Do conflicts create poverty traps? Asset losses and recovery for displaced households in Colombia [¥]

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Abstract

Internal conflicts entail large asset losses for certain segments of the civilian population. Asset losses may compromise the future welfare of households, thus leaving a legacy of structural poverty that is difficult to overcome. The purpose of this article is to analyze how asset losses occur during internal conflicts as well as the process of asset accumulation following the initial shock. We concentrate on a particularly vulnerable group of victims of war—the displaced population in Colombia. In achieving our objective, we adopt quantitative and qualitative approaches by: (i) providing a detailed description of losses stemming from forced displacement; (ii) analyzing qualitative evidence so as to understand the asset recovery processes for the displaced population; and (iii) estimating OLS, Instrumental Variable and quartile regressions in order to identify the determinants of asset losses stemming from forced displacement, and asset accumulation following the initial shock. The results indicate that recuperating asset losses or accumulating new assets is a rare event; only 25 percent of households are able to recover their original asset base, while asset ownership still seems insufficient for overcoming poverty. In addition, displaced households do not catch up even after consolidating settlement at destination sites. Therefore, unless a positive intervention is implemented, displaced households become trapped in a low income trajectory, and are unlikely to leap forward to a high return asset level.

Key Words: forced migration, civil conflict, asset losses, structural poverty, quantile regressions.

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1. Introduction

Internal conflicts may entail large asset losses for certain segments of the civilian population. During internal conflicts, the main victims of war are civilians targeted by armed groups seeking to consolidate territorial strongholds, expand territorial control, and/or seize valuable resources (Azam and Hoefler, 2002). Physical assets are destroyed, abandoned or seized illegally by armed groups (Matowu and Stewart, 2001; and Brück, 2004); financial markets may be disrupted by war activities, and access for particular households may become difficult; and informal risk-sharing mechanism are generally undermined. The losses of physical, financial, social and human capital are therefore substantial.

As a result, internal conflicts may leave a legacy of structural poverty that is difficult to overcome. The recovering of assets after a shock is seldom likely for households located at the lower end of the income distribution, and the negative conditions generated by conflict only serve to aggravate this situation. In addition to the loss of physical assets, victims of conflicts face the possible death of household members, restrictions with respect to financial markets, the destruction of social networks, and often insurmountable obstacles to entry into urban labor markets.

The costs of civil conflict often prevail even after peace is achieved. Conflicts congest the law enforcement system, lower the probability of punishment, diffuse criminal knowledge and technology, and erode morals, thus promoting the emergence of criminal and illegal activities (Gaviria, 2000). When the conflict ends, criminal violence sometimes soars as the respective destructive technology [or ‘is now utilized for criminal activities’]; Guatemala and El Salvador, for example, experienced soaring crime rates after peace agreements were reached (Moser and Winton, 2002). Hence, active public action aimed at preventing an increase in criminal violence, restoring households to previous asset levels, and stimulating growth are required as a component of post-conflict reconstruction.

The purpose of this article is to analyze how asset losses occur during internal conflicts and the process of asset accumulation following conflict-induced shocks. In order to achieve this objective, we concentrate on a particularly vulnerable group of victims of war—the displaced population in Colombia. Three questions are examined. First, we seek to understand the process and magnitude of asset losses caused by internal conflict. Second, we explore the extent to which the dynamics of the conflict and the purposive

targeting by armed units of certain groups within the population determine the magnitude of asset losses caused by forced displacement. Third, we investigate the process of asset recovery by identifying which households are better able to accumulate new assets. In addressing these questions, we rely on the household surveys of 2,322 displaced Colombian households, as well as qualitative studies conducted for the World Bank's 'Moving Out of Poverty' Study.

The structure of this article is as follows. In the second section, we examine the economic literature for the purposes of understanding how asset holdings shape economic welfare; explaining how households adopt strategies to accumulate and protect assets; and describing how a lack of assets creates poverty traps. The third and fourth sections present the qualitative and quantitative data, and the model and results respectively. Section five concludes.

2. Asset accumulation dynamics and poverty traps

Standard microeconomic models predict that in the presence of decreasing returns on assets, poor households eventually catch up with wealthier ones in their respective welfare trajectories. Nevertheless, locally increasing returns or exclusionary mechanisms—such as imperfect credit markets—may hinder convergence, and multiple equilibria may arise, restricting some groups to low income trajectories. Where investments are lower due to credit market imperfections, investment indivisibilities or behavioral components,[1] some economic agents will prove unable to accumulate sufficient asset holdings so as to surpass critical thresholds and thus reach a higher economic trajectory (Galor and Zeira, 1993; Durlauf, 1992; Mookherjee and Ray, 2002; and Carter and Barret, 2006).

Structural poverty then is strongly correlated with initial conditions, such as an insufficient asset base. When returns on small asset holdings are insufficient, income will barely cover subsistence needs, thus leaving a negligible surplus for saving. Although credit is an alternative mechanism for accumulating assets and thus crossing the critical threshold for moving out of poverty, access to credits is often restricted for low income households; this is even more so in developing countries. Sacrificing short-term consumption in order to build up an asset base is also difficult when a household is close to subsistence consumption levels. These constraints may push households into

[1] Mookherjee and Ray (2002) argue that households may not step-up savings due to habit persistence, myopia, or a limited rationality.

poverty traps, as initial asset inequalities tend to reproduce and deepen themselves over time (Carter and Barret, 2006; Zimmermann and Carter, 2003; Reardon and Vosti, 1995; and Rosenzweig and Binswanger, 1993).

Aside from determining the ability of households to generate income, assets are an important insurance mechanism for coping with shocks (Little et al, 2006). As a precautionary measure, households often accumulate non-productive assets, which may easily be liquidated when shocks arise (Fafchamps et al, 1998; Rosenzweig and Wolpin, 1993; and Corbett, 1988). When shocks occur, households rely on non-productive assets while simultaneously protecting productive assets. The latter are only sold if conditions become extremely harsh, and it becomes absolutely necessary in order to avoid compromising long-term consumption and welfare (Corbett, 1988).

Consequently, households usually adopt several strategies to prevent disposing of productive assets during times of crisis. Credit markets often ration out low income households, and insurance mechanisms are generally not sufficient to completely reduce income risks (Townsend, 1994; Ligon et al, 2001; Foster and Rosenzweig, 2001; and Fafchamps and Gulbert, 2006). As a result, households are often compelled to adopt other strategies for protecting assets. A common strategy is to sacrifice short-term consumption in order to avoid the distress sale of assets (Carter and Barret, 2006; Hoddinott, 2006; Barret et al, 2004; and Zimmermann and Carter, 2003). In fact, households tend first to adopt reversible strategies; only as options for mitigating risk become exhausted, strategies which may compromise future consumption—such as forced migration and the sale of land sales—are adopted (Corbett, 1988).

Poor households, however, have limited alternatives for protecting assets, which leaves them ill equipped to cope with shocks, and thus highly prone to falling into poverty traps. In the first place, poor households are near subsistence consumption levels to begin with; reducing consumption in order to build up an asset base hardly constitutes an alternative (Barret et al, 2004). Additionally, immediate reductions in consumption may imply long-term costs such as school interruption, drops in nutritional status and reductions in human capital investment, all of which would most likely compromise future consumption (Carter and Barret, 2006; Jensen, 2000; Jacoby and Skoufias, 1997; Foster, 1995; Behrman, 1988; and Corbett, 1988). By reducing human capital, depleting physical capital, and/or destroying social capital, shocks may push households into poverty traps. If shocks lead to irreversible asset losses or persist from one period to the

next, the negative consequences may become permanent, and income may fall below the critical wealth threshold for several periods (Hoddinott, 2006; Dercon, 1998).

Longitudinal studies and qualitative evidence show that structural poverty is frequently related to asset deprivation; conversely, the existence of a solid asset base is a strong determinant of upward mobility (Krishna et al, 2006; Adato et al, 2006; Barrett et al, 2004; Little et al, 2006; Hulme and Shepherd, 2003; Barrientos and Shepherd, 2003; Sen, 2003; and Carter and May, 1999).

Socio-demographic characteristics, human and social capital, labor markets, and shocks also constitute factors related to structural poverty. By providing support for finding a job, capital for productive activities, and assistance to mitigate crises, social capital facilitates movement out of poverty (Adato et al, 2006; Barrett et al, 2004; and Little et al, 2006). Human capital, paired with access to labor markets, is also an important mechanism for moving ahead, particularly where asset holdings are low. Moreover, investment in human capital allows people to move from low productivity (and low paying) jobs to high productivity ones, thus creating a virtuous cycle (Adato et al, 2006; Krishna et al, 2006; Barret and McPeak, 2006; Barret et al, 2004; and Sen, 2003). Lastly, the empirical evidence identifies large shocks as determinants of downward mobility and structural poverty. The death of wage earners, serious illnesses, famines and civil conflict may push households into structural poverty if the victims are not provided proper aid (Adato et al, 2006, Hulme and Shepherd, 2003; and Corbett, 1988).

During periods of internal conflict or civil strife, the illegal appropriation, destruction, erosion, and depletion of assets become widespread, generally laying down a legacy of structural poverty for a considerable segment of the population,. This in turn may sow the seeds of future conflicts. First, armed groups seize assets from the civilian population for the purposes of financing the war and weakening support among the population for their opponents (Hirshleifer, 2001). Added to this, although conflicts may have initially erupted as a consequence of specific grievances, the duration and sustainability of the conflict is greatly determined by the capacity of armed groups to extract rents and appropriate valuable assets from the civilian population. Consequently, the loss of physical capital, especially land, during conflicts can sometimes be substantial (Engel and Ibáñez, 2007; Matowu and Stewart, 2001; and André and Platteau 1998). Second, inasmuch as the civilian population is targeted by armed groups, household disintegration—caused by the death and forced recruitment of

household members—becomes widespread,; this leads to [or 'translates into'] large losses in human capital. In addition, since some households are forced to migrate from urban to rural areas, returns on their human capital—that is, knowledge related to agricultural production—deteriorates significantly. Third, conflicts severely disrupt formal and informal risk-sharing mechanisms; access to financial markets decreases, informal lending plummets, and links to social networks are weakened. Consequently, the victims of internal conflict are more likely to fall into chronic poverty (Justino and Verwimp, 2006).

