

## **Extending a Lifeline or Cutting Losses? Conflict and Household Receipts of Remittances in Pakistan**

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*Abstract:*

I examine the causal effects of long-term exposure to conflict, measured at the micro level, on households' receipt of remittances. Using IV estimation to overcome the endogeneity of conflict exposure and remittance receipts, and controlling for a range of confounding factors, I find that, contrary to the literature from country-level case studies, long-term exposure to conflict reduces households' likelihood of receiving any remittances at all, as well as the average amounts of remittances received. The negative effects of long-term conflict exposure on remittances are also stronger for groups that are more likely to use such receipts to invest, rather than for consumption, which suggests that remittances are lower in conflict-affected areas due to the higher risk and insecurity of investments. While existing studies treat conflict only as a source of hardship that creates the need for remittances motivated by altruism, I find that conflict may discourage investment-focused remittances by dampening the investment climate and compelling a reevaluation of remitters' continuing and long-term financial interests in their violence-affected origins, alluding to a significant micro-macro gap in the literature on conflict and remittances.

**Keywords:** Remittances, Conflict, Household Investment, 'Remittances Decay'

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# 1. Introduction

In recent years there has been a sharpening focus on the role and potential of remittances in spurring growth, promoting development and establishing new terms of North-South, and also South-South economic engagement. A growing global migrant worker population, estimated to have surpassed 250 million in 2015 is responsible for remittance flows to developing countries as high as US\$ 436 billion in 2014 (World Bank, 2015a). For several countries, including Tajikistan, Kyrgyzstan and Nepal, remittance receipts are a very large part of the GDP (World Bank, 2015b) and for several others, including Pakistan, international remittance receipts far exceed inflows of foreign exchange from other sources, namely Overseas Development Assistance (ODA), and Foreign Direct Investment (FDI; source: Ahmed and Zarzoso, 2013).

The discussion on the role of remittances in promoting development is particularly interesting. While even the supporters of remittances caution against viewing them as a panacea, or as a replacement for development assistance and aid programmes (Ratha, 2007; Savage and Harvey, 2007), remittances can be a very effective complement to official aid flows for development due to several reasons. Remittances flow directly from migrant workers to recipient households without incurring the heavy administrative and bureaucratic costs that state-run cash transfer programmes do (even as the logistical costs of transferring and receiving money may be significant). Remittance receipts, unlike FDI flows, are also often counter-cyclical; they tend to increase in times of economic crisis, and thus help retain foreign exchange reserves to secure financial stability at the macroeconomic level. At the household level, remittances can respond to idiosyncratic or covariate shocks, including financial, humanitarian and political crises; affected households often draw on greater outside assistance when the local means of livelihood and survival are hit. Further, remittances are used by households not only for financing consumption requirements, but also for investment purposes. Such investments from external receipts into the local economy can improve productivity, and accelerate economic activity, beyond its multiplier effects on the local economy from increases in consumption demand financed by remittance receipts (Ahmed, 2000; Lindley, 2007; Maimbo, 2006).

Violent conflict can create a set of conditions which may simultaneously accentuate the need for remittances and encumber its reach. Existing studies on remittances in conflict-affected countries have focused on national data and have found that the onset of conflict is accompanied by higher receipts of remittances in countries such as Somalia, Sri Lanka and Nepal. Some studies have also found that remittances do indeed help households weather economic hardship in conflict-affected areas, by extending a “lifeline” to those in dire need and preventing them from adopting costly coping strategies. Yet, the context of a long-term conflict can lead to heightened risk of investments in the area, as well as raise concerns of short, or even longer-term security of life and property. These factors may dampen investment-focused remittances and also lead many remitters to reconsider their longer-term economic interest in conflict-affected communities. Owing to these considerations, and logistical issues imposed by conflict that may impede financial transactions, conflict may in fact reduce household access to remittances, even as it accentuates economic hardship and the

need for remittances in the first instance. The relationship between conflict and remittances is therefore not direct or simple; and can potentially vary across a range of household and community-level characteristics. Current analysis has not specifically explored how the local level exposure to violent conflict *causes* differences in remittance receipts, and how these may vary across households and groups. This paper specifically examines:

- (i) How does exposure to violent conflict affect household-level remittance receipts?
- (ii) Does the effect of conflict on the receipt of remittances differ by the (likely) motive (consumption v/s investment) for remittances?

I situate the above questions in the context of the massive 2010 floods in Pakistan that covered conflict-affected and non-conflict areas. This is a unique and valuable setting to study these questions as several areas of Pakistan that were flooded in 2010 had also been exposed to growing and varying degrees of violent conflict over the preceding decade, and because the post-flood context means that household distress and the need for external help in the form of remittances were high. I use a large household dataset representative of all the flood-affected areas of Pakistan in 2010 and develop sub-district level indices of violent conflict exposure over the 2001-2010 period. To address the endogeneity issue between conflict exposure and remittance receipts, I exploit variations in community-level distances to the Afghan border, a correlate of proximity to the Taliban's infiltration into Pakistan following the War on Terror, and thereafter of areas of militant operation and eventually confrontation with the Pakistani state to instrument conflict exposure. I also control for a range of potentially confounding factors. This empirical strategy allows me to estimate the causal relationship between violent conflict and remittance receipts, and to examine mechanisms and underlying heterogeneities. I find that conflict reduces the receipt of remittances, at both the extensive and intensive margins. This effect is driven by groups that are more likely to use remittance receipts to invest, rather than for consumption. The negative signal of long-term exposure to violent conflict on investments, i.e. greater business risk and uncertainty, potentially explains why long term exposure to violent conflict reduces remittance receipts.

Section 2 provides an overview of the literature on conflict and remittances, highlighting crucial gaps for the present and any future research to address. Section 3 discusses the history of violent conflict in Pakistan in the decade before the 2010 floods, as well as the context of remittances in Pakistan, and the sources of data used. Section 4 outlines the Instrumental Variables estimation strategy, and discusses potential threats and the means of mitigating against them. Results are presented in Section 5. Section 6 discusses the findings in relation to the existing literature and concludes with notes for policy.

## **2. Literature Review**

### **2.1 Motives for Sending Remittances**

Remittance flows can arise out of two distinct motives. The first is what Lucas and Stark (1985) term as altruism, i.e. transfers driven by the need to help recipient households in times of hardship, sometimes also as a form of insurance (Amuedo-Dorantes and Pozo, 2006a).

Remittances are then seen as extending a 'lifeline' of support to recipient households that often choose to diversify household income and send members to work outside in order to be able to depend on remittances from them in times of need. Savage and Harvey (2007) review several studies (IOM, 2003; Connell and Brown, 2005, Meyers, 1998) and conclude that remittance receipts are mainly spent on consumption needs such as food, clothing, and transportation and health expenses. Remittances may also be used for consumption ends that pertain to social obligations. Carling et al. (2012) find that among remittance-sending Pakistanis in Norway, transfers are often made for wedding expenses, religious donations and humanitarian causes.

Another motive for sending remittances is that these are seen as investments made by remitters in their areas of origin for an expected future return. Ahmed and Zorzoso (2013) term this the 'portfolio approach'. Studies across countries have found that remittances are also sent to finance investments in real estate (Ballard, 2005), enterprises (Carling et al., 2012; McCormick and Wahba, 2002; Horst, 2006; Campbell and Kakasu, 2006; Amuedo-Dorantes and Pozo, 2006b; Betts et al., 2014) and in agriculture (Ballard, 2005).

## **2.2 Remittances in Financial Crises and Natural Disasters**

Many studies have examined the relationship between remittances and the incidence of economic crises and natural disasters. Spatafora (2005) shows that remittance receipts increased considerably in response to financial crises in Indonesia in 1997, Ecuador in 1999 and Argentina in 2001. Similarly, studies have found that remittance receipts at the country level increased in the aftermath of natural disasters. Using a cross-country dataset Yang (2005) finds that remittances increase following hurricane events. Yang and Choi (2005) find that remittances were able to partially offset weather shock-induced losses in the Philippines. Other studies have also found that remittances increase in response to particular natural disaster events in several countries including the Dominican Republic and Haiti (World Bank, 2006), Bangladesh (Clay and Benson, 2006; World Bank, 2006), Jamaica (Clarke and Wallston, 2004), Guatemala (Gellert, 2006) and Grenada (World Bank, 2005).

Investment-focused remittances respond to (changes in) the expected returns in the receiving country (El-Sakka and McNabb, 1999; Hysenbegasi and Pozo, 2002). Ratha (2003) finds that remittances were volatile in the Philippines, and declined in Turkey following financial crises in the late 1990s, and notes, more broadly, that investment-focused remittances tend to be more volatile than those meant for consumption.

Given that crises can increase altruistic remittance flows but decrease investment-focused remittances, the aggregate effect of crises on remittances depends on the relative strengths of the two motives for remittances: altruism and investment. In other words, the effect of crises on remittance receipts is essentially an empirical question that depends on remitters' motives for transferring money as well and how these are shaped by the socio-economic and political characteristics of the receiving area.

## 2.3 Remittances and Conflict

A growing number of studies is taking a closer look at remittance patterns in conflict and post-conflict settings. One strand of this literature has focused on the direct link between remittances and the conflict itself; by examining how remittances can be used to finance armed group activity in general and rebel groups in particular, as well as how they can contribute to future peacebuilding efforts (Collier, 2000; Ballentine and Nitzschke, 2003; Horst, 2008; Orjuela, 2008).

Other studies come from country-level case studies that have found that remittances rise during conflict as some individuals migrate out of communities to other locations (usually abroad) and send back remittances to look after family members and relatives left behind. Seddon (2005) finds that remittances helped sustain the economy of Nepal over the long period of conflict and political upheaval in the 2000s even as local economic activity suffered. Lindley (2007) and Maimbo (2006) find micro-level evidence of the positive effects of remittances on households in Somalia; remittances that increased during conflict, helped households cope better with losses and also encouraged a modicum of private sector growth, largely around the 'remittance economy', even as the state collapsed. Monsutti (2006) finds that conflict-induced migration also led to the formation and operation of transnational remittance networks after the US-led War on Terror and the fall of the Taliban in Afghanistan in the early 2000s. Other studies have examined remittance receipts and uses among war refugees from Somalia (Horst, 2006; Campbell and Kakasu, 2006; Lindley, 2007; Gundel, 2002), Sri Lanka (Orjuela, 2008; Erdal and Stokke, 2009), Afghanistan (Schutte, 2004; Fagen and Bump, 2006), and Eritrea and Bosnia (Al-Ali et al., 2001).

