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The Impact of Armed Civil Conflict on Household Welfare and Policy Responses

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Abstract: This paper offers a framework for analysing the effects of armed conflicts on households and the ways in which households in turn respond to and cope with the conflicts. It distinguishes between direct and indirect effects, and shows that the indirect effects are channelled through (i) markets, (ii) political institutions, and (iii) social networks. Drawing upon the recent empirical literature, the paper portrays the processes running along these various channels and offers policy suggestions to be adopted at both national and international levels.

Keywords: Armed conflict, Civil conflict, Household welfare, Transmission mechanism, Coping mechanism, Remittances

JEL Classification: E2, I3, H5, H7, Z1

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1. Introduction

Armed civil conflicts carry various direct and indirect costs which strongly affect the living conditions of households at the time of the conflict and for many years thereafter. Civil wars and violent insurrections kill and injure millions of people every year. They destroy infrastructure, services, assets and livelihoods, displace populations, break social cohesion, institutions and norms and create fear and distrust. Fearon and Laitin (2003) calculate that civil wars have resulted in three times as many deaths as inter-state wars between states since World War II. Most households affected by armed conflict live in poor countries in Africa, Asia and Latin America (Fearon and Laitin, 2003; Stewart et al., 2001a, 2001b), in conditions of extreme destitution, poverty and misery. Armed civil conflicts are likely to add new forms of vulnerability and exclusion, which in turn may feed into future outbreaks of violence even after the initial conflict has subsided.

The impact of economic shocks, such as price changes, sudden climatic changes, loss of work or illness, on household welfare is the subject of an extensive literature in development economics.³ The impact of political shocks caused by the outbreak of armed civil conflicts is much less well understood. Recent empirical literature has begun to document the substantial costs that armed conflicts impose on the countries and communities involved (Knight, Loayza and Villanueva, 1996; Collier, 1999; Lindgren, 2005; Hoeffler and Reynal-Queirol, 2003). Those costs encompass the most immediate and observable consequences of war like damages to the national productive structure and the redirection of resources from productive to military uses, as well as the potential impact on the future production capacity of a country (via capital flights and emigration of skilled labour force). Considerable effort has also been put in to estimating mortality rates in conflict situations (de Walque, 2004; Guha-Sapir and Degomme, 2005; Tabeau and Bijak, 2006; Ball, Tabeau and Verwimp, 2007), as well as the incidence of poverty (Goodhand, 2003). Comparatively less attention has been devoted to the estimation of the effects of violent conflicts on household welfare. This is to a large extent due to a paucity of useful, reliable data that enables researchers to explore the relationship

³ On the impact of trade shocks on household poverty dynamics see McCulloch, Winters and Cirera (2001) and Winters (2001). On the impact of weather shocks see, for instance, Paxson (1992) and Rosenzweig and Binswanger (1993). Frankenberg, Smith and Thomas (2003) and Lokshin and Ravallion (2005) examine the micro-level impact of financial crises. Gertler and Gruber (2002) provide empirical evidence on the impact of illness shocks on households' livelihoods.

between armed conflict and household welfare in a rigorous fashion that goes beyond either discussions of state agency or broad macro analysis.⁴

Armed civil conflict is wide-ranging term, which designates a variety of political phenomena including, amongst others, insurrections, revolutions, rebellions, coups and wars. The image it most commonly brings to mind is that of civil war, which in itself is still a conceptual black box (see Kalyvas, 2007 for discussion). Civil wars have attracted the attention of many scholars in recent years (see, amongst others, Singer and Small, 1994; Gurr and Moore, 1997; Appadurai, 1999; Brown, 2001; Collier and Hoeffler, 2001; Sambanis and Elbadawi, 2002; Fearon and Laitin, 2003; Collier and Hoeffler, 2004; Luckham, 2004). Most of these studies focus on the state or state institutions as the main actors/targets of armed conflict, while the micro foundations of armed conflict remain ill-understood. Micro level analyses of armed conflict are uncommon albeit the fact that, at a fundamental level, civil conflict originates from individual behaviour and their interaction with immediate surroundings, social groups and institutional norms. Furthermore, all forms of armed conflict mould individual and household behaviour in forms that will have significant implications for policies aimed at the resolution and/or prevention of armed conflict. This highlights another neglected dimension of armed conflict in research studies – its endogeneity rooted in household behaviour. This particular characteristic makes armed conflict very different from other shocks, and requires a sound understanding of not only the mechanisms whereby conflict impacts on household welfare, but also what coping strategies household adopt, as these will impact on the likelihood of resolving the conflict and bringing about sustainable peace.⁵

This paper sets out to provide a framework to analyse these endogenous processes. The paper focus on the household impact of violence that results from “armed combat within the boundaries of a recognised sovereign entity between parties” (Kalyvas, 2007: 17).⁶ The term household in this paper designates civilian non-state actor. Armed combat will affect households – both living in areas of combat or in areas where direct combat does not take place but are indirectly affected by the fighting – through the intensity and types of violence it

⁴ Significant, even if infrequent, evidence-based studies have slowly started to surface prompted by recent research programmes funded by the Leverhulme Trust at HiCN (www.hicn.org), the European Commission at MICROCON (www.microconflict.eu) and the Department for International Development at CRISE (<http://www.crise.ox.ac.uk>).

⁵ The occurrence of armed conflict in past is the greatest predictor of a civil war taking place in any given country (see Collie et al., 2003; Collier, 2007)

sets in motion.⁷ This simple insight allows us to operationalise the analysis of processes of armed conflict at the level of the household. As pointed out very clearly by Stathis Kalyvas (2007), it is important to distinguish between the concepts of violence and civil conflict. While civil conflict represents a political process of negotiation or contestation of sovereignty, it is the process of generation of violence by the different factions (against each other and as a form of control of territory, resources and populations) that shape household behaviour and changes in household behaviour during and after the conflict. The violence that results from armed combat can affect directly certain households (for instance, those that supply fighters to different armed factions or household that are directly targeted by acts of violence). It can also affect households in both combat and non-combat areas through changes in economic, social and political institutions. These changes will impact on household welfare through a complexity of inter-related channels. Armed combats are rarely one-off shocks and often result from slower, structural processes of social transformation. They occur in non-linear cycles, where conflict and peace do not represent opposite ends of a continuum, but rather coexist in different degrees of intensity in different time periods. Individuals and households living in conflict settings⁸ often find themselves responding, acting and being affected by stages in between and must therefore adapt their livelihoods and build coping strategies to (re)build their social, economic and political capital accordingly.

The overall goal of this paper is to propose a framework to analyse the dual-causal relationship between armed conflict and household welfare. The paper is divided in four sections. The first discusses key transmission mechanisms linking armed conflict to household behaviour, by identifying household-level variables that are shaped by conflict processes. The section provides an analysis of direct impacts of civil conflict on household welfare, as well as more indirect effects through changes in institutions, economic growth and distribution channels. The second section explores ways in which households respond to

⁶ Stathis Kalyvas goes on to specify that these parties are “subject to a common authority at the outset of the hostilities” (pp. 17).

⁷ Kalyvas (2007) offers a theoretical and empirical study of violence in civil war. The notion of violence used in this paper is broader than that used by Kalyvas, who defined violence in civil war as “intentional physical violence against non-combatants that takes the form of homicide, in a context where at least one actor seeks to control the population” (pp. 31). In this paper, violence is understood as physical and psychological harm to household members affected by civil war (combatants and non-combatants alike), independently of the objective of specific acts of violence. The analysis of the impact of armed conflict on household welfare would obviously be enriched by an effort to unpack types and objectives of violence that take place as a direct and indirect result of armed combat. This is outside the scope of this paper, but the topic of another research paper in progress by the author.

⁸ In this paper the terms ‘armed combat’ and ‘armed conflict’ will be used interchangeably.

changes in their own characteristics and surrounding institutions, i.e. what coping strategies are undertaken by households affected by armed conflict. The third section looks at policy responses (by local and national governments and the international community) in post-conflict settings and discusses their effectiveness in establishing sustainable peace. The final section summarises the findings and discusses ways forward.

2. The impact of armed civil conflict on household welfare

Individuals and households in developing countries face severe economic risks even in the absence of armed conflict (see Dercon, 2004 for discussion). Insecure socio-economic environments force vulnerable people into deprivation and distress. Outbreaks of armed conflict are likely to increase insecurity further. These are typically associated with the destruction of essential infrastructure and social services, the breakdown of the rule of law, as well as with significant reductions in private and public investment. Armed conflicts kill and displace populations, often limiting the access of households to employment and earnings (due, for instance, the death or recruitment of young adult males) and increasing levels of instability and loss of trust. This situation can be aggravated once displaced and refugee populations and demobilised combatants return to their communities in post-conflict situations, particularly when food aid and medical help (at least for those that were in refugee camps) may no longer be available. Conflict, and subsequent times of insecurity and fear, may impact on the ability of individuals and households to fall back on known survival strategies. In poorer, more vulnerable areas, or amongst the poorest, more vulnerable households, these consequences of conflict will add to already difficult circumstances. Those that were not poor may well become so due to reductions in food security following market disruption, increased difficulties in getting to markets to sell and buy goods, and the loss of earnings capacity, savings and formal and informal risk-sharing networks.

