Migrant remittances and economic performance: A global assessment of the impact of remittances on recipient countries

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Dedicated to my parents

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Abstract/Executive Summary

This thesis aims to close a major research gap in IB scholarship, which is the lack of consideration of an important international capital flow, namely remittance transfers from migrant workers to their countries of origin, as an alternative and potential complement to the analysis of Foreign Direct Investment (FDI) and hence, in obtaining a better appreciation of globalisation. In so doing, we cross-fertilise the fields of IB and development economics, hence answering to calls by IB scholars for IB to address issues of comparative political economy. While development economists have considered migrant remittances, the last mentioned have been ignored in IB literature. On the other hand, development economists have failed to consider remittances alongside FDI, the relationship between the two, and their combined impact on economic performance. Existing analyses of the determinants of remittances and their effects on economic performance moreover, have downplayed the channels through which remittances impact on performance, as well as the role of institutional factors on both the determinants and the impact of remittances. In addition, the role of cultural factors has been totally ignored. As such factors are important in IB scholarship, the incorporation of these in the analysis of remittances helps provide reverse knowledge transfer and cross fertilisation between the two fields.

More specifically our aims and intended contributions are as follows: bring the issue of remittances to the attention of IB scholarship and the analysis of globalisation; integrate the analysis of remittances with the analysis of FDI and globalisation; draw on IB scholarship to help improve an understanding of the determinants of remittances, not least by considering FDI as one such potential determinant; provide an improved conceptual framework on the determinants of remittances and the channels through which they impact on economic performance; draw on IB scholarship in order to examine the moderating role of culture and institutions in the determinants of remittances and the relationship between remittances and economic performance, including the channels though which this relationship is manifested; provide improved understanding through extensive empirical analysis on the basis of a data set that is arguably the most comprehensive available to date; highlight the need for more targeted and integrated polices and managerial practices that take into

consideration remittances and FDI, as well as their interrelationship and the institutional and cultural factors that affect them.

In terms of method, we have created a novel and comprehensive database specifically for this purpose, have used panel analysis, and have relied and built upon existing literature and employed estimated equations and methodological innovations (such as a 'general to specific' estimating technique) that aimed to help us derive more reliable results than hitherto available.

Following an introduction, the thesis starts by examining a canonical theme of IB scholarship, that of the determinants of FDI. We include independent variables such as productivity and profitability that have been previously overlooked, alongside more conventional variables analysed in literature. We report productivity to be one of the most significant factors determining FDI. We then also use a more comprehensive dataset in order to test-replicate our results and include the cultural environment as a potential determinant of FDI. We find support for our earlier results and also that individualism and uncertainty avoidance are positive and statistically significant determinants of FDI. The analysis of the determinants of FDI sets the scene for our analysis of the determinants of remittances, and a prelude as to the factors that might help co-determine these two capital flows. We pursue this in the next chapter, where we also consider FDI as one of the determinants of remittances.

In Chapter 3, we first provide an extensive analysis on the determinants of remittances. Our main contribution here lies in analysing cultural and institutional factors as potential determinants of remittances in addition to FDI. Our empirical results suggest a combination of 'tempered altruism' and 'enlightened self-interest' as motives for remittances and show that cultural and institutional factors can account for differences in the amounts of money remitted. In addition, our results suggest that FDI positively determines remittances. Our findings call for more targeted public policies that take this complementarity and the role of culture and institutions into account.

Our conceptual analysis and results in Chapter 4 demonstrate that the impact of remittances on economic performance is channelled through various pathways and is

moderated by country-specific institutional and cultural factors. Our overall conclusion is that remittances, alongside FDI, are important positive determinants of economic performance.

In all, and despite some limitations that we also discuss, our analysis and results help open up a new field of enquiry in IB scholarship and helps cross-fertilise IB with comparative political economy. They also provide important implications for public policy and managerial practice.

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Abbreviations

CEECs: Central and Eastern European Countries

CPI: Corruption Perception Index

DCs: Developed Economies

DSS: Data and Statistical Services

EU: European Union

FDI: Foreign Direct Investment

GAP: Gap between Actual and Trend GDP

GDP: Gross Domestic Product

GDPPC: GDP per capita

GNP: Gross National Product

GOS: Gross Operating Surplus

IB: International Business

IMF: International Monetary Fund

MNEs: Multinational Enterprises

NIE: New Institutional Economics

OECD: Organisation for Economic Co-operation and Development

OLI: Ownership, Location, Internalisation

OLS: Ordinary Least Squares

R&D: Research and Development

RULC: Real Unit Labour Costs

TAX: Corporate Tax Rate

TFP: Total Factor Productivity

UAI: Uncertainty Avoidance (Hofstede)

UN DESA: United Nations Department of Economic and Social Affairs

UNCTAD: United Nations Conference on Trade and Development

CHAPTER 1

INTRODUCTION

1.1 An Overview of this Thesis

1.1.1 Motivation and aims of the thesis

Understanding the nature and determinants of globalisation, its impact on economic performance, as well as helping 'make globalisation good' (Dunning, 2002), or at least better, is one of the most important objectives of International Business (IB) scholarship (Dunning, 2002). Despite that, extant literature in IB has focused almost exclusively on one major economic agent of globalisation, the multinational enterprise (MNE) and one major aspect of its activities, namely foreign direct investment (FDI). This is almost paradoxical, and clearly unsatisfactory. Globalisation is influenced by other factors, agents and capital flows, such as international aid, and importantly migration and the funds migrants remit to their countries of origin. While there has been substantial analysis of remittances in the development economics literature, this does not share many of the concerns and interests of IB and pays little attention to FDI, especially in its relationship to remittances. On the other hand IB scholarship has all but ignored remittances. This may in part be justified in terms of disciplinary boundaries, but in the case of IB such an argument would be spurious, as IB is by nature cross disciplinary (Shenkar, 2004). In this context its failure to consider the nature and role of an important capital flow such as remittances, needs to be rectified. Given the extant extensive work on remittances in development economics, this calls for a cross fertilisation between the two fields. This is the overarching aim of our thesis.

More specifically our aims and intended contributions in this thesis are as follows:

1. Bring the issue of remittances to the attention of IB scholarship and the analysis of globalisation.

2. Integrate the analysis of remittances with the analysis of FDI and

globalisation.

3. Draw on IB scholarship to help improve an understanding of the determinants of remittances, not least by considering FDI as a possible determinant.

4. Provide an improved conceptual framework on the determinants of remittances and the channels through which they impact on economic performance.

5. Draw on IB scholarship in order to examine the moderating role of culture and institutions in the determinants of remittances and the relationship between remittances and economic performance, including the channels though which this relationship is manifested.

6. Provide improved understanding through extensive empirical analysis on the basis of a comprehensive data set that we have collected explicitly for this purpose, as well as by employing methodological innovations, such as a 'general to specific' estimating technique.

7. Highlight the need for more targeted and integrated polices and managerial practices that consider remittances and FDI, as well as their interrelationship and the institutional and cultural factors that affect them.

In addition to the above, we address a wide range of questions concerning remittances; in particular what motivates them, what determines their level, the channels through which they impact on economic performance, and their relationship to FDI. A particularly innovative aspect of our research is the conceptual and empirical evaluation of the impact of institutional and cultural factors on both the decision to remit and the channels through which remittances impact on development. Towards this purpose we have compiled what is arguably one of the most comprehensive available data bases, and have explored aspects which are currently under-explored in the literature, thereby breaking new ground and extending extant scholarship.

Institutional factors have been underexplored in the literature on remittances, while

cultural ones have been totally ignored. Both are important concerns of IB, hence we bring them into the analysis. We consider both these sets of factors as moderators, both of the determinants of remittances, as well as the channels through which remittances affect economic performance.

In addition to the above, we bring into the analysis of IB a number of conceptual and empirical innovations, such as the use of a 'general to specific' econometric investigation, and we also explore avenues for further research opened though our focus on what we call 'the other half' of globalisation, namely migrant remittances. Clearly globalisation involves much more than FDI and remittances, not least international trade and international aid. Given however the almost exclusive focus of IB on FDI, that is the mobility of productive capital, a focus on the mobility of productive labour, can in some ways be seen as 'the other half' of this equation. These issues are discussed further in the text and the concluding chapter.

1.1.2 Importance of Contribution and Implications for Theory

Despite the prominence of the topic in development economics, international migration and the role of remittances remain under-researched, basically ignored in IB scholarship. At the same time important concerns of IB scholars have not been considered by development economists. These include FDI itself, but more so institutional and cultural factors. Hence, remittances literature is in need of further development and insight. Our research helps close this gap in the literature as follows. First, it brings remittances into the radar of IB scholarship. Second, it draws on IB scholarship in order to enrich extant work on remittances in development economics. In so doing our research considers the relationship between remittances and FDI. It also provides a new conceptual basis for the understanding of the determinants and the channels of remittances in their relationship to FDI. In addition, it also considers the determinants of both these capital flows, in their interrelationship, as well as their combined impact on economic performance. To our knowledge this has not been done before. Moreover, we bring in the role of the cultural and institutional environments that have not been explored in the case of remittances. We employ a very comprehensive data base, that we have constructed

and a more comprehensive econometric specification. All these help open a whole new area for further conceptual and empirical development. This is particularly the case as some earlier works on remittances that have not considered the role of FDI, as well as cultural and institutional factors, have led to ambiguous results.

More specifically, remittances have received a lot of scepticism concerning their potential impact on the economic performance of recipient economies. One reason is because of research suggesting that remittances tend to go into immediate, sometimes conspicuous, consumption, hence undermining any substantial contributions to economic performance, comparable to that achieved through investment (Lipton, 1980; Russell, 1986, 1992). Some studies have argued that altruistically-driven remittances compensate households for bad economic shocks, this way implying a negative relationship with income growth (Chami et al, 2005). According to this argument, as remittances are compensatory in nature, not intended as capital for investment, and act as a substitute for labour income, we would expect them to be negatively correlated with economic growth and development (ibid, 2005). Lastly, concerns have been raised concerning remittances being perceived by governments as a form of insurance, hence bearing additional implications similar to those of foreign aid, in particular in terms of blunting incentives for developmental policies.

Another important debate on remittances relates to the link between migrants' education levels, remittances and the 'brain drain' (Faini, 2007; Niimi et al, 2008; Bollard et al, 2011). Research has shown that skilled labour earns more and remits higher amounts of money, suggesting this way that remittances are influenced by an income effect though which education functions (Johnson and Whitelaw, 1974; Rempel and Lobdell, 1978; Bollard et al, 2011). Despite this arguably beneficial effects of educational levels on remittances (in other words that higher remittances by more educated people may offset any negative effects from 'brain drain'), it is also arguable that skilled migrants may come from wealthy families and are more likely to stay in the foreign country for longer, which is also a factor decreasing the propensity to remit (Lucas and Stark, 1985). The evidence concerning the length of stay of skilled migrants indicates that skilled migrants remain longer in the foreign country than less skilled ones (Borjas and Bratsberg, 1996; Solimano, 2002). On the

other hand, some other studies find that the education of migrants has no effect on the level of remittances (Rodriguez and Horton, 1994).

Our research suggests that the size and use of remittances can be institution and culture-specific, making generalisations such as the above dangerous. In particular, we find that depending on cultural and institutional factors and supporting polices, remittances can both complement FDI and serve as a potent means for investment and development.

At the aggregate level, our results, which are derived from a more comprehensive data base and specification than hitherto available, suggest that remittances do indeed impact positively on economic performance, directly, through their impact on channels and in their interrelationship to FDI. These we consider to be important findings, the implications of which for public policies and managerial practice we discuss below.

1.2 An Overview of Globalisation

1.2.1 Globalisation

Globalisation has been a major focus of debate for the past three decades or so. Since the 1980's, globalisation has been affecting and reshaping economies, societies and nations, while itself experiencing changes and transformations (Dunning and Lundan, 2008). Despite the recent focus on globalisation, the phenomenon itself may not be new. There have emerged three categorisations of globalisation in the literature, corresponding broadly to the so called three waves of globalisation (see below). These are the sceptical, globalist and transformationalist approaches (Held et al, 1999; Holton, 2005). The sceptical approach argues that globalisation has been an evolutionary process unfolding over many centuries and affecting all facets of society, namely the economy, culture and politics. In this view, developments in any facet result in changes on the scale and scope of globalisation, but not on the phenomenon itself. On the other hand, the globalist view suggests that contemporary globalisation emerged at a specific period in time and it is qualitatively different in scale and scope than previous eras of globalisation, which

they describe as periods of internationalisation. Lastly, the transformationalist view builds upon the globalist perspective and argues that globalisation is the driving force underlining the current changes that help reshape modern societies and the world order. We revisit these below, starting first with some definitions.

Definitions of globalisation vary. Broadly speaking, globalisation is viewed as "essentially a process driven by economic forces. Its immediate causes are: the spatial reorganisation of production, international trade and the integration of financial markets' (Sideri, 1997; Buckley and Ghauri, 2004). Other definitions of globalisation include:

"…the intensification of economic, political, social and cultural relations across borders" (Holm and Sorensen 1995, pp. 1),

a "…process in which the production and financial structures of countries are becoming interlinked by an increasing number of cross-border transactions to create an international division of labour in which national wealth creation comes, increasingly, to depend on economic agents in other countries, and the ultimate stage of economic integration where such dependence has reached its spatial limit" (Bairoch and Kozul-Wright 1996, pp. 4).

In yet another view, globalisation is seen as the "De-territorialisation – or … the growth of supraterritorial relations between people" (Scholte 2000, pp. 46).

According to the International Monetary Fund (IMF), "Globalization refers to the growing economic interdependence of countries worldwide through the increasing volume and variety of cross-border transactions in goods and services and of international capital flows, and also through the more rapid and widespread diffusion of technology" (IMF 1997, pp. 45).

As noted, extant literature distinguishes three stages of globalisation. These include two unbundling stages, the first of which is said to have occurred in two waves; the former during the sixty year period before World War I and the latter from the 1960's to present (Baldwin and Martin, 1999; Baldwin, 2006). The first wave of globalisation is thought to have involved limited trade liberalisation and limited state responsibilities, and it was based more on an uneven industrial prosperity as a result

of individual countries' growth efforts (Bairoch and Kozul-Wright, 1996). During the second wave of globalisation the world has experienced the integration of markets, the rise of interdependence among economies, trade openness and capital mobility, among others. This first unbundling stage can arguably be explained through traditional trade theory (Baldwin, 2009). At this stage, nations are said to compete at the sectoral level for exploring comparative advantages and the level of analysis is sectors and labour skill groups.

Since the second stage of unbundling, initiated in the 1980's, the business world has experienced lower communication costs, the revolution of cooperation, the offshoring of activities-tasks and 'networked FDI' (Baldwin, 2009; Baldwin and Okubo, 2012). This has fashioned a new phase in the globalisation of production and markets that involves a bigger role of firms, but also of nations and international organisations. This has led to increased competition, whereby established producers are constantly challenged by new competitors. In such a globalised economy, financial and production processes are interlinked through cross-border transactions and national wealth creation depends increasingly on economic activities in other countries. The globalised economy is increasingly characterised by the presence and increasing importance of multinational enterprises (MNEs) and financial institutions, which operate on a worldwide scale independently of national boundaries, politics and economic constraints (Bairoch and Kozul-Wright, 1996).