3. Civil Conflict, Crime and Forced Displacement in Colombia

This section presents a brief history of civil conflict in Colombia, its relation to crime, and a description of the data. Civil conflict in Colombia was triggered towards the end of the early-sixties by the emergence of several left wing guerrilla groups—the FARC, ELN and ERP. Guerrilla-related violence intensified during the late-seventies and early-eighties with the appearance of illegal marihuana and coca drug crops. Illicit drug trade provided rebel groups with massive resources, and has fueled the conflict ever since. These resources also funded the creation of right-wing paramilitary groups with ties to drug barons and land owners, and which in most regions, have contested the power of guerrilla movements. The emergence of paramilitary groups, coupled with the increased resources generated by the illegal drug trade, intensified and prolonged the conflict throughout the country (Gaviria, 2000; Thoumi, 2002).

Additionally, the conflict generated favorable conditions for the emergence of crime. Gaviria (2000) shows that the conflict, by congesting the law enforcement system, lowering the probability of punishment, diffusing criminal know-how and technology, and generally eroding morals, has promoted the emergence of crime and drug-trafficking in Colombia. The appearance of drug trafficking only served to reinforce this trend by further eroding the ability of the Colombian Judicial System to properly function, while bringing about the spreading of crime (Montenegro and Posada, 2001).

Intensification of the conflict has caused an escalating trend of attacks against the civilian population and has been the main cause behind forced displacement. Aggression directed at civilians has constituted an explicit and rational strategy for armed groups, as a means of funding their activities and consolidating and expanding their territorial strongholds. Forced displacement, in particular, has become a prevalent strategy for weakening the support of opponents among the population, clearing regions

for the growing and trafficking of illegal crops, and expropriating land and resources (Engel and Ibáñez, 2007). At the present time, forced displacement affects more than 3.5 million people, a number corresponding to about seven percent of Colombia's population. This is a figure that stands out worldwide (Ibáñez and Velásquez, 2009).

In order to assess how asset loss actually transpires during internal conflicts, as well as the process by which assets are accumulated following the initial shock, we rely on two sources of data. The first one is a household survey of displaced Colombian household, conducted in 2004 and 2005. The second one contains qualitative data from the community reports generated by the World Bank's "Moving Out of Poverty" Colombian case study. Both data sources are described in the following paragraphs.

Regarding the first source, the sample of household-level data comprises 2,322 displaced households located in 48 municipalities[2] across 21 departments. The survey elicits information regarding the forced migration process, socioeconomic conditions before and after displacement, land tenure status, agricultural production, and access to government aid. The migration process is characterized at length through the information collected regarding the armed actors who cause displacement, the triggers behind displacement, and the reasons for choosing a particular reception municipality. Data concerning the socioeconomic conditions before and after displacement were gathered with respect to household composition, health status, access to health services, school enrollment, access to labor markets, labor income, asset ownership, access to formal and informal credits, and the level of participation in formal organizations. Two sections with detailed questions about access to land, the characteristics of plots, land losses, the likelihood of recovering land upon return, and agrictural production were also included.

To achieve these objectives, we constructed a treatment group sample comprised of 769 displaced household beneficiaries of income generating programs, and a control group comprised of 1,553 displaced household non-beneficiaries of such programs.The control group is representative of the displaced population at large, while the treatment group is representative of those displaced households which are the beneficiaries of income generating programs.

[2] Municipalities are the smallest administrative units in Colombia. Departments are similar to states in the United States.

Given the large mobility of the displaced population and their unwillingness or fear to have their place of residency divulged, constructing a representative sample of it is difficult. In constructing the sample, we could have relied on two data sets of displaced persons. The first data set, RUPD, is the official registry of displaced persons and contains all displaced households who are beneficiaries of government assistance. To register in RUPD, displaced households must actively seek out government institutions and legally declare their status, which must then be verified by government authorities. Consequently, the registry suffers from significant underegistration, due to misinformation, arbitrary decision-making by public officials and biases inherent in the registration process (Ibáñez and Velasquez, 2009). Moreover, the RUPD data provides little detail concerning the displacement process and household structures. The second data set is the RUT System, which covers (i) displaced households requesting assistance from any of the 3,764 Catholic parishes scattered throughout the country; and (ii) those households included in censuses conducted in certain municipalities by the Catholic Church. A detailed questionnaire was applied to a sample of displaced households taken from this data set.[3] The resulting data contained information concerning 32,093 households and nearly 150,000 people. Although the RUT system is not representative of the displaced population as a whole, the detailed questionnaire provides ample information useful for constructing a stratified sample. Consequently, the design for the control sample was based on the RUT sample.

The control sample was divided into two sub-samples to correct for RUT bias: (i) 794 RUT households; and (ii) 759 non-RUT households. A stratified sample was selected from the RUT sample; enumerators then proceeded to locate the RUT households and administer the survey. Even though the RUT sample covers all of the municipalities that have received displaced persons, only certain households are included in this data base, thus allowing for a sample bias. To correct for this bias, for each RUT household surveyed, we tracked and surveyed a non-RUT displaced household in the same neighborhood. Given that the RUT provides rich information for constructing a stratified sample, and covers a wide geographical area, we found that this strategy is appropriate for reducing the RUT bias. In fact, a recent survey representative of the

[3] The survey elicits information aimed at identifying the causes of and actors responsible for displacement, household characteristics, land tenure status, access to labor markets and the level of education before and after displacement, as well as the different needs of displaced persons/households. The questionnaire also seeks to gain information regarding participation in organizations and the willingness of displaced households to return to respective points of origin.

displaced population shows that the observable socio-economic characteristics are indeed similar to those highlighted in our sample (Garay, 2008).

The beneficiaries of income generating programs were surveyed in the same municipalities selected from the RUT and non-RUT samples. Households were randomly selected from a beneficiary list provided by three organizations responsible for implementing these programs. Such programs seek to boost the productive activities of displaced households by offering labor training, courses for small enterprises' management, and seed capital for initiating productive activities. Information about the programs is disseminated through massive information campaigns. The potential beneficiaries, identified during an initial stage, must prove that they are displaced persons and have been recipients of Emergency Humanitarian Aid (EHA).[4] Households with high dependency ratios, female-headed households and households with younger heads have priority over other households. Once the potential beneficiaries are selected, program operators visit their homes to verify the declared conditions, as well as to design a preliminary support plan.

After the visits, the pool is further narrowed, and a relatively small group of potential beneficiaries is selected. This group must attend training programs where they learn how to design labor or small enterprise plans; these are then submitted to a committee, which in turn selects the actual group of beneficiaries. Benefits include labor training, small enterprise courses, or a combination of both, as well as psychological support. By the end of the program, labor and enterprise plans should be fully designed. Those beneficiaries who have submitted the former are hired by private firms for short-term practice. During this period, their wages are funded by the implementing organizations; the practice concludes three months later, after which, the private firms can decide whether they wish to hire the beneficiaries. Detailed small enterprise plans should include a feasibility analysis, an investment schedule, and a business plan. The beneficiaries of small enterprise training receive a maximum sum of US$500 as seed capital with which to initiate the economic activity designed during the program.

In addition, we used qualitative data from the community reports of the World Bank's 'Moving Out of Poverty' study. The purpose of the study was to understand the factors

[4] Emergency Humanitarian Aid is provided to those displaced households that are registered in the State Official Registry System. This assistance is provided during the first three months of displacement, and covers food aid, cash to cover transportation needs, and housing costs for up to three months.

that help or hinder movements out of poverty. Eight case studies were undertaken at return and destination sites for displaced households in Colombia. The community reports allow us to understand the impact of forced displacement, how forced migration imposes asset losses upon displaced households, and the process by which some households are able to recover assets and steadily improve their living conditions at destination sites. By mixing qualitative and quantitative evidence, we are able to identify which households are better able to recover from displacement shock, as well as the dynamics behind this recovery.

4. Empirical Analysis

The purpose of this section is to understand how a severe shock, namely internal conflict and forced displacement, causes asset loss, and how households are able to recover from this shock. We adopt both quantitative and qualitative approaches in order to achieve our objective, inclusive of: (i) a detailed description of the losses stemming from forced displacement; (ii) qualitative evidence which enables us to understand the complex process by which a displaced population recovers it assets; and (iii) OLS, Instrumental Variable and quartile regressions so as to identify the determinants of asset losses as a consequence of displacement, as well as asset accumulation after displacement.

4.1. Qualitative analysis

This section describes the impact of forced displacement on its victims based on qualitative data from the eight case studies of the World Bank's 'Moving Out of Poverty' Colombian case study. We assess the impact of forced displacement on household welfare, examine the process of asset loss, and identify the three different groups of displaced households that emerge after the process of migration and asset loss.

4.2.1. Welfare impacts of forced displacement and the process of asset losses

Civil conflicts impose economic costs even before displacement takes place. In the Colombian case, civil conflict and the presence of armed groups has halted economic production, undervalued assets, and hampered government support. Guerrillas and paramilitaries have increasingly exerted control over the civilian population, its social relations, and productive activities. As a result, towns in conflict zones face fewer economic opportunities, a sudden stop in agricultural production, a drop in daily

agricultural wages, and pervasive unemployment. The presence of illegal armed groups also undermines governmental support and erodes social capital in some communities. Access to labor training, technical assistance programs, credits, and support for productive projects has thus basically disappeared. The prospect of renewed violence and the fact that communities become stigmatized as belonging to "conflict zones" increases uncertainty, decreases land value, and leads households to cut back on investment.

Forced displacement, on the other hand, produces substantial losses of physical assets, which translates into vulnerability to poverty. Displaced households lose or abandon their life's work, crops, animals, lands, land improvements, investments and houses. As a result, such households experience a harsh and sudden decline in living conditions and productive capacity. Moreover, losing land and other physical assets not only hinders a household's capacity to earn income, it also eliminates the possibility of production for self-consumption. A lack of land access entails fewer economic opportunities, impedes the ability of households to cope properly with the shock of displacement, and is generally identified by households as the predominant factor underlying their descent into poverty.

Some households—mainly those which migrated as a preventive measure—were able to sell their assets prior to migrating. Such sales allowed them to mitigate the displacement shock during the first months of settlement, and to enjoy better economic conditions at destination sites. Frequently, however, such sales took place at prices well below market levels. Such distress sales barely covered consumption needs for a few months, and conditions generally worsened significantly once savings were exhausted; thus, while they postponed the erosion of asset bases, they did not prevent it.

