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A MICRO LEVEL ANALYSIS OF VIOLENT CONFLICT

Do Conflicts Create Poverty Traps? Asset Losses and Recovery for Displaced Households in Colombia

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Do conflicts create poverty traps? Asset losses and recovery for displaced households in Colombia [1]

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Abstract: Internal conflicts entail large asset losses for certain segments in 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 and the process of asset accumulation following the initial shock. To do this, 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 as settlement at destination sites consolidates. Therefore, unless a positive intervention is implemented, displaced households become locked in a low income trajectory, and are unlikely to leap forward to a high return asset level.

Keywords*:* forced migration, civil conflict, asset losses, structural poverty, quantile regressions.

JEL Code: D74, N46, I32, R23

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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, who are targeted by armed groups seeking to consolidate territorial strongholds, expand territorial control, and 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. Therefore, losses of physical, financial, social and human capital are substantial.

Assets losses may compromise the future welfare of households. By contributing to the generating of income and acting as insurance mechanisms, assets are important determinants of the present and future welfare of households (Little et al, 2006; Helme and Shepherd, 2003; Fafchamps et al, 1998; Rosenzweig, and Woping, 1993; and Corbett, 1988). When some groups of the population are rationed out of credit markets, asset depletion or an insufficient asset base forces households into a low yield trajectory and into poverty traps (Carter and Barret, 2006; Reardon and Vosti, 1995; Rosenzweig and Binswanger, 1993).

As a result, internal conflicts may leave a legacy of structural poverty that is difficult to overcome. Recovering 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. Active public action aimed at restoring households to previous levels and stimulating growth are consequently 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 groups to some groups of the population determine the magnitude of assets losses from forced displacement. Third, we investigate the process of asset recovery by identifying who is better able to accumulate new assets. In addressing these questions, we rely on households surveys of 2,322 displaced Colombian households and 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 model, qualitative and quantitative data, and results are presented in section three. Section four concludes.

1. Literature review

Standard microeconomic models predict that, in the presence of decreasing returns on assets, poor households eventually catch up with wealthier households with respect to their welfare trajectories. Nevertheless, locally increasing returns or exclusionary mechanisms—such as imperfect credit markets—may hinder convergence, and multiple equilibria may arise, thus restricting some groups to low income trajectories. Inasmuch as investments are lower due to credit market imperfections, investment indivisibilities or behavioral components,[4] some economic agents 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). Initial wealth conditions become a strong predictor of the economic performance of households, resulting in divergences in economic trajectories.

Structural poverty, then, strongly correlates with initial conditions, like an insufficient asset base. As returns on small asset holdings are insufficient, income barely covers subsistence needs; consequently, there is a negligible surplus to save. 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

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

consumption in order to build up an asset base is also difficult to adopt when a household is close to subsistence consumption levels. These constraints may push households into poverty traps (Carter and Barret, 2006; Reardon and Vosti, 1995; and Rosenzweig and Binswanger, 1993), as initial asset inequalities tend to reproduce and deepen themselves over time (Zimmermann and Carter, 2003).

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 accumulate non-productive assets, which may easily be liquidated when shocks arise (Helme and Shepherd, 2003; Fafchamps et al, 1998; Rosenzweig and Woping, 1993; and Corbett, 1988). Other assets, such as land, play an important productive role even while they remain non-liquid (Corbett, 1988); when shocks occur, households rely on non-productive assets while simultaneously protecting productive assets. The latter is only sold if conditions become extremely harsh, and it is necessary in order not to compromise long-term consumption and welfare (Corbett, 1988).

Consequently, households usually adopt several strategies to prevent disposing of productive assets during times of crisis. If access to credit markets and insurance mechanisms is complete, households can protect their assets, and shocks do not necessarily translate into asset depletion (Carter and Barret, 2006). However, credit markets often ration out low income households and insurance mechanisms are not able 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; households prefer to smooth assets instead of consumption (Carter and Barret, 2006; Hoddinott, 2006; Barret et al, 2004; and Zimmermann and Carter, 2003). Where risks are high, households may cut back consumption in order to protect assets and future consumption, while being careful not to fall below subsistence levels, whereby consumption therefore is extremely volatile (Barret and McPeak, 2006). In fact, households tend first to adopt reversible strategies; 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. On the one hand, poor households are near subsistence consumption levels to begin with; reducing consumption then in order to build up an asset base hardly constitutes an alternative (Barret et al, 2004). Moreover, 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 loss 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; and Dercon, 1998).

Empirical evidence indicates that structural poverty is strongly related to a lack of assets. Longitudinal studies and qualitative evidence show that structural poverty is frequently related to asset deprivation, whereas 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). In fact, assets are a fundamental mobility mechanism for overcoming poverty when unemployment rates are high and labor markets are restricted (Hulme y Shepherd, 2003).

Socio-demographic characteristics, human and social capital, labor markets, and shocks are also 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. Where assets are lacking, the poor have to rely entirely on labor to generate income and accumulate assets. Moreover, investment in human capital allows people to move from low productivity (and low paying) jobs to high productivity jobs, 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 household into structural poverty if proper aid is not provided to the victims (Adato et al, 2006, Hulme and Shepherd, 2003; and Corbett, 1988).

During periods of internal conflict or civil strife, illegal appropriation, the destruction, erosion, and depletion of assets are widespread, generally laying down a legacy of structural poverty for a considerable segment of the population, which, in turn, may sow the seeds of future conflicts. First, armed groups seize assets from the civilian population in order to finance the war and weaken their opponents' support among the population (Hirshleifer, 2001). Added to this, although conflicts may have 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 is sometimes substantial (Engel and Ibáñez, 2007; Matowu and Stewart and, 2001; and André and Platteau 1998). Second, since the civilian population becomes the target of armed groups, household disintegration, caused by death and forced recruitment, is common; this leads to large losses in human capital. In addition, since some households are forced to migrate from urban to rural areas, returns on their human capital, - namely a knowledge of agricultural production— deteriorates significantly. Third, conflicts severely disrupt formal and informal risk-sharing mechanisms; access to financial markets decreases, informal lending drops, and links to social networks are weakened (Ibáñez y Moya, 2006a). Consequently, the victims of internal conflict are more likely to fall into chronic poverty (Justino and Verwimp, 2006).

3. Empirical Analysis

The purpose of this section is to understand how a severe shock, namely internal conflict and forced displacement, causes substantial 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 by: (i) providing a detailed description of the losses stemming from forced displacement; (ii) analyzing qualitative evidence which enables us to understand the complex process by which a displaced population recovers it assets; and (iii) estimating OLS, Instrumental Variable and quartile regressions so as to

identify the determinants of asset losses as a consequence of displacement, and asset accumulation after displacement. This section presents a short description of the internal conflict in Colombia, the analytical framework on which we base our research, our data, and the empirical results of our study.

3.1. Internal conflict and forced displacement in Colombia

Since its independence from Spanish rule, at the beginning of the nineteenth century, Colombia has been marred by several internal conflicts which have seen various groups struggle for the control of political institutions, land, and resources. These conflicts have progressively exerted a heavy toll on the civilian population. In particular, two conflicts that arose during the second half of the twentieth century targeted and inflicted significant losses on civilians.

The first conflict, known as *La Violencia*, emerged from the political struggle between the two traditional and major political parties in Colombia, the Liberals and Conservatives. *La Violencia* exploded vigorously in 1948, following the assassination of a major political leader of the Liberal Party, an individual who enjoyed massive popular support. Riots immediately took place in Bogotá, the country's capital. From there, the violence between the followers of the two parties quickly spread to rural areas. Homicide rates soared throughout this period as people were chased and murdered on account of their political affiliation; official figures estimate that nearly 30,000 persons lost their lives during this period of civil strife (Echeverry et al, 2001). After 10 years of bloodshed between Liberals and Conservatives, an exclusive power-sharing arrangement between both parties, initiated in 1958, paved the way for a peace deal, one which finally brought the armed confrontations to an end.

Even though the level of violence lessened over the subsequent two decades, the agreement did not bring the civil conflict to an end. Quite the contrary, with the emergence of several left wing guerrilla groups—the FARC, ELN and ERP—the conflict was only transformed. These groups emerged during the early-sixties, in the southern region of the country, and quickly began launching sporadic attacks on government forces and occupying rural towns and lands; they sought to contest the rule of the Liberal and Conservative Parties and overthrow the government (Echeverry et al, 2001).

The violence from guerrilla groups intensified in the late-seventies and early-eighties with the appearance of illegal marihuana and coca drug crops. The illicit drug trade provided massive resources to rebel groups, and has served to fuel the conflict ever since. These resources also instigated the creation of right-wing paramilitary groups, groups that have been closely related 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 resources from the illegal drug trade, has resulted in a much more intense and on-going conflict all over the country. (Gaviria, 2000; Thoumi, 2002).

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 the civilian population has been more than simply a fortuitous by-product of the violence between guerrillas, paramilitaries and government forces; it has constituted an explicit and rational strategy of armed groups for funding activities and for consolidating and expanding their territorial strongholds. Forced displacement, in particular, has become a widespread strategy for, among other things, weakening the enemy's support among the population, clearing regions for growing and trafficking in illegal crops, and expropriating lands and resources (Engel and Ibáñez, 2007). At the present time, forced displacement is affecting more than 2.5 million people, which corresponds to 5.7 percent of Colombia's population; a figure that stands out worldwide (Ibáñez et al, 2006). Moreover, as illegal armed groups are pervasive throughout Colombia, nearly 90 percent of all municipalities have either faced expulsion or have been the recipient of displaced persons.

Left-wing guerrillas and right-wing paramilitary groups are accountable for most of the forced migration in Colombia. As of December 2005, guerrillas and paramilitary groups have been responsible for 47 percent and 17 percent of all displacement events, respectively (Ibáñez et al, 2006). These groups rely on violent aggression, inclusive of such as death threats, massacres, selective homicides, kidnapping and forced recruitment, among others, in order to force the migration of civilians. Contrary to what happens in other countries, massive displacement—whereby several households from the same community or town migrate at the same time—is the exception rather than the

rule in Colombia. Nearly 76.1 percent of displaced persons migrated individually while only 23.7 percent of them migrated as part of a larger group (massively).[5]

Forced migration results in a sudden and considerable loss of physical, human, social and financial capital. Because households are forced to migrate unexpectedly and hastily, the protection, carrying, or selling of assets prior to migration is rare. Consequently, physical capital losses can prove substantial—while some owners are compelled to sell their land and properties at a lower price than the market value, others are forced to simply abandon them; only a few are able to sell them at market value. Physical assets are seldom converted into liquid capital, such as might later be invested at destination sites for the purpose of initiating other productive activities.

Furthermore, the dynamics of forced migration cause a depreciation in the human capital of displaced persons. Assassination, forced recruitment, and the disappearance of household members are among the main triggers of displacement; all entail the loss of members who might otherwise generate income. Added to this, physical incapacity as a consequence of conflict (e.g., victims of land mines) and post-traumatic stress disorder often pose tremendous psychological stress on households, thus preventing surviving victims from recovering from the shock of displacement and coping with responsibilities. Finally, since the majority of households migrate from rural areas and prior to displacement used to work in agriculture, returns from human capital drop inasmuch as their competiveness in the urban labor market is relatively low.