1.2.2 MNEs and FDI

MNEs and Foreign Direct Investment (FDI) had a role to play already since the first wave of globalisation. That points to a close relationship between trade and FDI and hence, that international production and large enterprise growth can be closely related (Bairoch and Kozul-Wright, 1996). During that period, the stock of FDI was growing rapidly amounting to one-third of overseas investment and reaching over 9 per cent of world output by 1913. FDI was targeting natural resources and in developing countries, with approximately half of FDI going directly to the primary sector (Dunning, 1984). Only in few countries FDI targeted the manufacturing sector, and that was possibly a response to high tariffs (Kenwood and Lougheed,

1994).

Despite the fact that the role of FDI in 19th century global integration has been downplayed in literature, other flows of capital, like international finance have been extensively examined (Bairoch and Kozul-Wright, 1996). This, as in current times, may be a manifestation of the importance, arguably dominance of finance in the process of internationalisation (ibid, 1996). During the first wave of globalisation, especially between 1870-1913, the growth of foreign portfolio investment surpassed the growth of trade, FDI and output. In 1913, the volume of international capital flows had reached 5 percent of the gross national product (GNP) of the capital exporting countries (Bairoch, 1976). The evidence also suggested considerable integration of international financial markets (Zevin, 1988).

The activities of MNEs have been at the core of International Business (IB) literature, which focuses on trade, foreign direct investment (FDI) and their role on economic performance and development (Dunning and Lundan, 2008; Zhan and Mirza, 2012). MNE activity can significantly impact on the developmental and restructuring processes of a country, the level of which has been argued to depend on three main parameters, the type of FDI undertaken, the resources and capabilities of the relative countries and the respective governmental policies (Dunning and Narula, 2004). Up to recently, IB literature focused on three main questions, namely the flows of FDI, the operations of MNEs and the process of internationalisation of firms and advances of globalisation (Buckley et al, 2002; Kafouros et al, 2008). Despite an almost unanimous view on the importance of MNE activity for economic integration and development, and numerous studies on the issue, IB scholars have emphasised the need for more elaboration and development on the globalisation question, considered among some scholars to be the 'big question' in IB scholarship (Buckley, 2002; Buckley and Ghauri, 2004).

Despite such substantial interest in the 'big questions' and the need for a more holistic view of globalisation, IB scholarship has arguably remained narrowly focused-mostly on the nature, strategies, internal organisation and management of MNEs. This for example is clear in many IB texts, such as Verbeke (2009). Even in texts such as Hill (2011), where wider political economy, institutions and culture-related issues are considered, a very important aspect of globalisation, that of labour

and the capital flows that resulted from labour movements, mostly in the form of migrant remittances, is all but ignored. We claim that this is a major limitation in IB scholarship that needs to be rectified. Indeed one purpose of our thesis is to complement extant IB literature by addressing this very important limitation.

1.2.3 Remittances

Migrant remittances are defined as transfers of money, which has been earned in a foreign country, from migrant workers to recipients in their home countries. Migration on a mass scale began in the early nineteenth century, facilitated by technological advances in transportation and industrial revolutions in various countries (Hatton and Williamson, 2005). Despite often heated debates on immigration, the internationalisation of labour remains rather low (the percentage of world's population who are migrants was estimated to be just over 3 percent; UN DESA, 2013). Despite, however, the rather low degree of internationalisation of labour, the funds remitted by those in foreign countries are comparable to the holy grail of IB scholarship, namely FDI. Accordingly no analysis of globalisation can be anywhere near complete, without an analysis of remittances.

Work on remittances so far, is mostly carried out in development economics and is rarely linked to FDI. This too is an important limitation since these two types of capital flows are comparable in size and potentially interrelated. Our aim in this thesis is to draw on the two sets of literature in order to explore further these interrelationships and their combined impact on globalisation and development.

In the early literature in development economics, the alleged benefits of remittances were said to capture many aspects of economic and human development, such as, easing liquidity constraints, promoting health and education, providing access to consumer goods, fostering entrepreneurship and more generally, boosting economic activity of the recipient economy (Lucas and Stark, 1985). In recent years, remittances have experienced substantial growth, and have proven themselves more resilient to declines in economic activity, that is the current economic crisis. This has led to increased interest in their analysis (Yang, 2011).

Some basic statistics can help highlight the role and importance of remittances. In 2012 more than 215 million people lived outside their countries of origin and over 700 million migrated within their countries. In the same year, remittance flows to developing countries reached $401 billion, an increase amounting to 5.3 percent over the previous year. Global remittance flows were an estimated at $529 billion in 2012. The top recipients of officially recorded remittances were India ($69 billion), China ($60 billion), the Philippines ($24 billion), and Mexico ($23 billion). Other large recipients included Nigeria, Egypt, Pakistan, Bangladesh, Vietnam and Lebanon. Interestingly, remittances were higher as a share of GDP in smaller and lower income countries; top recipients including Tajikistan (47%), Liberia (31%), Kyrgyz Republic (29%), Lesotho (27%), Moldova (23%) and Nepal (22%).

Importantly, remittances are expected to continue growing to reach $608 billion by 2014, of which $468 billion will flow to developing countries (World Bank, 2013). These flows take place despite very significant costs. In particular, remitters to Africa and other small nations pay an average cost of 9 percent to send money home. According to World Bank estimates, reducing the average remittance costs to 5 percent, in line with G8 and G20 targets, could save migrants up to $16 billion a year (World Bank, 2013). In addition it could help foster further remittance flows. All these highlight the importance of remittance flows in economic activity in nation states and for an appreciation of globalisation.

The literature on remittances is nowhere near as extensive as that on FDI in IB. Moreover, scholars have not yet been able to examine in depth empirically, but also conceptually, the determinants of remittances, and the pathways through which remittances stimulate economic development in recipient economies. In addition there has been virtually no cross-fertilisation between IB and development economics scholarship. For example there has been no examination of the potential interrelationship between remittances and FDI. There has been limited consideration of the role of institutional and not at all of cultural factors (a major focus of IB scholars), in the analysis of the determinants of remittances. These are among the various important limitations that our thesis aims to address. This is important for scholars, as well as policy makers, as it can provide insight and the basis for more targeted public policies, which will aim to enhance the impact of remittances and

FDI on economic performance.

1.3 Chapter Outline and Policy Implications

1.3.1 Chapter Outline

The first main Chapter of the thesis (Chapter 2) analyzes one of the canonical issues of IB scholarship and the 'globalisation' debate, namely what are the determinants of foreign direct investment (FDI) by multinational enterprises (MNEs). Despite the extensive availability of studies on FDI, some supply-side aspects of the relationship have been underexplored, notably the role of total factor productivity (TFP) and business profitability. These are more important for IB scholars who focus more on the production-supply-side, as opposed to the demand side of the economy. In order to test for this relationship, we compiled data on OECD countries, and employed an estimated equation derived from economic theory, which incorporates the main demand and supply-side determinants of FDI. We contribute to the extant literature by employing different proxies for the determinants in question and by testing for the importance of total factor productivity (TFP) as a determinant of FDI in OECD countries. Our results confirmed initial theoretical predictions and highlighted the significance of total factor productivity (TFP) and profitability as determinants of FDI in developed countries.

The aim and importance of Chapter 2 is that it helps set the scene in a number of ways. First, in order to understand globalisation, we need to know what determines FDI - a major component of it. Moreover, by considering additional supply-side factors that have been underplayed in the analysis of FDI, we can obtain an early appreciation of potentially common determinants of FDI and other capital flows, such as remittances. Third, in order to examine both FDI and remittances in the same context, one needs to analyse the determinants of each of these separately. In addition, by focusing on total factor productivity, which is widely perceived to be influenced also by institutional and cultural factors, we set the scene for a more specific analysis of such factors as potential determinants of remittances. As noted such factors have been extensively analysed in IB scholarship, but not on remittances, hence we aim to add value by focusing attention on these factors in the

rest of our thesis. Chapter 2 has already been published in *Contributions to Political Economy* (2010), and is included more or less in its published version. However, in order to extend the analysis and help validate the results, as well as for comparability with the rest of the thesis, we added another section where the results are being replicated with a novel, more comprehensive dataset in which we have included cultural factors as independent variables. On balance the new results are in line with and in support of, our earlier analysis and findings. In this sense our enhanced Chapter 2 serves as a basis and introduction to the remainder of the thesis.

Chapter 3 accordingly, repeats the exercise of Chapter 2, but by providing an analysis on the determinants of remittances, the 'other half' of globalisation. The major innovation here is that the Chapter leverages extant literature on determinants as control variables, in order to focus on the far less employed and conceptualised, cultural and institutional indicators. As noted these factors are more important and explored in IB literature, hence our analysis help cross fertilise the fields of IB and development economics. We assume that migrants share cultural characteristics with their country of origin and hence, and that culture can be a critical explanatory variable for the differences on the levels of remittances. We develop a number of hypotheses, and subject them to empirical testing using our comprehensive data base. Our results are in line with our hypotheses, suggesting that country-specific indicators can account for these differences. We report different measures to be significant determinants of GDP and GDP per capita, our proxies for economic performance, thereby providing the basis for country specific policy making aimed at unearthing more efficient ways to utilise remittances flows.

In addition to the above, Chapter 3 provides a novel conceptual framework on the determinants of remittances that draws on IB scholarship and incorporates the aforementioned institutional and cultural factors. As noted, while these factors have been extensively employed by IB scholars (Berry et al, 2010), that has not been the case for development economists, who in turn have analysed remittances. In addition to the above, in this chapter we incorporate FDI as a determinant of remittances and find this to have a positive and significant effect. This provides insight on the interrelationship between these two major aspects of globalisation that had been previously unexplored in IB literature.

In Chapter 4 of the thesis we move on to the critical question of the impact of remittances on economic performance and development, by themselves and in their relationship to FDI. This is a very rare instance where both the role of FDI and remittances on economic performance are explored in the same context-econometric equation. As noted there has been extensive literature on this issue both for FDI and for remittances, but without cross-fertilisation between IB and development economics. Our cross fertilisation helps in numerous ways, First, FDI and remittances are now jointly included as determinants of economic activity and they are both found to have a positive and significant impact, in the context of a more comprehensively specified econometric equation and a richer data set than before. This casts some doubt on some earlier studies on the impact of remittances. In addition, we focus again on two country-specific factors important in IB scholarship, namely, institutional environment and culture. These extend the extant development economics literature, which has so far focused on examining the direct effects of institutions and has not considered the role of culture as a potential moderating factor of remittances.

Chapter 4 employs a statistical regression which examines both sets of factors, as well as the interaction terms between remittances, institutional quality and culture. In addition and importantly, the chapter also analyses, develops hypotheses and controls for the channels of remittances (various pathways through which these impact on economic performance), as well as for other variables proposed and examined in literature. Chapter 4 also provides results obtained from an analysis of triple interactions, namely those between the channels of remittances and the various institutional and cultural factors which we employ. Our results support our hypotheses that the impact of remittances on economic performance and development in recipient economies is positive and significant and it is also moderated by country-specific factors, such as culture and institutions.

Our final chapter (Chapter 5) provides summary and concluding remarks. It also discusses implications for theory, policy and practice, further research opportunities and limitations. It submits that the analysis of remittances, especially in their interrelationship with FDI can be critical in providing a better understanding of globalisation and that a cross-fertilisation between IB and development economics

literature, can be of major import to both fields and help IB scholars obtain a far better understanding of one of IB's big questions - the determinants and impact of globalisation.

1.3.2 Implications for Policy and Managerial Practice

It has been argued that in the globalised economy, the scope for national policies have been significantly decreased by globalisation pressures whilst corporate strategies have increasingly been liberated (Bairoch and Kozul-Wright, 1996). This calls for major policy rethinking. Some claimed that governments of developed economies should focus more on productivity-enhancing measures, than defensive protectionist and trade policies (Nunnenkamp et al, 1994). Our findings in Chapter 1 highlight the importance of total factor productivity in explaining inward investment in such countries and points to the potential role of its determinants in developing countries. These include institutional and cultural, hence the focus of this thesis. Such factors in their turn call for policies which are more individualised and targeted, so as to account for cultural and institutional differences. The importance of productivity, culture and institutions, moreover, points to the need to complement with such supply-side measures existing economic policies which are predominantly macro-demand-side driven (Rodrik, 2008).

Our conceptual and empirical analysis implies that the role of the state can be of importance in promoting and utilising efficiently remittance flows, as well as FDI. Considering moreover the importance of institutional and cultural environments in determining the level and the impact of remittances, it is only logical to advocate more targeted policies, which take into account these individual country characteristics. Based on our research findings we report evidence suggesting that culture and institutions affect gross domestic product (GDP) and GDP per capita (PC) (different variables exhibit different impacts on these two measures) therefore, highlighting the individuality of countries, but also of remittances. As institutional, policy and cultural issues are shaped in part by public policy, my research can help contribute significantly to generate new insights in the way states and policies shape migration processes in their interaction with other migration determinants.

Another important policy implication for practitioners and government emanating from our thesis, concerns the interrelationship between FDI and remittances. Our findings of a positive relationship suggest that governments should devise measures not only to attract FDI but also facilitate remittance flows, if possible in activities complementary to those selected by MNEs, so as to facilitate and strengthen small firm creation, supplier networks and local-global value chain linkages (UNCTAD, 2013).

In terms of managerial practice, our analysis and results suggest that practitioners who invest in some countries may wish to study the institutional and cultural characteristics of their target countries, in order to obtain a better understanding on the potential use of remittance flows, and focus-tailor their activities in ways that allow them to benefit from such information. For example, in countries where remittance flows are channelled to conspicuous consumption, luxury products will have a better chance to do well than in countries where remittance flows are used for investment purposes. In the last mentioned on the other hand, supplier networks are more likely to support FDI by MNEs.

In conclusion, we feel that our analysis of remittances, and its relationship to FDI, is of the essence in appreciating what we call the 'other half' of globalisation, namely international labour mobility and remittance flows. Considering especially the resources spent in analysing only the first half (FDI), one could argue that our research and findings are important in opening up novel avenues for further research, evidence, practice and policy, hence constitute a necessary and hopefully important contribution to IB scholarship.

CHAPTER 2

Determinants of Foreign Direct Investment in Developed Economies: the Role of Productivity

Abstract

We analyse the determinants of foreign direct investment (FDI) by multinational enterprises (MNEs), in developed economies (DCs), in the context of an estimated equation derived from economic theory, which compares the main demand and supply-side determinants of FDI. We contribute to the literature in various ways by considering the hitherto underexplored role of productivity, by employing different proxies for the determinants in question and by employing and comprehensive data set and methodological innovations, such as a 'general to specific' econometric specification. Our results are in line with theoretical predictions, and point to the special importance of productivity as a determinant par excellence of FDI in DCs. They also highlight the importance of profitability and some cultural factors.

