Remittance inflows and economic development in Rwanda

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CHAPTER ONE

Introduction

This study addresses one of the most pressing but underestimated components of development in recent years, the development effects of remittances. It examines the economic development effect of remittances in Sub-Saharan Africa (SSA) countries, with a particular focus on Rwanda, over the period between 1980 and 2014. In this thesis I address the most overlooked aspects in the empirical literature examining the development impact of remittances. This chapter presents the background and introduction, as well as an overview of the thesis.

1.0 Setting the Stage

In recent years, scholars, policy makers and development actors have become increasingly interested in studying the role of migration in development. This interest is driven by our limited understanding about the effects of migration on development. Views on migration and its effects on development are divided, often along a global north-south line. In the north, immigration is often considered a liability, to some extent a threat to society, while in the south, migration is considered a household investment and hope for the future wellbeing of those left behind. Remittances are returns from emigrants to individuals left behind in their home country. Remittances thus support the socio-welfare of the families who remained behind, mostly in the global south. According to the World Bank (World Bank, 2016), US $436 billion of remittances were sent to developing countries in 2014, while SSA countries received US$ 34.5 billion in the same year. As such, remittances are increasingly becoming a central component in the development discourse, as a catalyst for development in developing countries. This has stimulated scholarly and policy debates about the development impact of remittances. The underlying question of this thesis is thus: do remittances impact development outcomes in the recipient countries? If so how and under what conditions?

This question has sparked several theoretical, conceptual and empirical debates among empirical scholars, with inconclusive answers. Opinions are divided into roughly two contrasting empirical strands, the optimistic and pessimistic schools of thought. The optimistic school of thought claims that remittances positively contribute to development by boosting economic growth and poverty reduction in developing countries. The pessimist school of thought argues that large remittance inflows are associated with the “Dutch Disease” effect, whereby large remittance inflows, mostly into weak economies, affect macroeconomic factors such as tradable commodities, appreciation of real exchange rates, or
postponing depreciation, thus affecting the receiving country’s trade competitiveness. Empirical studies claim that continuous reliance on remittance inflows by recipient households affects the local labor force supply, because recipients of remittances tend to rely on remittances and refuse to work, expecting their needs to be met by future remittances. Others argue that remittances have a less marginal effect on financial sector development in the developed countries.

Remittances affect poverty and inequality in developing countries. Those in support of pessimistic views claim that remittances exacerbate income inequality in the recipient countries, because it is the rich who have the capacity to finance emigration of their family members and in return they are the recipients of remittances. The debates between these two contrasting strands have left the field without a conclusive theoretical or empirical approach to inform our understanding of the development impact of remittances. This thesis fills that gap. Ultimately, remittances are transferred, they continue to be remitted, and they continue to be utilized by the recipient households in the receiving communities or countries. We need to know how their effects play out at both the micro and the macro level and how the prevailing institutional and policy environment causally conditions their development impact.

The mixed empirical findings in this scholarship may be attributable to the underestimation of factors mediating the remittance-development impact. I find that factors related to the institutional and policy environment, the design and context of the study, and methodological and data issues contribute to the theoretical and empirical solutions thus far provided on how remittances affect development in developing countries. Countries differ in terms of their institutional and policy environment, as well as their level of development. These factors influence mechanisms through which remittances affect development outcomes. In the context of institutional and policy environment, institutional quality matter and exert strong influence on how remittances impact economic growth—by ensuring that greater proportion of remittances is efficiently utilized for productive investments (see Acemoglu et al.2001; Kapur, 2004). Therefore, we need to understand more about the role of institutions in the empirical framework of the development impact of remittances. Factors such as availability of institutions that foster political stability, inclusive development prospects, efficient bureaucracy, a good regulatory environment, less corruption, good infrastructure, a private sector development environment, and financial sector development, to mention but a few, would incentivize more remittance inflows and the productive use of these inflows to improve development outcomes in the recipient economy. It is however well known that the context in which these institutional variables are implemented differs. Rodrik
(2004) reminds us that these institutional variables play out differently across countries and in-depth country studies could shed more light on the fundamental determinants of economic performance than cross-country empirical studies do.

In reference to the above, the volume of remittances may be less important than the institutional and policy environment that promotes the productive use of remittance inflows. It is well known that most developing countries are still struggling to put in place an effective institutional environment and most SSA countries top this list. Similarly, the literature extensively documents that the level of development of the country is closely associated with the presence of the above institutional variables. Little is however known about how these factors mediate the remittance-development impact at the cross-country and the country level, especially in SSA countries.

This thesis also engages with methodological data issues on three fronts: First, the tendency to underestimate the importance of a comprehensive analytical framework when studying the development impact of remittances; second, the causal interlinkage between the macro and micro analytical framework in explaining the development outcomes of remittance inflows and the importance of institutional and development factors in influencing the development impact of remittances; and third, the channels through which remittances contribute to the development outcomes of recipient households and how existing policies can best incentivize senders and receivers to maximize remittance inflows.

The next section discusses the focus of this study. It presents the contribution of this thesis, the general and specific research questions, and the case study.