This section discusses the main channels through which conflict shocks are transmitted to household welfare. This discussion does not intend to be an exercise in measuring the costs of armed conflict, but rather proposes a framework to think systematically about important channels through which armed combat impacts households (civilian non-state actors) living in conflict settings (for analysis of costs of conflict see Bilmes and Stiglitz, 2006). These

channels are illustrated in appendix A,⁹ and include both direct and indirect effects of armed conflict.

Direct effects of armed conflict on the household (represented by the dotted line in appendix A) include changes in household composition due to killings, injuries and recruitment of fighters by either the government or the rebel groups, changes in the household economic status due to the direct destruction of assets and effects caused by forced displacement and migration. Indirect effects (represented by the full lines in appendix A) include changes in households' surrounding institutions and environments such as changes in social networks, changes in access to or destruction of exchange and employment markets and changes in local and national political institutions.

In addition we consider important indirect effects of armed civil conflict on household welfare, transmitted through two key macroeconomic variables: economic growth and distributional channels. We conclude the section by examining the important long-term effect of armed conflict on poverty traps, an extreme form of household welfare loss. The discussion introduced in this and in the next section does not intend to take into account every possible outcome of armed conflict. Its main aim is to provide a framework to think about key, albeit largely ignored, endogenous interactions between micro level processes of armed conflict and household behaviour.

2.1. Direct impact of armed conflict on household welfare

Household welfare is affected by a myriad of factors and it is often very difficult to isolate the impact of one specific shock. Effects may depend on each household's initial welfare position (e.g. initial asset endowments will determine the household's capacity to respond to economic slowdown or reduced market access), but are also related to households' specific characteristics that may make them more prone to being a target of violence, being recruited into fighting units or being forced to leave their area of residence (e.g. belonging to a specific ethnic group, owe targeted land holdings or property). These effects are unpacked below.

2.1.1. Changes in household composition

⁹ This section draws on Justino (2006).

Violent conflicts kill and injure civilians and combatants alike and cause severe psychological damage to those involved in fights, to those living in war-torn communities and to displaced populations. The levels of mortality and morbidity associated with armed conflict are explained not only as outcomes of fighting but are also for the most part the result of spreading disease and malnutrition (see Roberts et al., 2003; Guha-Sapir and Degomme, 2006). Armed civil conflicts are highly correlated with increases in infant and maternal mortality rates, larger proportion of untreated illnesses and reduction in nutritional levels, even when these are not directly caused by the initial conflict (e.g. WHO, 2002). For instance, Verwimp and van Bavel (2004) show that although refugee women tend to have higher fertility rates than other population groups, their children (girls in particular) have a much lower probability of survival due to the health and socio-economic conditions experienced in refugee camps. These effects are often aggravated by a variety of factors, even after the end of the initial conflict. These include the breakdown of health and social services (which increase the risk of disease transmission such as HIV/AIDS; particularly in refugee camps), decrease food security (possibly resulting in famines), increase insecurity in living conditions and the loss of social capital and political trust (Grein et al., 2003).

There is, however, surprisingly little knowledge on the health consequences of violent conflict. Some institutions such as the *Médicines Sans Frontières* have conducted localised field surveys. But in general research on health issues in conflict areas is associated with great difficulties due to limitations to the movement of researchers, the destruction of registration systems and the possible misrepresentation of politicised information on the true levels of mortality and morbidity (see Grein et al., 2003). The direct impact of armed conflict on mortality and morbidity is further clouded by the simultaneous proliferation of malnutrition and epidemics in fighting areas and in refugee and IDP camps due to food shortages and living under unsanitary conditions. Though research is sparse, major advances have been made during the past decade in the way the international community responds to the health consequences of complex emergencies. In particular, epidemiology has become an important tool for assessing health impacts during and after natural disasters and complex emergencies (see Roberts et al., 2003; Guha-Sapir, Hargitt and Hoyois, 2004; Guha-Sapir, Degomme and Phelan, 2005; Guha-Sapir and Degomme, 2006).

The most visible direct impact of armed civil conflict on household welfare is the destruction of human lives. These are often young men in prime working age, though a large number of

more violent conflicts have been accompanied by violence against civilians, often children, women and the elderly (e.g. Dewhurst, 1998; Woodward, 1995). The death of household members in working age means that the household will be left with severely depleted earning capacity. This is often enough to push previously vulnerable households into extreme forms of poverty (particularly amongst household with widows, orphans and disabled individuals), which may well become persistent if the household is unable to replace labour (see Justino and Verwimp, 2006; Brück and Binzel, 2006). Injuries, the spread of infectious disease and increases in permanent disabilities caused by violence and conflict may also result in large decreases in household welfare. Households may have to draw on existing savings to pay for medical bills, which will pose severe financial burden on already vulnerable households. Consequences in terms of household labour decisions can also be dramatic and long-lived. In many circumstances, the household may choose to replace dead or injured males with children. Children are then removed from school, which may in turn deplete the household of their stock of human capital for future generations (for evidence see Ghobarah, Huth and Russett, 2003; Alderman et al., 2004; de Walque, 2006). This is made worse when the health status of children is badly affected by the conflict. These effects may result in forms of poverty trap and contribute towards the reinforcement of structural, persistent forms of poverty since negative health and education shocks during childhood have significant negative impacts on the long-term performance of individuals (see Miguel and Kremer, 2004; Bleakley, 2007). They can also be aggravated by the severe mental health and the psychosocial consequences of disasters and conflicts (amongst adult and children fighters, raped women, abused children and old age people), though these have not yet received the attention they deserve in the epidemiologic literature or the development economics literature on conflict and violence.

2.1.2. Destruction of assets

During violent conflicts assets get loss or destroyed through heavy fighting and looting. These include houses, land, labour, utensils, cattle, livestock and other productive assets. The very poor are likely to be the worst affected. For instance, Verpoorten (2003) reports that 12% of all households lost their house during the 1994 Rwandan genocide, while cattle stock on average decreased by 50%. Shemyakina (2006) finds that the homes and livelihoods of around 7% of households were damaged during the civil war in Tajikistan between 1992 to 1998. The Burundi conflict in the 1990s was associated with severe asset depletion

(Bundervoet and Verwimp, 2005). In Latin America, violence has significantly affected the efficiency of farm holdings due to the disruption of rural labour markets and limits imposed on the operation of larger farms (see Gonzalez and Lopez, 2007 for Colombia and Wood, 2005 for El Salvador). The number of deaths and injuries in these conflicts were extremely high (see Verwimp, 2005; Bundervoet and Verwimp, 2005; Shemyakina, 2006), with unaccountable impacts on individual livelihoods. UNHCR provides similar estimates across a variety of recent conflicts.

The destruction of assets by armed conflict, in addition to unstable economic, social and political environments, will impact significantly on the ability of affected households to recover their economic and social position in post-conflict settings. On the other hand, armed civil conflicts take place because there is something worth fighting for, implying that some groups and individuals will benefit from violence through looting, redistribution of assets during conflict (e.g. Wood, 2005 discusses the extent of land redistribution to rebel groups during the El Salvador conflict in the early 1990s) and privileged access to market and political institutions for those that 'win' the conflict or support winning groups during the conflict. These effects are as important in understanding processes of armed conflict as the more negative effects of fighting as both will have significant bearing on the sustainability of peace during the post-conflict period.

2.1.3. Forced displacement

Armed conflicts are typically accompanied by large population movements. Civilian populations are often targets for both armies and rebel groups trying to expand their territorial control, weaken population support for opponent groups, increase their own support base and/or add to their resources through looting and appropriation of valuable assets and sites (Kalyvas, 2006; Vargas, 2007). This leads to population flights from areas of more intense fighting or areas where the outbreak of violence is expected. In 2002, almost 34.8 million people across the world were forced to seek asylum in another country or within the national borders due to violent conflicts (USCR, 2004). 25 million people were displaced in 2004 (UNCHR, 2005), many within its own country (IDMC, 2006). By cutting off large numbers of people from economic opportunities, internal conflict can lead to a vicious cycle of displacement and household poverty from which it is difficult to escape. This is made worse by the destruction of social networks and the consequent depleting of important elements of

the social, economic and political capital of the poor. Refugees from conflict areas and displaced populations are found amongst those living under the most difficult forms of socio-economic exclusion and deprivation (see Chronic Poverty Report 2004-05). The literature has distinguished between different types of displacement including forced migration, asylum seeking and refugees. Asylum seekers and forced migrants are, to a large extent, young economically active household members. These have always been traditionally the most likely members in society to migrate. In conflict settings, this effect is compounded by the fact they are also the most probable targets for violence and forced recruitment into armies or rebel groups (see Czaika and Kis-Katos, 2007). Other displaced groups such as the elderly, women and children are overrepresented amongst refugees from conflict areas.