Financial and social capital losses are also noteworthy. By facing substantial constraints in terms of generating income, households often fail to honor loan agreements, thus losing future access to credit markets. In any event, the loss of physical assets generally means that most displaced households lack the collateral necessary for applying for formal credit. Lastly, social capital also deteriorates, as pre-displacement links to social networks at sites of origins are weakened, and many households disintegrate. Conversely, the level of access to social networks and local leaders at destination sites is relatively low.

Displaced households are unable to make up for asset losses by generating larger incomes at destination sites. First, displaced persons find considerable obstacles to accessing urban labor markets; given what are often high unemployment rates and the

[5] Acción Social, www.red.gov.co, accessed 31 July 2006.

absence of a good match between working experience and urban labor market requirements, urban areas generally absorb newcomers only slowly. Second, a lack of assets and the rationing of credit markets, on the other hand, obstruct engagement in productive activities at destination sites.

The loss of physical, human, financial and social capital pushes displaced households into extremely vulnerable conditions. Forced displacement reduces the possiblity of generating income and severely restricts risk-insurance mechanisms, thus potentially helping to create poverty traps for a segment of the Colombian population. In fact, empirical evidence identifies forced displacement as one of the catastrophic events that generates structural poverty (Hulme y Shepherd, 2003).

3.2. Assets losses and asset accumulation: a simple reduced form model to identify the determinants

Households' socioeconomic status at the municipality of origin, the process and characteristics underlying forced migration, the distance to the municipality of origin, the capacity to control assets, access to financial and labor markets, level of participation in income generating programs, and overall vulnerability seem to constitute important factors that have an effect on displaced households' asset dynamics. In order to control for different household characteristics, while at the same time understanding the effect and importance of each on asset dynamics, we develop an econometrical analysis. The models we present in this section hypothesize the possible determinants of displaced households' asset dynamics and explain how each determinant influences the situation. We examine first the process of assets losses stemming from forced displacement and how the dynamics of conflict determine these losses. Second, we identify the determinants of asset accumulation once the forcefully displaced settle in destination. By investigating assets losses and asset accumulation, we provide evidence on the impact of internal conflict upon asset trajectories, and the ability of households to recover from conflict related shocks.

Displaced household's asset dynamics 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 influenced by different factors. Assets losses are driven by the dynamics of the internal conflict in the region of origin, the victimization process households endured

before displacing, and the strategies adopted to minimize asset loss. Asset accumulation in destination, on the other hand, is determined by the income generation capacity of households, their vulnerability conditions, participation in programs to support the displaced population, and the settlement process in destination.

We will discuss first the determinants of asset losses (A_L). The conflict dynamics that triggered 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 thus abandonment. Conversely, presence of government forces (P_G) may protect households from illegal groups' attacks, reducing the likelihood of being forced to move and of loosing assets.

The victimization profile of households may determine the extent of asset losses. Illegal groups purposively target some households to terrorize the civil population, and prompt displacement. These households are therefore victims of selective homicides, forced recruitments, and death threats, among others. When household members are forced to flee hastily in order to save their lives or after being the victims of such events (reactive displacement(Re)), the possibility of protecting assets becomes scant. On the other hand, when households migrate preventively out of fear that the conflict will escalate in the region, it becomes easier to plan the migration. Consequently, protecting, selling or transferring assets to family or friends is more likely; likewise, to control assets at origin municipalities. Such 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 members (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 have difficulties recovering land. These households may face substantial asset losses.

Attacks to groups of the civil population are not random. Certain groups are deliberately targeted as a war strategy. Community leaders or households with strong social networks (CS_O) are more likely to be targeted by armed groups. The attacks of illegal armed groups are usually aimed at community leaders in order to frighten the civilian population, weaken their enemy's popular support, and discourage civil resistance. 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 losses is uncertain. Land owners and tenants (L) are also attractive targets for armed groups as, once they flee, lands are abandoned and can be seized by armed groups. Incentive to attack land owners increases as land plots are larger, yet large landowners are better able to adopt strategies to protect their assets. Young men are potential combatants that may be forced to join armed groups. Thus, the age structure of the household (S) may also prompt attacks from armed groups. 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. Lastly, belonging to an ethnic minority (Me), such as indigenous or Afro-Colombian groups, may also determine the extent of asset losses, but the effect is difficult to establish *a priori*. Ethnic minorities suffer direct attacks from armed groups with greater frequency; hence, these households face larger obstacles when trying to control assets at origin sites following displacement. Ethnic minorities, however, usually possess collective land titles, which may help to protect them against illegal land seizures by armed groups.

Households are not however passive victims of the armed conflict. Some households may adopt strategies to minimize the extent of asset losses. Relocating within the municipality is a migration strategy sometimes employed to protect and/or recover assets. Households may decide to migrate within the municipality (*M*) in order to maintain control over their productive assets, continue with productive activities at their land plots, and extract rents. By residing closer to their land plots, for instance, households that migrate within a municipality are better able to control their assets at sites of origin. In order to protect land plots after displacement, households may decide to register their title in official records (*F*). Legal title over land plots may prove as an obstacle for illegal seizure, preventing thus attacks from armed groups or protecting land once forced displacement occurs. Notwithstanding, legal title may be ineffective in regions where the rule of law and the protection of property rights is lacking, which is usually the case in conflict driven regions. Human capital, (H), constitutes an element allowing households to device strategies to 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 become effective community leaders posing a

threat to armed groups which may seek to dissolve any civil resistance. Thus, the impact of human capital on asset losses is uncertain.

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

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

Asset accumulation in destination sites is driven by different factors than those that shape asset losses. First, 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 recovering productive paths and accumulating new assets at receiving municipalities. As the time of settlement increases, however, governmental aid programs come to an end, and the short-term benefits of income generating programs vanish. If the first effect exceeds the second effects—this is, if a household's ability to recover productive capacity offsets the discontinuation of resources from aid programs—time of settlement will exert a positive effect on asset dynamics. Such may be the case when households are able to adapt themselves adequately to the conditions at receiving municipalities, and/or when aid programs produce long-term benefits. On the opposite side, if the second is stronger than the first one, then the effect of the time of settlement on asset dynamics will be negative. Such might be the case for households that were not suited for adapting to receiving municipalities.

Human capital, (H), may contribute to adapt easier to conditions at destination sites, 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, both of which help households to accumulate new assets. However, human capital is not necessarily a transferable asset. Agricultural experience (Ag) is not useful in urban labor markets, where the predominant occupations for low-skilled workers are in construction, services or petty trade. This depreciation of human capital restricts earning possibilities and, consequently, asset accumulation.

The ability to generate income, in particular through access to labor markets, extraction of rents from assets left in their hometown and social capital, are crucial in promoting the accumulation of asset holdings. Access to labor markets and successful small

enterprises are key determinants of the level of success in accumulating assets at receiving municipalities. Income earned in labor markets or through small enterprises, (Y_R), besides covering subsistence needs, may be invested in new productive assets. Some households are still able to control assets in their hometown, and extract rents from production in their land plots. By obtaining rents from the exploitation of these plots, they are able to accumulate new assets at receiving municipalities. Social networks and social capital at receiving 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. To measure the density of social networks at destination sites, we include a dummy variable for contacts at the new location and membership in formal organizations. Families and friends at reception sites may provide assistance during the first months of displacement, help mediate with respect to finding jobs, and provide housing in times of crisis, all of which help mitigate displacement shock and increase the likelihood of recovering productive capacity. Membership in formal organizations provides a similar support, and may help displaced households access special programs for displaced persons, or legal aid for recovering lost assets at the municipality of origin.

Current household structures and socioeconomic characteristics are also determinants of displaced households' asset dynamics. First, income generation and the accumulation of assets depend, among other factors, on a household's structure and the age of the household head. High dependency ratios, (D), imply fewer members generating income and greater needs, thus restricting the capacity for recovering assets. Female household heads, (J), may also face obstacles to accumulating new assets, due to their vulnerability following displacement. Conditions worsen when a female member is compelled to fill the role of household head after displacement, usually after the death or forced disappearance of the main bread winner. Such households may not be able to achieve income levels similar to those attained by male-headed households because of high dependency ratios, a lack of labor experience, and the general poor quality of jobs that are offered to women. Age, (E), may exhibit an inverted u-shape relationship with asset dynamics. Because young displaced persons have less working experience, their income is low; consequently, asset recovery becomes difficult. On the other hand, old persons may have difficulties learning new occupations and adapting to changing

circumstances. Asset accumulation, consequently, increase with age, but only with diminishing marginal returns. Lastly, belonging to an ethnic minority may also determine asset accumulation as these groups faces particular vulnerabilities given their cultural heritage, and language barriers, among others.

Access to programs targeting the displaced population, G_i, may provide the initial stimulus for recovering productive capacity, generating sufficient income, and placing households on the path of asset accumulation. The impact of these programs, however, differs according to the type of assistance received. Although humanitarian aid, health coverage and school enrolment are important programs that improve the conditions of displaced households at destination sites, their effectiveness in generating income and with respect to accumulating assets is limited, if not inexistent. Conversely, since income generating programs promote access to labor markets or investment in productive activities, their contribution to income earnings and asset recovery might be much more effective. Such programs are thus crucial to helping households generate income and accumulate assets.

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 losses stemming from displacement and asset accumulation in destination sites are estimated with household surveys applied to 2.322 household surveys which are described below.

3.3. The data

We base our empirical analysis on two sources of data. The first source is a household survey that was applied to displaced households in Colombia during 2004 and 2005. The second source is 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.

The sample of the household-level data comprises 2,322 displaced households located in 48 municipalities[6] and 21 departments. The purpose of the survey was to characterize the forced migration process, identify welfare losses caused by displacement, elicit the

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

level of desire to return, and evaluate income generating programs. To achieve these objectives, we constructed a sample for a treatment group comprised of 769 displaced household beneficiaries of income generating programs, and a control group comprised of 1,553 displaced households who are non-beneficiaries of income generating programs.

The control group is representative of the displaced population while the treatment group is representative of those displaced households which are beneficiaries of income generating programs. Given the large mobility and the unwillingness to be located of the displaced population, constructing a representative sample of this population is difficult. In fact, Colombia thus far does not have a representative sample of the displaced population. To build the sample, we could rely on two data sets of displaced population. The first data base, RUPD, is the official registry of displaced population which contains all displaced households who are beneficiaries of government assistance. To register in RUPD, displaced households should actively seek government institutions, and present a legal declaration, which is later verified by government authorities. Consequently, these registry faces large underegistration due to misinformation, and arbitrary decisions from public officials as well as a bias due to the registration process (Ibáñez and Velasquez, 2007). Moreover, details about the displacement process and household structure from the RUPD data is restricted to a few characteristics. The second data base is the RUT System that covers (i) displaced households which request assistance in any of the 3,764 parishes of the Catholic Church; and (ii) households which are included by censuses conducted by the Catholic Church in many municipalities. A detailed questionnaire is applied to a sample of displaced households[7]. When the sample was defined, the data contained information from 32,093 households and nearly 150,000 people. Although the RUT system is not representative of the displaced population, the detailed questionnaire provided ample information to construct a stratified sample. In addition, the fact that is not only demand-driven, as the RUPD, makes it more realiable because the bias somehow is reduced by not only relying on decisions of households and public officials decisions. The design for the control sample was therefore based on the RUT sample.