1.1 The Focus of the Study and Research Questions

The existing work on remittance and development shows that the field is still hindered by both theoretical and empirical approaches that best explain how remittances at different levels of development (and in different contexts) affect development outcomes. This thesis carries out a case study of a particularly important case of development, the development impact of remittances in Rwanda in the context of SSA countries. This is because the Rwandan case demonstrates two contrasting relationships between remittances and development success. The period before and during genocide demonstrates a weak and negative relationship while the relationship turns out to be very positive during the post-genocide period. This thesis contributes to this body of knowledge by evaluating how the general findings fit theoretically, empirically and methodologically. First, this thesis synthesizes the relevant theories of development, particularly in the context of remittances
and development, by employing a comprehensive and nested analytical framework. It employs macroeconomic analysis to examine the growth effect of remittances at a cross-national level of SSA countries and how the institutional and development factors condition the remittance-growth effect in the region. However, existing narratives on institutional quality and economic performance claim that a cross-country empirical analysis falls short in answering the fundamental determinants of economic performance. Thus far, only few studies have provided an explicitly informed understanding of the growth theories (see Rodrik, 2004). This study contributes to the field by extending the empirical analysis to the country level. This thesis employs an in-depth analysis of the development outcomes (macro and micro outcomes) of remittance inflows in Rwanda employing a variety of data and sources. It also studies the link between the micro and macro impact of remittances. The conditional mechanisms provided by the local institutional and policy framework to influence micro-economic outcomes which later aggregate to macro outcomes. This calls for a review of the institutional and policy environment, because the deployment of remittances (either at the micro or the macro level) is influenced by the institutional and policy framework in the country. This study is guided by the following general and specific research questions:

Generally, what is the contribution of remittance inflows to the development outcomes in SSA countries (and Rwanda in particular) and how might we best measure and explain the development effects of remittance inflows? Under what conditions do remittances affect development outcomes and can these effects be maximized?

Specifically: 1) What is the effect of remittance inflows on economic growth in SSA countries (and Rwanda in particular) for the period from 1980 to 2014 and what factors condition the intensity of these effects in SSA countries and Rwanda? 2) Through what channels do remittance inflows affect poverty and other development outcomes in Rwanda? 3) How do the development effects of remittance inflows play out among the socio-economic layers of recipient households in Rwanda?

The three specific research questions correspond to the three nested analytical approaches adopted. These specific research questions raise the issue of measuring the contribution of remittance inflows to the overall economic development and measuring the conditioning factors mediating the remittance-development outcomes. For operational purposes, a cross-country analysis of SSA countries is conducted to examine the effect of remittance inflows on economic growth in the region and how the institutional and development factors causally condition this effect. In a similar analytical strategy, the study examines the effect of remittances on economic growth in Rwanda in relation to the other SSA countries. The SSA
region is an interesting and relevant scope for such a study. On average, the region is characterized by institutional and development challenges that tend to push skilled and non-skilled Africans out of Africa or out of their own country to the neighboring region. As a result, increased remittance inflows to the region has been witnessed in recent decades. The effect of these financial inflows has been contested by scholars and policy makers. Upon close scrutiny, in comparison to other regions of developing countries (such as South America and Asia), little has been documented in terms of the development impact of remittances in the SSA region. The structural and institutional challenges existing in the region affect and overshadow the development impact of these inflows. The findings of this study increase our understanding of the remittance-development effect at a cross-country level and the conditions influencing this effect in the region and in Rwanda in particular.

The second and third specific research questions explicitly focus on Rwanda as an important country case study. The case study contributes to the scholarship by conducting an in-depth country analysis on how remittances affect development outcomes in Rwanda. I examine the effect of remittance inflows on economic growth and the channels through which remittances affect poverty and development outcomes. This thesis discusses how the prevailing institutional environment conditions how agents interact with institutions to attract and deploy remittances for productive use at the micro level, which ultimately leads to the evidenced macroeconomic implications of remittances (the remittance-growth effect) in the country. Rwanda is an interesting case study in the context of the remittance and development discourse because of its history and the recent impressive progress in development outcomes and in the areas of effective institutional and policy environment. The next section presents a brief review of the literature related to the theoretical and empirical narratives about remittances and economic developments.

1.2 Literature Review: Remittances and Economic Development

This section presents a brief overview of the literature about the theoretical and empirical narratives related to remittance and development. Dominant theoretical and empirical debates are reviewed and summarized in this section. Chapter Two reviews and discusses the related literature of this thesis in more detail. The empirical framework of this thesis is informed by the extensive review of the relevant dominant literature about remittances and economic development. The review of the literature sets out the theoretical and empirical grounds that generate the empirical strategies and findings of this study based on its research questions. And the existing empirical debates about the mediated effect of institutions in the remittance-
development impact. This chapter starts with a review of three contrasting schools of thought about the development impact of remittances, the optimistic view, the pessimistic view, and the pluralistic view.

The optimistic school of thought is the oldest view. It dates back to the 1950s when there was significant labor migration from developing countries to developed countries. Migration to the developed countries was viewed as an agent of development in the global south. It was believed that migrants, by acquiring resources such as knowledge, skills, remittances and technology, could aid the development of their countries of origin Odozi et al. (2010, cited in Oluwafemi et al. 2014). The advocates of this school of thought argue that international migration leads to the transfer of capital, knowledge and technology from North to South where these resources are constrained. Accordingly, (Beijer, 1970) argues that international migration leads to a North-South transfer of investment capital and accelerates the exposure of labor-exporting communities to liberal, rational, and democratic ideas and modern knowledge and education. He further argues that, in the long run, increased inflow of international remittances stimulates capital-constrained economies to effectively take off in a sustainable fashion.