Despite these facts, there is little empirical evidence available on the effects of violent conflict on the experience of displaced households and individuals, the breakdown of societies and the destruction of social networks. Most research so far has focused on collecting event data based on counting numbers of refugees (but not necessarily internally displaced populations), or numbers of deaths amongst these groups (e.g. USCR, 2004). This is because most individual- and household-based datasets tend not to follow migrants, and even less internally displaced populations. Ibáñez and Moya (2006) and Kondylis (2007) are two of the few studies to analyse empirically the cost of displacement at the household level. Ibáñez and Moya use household level data for 2322 Colombian displaced households to estimate welfare losses for displaced households to assess how displaced households smooth their consumption, and to analyse the strategies they adopt. Their results indicate that forced displacement entails significant asset losses, limits the ability of household to generate new sources of income, disrupts risk-sharing mechanisms amongst affected communities, and forces households to rely on costly strategies in order to smooth consumption. Displacement entails in addition significant labour effects, which further limit the capacity of households to recover from welfare losses during the conflict. In the context of displaced Bosnians during the 1992-95 war, Kondylis (2007) shows that displaced populations are less likely to work in the post-conflict period: during that time, displaced men and women were less likely to be in work by 7 and 5 percentage points, respectively, in relation to the remaining population.

These effects have important long-term impacts. The establishment of sustainable patterns of peace and conflict resolution depend largely from the successful integration of displaced populations into society (Walter, 2004; Sandler and Enders, 2004; Steele, 2007; see also

section 4 below), as displaced populations (as well as demobilised combatants) may provide the basis for opposing political factions to continue expanding violence. The demobilisation of troops and returned refugees and displaced populations may also create competition for available scarce resources (such as jobs, land, assets, available services like health care and so forth), which may, in turn, create new forms of exclusion and renewed sources of instability.

Slowly emerging evidence has shown that productivity levels of returnees tend to be lower than those that stayed, which may cause difficulties in terms of reintegration of these individuals in their original communities (Kondylis, 2005), if their original communities exist at all after the conflict. In contrast, in the context of young Congolese men in Ugandan refugee camps, Clark (2006, 2007) shows that conflict may offer the opportunity of access to new forms of household dynamics, social decision-making and livelihood strategies as these young people were no longer bound by tradition and ways imposed by older generations. There is, however, no study that calculates the impact of these changes on household welfare. In a pioneering study using a unique dataset, Deininger, Ibanez and Querubin (2004) analyse return patterns of displaced populations during the Colombian conflict. Their results show that the desire to return is very much influenced by particular characteristics of the household and the displacement process. In general, agricultural employers, in the origin and reception site, families with access to land or households with a dense social network in the origin will be more willing to return to their village. On the other hand, vulnerable families, such as households with one parent, with female heads or large dependency ratios (often found overrepresented amongst the chronically poor), show a strong preference for settling in the reception site. Households tend to be less willing to return to their place of origin when displacement was caused by distressing events or if security fears are still present. These emerging results show a pattern of welfare fragility and high socio-economic vulnerability amongst displaced populations including amongst those that decide to return to their site of origin. This has enormous implications for post-conflict reconstruction policies suggesting that these must not only be concerned with the adequate reintegration of these groups in society (either in new relocation regions or in sites of origin), but need also to create forms of assistance aimed to help returnee populations access new or renewed markets and employment.

2.2. Indirect impact of armed civil conflicts on household welfare: Institutional changes

In addition to the direct impacts on household welfare discussed above, armed conflicts have substantial effects on the environment and institutions in which households live (see mechanisms represented by full lines in appendix A). Changes in social networks, in markets and in governmental institutions are in turn likely to affect the welfare and well-being of households, as well as determine households' responses to changes and/or destruction of their social, economic and political settings.

2.2.1. Impact of armed conflicts on social networks

Armed conflicts have profound effects on social relations between family members, neighbours and friends, on how communities relate internally and with other communities and on the operation of local institutions and their relation with state-level institutions. These changes are caused to a large extent by changes in household composition and the displacement and migration of households to safer areas as discussed above. They are also caused by the dynamics of the conflict itself, such as people telling on each other, different groups turning against each other and loss of trust amongst communities. These effects result often in changes and/or the breakdown of social relations and social cohesion and the loss of risk-sharing arrangements. In other words, the violence generated by armed conflict will result in the breakdown of the main components of social capital in any given society (Woolcock, 1998; Putnam, 2000). Social capital is fundamental to the establishment of social cohesion and economic stability, as well as creating the conditions for successful and sustainable economic growth. One of the most tragic outcomes of armed conflict is the breakdown (or the outright destruction) of social capital and the social fabric. The impact of this on household welfare can be dramatic as households will no longer be able to rely on community relations in times of difficulty, will not be able to access particular employment or credit arrangements based on informal ties and may even be excluded from new norms and institutional processes. In addition, political forces may strengthen some forms of social capital that either feed into conflict itself or constitute the 'tipping point' for the outbreak of violence. Pinchotti and Verwimp (2007) illustrate this clearly in the case of Rwanda, where the 1994 genocide was responsible for one of the most distressing collapses of social cohesion in modern times. At the same time, the conflict and the genocide were fomented by the reinforcement and politicisation of of inter-group cooperation and association. In the words of the authors, "the genocide was, in a frightening way, an exercise in communal cooperation and organization among the participating Hutu. Without the conversion of social capital to

bond the Hutu together, it is doubtful that the genocide could have been unleashed at such a rapid pace with such tragic consequences” (pp. 30). This case study illustrates how armed conflict can both lead to and result from the destruction and manipulation of forms of social capital and illustrates clearly what Kalyvas (2007) has designated by the ‘dark side of social capital’ (pp. 14). Very few research studies, and even less policy documents, reflect on the key relevance of these processes in maintaining peace and contributing towards the recovery of household welfare in the post-conflict period.

2.2.2. Impact of armed conflict on markets

We consider two main effects of conflict on existing markets: exchange (the buying and selling of commodities) and employment. The impact of exchange and employment factors on household welfare in developing countries has traditionally been analysed within the framework provided by the household farm model (Singh, Squire and Strauss, 1986a, 1986b). This model allows us to capture behavioural interactions of households for whom agriculture constitutes the main source of income. The model combines production, consumption and labour supply decisions within the same decision unit in a consistent framework that allows for the fact that most households in developing countries produce partly for sale and partly for own consumption, at the same time that purchase inputs (e.g. fertilisers and labour) and provide inputs (e.g. family labour) from their own resources. According to this framework, households make decisions regarding exchange (consume or sell) and labour allocations (farm and non-farm) depend on the income profit derived from household’s production. This depends in turn on four key factors: the market price of goods sold and purchased by the household, the price of a staple good produced (and possibly sold) by the household, the market price of labour (wage) and profit obtained from their market activities. Changes in the price of staple goods are of key importance for household decisions. When the price of agricultural staple increases, we would expect the household to decrease its consumption of that good. But if the household is a consumer as well as a producer of that good (which is the case modelled in Singh, Squire and Strauss, 1986a), we must take into consideration the positive profit effect of the price change, which may well outweigh the negative effect on price increases on consumption. This positive profit effect may, in turn, release household labour to off-farm employment. Any economic and political shock will impact on these mechanisms. Empirical evidence on price effects of armed conflict is scarce though some sparse evidence has reported an increase in prices of staple food (see Verpoorten, 2005;

Bundervoet, 2006). This increase has however been more than offset by reported dramatic decreases in prices of commodities produced and assets held by the household (particularly cattle and other livestock), as well as the decrease in access to exchange markets. In particular, the destruction of roads, train lines and other infrastructure will increase transaction costs for households involved in market exchanges and, in extreme cases, will result in return to subsistence activities. This is particularly true when markets are themselves destroyed by fighting. The ability of a household to respond to price shocks depends on the sign of the shock, which, in turn, is related to different household types. A negative shock will result in losses in household utility and welfare if the household is not able to switch activities or no alternative activities exist. If the household is able to switch activities in order to take advantage of them (for instance, looting but also possibility of access to new markets, including informal or illegal markets through alliances of support of different fighting factions) then losses may be small or the effect may even be positive. We cannot truly understand micro processes of violence during armed conflict without understanding further the role of exchange markets both as an opportunity for predatory behaviour and a source of livelihood for those involved in armed conflict. In addition, accommodating for the impact of armed violence will transmit the shock to other markets and therefore may set off a series of second-round effects which also need to be considered.