[7] 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.

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[8]; enumerators then proceeded to locate RUT households and administer the survey. For each RUT household surveyed, a non-RUT household in the general vicinity was located; the survey was then administered to that household. A comparison between the RUT sample, the non-RUT and the RUPD sample showed differences between the characteristics of the displaced households, and the displacement process was not statitistically significant (Ibáñez et al, 2006). Beneficiaries of income generating programs were surveyed in the same municipalities as contained in the RUT and non-RUT samples. Households were randomly selected from a beneficiary list provided by three organizations responsible for implementing these programs.

Enumerators were social workers employed in Catholic parrishes in each municipality. Two reasons led us to select workers from the Catholic parrishes. First, Catholic parrishes, and in particular these workers, are permanently engaged in social programs for displaced persons and generally have a strong and trustworthy relationship with the displaced population. Needless to say, trust is essential when adminestering surveys if they are to ellicit sensible information from victims of war. Second, although the questionnaire includes a question aimed at rightfully identifying displaced persons, social workers provide a first screening so as to distinguish displaced households from native families.

The survey elicits information regarding the forced migration process, the socioeconomic conditions before and after displacement, land tenure status, agricultural production, access to government aid, and the level of desire to return. The migration process is characterized at length through the information collected about the armed actors who caused the displacement, the triggers behind the displacement, and the reasons for choosing the particular reception municipality. Socioeconomic conditions before and after displacement are 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. Included were two sections with detailed

[8] The variables used to stratify the sample were the desire to return, land tenure status, access to government aid, geographical region and the number of households in the community.

questions about access to land, the characteristics of plots, land losses, the likelihood of recovering land upon return, and agrictural production.

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 that foster movement 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 the displaced population, and the process by which some households are able to recover assets and steadily improve their situations at destination sites. By mixing qualitative and quantitative evidence, we are able to identify which households are better able to recover from displacement shock, and the dynamics behind this recovery.

3.4. Qualitative analysis

We analyze the qualitative data from the eight case studies of the World Bank's 'Moving Out of Poverty' Colombian case study in order to assess the impact of forced displacement on household welfare, examine the process of asset loss, and identify the different groups of displaced households that emerge after the process of migration and asset loss. Three groups among the displaced population that exhibit divergent paths and patterns of asset loss and accumulation are identified. The first group consists of households that barely had assets at the site of origin, were considered chronically poor, had little means for coping with the displacement shock, and, following displacement, remained poor and asset deprived. The second group consists of households that had large asset holdings at the site of origin, but suffered massive asset losses due to the conflict and resulting forced displacement. Upon arrival at destination sites, these households fall into poverty and may remain poor—for them, asset recovery is unlikely. Finally, there is the third group, which comprises households that had some asset holdings at the site of origin, and that, in spite of suffering substantial welfare losses, did not suffer as severe a displacement shock as the first two groups. These households were able to cope to a certain extent with the displacement shock, accumulate or recover assets, and eventually move out of poverty. We concentrate on this last group in particular, analyzing the factors and processes that eventually helped them to recover their productive abilities and asset base.

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

Conflict imposes economic costs even before displacement takes place. Civil conflict and the presence of armed groups halt economic production, causes assets to become undervalued, and hampers government support. Guerrillas and paramilitaries increasingly exert control over the civilian population, inclusive of social relations and productive activities. As a result, towns in conflict zones face fewer economic opportunities, a sudden stop in several farms in agricultural production, a drop in daily agricultural wages, and general unemployment. In other communities, the presence of illegal armed groups, in addition to restricting economic activity, undermined governmental support and eroded social capital. Thus, access to labor training, technical assistance programs, credits, and support for productive projects basically disappeared.[9] Furthermore, the conflict's dynamics paved the way for the seizure of large proportions of households' possessions. Other sources of asset depletion caused by the conflict have included cattle deaths, yield destruction, and the loss of land improvements. The risk of new combat and the fact of communities becoming stigmatized as "conflict zones"[10] has increased uncertainty, decreased land value, and led households to cut back on investments.[11]

Forced displacement produces substantial losses of physical assets, which translate into an extreme vulnerability to poverty. Displaced households lose, or leave behind, their life's work, lands, crops, animals, land improvements, investments and houses. All of this causes a harsh and sudden decline in living conditions and productive capacity.[12] Moreover, loosing 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

[9] Macajan CR: community time line and community profile.
[10] In Spanish, *Zonas Rojas*.
[11] Cerotal CR: life ladder and community time line; El Pilar CR: ladder of life.
[12] Cerotal CR: researcher's follow up.

ability to cope properly with the shock of displacement, and is generally identified by households as a predominant factor pushing them into poverty.[13]

Some households, however, are able to sell their assets before migrating. Selling assets has been a strategy adopted by some—mainly those who migrated as a preventive measure[14]—in order to mitigate displacement shock during the first months of settlement, thus allowing them to enjoy better economic conditions at destination sites. Frequently, however, households are obliged to sell assets at prices well below market levels.[15] Since the liquid capital from these sales is not large, such distress sales generally barely cover consumption needs, and then only for several months, meaning that after a few months of settlement at a destination site, it is no longer sustainable as a strategy; conditions generally worsen significantly once savings are exhausted.[16] Distress sales then only postpone the erosion of asset bases, they do not prevent it. Furthermore, if households are not able to recover from distress sales, they become dependent on labor income to improve their situation at the destination site.[17]

Unfortunately, insertion into urban labor markets tends to be slow due to the depreciation of human capital, discrimination against displaced persons, and what are often fragile psychological conditions resulting from the shock of displacement. Given that displaced households mostly arrive from rural areas and that their working experience is limited to agricultural activities, the returns from "agricultural human capital" generally decrease in urban areas.[18] Furthermore, discrimination against the displaced persons, incidences of post-traumatic syndrome, and changes in household composition also work to restrict employment opportunities. Displaced households are thus frequently discriminated against, something that ends up constituting another hurdle to accessing labor markets.[19] On the other hand, conflict and forced migration

[13] Nelson Mandela CR: ladder of life with female participants; Villa Kathy CR: ladder of life with male participants; Cerotal CR: researcher's follow up.
[14] El Pilar CR: Gabriela and Cristina's life story.
[15] Nelson Mandela CR: Ancisar's life story; Villa Kathy CR: Eudilce's life story; Gonzalez Chaparro CR: Cristina's life story.
[16] Gonzalez Chaparro CR: ladder of life with female participants.
[17] El Pilar CR: Andrea's life story.
[18] Villa Kathy CR: livelihoods, freedom, power, democracy and local governance discussions with female participants; Nelson Mandela CR: Diego's life story & ladder of life with female participants. El Pilar CR: Andrea's life story; Cerotal CR: livelihoods, freedom, power, democracy and local governance with male participants.
[19] Revivir de los Campanos CR: livelihoods, freedom, power, democracy and local governance discussion with female participants; Villa Kathy CR: community time line; Nelson Mandela CR: researcher's follow up; El Pilar CR: community time line.

may cause psychological disorders, which often produce a sense of helplessness, defeat and irrational fear. People facing such disorders are usually scared to venture out of their homes and search for jobs.[20] Lastly, conflict and forced displacement may produce household fragmentation as well as result in the death of or abandonment by household members; such individuals are often of a productive age. Women often end up becoming the heads of households by default, something which further increases the vulnerability of households.[21] All these elements constitute obstacles for finding jobs and generating income.[22]

By lacking physical assets, suitable employment opportunities, and risk-sharing mechanisms, households face substantial welfare losses and are unprotected against current and future shocks. Displaced households leave behind contacts, relatives, connections and social networks. Less social capital and possibility for collective action means fewer opportunities to work, study, and participate in community savings programs; likewise, it means among other things less access to land and productive assets.[23] Although some households participate in social networks at destination sites, informal risk-sharing mechanisms nonetheless do not fully insure risk as the income level of the participants is fairly homogenous.[24] Additionally, prevailing organizations at destinations sites are horizontal organizations, which, while instrumental in mitigating shocks, are not effective in expanding income. Economic organizations, which would be more useful, are less frequent among displacement communities, where the community is rather homogenous.[25]

The disruption of social networks also generates obstacles for acquiring formal and informal credits.[26] Displaced households lack formal references, assets, stable jobs, and collateral, and are thus credit constrained;[27] consequently, investment in land

[20] Nelson Mandela CR: researcher's follow up; Macajan CR: ladder of life with female participants.
[21] Cerotal CR: researcher's follow up, aspirations of youth with female participants and Ramona's life story.
[22] El Pilar CR: Andrea's life story.
[23] Nelson Mandela CR: livelihoods, freedom, power, democracy and local governance discussion with male participants and ladder of life with female participants; Villa Kathy CR: Eudilce's life story.
[24] Gonzalez Chaparro CR: Carmelina and Casilda's life stories.
[25] El Pilar CR: livelihoods, freedom, power, democracy and local governance discussion with female participants; Nelson Mandela CR: Esteban's life story.
[26] Cerotal CR: livelihoods, freedom, power, democracy and local governance discussion with female participants; Nelson Mandela CR: Esteban's life story.
[27] Gonzalez Chaparro CR: ladder of life with male participants; Cerotal CR: livelihoods, freedom, power, democracy and local governance discussion with female participants; Nelson Mandela CR: Esteban's life story.

improvements or productive projects is rare.[28] Difficulties in accessing formal financial markets obliges households to apply for usurious credits, for which guarantees and references are not required[29]; consequently, profits derived of the resultant productive activities are sucked up by the large costs of the credits. Accumulating assets is virtually impossible because income is barely sufficient to cover subsistence needs and to pay off credits.[30]

Forced displacement imposes significant economic costs upon its victims, and the likelihood of recovering from the displacement shock is low. The above suggests that the capacity of displaced households to move out of poverty is limited, as they face significant obstacles to generating income and recovering assets. The conditions existing for displaced households are disturbing—even better-off displaced households that prove able to somehow recuperate asset holdings or earn income from productive activities seem unable to fully break out of the poverty trap[31] .

3.4.2. Three groups of displaced households

The discussion above illustrates how forced migration and civil conflicts affect the welfare of households, erodes asset holdings, and push displaced households into poverty. Nevertheless, not all households are equally affected and some prove capable of recovering to a certain extent. The qualitative evidence allows us to distinguish three subsets of the displaced population based on the different paths they follow toward asset recovery—those households which are chronically poor both before and after displacement, those households which will possibly become chronically poor, and those households capable of initiating a recovery process, but for which the magnitude of recovery is unclear.