Participation in urban labor markets was slow due to the depreciation of human capital, discrimination against displaced persons, and the fragile psychological conditions resulting from being victims of violence. Given that displaced households mostly arrived from rural areas and that their working experience was limited to agricultural activities, the returns from "agricultural human capital" generally decreased in urban areas. Conflict and forced migration may also have caused psychological disorders, which often produce a sense of helplessness, defeat and irrational fear. People facing such disorders were usually scared to venture out of their homes and search for jobs. Lastly, conflict and forced displacement may have produced household fragmentation

as well as resulted in the death or abandonment of household members, individuals often of a productive age. Women often became the heads of households by default, something which further increased households' vulnerability. All these elements constituted obstacles to finding jobs and generating income.

A lack of physical assets, suitable employment opportunities, and risk-sharing mechanisms implied substantial welfare losses for households, which consequently became unable to cope with future shocks. The loss of relatives, connections and social networks presumably led to fewer opportunities to work, study, and participate in community savings programs. Although some households participated in social networks at destination sites, informal risk-sharing mechanisms nonetheless did not fully insure against risk, as participants' income levels were fairly low and homogenous. The disruption of social networks also generated obstacles for acquiring formal and informal credit. Generally speaking, displaced households were rationed out of formal financial markets, and were thus obliged to apply for usurious credits, credits for which guarantees and references were not required; as a consequence, profits were sucked up by the large cost of the credit. Accumulating assets became virtually impossible because income was barely sufficient to cover subsistence needs and pay off credits.

4.2.2. Three groups of displaced households

The qualitative evidence allows us to distinguish between three groups of displaced households based on the different paths they followed toward asset recovery—households which are chronically poor both before and after displacement; households which could possibly become chronically poor; and households capable of initiating a recovery process, but for which the magnitude of recovery is unclear.

The first group—households that were chronically poor both before and after displacement—were asset-deprived households at the site of origin, and remained poor after displacement due to the difficulty of coping with the conflict-induced shock. These households exhibited low levels of human capital, were unable to find appropriate jobs that matched their agricultural working experience, were fairly isolated from social connections, and had household structures that denoted a high degree of vulnerability to poverty.

The second group is comprised of households falling into poverty following displacement. Prior to displacement, these households were better-off and had relatively large asset holdings. Because of conflict and displacement, they suffered considerable asset losses, and the deterioration in the economic welfare of these households was particularly large. Asset losses—inclusive of the loss of physical, social, financial, human, and institutional assets—placed them on low-income trajectories, moreover, where the possibility of moving onto high-performance trajectories seemed remote. Since the returns from different kinds of assets complement one another, and households in this group lacked most of them, providing or gaining access to one asset generally did not improve their situation.

The last group is comprised of households capable of achieving successful asset recovery dynamics. These households shared some common characteristics—a combination of higher levels of education and training, contact with and access to social networks at reception sites, savings and micro-credits, and one or more sources of income.

Better educated households and those whose members had suitable working experience were able to engage in economic activities and extract higher rents, in contrast to households made up of members with no formal education or who were previously dedicated to agricultural activities. Labor training programs were critical for households recovering their productive capacity and undertaking new activities; this was particularly the case for women, who felt empowered after participating in training programs.

Human capital alone, although necessary, was not sufficient for recovering from the shock of displacement. Having an additional source of income—whether in the form of savings, credits or agricultural production—was crucial to the recovery process. Labor training without seed capital or micro-credits proved useless. While labor training did boost confidence and provided knowledge relevant to an unknown occupation, to be effective, it must be complemented with seed capital. Those households which successfully overcame the consequences of displacement were able to allocate savings, resources from asset sales, and seed capital to the recovery of productive capacity—in the form of access to land plots at destination sites, land improvements, and/or the purchasing of livestock—as opposed to the supplying of basic needs. Income generating programs thus might constitute a factor promoting recovery, inasmuch as they provide

resources for recovering productive capabilities. Nonetheless, most beneficiaries of such programs considered that the amount of seed capital provided was insufficient for starting a profitable business. Projects promoting cooperatives or associative income generating schemes appeared to have a higher impact and a greater likelihood of succeeding than individual projects, inasmuch as they can be potentially larger, and the risk is shared among members. Savings, seed capital and liquid capital, however, were not sufficient to guarantee successful asset recovery. Households with insufficient assets, low levels of human capital, no social networks, and no labor training faced difficulties in starting small businesses, and ended up depleting these resources without recovering.

The importance of social networks and social capital in facilitating the move out of poverty is manifold. First, social networks provide resources and assistance during the migration process in fulfilling basic needs. Second, social networks at destination municipalities may provide households with employment opportunities as well as much needed working and business permits, likewise, access to government or NGO programs. Although social capital is perceived as an instrument for recovery, participation in social networks does not in and of itself guarantee a transition to high yield activities. Even households that actively participated in formal organizations often remained trapped in low-yield trajectories because access to investment capital was restricted and property rights were not well defined. The qualitative evidence from the 'Moving Out of Poverty' study in Colombia provides insights into the virtuous and vicious cycles that characterize the process of asset recovery. These cycles are assessed in greater detail in the following section.

4.3. Asset loss and asset accumulation: a simple reduced form model for identifying determinants

The purpose of this section is to provide evidence concerning the impact of internal conflict upon asset trajectories, and the ability of households to recover from conflict-related shocks. We first examine the process of asset loss stemming from forced displacement and how the dynamics of conflict determine asset losses. Second, we identify the determinants of asset accumulation once those forcefully displaced resettle at their destination points.

The asset dynamics of displaced households are described by two different factors: the value of assets at the municipality of origin that were abandoned following

displacement (A_L); and the value of the asset base at the receiving municipality (A_R). Each of these is in turn influenced by other factors. Thus, asset losses are driven by the internal conflict's dynamics in the region of origin, the victimization process households endure prior to displacement, and the strategies households adopt in order to minimize asset loss. Asset accumulation at the point of destination, on the other hand, is determined by the income generation capacity of households, their vulnerability conditions, the level of their participation in programs aimed at supporting displaced households, and the respective settlement process.

We discuss first the determinants of asset losses (A_L). The conflict dynamics that trigger forced migration are strongly linked to asset loss. For example, since armed groups need to fund their operations, the presence of illegal armed groups (P_I) at sites of origin frequently results in asset seizure and abandonment. Conversely, the presence of government forces (P_G) will likely serve to protect households from illegal groups' attacks, and thus reduce the likelihood of their being forced to move and abandon assets.

The victimization profile of a household may determine the extent of asset loss it experiences. When household members are forced to flee hastily in order to save their lives, or after being the victims of violent events (reactive displacement(Re)), the possibility of protecting assets becomes greatly minimalized. On the other hand, when households migrate preventively out of fear that the conflict will escalate in the region, it is easier to plan the migration. In the latter case then, protecting, selling or transferring assets to family or friends is more likely; likewise, controlling assets at origin municipalities. Direct attacks sometimes imply the death or disappearance of family members, usually the main breadwinners, who in the case of rural households are frequently male (PP). Since land titles are generally registered to male household heads and informal marital unions are widespread in Colombian rural areas (Meertens, 2005), households that lose the main breadwinner often find it difficult to recover land. Such households may face substantial asset losses.

Attacks on the civil population are not random. Certain groups are deliberately targeted as part of a war strategy. Thus, for instance, community leaders or households with strong social networks (CS_O) are more likely to be targeted by armed groups.

Notwithstanding, social networks can be effective mechanisms for some households to control assets and exploit land plots following displacement. Consequently, the impact of social capital on asset loss is uncertain. Land owners and tenants (L) are also attractive targets for armed groups as, once having fled, their abandoned lands can be seized by armed groups. The incentive to attack land owners increases as the larger the land plot; on the other hand, large landowners are better able to adopt strategies for protecting their assets. The age structure of a household (S) may also prompt attacks by armed groups—young men constitute potential combatants, and thus are desirable as recruits Direct attacks undermine a household's ability to protect its assets; thus, households with high levels of social capital, access to land, or with young males, may face large asset losses. An interesting factor concerns the ethnic make-up of the household. Thus, the fact of belonging to an ethnic minority (Me), such as an indigenous or Afro-Colombian group, may also determine the extent of asset loss. The effect, however, is difficult to establish *a priori*. Ethnic minorities suffer direct attacks from armed groups with greater frequency; hence, these households face greater obstacles when trying to control assets at origin sites following displacement. On the other hand, ethnic minorities often possess collective land titles, which may help protect them against illegal land seizures by armed groups.

Households are not necessarily passive victims of armed conflict, and some households adopt strategies aimed at minimizing the extent of asset loss. The migration strategy of relocating within the municipality is sometimes employed, for example, as a means of protecting and/or recovering assets. Households may decide to migrate within the municipality (M) in order to maintain control over their productive assets, continue with productive activities on their land plots, and/or extract rents. Other factors may also play a role; households facing tight budget constraints, for instance, may not be able to migrate outside of the municipality. Since households may decide to migrate within the municipality in order to protect assets, intramunicipal displacement must be considered an endogenous variable. We use instrumental variable estimations to correct for endogeneity. Besides protecting assets, households may decide to migrate within the municipality if friends and families residing at the destination site are able or willing to provide support. Notwithstanding, contacts at destination sites—such as family and friends—does not determine the extent of asset losses. Contacts at destination sites are therefore are used as the exclusion variables. In order to protect land plots following

displacement, households may decide to register their title in official records (F). Having legal title over land plots may hinder illegal seizure, thus discouraging attacks by armed groups, or helping households protect land once forced displacement has occurred. Notwithstanding, having legal title may prove ineffective in regions where the rule of law and the protection of property rights is lacking, which is usually the case in regions experiencing conflict. In addition, formal land titles may boost the value of land, implying higher asset losses. Human capital, (H), constitutes an element allowing households to device strategies for protect assets prior to migration. Better educated individuals may design effective strategies for protecting assets at origin sites, selling them prior to migration, and/or controlling them at destination sites. On the other hand, better educated individuals may constitute effective community leaders, and thus be seen as posing a threat to armed groups seeking to dissolve any civil resistance. Additionally, the uncertainty of loosing assets such as land may push certain households to invest more in transferable capital, like education, instead of location-specific assets; for these households then, the loss of physical assets might be lower. Thus, the impact of human capital on asset loss is uncertain.

The determinants of asset loss are defined then by the following reduced form:

$$A_L = A_L(P_I, P_G, R_e, PP, CS_o, L, S, M, F).$$

Asset accumulation at destination sites is driven by factors other than those that determine asset loss. First, the length of settlement in destination sites, (T), may exert a positive or negative influence on asset accumulation. As households become settled for longer periods of time at destination sites, knowledge about the labor market increases and economic opportunities broaden, thus increasing the likelihood of accumulating new assets. As the duration of settlement at the new location increases, however, respective governmental aid programs eventually come to an end, and the short-term benefits of income-generating programs vanish. If the first effect exceeds the second effect—that is, if a household's ability to recover productive capacity offsets the discontinuation of resources from aid programs—the period of settlement will have exerted a positive effect on asset dynamics. Conversely, if the second effect is stronger than the first one, then the period of settlement will have affected asset dynamics negatively.

