

Brück, Tilman; Naudé, Wim; Verwimp, Philip

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Entrepreneurship and violent conflict in developing countries

Tilman Brück¹, Wim Naudé², and Philip Verwimp³

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Abstract

In this working paper we provide an overview of two recent special journal issues on violent conflict and entrepreneurship. These are the special issue of the *Journal of Small Business and Entrepreneurship* (2011) and the special issue of the *Journal of Conflict Resolution* (2013), devoted to the impact of violent conflict on entrepreneurship in developing countries. In the overview we start by defining entrepreneurship and conflict, and provide a succinct summary of the existing literature. From this it is clear there is a lack of studies dealing with how violent conflict impacts at the micro-level on firms or entrepreneurs. We then assess how the papers in the two special issues address this lacuna. We find from these that violent conflict has diverse impacts on entrepreneurs, firms, their investment and production processes, and that there are many ways to overcome the legacies of fighting. In fact, the post-war peace dividend and the reconstruction of markets and economies more generally, critically depend on public policies promoting entrepreneurship. Areas for further research are noted.

Keywords: entrepreneurship, conflict, war, small firms, insecurity, self-employment
JEL classification: L26, L25, O12, D74

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¹SIPRI, Stockholm, and Households in Conflict Network, email naude@msm.nl; ²MsM, UNU-MERIT, and MGSoG, University of Maastricht, and IZA–Institute for the Study of Labor, Bonn; ³Solvay Brussels School of Economics and Management, Brussels, and Households in Conflict Network.

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UNU World Institute for Development Economics Research (UNU-WIDER)
Katajanokanlaituri 6 B, 00160 Helsinki, Finland

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1 Introduction

Violent conflict entails the systematic use of armed violence for criminal and/or political objectives; it is well known to have devastating impacts on well-being and development. Whereas the impacts of violent conflict on investment, production, incomes, and inequality have been much studied on an aggregate level, comparatively less is known about the more diverse impact of such conflict at the micro-level. To date, most micro-level analyses have been concerned with the costs and consequences of violent conflict on individuals, and households. The analyses published by the Households in Conflict Network (HiCN) are such examples.

The issues of entrepreneurship, economic stagnation, and collapse, as for instance, when countries get mired down in violent conflict and in economic contraction, have been comparatively neglected (Naudé 2010). Moreover, the relationship between conflict and entrepreneurship, small business in particular, is not well understood in the scientific literature (Brück et al. 2011). This is due, amongst other reasons, to the assumption of peace in the most theoretical models, the absence of suitable theories in economics about the causes and consequences of conflict, the difficulty of collecting data in conflict affected areas, and the dominance of macro-level approaches in political science.¹

Furthermore, conflict is most often a characteristic, or defining feature of states that have been described as fragile states. Fragile states are amongst the poorest, and lack authority, legitimacy and capacity to promote their citizens' wellbeing—often due to violent conflict but also suffering from violent conflict (see Naudé et al. 2011). Given the widespread occurrence of violent conflicts in Africa, Latin America, the Middle East, and South Asia in particular, the rising concern about fragile states and their repercussions for global development, the lack of research on the emergence of and challenges to entrepreneurship and small businesses during violent conflict, is a significant lacuna.

Recent special issues of the *Journal of Small Business and Entrepreneurship* (2011)² and the *Journal of Conflict Resolution* (2013),³ aim to fill this gap. The analyses contained herein are both empirical and theoretical, and cover a diverse range of affected countries from Africa, the Middle East, Asia, and Latin America.

In this overview paper we share and summarize the main findings contained in the two special issues. We start by setting out the main concepts in section 2. Then, in section 3, a short review of the relevant literature is provided. Section 4 summarizes the insights from recent work contained in the special journal issues. Section 5 concludes.

¹ For both quantitative and qualitative empirical contributions to this field, see the papers on the web site of the HiCN (<http://www.hicn.org>) as well as Verwimp, Justino, and Brück (2009) for a recent survey.

² 2011, 24(2).

³ 2013, 57(1).