The first category—those which are chronically poor both before and after displacement[32]—were asset-deprived households at the site of origin, and remained poor after displacement due to the difficulty in coping with the conflict-induced shock. These households exhibit low levels of human capital, are unable to find appropriate

[28] Cerotal CR: researcher's follow up.
[29] Revivir de los Campanos CR: livelihoods, freedom, power, democracy and local governance discussion with female participants.
[30] Revivir de los Campanos CR: livelihoods, freedom, power, democracy and local governance discussion with female participants.
[31] Nelson Mandela CR: ladder of life with female participants.
[32] In the quantitative analysis in the next section, these households are identified as households with zero asset recovery.

jobs that match with their agricultural working experience, are fairly isolated from social connections, and have household structures that denote a high degree of vulnerability to poverty.

Households falling into poverty following displacement comprise the second group. 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 were thus pushed into poverty traps difficult to overcome. The deterioration in the economic welfare of these households is particularly large. Asset losses—inclusive of the loss of physical, social, financial, human, and institutional assets—have placed them on low income trajectories, where the possibility of moving onto high performance trajectories is remote. Since the returns from different kinds of assets complement one another and this group lacks most of them, providing or gaining access to one asset generally does not improve their situation; breaking out of this conflict-induced poverty trap is much more complicated.[33]

Lastly are the households capable of achieving successful asset recovery dynamics. These households share some common characteristics—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. To understand which factors contribute to asset recovery and the mitigation of displacement shock, we concentrate on analyzing this third group of displaced households.

3.4.3. Which factors contribute to asset recovery and mitigation of the displacement shock?

Several factors allow displaced households to recover their productive capacity, move to a high yield trajectory, and, eventually, break out of a conflict-induced poverty trap. Better educated households, access to savings and credits, participation in social networks, support from government agencies and, in general, the recovery of a certain asset base are all factors that contribute to households reaching a higher economic trajectory. Nonetheless, owning one type of asset is no guarantee of moving out of poverty. As mentioned before, the complementary nature of assets implies that even better educated households, or households with access to credits, or which participate in social networks, will still fall into poverty unless other assets are available.

[33] El Pilar CR: Annex 9.

First, better educated households and households whose members have suitable working experience are able to engage in economic activities and extract higher rents, in contrast to households with no formal education or whose members were previously dedicated to agricultural activities. Respondents, as expected, stated that high levels of formal and informal education and human capital are key elements characterizing movers.[34] Women, for instance, associate prosperity with human capital, defined by them as "learning occupations and knowing how to handle meetings."[35] Labor training programs then are critical for households hoping to recover their productive capacity and undertake new activities—this is particularly true for women, who feel empowered after participating in training programs.[36]

Human capital alone, although necessary, is not sufficient to recover from displacement shock. Having an additional source of income—whether in the form of savings, credits or the exploitation of land plots—is crucial to the recovery process.[37] If, for example, labor training is provided, but there is no access to seed capital or micro credits, the labor training will prove useless. Added to that, access to micro credits is not a substitute for seed capital.[38] Thus, while labor training does boost confidence and provide knowledge relevant to an unknown occupation (and thus eases psychological distress), it must be complemented with seed capital in order to be effective.[39] The proper use of savings—presumably those derived from the sale of assets—together with access to micro credits, ameliorates the displacement shock and eases the process of settlement and recovery. Savings and liquid capital from the sale of assets at the site of origin are instrumental for satisfying basic needs during migration, as well as coping with displacement shock. However, households who successfully recover from the consequences of displacement additionally allocate savings and resources from asset sales to the recovery of productive capacity, and not exclusively to supplying basic needs. Households often use these resources to access land plots at destination sites,

[34] El Pilar CR: ladder of life with male participants and Liliana's life story. Cerotal CR: Diego's life story; Nelson Mandela CR: ladder of life with female participants; Nelson Mandela CR: community time line; Cerotal CR: researcher's follow up; Macajan CR: Bertilda's life story.
[35] Villa Kathy CR: ladder of life with female participants.
[36] Cerotal CR: researcher's follow up.
[37] Nelson Mandela CR: ladder of life with female participants.
[38] Villa Kathy CR: livelihoods, freedom, power, democracy and local governance discussion with female participants.
[39] El Pilar CR: Lilia's life story.

invest in land improvements, or purchase livestock as a saving mechanism.[40] In most cases, asset recovery depends upon the ability of households to sell their properties at the site of origin, access credits, and use this capital properly in order to engage in productive activities.[41]

Acquiring productive assets—especially land plots for agricultural exploitation—and investment resources are critical for the recovery process. Access to land via different mechanisms[42] provides a wider range of economic opportunities, diversifies sources of income, and helps households find more productive activities.[43] Land tenure also allows households to recover their peasant identity, to develop an economic activity compatible with their abilities, and to diversify their sources of income; it also eases the process of settlement and adaptation.[44]

Income generating programs, which provide seed capital to households, merit a separate discussion. Households able to recover their productive capabilities generally had access to income generating programs and seed capital. Nonetheless, most beneficiaries of income generating programs consider the amount of seed capital provided to be insufficient for starting a profitable business. Businesses work better when a group of households come together and pool their seed capital.[45] Because projects can be potentially larger, and the risk is shared among its members, businesses initiated by a group of several families, or projects promoting cooperatives or associative income generating schemes seem to have a higher impact and a greater likelihood of succeeding than individual projects and disbursements.[46]

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[40] Cerotal CR: Julio's life story and community time line. Nelson Mandela CR: community time line, ladder of life with female participants and researcher's follow up; Macajan CR: ladder of life with male participants.

[41] Cerotal CR: ladder of life with female participants; Nelson Mandela CR: ladder of life with female participants.

[42] It is interesting to consider two different mechanisms by which households gain access to land plots. In Cerotal, some households accessed land plots through the mechanism of *Mendevieros*, whereby households lease land plots and divide the agricultural production with the land owner. Although at first the household does not own land, this mechanism has proven instrumental in obtaining income and slowly recovering productive assets. In Nelson Mandela, on the other hand, peasant associations have handed out land plots to their members. Agricultural exploitation of these land plots has enabled some households to engage in successful dynamics leading to asset recovery.

[43] Nelson Mandela CR: community time line; Cerotal CR: researcher's follow up.

[44] Nelson Mandela CR: researcher's follow up.

[45] Gonzalez Chaparro CR: livelihoods, freedom, power, democracy and local governance discussion with male participants.

[46] Revivir de los Campanos CR: ladder of life with male participants.

Savings, seed capital and liquid capital, however, are not sufficient to ensure that asset recovery is successful. The impact of these resources may be limited as sometimes households are compelled to use seed capital to satisfy basic needs.[47] Other times, households face difficulties starting small businesses due to a lack of assets and the high costs of public utilities.[48] Additionally, low levels of human capital impede the possibility of taking advantage of credit or business opportunities. When seed capital is provided without proper training, resources may extinguish rapidly. Training programs on how to effectively sell products may increase the positive impact derived of providing seed capital and/or micro credits to displaced households.[49] When capital is available and subsistence needs are covered, training programs increase the likelihood of households initiating a successful recovery process.[50] In most cases, access to credits and liquid capital depends upon their participation in social networks.

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 such as fulfill basic needs. Second, social networks at reception municipalities may provide households with employment opportunities as well as much needed working and business permits.[51] Associations are also instrumental for obtaining benefits from the government or from NGO programs—among these are labor training, public utilities, selling agreements with local businesses, and the legal recognition of households as displaced persons. Furthermore, networks provide useful information on how to generate income, obtain jobs, and access government programs.[52]

Social capital and collective action then is perceived as a way of moving out of poverty because it provides low-cost inputs, credits, training, representation in public and non-governmental institutions, and stability.[53] Access to these services and benefits is only

[47] Gonzalez Chaparro CR: livelihoods, freedom, power, democracy and local governance discussion with male participants.
[48] Gonzalez Chaparro CR: livelihoods, freedom, power, democracy and local governance discussion with female participants.
[49] Gonzalez Chaparro CR: livelihoods, freedom, power, democracy and local governance discussion with male participants; Revivir de los Campanos CR: community time line.
[50] Nelson Mandela CR: time line for the Amabrema's peasants association
[51] In the Cerotal community, for example, the local organization of displaced households instituted programs providing entrepreneurship training as well as road maintenance, which generates seasonal jobs for displaced households (CEm).
[52] Revivir de los Campanos CR: ladder of life with female participants.
[53] Nelson Mandela CR: ladder of life with male participants; Cerotal CR: livelihoods, freedom, power, democracy and local governance discussion with female participants.

possible through strong social networks.[54] However, not all households participate in these networks; households require contacts, and that eventually relatives and friends become members of these community associations, in order to reap any benefits.

As with human capital and credits, participation in social networks does not guarantee in and of itself a transition to high yield activities. Even households that actively participate in formal organizations often remain trapped in low-yield trajectories because access to capital for investment purposes is restricted and property rights are 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 consistent with the high- and low-yield trajectories of an asset based approach to poverty, and are assessed in greater detail in the following section. It is noteworthy that successful asset recovery dynamics such as exhibit virtuous cycles require human, financial, physical and social capital. Gaining access to physical assets or participating in social networks alone is not sufficient for recovering from displacement shock. Movers can thus be identified as households that are able to recover a broad asset base, and then use it to set off the negative effects inflicted by forced displacement and gain access to high-yield productive activities. Better off households are able to recuperate more rapidly from displacement shock because they acquire productive assets.[55]

3.5. Quantitative analysis: the determinants of asset losses and asset accumulation

To identify the determinants for assets losses and asset accumulation among displaced households using the models specified in section 3.2., we estimate a group of regressions. Before discussing the determinants of asset dynamics, we discuss 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; this allows us to use expansion factors and estimate the aggregate loss for the entire displaced population of Colombia.

[54] Nelson Mandela CR: community time line with male participants, time line for the Ambarema's peasant association, ladder of life with male participants; El Pilar CR: displaced association mini case study; Cerotal CR: aspirations of youth with female participants; Macajan CR: Dairo's life story.
[55] Cerotal CR: conflict time line with male and female participants.

The displacement process and household characteristics are presented in Table 1. First, the level of violence in the regions of origin is extremely large. Most households, more than 86 percent, displaced reactively[56], that is after being the victim of an attack from illegal armed groups. Moreover, while displaced households perceive the presence of illegal armed groups in most of the cases (89.6%), perception of presence of government forces, which provide protection, is much lower (50.3%). Second, although some households prefer to migrate in the close vicinity of their hometown (15.2%), most migrate out of their municipality and directly to destination municipality. Third, displaced households are a particular vulnerable group of the Colombian population. When compared to the urban poor, displaced households are larger, with a higher frequency of female household heads, and with greater dependency ratios. In addition, the percentage of ethnic minorities for displaced households is higher than for the Colombian population (Ibáñez y Moya, 2006b).