Some studies have examined how violent conflict can impede access to remittances, i.e. potential routes through which money transfers are affected by violence. Fagen and Bump (2006) identify specific problems that remittances are likely to face in conflict-affected countries: poor/ weak financial institutions and investment opportunities, difficulties in implementing financial innovations and improving financial literacy, the absence of government policies that encourage migrants and support migrant rights (unlike in more stable contexts), and global scepticism and discouragement of migration from and financial transactions with many conflict-affected countries that are also centres of illicit trade and terrorism, which reduces both migration from and remittances to such countries. Savage and Harvey (2007) find that border closures between Sudan and Libya during conflict led to decreases in all economic transactions, including remittances, in Darfur. They note, more broadly, that damages to infrastructure in banking and communications as well as decisions to close borders and block or suspend mobile phone networks can, at least in the short run, disrupt remittance flows. They also note that the absence or collapse of the banking system can lead to greater reliance on informal mechanisms of money transfer.

## 2.4 Contributions to the literature

There remain several gaps in the literature on the links between conflict and remittances. First, there is limited causal evidence on how varying degrees of conflict exposure explain within-

country variation in remittance receipts. This is important because there can be considerable divergence (or non-overlap) of conflict exposure and remittance receipts at the local level, that country-level case studies may miss. A more micro-level approach, as is attempted here, can potentially identify areas where conflict levels are too high for remittances to effectively reach populations, thus enabling a fuller understanding of these links which need not be linear or straightforward.

Secondly, the literature on remittances in conflict focuses on conflict as a crisis event that entails greater hardship and therefore the need for remittances. Remittances in conflict are therefore seen to arise mainly from the altruism motive. However, there is no evidence of the effect of conflict on investment-focused remittances, or on groups that are more likely to rely on remittances for investment rather than for consumption or basic survival. Conflict can potentially weaken institutions, impose barriers that hamper market integration, dampen economic activity, increase uncertainty about the future and thus increase the risk to business investments. In cases where more prosperous people are targeted in conflict, even building an asset base by acquiring large and conspicuous assets can increase conflict risk, and may therefore reduce investments in durable assets. Maimbo (2006) notes that remittances are effective in spurring investment and private sector growth only to the extent that there is a functioning government and basic public good, no studies have specifically examined how conflict, which can affect both governance and public goods provisions, affects investment-focused remittances. While I do not have data on the actual use of remittances received (consumption v/s investment), I attempt to proxy this by assuming that households in higher food consumption income quintiles are more likely to use remittances for investment than households in lower quintiles. I then examine whether the causal effect of conflict on remittance receipts varies across food consumption expenditure quintiles, and therefore across groups more/ less likely to use remittances for investment rather than consumption.

Thirdly, academic literature has tended to focus on international remittances. While the impacts of foreign transfers on communities and countries may be larger, remittances arising from within the country can be considerable (Deshingkar, 2006; McKay and Deshingkar, 2014), and in any case, still of great importance to recipient households, many of whom may not have the means to undertake international migration. The data used for this paper covers remittances from within the country and from abroad (but not separately, unfortunately), and therefore allows me to examine the effect of conflict on remittances, regardless of their source.

Finally, existing studies tend to view conflict among crises as yet another type of shock to households, such as natural disasters or financial crises. While certain conflict events such as the sudden outbreak of war, or terrorist activity can indeed be seen as shocks, the prevalence of violent conflict over a longer period of time indicates a changed institutional landscape rather than an anomalous, one-time event. This steady transformation calls for viewing conflict instead as a state of nature; a milieu in which household priorities, preferences, expectation and decisions (regarding investments, for example) may be very different from more peaceful areas. Savage and Harvey (2007) state (but do not sufficiently explore why, and how) that in long-running conflicts, it can be hard for remitters to continue sending money back home. Migration from areas that have been exposed to conflict may often consist of entire

families, as compared to more regularly observed economic migration of select individuals. Migrants from conflict-affected areas may therefore reconsider their longer term pecuniary and non-pecuniary interest in origin areas, much more so than in peaceful and stable areas (Ahmed, 2000). Faced with uncertain returns and prospects in native areas that are affected by violence and instability, migrants may choose instead to build a future in the destination area, and cut their future losses in the more insecure origin. This changed priorities resulting from conflict can also affect the quantum and purpose of remittance flows. There is a need for specifically examining the impact of longer-term exposure to conflict on remittances to understand how conflict affects remittances arising out of both altruistic and investment motives.

This paper seeks to investigate how long-term exposure to conflict affected household receipts of remittances in the aftermath of the devastating 2010 floods in Pakistan, to address some of these gaps. I also analyse how such effects may vary across groups that are more/ less likely to invest rather than consume, and discuss the mechanisms that can potentially explain the effect of conflict on households' receipts of remittances.

### **3. Data, Case Study Setting and Context**

#### **3.1 Data Sources**

For my analysis I use the baseline cross-section of the CDCP Impact Evaluation dataset (National Database and Registration Authority, Government of Pakistan, available through OPM, 2013). This dataset is representative of all flood-affected areas of the four major provinces of Pakistan: Punjab, Sindh, Khyber Pakhtunkhwa and Balochistan. The dataset comprises 7802 households across 499 primary sampling units, including both rural, and some urban areas. The survey for the baseline was conducted during December 2011 – February 2012. The household questionnaire contains detailed modules on demographics, asset ownership, occupation, and the receipt of transfers including remittances.

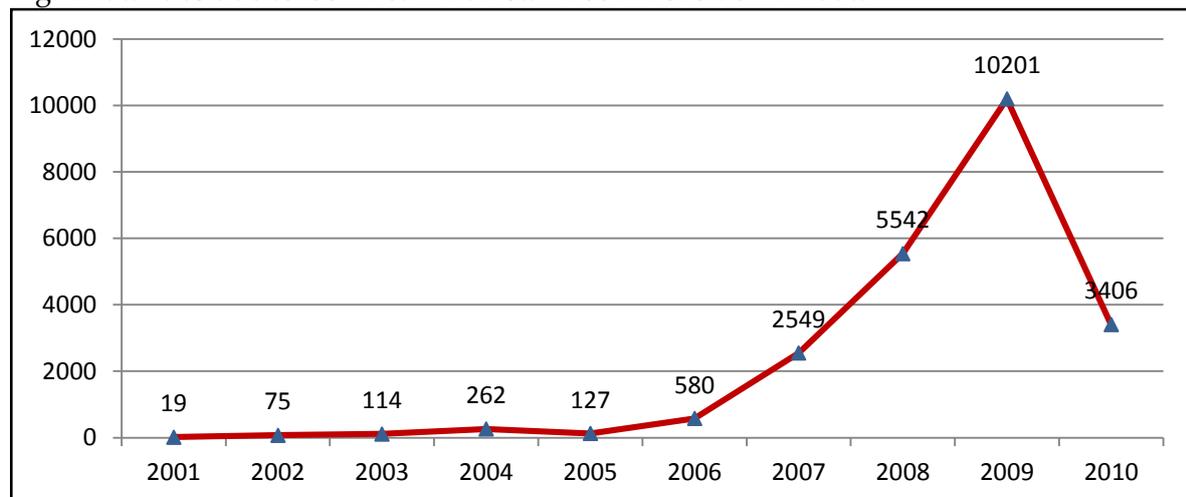
In this analysis, remittances are defined as cash and in-kind transfers received by the household from other individuals/ households residing outside their community (regardless of distance, potentially allowing transfers received from neighbouring communities to be classified as remittances) over a period of 12 months preceding the survey. I measure remittances received at the extensive (whether or not the household received any remittance) as well as intensive (monetary value of remittances received in cash and in kind, combined) margins. Unfortunately, the data used does not allow me to distinguish between domestic and foreign remittances.

Conflict data were collected from the South Asia Terrorism Portal, a leading conflict news media monitoring agency that conducts a detailed scan of nine leading Pakistani newspapers and provides a summary record of conflict events. Conflict events over the period January 2001 – June 2010 (just before the onset of the 2010 floods) were coded to the lowest administrative level possible, and indices of conflict exposure at the tehsil (sub-district) level were calculated (Ghorpade, 2016).

### 3.2 Historical background to violence in Pakistan

At the time of the survey used for the present analysis (collected in 2011-12), large parts of Pakistan had been exposed to violent conflict for varying lengths of time. The post 9/11 US-led War on Terror in neighbouring Afghanistan had repercussions on Pakistan, as many members of the incumbent Taliban in Afghanistan, drawing on ethnic and family links and making use of the highly porous border, escaped into Pakistan to regroup and launch renewed attacks on NATO, and later Pakistani forces (Rashid, 2008, 2012; Gul, 2009; Gunaratna and Iqbal, 2011; Yusuf, 2014). Pakistan's support to the War on Terror against the Taliban and al-Qaeda, and the Taliban's growing presence and control of territories in Pakistan locked the Pakistani state and the Taliban in an armed confrontation. The Taliban, present and stronger in areas closer to the Afghanistan-Pakistan border, conducted targeted attacks against Army, Government and civilian facilities. In response to such acts, as well as under coalition pressure to act against the Taliban and its affiliates, the Government of Pakistan launched counter-terrorism operations across much of the North-West. This terrorist and counter-terrorist activity resulted in thousands of conflict-related deaths over the 2000s, marking the bloodiest period in Pakistan's history.