Human capital, (H), may make adaptation to the conditions at the destination site easier, thus improving asset accumulation following displacement. Higher levels of human capital may be fundamental to competing in urban labor markets and finding alternative sources of income, and thus accumulating new assets. However, human capital is not necessarily a transferable asset. Agricultural experience (Ag) is not useful in urban labor markets, for example, inasmuch as there, the predominant occupations for low-skilled workers are in construction, services and/or petty trade. in such cases, the resultant depreciation of human capital restricts earning possibilities and, consequently, asset accumulation.

The ability to generate income is crucial for promoting asset accumulation. Income earned in labor markets or through small enterprises, (Y_R), besides covering subsistence needs, may be invested in new productive assets. Some displaced households are still able to control assets in their hometowns and extract rents from production on their land plots. Using rents obtained by exploiting these plots, they are able to accumulate new assets at receiving municipalities. Social networks and social capital at destination municipalities, (CS_R), among other things, help households mitigate shocks, acquire information about aid programs or job opportunities, and gain access to special assistance programs and credits.

A household's structure and its socioeconomic characteristics are also determinants of displaced its asset dynamics. Among other factors, income generation and the accumulation of assets depend on a household's structure and the age of the household head. High dependency ratios, (D), imply fewer members who are generating income and members who have greater needs, thus restricting the household's capacity for recovering assets. Female household heads, (J), may face more obstacles than men to accumulating new assets, due to their vulnerability following displacement. Age, (E), may exhibit an inverted u-shape relationship with respect to asset dynamics. Because young displaced persons have less work experience, their incomes tend to be low; this further makes asset recovery difficult. On the other hand, older persons may have difficulties learning new occupations and adapting to changing circumstances. Asset accumulation, consequently, increases with age, but only with diminishing marginal returns. Lastly, belonging to an ethnic minority may have a negative impact on asset

accumulation, as these groups face particular vulnerabilities, given their cultural heritage, language barriers, and so forth.

Access to programs targeting displaced households, such as income generation programs G_i, may provide an initial stimulus for recovering productive capacity. Establishing the causal link between access to income generation programs and asset accumulation, however, is difficult. First, as explained before, access to these programs is conditional on having first received humanitarian aid, such as provides basic needs during the first three months following displacement. Although humanitarian aid does not contribute to asset accumulation, beneficiary households may receive other kinds of support, such that it may promote asset accumulation. Whether this is the case or not is impossible to identify from our data. Thus, the coefficient for income generation programs may be capturing the impact of other programs as well. Second, since in addition to other factors income-generating programs are not randomly assigned—with households being selected according to the magnitude of their vulnerability and economic conditions—being the beneficiary of such programs constitutes an endogenous variable. To correct for this endogeneity, we employ an instrumental variables approach, based on whether a household was a beneficiary of humanitarian aid. As described before, only those households that had previously received humanitarian aid were potential beneficiaries of income-generating programs; thus, we anticipate that this variable will be a strong predictor of program participation. However, asset accumulation is not determined by a short-term program which is designed primarily to cover basic needs. The accumulation for asset holdings for household *i* then is defined as:

$$A_R = A_R\left(T, H, Ag, Y_R, CS_R, D, J, PP, E, Me, G\right).$$

The reduced form equations for asset loss stemming from displacement and asset accumulation at destination sites are estimated using the ENHD described in the previous sections.

4.5. Quantitative analysis: the determinants of asset loss and asset accumulation

In order to identify the determinants of asset loss and asset accumulation for displaced households using the models specified in section 3.4., we first estimate a group of regressions. Before discussing the determinants of asset dynamics, we discuss here

some descriptive statistics, and analyze the magnitude of asset loss stemming from forced displacement. The figures for asset loss are only estimated for the control group.

The displacement process together with household characteristics are presented in Table 1. First, the level of violence in the regions of origin is extremely large. More than 86 percent of households displaced reactively[5], that is after being victimized in an attack by illegal armed groups. Moreover, while displaced households readily perceive the presence of illegal armed groups (89.6% of the time) it is less often the case that they perceive the presence of government forces (50.3% of the time), such as provide protection. Second, while some households do prefer to migrate within the general vicinity of their hometown (15.2%), most actually end up migrating out of their municipality, directly to their final destination municipality. Third, displaced households are a particular vulnerable group relative to other groups within the Colombian population. Compared to urban poor households, for instance, displaced households are larger, have a higher frequency of female heads, have greater dependency ratios, and more often are made up of ethnic minorities.

The length of settlement at destination sites merits a separate discussion. The distribution for length of settlement is spread, with the average length of settlement being 1.345 days, and with a standard deviation of 1.040 days. Such a large time horizon may cause an attrition bias as the sample may only identify those displaced households that remain trapped in poverty, whereas successful households may have moved to other neighbors and lost their connection with the church. However, the length of settlement for most households is less than five years: the median is 1200 days (3.28 years) and the 75th quartile is 1.759 (4.8 years).[6]

Table 1. The displacement process and household characteristics

	Mean (Standard Deviation)
Reactive displacement	86.2%
Perception of the presence of illegal armed groups at origin site	89.6%
Perception of the presence of government forces at origin site	50.3%
Intramunicipal displacement	15.2%
Intradepartmental displacement	57.6%
Migration directly to destination	88.9%
Time of settlement at destination site – days	1.345 (1.040)

[5] A household displaces reactively when it is the victim of a direct treat, following the homicide, forced recruitment or abduction of a household member, or the massacre of some or one household member.
[6] We thank Ernesto Schargrodsky for raising this point.

Ethnic minority	24.2%
Male head of household	62.7%
Household size	5.16
	(2.14)
Number of persons between 12 and 17 years of age	0.84
	(0.99)
Number of persons between 18 and 65 years of age	2.48
	(1.36)
Dependency ratio	0.34
	(0.34)
Years of age of household head	42.6
	(13.3)
Number of persons between 12 and 17 years of age	0.84
	(0.99)
Number of persons between 18 and 65 of age	2.48
	(1.36)

Source: Authors' calculations based on ENHD (2004).

The loss and recovery of housing, physical capital and land are presented in Table 2. Nearly half of the sample reports losing their home as a consequence of displacement, with only a few households able to acquire new housing at destination sites. However, close to 18 percent of households' homes were not legally owned prior to displacement, whereas following displacement, there was a greater tendency to own houses—i.e., at destination sites. The average monetary housing loss per household is US$ 3,333.[7]

Productive assets, other than those related to land and plot improvement, comprise the greater bulk of asset loss and are difficult to recover following displacement. In fact, productive asset depletion worsens over time following settlement at destination sites. On the other hand, households are able to recover expensive articles with much greater ease less, such as electronic appliances and mobile goods (such as vehicles).

Land seizure or abandonment is also considerable. Given the predominant proportion of the displaced population which has a rural origin, it is not surprising that nearly 55 percent of diplaced households had formal or informal access to land; the average size of land plots is 13.2 hectares, which is not negligible. Given the weak property rights that prevail in Colombian rural areas, recovering land once the conflict ends is a complex process—over 30 percent of displaced households legally owned land, while the remainder had only informal access to it. Moreover, only 12.8 percent still controlled their land plots following displacement, either directly or with the support of family and friends. Consequently, only 25 percent of households are deemed likely to recover land upon their return. If recovering land is difficult, recovering the capital

[7] We used the exchange rate for 09/02/2007, which stood at US$ 1 = COP$ 2,160.

invested to improve land plots or increase agricultural productivity is even more so. Close to one fifth of land plots had irrigation, the average number of livestock was 29, and the net present value of foregone agricultural revenue over a life-time is US$ 15,787 per household.[8]

When physical assets and land are accounted for, the average loss per household is nearly US$ 7,037. The capacity of displaced households to recover from this kind of asset loss is limited. If we measure the recovery of assets as the value of assets at the destination site minus the value of assets at the site of origin, on average, households report a net loss of approximately US$ 3,796 per household.

Table 2. Asset loss and asset recovery: housing, physical capital and land

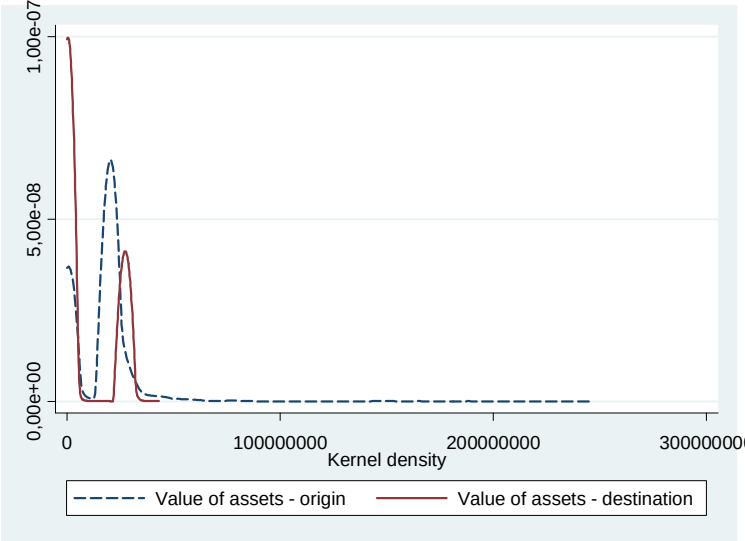
Variable	Mean	Standard Error
Housing		
Percentage of households that lost housing at the origin site	46.50%	-
Percentage of households that lost housing at the origin site and recovered it at the reception site	6.40%	-
Percentage of households that did not own housing at the origin site and own housing at the destination site	17.90%	-
Average loss in housing	US $ 3,333	US $ 278
Physical assets		
Productive assets (excluding land) at the origin site	US $ 370	US $ 42
Other assets at the origin site	US $ 93	US $ 5
Percentage of productive assets at the origin site	55.20%	0.02%
Productive assets (excluding land) at the destination site	US $ 19	US $ 5
Other assets at the destination site	US $ 93	US $ 5
Percentage of productive assets at the destination site	12.80%	0.03%
Land		
Land tenure	55.40%	-
Total hectares of land owned	13.2	2.1
Value of total hectares owned	US $ 3,981	US $ 417
Percentage of hectares with formal property titles	31.20%	-
Average number of hectares lost	4	0.8
Value of hectares lost	US $ 972	US $ 185
Percentage of hectares than can be recovered after return	25.80%	-
Percentage of hectares under family control	12.80%	-
Percentage of land with irrigation	19.00%	-
Number of animals	29.9	2.6
Net present value of agricultural profit loss	US $ 15,787	US $ 2,500
Total assets and asset recovery		
Value of assets at origin site (excluding land)	US $ 7,037	US $ 278
Value of assets at destination site (excluding land)	US $ 3,194	US $ 231
Net loss of assets	US $ - 3,796	US $ 32

Source: Authors' calculations based on ENHD (2004).