2.1 Introduction

During the 1990s, foreign direct investment (FDI) by multinational enterprises (MNEs) grew at a faster rate than incomes and trade (UNCTAD, 2006). This growth and its anticipated potential beneficial effects on economic growth and development, especially of developing and emerging economies, have led to attempts by governments to devise policies that attract FDI. It has also renewed discussion and research on the determinants of FDI. An important question in this context is whether such determinants differ between different groups of countries.

Our aim in this article is to test the above hypothesis by focusing on the relatively unexplored developed OECD countries and by comparing between European and non-European developed countries. In particular, we use as a basis a model by Head & Mayer (2003), which accounts for both demand and supply-side factors, but test it for the two different sets of countries and by employing different proxies for the generic supply and demand-side variables the authors derive. Our results are in line with the theoretical model, but also point to important differences between the two sets of countries, as well as between different proxies for the similar supply or demand-side variables. They also highlight the unique importance of TFP, as a determinant of FDI in developed economies (DCs).

In Section 2.2, we discuss the theoretical foundations and existing evidence on the MNE and FDI. In Section 2.3, we present the model, data, method, and results. Section IV has conclusions, limitations, and policy implications. In Appendix 2-1 we replicate the results with a novel, more comprehensive data set and we also include cultural characteristics-variables.

2.2 Theoretical Foundations of FDI and the MNE and the Empirical Evidence

2.2.1 Theoretical foundations

MNEs can be defined as incorporated or unincorporated enterprises that comprise parent companies and their foreign affiliates (UNCTAD, 2006). A parent company is defined as an enterprise that controls assets of other entities in countries other than

its home country, usually by owning an equity stake. An equity stake of 10% or more of the shares or voting power for an incorporated enterprise is normally considered as a threshold for the control of assets, or its equivalent for an unincorporated one. The definition of what constitutes FDI, as opposed to other capital flows, follows from the above convention. For example, UNCTAD (2006) considers FDI to involve equity capital, the reinvestment of earnings and the provision of long-term and the short-term intra-company loans between parent and affiliate enterprises. MNEs can be horizontally integrated, vertically integrated, and/or diversified (Caves, 1997). Horizontally integrated are enterprises producing the same group of outputs irrespectively of the geographic market. Vertically integrated are enterprises, which use some of their partner firms, or as Caves refers to 'plants', to produce commodities that serve as inputs for other activities.

MNEs pursue profits by implementing a strategy of internationally seeking enhanced differentiation and/or reduced costs (Caves, 1997). To achieve this, they place different stages of production, or the production of part of the same product, in various countries according to the costs and the availability of inputs, which are most critical for the respective stage of production or the kind of the product. For example, the production of a relatively labour-intensive good will be undertaken in a country with relatively cheap labour, whereas the production of a relatively capital- or technology-intensive good will be undertaken in a country with relatively high-specialized labour, developed infrastructure and agglomeration economies, that is unit cost economies resulting from the concentration of economic activities (Driffield & Munday, 2000).

Hymer (1960/1976) considered FDI as the defining feature of the MNE and tried to explain it in terms of its relative advantages as compared to other forms of foreign operations by firms. The first reason to explain why firms favour FDI to alternative modalities such as licensing or cooperation, Hymer suggested, was the reduction of rivalry in international markets. A second reason was that FDI allowed firms to better exploit their monopolistic advantages. A third was the diversification of risk. Hymer also observed that 'the strength of a MNE stems from the fact that it can trade knowledge internally more quickly than two firms which have to negotiate conditions each time' (Hymer, 1968, p. 23). Overall, Hymer concluded that

'multinational firms are better institutions than international markets for stimulating business, transmitting information, and fixing prices' (Hymer, 1968, p. 17).

Post-Hymer theories such as Buckley & Casson (1976) and Williamson (1986) focused on the internalisation of advantages and claimed that internalisation reduces transaction costs when assets are intangible or specific to the investments made. Resource-based and evolutionary theories, such as Teece (1981) and Kogut & Zander (1993) claimed that MNEs may be superior to markets in transferring tacit (non-codifiable) knowledge (Dunning & Pitelis, 2008).

A widely known general framework that aims to explain the existence and growth of MNEs and FDI, is the OLI paradigm (also known as eclectic), developed by Dunning (1980, 1995). Dunning argued that the existence and growth of MNEs is the result of the simultaneous presence of three sets of advantages relative to other firms, the advantages of Ownership, Location, and Internalisation (also referred to as the OLI tripod, Eden, 1991). Ownership advantages are mainly intangible knowledge- based assets and advantages of oligopoly. Knowledge advantages can be patents, brand names, marketing and managerial skills, product innovations, and process enhancements. Oligopoly advantages include economies of scale and scope, private access to resources and first mover advantages. Internalisation advantages arise from the avoidance of exogenous imperfections of markets faced by MNEs. Exogenous imperfections can be divided into two categories; those that are intrinsic to some markets and to those that are generated by state actions. The former arise from the existence of transaction costs, uncertainty and the public good attributes of knowledge. State-induced imperfections include tariffs, foreign exchange controls, and subsidies. The internalisation of markets is a vehicle that the corporation can employ to substitute an external or missing market with an internal one and thus to overcome market failures. Locational advantages determine the countries in which the MNE chooses to produce. They can be divided into economic, social, and political. Economic advantages refer to a country's factor endowments, for example, its capital, labour, managerial skills, technology, and natural resources, as well as its transportation and communications, infrastructure and its market size. Social or non-economic advantages (or disadvantages), include the language, ethnicity, business customs and culture of different countries. Finally, political advantages include the

government's attitude towards MNEs and certain policies, such as trade barriers and investment regulations that may affect FDI (Dunning, 1980; Eden, 1991).

In Dunning's OLI paradigm, ownership and internalisation advantages do not determine the location in which the firm will invest. Location, moreover, can be seen as part of a strategy, meaning that the region chosen by the MNE depends on the strategic role that the plant will play within the enterprise. The reasons that MNEs go abroad are numerous but can be classified into three main categories; securing natural resources, reducing costs and gaining access to foreign markets (Eden, 1991; More recently, Dunning added strategic asset-seeking investments as a separate category, Dunning & Lundan, 2008).

The locational decisions of an MNE as to where it should set up its plant depends on the nature of the investment, in other words, if it is resource-seeking, cost reduction, market access-seeking or strategic asset-seeking. The MNEs' locational structures depend on the strategy followed and can take various forms. In the case of resource-seeking, strategic investments plants can be either extractors (in which case they collect and secure raw materials), or processors, which turn raw materials into fabricated ones. In case of cost-reducing strategic investments, plants can be either offshores or source factories. The former make use of cheap local inputs, such as relatively low unit labour costs, to produce intermediate goods that are exported back to the MNE for further assembly. Source factories enable access to low-cost inputs and produce subcomponents that are sold to the parent firm for their usage in the production of the final goods. Although they are both used for sub-assembly, source factories have higher level of technological activity than offshores (Eden, 1991).

Affiliates that correspond to market access strategic investments can be importers, local servers, focused factories, or miniature replicas or lead factories or outposts, depending on their level of technological activity, with the last mentioned having the higher. Early Japanese investments in Europe were mainly importer factories. Local servers sell output to local markets and are used for the production of subcomponents for domestic sale. Focused factories specialise in mass production of one to maximum two lines of products to be sold in the domestic and open market. Miniature replicas are set up by the MNE for the production and sales of a full range

of products, being very similar to the parent firm. They constitute a strategy by MNEs to overcome host country trade barriers. The development of new technologies and products for global markets is a responsibility of lead factories, which are similar to the parent firm. Finally, outposts are Research and Development (R&D) intensive investments designed from the MNE to act as a window to technology in technology innovations and accumulate knowledge across nations (Eden, 1991).

Location-specific determinants of FDI can be divided into two categories, the hierarchical-related advantages and the alliance or network-related advantages. These may favour home or host countries (Dunning, 1995). The hierarchical-related Advantages include the spatial distribution of natural and created resource endowments and markets, input prices, quality and productivity, such as labour, energy, materials, components and semi-finished goods, international transport and communication costs, investment incentives and disincentives (including performance requirements, etc.), and artificial barriers, for example, import controls to trade. Moreover, societal and infrastructure provisions (commercial, legal, educational, transport, and communication), cross-country ideological, language, cultural, business, political, etc. differences, economies of centralization of R&D production and marketing and finally, the economic system and policies of government, particularly the institutional framework of production and resource allocation.

Network-related advantages and advantages of agglomeration arise essentially from the presence of a portfolio of immobile local complementary assets, which, when organized within a framework of alliances and networks, produce a stimulating and productive industrial atmosphere. The extent and type of industrial districts, science parks and the external economies they offer to participating firms, are examples of these agglomeration advantages. Over time, these may allow foreign affiliates and cross-border alliances and network relationships to better tap into, and exploit, the comparative technological and organizational advantages of host countries. Networks may also help reduce any information asymmetries and the likelihood of opportunism in imperfect markets. They may also help create local institutional thickness, 'intelligent regions' and social embeddedness (Amin & Thrift, 1994;

Dunning, 1995, p. 476; Driffield & Munday, 2000; von Tunzelmann et al, 2010).

It is also possible to classify the location-specific determinants of FDI into supply-side and demand-side ones (or factor-oriented and market-oriented variables, respectively). The main supply-side variables are the labour costs, capital costs, and tax rates while the demand-side variables include mainly the market size and its rate of growth (Head & Mayer, 2003).

FDI has the potential to affect economic performance through multiple channels, such as capital formation, increases in employment and productivity, technology transfer and spill-overs, human capital (skills and knowledge) enhancement, and increase exports and the long-term economic performance of countries (Ozturk, 2007). More than ever before, countries at all levels of development seek to leverage FDI for development (UNCTAD, 2006). Despite a recent dramatic decline, as a result of the recent crisis (Clarke, 2010), FDI, as well as migrant remittances, are the largest sources of external finance for developing countries (UNCTAD, 2009). In 2008, developing countries´ inward stock of FDI accounted for about one-third of their GDP, compared with just 10% in 1980. Notably, one-third of global trade is intra-firm trade (UNCTAD, 2006).

2.2.2 Existing empirical evidence

The potential impact of FDI on the host countries is very important for policy-makers, who wish to know whether to try to attract FDI or not, and if so, what type of FDI, as well as the relationship between FDI and trade, for example, exports. In this context, Gast & Herrmann (2008) focused on the identification of the factors that led to the worldwide increase of FDI during the 1990s and also, they addressed the question whether these determinants influenced exports in a different way. They used data from 22 OECD countries. They estimated gravity models for bilateral FDI stocks/flows and exports, first in a cross-section setting for 1999 and then as a panel data set for the period 1991 – 2001. Analysing the panel results, they found that a change in total market size is an important characteristic that leads both FDI and exports in the same direction. Relative market size affects only exports significantly. In addition, stock market booms boost FDI but not exports. Their political indicators

and exchange rate changes suggested that exports are demand-driven, whereas FDI is supply-driven. They concluded that 'FDI and exports tended to flow relatively less abundantly to distant countries than to nearby countries over the period under consideration. This supports the idea of a complementary relationship between investment and trade' (Gast & Herrmann, 2008, p. 1).

Markusen & Venables (1999) examined two ways through which FDI might affect host countries through its effects on local firms in the same industry; product market competition and linkage effects. The former constitutes the channel through which MNEs can substitute for domestic firms and the latter is the channel through which MNEs can be complementary. They showed that it is possible for FDI to act as a catalyst, leading to the development of the local industry, which may in turn become strong enough, so as to reduce both the relative and absolute position of MNEs in the industry. They supported their claims with the case study literature from South East Asian economies. Furthermore, they argued that competition in the product and factor markets will lead to reduced profits of local firms, which, however, can be substituted through the linkage effects to supplier industries that may decrease input costs and this way raise profits. They established circumstances in which FDI is complementary to local industries and they illustrated how FDI might lead to the establishment of local industrial sectors. They pointed that such sectors may develop to the extent that local production overtakes and forces out FDI plants. They also claimed that their results were consistent with experience.

Li & Liu (2005) conducted a panel investigation of 84 countries, both developed and less developed ones, during the period 1970 – 1999 to examine the effects of FDI on economic growth. They found that there is a strong correlation between FDI and economic growth from the mid 1980s onwards. They argued that FDI not only promotes economic growth directly, but also does so indirectly, through its interaction with human capital. However, they also highlighted a significant negative correlation between the interaction of FDI with the 'technology gap' and economic growth. From their empirical analysis, they concluded that inward FDI is attracted to recipient countries with a large market size. Additionally, they highlighted the importance of human capital and 'technology-absorptive' capabilities in promoting economic growth in less developed countries. On this basis, they derived policy

implications that involve the promotion of human capital and technological capabilities, which will lead to increased FDI inflows and in turn to further economic growth and enhanced competitiveness (Li & Liu, 2005).

Busse & Groizard (2006) explored the linkage between income growth rates and FDI inflows. They argued that countries need a sound business environment in the form of good state regulations to be able to benefit from FDI. Using a comprehensive data set for regulations, they tested this hypothesis and found indications that excessive regulations can constrain the economic growth that FDI can generate. They concluded that 'Any attempts by government to attract capital in the form of FDI by offering special tax breaks are not likely to yield the expected beneficial effects if the regulatory quality is rather low. In addition to increasing educational attainment levels and boosting the regulatory quality and liquidity of financial markets, host countries have to reform their fundamental framework for regulations' (Busse & Groizard, 2006).

Ozturk (2007) conducted an extensive review of the literature of the effects of FDI on growth. He characterized the overall evidence as mixed with regard to the importance of labour costs, openness, investment climate, developed vs. developing countries and fiscal incentives. However, he concluded that 'free trade zones, trade regime, the human capital base in the host country, financial market regulations, banking system, infrastructure quality, tax incentives, market size, regional integration arrangements, and economic/political stability' are very important determinants for FDI that create a positive impact on the overall economic growth (Ozturk, 2007, p. 79). More recently, Ghosh & Wang (2010), also find moderate positive impact of FDI (both inward and outward) on economic growth, in a study of OECD countries. The authors point to a dearth of literature that focuses explicitly on DCs.

Even within a particular group of countries, such as DCs, it is possible that the degree of economic development and/or other factors, such as their geography/ location, influence the determinants of FDI. Mold (2003) conducted an econometric analysis with a sample of developed European countries, which grouped into 'core' ones (Belgium, Denmark, France, Germany, Italy, Luxembourg, the Netherlands, and UK) and 'peripheral' ones (Greece, Ireland, Portugal, and Spain), and examined

the FDI outflows of the USA manufacturing affiliates into the aforementioned countries. He observed that only market growth potential and exchange rate variability were significant, followed by the relative unit labour costs. He concluded that factor-related characteristics, such as the local cost of capital, did not seem to influence the locational choices of US MNEs but rather the market-related variables play the primary role. Moreover, his study showed that the growth rate of real FDI inflows was much higher in the peripheral countries than in the European centre (63 vs. 31%). He claimed that this could be a result of European Union's investments in infrastructure and market liberalisation in the transport sector, thus a reduction in transaction costs within its borders. Moreover, in per capita terms, smallest European countries, such as Luxembourg, attracted higher levels of US FDI in the manufacturing sector.