The pessimistic view about the development impact of remittances claims that the net effect of migration and remittances does not foster sustainable development (Adenutsi, 2010), because the effects of migration and remittances are conditioned by institutional and structural challenges within recipient countries that affect the remittance-development impact. The pessimistic view raises issues related to the so-called “brain drain”, a vicious cycle of dependence on remittances, a lack of a strong institutional environment, and market failures. These issues affect the way remittances contribute to development outcomes. Other proponents of this school of thought claim that migration and remittance inflows cause inequalities between recipient and non-recipient households in the recipient communities and remittances are spent on conspicuous consumption and non-productive projects (Binford, 2003; Odozi et al. 2010, cited in Oluwafemi et al. 2014).

The pluralistic view about the development impact of remittances adopts a flexible approach and considers the other two schools to be static in dealing with the complex realities of remittance inflows and development (Adenutsi, 2010). The other two theoretical views do not take the different mechanisms through which remittances affect development into account. They do not recognize the different conditions and structural variations that influence the development impact of remittances. However, although the three theoretical views discuss the development impact of remittances, no view extends further to explain,
under what conditions, and through which mechanisms/channels remittance inflows contribute to development. The three approaches do not explain fundamental factors influencing remittance-development outcomes, nor do they explain how the effect of remittances on development outcomes plays out among different socio-economic layers of recipient households. These issues have contributed to the existing gap in the literature in terms of theoretical and empirical approaches that best explain the comprehensive effects of remittances in development. Besides that, these schools of thought have been influenced by the dominant theoretical approaches to migration (structural and new-classical theories) that do not fit well with the current dynamics and mechanisms through which remittances affect development in developing countries. Fortunately, the more recent pluralist view accommodates the effect of migration and the interaction of institutions with remittances in development. This provides an avenue for understanding of the heterogeneity of migration and the impact of remittances. The next section presents a synthesis of the theoretical and empirical approaches about the development impact of remittances.

1.3 Theoretical Approaches

This section presents an overview of the three dominant theoretical approaches this thesis is embedded in, the national account model, the endogenous growth model and the new economics of labour migration (NELM). Alongside the NELM theory, the literature provides four theoretic views to determine migrants’ motivation to remit. These theoretical perspectives establish a fundamental understanding about the determinants of remittance inflows as a household investment strategy in which the emigration of a household member leads to remittances. The NELM theory is the dominant theory in the field of migration and development. It has paved the way for other schools of thought, specifically theoretical views about the motivations of migrants to remit. There are four main theoretical views on remitters’ motivation to remit (Solimano, 2003a): altruistic, self-interest, loan repayment, and co-insurance. These theoretical views are based on the interaction between the migrants and their family. They are all based on theoretical view that migration is a collective investment decision for the future benefit of the family left behind. Remittances come into play as returns on the collective investment (migration). The NELM theory derives its explanatory power from two theoretical approaches: First, the theory assumes that migration is a collective household investment decision/strategy to diversify resources (including members of the household) and remittances are returns on that investment decision (Clemens and Ogden, 2014). Second, it bridges the early theories of migration (neoclassical and historical-
structural theories) and contemporary theories. This makes it the better theory, establishing the link between migration, its determinants, remittances and economic development.

In an extension of the NELM theory, the national account model and the endogenous growth theory demonstrate how migration affects development. They demonstrate how remittances affect growth and development by affecting economic development outcomes. For instance, the national account model claims that remittances affect the macroeconomic outcomes of the recipient economy through both direct and indirect channels. The direct channel emphasizes the positive effect of remittances as a source of non-costly external financial inflows which support the balance of payment and external accounts, finance consumption, savings, and investment, thus stimulating production in the recipient economy. The indirect channel claims that remittances negatively affect macroeconomic behaviors through their effects on the exchange rate and relative prices. The theory also claims that remittances may induce “Dutch Disease”, which happens as a result of large inflows of remittances in a recipient country with less or a weak capacity to absorb and utilize remittances productively, thus affecting macroeconomic behaviors.

The endogenous growth model argues that the growth and development effect of remittances is pronounced when remittances interact with the factors of production to finance human capital development and technological diffusion in the recipient economy, thus promoting growth and development. The model demonstrates that national output growth is determined by endogenous inputs of total factor productivity (technological progress), physical capital, and human capital, under the assumption of constant return. Remittances come into play because they contribute to human capital development in the recipient economies. In this regard, the effect of remittances on growth and development is detected through the factors of the endogenous growth model (Romer, 1990; Benhabib and Spiegel, 1994, cited in Udah, 2011).

Although these theories try to increase our understanding about the stake of remittances in the broad-based development process, theoretical gaps in the field remain. These gaps contribute to the ongoing empirical debates (discussed in Chapter Two) and the narrow understanding about the overall development impact of remittances. This thesis identifies and discusses these theoretical, empirical and methodological gaps.