Table 1. Displacement process and household characteristics

	Mean (Standard Deviation)
Reactive Displacement	86.2%
Perception of presence of illegal armed groups – origin	89.6%
Perception of presence of government forces – origin	50.3%
Intramunicipal displacement	15.2%
Intradepartmental displacement	57.6%
Migration directly to destination	88.9%
Ethnic minority	24.2%
Male households head	62.7%
Household size	5.16
	(2.14)
Number of persons between 12 and 17 years	0.84
	(0.99)
Number of persons between 18 and 65	2.48
	(1.36)
Dependency ratio	0.34
	(0.34)
Years of age – Household head	42.6
	(13.3)
Number of persons between 12 and 17 years	0.84
	(0.99)
Number of persons between 18 and 65	2.48
	(1.36)

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

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The loss and recovery of housing, physical capital and land are presented in Table 2. The abandonment, loss or destruction of housing is significative; nearly half of the

[56] A household displaces reactively when it is victim of direct treat, a homicide of a household member, forced recruitment, abduction, or a massacre of some or one household member.

sample reports loosing their home as a consequence of displacement, and only a few households are able to acquire new houses 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 at destination sites. The average monetary housing loss per household is US$ 3,333[57].

Because households are seldom able to transport and sell their assets, productive assets are abandoned at origin municipalities and are rarely recovered. Productive assets other than land and plot improvements 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 with much greater ease less expensive articles, 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 having a rural origin, nearly 55 percent of households had formal or informal access to land; the average size of land plots, 13.2 hectares, is not negligible. Recovering land once the conflict ends is a complex process, given the weak property rights that prevail in Colombian rural areas—over 30 percent of households legally owned the land, while the remaining households had only informal access to land. Moreover, only 12.8 percent still control 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. Aggregate land loss for the displaced population is 1.2 million hectares,[58] a figure two times the amount of land distributed in agrarian reform programs for the period 1993 - 2002. If recovering land is difficult, it is even more so for the capital invested to improve land plots or increase agricultural productivity. 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.[59]

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

[58] In order to estimate the aggregated figures for the Colombian displaced population, we use the estimated number of people and households calculated in Ibáñez et al (2006)—554.207 households and 2,459,613 persons.

[59] To calculate the net present value of foregone agricultural revenues, we assume that agricultural production ends when the household head dies and 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.

Losses of housing, physical capital and land are substantial and recouping these assets after displacement appears to be a lengthy process. When physical assets and land are accounted for, the average loss per household is nearly US$ 7,037; the aggregate figure for the entire displaced population approaches 1.7 percent of Colombia's GDP for 2004. 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 losses and asset recovery: housing, physical capital and land

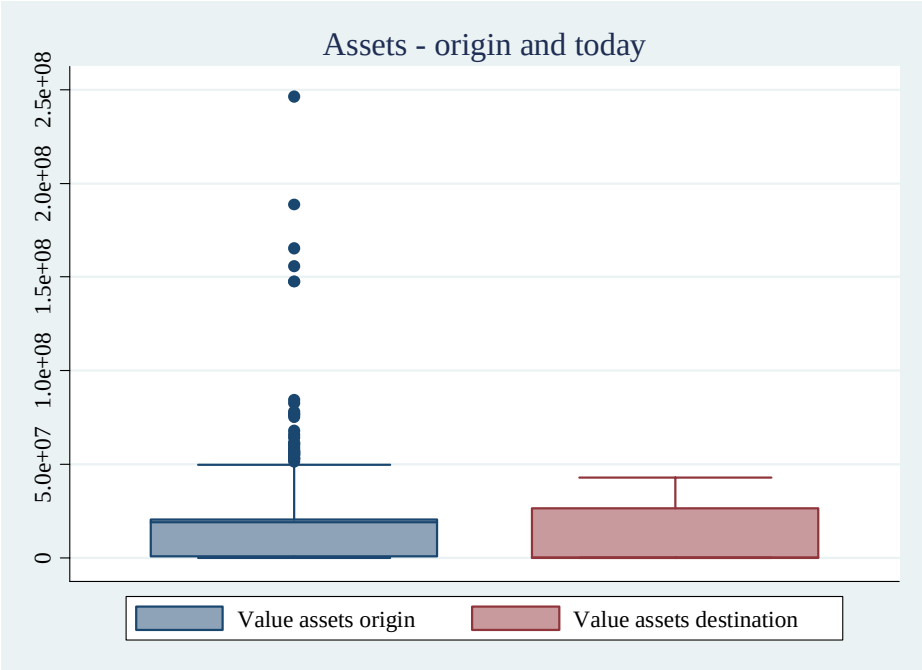
Variable	Mean	Standard Error
Housing		
Percentage of households that lost housing at the origin site	46.50%	-
Percentage of households that lost housing at the origin site and recovered it at the reception site	6.40%	-
Percentage of households that did not own housing at the origin site and owned housing at the destination site	17.90%	-
Average loss in housing	US $ 3,333	US $ 278
Physical assets		
Productive assets (excluding land) – origin site	US $ 370	US $ 42
Other assets – origin site	US $ 93	US $ 5
Percentage of productive assets – origin site	55.20%	0.02%
Productive assets (excluding land) – destination site	US $ 19	US $ 5
Other assets – destination site	US $ 93	US $ 5
Percentage of productive assets – 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 losses	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).

The 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, with not a single household lies well above the mean and median of the distribution.

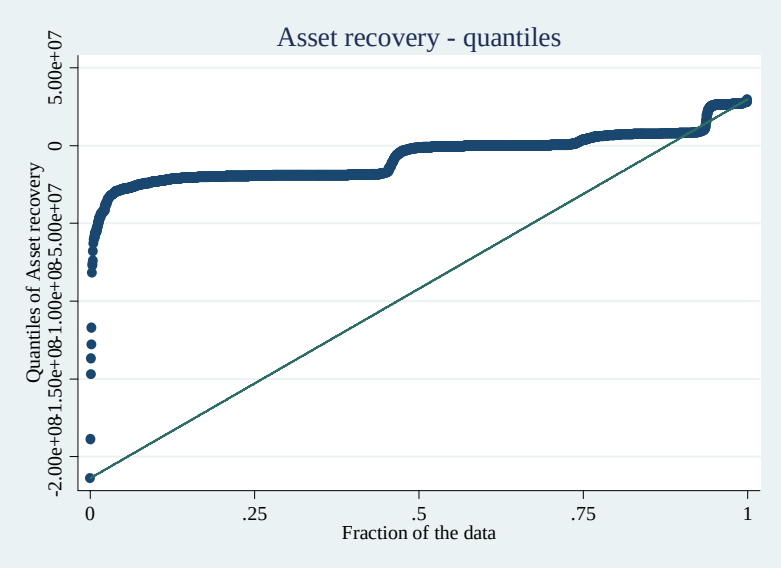
Graph 1. Values of assets at origin and destination sites respectively



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

Asset recovery is difficult for most displaced households. A quartile graph for asset recovery is shown in Graph 2. The majority of households, close to 75 percent, face negative or zero asset recovery, while only 25 percent of households are able to recover assets following displacement. The median of asset recovery is consequently zero, indicating a worrisome trend, as the traditional strategies adopted by households for recuperating assets are hardly available for the vast majority of displaced households.

Graph 2. Asset recovery[a] - quartiles



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

Although households could 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. 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%). Because the access to formal credit markets at sites of origin was negligible, the access at destination sites increases five fold, in spite of the fact that only 6.6 percent of households are the beneficiaries of formal credits. Furthermore, credit conditions gradually worsen at destination sites—the amounts approved are half of those at the site of origin, and the number of monthly installments declines.

Drops in returns on asset holdings are not compensated fully by labor income. Unemployment rates for all household members soar following displacement, and the pace at which labor conditions improve is extremely slow—the unemployment rates of household heads during the first three months of settlement at destination sites is 53 percent and, after a year, 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 the labor income prior to displacement.

Depreciation of human capital and low education levels are important obstacles for displaced households looking to compete 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, unemployment rates for displaced household heads are still greater than those for the urban extreme poor. Low formal human capital (5.7 years) and inadequate previous labor experience with respect to urban jobs (57.3% were dedicated to agriculture prior to displacement) may be the main cause driving these high unemployment rates.

Informal risk-sharing mechanisms are also severely disrupted. Informal credits, as discussed above, drop significantly. Some families disintegrate because of the main breadwinner dying or abandoning the household (8.5%). Distance and reduced interaction weaken links with social networks at the site of origin, and having contacts at destination sites is not common, and while households that participated in organizations prior to displacement often rapidly recover participation at destination sites, the nature of the organizations involved tends to shift dramatically. Previous to displacement, 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 – origin site	17.90%	-
Access to informal credits- origin site	8.30%	-
Potential access to informal credits – destination site	9.30%	-
Access to informal credits – destination site	6.40%	-
Financial capital – formal credits		
Access to formal credits – origin site	1.40%	-
Credit amount - origin site	US$ 1,481	US $ 1,019
Number of monthly installments –origin site	14.5	1
Access to formal credits – destination site	6.60%	-
Amount of credit – destination site	US $ 741	US $ 185
Number of monthly installments – destination site	10.4	1.4
Labor markets		
Unemployment level for household heads – origin site	1.70%	-
Labor income per equivalent adult – origin site	US $ 893	US $ 151
Unemployment level for household heads – destination site	16.10%	-
Labor income per equivalent adult – destination site	US $ 289	US $ 17
Human Capital		
Years of education of household head	5.7	0.1
Dedicated to agricultural activities – origin site	57.30%	-

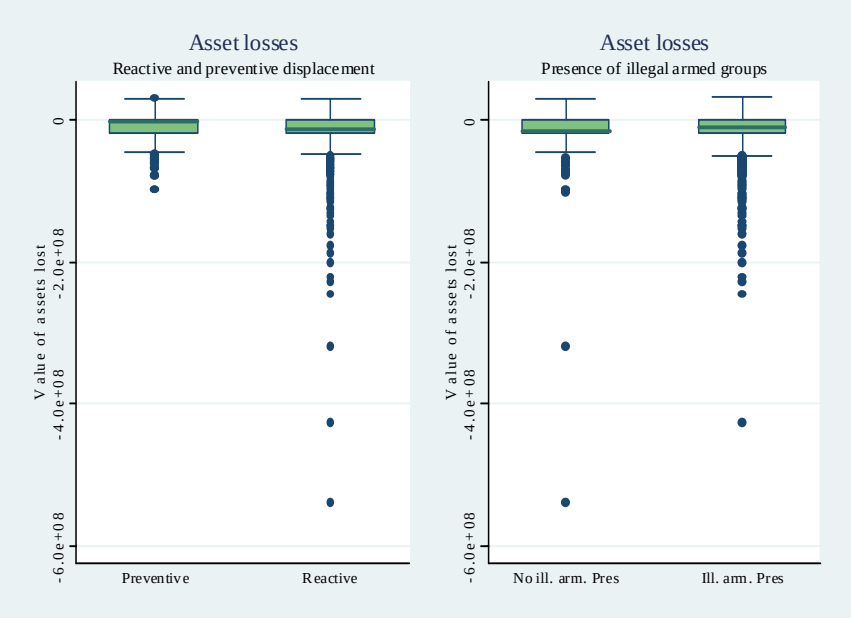
Social capital		
Main breadwinner died or abandoned household	8.50%	-
Participation in organizations –origin site	32.60%	-
Number of organizations per household –origin site	0.33	0.03
Leadership position – origin site	7.50%	-
Participation in organizations –destination site	29.00%	-
Number of organizations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

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

Given that the displaced population has limited means for recovering assets, we are left with the question of what determines the capacity of some households to lift themselves up following asset shock. Is asset recovery related to the conflict-induced shock? Are income generating programs contributing to this recovery? Or is it simply that these households have been settled for a longer period? Did they manage to perform better in urban labor markets? Graphs 3 through 6 offer some preliminary insights regarding these questions.