Wheeler & Mody (1992) examined three variables-previous investment, infra-structure, and the level of industrialization-and found them all to be significant and positive. Woodward (1992) supported these results with an econometric analysis showing that Japan's outward FDI was drawn to regions with high present manufacturing activity.

Further studies suggest that tax rates may be significant for attracting FDI by MNEs. Although the relationship between FDI and interest rates is not clear, in principle, if the host country has relatively higher interest rates this will deter firms from investing in expansions of local capital markets and this may subsequently lead to an increase in FDI. On the other hand, if the host country has much higher interest rates than the international market (an implication of an unstable economy), this will reduce FDI (Mold, 2003). Culem (1988) estimated a model of US FDI in the then EEC, and found that higher interest rates in the host country may attract FDI inflows. Bénassy-Quéré et al (2001) who examined separately nominal and effective tax rates found a consistently significant and negative relationship between taxation and FDI inflows, irrespectively of the tax form.

Pye (1998) conducted a survey with a sample of 334 firms from the main European and North American countries in terms of investment into the Czech Republic, Romania, Slovakia, Poland, and Hungary between 1989 and 1996. He found that the leading driver in 34% of the sample was market size and its growth potential.

Further research suggests that 116 West European firms planning to operate in one of 16 Central and Eastern European Countries (CEECs) share as their primary motive the size of the market, with the exception of Hungary and Czech Republic, where political and economic stability were the dominant factors to attract investment flows (Lankes & Venables, 1997). Moreover, Poland's size and homogeneity of its market, and its relatively higher personal incomes seemed to be the major factors attracting FDI. The latter applies for the Czech Republic and Hungary, which along with Poland have the highest personal incomes in the district. Additionally, Altzinger (1999) found that among 150 Austrian firms investing in CEECs, those specializing in finance and insurance, food and beverages, and construction considered market potential to be the most significant factor. Meyer (1996) examined 267 British and German companies that invest primarily in Hungary, which mainly emphasized on the purchasing power of the consumers. Also, the market size in terms of population size that could be a way to proxy the expected market growth seemed to be the most important factor for attracting FDI. Market size and growth were the primary motive for market-oriented MNEs.

Factor costs seem to be important as well. Pye (1998) found that financial efficiency factors account for 10% of the secondary determinants for enterprises. In the Czech Republic and Slovakia labour cost advantages were the primary motives for investors although elsewhere market potential seemed to be the leading factor. Lankes & Venables (1997) indicated that production costs and cheap qualified labour are of high significance for export-oriented enterprises. In addition they showed that transport costs are significant for heavy industry. Factor costs were proved to be important in Poland too, especially in earlier years. Furthermore, according to Altzinger (1999), Austrian firms view lower unit labour costs as an advantage, especially in the engineering sector where it seems to be the most significant one, but of almost inexistent one in the financial and insurance industrial sectors. Meyer (1996) observed that a skilled labour force is the leading factor for attracting FDI in Hungary, particularly for assemblers and domestic supply oriented exporters. This does not seem to be the case for non-exporters. More recent evidence on the determinants of locational choices by MNEs is summarised by Boudier-Bensebaa (2005). On balance, it confirms earlier findings discussed above.

Despite extensive research on the determinants of FDI, there is limited research that focuses on DCs and no research that tests for the impact of the same set of determinants between different types of DCs, such as European and non-European countries of the OECD. There are various reasons why there could be important differences, not least because of the existence of regional blocks, such as the EU, the role of location and geography, and the proximity of the EU countries to the newly emergent countries of Central and Eastern Europe. In this context, it appears worth separating European from non-European developed OECD countries and test for the respective impact of the same set of explanatory variables.

In addition, theoretical models usually come-up with genres of FDI determinants, which could be proxied by different variables. This raises the question whether different proxies lead to the same results. Here we employ different proxies for supply-side and demand-side variables to explore whether and how do they impact on FDI. Last but not least, we pay particular attention to the role of TFP in attracting FDI in DCs. Although there is substantial literature on the impact of FDI on productivity (Driffield & Love, 2007), the impact of TFP in attracting FDI is less explored (Driffield & Munday, 2000). This is a limitation, given the theoretical importance of TFP in general, and the fact that high TFP may be capturing also agglomeration and other locational efficiency-promoting advantages and the overall strength of an economy.

2.3 Model, Data, Estimated Equation, and Econometric Results

2.3.1 The model

Head & Mayer (2003) developed a mathematical model to examine the profitability of a location to a prospective investment company. Their model is attractive in that it accounts for both demand and supply-side factors, hence our selection of it as a basis. Note, however, that other models come up with similar predictions, so our results are more representative, see Faeth (2009) for a recent summary of the empirical evidence, which also points to this conclusion. In fact, many studies do not employ a formal model at all.

Head and Mayer's approach consists of deriving first the demand equation for consumers, firms, and individuals, as follows: $q_{ij} = (p_{ij}^{-\sigma} / \Sigma_{r=1}^{R} n_r p_{rj}^{1-\sigma})*E_j$, where Er, represents the expenditures in a specific industry in region r. Consumers allocate their expenditures in variations of the product in the specified industry. The authors assume that both firms and individuals have constant elasticity of substitution sub-utility functions for each industry and maximise it subject to expenditure Er and the delivered prices from all possible product origins. Consumers face the delivered price Pij in region j, the host destination, for products from region i, the home country. On this basis, they derive the profit function in each destination region j for a firm producing in region i as $\pi_{ij} = (p_i - c_i) \tau_{ij} q_{ij} = \{(c_i \tau_i)^{1-\sigma} /\sigma G_j\}*E_j$. After mathematical manipulations, including the subtraction of the fixed costs and the inclusion of Mr, the 'Krugman market potential' (Mr) (Krugman, 1992), they obtain $U_r = \{\ln\sigma + \ln (\Pi_r + F)\} / \sigma\text{-1} = - \ln c_r + (\sigma - 1)^{-1} \ln M_r$. This 'expresses the profitability for a firm of locating in region r as a very simple function that is decreasing in production costs and increasing in the Krugman market potential term' (Head & Mayer 2003, p. 6). Finally, by using labour at cost wr, 'other inputs' like land and intermediates at cost vr, a as labour's share and Ar, which represents total factor productivity (TFP) they conclude in the following function.

$U_r = -a \ln w_r + (\sigma\text{-1})^{-1} \ln M_r - (1 - a) \ln v_r + \ln A_r$ **(Equation 2.1)**

For their econometric analysis, the authors employ the estimated equation $U_r = V_s + W_r + \xi_r$, where Vs denotes the nation-state variables, independent across nations, Wr the region-state variables, and jr the remaining non-observable random variation. Hence, Vs includes national policies, such as corporate tax rates, Wr includes wages and market potential, and jr is a random term that acts as a shock to ln Ar that is specific to firm-region pairs.

In what follows, we use this model as a basis, but test it for two sets of OECD countries, EU and non-EU. We include different proxies for demand and supply-side-related factors, in order to test for any differences of their impact on FDI. We also test the model with or without aggregate productivity as an independent variable for reasons explained below.

2.3.2 Our data

We use panel data, 'cross-sectional time-series'. Our data set covers 17 developed OECD countries (Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Netherlands, Portugal, Spain, Sweden, UK, and USA) for the period 1972 – 2000. The choice of countries and period was determined by data availability. There are 13 European countries and four non-EU member countries. The total number of observations is 493 and the panel variable is strongly balanced. We use six variables, FDI inflows (FDIIN) (dependent variable), GDP per capita (GDPPC), real unit labour cost (RULC), firms' gross operating surplus (profits) (GOS), TFP, the gap between actual and trend GDP (Y-Ytrend)/Ytrend (GAP), and corporate tax rate (TAX). These are described in Table 2-1. From these variables GDPPC and GAP are proxies for the demand-side variables, and GOS and TFP for the supply-side (see below). TFP stands as a proxy for the overall strength of the domestic economy, including its innovation system and agglomeration effects (Porter, 1990; Krugman, 1994). TAX aims to capture specific tax policies by countries that aim to attract FDI.

2.3.3 Our estimated equation

The estimated equation in its general form is as follows: $FDI_{it} = a_0 + a_1 GDPPC_{it} + a_2 RULC_{it} + a_3 TFP_{it} + a_4 GAP_{it} + a_5 GOS_{it} + a_6 TAX_{it} + u_{it}$ where i refers to the 17 host countries of the OECD to the period 1972 – 2000 and u is the error term, which is assumed to satisfy the usual conditions. GDP per capita is the gross domestic product divided by the population and captures the effect of market size and consumer demand on the investment decision. GOS is the gross output minus total costs, more specifically, the gross operating surplus adjusted for imputed compensation of the self-employed. It depicts the economy's aggregate surplus-profits and can be seen as a proxy for the country's business environment and performance. TFP can be seen as a proxy for the overall efficiency of the economy. It can also be seen as a proxy to agglomerations, which may result in external economies that reduce unit costs and increase productivity. The second variable, RULC, captures the differences in factor costs, in particular, the relative unit labour

costs, in the different countries examined. The variable GAP represents the gap between actual and the trend GDP as a percentage of trend GDP. It is used to capture 'Krugman's market potential'. Finally, TAX depicts the highest corporate tax rate in each country.

Table 2-1 Variables Contained in the Dataset

Variables	Description	Source
FDIIN	Foreign direct investment inflows (US dollars)	UNCTAD (undated)
GDPPC	GDP per capita (constant 1995 US dollars)	AMECO (2005)
RULC	Real unit labour cost index: total economy (1995 = 100)	AMECO (2005)
GOS	Gross operating surplus adjusted for imputed compensation of self-employed: total economy (millions of 1995 US dollars)	AMECO (2005)
TFP	Total factor productivity	AMECO (2005)
GAP	Gap between actual and trend GDP at 1995 market price as percentage of trend GDP. (Y-Ytrend)/ Ytrend	AMECO (2005)
TAX	Highest Corporate tax rate	World Tax Database University of Michigan

2.3.4 Method and Results

In our regression analysis, we use random and fixed effects models. The reason for this is that the variables are not independent of the error term and by using the ordinary least squares model, we would have biased estimates. By fitting the fixed-effect or random-effect model, the fixed or random individual differences can be controlled. Fixed effects regression is the model to use in order to control for omitted variables that differ between cases but are constant over time. It gives the option to use the changes in the variables over time to estimate the effects of the independent variables on the dependent variable, and is the primary technique used for analysis of panel data. This way dummy variables are generated for each of the cases (in this analysis the countries) and by including them in a standard linear regression, we can control these fixed 'case effects', see Data and Statistical Services (DSS) (undated). It is appropriate for this analysis as there are relatively fewer cases and more time

periods, 17 countries compared with 29 year period of time (as each dummy variable removes one degree of freedom from our model). In case some omitted variables are constant over time but vary between cases, and others are fixed between cases but vary over time, then we can include both types by using random effects. Stata's random-effects estimator is a weighted average of fixed and between effects. The way to choose between fixed and random effects is by running a Hausman test. Statistically, fixed effects always give consistent results but random effects give better P values, as they are a more efficient estimator. The Hausman test checks a more efficient model against a less efficient but consistent model to ensure that the more efficient model will also give consistent results (DSS, undated). Therefore, it is used to decide whether we should use the random or fixed-effects model.

Overall, we ran three regressions for all OECD countries, three for European countries and three for non-European countries (Tables 2-2 – 2-4). We used the logarithmic values of the variables, as the aforementioned model suggests. The results obtained for all OECD countries using the random effects model as the Hausman test suggested (P ¼ 0.1663), show that only the lnTFP was significant at the 1% level. The least significant variable was GAP. In the case of Europe, the Hausman test was significant with P value equal to 0.0335, at 5%, and thus, we used the fixed effects model. Both lnGDPPC and lnTFP were found significant at 5% level of significance. Finally, in the case of non-European countries, where we also used the fixed effects model (P ¼ 0.0383), lnTFP was found significant at 1% and lnGOS at the 5% one. Both in European and non-European countries GAP was the least significant factor.

For estimation, we used the 'general to specific' modelling (Charemza & Deadman, 1997). According to this procedure 'starting from a general dynamic statistical model, which captures the essential characteristics of the underlying data set, standard testing procedures are used to reduce its complexity by eliminating statistically insignificant variables and to check the validity of the reductions in order to ensure the congruency of the model. As the reduction process is inherently iterative, many reduction paths can be considered, which may lead to different terminal specifications. Encompassing is then used to test between these, usually non-nested, specifications, and only models, which survive the encompassing step,

Table 2-2 Coefficients and P Values for all OECD Countries

lnfdiin|	Coef.	$P > |z|$
lngap1|	0.0452294	0.729
Lngdppc|	−0.9617021	0.351
lnrulc1|	−1.627661	0.708
lntfp|	12.97459	0.000
lngos1|	0.2224283	0.388
lntax|	−0.8566307	0.327
_cons|	−32.22295	0.325
lngdppc|	−1.006227	0.294
lnrulc1|	−1.507609	0.724
lntfp|	12.97932	0.000
lngos1|	0.2444934	0.305
lntax|	−0.8298365	0.332
_cons|	−32.56863	0.310
lnfdiin|	Coef.	$P > |t|$
lngdppc|	8.342187	0.000
lnrulc1|	−8.9352	0.032
lngos1|	−2.648698	0.060
lntax|	−2.329601	0.004
_cons|	−11.03671	0.712

are kept for further consideration. If more than one model survives the "testimation" process, it becomes the new general model, and the specification process is re-applied to it' (Krolzig & Hendry, 1999, p. 1). In this case, we first eliminated the lnGAP variable, which was the least significant. Using the same model for each group, respectively, in the general regression, lnTFP remained the most significant determinant at 1% level of significance. In the case of Europe, lnGDPPC and lnTFP remained significant with minor changes in their P values and lnTFP and lnGOS for non-European countries.

In the last category of regressions, we excluded TFP, as this is strongly correlated with unit labour costs (TFP increases when unit labour costs decrease), but also because of its potentially unique importance as an overall measure of the health of an economy. The results obtained using the same model led to lnGDPPC being significant at 1%, lnTAX negative and significant at 1%, lnRULC negative and significant at 5%, and lnGOS negative and significant at 10% for all OECD countries. For European countries, lnRULC was significant at 5% and all other variables were significant at 1% with P values equal to 0.000 and for non-European

countries, lnRULC and lnGOS were significant at 5% and lnGDPPC and lnTAX at 1%.