Fig 1. Fatalities due to Conflict in Pakistan 2001 –2010\*: SATP data



Source: Author's calculations based on South Asia Terrorism Portal conflict timeline for Pakistan

\*SATP figures for 2010 are only until 31 May

Fig. 1 above shows the dramatic increase in the deaths due to conflict in and after 2006. The largest share of this increase is attributable to terrorism and counter-terrorism-related violence which has been very high beginning 2007, compared to other theatres/motives of violent conflict in Pakistan. This is visible in Table 1 below which shows that, based on media reports of leading Pakistani newspapers collated by the South Asia Terrorism Portal, about 92.4% of all deaths due to political violence in Pakistan were accounted for by terrorist and counter-terrorism acts. The remainder is attributable to a multitude of political motives for violence in Pakistan including the

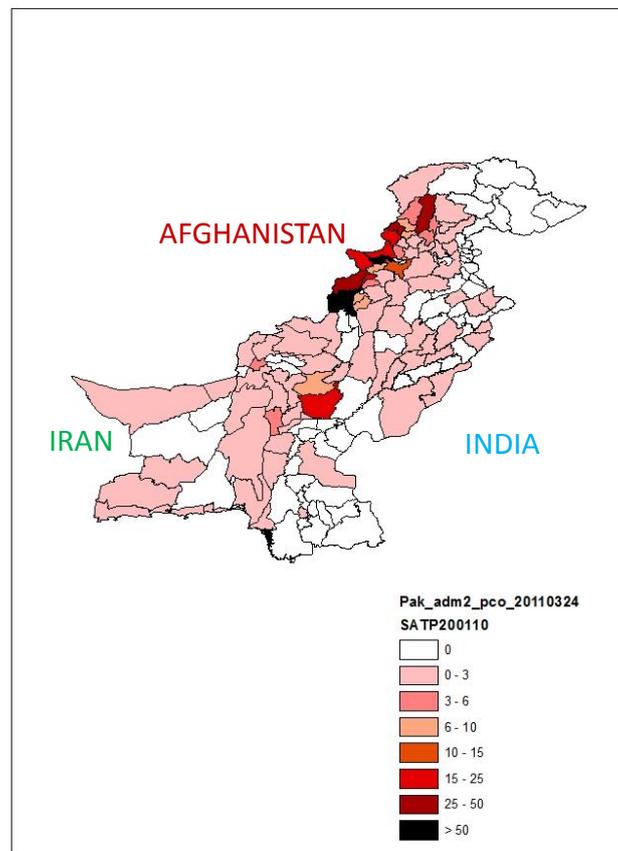
Baloch insurgency (Grare, 2013), sectarianism (often but not always overlapping with terrorist organisations; Nasr, 2002), ethnic tensions (Cohen, 2004), and urban militia/gang rivalries (Waseem, 2002).

Table 1. Fatalities in Conflict by Motivation of Incident and Province: Jan 2001 – May 2010

<b>Motivation</b>	<b>Total Number of People Killed</b>	<b>Percentage</b>
Counter/Terrorist	21,132	92.38
Communal	47	0.21
Sectarian	1,247	5.45
Insurgent (Balochistan)	335	1.46
Tribal Rivalry	56	0.24
Ethnic	8	0.03
Unknown	50	0.22
<b>Total</b>	<b>22,875</b>	
% of Counter/Terrorist	92.38	
% of Sectarian	5.45	

Source: Authors' calculations based on South Asia Terrorism Portal conflict timeline for Pakistan

Fig. 2. District-wise Total fatalities per 10,000 of population due to Conflict in Pakistan: Jan 2001 – May 2010: SATP



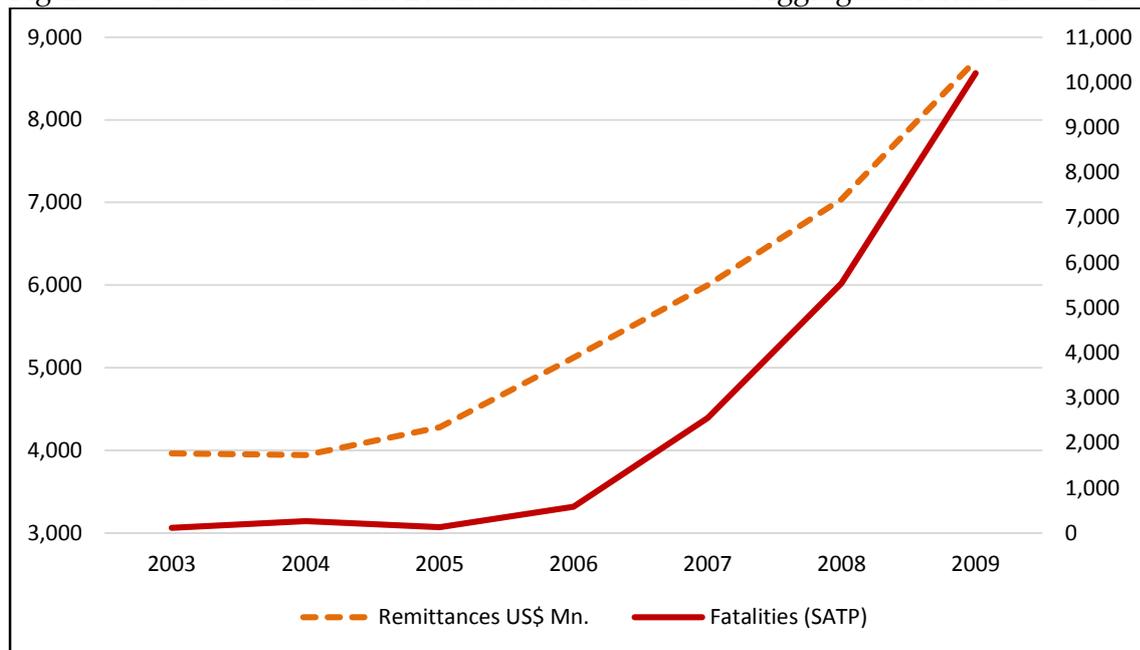
Source: Author's calculations using SATP data

### 3.3 Trends and Practices of Remittances in Pakistan

Remittances are a large part of the Pakistan economy, international remittances using official channels alone amounted to US\$ 13 billion in the year 2012-13, accounting for 5 percent of the country's GDP. The Middle East, followed by North America and Europe, is the leading region from where international remittances to Pakistan originate (Ahmed and Zarzoso 2013). The quantum of domestic remittances in Pakistan is also very high; while no official data on domestic remittances are available, Nenova *et al.*, (2009) estimated these to be roughly 90 percent of the value of international remittances. Over the period 2003 – 2009, the total amount of international remittance receipts in Pakistan appears to move very closely with the number of fatalities due to conflict, as is visible in Figure 3 below. However, as subsequent analysis will show, this apparent correlation need not imply causation, especially when analysed at the micro level, and when the definition of remittances includes internal remittances. Furthermore, during this period Pakistan witnessed relatively high rates of economic growth

(particularly in the relatively peaceful parts of the country), a change in the profile of international migrants, with a higher share of skilled workers who were more likely to remit higher amounts of money, and higher security of Pakistani nationals' bank accounts following the 9/11 attacks, leading migrant workers to transfer a part of their accumulated savings to Pakistan to avoid bank freezes and account confiscation (Kock and Sun, 2011). These factors, which likely explain the increase in foreign remittances coincided with increases in violent conflict.

Figure 3. Violent Conflict and International Remittances: Aggregate Trends 2003 – 2009



Source: Overseas remittances receipts data from World Bank, 2011; available at <http://siteresources.worldbank.org/INTPROSPECTS/Resources/334934-1199807908806/Pakistan.pdf> and accessed on 30th June, 2016

Fatalities from Conflict data taken from Author's calculations using SATP data

Remittances in Pakistan are meant for consumption as well as investment purposes. The Household Survey on Overseas Migration and Remittances (2009) found that food consumption expenditure alone accounted for about 40 percent of remittance spending among households with at least one migrant worker in Saudi Arabia, while 28 percent was used for the purchase of real estate and agricultural implements (IGC 2015). In contrast Gioli *et al.* (2013) found that among households in the conflict-affected Swat and Lower Dir districts of Khyber Pakhtunkhwa province 63 percent of remittance receipts were spent on real estate, construction and business investments. Expenditure on social ceremonies accounted for 17 percent of expenditures from remittances.

Remittance transfers are made through formal and informal channels. Formal channels include banks, money transfer companies, and in the case of domestic remittances, post offices. Informal channels include sending money in cash through visiting friends/ relatives, hand transfers through human couriers, exchanges through money changers and travel

agents, and most importantly the extensive unregulated and informal *hawala*<sup>1</sup> system (Nenova *et al.*, 2009). The *Hawala* system, present across many countries in East Africa, the Middle East and South Asia is based on a network of money transfer agents, or *hawaldars*, and depends on trust, between *hawaldars* across countries, as well as between *hawaldars* and remittance receiving/ sending households and individuals.<sup>2</sup>

## 4. Identification

### 4.1 Approach to Causal Identification

I attempt to study the causal link between conflict exposure and remittance receipts using a cross-sectional dataset. Any OLS estimates for such analysis would be biased because of the endogeneity of conflict and remittance receipts, as unobservable factors that cause chronic poverty and enhance the need for altruistic remittances may also be responsible for conflict. Also, factors associated with the ability of households and communities to send migrants out and to receive remittances can potentially also enable them to resist the control of armed groups, and the spread of violence. To overcome these endogeneity concerns, I use an Instrumental Variables approach to identify the causal impact of conflict on remittance receipts.

Based on an understanding of the historical evolution and context of political violence in Pakistan, discussed in detail in the Section 3.3, I use the nearest distance to the Afghanistan-Pakistan border as an IV for conflict

A historic analysis of the patterns of violent conflict in Pakistan over the 2000s tells us that areas closer to infiltration routes along the Afghanistan-Pakistan border became militant strongholds, and eventually the battleground of terrorist and counter-terrorist activity. This is also visible in Figure 2. The proximity to infiltration routes is therefore a strong correlate of violent conflict, and therefore used as an Instrumental Variable for exposure to conflict over the 2001-2010 period. The underlying assumption is that distance to infiltration routes, after controlling for potentially confounding factors, predicts remittances only through its correlation with conflict and not through any other route. The greatest threat to this assumption would arise if the distance to Afghanistan were also a predictor of migration to Afghanistan (and therefore ensuing remittances). However, over the period immediately after the 2010 floods, and indeed since the War on Terror in Afghanistan in 2001, Afghanistan has not been a migration destination for international migrant workers from Pakistan (migration flows were in the reverse direction, i.e. from Afghanistan into Pakistan). I therefore maintain the assumption that after controlling for potential institutional and accessibility-related

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<sup>1</sup> Also known as *Hundi* in South Asia

<sup>2</sup> see Rodima-Taylor, 2013; Afram, 2012<sup>2</sup> and Ballard, 2003 for a detailed review of the *hawala* system

confounders, the distance to the Pakistan-Afghanistan border predicts remittance receipts among Pakistani households only through its association with exposure to violent conflict.