Also very few studies have analysed the impact of armed conflict on employment markets, whether it be the supply of labour by the household or the demand for household labour from off-farm sources. Analyses of processes leading to the onset of armed conflict often mention the presence of a large group of unemployed youth as a pre-condition for the effective recruitment of fighters and, therefore, for the rise of armed rebel groups. The impact of armed conflict on labour markets remains largely unknown, with the exception of studies that analyse the labour market impact of demobilisation and reintegration of ex-fighters and displaced populations in post-conflict settings. It seems evident that households affected by death, illness or recruitment of their members will be unable to undertake off-farm work as their subsistence labour needs will take priority. It is unclear how these effects will reflect in existing labour markets, how labour market characteristics (e.g. unemployment, discrimination, exclusion, and so forth) will impact on the process of generation of violence during armed conflict (to control populations, resources and territories) and how labour markets are shaped by armed conflict.

2.2.3. Impact of armed conflict on political institutions

Armed civil conflict changes the structure of political institutions, both local and national, as well as their ability to provide public goods and guarantee the establishment of property rights, the rule of law and security. Violent conflicts frequently result from and/or lead to forms of state and governance failure (e.g. Zartman, 1995; King and Zheng, 2001). The war effort affects negatively social spending as well as the institutional ability to run the economy, provide even basic social services (such as health care, education, sanitation, etc) and maintain socio-economic stability. But they also offer important opportunities for new classes of local and regional leaders to challenge political powers (e.g. Reno, 2002). In most conflicts, a number of actors (militia-leaders and members, political elites, businessmen, petty traders, but also households and groups) have tried to improve their position and to exploit the opportunities offered by a context of internal conflict. The result is a profound reshaping of relations between populations, the politico-military or economic elites and legal and judiciary structures. Political relations are shaped and reshaped during times of conflict thereby inducing processes of social and political transformation (see Vlassenroot and Raeymaekers, 2004). One way in which those processes occur is through the emergence of local ‘governance’ structures in places where ‘government’ is absent. In the available literature, such circumstances are usually referred to as state ‘collapse’ (Zartman, 1995). However, the collapse of ‘government’ does not necessarily have to be accompanied by the collapse of ‘governance’, rather it is accompanied by institutional changes as different actors replace weak or inexistent institutions in the provision of local public goods, the enforcement of property rights and social norms and the provision of security. While the development and political science literatures provide substantiated accounts of such institutional changes at the national level, we have only limited evidence on changes of power relations at a grassroots level and their impact on local institutional processes and structures. The important issue in understanding the relationship between the onset and duration of armed conflict is not to equate the rise of conflict with fragile or weak states, but to understand how state and non-state actors interact throughout the conflict, how their different (or similar) strategies of violence determine population support and territorial control and how different state and non-state actors’ activities are embedded in different areas and communities.

2.3. Indirect impact of armed civil conflict on household welfare: economic growth effects

Armed conflict has a very significant impact on economic growth. Knight, Loayza and Villanueva (1996) have estimated that civil wars lead, on average, to a permanent income loss around two percent of GDP. In addition, Collier (1999) has calculated, using cross-sectional evidence for 92 countries between 1960 and 1989, that national incomes, following a seven-year civil war, will be roughly 15 percent lower than had the war not happened (see also Hoeffler and Reynal-Querol, 2003). Armed conflict is responsible for the destruction of infrastructure, markets and social cohesion. It is also associated with the redirection of significant resources from productive activities into military action. Periods of political instability and possible increased in violence will hamper both public and private investments. Migration and displacement of people result in the removal from the country of potentially important private funds that could be used for investment, as well as valuable human capital. Armed conflict also affects the capacity of economies responding to other shocks. Research has found that external shocks could lead to an immediate and substantial deceleration in growth in societies characterized by the presence of “latent” social conflicts (e.g. high ethnic diversity), and low institutional or social capacity for resolving conflicts (e.g. those characterised by low political and individual rights) (Rodrik, 1998).

Economic growth has been shown to affect the likelihood of armed conflict. Macroeconomic analyses of civil war point to low-per capita income as a very robust explanatory factor in determining the risk of violent internal conflict breaking out (Collier and Hoeffler, 1998; Fearon and Laitin, 2003). Miguel, Satyanath and Sergenti (2003) find that economic growth is strongly negatively related to the incidence of civil conflict in sub-Saharan Africa: a negative growth shock of five percentage points increases the likelihood of conflict by one-half in the following year.

The destruction of physical, human, social and political capital of the country impacts severely on post-war recovery, and may even influence the probability of conflict re-igniting (Collier, Hoeffler and Söderbom, 2003). They predict that a country that has experience a civil war is much more likely to experience another conflict in the future. The disruption and destruction of infrastructure caused by violence often results in severe cutbacks in state’s capacity to provide services such as education and health care (Stewart et al., 2001a, 2001b). Significant reductions in social services reinforce further the inability of households to fall back on state support in times of crises (e.g. safety-nets). Reductions in social services may

result from diminished state financial capacity but also from specific political agendas pursued by governments. In many contexts, winners in conflicts have been known to restrict access to education for the losers by limiting enrolments in some levels of education and/or by segregating schools along racial (South Africa), ethnic (pre-1994 Rwanda) and religious lines (Northern Ireland) (Bush and Saltarelli, 2000; Shemyakina, 2006). Low levels of economic growth combined with weak socio-political institutions and specific political agendas may therefore highlight existing inequalities or produce new forms of inequality. This may in turn fuel further resentment and generate tensions across population groups, creating a cycle of impoverishment, violence and instability from which many countries cannot recover fully.

2.4. Indirect impact of armed civil conflict on household welfare: Distributional channels

Recent development economics literature has shown that changes in household welfare are determined by changes in economic growth and changes in the distribution of incomes (e.g. Ravallion, 1999). Large shocks have been shown to produce profound restructuring of existing social norms and distributional arrangements (see Dercon, 2004 for the case of the AIDS epidemic in Africa). Armed conflict, in particular, and its aftermath may well result in the exclusion of certain groups and the undermining of social cohesion. A large literature has examined the impact of inequalities on the onset of civil conflict. Much less exists on the impact of conflict on distributional arrangements in societies affected by violence though it is well-accepted that conflicts will result in new forms of social arrangements and political structures that are bound to benefit some groups in detriment of others. These changes in distribution, and potential association with new forms of social injustices in post-conflict periods, may lead to further outbreaks of violence.

The relationship between forms of income inequality and the onset of violent mass conflicts has been tested with mixed results (see Cramer, 2002 for a discussion). Analyses of between-group, rather than within-group, inequalities have been more successful. This body of research has emphasized the importance of horizontal inequalities between groups, classified by ethnicity, religion and other cultural characteristics, as sources of conflict (e.g. Stewart, 2002; Langer, 2004; Stewart, Brown and Mancini, 2005; Mancini, 2005; Østby, 2006), as well as of societal levels of polarization (e.g. Esteban and Ray, 1991, 1994; Foster and

Wolfson, 1992; Wolfson, 1994; Reynal-Querol, 2001; Montalvo and Reynal-Querol, 2003; Caselli and Coleman, 2006), categorical inequalities (Tilly, 1998) and ethnic fragmentation (e.g. Easterly and Levine, 1997; Elbadawi, 1992). Rises in economic and social disparities between different population groups, systematic social exclusion and other forms of perceived unfairness in social relations often result in the accumulation of discontent to a sufficiently high level to break social cohesion (Sigelman and Simpson, 1977; Bates, 1983; Horowitz, 1985; Muller, 1985; Muller and Seligson, 1987; Midlarsky, 1988; Schock, 1996), and increase the probability of some population groups engaging in rent-seeking or predatory activities (Benhabib and Rustichini, 1991; Fay, 1993; Sala-i-Martin, 1996; Fajnzylber, Lederman and Loayza, 1998; Grossman, 1991; 1999). Social discontent and frustration with living conditions can act as strong motivators for conflict and for the participation of individuals into organised forms of violent conflict. In Ted Gurr's words: the "primary causal sequence in political violence is first the development of discontent, second the politicization of the discontent, and finally its actualization in violent action against political objects and actors. Discontent arising from the perception of relative deprivation is the basic, instigating condition for participants in collective violence" (Gurr, 1970, pp. 13). This can be a powerful mechanism when forms of discontent coincide with ethnic, religious or regional divides.

2.5. Long-term effects of armed conflicts and poverty traps

The short- and long-term depletion of household physical and human capital is bound to create forms of destitution from which households will find impossible to recover from. There is a large literature on poverty traps (see Ravallion, 1998). Dasgupta and Ray (1986) describe how below some critical nutritional level, no productive activity can be exercised. If during an economic crisis all assets get destroyed (except labour) at the same time that individual nutritional status (presumably of household workers) goes below a certain threshold, then the household stands little chance of recovering their economic status by resorting to productive means. Only a serious windfall (e.g. aid) can push this household back into recovery path.