2 Concepts

2.1 Violent conflict

Violent conflict refers to the systematic use of violence by armed groups to reach political objectives. The word systematic is important as it indicates that we are focusing here on violent conflict that goes beyond its association with crime, although protracted civil conflicts are accompanied by the rise and spread of organized crime. In the cases considered here, violent conflict is instrumental and purposeful. It is often related to a contest for political power under the form of a civil war with the state as one of the contending parties, but also includes inter-ethnic violence where the state is not a direct participant. Empirically, violent conflict at the micro-level is hard to measure (Brück et al. 2010; Addison and Brück 2009). At the aggregate level, violent conflict is often defined by thresholds of victims of fighting per year—for example 1,000 dead from fighting per year.⁴

In an analysis of conflict and entrepreneurship, it makes sense to distinguish between conflicts that deplete the capital stock of a country (including buildings, infrastructure, hospitals, land, and cattle) and conflicts that mainly target the civilian population (for example, through displacement or with a heavy death toll). Above the human toll, the latter will deplete the human capital of the country and affect the quantity and the quality of the labour force as well as the dependency ratio, and thus the operations of firms. When a conflict mainly destroys a country's capital stock, a firm's operations will also be affected.

2.2 Entrepreneurship

All the papers contained in the two special issues deal with entrepreneurship from an economic perspective. Within economics 'some of the variations in entrepreneurship definitions ... are relatively minor and of little import' (Davidsson 2004: 4).

In economics it is usual to take a behavioural and/or occupational view of entrepreneurship and the entrepreneur. Thus entrepreneurship is either what an entrepreneur does, such as starting or running a business firm, or a person's occupational choice to be self-employed (Gries and Naudé 2011). Very often the choice of self-employment leads an individual to start-up and run a new business firm (Gries and Naudé 2010). Most of the papers (particularly the empirically-oriented papers of the special issues) take this view of entrepreneurship. Hence, for present purposes, it is useful to understand entrepreneurs as people who create and manage a firm and who are therefore classified as either being self-employed or earning income from a small business source.

Given the particular importance of violent conflict in developing countries, we adopted a broad view of entrepreneurship which also includes informally self-employed and smallholder or subsistence farmers. Analytically, these people face the same optimization problem as more narrowly defined entrepreneurs in developed countries (the stereotypical budding entrepreneur working from a garage building a multinational enterprise). The papers reviewed here, for instance include studies of the behaviour of the self-employed in Colombia and of smallholder farmers in India, as they are affected by and adjust to violent conflict.

⁴ This means that for present purposes uprisings, demonstrations, and revolutions even when accompanied by violence, are not part of our understanding of violent conflict.

At this point it needs to be mentioned that the vast majority of empirical papers on the topic deal only with existing entrepreneurs, as survey data comes from existing firms and households. Latent entrepreneurship (defined as someone who is actively looking for an opportunity to start an own business) and nascent entrepreneurship (early stage start-up activity), are typically not studied. This is not to imply that these phenomena are not important but merely reflect inadequacies in current data availability.

3 Literature review

In this section, we provide a brief review of the relevant literatures, concluding that a better understanding of the micro-level impact of violent conflict on entrepreneurial behaviour is warranted.

3.1 Farm households, the urban informal sector and conflict

Due to data shortcomings, most empirical work in conflict-saffected countries has in the past focused on the household (Verwimp et al. 2009). In this section, we provide a selective survey of this literature from the point of view of the entrepreneur.

Household surveys often provide useful insights into entrepreneurial behaviour given that entrepreneurs are also embedded within households. In the development microeconomics literature, the farm household is used as a unit of analysis for both production and consumption decisions. Bardhan and Udry (1999), for example, remark the inseparability of production and consumption for rural households. While both should be considered in the analysis of the effects of conflict at the micro-level, most attention in the nascent literature has been devoted to the consumption side, as the latter is used as a measure for well-being. Studies focusing on household consumption in conflict-affected areas includes those by Bozzoli and Brück (2009) and Verwimp and Bundervoet (2009). More commonly, other measures of household welfare, such as health indicators, are used in empirical studies of the effects of conflict—if only due to the lack of high-quality consumption data (see Verwimp et al. 2009; Justino 2009, for recent reviews).