First, these theories suffer from a narrow and one-sided approach in explaining how remittances affect development outcomes in the receiving economies. There has been a consistent lack of comprehensive theoretical framework explaining the overall development impact of remittances. For instance, the NELM theory shows that remittance inflows are the
result of a collective household investment strategy and there are returns on that collective
decision. Self-interest is the main motivation to remit. This is as much as the NELM theory
can say. However, it is well known that there other institutional and development factors that
induce remittance inflows and condition their development impact, beyond those explained
by the NELM theory. Recent studies and policy narratives have emphasized the importance
of the institutional environment and the recipient country’s policy of engaging its diaspora to
contribute to the overall development back home. The anecdotes presented in Chapter Four
of this thesis explicitly bring this issue into perspective using the case of Rwanda. This
implies that we need a theoretical framework that goes beyond the nuclear or cohesive family
to incorporate other, external factors. This could involve incentives provided by the home
country manifested in the overall institutional and policy effectiveness.

Second, the three theoretical models place less emphasis on the role of institutional quality
and contextual aspects. Political economists (such as Acemoglu et al. 2014; Rodrik, 2016; Le,
2009) say that the quality of institutions matters in conditioning the development outcomes,
however, institutional quality plays out differently across countries, similar to the level of
development. Both of these factors have a conditioning effect on the way remittances impact
development. However, the existing scholarship on remittance and development continues to
underestimate importance of institutional and development factors, as well as the context in
the theoretical framework. Remittances are not transferred in a vacuum, but through
institutions (formal and informal). The overall institutional environment, together with the
prevailing opportunities provided by the country’s level of development, have a significant
effect on the remittance-development outcomes. Le (2011) finds that remittance transfers
successfully increase investment outcomes in the recipient country, which is again
conditioned by the institutional environment. Cross-country analysis provides a
comprehensive understanding about the stake of the institutional and policy environment in
conditioning remittance-development outcomes.

Third, the existing theoretical approaches do not explain the mechanisms and channels
through which remittances impact development outcomes and how to measure the possible
effects of these mechanisms. Ultimately, the proposition is that remittances improve
development outcomes, both at the micro and the macro level and the cross-level interactions
matter. Most of the existing theoretic and empirical approaches are one-sided in explaining
mechanisms through which remittances affect development outcomes, at either the micro or
at the macro level. Both theoretical and empirical approaches tend to be biased towards
macroeconomic approaches, such as the national account model and the endogenous growth
model. Their analytical frameworks are limited to the macro-economic framework only. This theoretical lacuna fuels endless theoretical, empirical and policy debates about the development impact of remittances, in which the macroeconomic implications of remittances at aggregate level are explained, with sparse demonstration of how these implications are informed by microeconomic interactions mediated by the prevailing institutional and policy frameworks. What is still missing in such theories is the micro-level interaction and the causal story. In this regard, how micro agents (households, investors, the diaspora) interact is mediated by the prevailing institutional and policy effectiveness to produce micro-level effects on household welfare and an improvement in their development outcomes. These micro-level outcomes aggregate and produce the macro implications. A cross-country analysis can partially explain these causal mechanisms. A country-level analysis may be able to explain what drives changes in household welfare and in measurements of development outcomes at either the micro or the macro level and how these outcomes are mediated by the policy and institutional environment. A country-level analysis thus provides a causal path about the development effect of remittances, from micro agents to interaction, via the institutional and policy environment that affects micro outcomes and leads to the aggregate macro outcomes.

Fourth, in line with the above, the field of remittances and development is affected by a conceptual gap in how development itself is conceptualized and theorized in explaining development outcomes. The empirical literature has had a one-sided focus, what I call the “macroeconomic trap”, in studying the development implication of remittances, specifically the remittance-economic growth effects. It has had a less systematic focus on the mechanisms and channels through which remittances affect other development outcomes. We know that the development implications of remittances go beyond the growth effects. This scholarly stance of understanding economic performance as based on economic growth measurements has received significant criticism from development scholars and policy makers in the recent literature. The central argument is the narrowness of using growth in GDP per capita as yardstick for the economic performance of the society. A better understanding of how development is reflected at all levels of the economy is required, including the macro and micro aspects of development, the distribution of growth benefits across different sectors of economic activity, and the socio-economic layers in society. Stiglitz et al. (2009) have argued that considering the growth of national output and per capita income without considering the social welfare, how resources are distributed, and above all how human agents realize themselves in the institutional environment, perpetuates the gap in the literature on overall
development implications. In effect, the way a scholar interprets the remittance-development impact is based on the way she/he understands the concept of development.

Despite the above theoretical gaps, the three theories increase our understanding about how remittances are the result of a collective household decision that produces a migrant and about how remittances then affect development outcomes in the country of origin. The other two theoretical approaches attempt to provide mechanisms (mostly at the macro level) through which remittances affect development outcomes. This thesis builds on this theoretical foundation and contributes to this scholarship by addressing the theoretical and empirical gaps already discussed. It employs a comprehensive and nested analytical framework to examine the development implications of remittances at cross-country analysis and an in-depth analysis at the country level (Rwanda). I examine development implications of remittances in SSA countries and Rwanda in particular, as well as the conditions that influence the remittance-development outcomes. In Rwanda, I also examine how the development impact of remittances plays out among different household recipients based on their different socio-economic status.