Recent empirical literature has dedicated considerable efforts to determining the long-term effects of civil conflicts (see Ghobarah, Huth and Russett, 2003). In many circumstances, these effects can result in the reinforcement of structural forms of poverty or the emergence of new pockets of poverty resulting in poverty traps. Hoeffler and Reynal-Querol (2003) estimate that adult and infant mortality increases by 13% during conflict and remains 11%

higher for at least 5 years. de Walque (2006) shows how the severe impact of mortality during the Khmer Rouge regime in Cambodia in 1975-78 can be observed almost 30 years later. Bundervoet and Verwimp (2005) show that the Burundi civil war in 1993, and subsequent embargo, has had significant negative impacts on the nutritional status of rural populations due to direct destruction caused by the conflict, as well as increases in food prices. If nutrition gets affected, particular that of children, future household welfare will get badly affected. Children affected by both shocks in Burundi had a height-for-age of one-standard deviation lower than children not affected by the shocks. Children from households unable to smooth consumption may face health deterioration (Behrman, 1988) and lesser body size (Foster, 1995). Alderman, Hoddinott and Kinsey (2004) use panel household survey data collected in 1983-84, 1987 and yearly from 1992 to 2001 to show the impact of the Zimbabwe civil war in the 1970s, which was followed by severe droughts in 1982-83 and 1983-84. The authors find that in 2001, on average, children in the sample affected by the shocks would have been 3.4 cm taller, had completed an additional 0.85 grades of schooling and would have started school six months earlier had she not been affected by the shocks. Similar evidence is found by Akresh and Verwimp (2006) for Rwanda.

Poverty traps can also result from labour market outcomes. On the one hand, return to subsistence agriculture hinders the capacity of households to accumulate profits and therefore limits the release of household labour to off-farm employment. In addition, the possession of risky assets in times of violence leads to the depletion of household's savings. This may in turn impact on household's activity choices and increased preference for low risk low return activities. Such choices will hinder the household's capacity to accumulate assets and use them in times of crisis, a compound effect resulting from the simultaneous occurrence of conflict and economic (related) shocks. These effects may be further amplified by the displacement of households and the death and injury of household members, which will limit the labour market participation of vulnerable households. Ibanez and Moya (2006) report that in the case of conflict it is not necessarily low skill levels that limit labour market participation, but rather the impossibility in using skills due to the destruction of networks and the difficulty of integrating into new environments. Although some of these households could in principle be able to accumulate assets and avoid poverty, they become trapped below a minimum asset threshold needed to achieve a viable accumulation strategy (see Barrett and Carter, 2006; Jalan and Ravallion, 2004; Loshin and Ravallion, 2004 for further examples). Although a lot of work still remains to be done, these first studies suggest that the impact of

armed civil conflicts on household physical, human and social capital may be a powerful mechanism whereby violence in armed conflict may force individuals and households into long-lasting poverty, adding to increased household vulnerability to other shocks and intensifying the number of chronically poor households. The magnitude of these effects is determined to a large extent by the way in which different households respond to conflict-induced shocks.

3. Household responses to armed conflict

The very visible impacts of armed conflicts discussed in the previous section are bound to change the economic and social behaviour of households directly or indirectly affected violence. This section analyses the strategies adopted by households in conflict settings to protect their welfare, as a response to the effects analysed above. These responses may in turn impact on the evolution of conflict, whether and how it escalates, and whether and how it may reignite in the future. The first order direct and indirect impact of armed civil conflict on household welfare (analysed in section 3) is represented in appendix A by the straight lines, whereas the second-order effects of responses to conflict itself are represented by the dashed lines.

There is a large development economics literature on coping strategies adopted by households in times of crises. The literature has shown abundant evidence that households living in risky environments generally develop a complexity of (ex ante) risk-management and (ex post) risk-coping strategies. Townsend (1994) outlines five common strategies followed by households in developing countries: the diversification of land holdings into several spatially separated plots and into various crops (see also Rosenzweig and Binswanger, 1993; Haggblade, Hazell and Brown, 1989; Barrett, Reardon and Webb, 2001), the storage of grain from one year to the next, resorting to purchases and sales of assets such as bullocks and land that could have been accumulated as a precaution against the occurrence of a shock, borrowing from village lenders or other moneylenders (see also Eswaran and Kotwal, 1989; Rosenzweig and Wolpin, 1993; Udry, 1994; Fafchamps, Udry and Czukas, 1998) and the use of gifts and transfers from informal mutual support networks (e.g. family, friends, neighbours, funeral societies, etc) (see Rosenzweig and Stark, 1986; Platteau, 1991; Townsend, 1993; Grimard, 1997; Cox and Jimenez, 1998).

Dasgupta (1993) reports increases in fertility amongst households living in uncertain environments. The increase in fertility rates is thought to compensate for the loss children in the early years, as well as increasing household labour and creating an insurance mechanism for old age security. Morduch (1990, 1995) and Dercon (1996) describe how households in risky environments choose to undertake economic activities with lower return but likely to have lower economic risk and be more certain of successful outcome, such as subsistence agriculture or cultivation of safer traditional crop varieties rather than riskier but higher-return varieties. This strategy is also popular amongst households with little assets that could serve as collateral for credit access (see Dercon, 2000). Dercon (2005) identifies the following coping strategies during the 1984-85 Ethiopian famine: cutting meals and portions, selling valuables, relying on wild foods and moving to feeding camps. Lokshin and Yemtsov (2004) show that in times of crisis (the article examines household coping strategies during the recent Russian financial crisis), the choices of survival strategies are determined by the level of human capital in the household. The higher the household human capital, the more likely is the household to choose active strategies. Households with low human capital, households headed by pensioners, and low-educated households will face greater difficulties in responding to shocks implying that poverty is likely to be entrenched amongst these groups. Kazianga and Udry (2004) analyse strategies followed by households to smooth consumption during a period of severe drought between 1981 and 1985 in rural Burkina Faso. These include livestock, grain storage and inter-household transfers. They find that households rely almost exclusively on self-insurance in the form of adjustments to grain stocks to smooth out consumption, with little reliance on risk sharing or the use of buffer stocks such as livestock. Rosenzweig (1988, 1996) examines changes in location of residence of some or all household members.

Strategies adopted by households in response to economic risks and shocks in peaceful regions may differ from those use in conflict settings. They may also differ amongst rural and urban households as urban households will have less access to land and less mobility (once fighting reaches urban areas) than rural households. There is currently little understanding of differences between war-time and post-war coping strategies of households, or between those of rural and urban households, though evidence is slowly accumulating. Violence during armed conflict typically results in the destruction of essential infrastructure and social services, the breakdown of the rule of law, as well as with significant reductions in private and public investment.

Armed conflicts are distinguished from other shocks by their deliberately destructive nature, including the intentional destruction of common coping strategies adopted by households in economically insecure environments, such as social networks and family ties, accumulation of agricultural assets and land and so forth (see de Waal, 1997). Political shocks such as civil war have a covariate character, but households with characteristics that are salient to the conflict may be particularly badly hit by the initial shock. For instance, while a high level of education may be a secure source of income in times of peace, it can become a liability in times of violence as it was the case during the Cultural Revolution in China or the Khmer Rouge regime in Cambodia (e.g. de Walque, 2006), in which educated population groups were specifically targeted by the conflict. As a result, males of school age during the period have lower educational level than previous or subsequent cohorts. Other known household insurance mechanisms and consumption smoothing strategies may fail in a situation of conflict (see below). These perverse effects of conflicts are likely to have severe negative long-term impacts on the accumulation of human capital and assets in households and communities affected by violence. These mechanisms and processes are still ill-understood in the development literature, where little attention has been paid to the analysis of differences in coping strategies adopted by households in peaceful versus conflict settings. This section analyses some of the slowly accumulating evidence on coping strategies adopted by households in conflict settings.

3.1. Savings and buffer stock in conflict settings

The ability of households to adapt their welfare status to shocks typically depends on the level of savings of the household and the efficacy of local insurance and credit markets. If the household is not able to insure its income against shocks or is not able to borrow when a shock takes place, it must resort to savings. Households may fall into poverty or become severely destitute when accumulated savings are not sufficient to cover the shortfall in income. Livestock is one common form of savings accumulation amongst rural households in developing countries (e.g. Binswanger and McIntire, 1987). During armed conflicts, livestock can however become a very risky form of savings since it can be easily stolen or killed. Bundervoet reports that during the Burundi conflict in the early 1990s the total number of livestock was reduced by 30%, while almost 20% of households in conflict areas reported to have lost livestock due to theft and pillaging. As a result, households in conflict areas do not

resort to the accumulation and sales of livestock to protect their welfare levels in times of difficulty. They are rather more likely to adopt to the cultivation of low return (and also low risk) crops that can feed their families. Verpoorten (2005) reports that, in Rwanda, households did not in general sold cattle in response to conflict as they would do as a response to other shocks (see Fafchamps, Udry and Czukas, 1998). This is because road unsafety prevented households most targeted by violence from accessing markets where cattle could be sold, at the same time that cattle was seen as an insecure asset, likely to be targeted by violence. Households less affected by violence sold their cattle but suffered from overall lower prices (Verpoorten, 2005). This will in turn affect the ability of households to accumulate sufficient assets to escape poverty and reduce their vulnerability of poverty.