[8] To calculate the net present value of foregone agricultural revenues, we assume that agricultural production ends when the household head dies; we thus use a discount rate of 9.5%. According to the WHO, the life expectancy of women and men in Colombian rural areas is 76.3 and 67.5 years, respectively.

Displacement shock, aside from significantly decreasing victims' asset holdings, condenses the asset distribution around a lower mean and median. Graph 1 depicts the distribution of asset values before and after displacement. Prior to displacement, the mean and median of asset values are larger and the distribution more spread out; asset values at the upper tail of the distribution are more frequent. Following displacement, the distribution condenses significantly, with most households concentrated near zero, and with just a few households having a larger value of assets.

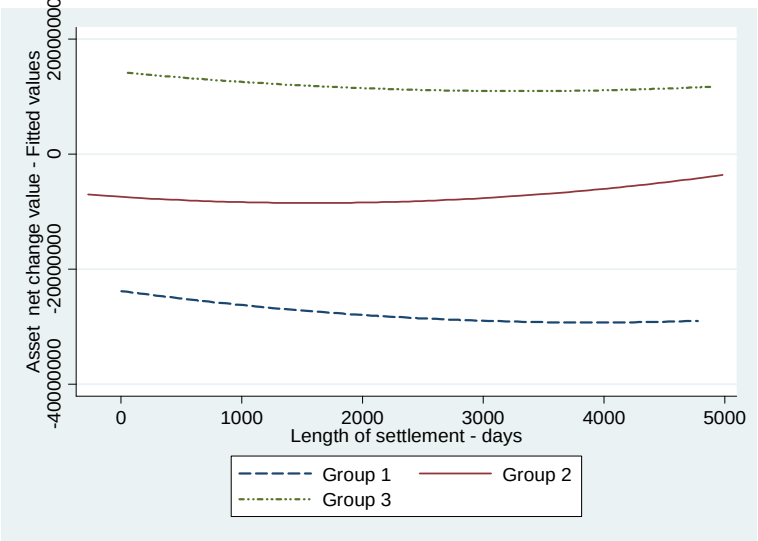
Graph 1. Values of assets at origin and destination sites – kernel density



Source: Authors' calculations based on ENHD (2004).

Asset recovery is difficult for most displaced households. Graph 2 depicts a quadratic fit between the net change in asset value and the length of settlement for the three groups identified in the qualitative analysis. Group 1 corresponds to the first quartile of the net change in asset value, Group 2 to the second and third quartile, and Group 3 to the fourth quartile. The majority of displaced households, close to 75 percent of them, reported a negative net change in asset value, while only 25 percent of displaced households were able to recover assets following displacement. Consequently, the median of asset recovery is zero, which indicates a worrisome trend. As identified by the qualitative evidence, Group 1 faced large asset losses, which only deepened as time passed; the recuperation of assets was slow for Group 2, such that after five years of displacement, asset loss was still higher than asset accumulation; and while Group 3 was able to recover from the displacement shock, the stock of assets at destination sites remained constant.

Graph 2. Net change in asset value for the three groups[a] – quadratic fitted value



Source: Authors' calculations based on ENHD (2004).
a. Asset recovery is measured as the value of assets at destination sites minus asset losses caused by displacement.

Although in theory households might resort to labor income, credits, and risk-sharing mechanisms in order to recover assets, access to these mechanisms is not widespread among the displaced population. The figures for financial capital, access to labor markets, human capital and social capital before and after displacement are presented in Table 3. First, the potential access to informal credits drops sharply following displacement (from 17.9% to 9.3%). Access to formal credit markets at destination sites does increase five fold relative to access at origin sites, though this is largely because with respect to the latter, access is negligible; thus, at destination sites, only 6.6 percent of households are the beneficiaries of formal credits. Furthermore, credit conditions gradually worsen over time at destination sites—the amounts approved are half those approved at origin sites, and the number of monthly installments eventually declines.

Drops in asset holding returns are not fully compensated by labor income. Unemployment rates for all household members soar following displacement, and the pace at which labor conditions improve is extremely slow—initially, the unemployment rate for household heads during the first three months of settlement at destination sites is 53 percent; after a year, it is 16 percent. Since displaced households face poor labor conditions and are mostly absorbed by informal labor markets, the labor income per equivalent adult corresponds to less than half of labor income prior to displacement.

The depreciation of human capital and low education levels are important obstacles that displaced households need to overcome when competing in urban markets. Tight labor

markets at destination sites may partially hinder the rapid absorption of displaced households. Hence, even after a year of settlement, the unemployment rate for displaced household heads is still greater than that for the urban extreme poor. Low formal human capital (5.7 years) and inadequate previous labor experience with respect to urban jobs (57.3% of displaced persons were dedicated to agriculture prior to displacement) may be the main causes driving high unemployment rates.

Informal risk-sharing mechanisms are also severely disrupted. Informal credits, as discussed above, drop significantly. Some families disintegrate on account of the main breadwinner dying or abandoning the household (8.5%). While households that participated in organizations prior to displacement often rapidly become engaged at destination sites, the new organizations are usually dramatically different from those to which they previously belonged. Prior to displacement, displaced households were generally members of organizations dedicated to fostering productive activities (e.g., peasant organizations and cooperatives) through the provision of credits, technical assistance and mediation with formal institutions. At destination sites, households are mostly members of organizations dedicated to charity work—that is, organizations aimed at providing subsistence support rather than promoting productive activities.

Table 3. Financial capital, labor markets, human capital and social capital

Variable	Mean	Standard Deviation
Financial capital – informal credits		
Potential access to informal credits at the origin site	17.90%	-
Access to informal credits at the origin site	8.30%	-
Potential access to informal credits at the destination site	9.30%	-
Access to informal credits at the destination site	6.40%	-
Financial capital – formal credits		
Access to formal credits at the origin site	1.40%	-
Credit amount at the origin site	US$ 1,481	US $ 1,019
Number of monthly installments at the origin site	14.5	1
Access to formal credits at the destination site	6.60%	-
Amount of credit at the destination site	US $ 741	US $ 185
Number of monthly installments at the destination site	10.4	1.4
Labor markets		
Unemployment level for household heads at the origin site	1.70%	-
Labor income per equivalent adult at the origin site	US $ 893	US $ 151
Unemployment level for household heads at the destination site	16.10%	-
Labor income per equivalent adult at the destination site	US $ 289	US $ 17
Human Capital		
Years of education of household head	5.7	0.1
Dedicated to agricultural activities at the origin site	57.30%	-
Social capital		

Main breadwinner died or abandoned household	8.50%	-
Participation in organizations at the origin site	32.60%	-
Number of organizations per household at the origin site	0.33	0.03
Leadership position at the origin site	7.50%	-
Participation in organizations at the destination site	29.00%	-
Number of organizations per household at the destination site	0.25	0.02
Leadership position at the destination site	4.20%	-

Source: Authors' calculations based on ENHD (2004).

4.5.1. Asset losses

We estimate regressions in order to first identify the determinants of asset loss. Several regressions were estimated to check for the robustness of the results. Table 4 presents the results for the OLS, IV and quartile regressions. Given that certain characteristics of the department of origin may also determine the nature and extent of asset loss, we estimate regressions with and without department[9] controls. Inasmuch as armed groups may adopt different displacement tactics depending upon the war strategies they adopt, we estimate each regression separately for massive and individual displacement. We expect that where the war objective of illegal armed groups is to depopulate territory in order to strengthen territorial control, expelling the population en masse (massive displacement) is more effective. On the other hand, when asset seizure is the objective, the deliberate targeting of particular households (individual displacement) will more likely be adopted. The latter case may adjust better to the model we defined. Lastly, we expect that the beneficiaries of income-generating programs should have unobservable characteristics closely related to their entrepreneurial abilities, characteristics, which if known, might help them design strategies for protecting assets. Consequently, we estimate the regressions separately for the beneficiaries and non-beneficiaries of income-generating programs. Since the results are robust for the different specifications, we only present the estimations for the complete sample using department controls. However, we discuss the different specifications whenever they account for a significant change in the results.

We estimate OLS regressions, and IV regressions in order to instrument for migrating within the municipality. The results for the first stage of the instrumental variable regression are presented in Table A.1 of the annex, and correspond nicely with an F-statistic equal to 11.39. Since the process of asset loss appears highly non-linear, we estimate quartile regressions.

[9] Departments roughly correspond to states in the United States.

The results reveal conflict dynamics that exert a heavy toll on assets. The fact of reactive displacement and the loosing of a male household head are both statistically significant; the magnitudes of the coefficients are large, and the results are robust for different specifications. Moreover, while it is not significant in the first quartile, the coefficient for reactive displacement becomes larger and statistically significant in the upper quartiles. The coefficient estimates for reactive displacement decrease when additional controls are included, yet this should be expected, inasmuch as violence targets particular groups within the population. The direct and traumatic victimization represented by reactive displacement and by the loss of the main breadwinner imposes asset losses of COP$3.4 million (US$1.574) and $COP6.7 million (US$3101), respectively.

The strategies adopted by households or by government forces to help mitigate asset loss are not sufficient to offset the impact of the conflict. Although migrating within the municipality and the presence of government forces does reduce asset loss, the combined effect of both variables is only COP$5.8 million (US$2685), which does not even counteract the loss of the main household breadwinner. In addition, the positive impact of migrating within the municipality is not robust for different specification. When department controls are included, the size of the coefficient halves; this variable then may be capturing some regional effects and not necessarily the effectiveness of intramunicipal displacement. Once the variable is instrumentalized, the statistical significance disappears. The quartile regressions also show no statistical significance for intramunicipal displacement. On the other hand, the effectiveness of government forces is robust for different specifications, even if the impact does not offset either reactive displacement or the loss of the main breadwinner.