Since it is not possible to identify the exact points of infiltration used by militants across the long and porous border, I use the nearest distance to the Afghanistan-Pakistan border as its closest proxy to instrument conflict. This is because of its solid theoretical and historical basis as a good predictor of conflict in the Pakistan context. Since militants' movements were not effectively restricted to the official border crossings,<sup>3</sup> I use the distance to official border crossing points as an IV for robustness checks and find that my main results are robust to the choice of IV (Appendix 3). I now discuss the potential threats to the exclusion restriction of the IV, as well as the measures I take to mitigate any threats to causal identification.

## 4.2 IV Estimation: Potential Threats and Mitigation

The community-level distance to the Afghan border can, in addition to predicting the onset and intensity of violence, also be correlated with several variables that directly determine remittance receipts. I identify a multitude of possible factors correlated with distance to the border with Afghanistan that also determine remittances, and control for potentially confounding (accessibility-related and institutional) factors.

### 4.2.1 Potential Accessibility-related Confounders

**Remoteness:** Communities close to the international border are further away from the centre of Pakistan and may be excluded from trans-regional/national migration/ remittance networks. To ensure that the instrument does not in fact proxy isolation or connectedness, I additionally control for communities' distance to the provincial and district capitals, and also include province dummies to account for unobserved heterogeneity at the province level.

**Topography:** In addition to remoteness, measured as the physical distance from administrative centres to communities, topography also affects the ease with which populations are likely to move out, develop migration networks and send remittances, as well as the ease of operation of financial operatives. To ensure that distance to the Pak-Afghan border is not conflated with topographic characteristics, I include community level controls for topography, specifically by including dummy variables for the following topographical characteristics: inland plains, coastal plains, plateaus, hills, valleys, mountainous areas, deserts and "other" topography.

### 4.2.2 Potential Institutional Confounders

**Infrastructure:** To ensure that distance to the Pakistan-Afghanistan border is not confounded by the absence of infrastructure that may be critical for conducting financial transactions (such

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<sup>3</sup> Specifically: Angoor Ada, Broghol pass, Dorah Pass, Ghulam Khan, Gomal Pass, Khyber Pass, Lataband Pass, Peiwar Pass, Torkham Pass, and the Wesh Chaman Border Crossing

as banks, market access, roads, telecommunication and electricity), I control for community-level infrastructure. I develop and use an additive index of infrastructure facilities (based on Case *et al.*, 2004), comprising dummy variables for whether or not the community has the following facilities: bus/wagon stop, railway station, shop, wholesale market, bank, flour mill, tractor rental centre, fertiliser depot, motorable approach road, and electricity, gas and drainage connectivity.

**State Presence:** Populations in areas with lower state presence, in terms of state-run institutions and public services are possibly less attuned to formal procedures of banking and finance, and may lack the necessary identification documentation to access formal remittance channels. I control for the presence of state institutions through an additive index of the following types of institutions present in the community: government schools, public health facilities, state-run immunisation camps, presence of community health workers, post offices and Union Council, Tehsil and District-level administrative centres.

**Ethno-linguistic Fractionalisation:** Fractionalisation within communities can make access to remittance networks more difficult (Alesina *et al.*, 1999). In a situation of conflict (which may itself be more likely to arise in more deeply divided communities), such between-group differences may be exacerbated, resulting in lower local coordination and access to both formal and informal (trust-based) modes of accessing remittances. I use the language of the survey interview<sup>4</sup> as a proxy of the household's linguistic identity and to calculate the community-level index of Linguistic Fractionalisation (as described by Alesina *et al.*, 2003) to ensure that the IV is not confounded by any incidental or other association with patterns of community-level linguistic fractionalisation.<sup>5</sup>

**Army Presence:** In Pakistan, proximity to the Army can be critical for the security of economic activities including migration and remittance transfers. This may be because the presence of the army can, to some extent, allay fears among the population about the safety of their family members when they decide to undertake migration, which would eventually enable them to remit money back. Distance to army strongholds may be correlated with violent conflict (given that much of the violent conflict in Pakistan over 2001-10 involved the Pakistan Army as a critical actor), but may also directly determine remittance transactions. I therefore include as a control, the distance between the community and the nearest Army cantonment.

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<sup>4</sup> Survey teams were trained in Pakistan's major languages: Urdu, Sindhi, Punjabi, Balochi, Pushto, Brahvi, Saraiki, Hindko and a few others, suggesting that the language of the interview was determined by the households', rather than the enumerators' identity

<sup>5</sup> Data on household ethnicity was not recorded, although it is often correlated with linguistic identity

### 4.3 Estimation

The main causal relationship of interest to the present analysis is expressed as:

$$Y_{ij} = \alpha + \beta_1 CON_m + \beta_2 X_{ij} + \beta_3 P_k + \varepsilon_{ij} \quad \dots (1)$$

Where

$Y_{ij}$  is the likelihood of household  $i$  in PSU  $j$  receiving any remittances.

$X$  is the matrix of household / community-level control variables.  $P$  represents the matrix of  $k$  Province dummies.

$CON$  is the measure of conflict exposure in sub-district  $m$ , and is assumed to be the same for all households/ communities in the sub-district.

Owing to the endogeneity of  $CON$  with  $Y_{ij}$ , discussed in 4.1,  $\beta_1$  in equation (1) above will be biased. I therefore estimate an IV probit model to estimate causal effects using 2-Stage Least Squares (2SLS).

**IV First stage Equation:**

$$CON_{ij} = \alpha + \gamma_1 DISTANCE_j + \gamma_2 X_{ij} + \gamma_3 P_k + u_{ij} \quad \dots (2)$$

$DISTANCE$  represents the distance between community  $j$  and the international border with Afghanistan.

The second stage equation is given by (3) below, where  $\beta'_1$  now reflects the causal effect of  $CON$  on  $Y_{ij}$ .

$$Y_{ij} = \alpha + \beta'_1 \widehat{CON}_{ij} + \beta'_2 X_{ij} + \beta'_3 P_k + \varepsilon'_{ij} \quad \dots (3)$$

Table 2 below show the IV first-stage results for the instrumentation of conflict (log [1+n] deaths due to conflict between 2001 and 2010) with the distance to the Pakistan-Afghanistan border.

Table 2. Conflict and the Nearest Distance to the Afghan Border: IV First-Stage Results

	(1)	(2)	(3)
Distance to Afghan Border	-0.877*** (-63.01)	-0.494*** (-31.56)	-0.266*** (-12.13)
Controls	-	Yes	Yes
Province dummies	-	-	Yes
N	7802	7786	7786
Partial F-statistic	160.93	101.82	14.99
Prob. > F	0.0000	0.0000	0.0001
Adjusted R-squared	0.3373	0.5393	0.5664

*t* statistics in parentheses

^Standard errors are clustered at the PSU (community) level

\* $p < 0.10$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$

As we see in Table 2 above, as expected, conflict has a significant and strong negative association with the distance to the Afghan border. This is robust to the inclusion of controls and province dummies. Further the values of the F-statistic are sufficiently high to indicate the absence of weak instruments as per Stock and Yogo (2005).

## 5. Results

### 5.1 Descriptive Statistics

About 12% of all households in the sample report receiving remittances. This share is higher for Khyber-Pakhtunkhwa and Punjab compared to Sindh and Balochistan. The average amounts of remittances received by a household that receives any remittances at all is Pakistani Rupees (PKR) 41,730.38 (roughly US\$ 463 at US\$ 1 = PKR 90.1919 as on 01 January, 2012). The average amounts of remittance money received were also higher in KPK and Punjab. Table 3 below provides descriptive summaries.

Table 3. Descriptive Statistics on Remittance Receipts: Any and Mean Value of Amounts Received (in PKR)

	No. of HHs Receiving Any Remittances	Share of HHs Receiving Any Remittances	Mean Value of Remittances (all HHs) - PKR	Mean Value of Remittances (Only HHs receiving remittances) - PKR
Punjab	382	16.43%	6,639.92	40,680.47
Sindh	165	7.55%	2,161.48	28,636.36
KPK	326	18.48%	9,520.56	51,906.19
Balochistan	58	3.80%	1,108.06	29,172.41
Total	931	11.93%	4,950.70	41,730.38
N	7802	7802	7796	925

## 5.2 Main Causal Results

I first examine the effects of conflict exposure, measured as the sub-district-level value of log (1+n) killings over the 2001 – 2010 period, on the (i) likelihood of receiving any remittances at all using an IV probit model, and (ii) the amount of money (in PKR) received as remittances, using an IV tobit model.<sup>6</sup> Remittances here include both domestic and international remittances and the data do not allow me to distinguish the source of such remittances.