3.2. Return to subsistence agriculture and other low-risk activities

Minimising risky activities is probably the most widely observed effect in times of conflict, in the run-up to a war as well as in the post-war period (see Brück, 2004). Ex-ante, households that predicted occurrence of political violence will tend to hold a lower risk/lower return portfolio of activities in order to minimise their risk of serious income shortfall, even at the price of a lower average return. Similarly to the mechanisms outlined in Morduch (1995) and Dercon (2002), in times of violence, rural households tend to return to subsistence farming (see Brück, 2004a; Deininger, 2003; McKay and Loveridge, 2005). This is true for both households that typically hold little or no liquid assets such as livestock and for those that are specifically targeted by the conflict. Increased levels of socio-economic instability and loss of trust between different individuals and groups accentuate these mechanisms. Deininger (2003) shows that civil strife in Uganda during the 1990s reduced the propensity of individuals to start up new enterprises and made more likely that those which had already been established had gone out of business, possibly back into subsistence forms of agriculture.

Brück (2004a, 2004b) discusses how war-time activity choices during the Mozambican civil war (such as subsistence farming) may improve the welfare status of vulnerable households living in extreme poverty when market and social exchange limit any welfare gains. McKay and Loveridge (2005) report that, in Rwanda, during the genocide in 1994 and subsequent insecure years, the retreat to more autarkic modes of production and the focus on subsistence crops was associated with the improved nutritional status of children in the post-conflict

period. Reductions in income do not necessarily imply a worsening of the nutritional standard when the farm household substituted food crops for cash crops (McKay and Loveridge, 2005). Evidence on the potentially positive effects of autarkic modes of production in conflict and post-conflict situations must of course be balanced against the extent of income/asset loss due to the destruction of markets and market access. This area of research is still in its infancy.

3.3. Intra-household reallocation of labour

The direct impact of conflict on the composition and cohesion of households can lead to severe human capital depletion resulting in significant changes to labour allocations within the household. Deaths and injuries are some of the most visible effects of violent conflicts, requiring significant adaptation within the household. Donovan et al (2003) analyse the effect of adult death on Rwandan households using self-reported coping strategies collected in interviews with 1500 rural households. They found that some households sell assets, adjust their crop mix, adjust area planted or/and hire in more labour. The effect on farm labour supply was dominant: 6 out of 10 households reported a reduction in farm labour due to a male adult death and 5 out of 10 for a female adult death. Half of the households reported no effect on other income generating activities for a male death and 80% did so in case of a female adult death. In the case of Tanzania, Beegle (2005) did not find any increase in hours farmed by surviving household members after an adult death, but found decreased activity in the farming of maize, cassava and beans. She draws attention to the fact that households experiencing decreased income or farm output after an adult death do not necessarily experience a reduction of income, production or consumption per capita, as other household members may replace lost labour. These household members are typically women (widows) and children.

In times of stress, children are often needed for other activities (e.g. Jacoby and Skoufias, 1992; Baez and Santos, 2006). In particular, older children may be required to replace adult males that have become fighters, died or have been injured. Or they may be required to become fighters themselves. Deininger (2003) calculates that an increase of 10% in the proportion of households affected by civil strife in a given community in Uganda decreased investment in schooling by about one year of schooling. This effect is due to a complexity of reasons, amongst which are labour substitution effects, feelings of fear and insecurity and

changes in household social preferences. Shemyakina (2006) reports a drop in female enrolment rates following the onset of the 1992-1998 civil war in Tajikistan, and throughout the conflict. At the end of the war, in 1999, school enrolments were lower for girls aged 12-16 living in high conflict intensity areas. The main reason was a decrease in returns to education of girls (but not boys) in high conflict zones, leading to an increased preference for educating boys rather than girls. Interestingly, school enrolments of girls were higher in rural areas where access to subsistence agriculture implied less reliance on outside income.

3.4. Self-recruitment into armed groups

Armed conflicts may forge new opportunities for many and a number of actors have used conflict and violence as a means to try to improve their position and to take advantage of potential opportunities offered by conflict. Despite the potentially high individual costs, many choose to participate in fighting due to the presence of significant selective incentives (Olson, 1965).¹⁰ In several instances, becoming a fighter may be seen as a means to try to improve low welfares and as a rural livelihood coping strategy. Individuals may be attracted to militias and armies by the possibility of looting and other material gains. Recruitment may also be viewed as a viable alternative to unemployment by many. When joining militias or military groups, young men may get access to food and clothing as well as recognition and sense of becoming valuable which may not be available otherwise. Low returns to agriculture and high rates of unemployment may push young men into militias but may also be used as a strategy for risk diversification for households that anticipate being affected by armed violence. They secure themselves by supporting the militias and benefit from possible economic benefits offered by the militias.

Some studies have shown that socio-emotional motivations (e.g. doing the right thing, following community social norms, sense of justice) may matter as much or more than selective incentives in explaining individual participation in collective acts of violence (see Petersen, 2001; Wood, 2003). This has not ruled out strong evidence for individual response to selective incentives in armed conflict, particularly when selective incentives act as a form of coping with economic, social and political insecurity, and of protecting those that join acts

¹⁰ Mancur Olson (1965) lists the main selective incentives for participation in forms of collective action such as armed conflict as: coercion, monetary incentives, insurance, price discounts, erotic incentives, psychological incentives and moral incentives.

of violence and their families (Kalyvas and Kocher, 2006). Collier and Hoeffler (1998) stress the gap between the returns from taking up arms relative to those from conventional economic activities, such as farming, as the causal mechanism linking low income to the incidence of civil war. Humphreys and Weinstein (2004) report how RUF fighters during the recent Sierra Leone conflict were promised jobs and money as a form of alluring candidates. Another militia group, the CDF, helped to meet the basic needs of their members and provided increased security for their families. Material benefits were generally sufficient to satisfy basic needs but not much else, which may have attracted those individuals with little other livelihood options. Humphreys and Weinstein's analysis of fighters' profiles shows that more than 60% of fighters belonging to both CDF and RUF reported 'improve the situation in Sierra Leone' as their main motivation to join the militias, following by improved prospects of getting a job, more money and food in the case of RUF and protecting their families, jobs and money in the case of CDF.

In one of the only existing empirical analysis of profiles of conflict perpetrators, Verwimp (2005) shows that perpetrators of the 1994 Rwandan genocide are over-represented amongst the educated population of Rwanda, amongst those with a part-time or full-time off-farm activity and amongst those households with higher incomes and that eat more meat, milk and eggs. But they are also over-represented amongst the unemployed and quasi-landless households. In the words of the author: "the interests for members of both these groups to participate in the genocide is to be found in their respective relation to the land and labour markets. The landlords or employers had 'something to defend', meaning their job, their land, their farm or farm output and their overall privileged position in Rwandan society. The poor, landless group on the other hand, whose livelihood crucially depends on the availability of off-farm low skilled jobs (mostly working on someone else's farm) and/or the chance to land rent from a landlord, were in a very vulnerable position. They *could expect to gain from participation* [author's italics]: it has been widely documented that a large number of participants, mainly the rank and file among the perpetrators were very interested in the property of the murdered Tutsi. Among the property, land was a much desired asset" (pp. 29).

3.5. Non-forced migration

Collier (2000) suggests that diasporas in OECD countries increase the risk of a post-conflict country falling back into conflict largely due to some Diaspora funds funding armed factions.

This and similar evidence has resulted in large efforts being put into monitoring and limiting the international transfer of funds to conflict regions. But at the micro-level remittances can play a key role in mitigating some of the negative effects of armed conflict on livelihoods and household welfare. Migration has been arguably the most common form of household coping strategy in times of distress. The development literature has long recognised the importance of migration (and resulting remittances) as a mechanism used by households in non-conflict settings to secure their incomes and improve their welfare (e.g. Taylor, 1999; House of Commons, 2004; OECD, 2005). Evidence on the importance of migration in contexts of armed civil conflict is scarce. Violence is a significant motivation for migration, specially forced migration (Moore and Shellman, 2004). But even in conflict areas economic incentives may lead households to migrate (see Engel and Ibanez, 2007), either as an ex-ante reaction to the threat of conflict, or an ex-post response to unstable economic and political conditions. Households with less outside options or households that value less the welfare benefits of potential reception sites are less likely to migrate (see Czaika and Kis-Katos, 2007).