Table 2-3 Coefficients and P Values for Europe

lnfdiin|	Coef.	$P > |t|$
lngap1|	−0.2007114	0.572
lngdppc|	34.96531	0.013
lnrulc1|	16.40516	0.368
lntfp|	−58.74093	0.034
lngos1|	3.150075	0.634
lntax|	−0.1730125	0.969
_cons|	−172.9521	0.211
lngdppc|	31.52518	0.017
lnrulc1|	21.91331	0.195
lntfp|	−57.70971	0.029
lngos1|	5.201979	0.397
lntax|	−0.9241214	0.830
_cons|	−178.6053	0.180
lnfdiin|	Coef.	$P > |z|$
lngdppc|	−12.2488	0.000
lnrulc1|	−23.93084	0.016
lngos1|	1.800828	0.000
lntax|	−12.29617	0.000
_cons|	276.3697	0.000

Our results show that once the impact of supply-side factors such as TFP is considered, demand-side considerations become unimportant for developed countries as a whole. This seems to be consistent with the idea that in developed countries, it is the overall efficiency-productivity of the economy, as captured by TFP that matters the most. In turn, this is because such countries are nearer the productivity frontier, so they can attract FDI if they manage to keep moving further up the value chain. This is in line with and supports arguments by Krugman (1991, 1994), on the critical role of TFP, see Arvanitidis et al (2010). This overall result, however, seems to hide differences between the two types of countries. Although in European countries, both TFP (supply-side) and GDPPC (demand-side) factors were significant, in non-European countries only supply-side factors were significant (TFP and GOS). A reason for this can be that in more mature DCs, maintaining a high level of demand is more important than in non-European DCs, where

profitability instead is critical for investment and catching-up (Pitelis & Vasilaros, 2010).

Table 2-4 Coefficients and P Values for Non-European OECD Countries

lnfdiin|	Coef.	$P > |t|$
lngap1|	0.0840974	0.558
lngdppc|	1.918122	0.571
lnrulc1|	−4.595563	0.347
lntfp|	15.82113	0.010
lngos1|	−3.293685	0.028
lntax|	−0.9995903	0.282
_cons|	−41.04894	0.235
lngdppc|	2.374869	0.466
lnrulc1|	−4.53192	0.344
lntfp|	15.66903	0.010
lngos1|	−3.394708	0.018
lntax|	−0.9849291	0.279
_cons|	−44.65345	0.183
lnfdiin|	Coef.	$P > |t|$
lngdppc|	8.749839	0.000
lnrulc1|	−10.44642	0.015
lngos1|	−2.835531	0.048
lntax|	−2.161201	0.007
_cons|	−8.182241	0.790

2.4 Conclusions, Limitations and Policy Implications

We analysed the determinants of FDI in developed OECD, European, and non-European countries. Following a discussion of the theoretical foundations, we examined a model which highlights some rather generic determinants of FDI, and used different measures as proxies for the supply and demand-side factors proposed by the model. Our results highlighted the critical role of TFP as a determinant of FDI in developed countries. We also identified some differences between European and non-European developed countries, as well as factors other than TFP that influence FDI in these groups of countries. Our results are novel and add value in three ways. First, because we focus on DCs and also groups of countries within DCs. Second, because we employ and test for different proxies of some generic demand and supply-side variables. Third, because we employ TFP as a determinant of FDI and

identify its overriding importance, as suggested by the theoretical literature, but had so far remained under-explored.

In terms of limitations, we have not been able to test for the now popular role of institutional factors and include control variables, such as country size. This is in part because these variables were not part of the model, which is a limitation nonetheless. In this context, and in terms of policy implications, it transpires from our results that DCs interested in attracting FDI should focus on policies that improve the overall business climate, firm profitability and importantly the overall productivity of the economy. In particular, TFP is the most important variable that attracts FDI in DCs. Tax policies and demand issues seem to be of lesser importance in DCs as a whole, whereas demand considerations are more important in the more mature European economies.

Appendix 2-1 The Determinants of FDI and the Role of Cultural Factors

The aim of this Appendix is to test whether our previous, already published, results can be replicated with a novel and more comprehensive dataset, as well as to extend the analysis by adding the potential determining role of cultural environment on FDI. As noted, the additional reason for doing so is for better comparability with our subsequent chapters on remittances, where cultural factors play an important role. For comparability with the results of the previous sections and given data availability for our sample, we could not include institutional factors. On balance the new results are in line with and in support of, our earlier analysis and findings. In this sense our enhanced Chapter 2 serves as a solid basis and introduction to the remainder of the thesis.

Empirical Investigation

Sample and Data

We have collected data for 28 countries for the period 2000 to 2011. In addition to the variables which we already employed in Section 2.3.2, we also employed the

Hofstede cultural indicators (masculinity, individualism, power distance and uncertainty avoidance). These are fully defined in Chapter 3 and we don't repeat the definitions here to economise on space. We used primarily the AMECO dataset, as well as the Geert Hofstede Index for the national culture dimensions. For our statistical investigation we employed again a panel specification.

Model and Measures

As in the previous section we employ FDI inflows for our dependent variable. Our measure of aggregate productivity, GDP per capita, is total GDP divided by midyear population. We also employ an extensive list of proxies for our independent variables which we derived from Section 2.3.2 namely real unit labour cost, gross operating surplus and total tax rate. Lastly, we consider Hofstede's cultural dimensions, namely power distance, individualism, uncertainty avoidance and masculinity/femininity.

Regression Analysis

Therefore, our econometric equations form as follows:

$FDI_{it} = a_0 + a_1 GDPPC_{it} + a_2 RULC_{it} + a_3 GOS_{it} + a_4 TAX_{it} + a_5 \text{Cultural Dimensions}_{it} + a_6 z_{it} + u_{it}$ **(Equation 2.2)**

Results

Table 2-5 shows that FDI is determined by GDPPC, real unit labour cost and gross operating surplus. More specifically, we find FDI to be determined positively by GDPPC and GOS at 0.1 and ten percent levels of significance respectively. We report RULC to negatively impact on FDI at the ten percent level. Lastly, we do not detect statistical significance for our control variables, namely employment and inflation rates.

Concerning cultural dimensions, Table 2-5 shows that FDI is determined positively by individualism and uncertainty avoidance at five percent level of significance. These results are in line with earlier research on the determining role of the cultural environment in attracting FDI (Brouthers, 2013). However, this has not been examined in the context of remittances and we believe that this comes as a natural step after the analysis of FDI.

Concluding Remarks

In conclusion, our results confirm our earlier findings and highlight the importance of some cultural factors in determining FDI. In this context, this chapter sets the scene for the following analysis on remittances by establishing the potentially important role of cultural-country-specific characteristics in attracting capital flows.

Table 2-5 Regression Results - Determinants of FDI

Variable	Model 1: Panel OLS Regression, re Direct Effects
Dependent Variable:	**FDI**
Independent Variables:	
GDPPC	3.43*** (0.001)
Real Unit Labour Cost	-1.87* (0.061)
Gross Operating Surplus	1.78* (0.075)
Tax Rate	-0.93 (0.353)
Cultural Variables	
Masculinity/Femininity (Hofstede)	-0.00 (0.998)
Power Distance (Hofstede)	1.41 (0.160)
Uncertainty Avoidance (Hofstede)	2.30** (0.021)
Individualism (Hofstede)	2.60** (0.009)
Control Variables	
Inflation Rates	0.01 (0.994)
Employment	1.12 (0.265)
Constant	-1.83* (0.067)

Notes: (1) standard errors are in parentheses, (2) *p<0.1; **p<0.05; ***p<0.001.

CHAPTER 3

Determinants of Remittances: the Role of Institutions, Culture and FDI

Abstract

This paper provides an analysis of the determinants of remittances. It contributes to the literature by examining two types of potential determinants of importance to International Business (IB) Scholarship that have been downplayed, or simply ignored in extant literature on remittances, namely institutional and cultural factors. In addition, we cross fertilise IB and development economics, by incorporating FDI as a determinant of remittances. Our conceptual framework and results suggest that the institutional environment and cultural factors can account for differences in the amounts of funds remitted. In addition we find evidence for a positive impact of FDI on remittances. These are novel findings with important implications for public policy and managerial practice.

3.1 Introduction

In recent years remittances by migrant workers have increased dramatically (Orozco, 2012). This and the potential advantages of remittances vis-à-vis other types of capital flows such as Foreign Direct Investment (FDI), have led to a growing number of studies on their economic impact on poverty, inequality, growth, education, infant mortality and entrepreneurship. Remittances has been argued to have the potential to foster economic development through stimulating economic activity, providing access to financial services and consumer goods, therefore boosting demand, improving schooling for children etc. (Lucas and Stark, 1985). Various scholarly studies and international organisations went as far as considering remittances a new development mantra (Kapur, 2004); others are more sceptical, identifying positive and negative effects (Yang, 2011).

Remittances are defined as transfers of income-funds from migrant workers to recipients in their countries of origin. Data on remittances is constructed as the sum of three items in the IMF's Balance of Payment Statistics Yearbook (BOPSY): "workers' remittances", which are current transfers made by migrants who live and work in another economy, "compensation of employees", which includes wages, salaries and other benefits earned by migrant workers for work performed for the residents of the foreign country, and lastly, "migrant transfers", which are financial items that arise during the migration process of an individual, from one economy to another (IMF, 1993). According to the International Fund for Agricultural Development, in 2005 150 million migrants worldwide sent more than US$300 billion to their families in developing countries. Remittances have been a crucial means of financial support to their recipients. A fair part of these flows have historically been 'hidden' and often uncounted. Important reasons for that are the relatively small amounts of money usually remitted each time and the fact that these are most often sent outside of the formal financial system, such as banks. The more we find out and the better understanding we obtain, the more apparent their importance becomes for the appreciation of globalisation, the global economy and the political economy of development.

In contrast to FDI, there has been limited work on the determinants and role of this

important capital flow and hence potential determinant of economic performance and development. As the size of remittances is very high, (they are second only to FDI) and they seem to be disproportionately high as a percentage of gross domestic product (GDP) in smaller countries, for example Moldova, Albania etc. (Aggarwal et al, 2011; Yang, 2011), the lack of analysis-evidence on their determinants and role seems unsatisfactory. In particular, it would be interesting to explore what determines migrants' decisions to remit and the factors that affect the size of remittance flows, as well as their impact on economic performance. This could provide useful insight as to the type of public policies that can foster the impact of remittances on development. The aim of this chapter is to focus on the determinants of remittances. In particular, we review the current state of literature, provide a fuller analysis of the determinants of remittance flows than hitherto available, complement existing gaps and provide fresh evidence on this issue.

Despite several studies on the determinants of remittances, important potential factors, of relevance to International Business (IB) scholarship, have been under conceptualised and underexplored. This is particularly the case with regards to cultural and institutional factors. These factors are likely to be important in the case of remittances, given that, unlike FDI, remittances are less motivated by self interest-profit-seeking motives. Hence, it is also possible that by failing to consider these factors, earlier studies have been underspecified. In this context our study goes beyond earlier work, both in terms of identifying and analysing the role of culture and institutions, and in terms of providing more reliable results. This is strengthened by the fact that we have created and employed what is arguably the most comprehensive data set available.

In the next section, we present the conceptual background of the determinants of remittances and summarise existing findings. Following this, we proceed with developing a novel conceptual framework. This is followed by an empirical investigation. We employ a large sample of countries both developed and developing. We undertake a panel data investigation that tests for the determinants of remittances, and we conclude with a summary, limitations and policy implications.

3.2 Conceptual Background on the Determinants of Remittances

The determinants of remittances in extant literature are usually distinguished between microeconomic (those referring to individual motivations) and macroeconomic (those determined by the overall macroeconomic environment). Below, we first examine these two types separately and then point to some commonalities.

3.2.1 Microeconomic Determinants of Remittances

Extant literature identifies six distinct microeconomic motives of remittances; altruism, exchange, inheritance, a strategic motive, insurance and investment. We discuss these below. These motives share many predictions and hence, it is almost impossible to test for all these independently, especially due to the inadequacy of existing data and reliable proxies (Rapoport and Docquier, 2005). However, various models were developed that tried to determine the respective importance of the various motives of remittances. In this sub-section we focus on the most influential micro-economic studies.

One of the first and most prominent models for analysing remittances of migrant workers at the micro-economic level, and one that triggered the theoretical debate on what determines remittances, was developed by Lucas and Stark (1985). The authors suggested that the motivation to remit is driven by both egoistic and altruistic reasons. The latter mostly refer to remitting for reasons related to caring for those left behind (Becker, 1974). This basically implies the existence of a negative relationship between the income of the recipient and the amount of remittances. This is because the richer the recipient becomes, the less additional income he or she requires, hence receives.

On the other hand, the self-interest motive includes the aspiration to an inheritance, the desire to have a trustworthy family to channel one's investments, the desire to retain the prospect of returning back home with dignity, and the possibility of building a trusted network of potential business collaborators. Based on a 'repayment hypothesis' (that is that remittances can be seen as somehow being re-paid to the

family for initial investments on the migrant's education or migrating costs), it was concluded that remitting can be seen as a combination of 'tempered altruism' and 'enlightened self-interest', which encourages such arrangements for the mutual advantage of the family. Based on this hypothesis, in a study on Botswana, remittances were found to have a risk-spreading effect between urban and rural populations and lead to increased investment to education (Lucas and Stark, 1985).

More recent efforts to test the altruistic versus self-interest hypotheses with respect to remittances at the micro-economic level include testing for the effects of risk pooling among altruistic versus selfish agents and the role of informal loans between the migrant and the extended family (Foster and Rosenzweig, 2001; Ilahi and Jafarey, 1999). The effect of multiple migrants on the level of remittances has also been examined suggesting the importance of altruism as an incentive to remit (Aggarwal and Horowitz, 2002). More specifically, it was argued that under pure insurance or self-interest motives, the number of other migrants in the family should not affect the amount of per-migrant remittances. However, under altruism, the presence of other remitting migrants will decrease the average volume of remittances. Using data for Guyana, evidence for the presence of altruism was reported (Aggarwal and Horowitz, 2002).

Other studies have incorporated in their models risk-sharing motives. In this case, remittances allow risk-averse households to diversify their income sources and, hence, minimize the adverse effects of income shocks (Stark, 1991; Gubert, 2002). It has also been argued that migrants are likely to behave as risk-averse economic agents and acquire insurance in the face of economic uncertainty (Amuedo-Dorantes and Pozo, 2004). In this context, remittances can be considered as a payment to insure against risky income outcomes in the recipient region or country. Based on data for Mexican migrants in the USA, it was reported that income risk proxies (e.g. being an illegal immigrant or not having social networks within the USA), are associated with a higher propensity to remit and with a higher volume of remittances (ibid, 2004).

Remittances have also been treated as both a consumption transfer to households and as an alternative saving mechanism for migrants (Quinn, 2005). This approach assumes that the migrant's remittance/saving behaviour is affected by the relative rate

of return on their savings and on the savings of the remittance-receiving household. Using data on Mexican workers in the USA, it was found that migrants remit more and save less when the remittance-receiving household's rate of return on savings increases (or the migrant's return falls). These findings suggested that an improved access to savings and investment mechanisms for recipient households in the home country might increase remittance inflows from migrants (ibid, 2005).