Formal titles for land plots, rather then reducing asset loss, seems to actually increase its extent. The coefficient for formality is not only positive and significant, it also shows the largest magnitude (COP$9.8 million (US$4537)). One possible explanation is that land plots with formal titles are the largest and thus the most attractive ones. However, after controlling for the size of land plots, the size and significance of the coefficients are similar. Another interpretation is that when lawlessness is pervasive, formal titles are not sufficient for protecting assets. To test for this hypothesis, we interact the formality of land titles with the presence of government forces. Again, the size and significance of the coefficients are similar. In addition, quartile regressions show that

the impact of formality with respect to land titles is particularly strong for the median quartile, while decreasing for the last one. Land plots with formal titles may be more valuable due to the formality of the land titles. The positive effect of land plot size on asset loss seems to corroborate this hypothesis.

The targeting of particular groups within the population in order to achieve war objectives also imposes large asset losses, though some variables are not statistically significant. First, better educated households face greater asset loss; as indicated by the quartile regressions, the effect increases for the highest quartiles. However, the coefficient for years of schooling is not robust for different specifications of the model. Second, young household members may be forcefully recruited or may act as combatants for opponents groups, and are thus targeted often. These attacks appear to increase the extent of asset loss. This effect is particularly strong for persons between 18 and 65 years of age—having an additional member in this age range increases asset loss by COP$1.2 million (US$555). Third, although the coefficient for participation in formal organizations is positive, it is not statistically significant. However, when the quartile regressions are estimated, participation in organizations implies positive asset loss for the median and third quartile, and the impact is not negligible. For example, for the median quartile, participation in an additional organization increases asset loss by COP$0.75 million (US$347), while the increment in asset loss generated by reactive displacement for the same quartile is COP$1.2 million (US$555). Lastly, apparently, ethnic minorities do not face greater levels of asset loss. When department controls are not included, the extent of asset loss for ethnic minorities is greater, but the effect vanishes after including department controls. Regions where ethnic minorities are located coincide with regions strategically important to illegal armed groups. Thus, ethnic minorities may be attacked simply by virtue of living in strategically valuable regions, and not necessarily because they are ethnic minorities.

Table 4. The Determinants of asset loss[a]

Variables	GLS				IV		Quantile regressions		
	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic) (0.25)	Coefficient (t-statistic) (0.50)	Coefficient (t-statistic) (0.75)
Reactive displacement	4868.60			3694.08	3433.21	3412.77	233.58	1238.52	912.36
	(3.66)***			(3.06)***	(2.88)***	(2.66)***	(1.39)	(1.92)*	(2.11)**
Household head dead or n longer present	6988.40			5930.97	6716.26	6776.35	111.54	2663.29	261.37
	(2.03)**			(1.91)*	(2.17)**	(1.90)*	80.55)	(3.43)***	(0.51)
Perception of the presence of illegal armed groups	-4186.06			-4593.06	-4592.17	-4577.37	-380.63	-1311.16	-321.68
	(-1.35)			(-1.54)	(-1.55)	(-1.54)	(-2.00)**	(-1.80)*	(-0.66)
Perception of the presence of government forces	-2592.93			-3272.00	-3048.56	-2972.55	-130.49	-1442.21	-221.78
	(-2.41)**			(-2.95)***	(-2.74)***	(-1.47)	(-0.89)	(-2.57)***	(0.60)
Intramunicipal displacement		-2460.72		-2809.80	-2805.65	-2041.00	-280.62	-503.69	-180.59
		(-1.94)**		(-2.20)**	(-2.18)**	(-0.13)	(-1.60)	(-0.75)	(-0.40)
Household head – average number of organizations at origin site		1198.87	2958.11	1135.03	1293.71	1272.29	117.61	753.28	435.36
		(1.57)	(3.00)***	(1.50)	(1.75)*	(1.49)	(1.36)	(2.36)**	(2.19)**
Formal land title		12116.33		10380.97	9856.80	9821.87	8013.95	13329.46	5145.45
		(5.18)***		(4.22)***	(4.02)***	(3.86)***	(46.01)***	(19.54)***	(11.12)***
Formal land title*presence of government forces		-310.03		3223.03	3324.42	3364.14	-3564.67 (- 14.47)***	1041.35 (1.09)	-239.08 (-0.37)
		(-0.13)		(1.23)	(1.28)	(1.27)			
Total hectares of land		164.99		163.30	161.94	162.12	36.94	112.56	256.36
		(3.80)***		(3.77)***	(3.75)***	(3.72)***	(32.04)***	(27.89)***	(100.77)***
Years of schooling for household head			988.99		836.39	839.10	28.55	262.20	126.89
			(2.08)**		(1.90)*	(1.88)*	(1.05)	(2.50)***	(1.73)*
Number of persons between 12 and 17 years of age			1441.24		930.81	924.81	32.28	160.54	157.52
			(2.39)**		(1.83)*	(1.81)*	(0.55)	(0.72)	(1.09)
Number of persons between 17 and 65 years of age			1738.44		1249.23	1246.08	104.34	915.72	382.85
			(4.21)***		(3.23)***	(3.30)***	(2.53)***	(5.46)***	(3.41)***
Ethnic minority			-313.02		-935.66	-968.83	-109.61	884.38	103.08
			(-0.27)		(-0.79)	(-0.69)	(-0.69)	(1.44)	(0.25)
Constant	629.96	-476.68	-11106.13	474.99	-7467.33	-7451.34	759.00	-3250.07	-2739.15
	(0.21)	(-0.77)	(-3.28)***	(0.15)	(-2.05)**	(-2.05)***	(2.45)***	(-2.71)	(-3.37)***
Observations	2320	2318	2318	2318	2318	2318	2318	2318	2318
R-squared	0.0448	0.2067	0.0514	0.217	0.2251	0.2205	0.0403	01383	0.1067

Source: Authors' calculations based on ENHD (2004).
Department Controls are included.
a. Asset losses divided by 1000.
*Significant at 10%.
**Significant at 5%.

***Significant at 1%

The results presented in Table 4 clearly indicate that conflict-induced shocks impose greater asset losses. The impact of the conflict upon asset loss is hardly offset by strategies adopted to prevent loss or by the protection provided by government forces.

4.5.2. Asset accumulation

In order to understand the process of asset accumulation, we estimate regressions to identify the determinants of asset accumulation. Several alternative specifications were estimated in order to verify the robustness of the results. First, asset accumulation, besides being determined by households' characteristics, may also depend on regional characteristics as well as the municipality size. Among other things, some regions are more prosperous, their labor markets are more dynamic, and/or they are more willing to receive displaced population. These factors contribute to the displaced population's asset accumulation process. In addition, the size of the urban center may determine how easy or difficult it is to acquire new asset holdings. Although large cities may provide more economic opportunities, adapting to a large and anonymous city may prove hard for rural households, such as are often found among the displaced population. To control for city size, we include controls for Bogotá (the capital city of Colombia), large cities with populations between 700.000 and 3.000.000 people, and medium-sized cities with populations between 100.000 and 699.000 people. We do not control for small cities with less than 100.000 inhabitants. To control for regional heterogeneity, we include department controls. Second, we estimate the determinants of asset accumulation separately for length of settlement, income generating capacities, and household vulnerability. Lastly, we drop outliers from the time of settlement in order to identify whether potential attrition causes an overestimation of poverty traps. Dropping outliers does not, however, change the estimation results.

Instrumental variable regressions and quartile regressions are also estimated. The first stage of the instrumental variable regression is presented in Table A.2 of the annex. The first stage fits well with an F-statistic ranging from 8.37 and 10.06. Much as with asset loss, asset accumulation exhibits several non-linearities, as shown in the graphs discussed in section 3.4. To deal with these non-linearities, we estimate quartile regressions.

The results for all the regressions are presented in Tables 5a and 5b. The results for the regressions without the controls for city size are not presented; the coefficient estimates are robust for the inclusion of these controls, and the prediction power of the model barely increases. As settlement at destination sites progresses, asset accumulation expands. The coefficient and its

significance are similar for the different specifications estimated. We also include interactions for length of settlement and certain household characteristics, such as the fact of having previously been dedicated to agricultural activities or having lost the main breadwinner; the coefficients, however, are not statistically significant and are thus not reported. However, the contribution of length of settlement is not large and even decreases after a while, thus exhibiting the inverted u-shaped relation or noted earlier. After controlling for all other variables, a displaced household needs more than 11 years in order to recover the average asset loss stemming from displacement. Furthermore, the effect of length of settlement is weak for households in the first two quartiles of the regression, and only picks up for households located at the upper end of the asset distribution. These results hold even when the outliers for length of settlement are eliminated.

Insertion into labor markets and the capacity to generate income positively contribute to asset accumulation at destination sites. In particular, insertion in labor markets appears as an effective strategy for accumulating assets more effectively; having an unemployed head reduces asset accumulation by COP$1.4 millions (US$648). Although the coefficient for unemployment somehow decreases when additional controls are included, the size of the coefficient is still large, and is significant for the different specifications. The negative impact of unemployment is particularly large for households in the upper quartile of the asset distribution.

Human capital variables play an important role with respect to asset accumulation, yet the sign representative of having been previously dedicated to agricultural activities is the opposite of the expected one. Better educated households are able to accumulate more assets, yet the effect is not large given the overall low education levels of the displaced population. One additional year of education for an average displaced household whose head has 5.7 years of schooling increases asset accumulation by COP$0.12 million (US$55). The effect of education vanishes, however, for quartile regressions, and is only significant for households in the lowest quartile. On the other hand, the fact of having been previously dedicated to agriculture contributes positively to asset accumulation. This result is opposite our *a priori* hypothesis, and is robust for all of the different specifications. Presumably, after controlling for other characteristics, this variable may be capturing some unobservable characteristics, such as the entrepreneurial ability of persons who had small agricultural enterprises prior to displacement. Lastly, asset accumulation is higher for households with middle-aged heads. The impact of age is higher as we move up the quartiles.

Assets at origin sites that are still under a household's control, likewise, social capital, do not contribute in any way to asset accumulation. Assets at origin sites are not statistically significant and the coefficient is negligible. Despite being able to control a proportion of their assets at the point of origin, these assets may not be producing rents, or the rents may not be sufficient to expand asset holdings. Social capital—the number of organizations with which household members are affiliated at destination sites, likewise, the number of contacts they have—is not statistically significant for any of the estimated specifications. Therefore, only human capital seems to contribute to asset accumulation at destination sites.