The focus on the consumption side raises two issues. First, farm households consume a sizeable part of their crop production themselves. In Burundi and Rwanda, for example, typically more than half of a farm household's production is self-consumed by the household. Hence, in the calculation of consumption, economists include the self-consumed part of production into their measure of consumption. As such, the value of large (successful) or small (failed) harvest, potentially caused by violent conflict, enters directly the consumption measure. Consumption and production can only be separated under perfect market conditions which are rarely if ever found in developing countries, especially for countries at war. So, even when the focus of most micro-level studies has been on consumption and welfare, the production side was at least latent or implicit part of the analysis.

Second, the production side of farm-level decision-making deserves more attention. This is not only because part of crop production is sold on the market, but because the *channels* by which households and farms are affected by conflict may differ depending on the type of conflict. If, on the one hand, markets are closed or too dangerous to travel to, then marketing will suffer but production as well as auto-consumption can continue and the farm household is likely to survive, be it at a lower level of welfare. If, on the other hand, the ability to

produce itself is violated (for example through landmines, burning or theft of crops, looting of cattle, etc.) then the consequences for farm households are very different.

The focus on the production side thus helps us to understand the potential channels of the impact of violent conflict—other than through reduced consumption. For example, Akresh, Verwimp, and Bundervoet (2009) show in two related papers how household data on consumption, production, and nutrition can be used to infer the effects of conflict on young children. They show that the health status of young children is affected by crop failure and civil war shocks in Rwanda and Burundi and find that girls from poor households are affected by crop failure whereas civil war affected boys as well as girls.

The urban informal sector—a vast and heterogeneous nexus of economic activities ranging from shoe polishers and hairdresser to metal collectors and waste recyclers whose turnover, employment, profit, and working conditions are difficult to measure—is very much understudied and poorly understood. We only found a handful of studies that address (parts of) this sector in times of conflict. There exists a body of research on urban violence with a focus on Latin America. One of its findings is the emergence of street gangs comprising former guerrilla, para-military, or military members and a drugs industry with networks established during times of conflict (e.g. Moser and McIlwaine 2006). Case studies on Managua (Rodgers 2004), Kinshasa, Bogota, and Nairobi (Agostini et al. 2008) point at corruption, drugs, unemployment, absence of the state, spatial segregation, clientilism and city-specific risk factors that correlate with violence. However, papers that describe and analyse the consequences of civil war and inter-ethnic violence for the urban informal sector that existed prior to the conflict and the potential resilience of this sector in the face of violent conflict are missing from the literature. Even more than in the case of rural households, the lack of studies owe much to the lack of data: it is very difficult to implement a panel design before and after a conflict exactly because of the difficulty to trace people working in this sector over an extended period of time. And a post-conflict cross-section design runs a serious risk of selection bias.

3.2 Entrepreneurs and conflict

There are very few studies in the existing literature to deal explicitly with the impact of conflict on entrepreneurship, and fewer still concerning the impact of entrepreneurship on conflict. In a recent survey of the entrepreneurship, conflict and development literatures Naudé (2007, 2008, 2009) points out that (i) violent conflict has a devastating effect on the business environment, that (ii) entrepreneurial activity is often tenacious during violent conflict, but has to adjust into (iii) ways that are not necessarily good for economic development; that (iv) entrepreneurs may benefit from conflict; but (v) may also contribute to peace and post-conflict reconstruction. The remainder of this section will focus on these findings, based primarily on the discussion in Naudé (2007, 2008, 2009) and Brück et al. (2010).

3.2.1 Conflict and the business environment

First, although entrepreneurs per se have not been the focus in violent conflict studies until now, the impacts of war and civil conflict on broader macro-economic outcomes have been studied in detail (e.g. Brainard and Chollet 2007). Most estimates suggest that the impacts of civil war, especially the indirect impacts, are substantial and tend to last long (Chen et al. 2007). This includes the direct costs in terms of destruction of infrastructure, diverted

(military) expenditure, as well as the much higher indirect costs of disruption of markets, and increase in risk and uncertainty. The cost includes destroyed capital, technological regress, and a massive shortfall in income (e.g. Abadie and Gardeazabal 2003, for the case of the Basque country; Bozzoli et al. 2010, for a review of various other case studies). Destroyed infrastructure, insecure property rights, or falling consumer demand all increase transaction costs and reduce the ease of doing business. It also diminishes productivity and increases the constraints underlying entrepreneurial decisions, and may in particular hinder international entrepreneurship as the latter depends on reliable access of transport and logistical infrastructure—often the first to be damaged in a war (see Naudé and Rossouw 2010).