In recent years, there has been a dramatic increase in remittances originated from economic and political crises in migrant- and refugee-exporting countries (Goldring, 2002). Yet little is known on the impact of these on recipient households that return or are left behind in those countries. One reason is the difficulty in determined how migration and remittances are used as deliberate economic strategies on the part of households facing the situation of armed conflict (Lindley, 2007), either as an ex-ante security management mechanism or an ex-post reaction to violence. Other reasons are related to usual difficulties of doing research in conflict contexts: lack of data, insufficient official information on the flow of payments and transfers and difficulty of tracking remittances that are made through informal channels, such as *hawala* networks, or sending money through friends and relatives (Lindley, 2007). Remittances have, however, the potential to be important mechanisms of household security both during and after conflict. Justino and Shemyakina (2007) show that following the Tajikistan civil war in the 1990s, households in the conflict affected areas are more likely to receive remittances as compared to the households in the lesser affected areas (40 versus 36 percent), while the mean value of annual remittances is 12% higher regions in Tajikistan most affected by the civil war. Lindley (2007) examines the case of Hargeisa, Somalia. Though Diaspora donations and remittances have a significant role in shaping the political and economic development of Hargeisa, her study reveals that large-scale migration in the region, triggered by armed conflict, resulted in a valuable source of income for those left behind.

Remittances are used for general living expenses and human capital investments and less so for business and property. They have helped slowly to mitigate some of the economic and social effects of the conflict such as lack of assets to markets, loss of livelihoods, removal of children from school. They play a key role in women-led households where the breadwinner was lost to conflict (or migrated himself). Remittances can greatly affect labour force participation decisions of household members, in particular the decision to retain or enrol children in school, and consumption smoothing strategies. In many circumstances, remittances can act as the channel through which otherwise vulnerable households may avoid the traps of poverty and destitution following the direct and indirect impacts of armed civil conflict on their welfare.

4. Policy interventions at household level in conflict settings

The micro level processes of the type described in the previous sections are generally absent from most policy programmes aimed at preventing, managing, transforming and resolving violent conflicts. The difficulties associated with micro-level research processes of armed conflict and the resulting scarcity in empirical analyses means that such policies are being designed on the basis of very little hard evidence. There have been a few efforts to fulfil this gap but with little political impact thus far (see World Bank, 2005). The international development community has largely focussed its attention on reactive, damage-limiting policy frameworks to reduce insecurity, bring violent conflicts under control, and minimise their negative impacts on development (see Addison and Murshed, 2002; DFID, 2005). It has been less good at thinking strategically about how to cut through and reverse vicious cycles of armed conflict, how to build pragmatic and durable systems of local development and global peace that incorporate real assessments of individual and group behaviour and how to assemble synergies between local, national and international coalitions to support real change (see OECD, 2005). The ability to clearly identify how individuals and households behave, react and relate to other households and communities in armed conflict settings and a sound understanding of the consequences of resulting violence on their welfare and adjustment behaviour are critical to the design of effective post-conflict recovery policies, and essential to promote more proactive strategies amongst the development community in formulating adequate strategies to end armed conflicts, as well as prevent the eruption of new cycles of violence.

Emerging literature has increasingly argued for the need to combine traditional post-conflict policies, mostly concerned with state security, with structural development programmes that address important issues of human and economic security of individuals and groups (see discussion in Picciotto, 2007), such as those examined in the sections above. These measures are particularly important to reduce the risk of renewed conflict (Collier, 2000), as they can be designed to address social, economic and political risk factors – such as reduction in household welfare, changes in household behaviour, changes in social norms and local political alliances – that resulted in the outbreak of conflict in the first place and do not necessarily disappear after the conflict. At the same time, successful poverty reduction policies, including PRSPs, need to be conflict-sensitive by recognising the specific conflict factors present in each country and attempting to redress these factors (see World Bank, 2005).

This section aims to provide a starting point for further discussions on post-conflict policies that may potentially have important effects on the welfare of households affected by violence. A large literature already exists that discusses reconstruction policies from a macro-level perspective. This section focuses on particular policies targeted at households, and intends to complement that literature. We discuss two types of policies, which we have designated by reconstruction policies and assistance policies.

4.1. Household-level reconstruction policies

Despite the various strategies adopted by households living in areas directly and indirectly affected by armed conflict, vulnerability, poverty and deprivation remains high amongst large numbers of households. This is to a large extent caused by severe market imperfections, such as limited opportunities to use assets as insurance due to violence, as well as constraints in credit and insurance markets. It is also caused by constraints to adopting effective forms of income diversification due to poor property rights, limited or no access to existing and new market opportunities, the breakdown of the rule of law and increases in physical security. In the post-conflict period, the challenges of reintegrating ex-fighters and displaced populations, and of rebuilding institutions, infrastructure and communities torn by violence hinder further the process of reconstructing household welfare. We examine two types of household-level reconstruction policies: restoration of community relations and market recovery programmes.

4.1.1. Restoring community relations

Policies aimed at promoting sustainable peace structures must address seriously the breakdown of households and communities caused by armed conflicts. In particular, displaced populations and demobilised soldiers left without outside social and economic options are likely to create a group of people who may have little to gain from a return to peace. Unless their conditions are improved noticeably, this can well undermine attempts for sustainable conflict resolution. Successful integration of displaced populations into society is a key precondition to avoid the economic decline that makes it more difficult to bring civil unrest to an end (Walter, 2004) and that may provide the basis for rebels to recruit fighters to expand violence elsewhere (Sandler and Enders, 2004). Attempts to end internal conflicts and eradicate the sources that originate them will have to be built upon a better comprehension of the dynamics of displacement (Castles and van Hear, 2005), as well patterns of resettlement during and after conflicts. For instance, the increase in asylum applications and refugee populations from conflict zones since the late 1980s has led to considerable public concern within the European Union. Their influence can be positive, through providing capital, skills and leadership for peace-building. But diasporas can also support the continuation of conflicts, and engage in illegal cross-border activities (van Hear, 1998, 2003). Many refugees and migrants from conflict zones suffer social exclusion in their resettlement regions, which can lead to radicalisation and criminalisation. This has been observed both in receptor countries in Europe (van Hear, 2003), but also in areas within the country where refugee and displaced population moved into new communities (see Steele, 2007 for Colombia). On the other hand, the demobilisation of troops and returned refugees and displaced populations to sites of origin (or their resettlement in new sites) may create competition for available scarce resources (such as jobs, land, assets, available services like health care and so forth). This may also create new forms of exclusion and sources of further instability.

Not everyone is willing to return to their regions of origin, either because they have lost all links to their former relations or because they still fear violence and criminality in the immediate post-conflict period. Deininger et al. (2003) in a pioneer study of displaced populations note that “return programs should be particularly targeted to households with access to land, agricultural employers or families with strong links to collective actions organizations. Such households are less equipped to face the conditions of urban areas. Return programs should also focus on recently displaced households. As the displacement period

increase, households adapt to the reception site and, therefore, may rather settle in the new place of residence than face an uncertain situation in their villages of origin. On the other hand, vulnerable households or families that flee after being the victim of a violent event reveal a lower disposition to return. Policies for this group of the displaced population should concentrate on supporting the settlement process in the reception place” (pp. 26). Similar empirical evidence in other conflict contexts would be invaluable for the success of post-conflict policies of reintegration, the re-building of destroyed societies and networks and the prevention of new conflicts.

It is a well-known fact in the anthropological literature that armed conflicts lead to changes and reconstruction of identities before, during and after the conflict and the emergence of new norms and forms of organisation and cooperation amongst communities. These changes often facilitate violence and create ways in which they can be manipulated before and during armed conflict to support the overall aims of leaders. Understanding these issues and bringing them into political and legal processes of conflict mediation and resolution can facilitate work with communities to resist involvement in violence, though this area of research is still in its infancy. One issue of particular importance is that of considering young people (which before the conflict provided key conditions for the formation of fighting units) as key actors both in peace and war times, and the need to channel their energy into productive activities. Young people constitute one important target group for post-conflict reconstruction policies. Although large attention has been given to the thorny issue of child soldiers, less attention has been paid to the potential impact of young people’s political views and activities, and the role of young people as political actors in the post-conflict period, with highly developed political views and experiences of politics (Clark, 2007). Another group of interest is that of refugees that remain in their new locations or return to their former communities. Their status often brings about tensions with those who stayed behind. At the same time, different experiences by different refugee groups can contribute to different conceptions of how to build or re-build citizenship (Clark, 2007). The success and sustainability of post-conflict reconstruction policies will depend greatly on the meaningful participation of these groups in decision- and policy-making processes.