Migrating after being the direct victim of an attack and the presence of illegal armed groups produce larger asset losses. As discussed in section 3.2., when households are forced to migrate after being the victim of a direct attack (reactive displacement), the opportunities to protect or sell assets are scarce, causing larger assets losses as shown in Graph 3a. On the other hand, households migrating preventively seem better able to adopt strategies to reduce the likelihood of asset losses. Graph 3b depicts asset losses for households who perceive and do not perceive the presence of illegal armed groups. Asset losses are seemingly larger for the former group of households, yet the difference is not large.

Graph 3. Asset losses: preventive vs. reactive displacement and presence of illegal armed groups



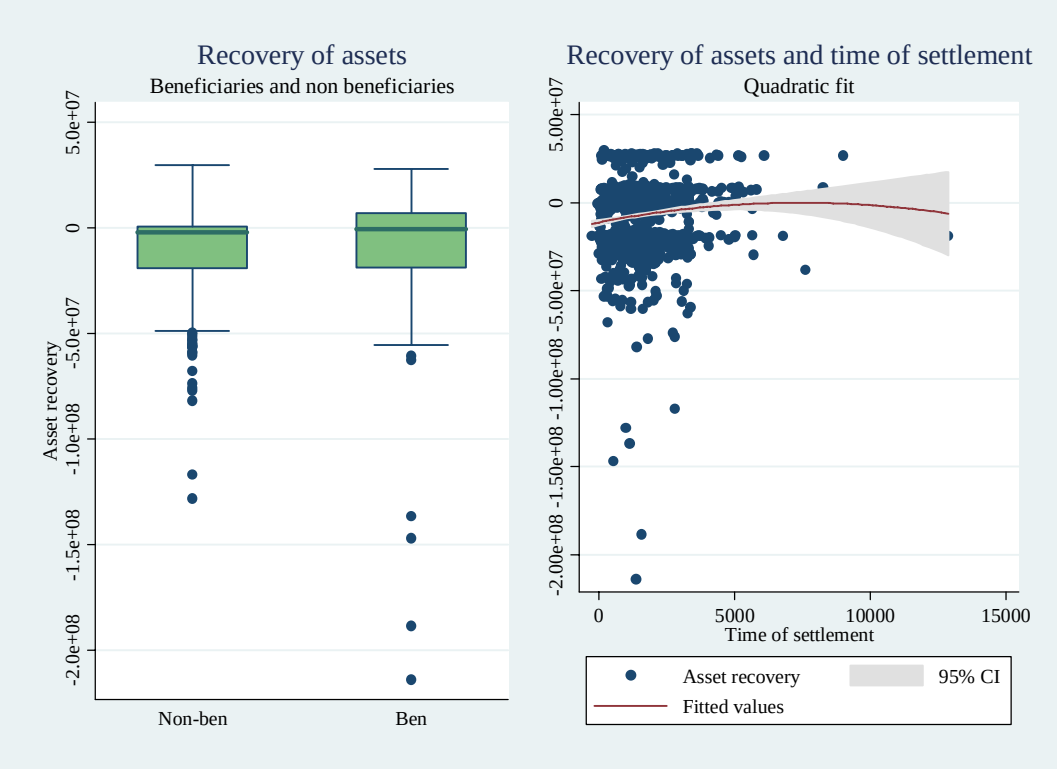
Source: Authors' calculations based on ENHD (2004).

While income generating programs, the length of settlement and access to labor markets appear to promote asset recovery, their impact is barely perceptible. Graph 4a illustrates the distribution for asset recovery between the beneficiaries and non-beneficiaries of income generating programs. The median of asset recovery is slightly less for non-beneficiaries, and a larger proportion of beneficiaries have recovered their assets following displacement. Nonetheless, even prior to controlling for other household characteristics, the impact of income generating programs does not seem to be significant.

Unlike traditional migrants, displaced households do not catch up as settlement at destination sites progresses. Asset recovery and time of settlement, as shown in Graph 4b, exhibit an inverted u-shape relation, yet as the time of settlement becomes longer the impact on asset recovery is hardly perceptible. As settlement consolidates, a mild recovery occurs which is just sufficient to reach a zero asset loss after ten years of settlement. This result is reinforced by complementary empirical evidence which shows that the conditions of the displaced population worsen following the conclusion of humanitarian aid[60]. In fact, vulnerability increases when humanitarian aid ends—access to public utilities decreases, the capacity for smoothing income is severely disrupted, and children have to interrupt their schooling (Ibáñez y Moya, 2006a).

[60] Displaced households are entitled to three months of humanitarian aid after registering in government official records.

Graph 4. Recovery of assets: income generating programs versus time of settlement



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

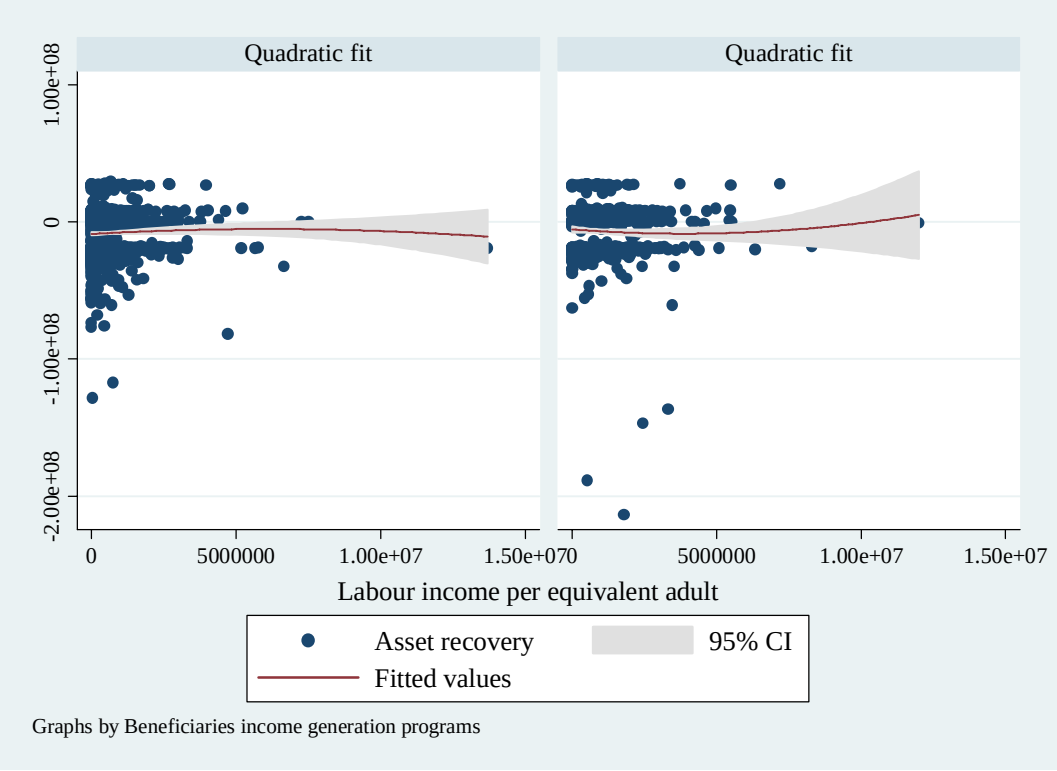
Job quality apparently determines the contribution of employment to the process of asset recovery. Graph 5 illustrates the distribution of asset recovery for employed and unemployed households. The difference between both groups is apparently not significant. When a household's head is employed, asset recovery is slightly larger; notably, the proportion of employed households with positive recovery is wider. Most displaced households, however, are employed in the informal sector, where they earn low incomes, and are not insured by social security programs. Labor income then may be only sufficient to cover subsistence needs, leaving no surplus for investment in asset accumulation.

Graph 5. Recovery of assets: employment status

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

Once the sample is divided into the beneficiaries and non-beneficiaries of income generating programs, however, conclusions regarding the impact of labor income on asset accumulation diverge. For non-beneficiaries of income generating programs, the quadratic fit shows no relation whatsoever between labor income and asset recovery. Our interpretation of the last paragraph thus seems appropriate for this group of displaced households—since displaced households are generally employed in low quality jobs with poor wages, the income earned is barely sufficient to cover subsistence needs. On the other hand, earnings generated by beneficiaries of income generating programs do in fact contribute to the recovery of assets. Three complementary explanations might be driving these results. First, income generating programs are able to connect beneficiaries to higher quality jobs with larger wages and labor benefits. Consequently, labor income is sufficient to cover subsistence needs and allow for savings. Second, income generating programs might be supplemented with other benefits, such as nutritional programs, which complement labor income and thus enable households to save and accumulate assets. Third, the beneficiaries of income generating programs may have particular characteristics which enable them to fare better on urban labor markets.

Graph 6. The recovery of assets and labor income: beneficiaries and non-beneficiaries of income generating programs



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

The graphs above show that uncovering the factors that contribute to recovering assets is not straightforward. While income generating programs, labor markets, and the length of settlement positively influence asset recovery, the conflict shock negatively influences the recuperation of assets. The regressions below contribute to inquire further into this issue.

3.5.1. Asset losses

We estimate regressions in order to identify, first, the determinants of asset losses. Several regressions were estimated to check for robustness of the results. Table 4 presents the results for OLS, IV and the quartile regressions. We estimate separate regressions for groups of variables representing conflict dynamics and the victimization profile, the strategies adopted by households, and variables that may capture purposive targeting of armed groups. Given that some characteristics of the department of origin may also determine asset losses, we estimate regressions with and without department[61] controls. As armed groups may adopt different displacement tactics depending upon the war strategy they are seeking, we estimate each regression separately for massive and individual displacement. We expect that when the war objective of illegal armed groups is to depopulate territory in order to strengthen territorial control, expelling the

[61] Departments are similar to States in the United States.

population en masse (massive displacement) is more effective. On the other hand, when asset seizure is the objective, deliberate targeting of particular households (individual displacement) is the displacement tactic adopted. The latter may adjust better to the model we defined. Lastly, we expect that beneficiaries of income generation programs have unobservable characteristics closely related to their entrepreneurial abilities, which in turn may help design strategies to protect assets. Hence, we estimate the regressions separately for beneficiaries and non-beneficiaries of income generation programs. Since results are robust to the different specifications, we only present the estimations for the complete sample with department controls. However, we discuss when the different specifications cause a significant change in the results.