For cross-country evidence we refer to Barro (1991). Milanovic (2005) estimates that the poorest countries have lost almost 40 per cent of their GDP compared to the global average and Collier (1999) finds that civil conflict depresses growth rates by about 2.2 per cent per annum, on average. According to Lopez and Wodon (2005), Rwanda's GDP could have been 25 per cent higher in 2001, if it had avoided the genocide of 1994. Civil conflict also reduces growth in neighboring countries (Murdoch and Sandler 2002).

For entrepreneurship, the obvious implications are smaller markets, fewer opportunities for profitable investments and arbitrage, more uncertainty, and higher transaction costs. As a result one might expect, *a priori*, that this would reduce the supply of entrepreneurship. However, what has been found, for instance in data gathered by the International Labour Organisation (ILO) and Global Entrepreneurship Monitor (GEM), is that entrepreneurship, as measured through self-employment rates of new firm start-ups, often increase during conflict. One explanation is that conflict reduces opportunities for wage employment, and that self-employment reflects the absence of adequate labour market opportunities. As such, it is a necessity or a survivalist response. Another explanation is that conflict may result in more opportunities. This might be due to some entrepreneurs exploiting the conflict itself. It might also be due to the fact that some entrepreneurs who are not directly affected by the conflict, for instance because they are located elsewhere in the country, benefit from increased local demand due to increased migration or international aid. Macro-level data, such as those provided by ILO or GEM, cannot throw light on these explanations but firm- and household-level data can—and indeed the papers in the two special issues find support for all of these possible effects.

3.2.2 *The tenacity of entrepreneurship*

Entrepreneurial activity may be quite tenacious during conflict. Often this reflects survivalist type of activities because the conflict reduces opportunities for wage employment in the formal sector. However, sometimes it also reflects entrepreneurial behaviour towards exploiting the conflict itself for personal gain (see section 3.2.4).

Interesting preliminary results have been found by Ciarli, Parto, and Savona (2010) for Afghanistan. Using data from a national risk and vulnerability survey on the household, village, and province level they encounter a diversity of informal, yet innovative and entrepreneurial, activities, reaching far beyond the scope of the poppy seed and wheat cultivation. Many of the firms that have survived conflict have indeed been around for many decades, particularly in artisan industries. For conflict-researchers as well as peace-building practitioners, this result together with the anecdotal data, yields an intriguing implication: once we allow for the inclusion of various informal types of self-employment, entrepreneurship seems to be very tenacious.

3.2.3 Destructive entrepreneurship

Violent conflict can break or make a business. The US company Halliburton earned large profits from the war in Iraq. Political entrepreneurs calling for attacks on ethnic business entrepreneurs will see their political power increase after the pogroms. To deal with these forms of entrepreneurship and its relation to conflict, it is necessary to mention here research related to the impact of (destructive) entrepreneurship on conflict.

Following Baumol (1990: 987), entrepreneurs can be defined as ‘persons who are ingenious and creative in finding ways that add to their own wealth, power, and prestige’. Hence, entrepreneurial talent may be allocated not only to productive activities but also to unproductive (e.g. rent-seeking) or destructive (e.g. illegal) activities. There are both theoretical and empirical studies that accentuate the relevance of this view. These tend to suggest that it is not only the institutional framework that determines the allocation of entrepreneurial talent into destructive activities but also the extent and nature of economic growth. Hence conflict itself, by reducing economic growth, can tilt incentives in a society for talented entrepreneurs to engage in activities which will further undermine growth. This leaves open the possibility for entrepreneurial behaviour to lead to an underdevelopment trap if violent conflict becomes significant.

For instance, when economic growth is low, the incentives for innovation, as in bringing new goods to market, will be low since the demand for new goods tends to have an income elasticity of greater than one. Entrepreneurs of high ability will therefore engage in rent-seeking activities rather than productive entrepreneurship, and this re-allocation of entrepreneurial talent will be greater in countries with higher levels of wealth or natural resources from which rents may be extracted (Murphy et al. 1991: 520). Thus, in such circumstances the quality of the entrepreneurial pool in a country worsens from both the inflow of low-ability entrepreneurs as well as the outflow of high-ability entrepreneurs. This will lead to further restrictions from the side of credit markets in the form of higher interest and/or collateral requirements—which may further push out talented entrepreneurs. The consequence is that poor countries may be caught in a self-reinforcing entrepreneurial development trap.