After controlling for other characteristics, the contribution of income generating programs to asset accumulation is large and significant. Asset holdings for beneficiaries of income generating programs are COP$2.2 millions (US$1018) larger. The coefficient for beneficiaries of income generating programs, however, is not robust. When additional controls are included, the coefficient decreases significantly. This result is expected, as being the beneficiary of income generating programs is related to household characteristics. Despite these positive results, the coefficient for participation in income generating programs loses significance after instrumentalizing for it.

Vulnerable households are less able to recover from asset loss. Male headed households fare better during the recovery process, and as we move up the quartiles, the significance of a household being male-headed with respect to asset recovery increases. The estimations that include only vulnerability variables show a large and significant positive effect for having a male household head. However, once other controls are incorporated into the estimation, the size of the coefficient reduces. Presumably, female headed households exhibit particular vulnerable characteristics that reduce asset accumulation. After controlling for these characteristics, the impact of being a male headed household decreases (COP$1 million – US$462). On the other hand, asset accumulation does indeed seem difficult for ethnic minorities. Ethnic minorities face poor conditions at destination sites because their connections with their cultural heritage and social networks have been broken; some groups have difficulties speaking in Spanish, and thus have less access to government programs. Thus, the asset holdings of ethnic minorities are COP$2.0 million (US$925) lower. This result is robust for different specification and persists even after controlling for other characteristics.

Table 5a. The determinants of asset accumulation

Variables	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)
Length of settlement – days	5.9849	5.0295					5.4392	4.3369
	(13.52)***	(11.15)***					(11.98)***	(9.29)***
Length of settlement squared	-0.0005	-0.0004					-0.0005	-0.0004
	(-7.28)***	(-5.98)***					(-6.53)***	(-4.99)***
Years of schooling – household head			724.5709	629.3155			605.5615	535.1510
			(2.22)**	(1.99)**			(1.93)**	(1.73)*
Years of schooling squared			-50.1199	-41.8751			-44.6176	-38.6286
			(-2.63)***	(-2.26)**			(-2.44)**	(-2.14)**
Dedicated to agricultural activities – origin			2184.0950	1510.2020			1768.3990	1208.7300
site			(4.26)***	(3.04)***			(3.30)***	(2.29)**
Age – household head			350.1363	401.6913			207.5940	265.0617
			(3.36)***	(4.02)***			(1.96)**	(2.57)***
Age squared			-2.8989	-3.4527			-1.6865	-2.2781
			(-2.66)***	(-3.30)***			(-1.54)	(-2.13)**
Unemployment at destination – hh head			-2524.0160	-1996.9930			-1010.3210	-1046.7110
			(-3.78)***	(-3.09)***			(-1.56)	(-1.65)*
Potential rents – assets at origin site			0.0000	0.0000			0.0000	-0.0001
			(0.14)	(-0.26)			(-0.08)	(-0.33)
Contact at destination (family, friend)			-684.2316	-485.1001			127.2599	37.4021
			(-1.25)	(-0.91)			(0.24)	(0.07)
HH average number of organizations –			-193.7157	83.3880			-409.2494	-160.8150
destination			(-0.50)	(0.22)			(-1.10)	(-0.44)
Beneficiaries of income generating			3227.1260	3391.9620			1840.8230	2159.8890
programs			(5.49)***	(5.87)***			(3.20)***	(3.74)***
Male household head					2084.8420	1529.4110	978.1162	817.0753
					(3.64)***	(2.76)***	(1.69)*	(1.43)
Head abandoned or left household					-283.5218	-394.9613	-470.1106	-651.4437
					(-0.30)	(-0.43)	(-0.52)	(-0.73)
Ethnic Minority					-2464.0960	-1890.5620	-2448.7600	-1828.4010
					(-4.00)***	(-2.79)***	(-4.16)***	(-2.80)***
Dependency ratio					-969.9969	-1893.3370	808.6833	136.8013
					(-0.90)	(-1.81)*	(0.74)	(0.13)
Constant	2191.3410	-9588.1870	-2931.0320	-14954.7900	9027.2670	-1491.9110	-5859.4880	-19492.5800
	(3.03)***	-0.86	(-1.02)	(-1.27)	(11.17)***	(-0.13)	(-1.95)***	(-1.69)*
Department controls	No	Yes	No	Yes	No	Yes	No	Yes
Observations	2332	2331	2319	2318	2321	2320	2319	2318
R-squared	0.1052	0.1851	0.0536	0.1612	0.0256	0.1337	0.1343	0.2067

Controls for municipality size are included (country capital, large city, and medium size city).
Source: Authors' calculations based on ENHD (2004).
*Significant at 10%; **Significant at 5%; ***Significant at 1%.

Table 5b. The determinants of asset accumulation

Variables	IV		Quantile regression		
	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic) q(0.25)	Coefficient (t-statistic) q(0.50)	Coefficient (t-statistic) q(0.75)
Length of settlement – days	4,9934	3,0998	0.1476	0.4145	1.0936
	(4,86)***	(2,05)**	(10.47)***	(11.98)***	(13.19)***
Length of settlement squared	-0,0004	-0,0002	0.0000	0.0000	-0.0001
	(-3,53)***	(-1,27)	(-5.98)***	(-7.05)***	(-8.17)***
Years of schooling of household head	517,8523	408,1864	24.8761	29.9790	2.1582
	(1,59)	(1,16)	(2.61)***	(1.20)	(0.03)
Years of schooling squared	-41,8577	-34,5049	-1.3010	-1.6385	-0.5409
	(-2,46)***	(-1,79)*	(-2.43)**	(-1.12)	(-0.14)
Dedicated to agricultural activities at origin site	1942,9430	1499,2370	-27.1154	3.9144	192.4528
	(3,30)***	(2,30)**	(-1.58)	(0.09)	(1.86)*
Age of the household head	172,7377	206,5441	9.6973	20.7839	49.5402
	(1,41)	(1,61)	(2.87)***	(2.49)***	(2.44)**
Age squared	-1,1452	-1,4695	-0.0973	-0.1942	-0.4407
	(-0,80)	(-0,99)	(-2.83)***	(-2.25)**	(-2.09)**
Unemployment at destination site – household head	-248,5263	235,8879	-67.8770	-98.3382	-243.5680
	(-0,19)	(0,16)	(-3.26)***	(-1.91)*	(-1.93)*
Potential rents – assets at origin site	0,0000	-0,0001	0.0000	0.0000	0.0000
	(-0,15)	(-0,81)	(2.53)***	(-0.63)	(0.35)
Contact at destination site (family, friend)	314,5051	188,0833	26.4329	9.6449	-15.5832
	(0,57)	(0,33)	(1.58)	(0.23)	(-0.15)
Household head – average number organization at destination site	-132,8377	217,8818	0.0837	8.1493	2.5950
	(-0,27)	(0,40)	(0.01)	(0.28)	(0.04)
Beneficiaries of income generating programs	6744,4650	10734,5900	146.6346	284.0821	248.5947
	(0,81)	(1,12)	(7.88)***	(6.08)***	(2.22)***
Male household head	650,9820	165,4665	52.5938	102.0972	162.0971
	(0,82)	(0,18)	(2.83)***	(2.21)**	(1.47)
Head abandoned or left household	-1086,7560	-1727,6980	-48.5975	-58.9054	-127.6213
	(-0,84)	(-1,14)	(-1.70)*	(-0.82)	(-0.72)
Ethnic Minority	-2791,1260	-1882,1500	-41.0669	-90.5849	-427.3063
	(-4,42)***	(-2,68)***	(-1.96)**	(-1.72)*	(-3.36)***
Dependency ratio	1341,9860	1333,7860	-14.0638	-150.7804	11.0863
	(0,94)	(0,81)	(0.39)	(-1.74)*	(0.05)
Constant	-7272,8910	-16487,2800	-642.4860	-1576.8250	-3809.1740
	(-2,51)***	(-3,37)***	(-6.39)***	(-6.15)***	(-5.98)***
Department controls	No	Yes	Yes	Yes	Yes
Observations	2319	2318	2318	2318	2318
R-squared	0.094	0.1058	0.007	0.0824	0.2429

Controls for municipality size are included (country capital, large city, and medium-sized city).
Source: Authors' calculations based on ENHD (2004).
*Significant at 10%. **Significant at 5%. ***Significant at 1%.

The displacement shock is certainly large. Conflict and forced migration brings about a depletion of physical, financial, human, and social capital. The erosion of a household's asset base, coupled with restricted access to labor markets, pushes a displaced household into an extremely vulnerable situation and hinders asset accumulation, thus, imposing high long-term costs which are not easily overcome. Notably, these consequences persist through time. Indeed, only a small group of households appear to have initiated a moderate accumulation of assets under such conditions. The extent of asset accumulation for displaced households is strongly related to the conditions required for successful productive activities—a longer period of settlement at destination sites, access to credits, to employment, and a less vulnerable household structure. However, since the asset loss due to displacement is substantial, households will not be able to engage in virtuous cycles of asset accumulation unless they are supported by special social and government programs. However, the efforts still seem insufficient. For example, asset loss for a household that reactively displaced and suffered the death of its main breadwinner is COP$10.2 million (US$4722) higher than for other households. On the other hand, none of the variables determining asset accumulation at destination sites is able to offset this effect.

5. Conclusions

A conflict-induced shock imposes heavy asset losses upon a group of victims, in this case, a displaced population. The nature of conflict-related events leading to forced displacement and the resulting consequences strongly determines the magnitude of asset loss. Better-off households with larger asset holdings or which are strongly embedded in social networks pose attractive targets for illegal armed groups. Because their asset holdings prior to displacement are large and the consequences of the attacks are correspondingly extremely costly, such households suffer substantial asset loss. On the other hand, households with a less traumatic victimization profile or which migrate preventively in anticipation that the conflict will escalate tend to face less severe asset loss, and are thus better able to cope with displacement shock.

Regardless of the extent of asset loss caused by forced migration, all displaced households are left with an asset base seemingly insufficient for escaping poverty. Displaced persons cannot be assimilated in the same way that traditional migrants are. Our results show that displaced households do not catch up even after consolidating

settlement at destination sites. Unless a positive intervention is undertaken, displaced households become locked into a low-level economic trajectory; once that happens, leaping forward into a high-return asset level becomes highly unlikely. In this respect, forced displacement has generated a poverty trap for certain segments of the Colombian population. Targeted assistance, such as asset transfers and protections against shocks, is needed to stimulate growth.