Another model developed to explain remittances suggested that these private transfers represented payments for services rendered (Bernheim et al, 1985; Cox, 1987). In this model, an increase in the sender's income would lead to a higher probability of transfers, as well as larger payments, because the sender is willing to pay more for the services provided by the recipient. However, if the recipient's income rises, the opportunity cost of providing the service would rise, and hence, the recipient is likely to require a higher price for the service provided. As a result, an increase in the recipient's income would reduce the probability of transfer. If the transfer did take place, then the amount of the transfer could rise, fall, or stay the same depending on the sender's elasticity of demand for the services of the recipient (Cox, 1987).

The empirical findings of a number of studies supported the existence of a positive relationship between the size of transfers and the recipient's pre-transfer income, which rejects the purely altruistic motive to remit (Cox, 1987; Cox and Rank, 1992; Cox et al, 1998). In addition, when using data for China, altruism alone could not explain the examined transfers. It was argued that in the case of China, where most of the financial flows seem to be transfers from adult children to their elderly parents, childcare was one of the main services that parents rendered to their children in exchange for money (Secondi, 1997).

Research on the skill composition of migrants has examined how the different types of workers who emigrate from their home country (e.g. educated or uneducated, skilled or unskilled), affect the level of remittances received by that country, suggesting that the skill composition of migrants does matter in remittance determination (Adams, 2007), more specifically, that countries which export a larger proportion of high-skilled educated migrants, receive less per capita remittances than countries which export a larger share of low-skilled migrants.

An empirical test of the determinants of remittances conducted using data for Vietnam, yielded a number of interesting findings including that the education of migrants has a significant positive effect on the level of remittances, which seems to be in line with the contractual arrangement described earlier (Lucas and Stark, 1985). Evidence in support was also reported for the co-insurance theory (Stark, 1991; Amuedo-Dorantes and Pozo, 2004), namely that having a family network at the destination increases the level of remittances (Niimi et al, 2008), Moreover, the sector of the enterprise where the migrant works, which they used to account for the security of the migrant's job, also had an impact on migrant remittance behaviour. Another key finding was that temporary migrants tended to remit more. This relationship however, became negative by the third year. In addition, no evidence was found in support for the argument that migrants act as risk-averse economic agents who send remittances as part of an insurance strategy in the face of economic uncertainty (Niimi et al, 2008).

A more general framework was constructed aiming to illustrate the micro-level variation in remittance flows (Carling, 2008). The model depicts the micro-level variations in remittance flows from both the sending and recipient side. It explores migrants' income and educational attainment, household income, family migration history, future migration plans, extended family recipients, number of remitters in household, geographical location and the 'remittance decay hypothesis' among others. The author suggested that the focus on altruism versus self-interest in the literature might have resulted in the diversion of attention from the explanation of the actual variation that is potentially more important for policy-making (Carling, 2008). Hence our focus in this thesis on the determinants of remittances.

Several other studies have found that future migration plans influence remittance behaviour. Temporary migrants, who intend to return to their country of origin, are more likely to remit, and remit larger amounts (Merkle and Zimmermann, 1992; Brown, 1997; Gubert, 2002; Cai, 2003). Some studies suggested that this effect is stronger when return is anticipated in the near future (Brown, 1997; Merkle and Zimmermann, 1992). The increase in remittances in preparation of return may depend on how remittances are actualised and measured. Investments in social capital through intra-family transfers may rise, as predicted by Lucas and Stark (1985), but personal

investments in housing, for instance, could be much more significant. Such transfers may or may not be captured by the term 'remittances' (Carling, 2008). In addition, it was argued that the stock of migrant workers in a host country is an important determinant of remittances, whereby the greater the volume of workers, the greater the volume of remittances. The study estimated that a doubling of the stock of migrants would lead to a 75 per cent increase in recorded remittances (Freund and Spatafora, 2005).

3.2.2 Macroeconomic Determinants of Remittances

The literature on the macroeconomic determinants of remittances is broadly centred on an altruistic motive to remit earnings to the migrant's source country (mostly for domestic consumption purposes), and a motive to remit either for investment, or to repay previously borrowed funds (Chami et al, 2005). In order to analyse the dynamics of remittances Gupta (2005) employed an 'optimising' framework "whereby a migrant maximizes her utility by choosing the optimal level of her own consumption, remittances to family in her native country for their consumption needs, and investment in various available instruments in the native country, as well as in the host country. Remittances to support family members at home would depend on the income of the migrants, and on the needs and income of the beneficiaries. Remittances for investment (in deposits, property, stocks etc.), would be influenced by risk-return considerations" (Gupta 2005, pp. 9). As noted, earlier research had used household level data to conduct a detailed case study in Botswana and concluded that "Certainly the most obvious motive for remitting is pure altruism-the care of a migrant for those left behind. Indeed, this appears to be the single notion underlying much of the remittances literature" (Lucas and Stark 1985, pp. 902). The analysis concluded that remittances are driven by altruism and intended to compensate their recipients for adverse economic situations (Chami et al, 2005).

A study by Elbadawi and Rocha (1992) divided the existing literature into two main categories: the 'endogenous migration' approach and the 'portfolio' approach. The 'endogenous migration' approach was based on the economics of the family, which mainly includes the motivations based on altruism. On the other hand, the portfolio

approach distinguishes between the decision to remit and the decision to migrate, this way avoiding issues of family ties. In this context, the migrant decides how to allocate savings from the earned income between host country assets and home country assets. Remittances are a result of deciding to invest in home country assets. Hence, the portfolio view supports the view that remittances behave like other capital flows.

Other suggested macroeconomic determinants of remittances include the income of the migrant, the economic conditions in the source country (remittances are likely to be higher during periods of low income in the recipient family), rate of return factors such as domestic interest rates, foreign interest rates, rates of return in the stock market or on property; and the risk of default, which could be proxied by domestic political uncertainty, geopolitical conditions, or rating downgrades (Gupta, 2005). Remittances to Turkey, for example, were found to be affected by temporary domestic political instability. In addition, it was also reported that remittances do not respond strongly to the incentives offered to migrants to remit, as well as the real rate of return of investment (Straubhaar, 1986).

More recent efforts have also incorporated the level of poverty in a country as a potential determinant of remittances (Adams, 2007). When migrants are motivated by altruism, then higher country-level poverty at home should encourage them to remit more funds. Hence, an analysis of how the level of poverty in a labour-sending country affects the level of international remittances inflows is of the essence. In this context, it was argued that an inverted U-shaped curve seems to exist between the level of per capita GDP income in a country and the inflows of remittances.

The evidence suggested that the level of per capita remittances received by a country increases until a country reaches a per capita GDP income of around $2,200 per year, and then starts to decline. It follows that middle-income countries are likely to be the top receivers of per capita remittances (Adams, 2007). An interesting finding on the relationship of poverty and remittances suggests that poverty levels can have a negative and significant impact on remittances sent by high-skilled migrants. This may be explained on the basis of the idea that remitters can be motivated by investment opportunities at home (ibid, 2007).

The empirical literature has employed a wide range of variables-proxies that could

determine remittances. These included movements in U.S. Employment (non-agricultural employment), the London Interbank Offered Rate (LIBOR), or oil prices (as proxies for the economic environment in the host countries), industrial growth, a dummy for drought years (defined as a year when the agricultural growth is negative), or rate of return on the Bombay Stock Exchange (BSE), agricultural or GDP growth rates and lagged values of the exchange rate depreciation among others (Gupta, 2005). However, remittance transfers were not found to be correlated significantly with most of the aforementioned variables with the exception of U.S. non-agricultural employment, suggesting that few of the aforementioned macroeconomic factors are important in explaining the behaviour of remittances overtime (Gupta, 2005).

The available evidence supports the idea that remittances vary counter-cyclically with variations in GDP per capita, which is consistent with the hypothesis that remittances can act as a buffer during economic shocks (Singh et al, 2009). Being pro-cyclical, remittances tend to decrease when exports fall and GDP growth slows. They also decline when the home investment and political climate worsens and do not seem to respond to adverse shocks at home. Moreover, depreciation of the home country's currency tends to reduce remittances, suggesting they may provide only limited insurance against balance of payment crises (Lueth and Ruiz-Arranz, 2007). The response of remittances to shocks in the source and recipient economies has also been used to examine the altruistic motives of remitting. Evidence suggests that remittances may also respond positively to boom periods in the host country and also, to recession periods in the home country, the latter being evidence for altruistic motivation (Coulibaly, 2009). In addition, research on Sri Lanka showed that remittances are positively correlated with oil prices, offering a hedge against oil shocks (Lueth and Arranz, 2007). Lastly, among the variables that have been found to be significantly associated with the movements in remittances, are indicators of economic activity in the source countries. In particular, remittances were higher when economic conditions abroad were benign, and were found to have a counter cyclical nature, that is being higher during periods of negative agriculture growth (Gupta, 2005).

As already noted, empirical studies on the macroeconomic determinants of remittances have employed data on numerous variables. Concerning dependent variables, remittance transfers, remittances per migrant person and remittances per

migrant worker are among the most prominent ones (Swamy, 1981; Elbadawi and Rocha, 1992; Lianos, 1997). The list of macroeconomic explanatory variables that have been examined as potential determinants of remittance levels include the real per capita income in host country (found to be positive and statistically significant) (Elbadawi and Rocha, 1992; Lianos, 1997; El-Sakka and McNabb, 1999), the number of migrants in the foreign country (positive and statistically significant) (Swamy, 1981; Elbadawi and Rocha, 1992; Lianos, 1997), the average length of stay of migrant (negative and statistically significant) (Elbadawi and Rocha, 1992), the domestic price level (negative and statistically significant) (Elbadawi and Rocha, 1992; El-Sakka and McNabb, 1999), the difference between the official and unofficial exchange rates (negative and statistically significant) (Swamy, 1981; Elbadawi and Rocha, 1992; El-Sakka and McNabb, 1999), the hourly industrial wage of foreign country (positive and significant) (Swamy, 1981; Lianos, 1997), the rate of unemployment in host country (negative and insignificant) (Lianos, 1997), the per capita domestic GDP (negative and insignificant) (Lianos, 1997; El-Sakka and McNabb, 1999), the hourly domestic industrial wage (negative and insignificant), the domestic price level (positive and significant), the exchange rate (negative and significant), the domestic interest rates (positive and significant) and lastly, the foreign interest rate (statistically insignificant) (Lianos, 1997). Moreover, the literature has concluded that remittances are deterred by overvalued exchange rates, as emigrants find it cheaper to send goods directly (Rajan and Subramanian, 2005).

Literature has also paid emphasis on the differential between home and host interest rates (Swamy, 1981; Coulibaly, 2009). This has been used as a proxy for 'self-interest' based motivations to remit. Evidence on annual data from 16 Latin and Caribbean countries supported self-interest motivation whereby remittances inflows increase in response to a rise on the interest rate differential between home and host countries (Coulibaly, 2009). Additional evidence suggests that the interest rate differential is negative and statistically significant (El-Sakka and McNabb, 1999). However, earlier research on the interest rate differential reported negative and statistically insignificant results (Swamy, 1981).

In addition to the above, inflation rates of the recipient country have been found to affect positively the flow of remittances, thereby suggesting that the latter increases in

the face of higher prices in the origin country, in order for the recipient households to maintain the same levels of consumption (El-Sakka and McNabb, 1999). In line with this argument, it had previously been acknowledged that altruism *alone* does not constitute an adequate explanation of the motivations to remit, implying that exchange, investment and inheritance can also share a part in the decision to remit (Lucas and Stark, 1985). In addition, it has been considered as a stylized fact that "a significant portion, and often the majority, of remitted funds are spent on consumption" (Chami et al 2005, pp. 8-9), but also that some (smaller) portion of remittances is used on investment, though usually in housing and land.

Due to the lack of extensive and reliable data on remittances, all the aforementioned papers have focused on a small, if not a single, set of countries, whose diaspora is concentrated in a known country, or small group of countries, in order to capture variables related to both workers' host and home countries. A few studies have analysed inward remittances for a large panel of countries, employed proxies for economic conditions in the host countries by global variables, such as oil prices, world output, and LIBOR (Gupta, 2005). However, both approaches have shortcomings. In the first group of studies, the results are difficult to generalise. In the second case the study relied extensively on proxies. This may be problematic, primarily due to the lack of data availability on bilateral flows. For example, LIBOR and world output may be poor proxies for investment opportunities and economic activity in the host countries, given that South-South remittance flows account for 30-45 percent of total remittances received by developing countries (World Bank, 2006).

Remittances have also been examined by estimating a gravity model (primarily used to explain international trade flows by explaining the trade flows between two countries as proportional to their respective GDPs and inversely proportional to the distance between them) using a data-set with bilateral remittance flows (Lueth and Ruiz-Arranz, 2007). The model included remittance data for 11 countries in Asia and Europe where the remittance receipts were broken down by country of origin for the period 1980-2004. The dataset consisted of about 200 country pairings and nearly 1650 observations. The study found that the gravity framework was powerful in explaining remittance flows. More specifically, it was reported that a few gravity variables such as partner countries' GDP, distance, common border, and common

language could account for more than 50 percent of the variation in remittance flows across time and countries. They also found a number of other significant variables in explaining remittance flows. Most importantly, trade linkages and colonial ties between home and host countries emerged as strong indicators of the propensity to remit.

Various other researchers have suggested that macroeconomic factors, such as interest rates, exchange rates and political instability, have an impact on the level of international remittances received by countries (El-Sakka & McNabb, 1999; Faini, 1994; Glytsos, 1997; Higgins et al, 2004). These authors concluded that interest and exchange rates have to be competitive in order to attract investment, and those countries need to be politically stable in order to encourage the flow of remittances to labour-sending countries.

In the above context, dummy variables for various macroeconomic proxies have been employed including for rating downgrades by leading credit rating agencies, for government resigning mid-term and for periods of geopolitical tensions on the border with Pakistan, for the Asian crisis period which coincided with the issuance of the Resurgent Indian Bond (RIB) yielding an attractive interest to Indians abroad, for the post-September 11 2001 period, (in order to reflect the effect of strengthening of regulations and a clampdown on hawala transactions - namely money transfers occurring in the absence of formal channels in the Middle East and South Asia, after September 11) have also been considered.

Recent efforts on the determinants of remittances have also incorporated data on the size of the diaspora (Singh et al, 2009). It has been suggested that the size and the location of the diaspora are important determinants of remittances, which are larger for countries with a larger diaspora, and when the diaspora is located in higher-income countries. Other studies have argued that after controlling for all the variables linked to income, education, age or nationality, subjective variables, such as to the home country, history and the institutional context of emigration, as well as those related to the attachment to the home country, played a determinant role in explaining remittance behaviour (Miotti et al, 2009).