As households may decide to migrate within the municipality to protect assets, intramunicipal displacement is 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 in the destination site may provide support. Notwithstanding, contacts in destination sites, such as family and friends, does not determine the extent of asset losses. Contact in destination sites are therefore used as the exclusion variables. Results for the first stage of the instrumental variable regression are presented in Table A.1 of the Annex. Lastly, the process of asset losses may be highly non-linear. In order to capture these non-linearities, we estimate quartile regressions.

The impact of the conflict upon asset losses is hardly offset by strategies adopted to mitigate asset losses or protection from government forces. Conflict dynamics exert a heavy toll upon asset. Reactive displacement, and loosing the male household head are statistically significant, the magnitudes of the coefficients are large, and results are robust for different specifications. Moreover, the coefficient of reactive displacement becomes larger and statistically significant for the upper quartiles, while it is not significant for the first quartile. The coefficient estimates for reactive displacement decreases when additional controls are included, yet this is expected as violence is targeted to particular groups of the population (e.g. land owners, young persons, etc). Direct and traumatic victimization represented by reactive displacement and loosing the main breadwinner imposes losses of COP$3.4 million (US$1.574) and $COP6.7 million (US$3101) respectively.

The diverse strategies adopted by households or by government forces to mitigate asset losses are not sufficient to offset the impact of the conflict. Migrating within the municipality and the presence of government forces reduce asset losses stemming from displacement. Nevertheless, the combined effect of both variables is COP$5.8 million, which does not even counteract loosing the main household breadwinner. In addition, the positive impact of migrating within the municipality is not robust to different specification. When department controls are included, the size of the coefficient halves; thus, this variable may be capturing some regional effects and not necessarily the effectiveness of intramunicipal displacement. Once the variable is instrumentalized, the statistical significance disappears. Households may migrate within the municipality in order to maintain close control of productive assets and to continue productive activities, allowing households to keep control of their assets. An alternative hypothesis may be that households facing a tighter budget constraint migrate within the municipality to avoid the higher costs of migrating longer distances. The quartile regressions also show no statistical significance of intramunicipal displacement. On the other hand, the effectiveness of government forces is robust to different specifications, yet the impact does not offset either reactive displacement or losses of the main breadwinner.

Formal titles of land plots, instead of reducing asset losses, seem to increase the extent of asset losses. We expected formality of land titles to prevent large asset losses as illegal armed groups may prefer to seize land plots with no protection of legal titles. The coefficient of formality is not only positive and significant, but also the magnitude is the largest (COP$9.8 million-US$4537). A possible explanation is that land plots with formal titles are the largest and thus the most attractive ones. However, after controlling for size of land plots, the size and significance of the coefficient are similar. The presence of government forces does not prevent land seizures, even to formal landowners. Another interpretation is that formal titles, when lack of the rule of law is pervasive, are not sufficient to protect assets. To test for this hypothesis, we interact formality of land titles with presence of government forces. Again, the size and significance of the coefficient are similar. In addition, quartile regressions show the impact of formality in land titles is particularly strong for the median quartile, while decreasing for the last one. Illegal armed groups target land owners to accumulate land, and increase territorial control. Land plots with formal titles may be more valuable as

land owners had larger resources to legally register the ownership. The positive effect of land plot size on asset losses seems to corroborate this hypothesis. Since lack of rule of law in these regions allowed illegal armed groups to emerge in the first place, protection of property rights may be highly inefficient or practically inexistent.

Targeting of particular groups of the population in order to achieve war objectives also imposes large asset losses, but some variables are not statistically significant. First, better educated households face greater asset losses and, as the quartile regressions indicate, the effect increases for the highest quartiles. Better educated households may assume leadership positions in the community; thus, illegal armed groups may target these households to terrorize the civil population and prevent civil resistance. However, the coefficient for years of schooling is not robust to different specifications of the model. Second, young household members, as they are forcefully recruited or may act as combatants in the opponents groups, are targeted often. These attacks appear to increase asset losses. This effect is particularly strong for persons between 18 and 65 years of age: having an additional member in this age increases asset losses 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 quartile regressions are estimated, participation in organizations implies positive asset losses for the median and third quartile, and the impact is not negligible. For example, in the case of the median quartile, participation in one organization more increases asset losses in COP$0.75 million (US$347), while the increment in asset losses from reactive displacement for this quartile is COP$1.2 million (US$555). Lastly, ethnic minorities are not facing additional asset losses. When department controls are not included, asset losses for ethnic minorities are larger. This effect vanishes after including department controls. Regions where ethnic minorities are located coincide with regions strategically important for illegal armed groups. Thus, ethnic minorities may be attacked for living in strategically valuable regions, and not necessarily for being ethnic minorities.

Table 4. Determinants of asset losses[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)**
Hh head dead or left	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 presence: 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 presence: 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)
HH average number of organizations - origin		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		-310.03		3223.03	3324.42	3364.14	-3564.67	1041.35	-239.08
forces		(-0.13)		(1.23)	(1.28)	(1.27)	(-14.47)***	(1.09)	(-0.37)
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 – 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			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			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 are divided by 1000.
*Significant at 10%.
**Significant at 5%.
***Significant at 1%

The results presented in Table 4 clearly indicate that the conflict-induced shock imposes larger asset losses. Moreover, asset losses are larger for groups of the displaced population that are purposively attacked by illegal armed groups. Although some strategies are effective to mitigate asset losses, the protection from these strategies are not sufficient to counteract the negative influence of attacks.

3.5.2. 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 to verify the robustness of the results. First, asset accumulation, besides being determined by households' characteristics, may depend on regional characteristics as well as the municipality size. Some regions are more prosperous, their labor markets are more dynamic, and/or are willing to receive displaced population, among others. 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 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 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 size cities with populations between 100.000 and 699.000 people. The excluded control is 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 generation capacities, and household vulnerability.

Instrumental variables regressions and quartile regressions are also estimated. Since, among other factors, income generating programs are not randomly assigned, and households are 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, utilizing whether the household perceives social conditions, such as access to education and coverage of health services, worsened after displacement. These perceptions are paradoxically not related to economic conditions in destination sites, and seem to depend on the extent of welfare drops as a consequence of displacement and the victimization process. Both processes produce mistrust in government institutions, prevent households from seeking government support, and deter participation in income generation programs. However,

these perceptions does not necessary determine asset accumulation in destination sites. The first stage of the instrumental variable regression is presented in Table A.2 of the Annex. Equally than for asset losses, asset accumulation exhibits several non-linearities as shown in the graphs discussed in section 3.4. To handle these non-linearities, we estimate quartile regressions.

Results for all the regressions are presented in Tables 5a and 5b. Results for the regressions without controls for city size are not presented as coefficient estimates are robust to 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 included interactions for length of settlement and some household characteristics, such as being previously dedicated to agricultural activities and loosing the main breadwinner, but the coefficients were not statistically significant and are thus not reported. However, the length of settlement's contribution is not large and even decreases after a while, exhibiting the inverted u-shaped relation mentioned before. After controlling for all the other variables, a displaced household would spend more than 11 years recovering the average asset losses stemming from displacement. If government agencies then assume that displaced persons are similar to migrants, and do not provide special aid programs, thus leaving displaced households on their own, asset accumulation will not be sufficient to help households escape the poverty trap nor to recover the asset lost as a consequence of the conflict. Furthermore, the effect of length of settlement is weak for households located in the first two quartiles of the regression, and pick up for households located in the upper end of the asset distribution.

Insertion into labor markets and the capacity to generate income positively contribute to accumulate assets in destination. In particular, insertion in labor markets appears as an effective strategy to increase asset accumulation; having an unemployed head reduces asset accumulation by COP$1.4 millions (US$648). Inasmuch as being unemployed diminishes asset accumulation by a sizeable magnitude, labor markets influence a household's capacity for recovering assets. Although the coefficient for unemployment decreases somehow when additional controls are included, the size of the coefficient is still large and it is significant for the different specifications. The negative impact of unemployment is particularly large for households located in the upper quartile of the asset distribution.

Human capital variables play an important role for asset accumulation, yet the sign for previous dedication to agricultural activities is the opposite to the expected one. Better educated households are able to accumulate more assets, yet the effect is not large given the 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 in COP$0.12 million (US$55). The effect of educations vanishes, however, for quartile regressions and is only significant for households located in the lowest quartile. On the other hand, being previously dedicated to agriculture contributes positively to expand asset holdings. This result is opposite to the *a priori* hypothesis we explained in previous sections. In addition, the result is robust to all 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 before displacement. Lastly, asset accumulation is higher for households with middle-aged heads; those with young or old heads have more difficulties acquiring new assets. The impact of age is higher as we move up the quartiles.

Asset in origin sites still under the control of the household and social capital does not contribute in any way to increase asset accumulation. Assets in origin sites are not statistically significant and the coefficient is negligible. Despite being able to control a proportion of their assets in origin, these assets may not be producing rents or the rents may not be sufficient to expand asset holdings. Social capital, represented by number of organizations in destination sites and contacts, is not statistically significant in any of the specifications estimated. Therefore, only human capital seems to contribute to expanding asset holdings in 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 generation programs are COP$2.2 millions (US$1018) larger. The coefficient for beneficiaries of income generation programs is not robust, however. When additional controls are included, the coefficient decreases significantly. This result is expected as being the beneficiary of income generation programs is related to household characteristics. The impact of income generating programs is indeed strong for households in quartile IV. Ibáñez and Moya (2006a) find that these programs have a short-term impact on consumption, labor income, and the capacity to mitigate shocks. They also observe that these programs were not effective in preventing households from adopting costly long-term strategies like household fragmentation, the interruption of schooling,

and child labor. Nevertheless, income generating programs do somehow contribute to asset recovery. Possibly as a precautionary response and feeling highly uncertain regarding the long-term impact of the program, earnings from income generating programs are generally invested in accumulating assets while consumption remains constant. As has been shown in some empirical studies, after covering for subsistence needs, households prefer to smooth or accumulate assets rather than increase consumption. Similar results were obtained by Chen et al (2006) for micro credit programs in China. Despite these positive results, the coefficient for participation in income generation programs looses significance after instrumentalizing it.

Vulnerable households are less able to recover from asset loss. Male headed households fare better during the recovery process; 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 of having a male household head (COP$1.5 millions – US$694). However, once other controls are incorporated in 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 male headed household decreases (COP$1 million – US$462). On the other hand, asset accumulation seems indeed difficult for ethnic minorities. Ethnic minorities face poor conditions at destination sites because their connections with their cultural heritage and social networks are broken; some groups have difficulties speaking in Spanish, and thus have less access to government programs. For them, income barely covers subsistence needs. Thus, asset holdings for ethnic minorities is COP$2.0 million (US$925) lower. This result is robust to different specification and persists even after controlling for other characteristics.