I control for a wide range of household and community characteristics, and include province dummies to capture unobserved heterogeneity at the province level – described just below Table 4. Among household-level controls, apart from markers of wealth, adult education, household demographics, access to household services, land ownership, occupational categories and enterprise ownership, I also control for the total number of contacts known to the household who could help the household (members) in cash/ kind or in helping find a job (a measure of social capital), and for household receipts of flood relief and income support cash transfers from the state.<sup>7</sup>

Table 4. Effect of Conflict on likelihood of receiving remittances: Probit and IV probit estimates

	Probit Estimates				IV Probit Estimates			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Log (n+1) killings at tehsil level	0.009***	-0.005	-0.003	-0.006*	0.122***	-0.138	-0.268*	-0.417***
	(3.15)	(-1.64)	(-0.90)	(-1.84)	(4.81)	(-1.29)	(-1.73)	(-3.26)
Province Dummies		Y	Y	Y		Y	Y	Y
Community Controls			Y	Y			Y	Y
HH Controls				Y				Y
<i>N</i>	7802	7802	7786	7786	7802	7802	7786	7786

Marginal effects; *t* statistics in parentheses

\* $p < 0.10$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$

Community Controls: Urban/ Rural, topography, distance from administrative headquarters, intra-community linguistic fractionalization, community-level presence of infrastructure and state institutions

Household controls: Household size, Age of head, members' education levels, Farmland ownership, pre-flood livestock value, number of males, number of members over 14, household main occupation and enterprise ownership, female-headed (dummy), Flood-Exposure Index, Flooding Anomaly Index, No. of Contacts outside village (Social Connectedness), Received state transfers through CDCP – I and BISP programmes (dummies)

<sup>6</sup> Hereafter, (i) shall be referred to as the extensive margin of remittance receipts, and (ii), the intensive

<sup>7</sup> The Citizens' Damage Compensation Programme – Phase I (flood relief) transfer, and the Benazir Income Support Programme – unconditional cash transfer to the poorest households, respectively

Table 5. Effect of Conflict on Amount of remittances received (in PKR): Tobit and IV Tobit estimates

	Probit Estimates				IV Probit Estimates			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Log (n+1) killings at tehsil level	5,354**	-2,171	-1,837	-3,134*	14,746***	-979	-11,461	-29,741**
	(3.22)	(-1.17)	(-0.87)	(-1.86)	(4.81)	(-0.09)	(-0.73)	(-2.14)
Province Dummies		Y	Y	Y		Y	Y	Y
Community Controls			Y	Y			Y	Y
HH Controls				Y				Y
N	7796	7796	7780	7780	7796	7796	7780	7780

Marginal effects; *t* statistics in parentheses

\**p* < 0.10, \*\**p* < 0.05, \*\*\**p* < 0.01

Controls as in Table 4 above

Tables 4 and 5 (col. 8) above show that after controlling for household and community characteristics, exposure to violent conflict has a strong negative effect on, both the likelihood and the quantum of remittance receipts for households. This is significant as it shows that even at the aggregate level, and immediately following devastating floods when the need for external support to households is high, households in areas with higher long-term exposure to violent conflict receive fewer and lower amounts of remittances.

The mean value of killings in the sample is 30.96. The coefficient -0.417 in table 4 means that at this mean value, for instance, an increase in the level of killings per tehsil by 10%, i.e. approximately by 3 more killings, would lead to a decrease in the likelihood of receiving any remittance by  $[\ln(1.1) \times 0.417]$  by 3.97% - which is considerable given that 11.93% of all households receive remittances. Similarly, since the coefficient of  $\log(1+n)$  killings in Table 5 is 37,024, an increase in the number of killings per tehsil by 10% would decrease the average amount of remittances received by  $[\ln(1.1) \times 29741]$  PKR 2,834.61 (US\$ 33 approx.<sup>8</sup>) – equivalent to 57% of the average amount of remittances received by households in the sample, and 6.8% of the average amount of remittances received by remittance-receiving households.

<sup>8</sup> At Exchange Rate US\$1 = PKR 86.0605 as on 01 July 2011, about a year after the onset of the 2010 floods

### 5.3 Underlying Mechanisms: Motives for Remitting (Consumption v/s Investment)

If conflict increases economic hardship, remitters will seek to send money to help alleviate some of the suffering of family members left behind, thus resulting in increased remittance inflows into conflict-affected areas. If, however, remittances are meant for investment purposes, in expectation of future returns, violent conflict can increase risk and signal uncertainty for the future, causing remitters to reduce their investments in conflict-affected areas. In the analysis so far we find that at an aggregate level, conflict reduces remittance receipts at both the extensive and the intensive margins. Such effects may however vary across groups that receive remittances for alternate predominant purposes: consumption and investment. While it is not possible to identify what was the main motive behind the remittances received, I test the effects of conflict on remittances across groups that are likely to have different motives for receiving remittances. Specifically, I examine whether the effect of conflict on remittance receipts varies across (groups of) monthly per adult equivalent food consumption expenditure quintiles, with the assumption that lower food expenditure quintiles are more likely to receive remittances to support consumption, whereas high quintiles are more likely to receive investment-focused remittances. Amjad *et al.* (2013) report that in Khyber-Pakhtunkhwa province, for instance, food is the first preferred item for remittances received to be spent on, followed by health and education, and thereafter by housing and loan repayment. Building on this stated preference, I posit that only once food requirements are met do households use remittances for investments, and therefore that the marginal propensity to invest among more food-insecure populations is low (as the marginal propensity to consume is high). The IV estimates of the effect of conflict on remittances across food expenditure quintile groups are shown in tables 6 and 7 below.

Table 6. Effect of Conflict on Likelihood of Any Remittance Receipt: Across Food Consumption Expenditure Quintiles

		Full Sample	Monthly per Adult-equivalent Food Consumption Expenditure Quintiles				
			Q1	Q2	Q3	Q4	Q5
Log	(n+1)	-0.417***	0.542**	-0.642***	-0.603***	-0.165	-0.427***
killings at tehsil level		(-3.26)	(2.15)	(-4.25)	(-3.78)	(-0.56)	(-2.91)
<i>N</i>		7786	1546	1560	1545	1551	1550

Marginal effects; *t* statistics in parentheses

\**p* < 0.10, \*\**p* < 0.05, \*\*\**p* < 0.01

Controls as in Table 4 above

Table 7. Effect of Conflict on Amount of Remittances Received: Across Food Consumption Expenditure Quintiles

	Full Sample	Monthly per Adult-equivalent Food Consumption Expenditure Quintiles				
		Q1	Q2	Q3	Q4	Q5
Log (n+1) killings at tehsil level	-29,741**	65,150	-63,240**	-53,555**	-11,150	-29,218*
	(-2.14)	(1.55)	(-1.97)	(-2.10)	(-0.41)	(-1.65)
N	7780	1558	1560	1557	1551	1560

Marginal effects; *t* statistics in parentheses

\**p* < 0.10, \*\**p* < 0.05, \*\*\**p* < 0.01

Controls as in Table 4 above

Tables 6 and 7 above indicate that the aggregate negative effect of conflict on remittances does not operate for the lowest expenditure quintile, which is more likely to receive remittances meant to support consumption. In fact conflict is likely to increase the likelihood of receiving any remittances even though the amount of remittances received by households in this quintile does not vary by conflict exposure. This suggests that for the lowest expenditure quintile the receipt of altruistic remittances increases with conflict, even as the amounts of money received do not.

The aggregate negative relationship between conflict exposure and remittances, at both the extensive and intensive margins, is driven by higher expenditure quintiles. These households are less likely to be food insecure or struggling for survival, and therefore more likely to use remittances for investment, compared to the lowest quintile. For such households, conflict has a negative effect on remittances, probably because investment-focused remittances respond negatively to the higher risk and uncertainty that long term exposure to conflict signals in these areas. Alternatively, this negative effect could be because owing to security risk and dwindling economic prospects, remitting migrants from areas long affected by conflict are reconsidering their long-term pecuniary interest in their native communities and do not envision a return to their native communities as much as migrants from more peaceful areas may. Conflict may accelerate a process of “Remittances Decay”, due to which, as migrants spend more time in their destination areas, their ties with native areas may weaken, and their prospects of returning may become bleak (Vargas-Silva, 2016, pp. 10-11; Grigorian and Melkonyan, 2008; Dustmann and Mestres, 2010). For the poorest quintile, however, supporting survival, more than future investment is the primary motive for remittances. For this group, conflict therefore appears only as an additional cause of hardship rather than an investment risk factor; compelling remitters to

maintain (even increase, at the extensive margin) the modicum of support to households.

#### 5.4 Conflict and the Motive to Invest: Insights beyond Remittances

Is the relationship between conflict and household expenditure heads (consumption v/s investment) as explored in the case of remittances, also likely to hold for other transfers? I examine the case of flood relief cash transfers, for which (unlike the case of remittances) the dataset contains information on the use of, across expenditure heads. Following the 2010 floods, the Government of Pakistan, supported by international donor agencies launched the Citizen’s Damage Compensation Programme (CDCP) – an unconditional cash transfer-based flood relief programme that made payments to flood-affected households in two tranches. Phase I of the CDCP was intended to be a more universal programme that made lump sum, one-off payment of PKR 20,000 to beneficiary households, and was rolled out within the year following the floods. In reality however, owing to administrative, technological and local political factors, not all eligible households received the transfer. 61% of all households in flood-affected areas of Pakistan received the CDCP – I transfer. In the following analysis I only examine expenditure patterns across various expenditure heads by households, conditional on receiving the CDCP – I at all. The survey dataset used for the present analysis contains questions on the amount of flood relief cash transfers spent by recipient households on the three most important items that the transfer was used for. I group these expenditures under the following heads and examine the effect of conflict on the amount spent under each: food and clothing, education, health, purchase of assets, repairs and extension of existing assets, new investments, savings and repayment of debt, and miscellaneous. I use an IV regression model to examine the effect of conflict on the amounts of money spent by CDCP – Phase I recipient households under each expenditure head.

Table 8. Effect of Conflict on Amount Cash Spent (in PKR) on Alternate Expenditure Heads out of CDCP – I receipts (CDCP – I recipient households only\*): IV estimates

	Food & Clothing	Education	Health	Purchase of Assets	Repairs/ Extension to Assets	New Investments	Saving & Repaying Loans	Misc.
Log (n+1) killings at tehsil level	267	109	1447**	-430**	-1235	-423	-2317**	46
	(0.33)	(0.23)	(2.28)	(-2.58)	(-1.14)	(-0.89)	(-2.20)	(0.07)
Province Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	4762	4762	4762	4762	4762	4762	4762	4762

\* constituting 61% of all flood affected households

Table 8 shows that in conflict-affected settings, households that receive flood relief cash transfers are likely to spend more on health expenditures, and less on the purchase of assets and on accumulating savings or repaying outstanding debt. It is noteworthy that though statistically not significant (owing possibly to the reduced sample size after confining analysis to CDCP recipients), the coefficients on consumption-related budget heads (food/ clothing, education, health and miscellaneous) are positive, while those on investment-related heads (asset purchases, repairs/ maintenance/ extensions to assets, and new investments) are negative. This provides some suggestive evidence that conflict may dampen the incentives to invest transfers received from outside the household.