Moreover, further analysis has suggested that low-education immigrants, who have

stayed in the host country for a long period of time, sent remittances in order to invest in their home country in activities other than housing. The latter appears to support the argument that the degree of the migrant's attachment to his country of origin acts as a discriminating subjective variable according to the historical conditions of migration (Miotti et al, 2009). In contrast, migrants from Sub-Saharan African countries remit primarily for current expenditures rather than for investment. Hence, the obligation feeling seems to be the primal subjective variable for remitting money (ibid, 2009).

Lastly, evidence on the case of Algerians suggested that those who immigrated before the 1990's had a higher likelihood to remit than those who immigrated more recently. The first-come migrants appeared to have stronger ties with their home country, which accounted for their tendency to remit more than those who had migrated more recently (Miotti et al, 2009). This points to the risk of erosion of these remittances since the new immigration waves, facing a restriction of migration flows and a strategy of lowering emigration costs, are processed by a self-selection effect of the most highly skilled (Defoort, 2007).

From the above we can conclude that the evidence on the motives to remit is mixed. In particular, a positive association between remittance receipts and the dependency ratio in the home country was reported, which would suggest that helping those at home, is an important motive, but there is also evidence that remittances are self-interest-profit driven. Higher inflation in the home country was also found to encourage remittances to compensate for the loss of purchasing power at home. However, remittances did not seem to respond to natural disasters and appeared to be positively aligned with the business cycle in the home country. This provides evidence in support of the investment motive. Evidence suggesting that remittances are sensitive to the investment and political climate in the home and host countries was also reported, again in support of the argument that investment decisions play an important role.

Based on such findings, some scholars have concluded that while remittances should be encouraged, they should not be seen as a panacea. It has been argued that remittances can yield important economic benefits to recipient countries, providing

financing and supporting consumption and investment, but they might be of limited value in absorbing shocks and reducing vulnerability to crises (Lueth and Ruiz-Arranz, 2007). In order for remittances to maximize their economic impact, policies should be directed at reducing transaction costs, promoting financial sector development, and improving the business climate.

Overall, theory and the available empirical evidence seem to support the idea of 'tempered altruism'. This has helped give credence to a rather pessimistic view of the role of remittances, to the effect that the latter are primarily driven by altruism and used for consumption and not for investment purposes. This seems to underplay the potential indirect role of remittances through various channels, including consumption. It also underpays the role of consumption in the determination of GDP. Despite the fact that consumption may have a relatively weaker impact on GDP than investment, it should be noted that the strong impacts that remitting has on poverty reduction is due to the counter-cyclical nature of remittances, enabling this way consumption smoothing for recipients. The more remittances assume the role of investment capital, the more sensitive they are likely to be to changes in the business environment or ups and downs in the economy (Ghosh, 2006). In other words, if the portion of remittances used for investment purposes increases, remittances may lose their counter-cyclical characteristic and start acting in line with the conventional investment patterns dictated by the business cycle - rising in boom periods and decreasing during slumps.

As already noted, the role of institutions has received limited attention. Some literature however on the role of financial institutions and intermediation, concluded that in countries with more advanced financial intermediaries, the income earnings of the poor improve more than those of the non-poor. This highlights the important role that financial intermediation may have in reducing income inequalities. In addition, underdeveloped financial sectors and current account restrictions in the home country may discourage remittances through official channels, as do dual exchange rates in the workers' host country (Lueth and Ruiz-Arranz, 2007).

In one of few studies that accounted for institutional factors, remittances appeared to be affected by some indicators for the quality of the institutional environment in the

country of origin (Singh et al, 2009). The role of institutions has also been examined in the developmental impact of remittances (Catrinescu et al, 2009).

On the basis of the above, we can conclude that there exist two major competing views - the altruism-related motives and the investment-portfolio-related ones. On balance both the theory and the evidence appear to be inconclusive. One reason for this is that the determinant of remittances may be specific to institutional, but also cultural factors. As noted cultural factors are very important in IB, but have been totally ignored in extant literature on remittances. This is an important limitation that our thesis aims to rectify. Cultural factors are likely to be important exactly because, unlike FDI, remittances are less motivated by rational profit-seeking considerations. In this context, the consideration of cultural and institutional factors is likely both to improve the specification of the estimated relationships and help explain how these factors impact on the decision to remit.

Another important limitation is that FDI has not been included as a determinant of remittances. FDI, like domestic investment, is an important proxy for a country's business climate. Hence, it could well impact on any portfolio-related motives to remit. Hence, adding FDI, institutional and cultural variables could help derive more reliable results than hitherto available.

In what follows we first propose a novel conceptual framework that incorporates institutional and cultural considerations, and go on to test it with a more comprehensive than hitherto available data set, in a way that addresses a number of limitations from extant, while simultaneously breaking new ground. In terms of method, we employ all available theory-informed determinants from extant literature as control variables, and focus on our own contribution, which is the role of FDI, cultural and institutional determinants. We also adopt a panel data 'general to specific' investigation.

3.3 Conceptual Framework and Hypotheses Development

As already noted a limitation of the literature so far, is that it underplays the role of

FDI and institutional factors and does not consider at all cultural factors. These are very important in International Business (IB) literature and could be an important determinant of remittances. For example attitudes to family, respect of elders etc. could motivate-moderate remittance flows. As noted, FDI by multinational enterprises (MNEs), could also be a determinant of remittances, as FDI provides opportunities for investment of remitted funds, for example in activities that support those where FDI has taken place. In addition FDI is a good proxy of a healthy or attractive business environment in the host country, or what IB literature calls country specific advantages (CSAs). Depending on the motives to remit, this can have a positive effect on remittances, by providing investment opportunities, or a negative one, as it indicates a stronger economy, hence less need for help. In this context, it could be argued that a positive impact of FDI on remittances would support the investment motive, while a negative, the pure altruism motive. Accordingly FDI can be a further important variable that allows us to test for the strength of the two major motives to remit. In addition, this provides a direct link between IB and development economics literature, hence a more comprehensive account of what determines remittances. For the purposes of this sub-section, we include FDI as an additional explanatory variable. First, we aim to provide a conceptual framework, based on our analysis and discussion so far.

In addition, to the aforementioned limitations, previous studies on remittances employed different estimated frameworks, methods, independent/dependent variables, econometric techniques, specifications and datasets. In terms of the econometric analysis in particular, researchers have failed to also use a 'general to specific' estimating method, which we will be adopting here alongside more conventional methods, in order to derive more comprehensive results. General to specific has some advantages, in that it limits the scope for data mining, and/or arbitrary selection by an investigator of the equations that appear to best support his/her hypotheses. Last but not least, the literature underplayed the role of moderating effects. These are important limitations that we will try to address in this paper. In addition, we have already noted the severe data limitations. A major strength of this paper is that we have constructed and are employing, what is probably the most comprehensive data set available to date. Hence, we hope to derive more general and reliable findings.

Based on the above, our conceptual framework focuses on the direct effects of the various determinants of remittances, as well as factors that can moderate these effects, notably institutional and cultural ones. Tables 3-1 to 3-3 depict the various determinants of remittances as identified in the literature. In brief, these determinants include the following: altruism, indicators of economic activity, skill composition of migrants, return factors and institutional development. The moderating factors include the institutional environment and cultural indicators. In addition, we employ a number of control variables as follows: FDI inflows, inflation rates, employment and productivity. These are discussed further below. Testing for the determinants of remittances allows us to understand better what motivates migrants to remit and provide the basis for further insight on their significance on economic performance in the long-run.

As noted, a number of studies highlighted the importance of sound institutions to support and promote economic development. These are especially important for remittances as a large amount of those is being transferred through unofficial channels and might get dissipated because of corruption. For example, institutions can moderate the impact of remittances on GDP. Therefore, it is important to include institutions as a potential determinant of remittances, as these can directly affect the level of remittances that reaches the recipient countries, and more specifically the targeted family units. In particular, the stronger are the institutions, the higher is likely to be the level of remittances that reach the recipient family. Hence, we hypothesize that:

H1: The level of remittances will be higher in recipient countries with lower levels of corruption.

H2: The level of remittances will be higher in recipient countries with better-quality political institutions.

H3: The level of remittances will be higher in recipient countries with better-quality regulatory institutions.

In all aforementioned cases, the reasoning-justification is that corruption, lack of regulatory framework (that could facilitate corruption), and political-institutional

development, that can be assumed to foster property and civic rights, are factors that are likely to make migrants more confident in transferring funds.

As previously discussed, cultural factors are not examined in the development economics literature, but are preeminent in IB. Such factors are important, as already implied for example by the altruism motive in Hypothesis 1. The degree of altruism is likely to be influenced, hence moderated, by cultural characteristics. Accordingly cultural considerations can be critical for remittances. Yet they have not been examined before. This is a major gap we aim to cover in this paper. Cultural factors examined in IB literature are based mostly on Hofstede's cultural indicators. These include Masculinity/Femininity, Uncertainty Avoidance, Power Distance and Individualism. We include these variables as moderating factors of the determinants of remittances.

More specifically, for Hofstede 'masculinity' "represents a preference in society for achievement, heroism, assertiveness and material reward for success. Society at large is more competitive. Its opposite, femininity, stands for a preference for cooperation, modesty, caring for the weak and quality of life. Society at large is more consensus-oriented" (Hofstede, 2010). It follows that more masculine societies could be expected to be associated with higher 'pure self-interest' or 'tempered altruism' motivations to remit (i.e. portfolio considerations). On the other hand, more feminine societies are likely to further strengthen the altruism-based determinants. Accordingly:

H4: The level of remittances will be higher in recipient counties with higher masculinity scores.

Another cultural dimension, concerns 'power distance'. For Hofstede, power distance expresses "the degree to which the less powerful members of a society accept and expect that power is distributed unequally. People in societies exhibiting a large degree of power distance accept a hierarchical order in which everybody has a place and which needs no further justification, whilst in societies with low power distance people strive to equalise the distribution of power and demand justification for inequalities of power" (Hofstede, 2010). The higher power distance is the lower is the likelihood that remittances will be used for investment. This is because higher power distance can imply concentrated power structures, hence barriers to new entrants.

Therefore, we would expect that migrants originated from countries with lower levels of power distance will remit more, as they will expect their money to have a greater positive impact on their recipients. Accordingly:

H5: The level of remittances will be higher in recipient counties with lower power distance scores.

Uncertainty avoidance (UAI) is another cultural dimension employed by Hofstede. Uncertainty avoidance represents "the degree to which the members of a society feel uncomfortable with uncertainty and ambiguity. Countries exhibiting strong uncertainty avoidance maintain rigid codes of belief and behaviour and are intolerant of unorthodox behaviour and ideas. Weak UAI societies maintain a more relaxed attitude in which practice counts more than principles" (Hofstede, 2010). For example, it could be the case that migrants originated from a country with high uncertainty avoidance levels would not be willing to remit a large amount of money in their country of origin if it lacks the prerequisite conditions, i.e. institutions, for the sum of remittances to reach the migrants' families without getting dissipated in unofficial channels. Accordingly:

H6: The level of remittances will be higher in recipient counties with lower uncertainty avoidance scores.

A final important cultural dimension is individualism. Individualism can be defined as a "preference for a loosely-knit social framework in which individuals are expected to take care of themselves and their immediate families only. Its opposite, Collectivism, represents a preference for a tightly-knit framework in society in which individuals can expect their relatives or members of a particular in-group to look after them in exchange for unquestioning loyalty" (Hofstede, 2010). The higher this is the more likely is that remittances will be driven by 'pure self-interest' rather than altruism, and hence their level in the respective countries could be lower. Accordingly:

H7: The level of remittances will be higher in recipient counties with a higher degree of individualism.

The implication from the above is that we can test for the direct and moderating

determinants of remittances, the moderating by using their interaction effect with the relevant direct determinants, as additional independent variables.

3.4 Empirical Investigation

3.4.1 Sample and Data

We have collected data for a sample of 91 countries (31 developed, 60 developing) on fifteen variables (FDI, remittances, GDP, inflation rates, productivity, employment, real interest rates, real exchange rates, final consumption expenditure, investment, education, dependency ratio, institutional environment, corruption and cultural dimensions) for the period 1995 to 2009. To our knowledge this is arguably the most comprehensive data set available to date. For this, we used primarily the UNCTADStat dataset, as well as the World Bank, with the addition of cultural variables, natural disasters and dependency ratio. For the institutional variables we used the Worldwide Governance Indicators available from the World Bank, and the Corruption Perception Index from Transparency International, while our cultural variables were gathered from the Geert Hofstede Index. Tables 3-1 to 3-3 provide a definition of the variables, as well as their proxies and data sources. For our statistical investigation we employed a panel dataset.

There are a number of limitations of the data. We start with migrant remittances. As we have already argued, despite their prominence for many developing countries, the quality of data on remittances is not fully satisfactory. The heterogeneous nature of remittances, the large number of remittance transactions and the variety of channels, as well as the small size of individual transactions that are usually 'hidden' by typical data source systems, constitute a challenge in effectively measuring remittances and compiling a comprehensive data base.

Concerning FDI, the data fails to provide a complete picture of international investment in an economy. For example, data on FDI do not account for non-equity cross-border transactions, as well as for intra-unit flows of goods and services. In addition, the World Bank (WB) employs different sources, classification of

economies, and methods to adjust and disaggregate reported information, for example for debt financing. Hence, data reported by the WB usually differ from those of other sources.

For our purposes we relied on a number of different sources, depending on their reputation for reliability. A more detailed analysis of the variables used, their source and formulas is provided in Table 3-4. In this context, it is important to discuss the most obvious limitations regarding these, so as to aid a better interpretation of our results. The WB provides a detailed explanation of some of the challenges and limitations concerning the construction and interpretation of the data. In this chapter we used the WB to collect data on gross capital formation, education expenditure, the dependency ratio and real interest rates. The data on dependency ratio for example, may fail to accurately reflect the actual age composition of the countries. The quality of data on gross capital formation depends on the quality of a government's accounting system. However, developing countries tend to lack a strong institutional environment hence rendering some of the data unreliable. In addition, many countries fail to account for all the components of national expenditures and derive some of the key aggregates using GDP indirectly as the control total - production approach.

Hofstede's data on national culture have been heavily criticised on some of their conceptual and methodological aspects. Hofstede's work on cultural dimensions in the 1980's sparked a lot of controversy. Since then, advances have been made, which however were all heavily criticised (Tung and Verbeke, 2010). Hofstede's work was criticised on the grounds of using scores for the fundamental cultural distance dimensions that are used in calculating index values, as well as for the relevance of these dimensions, which reflect national, societal values rather than managerial perceptions, therefore questioning their usefulness to help explain managerial choices, practices and economic performance, especially when considering that cultural distance might not equate to psychic distance. Despite all these, Hofstede's work has greatly influenced the fields of IB and management. Hofstede's index on national culture has been the most comprehensive and widely used dataset on culture and cultural distance. In this context, as well as for facilitating comparability, we felt it more appropriate to use Hofstede's cultural dimensions index for our analysis.