.**Table 5a. 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
			(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 in destination – hh head			-2524.0160	-1996.9930			-1010.3210	-1046.7110
			(-3.78)***	(-3.09)***			(-1.56)	(-1.65)*
Potential rents – assets in origin			0.0000	0.0000			0.0000	-0.0001
			(0.14)	(-0.26)			(-0.08)	(-0.33)
Contact in destination (family, friend)			-684.2316	-485.1001			127.2599	37.4021
			(-1.25)	(-0.91)			(0.24)	(0.07)
HH average number organization – destination			-193.7157	83.3880			-409.2494	-160.8150
			(-0.50)	(0.22)			(-1.10)	(-0.44)
Beneficiaries of income generation programs			3227.1260	3391.9620			1840.8230	2159.8890
			(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. 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	6.1918	4.4386	0.1476	0.4145	1.0936
	(6.04)***	(3.18)***	(10.47)***	(11.98)***	(13.19)***
Length of settlement squared	-0.0006	-0.0004	0.0000	0.0000	-0.0001
	(-4.88)***	(-2.46)***	(-5.98)***	(-7.05)***	(-8.17)***
Years of schooling – household head	561.2547	533.2024	24.8761	29.9790	2.1582
	(1.82)*	(1.69)*	(2.61)***	(1.20)	(0.03)
Years of schooling squared	-37.8301	-36.1487	-1.3010	-1.6385	-0.5409
	(-2.30)**	(-2.12)**	(-2.43)**	(-1.12)	(-0.14)
Dedicated to agricultural activities – origin	1499.9140	1176.1890	-27.1154	3.9144	192.4528
	(2.42)**	(1.82)*	(-1.58)	(0.09)	(1.86)*
Age - household head	279.2550	291.9261	9.6973	20.7839	49.5402
	(2.39)***	(2.36)**	(2.87)***	(2.49)***	(2.44)**
Age squared	-2.5070	-2.5110	-0.0973	-0.1942	-0.4407
	(-1.91)*	(-1.81)*	(-2.83)***	(-2.25)**	(-2.09)**
Unemployment in destination – hh head	-1966.4510	-1391.5520	-67.8770	-98.3382	-243.5680
	(-1.80)*	(-1.16)	(-3.26)***	(-1.91)*	(-1.93)*
Potential rents – assets in origin	0.0000	-0.0001	0.0000	0.0000	0.0000
	(-0.09)	(-0.56)	(2.53)***	(-0.63)	(0.35)
Contact in destination (family, friend)	-51.9919	-86.0545	26.4329	9.6449	-15.5832
	(-0.09)	(-0.15)	(1.58)	(0.23)	(-0.15)
HH average number organization – destination	-680.4563	-258.9789	0.0837	8.1493	2.5950
	(-1.37)	(-0.50)	(0.01)	(0.28)	(0.04)
Beneficiaries of income generation programs	-5695.0310	133.2398	146.6346	284.0821	248.5947
	(-0.73)	(0.02)	(7.88)***	(6.08)***	(2.22)***
Male household head	1667.4690	1043.7740	52.5938	102.0972	162.0971
	(1.93)**	(1.13)	(2.83)***	(2.21)**	(1.47)
Head abandoned or left household	535.9759	-203.5739	-48.5975	-58.9054	-127.6213
	(0.44)	(-0.16)	(-1.70)*	(-0.82)	(-0.72)
Ethnic Minority	-2977.7060	-2027.6040	-41.0669	-90.5849	-427.3063
	(-3.87)***	(-2.51)***	(-1.96)**	(-1.72)*	(-3.36)***
Dependency ratio	175.4703	210.3963	-14.0638	-150.7804	11.0863
	(0.11)	(0.14)	(0.39)	(-1.74)*	(0.05)
Constant	-6963.5270	-20367.4700	-642.4860	-1576.8250	-3809.1740
	(-2.25)***	(-4.44)***	(-6.39)***	(-6.15)***	(-5.98)***
Department controls	No	Yes	Yes	Yes	Yes
Observations	2162	2162	2318	2318	2318
R-squared	0.0665	0.2027	0.007	0.0824	0.2429

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%

The displacement shock is certainly large. Conflict and forced migration bring 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, as an insufficient asset base traps households in chronic poverty. Indeed, only a small group of households appear to initiate a moderate accumulation of assets. Moreover, the conflict induced shock is not overcome easily once in destination sites. 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 such as seek to promote income generating programs, along with asset recovery or protection. Our results show that income generating programs, coupled with other conditions, are crucial in inducing households to initiate a process of asset recovery. However, the efforts seem still insufficient. For example, asset losses for a household that reactively displaced and faced the dead of the 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 in destination sites is able to offset this effect. Having an employed head and participating in income generation programs increases asset holdings in destination sites by COP$3.2 million (US$1481).

4. Conclusions

A conflict-induced shock imposes heavy asset losses upon a group of victims, in this case, a displaced population. When forcibly displaced, households leave behind physical capital, such as housing and land, cease to derive returns from their land, and are unable to recoup investments made in land improvement. Informal and formal risk-sharing mechanisms weaken as a consequence of migration; access to credit markets, both formal and informal, declines; links with social networks and formal organizations wither; and alternative saving mechanisms, such as livestock, are destroyed or abandoned. In addition, human capital depreciates greatly as agricultural abilities are not highly valued in urban labor markets. Besides the erosion of all kinds of capital, the

displaced population faces enormous obstacles to entering urban labor markets given their restricted capacity to compete, and the fact that labor markets in urban areas are often tight. Consequently, recovering or accumulating new assets is a rare event—only 25 percent of households are able to recover assets. In any event, asset ownership seems insufficient by itself for overcoming poverty.

The nature of the conflict-related events that lead to forced displacement and its consequences strongly determine the magnitude of the asset loss. Armed groups strategically target some households in order to seize valuable assets, to terrorize the civilian population, or to weaken the support of their opponent. Consequently, better-off households with larger asset holdings or who are closely connected to social networks pose attractive targets for achieving these objectives. Because asset holdings prior to displacement are large and the consequences of the attacks are often extremely costly (e.g., as with the death of main breadwinners), these households suffer substantial asset loss. On the other hand, households with a less traumatic victimization profile or which migrate preventively fearing an escalation of the conflict 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 to escape poverty. Furthermore, displaced persons cannot be assimilated as traditional migrants. Results show that displaced households do not catch up even after consolidating settlement at destination sites; therefore, time is not an ally in terms of improving these households' conditions. 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 segments of the Colombian population. The results of this study also indicate that asset accumulation and recovery from shocks does not occur naturally on account of the poor initial conditions—that is, a lack of assets, restricted access to financial markets, and soaring unemployment. Targeted assistance, such as asset transfers and protections against shocks, is needed to stimulate growth.

Moreover, our results reveal that income generating programs indeed help to spur asset recovery and accumulation. Beneficiaries of income generating programs experience larger recoveries of assets. By connecting households to better quality jobs and

providing seed capital for implementing productive activities, income generating programs expand earnings, which then are allotted to cover subsistence needs as well as accumulate assets. Although the asset recovery of beneficiaries is larger, these programs are not effective in increasing consumption, and thus preventing households from having to resort to costly strategies in order to smooth consumption (Ibáñez and Moya, 2006a). Households appear to prefer accumulating assets rather than expanding consumption, presumably as a precautionary response and because of the high uncertainty regarding the long-term impact of the program. in order to pursue this strategy, households adopt strategies which may entail long-term costs—school interruption, low levels of consumption, child labor, and household fragmentation. Supplementing income generating programs with other benefits, like nutritional programs or conditioned cash-transfers, may enable households to accumulate while avoiding adopting costly strategies.

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. y 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 Documento, 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.

Bruck, 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.

Chen, S., R. Mu, and M. Ravallion (2006). "Are There Lasting Impacts of Aid to Poor Areas? Evidence from Rural China," World Bank Policy Research Working Paper No. 4084.

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. Glubert (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.

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. Moya (2006). *The Impact of Intra-State Conflict on Economic Welfare and Consumption Smoothing: Empirical Evidence for the Displaced Population in Colombia*, HICN Working Paper No. 23.

Ibáñez, A.M, A. Moya and A. Velásquez (2006). *Hacia una política proactiva para la población desplazada.* Final report presented to USAID.

Ibáñez A.M., and A. Moya (2006a). *The Impact of Intra-State Conflict on Economic Welfare and Consumption Smoothing: Empirical Evidence for the Displaced Population in Colombia*, HICN Working Paper No. 23.

Ibáñez A.M., and A. Moya (2006b). *¿Cómo el desplazamiento forzoso deteriora el bienestar de los hogares desplazados?: Análisis y determinantes del bienestar en los municipios de recepción*, Documento CEDE No. 2006-26.

Ibáñez A.M., and A. Velásquez (2006). *El proceso de identificación de víctimas de los conflictos civiles: una evaluación para la población desplazada en Colombia*, Documento CEDE No. 2006-36.

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 Conlflict" in *War and Underdevelopment, Volume 2: Country Experiences*, Oxford University Press.

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

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. Woping (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.

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)
Hh head dead or left	-0.0731
	(-2.96)***
Perception presence: illegal armed groups	-0.0229
	(-1.00)
Perception presence: government forces	-0.0955
	(-5.51)***
HH 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 – household head	-0.0026
	(-0.78)
Number of persons between 12 and 17	0.0085
	(1.21)
Number of persons between 17 and 65	0.0042
	(0.80)
Ethnic minority	0.0405
	(2.12)**
Contacts in destination	0.0636
	(4.18)***
Dedicated to agricultural activities – origin	0.0201
	(1.38)
Constant	-0.1040
	(-0.32)
Observations	2318
R-squared	0.2008

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

Variables	Coefficient (t-statistic)	Coefficient (t-statistic)
Length of settlement – days	0.0001	0.0002
	(6.93)***	(8.82)***
Length of settlement squared	0.0000	0.0000
	(-4.31)***	(-6.02)***
Years of schooling – household head	-0.0035	-0.0036
	(-0.29)	(-0.31)
Years of schooling squared	0.0006	0.0005
	(0.85)	(0.67)
Dedicated to agricultural activities – origin	-0.0321	-0.0376
	(-1.60)	(-1.91)*
Age - household head	0.0776	0.0082
	(3.59)***	(2.14)**
Age squared	0.1058	-0.0001
	(3.11)***	(-2.55)***
Unemployment in destination – hh head	-0.0575	-0.1104
	(-2.64)***	(-4.61)***
Potential rents – assets in origin	-0.1360	0.0000
	(-3.32)***	(-0.05)
Contact in destination (family, friend)	0.0076	0.0044
	(1.91)*	(0.22)
HH average number organization – destination	-0.0001	-0.0407
	(-2.39)**	(-2.85)***
Male household head	-0.1027	0.0792
	(-4.21)***	(3.71)***
Head abandoned or left household	0.0000	0.1084
	(0.26)	(3.25)***
Ethnic Minority	-0.0046	-0.0515
	(-0.23)	(-2.10)**
Dependency ratio	-0.0386	-0.1233
	(-2.67)***	(-3.07)***
Perception situation worsened after displacement	-0.1307	-0.1151
	(-3.53)***	(-3.16)***
Constant	-0.1212	-0.3827
	(-1.06)	(-0.91)
Department controls	No	Yes
Observations	2162	2162
R-squared	0.2275	0.292

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