Mehlum et al. (2003) present a model to show how a poor country can become trapped in low development as a result of the misallocation of entrepreneurial talent towards what they term ‘predation’. In their model, an entrepreneur must make a choice between becoming a ‘predator’ or ‘prey’ (i.e. a producer). Predator activities include theft, extortion, bribery, and fraud. Economic growth and development itself will influence this choice, they state that ‘at a low level of development, predation is more attractive than at higher levels’ (ibid.). This is because of insecure property rights. Economic growth and the inflow of new entrepreneurs are, in their model, an escape from this trap, as economic growth increases the incentives/profits from productive activities, as well as increasing the ability of government to improve law enforcement. Such a new inflow of entrepreneurs have been argued to undermine vested interests and even ‘crowd out’ rents by providing new and substitute opportunities (Baland and Francois 2000). This is, however, also an important reason why new entrepreneurial ventures are often repressed in many poor countries.

3.2.4 Entrepreneurs benefitting from conflict

Conflict may also result directly or indirectly in benefits to certain entrepreneurs (Naudé 2009). Beside the warlord effect, which we do not address here, this could be due to a change in relative prices for some goods intensively used in war (e.g., security services or alcohol) or through decreased market entry requirements and, resulting from that, a lower cost of discovery for potentially worthwhile activities (Bennett 2010).

Whether or not an entrepreneur ends up being a victim or a profiteer of conflict depends on the characteristics of their entrepreneurial activity and their relation to the conflict environment. It is important to note that those factors go beyond the mere distinction of war-vulnerable and war-invulnerable sectors (as in Collier 1999). Decisive factors are the lootability of the produced or traded good (value-size relation, see Ross 2004), the proximity to urban centers or capitals (Le Billon 2001), the use of resources that can easily be controlled by the armed forces, and the capability to diversify and to adapt rapidly the whole supply chain in accordance with a moving frontline (McDougal 2010).

Entrepreneurial activity that benefits from conflict is often linked to sourcing funds and other resources to sustain conflicts, and/or to overcome the adverse broader impacts of conflict (Naudé 2007). Addison (2001), for example, notes that during the Mozambican 18-year civil war, private entrepreneurs continued to supply the government army with much of its food requirements. In Colombia, the FARC developed social safety nets for coca farmers and combatants in the forms of minimum wages and pensions (Cooper 2006: 20). In Sri Lanka, the rebel Tamil Tigers manage to generate between US\$200 million and US\$350 million annually for expenditure in its civil war (Collier et al. 2006).

3.2.5 Entrepreneurs contributing to peace and reconstruction

Entrepreneurial activities during civil war are often aimed at providing public goods which the state cannot or do not want to provide. Nenova (2004) documents the inventiveness of entrepreneurs in Somalia, where government is almost absent, and where five private airline carriers emerged after the collapse of the state and the national airline in 1991 (Pineau 2005). In Liberia, the warlord Charles Taylor used patronage to create an own currency, a banking system, telecommunications network, airfields, and a deepwater port in the territory under his control (Nafzinger 2006).

Entrepreneurs can also be involved actively in peace-building initiatives following conflict. The notion of a peace-dividend has been introduced to describe the potential positive effects that peace would yield for the business community. It comprises all the factors deemed to be relevant for the entrepreneur from an economic point of view. The problem with the peace-dividend argument is that nobody can be excluded from the advantages of peace once it is established. In other words, there is a collective action problem in peace building, also vis-à-vis the private sector. Last but not least, some entrepreneurs, called social entrepreneurs, make the explicit goal of their activity to improve the welfare of citizens affected by violent events, illness, poverty, and crime. The latter include micro-finance institutions, not-for-profit organizations, philanthropists, and others.