At the cross-country level of SSA countries, I examine the effect of remittances on economic growth and how institutional variables, such as political stability, regulatory quality, and financial development, mediate this effect. In terms of the mediating effect of the country’s level of development on the remittance-growth effect, this thesis employs lagged GDP per capita (as a proxy for the level of development) to examine how this variable affects the growth effect of remittances in the SSA region on average. In doing this however, this thesis considers the heterogeneity effect of institutional variables within SSA countries. On this note, Rodrik (2004) informs us that the existing empirical studies on cross-country growth fall short in explaining the fundamental determinants of economic performance. Remittances and institutional variables could be part of these fundamentals. Rodrik thus recommends a country-level analysis as a backdrop to better understand how such fundamental determinants influence economic performance. This thesis applies a country-level analysis to Rwanda as a case study. More specifically, the study empirically examines the effect of remittances on economic growth in Rwanda over the period from 1980-2014. It further examines how remittances affect poverty and also the mechanisms through which these inflows contribute to the development outcomes (such as education, health, savings, business and physical investments) of remittance-recipient households. It also considers how the development effect of remittances plays out differently among different socio-economic layers of recipient households. The focus is on what agents at the micro level do and in
particular the role of human capital development in development. The next section briefly presents the different empirical strategies employed in this study.

1.4 Empirical Strategies

The empirical strategies credibly respond to the specific research questions of this thesis. I employ different nested empirical strategies to examine the development impact of remittances in SSA countries and Rwanda in particular. A panel data of 45 SSA countries and random effect estimation techniques are employed to examine the remittance-growth effect in the SSA region and the conditional role of institutional and development factors in moderating the remittance-growth effect. To address the endogeneity problem in the empirical analysis, two estimation techniques are employed, the generalized methods of moment (GMM) and two-stage least squares (2SLS) estimation techniques. In the same analytical framework, an interaction term of remittances (remittance percentage to GDP per capita) and a Rwanda dummy are introduced to cater for the contextual aspect in the analysis, examining the remittance-growth effect in Rwanda in relation to other SSA countries.

Regarding the role of institutional and development factors in conditioning the remittance-growth effect in SSA countries, interaction terms of remittances and institutional variables (such as political stability, regulatory quality, financial sector development and the country’s level of development) are introduced in the analytical model of the random effect model.

To provide a country-level analysis, an in-depth study is conducted on Rwanda. In the macroeconomic analysis, I employ the cointegration test, the error correction model (ECM) and the Johansen test of cointegration to examine the remittance-growth effect and the direction of long-run causality between remittances and economic growth in Rwanda, using annual time series data of Rwanda for the period from 1980-2014. At the micro-level analysis, both ordinary least square (OLS) and propensity score matching (PSM) estimation techniques are employed to examine the effect of remittances on poverty and other development outcomes in Rwanda and how the effect of remittances plays out among different recipient households with different socio-economic status. Similar econometric techniques are employed to fit the data used and methodological issues such as selection bias in the analysis. The study employs data from micro dataset of the fourth cohort of the Rwanda Integrated Household Living Conditions Survey (EICV4), which was conducted by the National Institute of Statistics of Rwanda (NISR) in 2013-2014. As a baseline empirical

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1 PSM is a randomized control trial (RCT) technique that can contextualize the analysis of development interventions and address the problem of methodological issues (of selection bias and endogeneity). It is based on intervention (treatment) group and non-treatment (control) group.
analysis, OLS and fractional logit regression model estimation techniques are employed to examine the effect of international remittances on consumption expenditure per adult equivalent (as a measure of poverty) and the conditional mean of the ratio of annual household expenditures on development outcomes. This is used to determine how the development impact of remittances plays out among different socio-economic levels of recipient households. The PSM technique is employed after OLS to address the problem of selection bias (suspected in the OLS results) and provide robust results. The PSM approach estimates the impact of international remittances on consumption expenditure per adult equivalent and other development outcome variables (savings, human capital development, business and physical investments) of recipient households by estimating the average treatment effect (ATE) and average treatment effect on the treated (ATT) (see Heinrich et al., 2010) ². These econometric techniques credibly provide a comprehensive and nested analytical framework to better analyze how remittances affect development outcomes at different layers of development in different contexts.

1.5 Empirical Findings

The study reveals, on average, no significant effect of remittances on economic growth in SSA countries. This evidence seems to imply a heterogeneous remittance-growth effect across SSA countries. This variation can be attributed to the institutional and development factors within the SSA region. Sub-Saharan African countries are at varying levels of development (measured by GDP per capita), which is also reflected in variations in institutional variables that influence the overall development in the region. These institutional variables affect the average remittance-growth effect. For instance, on average, the remittance-growth effect is adversely affected by the quality of institutional variables of political stability and regulatory quality, which exert a modest effect with a negative marginal effect mediating the remittance-growth effect in the region. Evidently, over-regulation and political instability still characterize SSA countries, which has a bearing effect on how remittances are attracted and utilized for productive investments that spur growth and development. However, the positive and significant effect of remittances on economic growth in the region is positively conditioned by the institutional variable of financial sector development and the country’s level of development.

