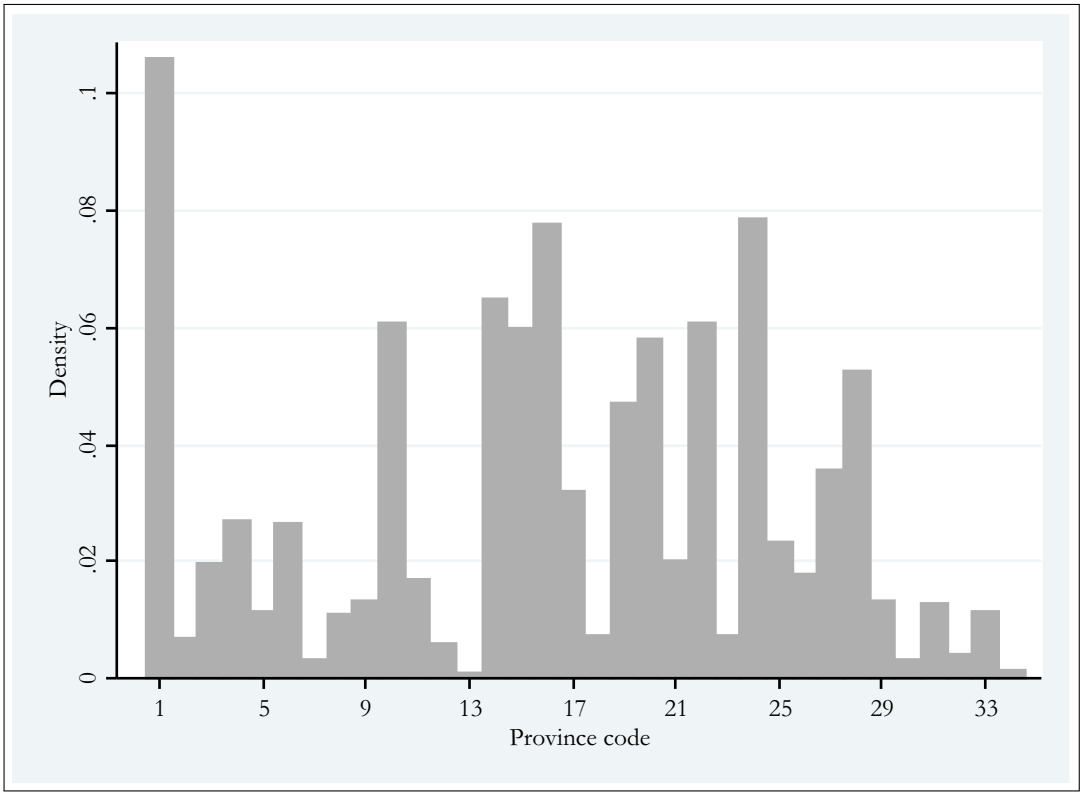

Figure 6: *Distribution of Entrepreneurs across provinces*

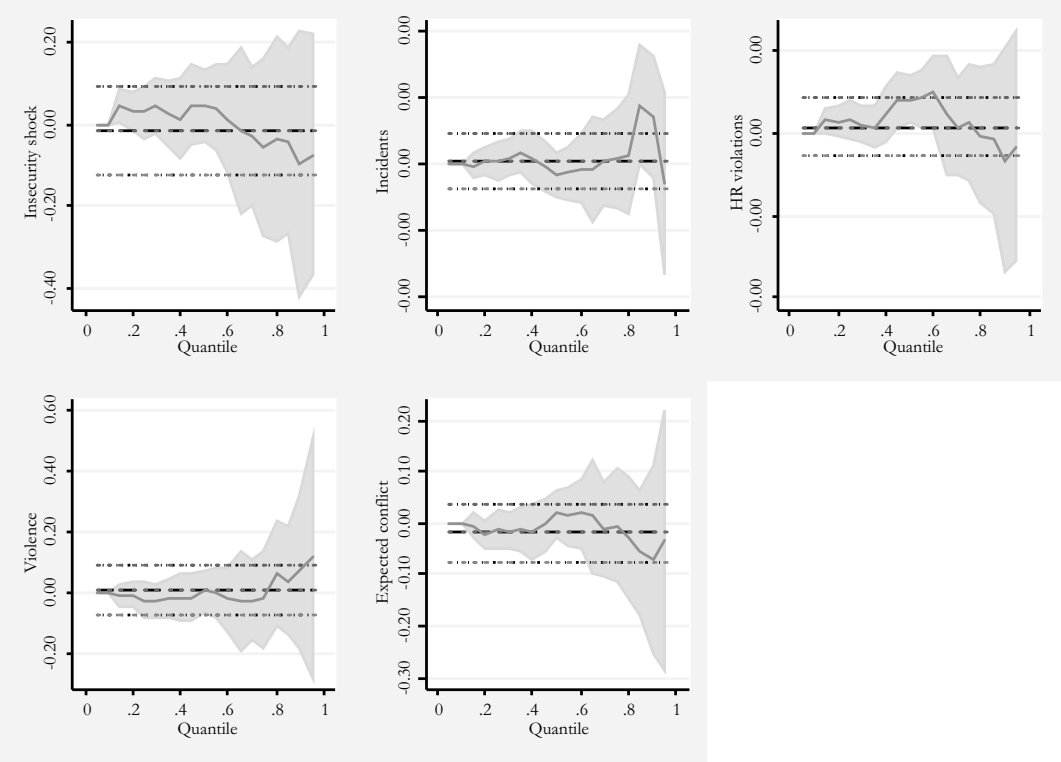

Figure 7: *Relation between local conflict intensity and entrepreneurship: Quantile regressions with selected variables.* The regression includes all variables in figure: we have dropped conflict indicators with too large correlation, and those from BN source, which have a too small sample. The grey continuous series represent the change in the quantile coefficients, and the grey area its CI; the dashed series represent the OLS regression coefficient, and the dotted lines its CI.

Source: see Table 1.