In conclusion, although the impact of conflict on entrepreneurship—and more broadly on business activity—has been well recognized as the above discussion makes clear, there is still a dearth of micro-level empirical studies. A major reason for this undoubtedly is that it is

very difficult to obtain high-quality micro-level data from countries and regions in conflict. Firm-level data is particularly hard to obtain, as entrepreneurs are often more reluctant than households to divulge information. Hence, some contributions to the two recent special issues use firm data whereas others use household survey data. In developing country settings, and in settings of conflict, the border between a firm and a household is often very indistinct. The prime example is of farming, perhaps the most ubiquitous form of entrepreneurship in many developing countries. Entire households are involved in farming, and hence, household consumption and farm production decisions are closely interdependent. Furthermore, in conflict situations household income-diversification strategies are most often the most clearly tracked by studying data obtained from household surveys.

4 Recent insights

What insights do the two recent special issues on entrepreneurship and conflict in developing countries add to this literature? We pick up on seven points.

First, the actions undertaken by entrepreneurs take place in a social context. The individual entrepreneur cannot change that context, but their actions can have a dampening or stimulating effect on violent conflict. It can have a dampening effect on conflict when, for example, the private sector entrepreneur provides jobs to young men who may otherwise join a rebel movement. The actions of entrepreneurs, however, may also stimulate or stir up conflict when they mobilize potential recruits, provide or trade weapons, or smuggle illicit drugs to finance a rebellion. Political entrepreneurs might use their oratory skills to spread propaganda and hatred among the general population against a chosen enemy.

Second, the channel through which entrepreneurs may benefit or suffer from violent conflict depends not only on the characteristics of the particular entrepreneur and firm but also on the type of violent conflict. A business may lose its employees (they may flee or might be killed) and a business' main assets may be destroyed. If conflict affects a business in a once-off, shock-like manner, then activities may be resumed following a cessation of violence, resulting in a temporary dip in profits. In contrast, more persistent conflict may have a pernicious impact on firm-level investment and growth over the long-term and may result in growing numbers of business failures. From an economic point of view, we can distinguish between conflicts that deplete the capital stock of a country and its firms (including buildings, infrastructure, hospitals, land, and cattle) and conflicts that mainly target the civilian population (for example, through displacement or with a heavy death toll). All conflicts have elements of both, but for analytical reasons it is worth making this distinction. The wars in Mozambique or Angola, for example, are notorious for their use of landmines. This has obvious consequences in terms of human suffering but it also prohibits the use of the land as a productive asset during and many years after the war (Brück and Schindler 2009). Thus, an entrepreneur (e.g. a large commercial farmer) in such a setting will be handicapped by the land being unavailable. The Rwandan genocide is a case in point. Here the main target was not the country's capital stock but its civilian Tutsi population. This has led to a massive loss in human capital (as the victims were better educated and urbanized compared to the country average) (de Walque and Verwimp 2010).

Third, it is not only the characteristics of violent conflict that affects entrepreneurship but the interaction of the violent conflict with a variety of factors, including the characteristics of a specific sector, the motivation and strategies of the armed actors as well as the government,

plus the broader regional and institutional setting. The most devastating impact occurs when the activities of the armed forces—such as systematic displacement of local populations—are consistent with entrepreneurial needs. For instance in Colombia, the decades-old conflict has much more adversely affected entrepreneurs in banana oil and palm oil production where large areas of land in rural areas need to be cultivated. In contrast, the Colombian flower-sector has not been as seriously affected by violent conflict as its main areas of growing tend to be closer to urban centers and governmental institutions (see Camacho and Rodriguez 2013). In Colombia it has also been found that where labour standards are implemented and monitored, the contact surface for guerrilla-propaganda is relatively small and backing from the workforce reduced. Still, enclave sectors, such as oil extraction, usually deliver high benefits only to a specific group of workers while leaving large parts of the population unattained. Those activities substantially increase the probability of social tensions even if the sector is highly regulated by the state and controlled by international capital. Also highly regulated, but with benefits more equally distributed, the relatively more peaceful coffee-growing regions only got involved into the conflict after a significant decline in international coffee prices.