I further collapse the budget heads listed in Table 8 into two broad categories: consumption, and investment, that are central to the discussion in this article. Consumption expenditures include those on food and clothing, health, education, and on miscellaneous items. Investment expenditures – reflecting expenditures that have longer-term benefit include those on the purchase of assets, repairs and extension of existing assets, acquiring new investments, and towards increasing savings and retiring debt.

Table 9. Effect of Conflict on Amount Cash Spent on Consumption and on Investment out of CDCP – I receipts: IV regression estimates

	Combined Expenditures on Consumption Items <sup>9</sup>	Combined Expenditures on Investment Items <sup>10</sup>
Log (n+1) killings at tehsil level	1870 (1.23)	-4406** (-2.56)
Province Dummies	Yes	Yes
Controls	Yes	Yes
<i>N</i>	4762	4762

Marginal effects; *t* statistics in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Again, table 9 shows that conflict decreases household expenditures made out of CDCP transfers towards investment purposes, and has no significant effect on consumption expenditures. This provides further support for the mechanism under consideration, i.e. that long-term exposure to conflict reduces the attractiveness of investments (and expenditures with a longer term benefit, such as savings) and can explain why conflict has a negative effect on remittance receipts in general, and

<sup>9</sup> Food, clothing, health, education, miscellaneous

<sup>10</sup> Purchase, repair and maintenance of assets, new investments, increasing savings and retiring debt

investment-focused remittances in particular.

## 6. Robustness Tests

The preceding analysis measures conflict exposure as the natural log of  $1+n$ , where  $n$  is the total number of people killed in violent conflict in the tehsil between 2001 and 2010. I find that the results presented are robust to an alternate specification according higher weight to more recent fatalities. I measure conflict as the natural log of  $1+ w*n$ , where  $w$  is the weight accorded to fatalities due to violence based on the recency of occurrence (fatalities in the year 2010 receive a full weight of 1, those in 2009 are assigned 0.9 and so on, until 2001 which receives a weight of 0.1). The results are presented in Appendix 1.

I also measure conflict exposure over a varying number of years preceding 2010, ranging from 2009-2010 to 2001-2010 and find that the results remain significant and of roughly similar magnitude regardless of the time period over which exposure to violence is measured (Appendix 2).

The IV used for causal analysis is the community distance to the nearest point on the Pakistan-Afghanistan border. I use an alternate measure for the IV: the distance to the nearest official border crossing, and find that the results presented are robust (Appendix 3).

## 7. Summary of Results and Conclusions

This paper has examined the causal effects of long-term exposure to conflict, measured at the micro level, on households' receipt of remittances. Using IV estimation to overcome the endogeneity of conflict exposure and remittance receipts, and controlling for a range of confounding factors, I find that, contrary to the literature from country-level case studies in the immediate aftermath of crisis events, long-term exposure to conflict reduces households' receipts of remittances at the extensive and the intensive margins.

These effects appear to be driven by higher consumption expenditure quintiles. In the lowest consumption expenditure quintile, conflict in fact increases the likelihood of receiving remittances, alluding to its salience as a source of hardship that can draw in altruistic remittances from outside. Equally, however, conflict is a likely dampener for investment-focused remittances. To the extent that the motive for remittances moves from consumption-

support (altruism) to investment as one moves to higher expenditure quintiles, exposure to conflict reduces the receipt and quantum of remittances directed to finance investments. An analysis of the effect of conflict on the use of flood relief cash transfers further strengthens the insights on the relationship between conflict and investments. Conditional on receiving flood relief cash transfers from the government, households in conflict-affected areas spend lower amounts of money from the transfers on investment heads, suggesting a lowered incentive to invest by the recipient household (and not its remitting kin alone) due to conflict. Investments may be less attractive due to reduced economic activity as a result of violence, security risk to investments and assets, or a lowered preference and probability of return on the part of migrants to their conflict-infested origins. Future research should examine which of these (or other) reasons explain how conflict may reduce investment-focused remittances.

This paper has shown that the causal impact of long term exposure to conflict, measured at the micro level on households' receipt of remittances, may be very different from observed correlations between (mostly foreign) remittance receipts in national statistics and recent country-level occurrences of violence. First, a household-centric and microeconomic lens, as has been used in this paper, can potentially uncover the simultaneous operation of opposing effects of conflict on remittances by their likely motive. Secondly, while recent outbreaks of war have been associated with drawing in high levels of external help in the form of remittances, areas that are embroiled in long-term strife and violence may, over the long-term, deter remittances as communities cut their pecuniary and other associations with increasingly risky and unsafe areas. This underscores the importance of distinguishing immediate from long-term effects, and compels a separate paradigm for examining the effects of persisting conflict on remittance behaviour. Areas reeling under violent conflict for long periods of time have deep and potentially intractable economic and social problems. Remittances from outside therefore cannot be easily parachuted in, when local economic activity suffers due to violence. As such, policy prescriptions focusing on external transfers for promoting economic activity and human development in conflict-affected areas must consider the limitations that remittances are likely to face in insecure environments.

## References

Afram, G. G. (2012). *The remittances market in India: Opportunities, challenges and policy options*. Washington, DC: World Bank.

Ahmed, I. I. (2000) 'Remittances and Their Economic Impact in Postwar Somaliland', *Disasters*, 24(4), pp. 380–89.

Ahmed, J and I.M. Zarzoso (2013). Blessing or Curse: The stabilizing role of remittances, Foreign aid and FDI to Pakistan. May 2013, Discussion papers, Center for European Governance and Economic Development Research, No. 153

Al-Ali, N., R. Black and K. Koser (2001) 'Refugees and Transnationalism: the Experience of Bosnians and Eritreans in Europe', *Journal of Ethnic and Migration Studies*, 27, pp. 615–35.

Alesina, A., A. Devleeschauwer, W. Easterly, S. Kurlat and R. Wacziarg (2003) Fractionalization. *Journal of Economic Growth*. Springer, vol. 8(2), pages 155-94, June.

Alesina, A., R. Baqir and W. Easterly (1999) Public Goods And Ethnic Divisions. *The Quarterly Journal of Economics*, MIT Press, vol. 114(4), pages 1243-1284, November.

Amjad R., M. Irfan, and G.M. Arif (2013). *How to Increase Formal Inflows of Remittances: An Analysis of the Remittance Market in Pakistan*. Working Paper, A joint publication of Lahore School of Economics (LSE), International Growth Center (IGC) and the Pakistan Institute of Development Economics (PIDE).

Amuedo-Dorantes, C., and S. Pozo. (2006a) "Remittances as Insurance: Evidence from Mexican Immigrants." *Journal of Population Economics* 19 (2): 227–54.

Amuedo-Dorantes, C., and S. Pozo. (2006b) "Remittance Receipt and Business Ownership in the Dominican Republic." *World Economy* 29 (7): 939–56.

Ballard, R. (2003) *A Background Report on the Operation of Informal Value Transfer Systems (Hawala)*. Available at: [casas.org.uk/papers/pdfpapers/hawala.pdf](http://casas.org.uk/papers/pdfpapers/hawala.pdf).

Ballard, R. (2005) 'Coalitions of Reciprocity and the Maintenance of Financial Integrity within Informal Value Transmission Systems: The Operational Dynamics of Contemporary Hawala Networks', *Journal of Banking Regulation*, 6(4), pp. 319–52.

Ballentine, K. and H. Nitzschke (2003) *Beyond Greed and Grievance: Policy Lessons from Studies in the Political Economy of Armed Conflict*. New York: International Peace Academy Policy Report.

Betts, A., L. Bloom, J. Kaplan, and N. Omata. (2014) *Refugee Economies: Rethinking Popular Assumptions*. Oxford: Humanitarian Innovation Project, Oxford University.

Campbell, E. and J. Kakusu (2006) 'Congolese Refugee Livelihoods in Nairobi and the Prospects of Legal, Local Integration', *Refugee Survey Quarterly*.

Carling, J, M.B. Erdal, and C. Horst (2012) 'How does conflict in migrants' country of origin affect remittance-sending? Financial priorities and transnational obligations among Somalis and Pakistanis in Norway.' *International Migration Review*, 46(2): 283-309.

Case, A., C. Paxson, and J. Ableidinger (2004) Orphans in Africa: Parental Death, Poverty, and School Enrollment. *Demography* 41(3): 483-508.

Clarke, G. and S. Wallsten (2004) *Do Remittances Protect Households in Developing Countries against Shocks? Evidence From a Natural Disaster in Jamaica*. Washington DC: World Bank

Clay, E. and C. Benson (2006) 'Aftershocks: Natural Disaster Risk and Economic Development Policy', in P. Randade (ed.), *Natural Disaster Management and Preparedness*. Hyderabad: ICFAI University Press.

Cohen, S. P. (2004) *The Idea of Pakistan*. Washington, DC: Brookings Institution.

Collier, P. (2000) *Economic Causes of Civil Conflict and Their Implications for Policy*. The World Bank, Washington DC.

Connell, J. and R. Brown (2005) 'Remittances in the Pacific: An Overview', Pacific Studies Series of the Asian Development Bank. Manila: ADB.

Deshingkar, P. (2006) Internal Migration, Poverty and Development In Asia, *ODI Briefing Paper*. London: ODI.

Dustmann, C., and J. Mestres. 2010. "Remittances and Temporary Migration." *Journal of Development Economics* 92 (1): 62–70.

El-Sakka, M. and McNabb, R. (1999) The Macroeconomic Determinants of Emigrant Remittances. *World Development*, 27(8), pp. 1493-1502.

Erdal, Marta Bivand & Kristian Stokke (2009) Contributing to Development? Transnational Activities among Tamils in Norway, *Asian and Pacific Migration Journal* 18(3): 397–418.