4.1.2. Market recovery programmes

Post-conflict policies must create mechanisms to support those that suffered the greatest welfare losses, generate sustainable income generation processes, strengthen property rights and regulate (and, in many circumstances, rebuild) credit and insurance markets. The reconstruction of former and the support of new processes of income generation are fundamental to bringing household affected by armed conflict into sustainable paths of recovery and to remove households from poverty traps. One example is the establishment of cooperative arrangements amongst communities (see Wood, 2003 for El Salvador). Of key importance for the reconstruction of household welfare is the generation of employment opportunities and enhancement of the productive capacity of households that lost productive members (such as those led by widows) and households that need to rebuild themselves once ex-fighters (including children) are demobilised and refugees return to original communities. This requires a strong focus of post-conflict reconstruction policies in guaranteeing the well-functioning of property rights and of credit and financial institutions.

Economic analysis have shown extensively how well-defined property rights influence significantly the potential for economic growth in any given country through investment incentives (resulting from larger certainty in future returns to capital and labour), increased credit market access and increased land productivity (see Soto, 2000; Deininger, 2003). The role of property rights in both the onset of armed conflict and in the post-conflict period is less well-understood.

Accounts of recent civil wars have put land appropriation at the heart of the main motives for the onset of violence (see discussion in Brockett, 1990; Wood, 2003 and Verwimp, 2005). Access to land is important for both rebel groups and state actors as it provides territorial control of populations and resources. For instance, massacres in Colombia often take place in order to terrorise the population into facilitating the appropriation of land titles. Therefore, weak institutions may facilitate the appropriation of land titles, open opportunities for the capture of resources and ease the displacement of households and communities. Velasquez (2007) shows that in Colombia the introduction of greater formality of property rights leads to an immediate increase in attacks by armed groups; but it reaches a point where the greater formality dissuades the presence of armed actors. This is because legality over land plots hinders military strategies of appropriation by armed actors, therefore deterring military attacks and decreasing the intensity of the conflict. In contrast, Velasquez's statistical analysis shows that the informality of property rights in key areas of combat in Colombia has

influenced positively the decision to attack by armed groups, as well as the intensity of the attacks. Evidence-based research is still incipient but results show strongly that the implementation and strengthening of institutions that guarantee the formalization of land titles is crucial to the establishment of sustainable peace in post-conflict periods (see Ibanez and Moya, 2005; Velasquez, 2007).

But strengthening property rights is not a linear process that results inevitably in lower conflict. In a recent study, Butler and Gates (2007) show that simply increasing property rights without addressing equity issues can in fact increase the level of conflict in society, since it may add to existing grievances. Successful efforts to strength property rights in post-conflict settings must comply with issues of fairness and equity in order to address potential bias that either existed or may arise in property titles (for instance, granting land titles to small farmers that work the land but do not hold formal titles). This finding has significant implications for international organizations and peace treaties that encourage state governments to focus on strengthening property rights institutions without addressing central issues of equity, fairness and social justice (see Butler and Gates, 2007).

In addition to property rights, market recovery programmes must also address the challenge of rebuilding credit and other financial markets. A large literature has shown the importance of access to credit for households in developing countries and how credit constraints hinder development and contribute to the establishment of pockets of structural long-term poverty. Building credit market recovery into post-conflict policies to support incipient forms of economic activity is therefore of key significance to lift households affected by armed conflict from potential poverty traps and to avoid further marginalisation of excluded groups. Microfinance services, including savings, credit and insurance facilities, have been used in specific circumstances to address the economic security of households in the post-conflict period, support the return to farming of rural populations that may not have access to the formal financial sector (which may itself have been destroyed by the conflict) and aid the reconstruction of key financial institutions and capital and insurance markets at the community level. Venkatachalam (2006) shows evidence for the success of these policies in the period after the civil war in Tajikistan. The main findings of this research show that microfinance services have generated significant additional business income that enabled household members (particularly women) to spend more on meeting the basic needs of their household. Household-level post-conflict policies must consider the central role that this and

other financial instruments can play in reconstructing livelihoods and spurring economic activity.

One of those additional instruments is remittances. Remittances can play a crucial role in rebuilding credit and other financial markets. The international community has paid enormous attention to limiting international income transfers in order to limit the funding of armed groups or terrorist groups by Diaspora. However, income or in-kind transfers from migrant, refugee or asylum-seeking populations may play a significant role in helping populations in post-conflict settings rebuilding their livelihoods and recovering their pre-war consumption levels, as well as moving out of poverty trap courses. Although the international community has focussed on the role of aid in rebuilding livelihoods, the role of remittances should not be overlooked.

It is clear that in many circumstances remittances are channelled towards supporting specific political and developmental agendas (see Lindley, 2007 for Somalia). However, the establishing appropriate institutions to encourage the channelling of remittances to social services, the rebuilding of household capital (physical and human) and infrastructure rebuilding may overcome other social and political constraints, may stimulate local credit and financial markets (when remittances are channelled through local banking systems) and may even allow access to new employment opportunities by those release from farm work, as well as encourage the creation of new jobs through the establishment of new economic activities.

4.2. Household-level assistance policies

The standard approach to the provision of assistance to countries in conflict has been to focus on humanitarian assistance and emergency relief, while less effort has been put into more developmental approaches. In particular, the potential use of compensatory policies, including social protection policies and safety nets has been largely ignored in post-conflict reconstruction programmes. Justino (2005), using state-level empirical evidence for India, shows that in the medium-term (i.e. over a period of five years), public expenditure on social services and improvements in education enrolments are effective means to reduce civil unrest and prevent the outbreak of violence, as they affect directly the level of poverty across Indian states. But little evidence exists on the role of social protection policies in re-establishing livelihoods and social cohesion in post-conflict settings.

The role of social protection policies and safety nets in supporting household welfare in stressful circumstances is well-known. Safety nets can be effective in lifting trapped households out of poverty, in particular those with enough capacity to accumulate assets but that were pushed into poverty by several factors including the direct effects of armed conflict (such as displacement, death of household members, and so forth). Their pre-conflict welfare could potentially be recovered by well designed net asset transfer schemes. These can be combined with productive safety net policies to prevent them from falling below the poverty trap threshold (see Barrett and Carter, 2006).

This of course raises less than comfortable questions on how best to support government social interventions when budgets are depleted, organisational infrastructure is weakened or inexistent and state government must compete in many areas of dispute with organisational arrangements established by rebel groups amongst communities that they controlled during the conflict. This is an important though neglected area of focus for post-conflict policies as household insecurity and competition for local governance in the supply of local public goods may well influence the sustainability of peace and the strength of potential for further rebellion in the future.

5. Final reflections and future research

This paper proposed a conceptual framework to understand the endogenous nature of armed conflict processes at the household level. The paper discusses important transmission mechanisms from armed conflict to household welfare, as well as changes in the economic, social and political behaviour of households directly and indirectly affected by the processes of violence generated by armed conflict. These mechanisms were substantiated by recent empirical findings. However, despite this welcoming surge in empirical evidence on micro-level processes of violent conflict, we still lack considerable evidence on fundamental processes linking armed civil conflict and household welfare. Effective analysis and refinement of the mechanisms outlined in this paper requires serious advances in existing knowledge on micro-level processes resulting from armed conflict. First, we require great theoretical efforts in linking existing evidence and literature on sociological, economic and political aspects underlying collective action, with the analysis of psychological categories of real actors of armed conflict and their preferences, including issues of group identity and

perception, which under certain circumstances may trigger violence. The ability to map how different categories of individuals and households (and groups) participate and/or are affected by different processes of armed conflicts and the violence generation processes during and after the conflict, and how norms and behaviours that determine relationships between and within communities are shaped by the conflict, would be useful exercises in ensuring that conflict-related policies are adequately tailored to the needs and demands of different groups affected by violence. The second requirement for further advances in this area of research is the development of new databases and new and more appropriate methodologies for the empirical analysis of processes of armed conflict at the micro level. One of the main challenges to understanding conflict from a household level perspective is the absence of adequate datasets. This partially results from the focus of traditional security studies on the state and state agency. There are also a number of difficulties associated with the collection of data in conflict areas, not least of which are the destruction associated with violence and potential ethical and security challenges to research in areas of conflict. Micro-level data analyses of conflict contexts face additional methodological challenges, such as selection effects, the fact that conflict events tend to be highly clustered geographically, the fact that many of the occurrences or types of actors that conflict surveys will want to focus on may be in very small numbers and difficulties in linking the objects of surveys with contextual information.¹¹ Further advances in the micro level empirics of armed conflict would allow more precise identification of factors leading to the success or failure of conflict recovery (and even prevention) measures and their impact on household welfare. We expect the framework proposed in this paper to act as a benchmark for further work on the analysis of the relationship between armed conflict and household welfare, including much-needed efforts at gathering further empirical evidence.

¹¹ There are already a number of useful surveys that can be adapted and new surveys are being collected. For details see www.hicn.org and www.microconflict.eu.

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