Fourth, the most detrimental impact of conflict on entrepreneurship is undoubtedly through its impact on human capital. Collier and Duponchel (2013) use firm-level data from post-conflict Sierra Leone to assess the negative effects that entrepreneurs have to deal with in conflict-ridden areas. As the most lasting effect, and therefore maybe the most relevant for policies of post-war reconstruction, they find suggestive evidence for a conflict-induced loss in human capital, giving rise to a lack of skilled workers in the post-conflict environment. The authors describe how this effect, labeled as *forgetting by not doing* in analogy to Kenneth Arrow's famous theory of *learning by doing*, relates to three other, maybe more apparent consequences of civil-war—namely physical destruction, technical regress, and the decline in demand. While physical destruction is undoubtedly the most visible consequence of war, Collier and Duponchel (2013) point out that its significance is relatively minor in the case of low-income countries, as capital at stake is rare (see also, Miguel and Roland, 2011). The disruption of production due to electricity shortages or fear of looting, as well as the return to inefficient production techniques with its vast effects on production and income, though reversible in principle, appear to be of much more extensive importance. These can lead to an atrophy of skills which has the effect of decelerating economic recovery in the long run.

Fifth, entrepreneurship is indeed tenacious but in a qualified manner. On the one hand, tenacious in firm start-ups and the survival of certain types of firms and in recovery, but on the other hand, fragile in terms of failing more often during conflict. For instance, Bozzoli, Brück, and Wald (2013) find that in Colombia conflict leads to a reduction in entrepreneurial activities in locations directly affected but to an increase in self-employment elsewhere. This reflects the fact the people will move from conflict areas, and as they do so, the proportion of the self-employed will fall in the conflict areas. However, in their destination municipalities, the influx of refugees can lead to an increase in the survivalist type of self-employment and in self-employment in pursuit of profitable opportunities, as the influx of migrants may raise the demand for a range of goods. Their results thus show that because civil war has a differential impact geographically, it may lead to both an increase and a decrease in entrepreneurial activity. As far as entrepreneurial failure during conflict is concerned, Camacho and Rodriguez (2013) find from a panel study using data from Colombia's Annual Manufacturing Survey over the period from 1993 to 2004, that armed conflict has a deleterious and significant effect on firm survival. More specifically, they find that the impact of violent conflict is predominantly on smaller firms as well as on very young and very old firms. The

firms most likely to survive violent conflict are thus middle-aged (experienced and networked) and larger firms (more resources). As far as tenacity and recovery is concerned, Nillesen and Verwimp (2010) challenge the idea that farmers revert to subsistence farming when confronted with violence from civil war. Indeed, they find that farmers in Burundi who are confronted with civil war violence in their home communities increase export and cash crop growing activities, invest more in public goods, and reveal higher levels subjective welfare evaluations. They interpret their findings in light of similar recent micro-level evidence that points to post-traumatic growth effects after (civil) warfare. Their results are confirmed across specifications as well as in robustness analyses.

Six, while entrepreneurship may be tenacious and even benefitting from conflict in certain cases, the long-run impact of conflict on entrepreneurship seems unambiguously negative. Singh (2013) finds that indeed the longer-term effect of persistent conflict overshadows the smaller impacts of short-term impacts. Per implication, if one only considers the short-term impacts, entrepreneurship may seem much more unfazed by conflict than a more long-term view may suggest. Singh also established that conflict will reduce investment in long-term technologies—and akin to the finding of Collier and Duponchel (2013) that conflict leads to a reduction in the technological sophistication of firms. Violent conflict diminishes thus not only human capital but also technology and innovation, and these impacts are likely to have the most serious adverse impact on a country's long-run economic and development prospects.

Seven, entrepreneurship can make a real contribution to post-conflict reconstruction. Joint entrepreneurial activity often promotes the development of trust between distinct groups that have been engaged in conflict. Tobias and Boudreaux (2011) analysed the case of the post-genocide Rwandan coffee sector. The case-selection is justified not only because of the scale of the country's past conflict and ethnic prejudices but also because the liberalization of the coffee sector in the aftermath of the genocide provided many opportunities for entrepreneurs. The deregulation of coffee cultivation, processing, and trade resulted in new employment opportunities for many Rwandans, and allowed the producers to affiliate and to produce higher quality coffee with the help of the so-called washing stations. Such economic success, combined with the necessity to work together, have been argued to enhance reconciliation in the long-run. Importantly, the argument proposed by the authors goes beyond the usually assumed existence of an economical peace-dividend. The four conditions that Allport had proposed to be necessary for intergroup contact to reduce prejudice, namely equal group status, common goals, intergroup co-operation, and the support of authorities, law, or custom, have seemingly all been met in the Rwandan coffee sector (Allport 1954).