² The average treatment effect (ATE) estimates the mean impact of the sampled Rwandan households (both remittance receiving households and non-recipients), obtained by averaging the impact across all the individuals in the sample (14,419) survey conducted by NISR. Average treatment on treated (ATT) estimates the impact of international remittances explicitly on the recipients of international recipients (Heinrich et al., 2010).
In contrast, the remittance-growth effect in Rwanda holds, with a positive and significant effect of remittances on GDP per capita over the period of study. The marginal effect of remittances to GDP per capita increases as more remittance inflows to Rwanda take place. The interaction term of the Rwanda dummy and remittances yields a positive and significant effect of remittances on GDP per capita in Rwanda in relation to the other SSA countries. Moreover, the study finds plausible evidence of a long-run association between remittances and GDP per capita. Similar evidence suggests a long-run causality from remittances to GDP per capita in Rwanda, but not vice versa. The results of the microeconomic analysis suggest that, on average, the consumption expenditure per adult equivalent of international remittance-recipient households is between 39.3% and 46.3% statistically significant. In Rwanda, the region where the household is located affects the receipt of international remittances. Households in urban areas receive 36.6 percentage points more than those in rural areas. This can be attributed to the fact that financial infrastructure, such as banks and money transfer operators, are concentrated in urban centers rather than in rural areas in Rwanda. The region of the recipient household also influences the effects of international remittances on consumption per adult equivalent. Keeping other factors constant, households who live in urban areas consume 44% (recipients of total remittances) and 43.3% (recipient of cash remittances only) statistically significantly more than those who live in rural areas. However, the results show that the marginal effect of international remittances on development outcomes (such as education, health, land, business and savings) increases more for recipient households in rural areas than those in urban areas. Moreover, the results suggest that the pro-development impact of international remittances is greater among poorer recipient households than among non-poor recipient households. The results also show that international remittances increase the probability of spending on development outcomes more for poor recipient households with lower incomes than for non-poor households. This implies that proportional spending on development outcomes increases with remittance inflows to poor recipient households and correspondingly decreases among recipient-households in the upper income distribution.

The results related to the effect of international remittances on consumption expenditure per adult equivalent using the OLS estimation technique are consistent with the results of the

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3 Anecdotal evidence also shows that international remittances to urban households may become “internal” remittances as urban households transfer the received remittances to rural relatives (as being oriented by the sender from abroad). See chapter six and seven. Similar findings show that the marginal effect of international remittances on development outcomes is more among recipient households in rural areas than in urban areas.
PSM estimation techniques. Accordingly, the findings of the PSM estimation technique reveal that, on average, international remittances increase consumption per adult equivalent of recipient households by 54.7% statistically significantly more than non-recipient households. Remittance-recipient households spend on average 6.99%, 107%, 24.9% and 16.1% statistically significantly more than non-recipient households on business, savings, education and health expenditures, respectively. The findings indicate that households receiving international remittances spend on average 0.6% and 4.83% more on land purchase and durable assets, respectively, than non-recipient households. These results suggest that the overall development impact of remittances (at both micro and macro levels) can be attributed to the recent effective institutional environment and the effective broad-based inclusive and pro-poor policies that have been implemented in Rwanda, mostly targeting the poor. This has influenced the remittance-development impact in the country. This study claims that the institutional and policy framework in Rwanda creates a conducive environment for remittance-driven, development-oriented spending by recipient households. Social protection policies, education and health policies (for example community-based health insurance and decentralization of health services), financial sector development, and increasing ease of doing business, to mention but a few, have all contributed to this conducive environment. This effective institutional environment has enabled agents (households, the diaspora, investors) to interact with local institutions to attract remittances and deploy them into productive investments that have resulted in micro-level impacts, which are scaled up to the aggregate observed economic performance.

1.6 Contribution to the Field

This thesis contributes to the existing scholarship by examining the economic development impact of remittances in SSA countries, with particular focus on Rwanda, between 1980 and 2014. It addresses the most overlooked aspects in the theoretical and empirical studies examining the development impact of remittances, 1) the theoretical and analytical approach employed in examining the development impact of remittances in developing countries, 2) institutional and development factors mediating the remittance-development impact, and 3) the mechanisms/ channels through which remittances affect poverty and other development outcomes. The study also considers how the effect of remittances plays out among the different socio-economic layers of recipient households in Rwanda and the contextual gap that is most overlooked in the remittance and development discourse. Overall, the findings of this thesis help to shape our understanding about the
holistic development impact of remittances in the context of SSA countries and Rwanda in particular. The thesis argues that the development impact of remittances should not be thought of in isolation (economic growth and poverty effects in isolation). Instead, the broader view about the development impact of remittances and the causal interplay of institutional and development factors that condition the growth and development impact should be considered. The channels through which these inflows affect development are paramount in the empirical framework of this thesis and the context of the country or region is taken into consideration. The causal mechanisms linking the micro-economic household-generated development outcomes and the aggregate overall macroeconomic outcomes at country level are considered in some detail.

The development effects of remittances in Rwanda have been conditioned by the overall development the country has experienced in recent years, which is manifested in the overall effective institutional and policy environment of the country. The findings of this thesis suggest that the development impact of remittances in Rwanda has been conditioned by the macroeconomic environment, structural reforms, and the inclusive and effective pro-development policies the country has implemented over the last two decades (in contrast to the period before and during the genocide against the Tutsi). This is coupled with the country’s political stability and active diaspora engagement policies the post-genocide regime embarked on. These improved institutional and development factors that have conditioned the productive use of remittances and the evidenced remittance-development outcomes in the country. Looking at these pro-remittance-development policies in the context of SSA countries, we find variations in terms of their development and effective policy implementations, which have a conditioning effect on the remittance-development impact. This suggests the importance of a focused and contextual empirical analysis about the development impact of remittances in developing countries. To this end, the study shows that migration and remittances are potentially complementary components for the broad-based development process in developing countries, but they are not a panacea, because their development effects depend on underlying institutional and development factors. Remittances contribute to development outcomes if there is an existing facilitating institutional and policy environment in the recipient country. These fundamental determinants are country specific in terms of their conditional effect on the remittance-development outcomes.