Fagen, P.W. and M. Bump (2006) *Remittances in Conflict and Crises: How Remittances Sustain Livelihoods in War, Crises, and Transitions to Peace*. Policy Paper. The Security-Development Nexus Program. International Peace Academy, Georgetown University, Washington, DC.

Gellert, G. (2006) 'Hurricane Stan Lifts the Lid on Guatemala's Vulnerability', in *World Disasters Report 2006*. Geneva: IFRC.

Grigorian, D., and T. Melkonyan. (2008) "Microeconomic Implications of Remittances in an Overlapping Generations Model with Altruism and Self-Interest." IMF Working Paper, International Monetary Fund, Washington, DC.

Ghorpade, Y. (2016) Sub-National Patterns and Trends in Violent Conflict in Pakistan: Insights from South Asia Terrorism Portal Data for 2001 – 2010. Chapter 2 In PhD Thesis *Essays on Household Behaviour at the Intersection of Conflict and Natural Disasters: The 2010 Floods in Pakistan* (pp. 23 – 66). Institute of Development Studies, University of Sussex: UK.

Gioli, G., T. Khan, and J. Scheffran (2013) Remittances and Community Resilience to Conflict and Environmental Hazards in Northwestern Pakistan. In Rodima-Taylor, D.(Ed.) *Remittance Flows to Post-Conflict States: Perspectives on Human Security and Development*. Pardee Center Task Force Report. Boston University, Boston.

Grare, F. (2013) *Balochistan: The State versus the Nation*. Washington, DC: Carnegie Endowment for International Peace.

Gul, I. (2009) *The Most Dangerous Place: Pakistan's Lawless Frontier*. New Delhi: Penguin Books.

Gunaratna, R. and K. Iqbal (2011) *Pakistan: Terrorism Ground Zero*. London: Reaktion Books.

Gundel, J. (2002) "The Migration–Development Nexus: Somalia Case Study." *International Migration* 40(5):255–281

Horst, C. (2006) *Transnational Nomads: How Somalis Cope with Refugee Life in the Dadaab Camps of Kenya*. Oxford: Berghahn.

Hysenbegasi, A. and S. Pozo. (2002) *What Prompts Workers to Remit? Evidence Using a Panel of Latin American and Caribbean Nations*. Working Paper, Western Michigan University

IGC (2015) *Reclaiming prosperity in Khyber-Pakhtunkhwa: A medium term strategy for inclusive growth - Full report*. International Growth Centre, London.

IOM (2003) *World Migration 2003: Managing Migration – Challenges and Responses for People on the Move*. Geneva: IOM

Kock, U. and Y. Sun (2011) Remittances in Pakistan – Why have they gone up, and why aren't they coming down? *IMF Working Paper WP/11/200*. Accessed online at <https://www.imf.org/external/pubs/ft/wp/2011/wp11200.pdf> on 22 July 2016. Washington, DC: International Monetary Fund.

Lindley, A. (2007) Remittances in Fragile Settings: A Somali Case Study. HiCN Working Paper 27. Households in Conflict Network.

Lucas, R. and Stark, O. (1985). "Motivations to Remit: Evidence from Botswana". *Journal of Political Economy*, 93 (5): 901-918

Maimbo, S.M. (Ed.) (2006) Remittances and Economic Development in Somalia: An Overview. Working Paper No. 38 Conflict Prevention & Reconstruction, Social Development Department, The World Bank, Washington, DC.

McCormick, B. and J. Wahba (2002) "Return Migration and Geographical Inequality: The Case of Egypt." Unpublished paper, University of Southampton.

McKay, A., and P. Deshingkar. (2014) "Internal Remittances and Poverty: Further Evidence from Africa and Asia." Migrating Out of Poverty, Working Paper 12, University of Sussex, Brighton, UK.

Meyers, D. (1998) Migrant Remittances to Latin America: Reviewing the Literature, *Inter-American Dialogue*, <http://www.thedialogue.org/publications/meyers.html>.

Monsutti, A. (2006) *Afghan Transnational Networks: Looking Beyond Repatriation*. Kabul: Afghanistan Research and Evaluation Unit

Nasr, S.V.R. (2002) "Islam, the State and Rise of Sectarian Militancy in Pakistan". In Jaffrelot, C. (Ed.) *Pakistan: Nationalism without A Nation*. London: Zed Books Ltd.

Nenova, T., C. T. Niang, and A. Ahmad (2009). *Bringing Finance to Pakistan's Poor: Access to Finance for Small Enterprises and the Underserved*. Washington, DC: World Bank.

OPM (2013) *Citizen's Damage Compensation Programme – Phase II Transfer: Baseline and End line Household Survey Datasets*. Oxford: Oxford Policy Management Ltd. (Access for academic research authorised by National Database Registration Authority, Government of Pakistan, Islamabad).

Orjuela, C. (2008) "Distant Warriors, Distant Peace Workers? Multiple Diaspora Roles in Sri Lanka's Violent Conflict." *Global Networks* 8(4):436–452.

Rashid, A. (2008) *Descent into Chaos: Pakistan, Afghanistan and the Threat to Global Security*. London: Penguin Books.

Rashid, A. (2012) *Pakistan on the Brink: The Future of Pakistan, Afghanistan and the West*. London: Penguin Books.

Ratha, D. (2003) Workers' Remittances: An Important and Stable Source of External Development Finance. In *Global Development Finance 2003, Striving for Development Finance*. Washington DC: World Bank.

Ratha, D. (2007) *Leveraging Remittances for Development*. MPI Policy Brief. June 2007. Migration Policy Institute, Washington, D.C.

Rodima-Taylor, D (2013) "Informal" Remittance Systems and Post-Conflict Development. In Rodima-Taylor, D.(Ed.) *Remittance Flows to Post-Conflict States: Perspectives on Human Security and Development*. Pardee Center Task Force Report. Boston University, Boston.

Savage, K. and P. Harvey (2007) "Remittances during Crises: Implications for Humanitarian Response" Humanitarian Policy Group Report, available at: <http://www.odi.org.uk/resources/hpg-publications/policy-briefs/26-remittances-criseshumanitarian-response.pdf>.

Schutte, S. (2004) "Urban Vulnerability in Afghanistan: Case Studies from Three Cities." Working Paper Series, UNHCR, Afghanistan Research and Evaluation Unit, May 2004.

Seddon, D. (2005) 'Nepal's Dependence on Exporting Labor', Migration Information Source, <http://www.migrationinformation.org/Profiles/display.cfm?id=277>.

Spatafora, N. (2005) Workers' Remittances and Economic Development, (Chapter II) in *World Economic Outlook: Globalization and External Imbalances*, IMF, Washington, DC, pp. 69-84.

Stock, J. H. and M. Yogo (2005), "Testing for Weak Instruments in Linear IV Regression." Ch. 5 in J.H. Stock and D.W.K. Andrews (eds), *Identification and Inference for Econometric Models: Essays in Honor of Thomas J. Rothenberg*, Cambridge University Press.

Vargas-Silva, C. (2016) Literature Review: Remittances Sent to and From Refugees and Internally Displaced People. KNOMAD Working Paper 12. Global Knowledge Partnership on Migration and Development. The World Bank, Washington, D.C.

Waseem, M. (2002) "Causes of Democratic Downslide." *Economic and Political Weekly* 37, no. 44-45: 32-38.

World Bank (2005) *Grenada: A Nation Rebuilding: An Assessment of Reconstruction and Economic Recovery One Year after Hurricane Ivan*, Available at: [http://siteresources.worldbank.org/INTDISMGMT/Resources/grenanda\\_rebuilding.pdf](http://siteresources.worldbank.org/INTDISMGMT/Resources/grenanda_rebuilding.pdf)

World Bank (2006) *Global Economic Prospects 2006: Economic Implications of Migration and Remittances*. The World Bank, Washington, D.C.

World Bank (2015a) Migration and Remittances: Recent Developments and Outlook Special Topic: Financing for Development. *Migration and Development Brief 24* (April 2015). Migration and Remittances Team, Development Prospects Group, The World Bank. Washington, D.C. Accessed on 22 April, 2015 at: <http://siteresources.worldbank.org/INTPROSPECTS/Resources/334934-1288990760745/MigrationandDevelopmentBrief24.pdf>

World Bank (2015b) Annual Remittances Data – Inflows. Accessed on 22 April, 2015 at [http://siteresources.worldbank.org/INTPROSPECTS/Resources/334934-1288990760745/RemittanceData\\_Inflows\\_Apr2015.xls](http://siteresources.worldbank.org/INTPROSPECTS/Resources/334934-1288990760745/RemittanceData_Inflows_Apr2015.xls)

Yang, D. (2005) *Coping With Disaster: The Impact of Hurricanes on International Financial Flows, 1970–2001*. Ann Arbor, MI: Gerald R. Ford School of Public Policy and Department of Economics, University of Michigan.

Yang, D. and H. Choi (2005) *Are Remittances Insurance? Evidence from Rainfall Shocks in the Philippines*. Washington DC: World Bank Research Program on International Migration and Development.

Yusuf, M. (2014) *Pakistan's Counterterrorism Challenge*. United States Institute of Peace. Washington, D.C.: Georgetown University Press.