5 Concluding remarks

In order to understand the role of entrepreneurship in economic development, we need to understand both how entrepreneurship relate to successful economic outcomes or economic dynamism as well as to economic stagnation and collapse. Until now most research has dealt with the former—typically focusing on the role of innovative entrepreneurship in high-growth settings. The issue of entrepreneurship, economic stagnation and collapse, as for instance when countries get mired down in violent conflict and economic contraction, has been comparatively neglected. Moreover, the relationship between conflict and entrepreneurship and small business in particular, is not well understood in the scientific literature.

The purpose of the two recent special issues on entrepreneurship and conflict in developing countries was to address the current lacuna in the literature on the topic. Particularly in developing countries where violent conflicts impose a disastrous cost in terms of development, understanding how entrepreneurs are affected by conflict and how their behaviour in turn may shape conflict is of obvious importance to donors, peace-keepers, development agencies, governments, and entrepreneurs themselves.

The new studies contained in these special issues have a number of implications.

First, the impacts of conflict are geographically varied and the impact of violent conflict on entrepreneurs and firms will differ across a country or region. Accordingly, policies aimed at assisting entrepreneurs in countries racked by civil war need to be geographically differentiated and focused. Entrepreneurs in rural areas are often the worst affected, and for them ensuring reliable and adequate supplies of material inputs as well as skilled labour are often the most pressing challenges. Because international trade is easily disrupted by conflict, it may be wise for local firms to find, as early as possible, local sources of supply.

Sometimes, in contrast to suffering entrepreneurs in rural or intensely affected areas, those in urban areas are not affected directly by conflict. As a destination for internally displaced people, urban areas may offer increasing opportunities for profitable business. Here, steps to ease business conditions and reduce the obstacles in business formation may be useful to support entrepreneurs making use of such opportunities, and also to provide alternative occupational choices to the influx of refugees.

Second, the firms need to adjust in the face of conflict, for instance by reducing technological sophistication, relocating supply chains and production locations, and reducing long-term investment. Although such adjustments reduce the profitability and even the sizes of firms, they may contribute towards their survival. After all, many firms do not survive conflict. The social networks, experience, access and use of information, forward planning, and management capabilities of entrepreneurs were emphasized as being important factors contributing to the survival of firms during civil conflict. This implies that industrial policy should aim to support and strengthen the adaptive abilities in firms.

Third, although conflict-affected firms may do less well and pose significant challenges to their entrepreneurs, their survival may be important for post-conflict reconstruction. One of the needs of post-conflict reconstruction is to establish economic gains and economic growth so as to absorb demobilized combatants and reduce any possible grievances from leading to a resumption of hostilities. The fragility of peace agreements is well known. Hence, the message in this paper is a positive one as it indicates that entrepreneurial activity is quite tenacious and may quickly rebound once hostilities cease (also described as a Phoenix factor). This means that support of entrepreneurship during post-conflict reconstruction may be called for and justified, and if successful, may contribute towards sustaining peace. How this support is tailored is, however, a topic that was not addressed in this study, and remains a topic for future research.

Naudé (2009) notes some of the complexities involved in such policy tailoring, not the least the fact that war itself creates vested interest amongst entrepreneurs which may after the war cause derailment of peace and reconstruction efforts. Not only does policy need to encourage the supply of entrepreneurship post-conflict but also the allocation of entrepreneurial talent.

Finally, much research is still needed, in particular, research that combines both quantitative and qualitative approaches. This is as a result of the complexity of the relationship—indeed as has been found here the effects of conflict are very diverse and depend on the characteristics of the firm as well as on the type of conflict it is confronted with. Conflict also offers room for creativity and opportunities, not just to become an entrepreneur of violence, but to the best of the firm's ability to deal with the difficulty of the situation, to remain in production, and to secure the welfare of its employees and clients. This diversity of impacts, circumstances, and even opportunities inherent in conflicts suggest that quantitative studies need to be supplemented also by qualitative studies. Furthermore, the insights of the recent studies discussed here are rich but context-specific. A step further, and a task for future research, would be a resolute qualitative/quantitative combined approach that assures comparability across case studies. This could, for example, involve a limited number of selected case studies in conflict-affected regions where its findings are used in the design of a large-N quantitative study.

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