The findings of this thesis allow us to view the development impact of remittances in a wider perspective rather than the narrow framework of GDP per capita and poverty, but also
to factor in the mechanisms through which remittances affect development and other institutional and development factors. Specifically, in the case of Rwanda, this thesis finds strong empirical evidence supporting the view that the development impact of remittances is mirrored in the remittance-growth effect and their poverty reducing capacity. This suggests that remittances significantly affect poverty and other development outcomes by increasing income to spend on physical investments, savings, business, and above all, human capital development outcomes, which leads to an overall aggregate growth effect in the country. The study also finds that the pro-development impact of international remittances is more significant among poorer recipient households. This implies that remittances not only increase spending on development outcomes, but also provide an avenue for the poor to graduate out of poverty, as well as bridging income inequality. Finally, the analysis of this thesis suggests a number of policy implications to maximize the remittance-development outcomes and future research areas to address key issues that are not addressed by this study. These are discussed in the next section.

1.7 Policy Implications

This thesis shows that remittance inflows positively affect development outcomes through institutional and development factors in SSA countries and Rwanda in particular. They significantly contribute to poverty reduction and contribute to development outcomes by increasing consumption expenditure per adult equivalent, savings, business, physical investments, and human capital development variables of recipient households in Rwanda. The findings suggest that the pro-development impact of international remittances is marginally greater among poorer recipient households, which implies that international remittances not only increase spending on development outcomes, but also provide an avenue for graduating out poverty, as well as bridging income inequality. The evidences from this study strongly suggest that the institutional and policy framework are equally important to causally condition the overall development outcomes of remittances. The analysis suggests the following policy implications to maximize the remittance-development outcomes in SSA countries.

First, the institutional environment (local policies and institutional delivery) is a prerequisite factor for recipient countries to reap the development impact of international remittances. The findings suggest that an overall institutional environment with well-functioning governance institutions (economic and political) that enforce an efficient regulatory environment and support sound financial sector development is essential. Such an
environment encourages formal remittance transfers and channeling these inflows into productive use in the local economy, thus enhancing their growth and development impact. Based on the empirical evidence from Rwanda, other SSA countries need to strengthen their local institutional and policy framework, particularly those economic and political institutions that enhance mechanisms through which remittances are productively utilized to affect overall development outcomes.

Second, this thesis finds strong evidence in support of the role of the institutional environment in conditioning the remittance-development impact in the SSA region. However, the institutional indicators play out differently in the region. In a context where indicators of institutional quality (such as political stability, government effectiveness, corruption, rule of law, property rights, business regulatory environment) are in place and improving and where policies and the market environment encourage productive investments, remittances are channeled into savings, business, physical investments and support for human capital development. The institutional environment should enhance the growth and development outcomes of remittances. Most SSA countries need to put significant work into these institutional indicators to be able to reap the benefits of external inflows, including remittances, in the region. If a pro-development orientated institutional environment is not put in place and effectively implemented in the region, remittance inflows will remain resources merely used for conspicuous consumption.

Third, a country’s level of development is positively associated with the remittance-development effect. The findings of this thesis reveal that the remittance-growth effect in SSA countries is conditioned by the country’s level of development. This seems to signal that the development impact of remittances furthers the ongoing overall development in the recipient economy. In Rwanda’s case, the development impact of remittances furthers the overall positive development trends of the economy. In other words, remittances might initially be motivated by extreme poverty and misery in the recipient country, but the overall impact of these inflows will be insignificant and may even undermine growth and development. However, when the overall development in the recipient country is improving, it first provides confidence to the diaspora, then provides development opportunities which attract remittance inflows, and finally, improvement in development ensures that effective institutional and policy frameworks are in place to facilitate spending remittances on development investments. In such a situation, the overall development impact is expected to be significant. Therefore, the level of development in the country mediates the remittance-development impact.
However, the macroeconomic empirical literature has argued that there is a threshold beyond which the marginal impact of remittances on development becomes negative. But similar literature is yet to determine where and if that threshold exists. The literature does not demonstrate how people use remittances or how the institutional and policy framework conditions the development impact of remittances. It is thus not the threshold that is important, but rather it is imperative to stimulate growth and development. These are the prerequisite factors for developing countries to access the positive impact of remittances in their economies. This should go hand in hand with local inclusive and effective socio-economic policies that encourage the development impact of remittances. In relation to the SSA region, countries need to stimulate growth and development and productively engage their diasporas in national development. For this to happen, SSA countries need to have a conducive institutional and policy environment to take advantage of remittance inflows. Otherwise, remittances will be channeled into conspicuous consumption which perpetuates the vicious circle of poverty, continued dependence on remittances by recipient countries and households, and brain drain, which in turn negatively affects growth and development within and across the region.