**Appendix 1. IV Estimates of effect of Conflict on Access to Cash Transfers: Conflict Measured as sum of (recency-) Weighted number of people killed, 2001 – 2010**

Table A1.1 Weights as shown below

Year	Weight
2010	1
2009	0.9
2008	0.8
2007	0.7
2006	0.6
2005	0.5
2004	0.4
2003	0.3
2002	0.2
2001	0.1

Table A1.2 IV First-Stage Results

	(1)	(2)	(3)
Nearest distance to Afghanistan-Pakistan border	-0.778** (-56.60)	-0.285** (-12.85)	-0.214** (-9.41)
Province dummies	no	yes	yes
Controls	no	no	yes
N	7802	7802	7767
Partial F-statistic	124.95	22.19	9.13
Prob. > F	0.0000	0.0000	0.0026
Adjusted R-squared	0.2910	0.4139	0.5005

^Standard errors clustered at community level

\* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

w = year weight as defined in Table A1.1

Table A1.3 Effect of Conflict on likelihood of receiving remittances: Probit and IV probit estimates

	Probit Estimates				IV Probit Estimates			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Log (1+w*n) killings at tehsil level	0.010*** (3.29)	-0.003 (-1.03)	-0.002 (-0.48)	-0.004 (-1.31)	0.136*** (4.81)	-0.170 (-1.35)	-0.351* (-1.76)	-0.501*** (-3.49)
Province Dummies		Y	Y	Y		Y	Y	Y

Community Controls			Y	Y			Y	Y
HH Controls				Y				Y
<i>N</i>	7802	7802	7786	7767	7802	7802	7786	7767

Marginal effects; *t* statistics in parentheses

\**p* < 0.10, \*\**p* < 0.05, \*\*\**p* < 0.01

w = year weight as defined in Table A1.1

Community Controls: Urban/ Rural, topography, distance from administrative headquarters, intra-community linguistic fractionalization, community-level presence of infrastructure and state institutions

Household controls: Household size, Age of head, members' education levels, Farmland ownership, pre-flood livestock value, number of males, number of members over 14, household main occupation and enterprise ownership, female-headed (dummy), Flood-Exposure Index, Flooding Anomaly Index, No. of Contacts outside village (Social Connectedness), Received state transfers through CDCP – I and BISP programmes (dummies)

Table A1.4 Effect of Conflict on Amount of remittances received (in PKR): Tobit and IV Tobit estimates

	Probit Estimates				IV Probit Estimates			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Log (1+w*n) killings at tehsil	5632*** (3.26)	-1426 (-0.75)	-1219 (-0.59)	-2519 (-1.48)	16566*** (4.74)	-1854 (-0.15)	-16091 (-0.74)	-39202** (-2.04)
Province Dummies		Y	Y	Y		Y	Y	Y
Community Controls			Y	Y			Y	Y
HH Controls				Y				Y
<i>N</i>	7797	7796	7780	7761	7796	7796	7780	7761

Marginal effects; *t* statistics in parentheses

\**p* < 0.10, \*\**p* < 0.05, \*\*\**p* < 0.01

w = year weight as defined in Table A1.1

Controls as in Table A1.3 above

Table A1.5 Effect of Conflict on Likelihood of Any Remittance Receipt: Across Food Consumption Expenditure Quintiles (IV probit)

	Full Sample	Monthly per Adult-equivalent Food Consumption Expenditure Quintiles				
		Q1	Q2	Q3	Q4	Q5
Log (1+w*n) killings at tehsil	-0.501*** (-3.49)	0.603** (2.33)	-0.697*** (-5.29)	-0.690*** (-5.03)	-0.215 (-0.60)	-0.486*** (-3.11)
<i>N</i>	7767	1542	1558	1540	1550	1543

Marginal effects; *t* statistics in parentheses

\**p* < 0.10, \*\**p* < 0.05, \*\*\**p* < 0.01

w = year weight as defined in Table A1.1

Controls as in Table A1.3 above

Table A1.6 Effect of Conflict on Amount of Remittances Received: Across Food

### Consumption Expenditure Quintiles (IV Tobit)

		Full	Monthly per Adult-equivalent Food Consumption Expenditure				
		Sample	Quintiles				
			Q1	Q2	Q3	Q4	Q5
Log	(1+w*n)	-39202**	79107	-82763*	-78868*	-15813	-33402
	killings at tehsil	(-2.04)	(1.39)	(-1.76)	(-1.80)	(-0.46)	(-1.60)
<i>N</i>		7761	1553	1556	1551	1549	1552

Marginal effects; *t* statistics in parentheses

\* $p < 0.10$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$

w = year weight as defined in Table A1.1

Controls as in Table A1.3 above

## Appendix 2. IV Estimates of effect of Conflict on Receipt of Receipts: Killings due to Conflict Measured over Varying Number of Years before 2010

**Table A2.1 Received Any Remittance: IV Probit Estimates – Marginal Effects: By Varying durations of Conflict Exposure**

	Duration of Conflict Exposure (measured at the tehsil level)								
	2009 -2010	2008 - 2010	2007 - 2010	2006 - 2010	2005 - 2010	2004 - 2010	2003 - 2010	2002 - 2010	2001 - 2010
Log (n+1) killings at tehsil level	-0.830***	-0.542***	-0.444***	-0.464***	-0.464***	-0.464***	-0.464***	-0.497***	-0.497***
	(-17.30)	(-3.82)	(-3.45)	(-3.46)	(-3.46)	(-3.46)	(-3.46)	(-3.51)	(-3.51)
Province Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>N</i>	7767	7767	7767	7767	7767	7767	7767	7767	7767

Marginal effects; *t* statistics in parentheses

Standard errors are clustered at the PSU (community) level

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Community Controls: Urban/Rural, topography, distance from administrative headquarters, intra-community linguistic fractionalization, community-level presence of infrastructure and state institutions

Household controls: Household size, Age of head, members' education levels, Farmland ownership, pre-flood livestock value, number of males, number of members over 14, household main occupation and enterprise ownership, female-headed (dummy), Flood-Exposure Index, Flooding Anomaly Index, No. of Contacts outside village (Social Connectedness), Received state transfers through CDCP – I and BISP programmes (dummies)

**Table A2.2 Amount of Remittances Received (PKR): IV Tobit Estimates – Marginal Effects: By Varying durations of Conflict Exposure**

	Duration of Conflict Exposure (measured at the tehsil level)								
	2009 -2010	2008 - 2010	2007 - 2010	2006 - 2010	2005 - 2010	2004 - 2010	2003 - 2010	2002 - 2010	2001 - 2010
Log (n+1) killings at tehsil level	-0.830***	-0.542**	-0.444**	-0.464**	-0.464**	-0.464**	-0.464**	-0.497***	-0.497***
	(-17.30)	(-3.82)	(-3.45)	(-3.46)	(-3.46)	(-3.46)	(-3.46)	(-3.51)	(-3.51)
Province Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>N</i>	7767	7767	7767	7767	7767	7767	7767	7767	7767

Marginal effects; *t* statistics in parentheses

Standard errors are clustered at the PSU (community) level

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Community Controls: Urban/Rural, topography, distance from administrative headquarters, intra-community linguistic fractionalization, community-level presence of infrastructure and state institutions

Household controls: Household size, Age of head, members' education levels, Farmland ownership, pre-flood livestock value, number of males, number of members over 14, household main occupation and enterprise ownership, female-headed (dummy), Flood-Exposure Index, Flooding Anomaly Index, No. of Contacts outside village (Social Connectedness), Received state transfers through CDCP – I and BISP programmes (dummies)

**Appendix 3. Estimates of effect of Conflict on Access to Remittances: Distance from nearest official border crossing as IV for conflict [log (1+n) killings at sub-district level]**

Table A3.1 Effect of Conflict on likelihood of receiving remittances: Probit and IV probit estimates

	Probit Estimates				IV Probit Estimates			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Log (n+1) killings at tehsil level	0.009***	-0.005	-0.003	-0.006*	0.154***	-0.220**	-0.344**	-0.473***
	(3.15)	(-1.64)	(-0.90)	(-1.84)	(6.18)	(-2.02)	(-2.00)	(-3.26)
Province Dummies		Y	Y	Y		Y	Y	Y
Community Controls			Y	Y			Y	Y
HH Controls				Y				Y
N	7802	7802	7786	7786	7802	7802	7786	7786

Marginal effects; *t* statistics in parentheses

\**p*< 0.10, \*\**p*< 0.05, \*\*\**p*< 0.01

Community Controls: Urban/ Rural, topography, distance from administrative headquarters, intra-community linguistic fractionalization, community-level presence of infrastructure and state institutions

Household controls: Household size, Age of head, members' education levels, Farmland ownership, pre-flood livestock value, number of males, number of members over 14, household main occupation and enterprise ownership, female-headed (dummy), Flood-Exposure Index, Flooding Anomaly Index, No. of Contacts outside village (Social Connectedness), Received state transfers through CDCP – I and BISP programmes (dummies)

Table A3.2 Effect of Conflict on Amount of remittances received (in PKR): Tobit and IV Tobit estimates

	Probit Estimates				IV Probit Estimates			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Log (n+1) killings at tehsil level	5354***	-2171	-1837	-3134*	17555***	-11223	-119005***	-36510**
	(3.22)	(-1.17)	(-0.87)	(-1.86)	(5.56)	(-1.01)	(-10.51)	(-2.07)
Province Dummies		Y	Y	Y		Y	Y	Y
Community Controls			Y	Y			Y	Y
HH Controls				Y				Y
N	7796	7796	7780	7780	7796	7796	7780	7780

Marginal effects; *t* statistics in parentheses

\**p*< 0.10, \*\**p*< 0.05, \*\*\**p*< 0.01

Controls as in Table A3.1

Table A3.3 Effect of Conflict on Likelihood of Any Remittance Receipt: Across Food Consumption Expenditure Quintiles

	Full Sample	Monthly per Adult-equivalent Food Consumption Expenditure Quintiles				
		Q1	Q2	Q3	Q4	Q5
Log (n+1) killings at tehsil level	-0.473**	0.664**	-0.692**	-0.642**	-0.192	-0.491**
	(-3.26)	(2.44)	(-3.99)	(-4.10)	(-0.56)	(-3.40)
N	7786	1546	1560	1545	1551	1550

Marginal effects; *t* statistics in parentheses

\**p* < 0.10, \*\**p* < 0.05, \*\*\**p* < 0.01

Controls as in Table A3.1

Table A3.4 Effect of Conflict on Amount of Remittances Received: Across Food Consumption Expenditure Quintiles

	Full Sample	Monthly per Adult-equivalent Food Consumption Expenditure Quintiles				
		Q1	Q2	Q3	Q4	Q5
Log (n+1) killings at tehsil level	-36,510**	-24,133*	-73,677	-63,634**	-14,762	-40,476**
	(-2.07)	(-1.93)	(-1.49)	(-2.05)	(-0.46)	(-2.03)
N	7780	1558	1560	1557	1551	1560

Marginal effects; *t* statistics in parentheses

\**p* < 0.10, \*\**p* < 0.05, \*\*\**p* < 0.01

Controls as in Table A3.1