References

Adato, M., M.R. Carter, and J. May (2006). "Exploring Poverty Traps and Social Exclusion in South Africa Using Qualitative and Quantitative Data," *Journal of Development Studies*, 42(2): 226-247.

André, C., and J.P. Platteau (1998). "Land Relations under Unbearable Stress: Rwanda Caught in the Malthusian Trap," *Journal of Economic Behavior and Organization*, 34.

Azam, J.P., and A. Hoeffler (2002). "Violence against Civilians in Civil Wars: Looting or Terror?" *Journal of Peace Research*, 39(4): 461-85.

Barrett, C.B., P.P. Marenya, J. McPeak, B. Minten, F. Murithi, W. Oluoch-Kosura, F. Place, J.C. Randrianarisoa, J. Rasambainarivo, and J. Wangila (2004). *Welfare Dynamics in Rural Kenya and Madagascar*, BASIS Document, University of Wisconsin-Madison.

Barrett, C.B. and J.G. McPeak (2006). "Poverty Traps and Safety Nets" in *Poverty, Inequality and Development, Essays in Honor of Erik Thorbecke* (eds. A. de Janvry and R. Kanbur), Springer.

Barrientos, A., and A.Shepherd (2003). *Chronic Poverty and Social Protection*, Paper presented at the CPRC Conference on Chronic Poverty, University of Manchester.

Behrman, J (1988). "Intrahousehold Allocation of Nutrients in Rural India: Are Boys Favored? Do Parents Exhibit Inequality Aversion?" *Oxford Economic Papers*, 40(1): 32-54.

Brück, T. (2004). *Coping Strategies in Post-War Rural Mozambique*, HICN Working Paper No. 02.

Carter. M.R., and C. Barrett (2006). "The Economics of Poverty Traps and Persistent Poverty: An-Asset Based Approach," *Journal of Development Studies*, 42(2): 178-199.

Carter, M.R., and J. May (1999). "Poverty, Livelihood and Class in Rural South Africa", *World Development*, 27(1):1-20.

Corbett, J. (1988). "Famine and Household Coping Strategies," *World Development*, 16(9): 1099-1112.

Dercon, S. (1998). "Wealth, Risk and Activity Choice: Cattle in Western Tanzania," *Journal of Development Economics*, 55:1-42.

Durlauf, S. N (1992). *A Theory of Persistent Income Inequality*, NBER Working Paper No. 4056.

Engel, S., and A.M. Ibáñez (2007). "Displacement Due to Violence in Colombia: A Household Level Analysis," *Economic Development and Cultural Change* 55(2): 335-365.

Fafchamps, M., and F. Gulbert (2006). “The Formation of Risk-Sharing Networks,” *Journal of Development Economics* (forthcoming).

Fafchamps, M., C. Udry, and K. Czukas (1998). “Drought and Savings in West Africa: Are Livestock a Buffer Stock?,” *Journal of Development Economics*, 55: 273-305.

Foster, A., and M. Rosenzweig, (2001). “Imperfect Commitment, Altruism and the Family: Evidence from Transfer Behavior in Low-Income Rural Areas,” *Review of Economic and Statistics*, 83(3): 389-407.

Foster, A (1995). “Prices, Credit Markets, and Child Growth in Low Income Areas,” *Economic Journal*, 105: 551-570.

Galor, O., and J. Zeira (1993). “Income Distribution and Macroeconomics,” *The Review of Economic Studies*, 60(1):35-52.

Gaviria, A. 2000. "Increasing Returns and the Evolution of Violent Crime: The Case of Colombia." *Journal of Development Economics 61* (1): 1-25.

Garay, L.J. (2008). *Proceso Nacional de Verificación de los Derechos de la Población Desplazada.* Primer informe a la Corte Constitucional, Bogotá, Colombia.

Hirshleifer J., (2001), *The Dark Side of the Force, Economic Foundations of Conflict Theory* **[italics?]**, Cambridge University Press.

Hoddinott, J. (2006). “Shocks and their Consequences across and within Households in Rural Zimbabwe,” *Journal of Development Studies*, 42(2): 301-321.

Hulme, D., and A. Shepherd (2003). “Conceptualizing Chronic Poverty,” *World Development*, 31(3): 403-423.

Ibáñez A.M., and A. Velásquez (2009). “Identifying Victims from Civil Conflicts: An Evaluation of Forced Displaced Households in Colombia” *Journal of Peace Research* 46(3).

Jacoby, H., and E. Skoufias (1997). “Risk, Financial Markets, and Human Capital in a Developing Country,” *Review of Economic Studies* 64(3): 311-335.

Jensen, R. (2000). “Agricultural Volatility and Investments in Children,” *American Economic Review*, 90(2): 399-404.

Justino, P., and P. Verwimp (2006). *Poverty Dynamics, Violent Conflict and Convergence in Rwanda*, HICN Working Paper No. 16.

Krishna, A., D. Lumonya, M. Markiewicz, F. Mugumya, A. Kafuko, and J. Wegoye (2006). “Escaping Poverty and Becoming in Poor in 36 Villages of Central and Western Uganda,” *Journal of Development Studies* 42(2): 346-370.

Ligon, E., J.P. Thomas, and T. Worrall (2001). “Informal Insurance Arrangements in Village Economies,” *Review of Economic Studies*, 69(1): 209-244.

Little, P.D., M.P. Stone, T. Mogues, A. P. Castro, and W. Negatu (2006). “ Moving in Place: Drought and Poverty Dynamics in South Woll, Ehiopia,” *Journal of Development Studies*, 42(2): 200-225.

Matowu, J.M. and F. Stewart (2001). “Uganda: The Social and Economic Costs of Conflict” in *War and Underdevelopment, Volume 2: Country Experiences*, Oxford University Press.

Montenegro, A. and C.E. Posada (2001) *La violencia en Colombia* Alfaomega. Bogotá, Colombia.

Mookherjee, D., and D. Ray (2002). “Contractual Structure and Wealth Accumulation,” *The American Economic Review*, 92(4): 818-849.

Moser, C. y A. Winston (2002). *Violence in the Central- American Region: Toward an Integrated Framework for Violence Reduction*, Working Paper No. 171. Overseas Development Institute, London.

Reardon, T., and S.A. Vosti (1995). “Links between Rural Poverty and the Environment in Developing Countries: Asset Categories and Investment Poverty,” *World Development*, 23: 1495-1506.

Rosenzweig, M.R., and H.P. Binswanger (1993). “Wealth, Weather Risk and the Composition of Profitability of Agricultural Investments,” *Economic Journal*, 103: 56-78.

Rosenzweig, M., and K.I. Wolpin (1993). “Credit Market Constraints, Consumption Smoothing and the Accumulation of Durable Production Assets in Low Income Countries: Investments in Bullocks in India,” *Journal of Political Economy*, 101 (2): 223-244.

Sen, B. (2003). “Drivers of Escape and Descent: Changing Household Fortunes in Rural Bangladesh,” *World Development*, 31(3): 513-534.

Thoumi, F. E. 2002. ”Illegal Drugs in Colombia: From Illegal Economic Boom to Social Crisis 71,” *Annals of the American Academy of Political and Social Science 582*, 102-16. [or ‘*Science*, 582: 102-16’]

Townsend, R.M. (1994). “Risk and insurance in Village India,” *Econometrica*, 62(3): 539-591.

Zimmerman, F. J., and M.R. Carter (2003). “Asset Smoothing, Consumption Smoothing and the Reproduction of Inequality under Risk and Subsistence Constraints,” *Journal of Development Economics*, 71: 233-260.

Annex: First stage regressions for instrumental variable regressions

Table A.1. First stage: intramunicipal displacement

Variables	Coefficient (t-statistic)
Reactive displacement	0.0231
	(1.15)
Household head dead or not present	-0.0731
	(-2.96)***
Perception of the presence of illegal armed groups	-0.0229
	(-1.00)
Perception of the presence of government forces	-0.0955
	(-5.51)***
Household – average number of organizations	0.0289
	(2.88)***
Formal land title	0.0442
	(2.09)**
Formal land title*presence of government forces	-0.0506
	(-1.71)*
Total hectares of land	-0.0003
	(-2.05)*
Years of schooling of the household head	-0.0026
	(-0.78)
Number of persons between 12 and 17 years of age	0.0085
	(1.21)
Number of persons between 17 and 65 years of age	0.0042
	(0.80)
Ethnic minority	0.0405
	(2.12)**
Contacts at destination site	0.0636
	(4.18)***
Dedicated to agricultural activities at origin site	0.0201
	(1.38)
Constant	-0.1040
	(-0.32)
Observations	2318
F-statistic	11.39

Table A.2. First stage: beneficiaries of income generating programs

Variables	Coefficient (t-statistic)	Coefficient (t-statistic)
Length of settlement – days	0,0001	0,0002
	(6,56)***	(8,54)***
Length of settlement squared	0,0000	0,0000
	(-4,44)***	(-5,90)***
Years of schooling of the household head	0,0145	0,0116
	(1,17)	(0,95)
Years of schooling squared	-0,0005	-0,0004
	(-0,75)	(-0,58)
Dedicated to agricultural activities at origin site	-0,0337	-0,0380
	(-1,58)	(-1,83)*
Age - household head	0,0076	0,0072
	(1,81)*	(1,78)*
Age squared	-0,0001	-0,0001
	(-2,48)***	(-2,32)**
Unemployment at destination site of household head	-0,1341	-0,1278
	(-5,24)***	(-5,14)***
Potential rents – assets at origin site	0,0000	0,0000
	(0,33)	(0,38)
Contact at destination site (family, friend)	-0,0196	-0,0121
	(-0,94)	(-0,59)
Household head – average number organization at destination site	-0,0427	-0,0441
	(-2,91)***	(-3,08)***
Male household head	0,0688	0,0757
	(2,99)***	(3,38)***
Head abandoned or left household	0,1103	0,1226
	(3,04)***	(3,48)***
Ethnic Minority	0,0371	-0,0113
	(1,66)*	(-0,44)
Dependency ratio	-0,1161	-0,1298
	(-2,68)***	(-3,09)***
Beneficiary of humanitarian aid	0,0748	0,0685
	(3,00)***	(2,82)***
Constant	0,0259	-0,4391
	0,22	(-0,97)
Department controls	No	Yes
Observations	2319	2318
F-statistic	10,06	8.37

Controls for urbanization structure are included. These include country capital, large city, medium-sized city and small city.
Source: Authors' calculations based on ENHD (2004).
*Significant at 10%. **Significant at 5%. ***Significant at 1%.