Fourth, it is critically important that policy makers and scholars improve data collection and reporting on international remittances to enable them to better study the development impact of these inflows. In this regard, over the years, remittances have been defined differently by scholars, countries and international organizations. This affects the quality of remittance data, which in turn affects both the macro and micro-economic implications of these inflows. Catrinescu et al. (2006) argue that large quantities of international remittances are transmitted through informal channels and are not recorded in the balance of payment, which is the experience of most developing countries, including Sub-Saharan Africa. As result, actual inflows are underestimated. Collecting and reporting remittance data remains a challenge in SSA countries, which affects evidence-based policy implications in the field. International organizations such as the World Bank, IMF and the African Union need to develop the field of remittance data governance and reporting. Remittance data indicators, collection tools and reporting need to be harmonized and effectively implemented across all countries. In cases where remittance data is still scarce, household survey data could be used to study the development impact of remittances.
1.8 Future Research

In light of the theoretical approaches and analytical methodologies employed and the empirical findings and conclusion of this study, this thesis recommends future research to address the following key issues that were not addressed by this study:

First, the heterogeneity of the remittance-growth effect in SSA countries and the positive and significant effect of remittances on development outcomes in Rwanda prompt the need to study what actually determines these variations (other than the policy and institutional framework): which other SSA countries experience positive and significant effects of remittances on development? In this case, Rwanda could be compared with country/ies that show insignificant development effect of remittances to determine conditioning factors other than the ones identified in this study. Further in-depth country studies could provide comprehensive and reliable findings about the remittance-development outcomes. In regards to the intermediated factors influencing remittance-development impact, cross-country data and indicators are unable to provide all mechanisms that causally condition their impact.

Second, since the early empirical narratives postulated the negative effect of remittances in development and the recent empirical findings are increasingly showing the opposite, it is essential to look at historical and recent successful cases of development, particularly in developing countries (for instance the East Asian countries and in African countries such as Botswana, Ethiopia, Ivory Coast, Mauritius and Rwanda). It is worth examining the part remittances played in these developments in these countries. Failures should also be considered and compared to the successful countries to test the counterfactual and consider what might be driving the contribution of remittance-development outcomes.

Third, considering the difficulty of endogeneity and selection bias that exists when considering the link between remittances and economic growth and considering the methodological and data issues (mostly macroeconomic data at cross-country level), it remains imperative for future research to explore other approaches through which remittances could be affecting development outcomes in SSA countries. This should involve employing external instrumental variables from the field of migration and development rather than relying on internally developed variables. The cost of sending remittances to the origin country could be an external instrumental variable that could be explored, on the condition that countries and international organizations such as the World Bank and IMF are able to provide reliable and harmonized remittance data.

Fourth, in the context of Rwanda, there may be selection bias due to pro-poor social protection programs in the country. Further research is thus needed to investigate the effect of
international remittances on poverty reduction in Rwanda, in relation to pro-poor social protection programs (such as Vision 2020 Umurenge Program and the Genocide Survivors Support and Assistance Fund (FARG) financial transfers). It is important to assess how these different sources of financial transfers affect poverty and what part each of these transfers play in the poverty reduction process in Rwanda.

Fifth, further focused household panel data analysis is important to examine trends in how international remittances affect investments, inequality and poverty in the country using different, later, cohorts of household survey data in Rwanda to better understand how remittances affect poverty over time. It must be studied whether remittances enable recipient households to sustainably graduate out of poverty and through which mechanisms.

Last but not least, further cross-sectional study is required on how economic institutions, specifically economic institutions (such as financial institutions), condition the remittance-development impact in the SSA region. This could focus on the role of a conducive business environment and financial institutions in providing mechanisms that foster a formal remittance-driven development effect. Several empirical studies have documented a strong positive impact of remittances on economic growth through institutional quality of financial institutions. In SSA countries, which still exhibit weak political institutions with no recent promise of development, financial institutions and the business environment could provide alternative approaches to condition the remittance-development effect in the region.

This study provides a comprehensive and systematic framework for studying the development implications of remittances in contrast to the earlier linear and one-sided frameworks, which focused on either the macro or the micro impact of remittances. The thesis thus provides a broader view that includes the institutional and policy framework, which condition how remittances are transferred and productively deployed to affect development outcomes. The study is the first of its kind to employ a micro-macro nested analytical framework with more cases (cross-country and country-level analysis) to theoretically and empirically examine the remittance-development outcomes. The contribution and novelty of the findings of this study are attributed to the comprehensive and systematic analytical framework employed, the different types of data, namely time series data, country household survey data, structured interview data and data from my own professional experience in the field.
1.9 Thesis Structure

This thesis consists of eight chapters. The introduction chapter presents the general overview of this thesis. Chapter Two presents a review of the literature about remittances and development, the definition of key concepts of this study, the key theoretical approaches, and dominant empirical debates about the development impact of remittances. Both theoretical and empirical narratives about the development impact of remittances are synthesized. Chapter Three presents the conceptual framework of this thesis. Chapter Four discusses the trends of remittance inflows to SSA countries and Rwanda in particular. It discusses the case selection of Rwanda as an important case study. Chapter Five presents the different empirical strategies employed and the empirical findings about the remittance-growth impact. Chapter Six presents the baseline empirical strategies and related findings of the impact of international remittances on consumption expenditure per adult equivalent and other development outcomes in Rwanda. It also presents empirical findings on the effect of remittances among different socio-economic layers of recipient households in Rwanda. In reference to the results of Chapter Six, Chapter Seven addresses the selection bias problem existing in the remittance and development discourse. It conducts an in-depth analysis using the PSM estimation technique to examine the effects of international remittances on development outcomes in Rwanda. Finally, Chapter Eight concludes the study by presenting the general conclusion and the contribution of the thesis. It discusses the policy implications of the thesis, as well as suggested future research.