For our base model, we have employed current prices, alongside a separate independent variable on inflation, as opposed to constant prices. That was based on the following reasoning. Firstly, there is lack of aggregate data in constant terms for some of the variables employed in our regressions, as well as lack of consistency in terms of the base years used for some of the other variables. The alternative method of using a deflator is subject to the criticism of the appropriateness of the choice of deflator from the existing alternatives. In this context we felt it was more appropriate to use current terms for all our variables as our baseline model, and control for inflation rates in order to capture any impact that inflation may have on our data.

However, for the purpose of robustness, we have also deflated our data and ran further regressions as robustness checks. In addition, we have run further regressions with normalised data (that is data that accounts for the size of the economy) both in our current and constant terms models. The results are analysed in the results section. On balance they confirmed our previous results, with some rather small differences. It is worth noting that as no other study of this issue has employed normalised data, at least to our knowledge.

Despite the various limitations of the data that we discussed, it is arguable that these impact on the reliability of our results less than in most other studies that rely on smaller and less comprehensive data sets. In addition there is some comfort provided vis-à-vis the reliability of our results for the following reasons. First, the WB provides reasonably comprehensive data, compiled by a variety of specialised organisations and offices, this way contributing to their extensiveness and reliability. In addition, WB's data are arguably representative of the whole population in a given country since a variety of governmental institutions are used for data compilation. Similar considerations apply to the case for UNCTADStat, the other big source of our data.

The choice and combination of sources that we selected for this dataset, as well as the large sample of countries and time series employed render our dataset one of the most comprehensive, perhaps the most comprehensive, available. Our sample includes both developing and developed economies without missing any key countries. It is an aggregate dataset over a 15-year period. Apart from the data limitations identified above, we cannot think of any obvious additional weaknesses that could affect the

quality of our dataset and the usefulness of results. In the following section we discuss the definitions and appropriateness of variables employed in our statistical analysis.

3.4.2 Model and Measures

To capture for the impact of remittances, our dependent variable, we gathered data on total remittances, which cover workers' remittances, compensation of employees and migrants' transfers, as defined by The *Balance of Payments Manual* (IMF, 1993), to include "goods and financial instruments transferred by migrants living and working (being residents) in a new economy, to residents of the country in which the migrants formerly resided. A migrant must live and work in the new economy for more than one year to be considered a resident there. Compensation of employees includes wages, salaries, and other benefits, in cash or in kind, earned by individuals - in economies where they are not residents - for work performed for residents of the host economies. It covers seasonal and other short-term workers and border workers. Migrants' transfers cover for flows of goods and changes in financial items that arise from migration (change of residence for at least one year)". We used UNCTADStat for our remittance data collection as their calculations are based on multiple sources including IMF - *Balance of Payments Statistics,* World Bank - *Migration and Remittances,* Economist Intelligence Unit - *Country Data* and national sources. Hence, they are the most inclusive. Data are in current U.S. dollars.

We employ an extensive list of proxies for our independent variables derived from the extant literature as follows:

Altruism: To capture for the motives of remittances (whether altruism or portfolio considerations) we employed data on dependency ratio (Lueth and Ruiz-Arranz, 2007), defined as the ratio of dependents (people younger than 15 or older than 64 to the working-age population - those from 15 to 64). This indicator illustrates the dependency load on those of working-age in respect to children and the elderly. We gathered data from the World Bank, World Development Indicators. Data are depicted as the proportion of dependents per 100 working-age population.

Indicators of Economic Activity: To capture economic performance and productivity of a recipient country we used real total GDP. GDP is a measure of wealth creation widely regarded as a good proxy of economic performance and economic development. For GDP data we used UNCTAD's calculations based on UN DESA Statistics Division. More specifically, GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes, minus any subsidies not included in the value of the products. The data are expressed in current U.S. dollars.

To account for the economic activity of a country we also employed data on aggregate investment, which we proxied by using data on gross capital formation gathered from UNCTADStat. Gross capital formation (formerly gross domestic investment) is a widely used proxy for investment and comprises of outlays on additions to the fixed assets of the economy, plus net changes in the level of inventories. According to the 1993 SNA, net acquisitions of valuables are also considered as capital formation. Data are in current U.S. dollars.

Skill Composition of Migrants: To capture for the skill composition of migrants we employed data on education expenditure (adjusted savings: education expenditure), which refers to the current operating expenditures in education, including wages and salaries and excluding capital investments in buildings and equipment. We gathered data from the World Bank, World Development Indicators (WDI) and Global Development Finance (GDF). Data are in current U.S. dollars.

Return Factors: To capture for return factors in recipient (home) countries we employed data on real interest rate, defined as the lending interest rate adjusted for inflation as measured by the GDP deflator. We gathered data from the World Bank, World Development Indicators. Data are expressed as percentages.

We have also employed data on real effective exchange rate. Real effective exchange rate is the nominal effective exchange rate (a measure of the value of a currency against a weighted average of several foreign currencies) divided by a price deflator or index of costs, in our dataset the index base is 2000. We have gathered data from UNCTADStat.

Corruption: To proxy corruption we used the Corruption Perception Index (CPI) provided by Transparency International. CPI ranks countries based on perceptions of corruption in their public sectors.

Institutional Variables: In order to capture the effect of institutions on the impact of remittances on long-term economic performance, we employed data from the World Bank's Worldwide Governance Indicators (WGI) project, which reports aggregate and individual governance indicators for six dimensions of governance: control of corruption, government effectiveness, political stability and absence of violence/terrorism, regulatory quality, rule of law and voice and accountability (Catrinescu et al, 2009). In general, "Governance consists of the traditions and institutions by which authority in a country is exercised. This includes the process by which governments are selected, monitored and replaced; the capacity of the government to effectively formulate and implement sound policies; and the respect of citizens and the state for the institutions that govern economic and social interactions among them" (Kaufmann et al, 2010). On the above basis, we consider the WGI project to be the best proxy available for examining institutions.

For the purposes of our econometric analysis we split the six dimensions into two categories namely, the political and regulatory institutions. Political institutions include control of corruption, government effectiveness and political stability and absence of violence/terrorism, whilst regulatory institutions include regulatory quality, rule of law and voice and accountability (Kaufmann et al, 2010). We derived these by adding in each case the three variables together and calculating their mean values by dividing them by their total number.

Cultural Indicators: We consider Hofstede's Cultural Index to be one of the most comprehensive on national and organisational culture. Due to data availability, we employ data for four out of five cultural dimensions, namely power distance, individualism, uncertainty avoidance and masculinity/femininity.

We analysed all the above proxies and variables in the context of their direct effects on the determinants of remittances. However, in order to be able to identify the moderating factors which impact on the level of remittances, we have added interaction terms to all the institutional and cultural indicators. This led to the

following additional variables: rem*corruption perception index (H5), rem*control of corruption (H5), rem*government effectiveness (H5), rem*political stability and absence of violence/terrorism (H5), rem*regulatory quality (H5), rem*rule of law (H5), rem*voice and accountability (H5), rem*masculinity/femininity (H6a), rem*power distance (H6b), rem*uncertainty avoidance (H6c) and rem*individualism (H6d). Interaction terms are mean-centred to make results more interpretable.

Lastly, our *control variables* are drawn from the extensive literature on the determinants of remittances (Ozturk, 2007; Lucas, 1988; Mankiw et al, 1992; Dunning and Lundan, 2008) and include:

FDI Inflows: "Foreign direct investment (FDI) is defined as an investment involving a long-term relationship and reflecting a lasting interest in and control by a resident entity in one economy (foreign direct investor or parent enterprise) of an enterprise resident in a different economy (FDI enterprise or affiliate enterprise or foreign affiliate)" (UNCTAD, 2005). Since the literature has not yet considered any possible interrelationship between remittances and FDI, both being most important capital flows, it is imperative that we control for FDI as there is no extant literature to determine any possible effects of one on another. We gathered data from UNCTAD, Division on Investment and Enterprise, as they provide the most comprehensive data on FDI flows. Data are on current U.S. dollars.

Inflation Rates: "The Consumer Price Indices (CPI) is a measure of inflation that considers the weighted average of prices of a basket of consumer goods and services, purchased by a consumer. The CPI is calculated by taking price changes for each item in the predetermined basket of goods and services during a month. Changes in CPI are used to assess price changes associated with the cost of living. Most of original data have been rebased into year 2000" (UNCTADStat, undated). Therefore, we control for inflation rates as they can hugely affect the volume of remittances send as well as the level of their impact. In addition, the literature suggests that high inflation rates reduce growth by reducing investment and productivity growth (Fischer, 1993). We employed data on inflation rates using UNCTADStat.

Employment: Employment of human resources is a most important determinant of economic performance. This is for the obvious reason that the higher is employment,

the higher will be the GDP for a given level of productivity. We employ data on employment from UNCTADStat by dividing the total labour force of a given country by its total population.

Productivity: Productivity has been widely examined in the literature (Piteli, 2010) and we control for it in our GDP regressions. The reason lies in the fact that productivity is widely considered a very significant contributor to economic performance (Krugman, 1994). We employ data from UNCTADStat by dividing GDP by employment in a given country.

3.4.3 Regression Analysis

On the basis of our analysis so far, our estimated equation, takes the following form:

$REM_{it} = a_0 + a_1 Direct\ Effects_{it} + a_2 Interaction\ Terms_{it} + a_3 Corruption_{it} + a_4 Institutional\ Environment_{it} + a_5 Cultural\ Distance_{it} + a_6 FDI_{it} + a_7 Control\ Variables_{it} + a_8 z_{it} + u_{it}$ **(Equation 3.1)**

Our econometric methodology is 'general-specific' modelling (Charemza and Deadman, 1997). This suggests "starting from a general dynamic statistical model, which captures the essential characteristics of the underlying data set, standard testing procedures are used to reduce its complexity by eliminating statistically insignificant variables and to check the validity of the reductions in order to ensure the congruency of the model. As the reduction process is inherently iterative, many reduction paths can be considered, which may lead to different terminal specifications. Encompassing is then used to test between these, usually non-nested, specifications, and only models, which survive the encompassing step, are kept for further consideration. If more than one model survives the 'testimation' process, it becomes the new general model, and the specification process is re-applied to it" (Krolzig and Hendry 1999, pp. 1). Below we report our results derived by using panel OLS regressions. The reported equation is derived from this method, namely it is the one selected from the data.

3.4.4 Results

Below we first focus on the variables discussed in previous literature and employed here as control variables. We then pay attention to own additional contribution, namely the role of institutional and cultural variables on the level of remittances.

From our panel OLS regression results reported in Table 3-6 we find evidence for the altruism model of remittances as dependency ratio comes out statistically significant at 0.1 percent level of significance. However, we report a negative sign suggesting that high dependency ratios may be a disincentive for remitting larger amounts of money. We also find gross capital formation to be statistically significant and positive, whereas GDP significant at 0.1 percent and negative. This result is in line with economic thinking; the better the indicators of economic activity a country has, the smaller the level of remittances it will receive. In addition, we find interest rates and exchange rates to be statistically insignificant. Lastly, we find education to be statistically significant at 0.1 percent and negative, which suggests that education and brain drain determine negatively the level of remittances.

Coming to institutional factors, we report the direct effects of both of the institutional quality indicators, namely political and regulatory institutions, to be statistically significant at 0.1 and five percent respectively, which illustrates that an unstable political environment has a negative impact on the level of remittances. In addition, we find corruption to be insignificant (value a bit over ten percent) hence, rejecting hypothesis 1. Therefore, hypotheses 2 and 3 are supported by our findings.

Lastly, culture is also seen to affect remittances. We find the direct effects of power distance to be positive and statistically significant at five percent level of significance, while masculinity and uncertainty avoidance negative and statistically significant at 0.1 and five percent respectively. Individualism is found to be statistically insignificant and therefore we reject Hypothesis 7. It is worth noting that the negative sign we report in masculinity levels could be explained by the fact that more feminine societies place greater emphasis on quality of life and therefore are expected to invest more in human capital than masculine societies.

Our results lend support to Hypothesis 2, in that we find regulatory institutions to positively determine the level of remittances. However we find no support for H2, that institutional quality impacts positively on remittances. This could be the case because institutional quality can stand as a proxy for development, which deters remittances. Having said that, this interesting finding could benefit from further investigation.

Concerning culture, we report negative signs for masculinity and uncertainty avoidance, thereby supporting Hypothesis 6, but rejecting H4. Our results suggest that migrants from more 'feminine' societies will remit higher amounts of money. This is a very interesting result suggesting that feminine societies invest more efficiently in channels, such as education and health, hence adding further support to the altruism model of remittances. In addition, our results support H6 suggesting that the level of remittances is lower in counties that are intolerant in adopting and undertaking new policies and ideas. Moreover, we report evidence that power distance affects positively migrants' decision to remit. This too is in contrast to our hypothesis. It could be attributed to the fact that 'power distance' may facilitate investments as it is linked to a more unequal distribution of income. We therefore reject H5, but we report further evidence supporting the 'enlightened self-interest' and 'tempered altruism' combination model of remittances based on a 'repayment hypothesis'. Lastly, we report no statistically significant results on the impact of individualism vs. collectivism on the level of remittances.

Particular mention is required for FDI. As noted this is the first study to our knowledge to include FDI as an independent explanatory variable. The positive and significant result supports our theoretical predictions and shows that remittances and FDI are complementary. While correlation need not imply causation (i.e. it could be that remittances cause FDI and/or that the two variables are simply correlated and not causally determined), the complementarity finding does suggest that government policies, which attract both FDI and remittances, are likely to be more effective in improving economic performance.

As regards our control variables we report FDI inflows productivity and inflation rates to be statistically significant and positive. This is in line with our earlier results in

Chapter 2, as well as with our suggestion of an interrelationship between remittances and FDI. Our results confirm that as FDI is statistically significant at five percent for both GDP and GDP per capita.

We have already explained our choice of current prices for our base model. However for the purposes of robustness, we have employed for our regressions also constant prices. As noted our robustness checks confirmed that our initial results were not different in any substantive way. Table 3-7 depicts our results with the deflated data. Concerning institutional and cultural variables, the results are essentially the same, therefore suggesting that our initial choice to use data in current terms did not impact in any major way on the validity of our results. More specifically, we now report a more pronounced impact of corruption and we find individualism to be highly significant whereas in our initial results was found to be statistically insignificant. In addition, the inflation rates are now statistically insignificant, whereas in our initial results they are significant. This is in line with expectations as in our deflated series the role of inflation has already been taken into account. Lastly, employment is gaining statistical significance while FDI inflows and GDP are losing significance in the deflated series. As gross capital formation is an important part of GDP and employment is accounted by the productivity variable, these changes in the results are not worrying. The loss of significance of FDI is more serious for us, but as noted below this returns to significance in the normalised series.

In our second robustness check we have included two groups of regressions. The first group includes normalised data of our initial dataset and hence, they are in current terms, whereas in the second group we normalised the deflated data and hence, the dataset is in constant terms. Table 3-8 clearly shows that essentially there are no significant differences in the results of the two groups, suggesting this way that the deflated results are not particularly sensitive to normalisation of data. Table 3-8 depicts our normalised results, which primarily differ in the results of inflation rates, as expected, and a few other variables. These include masculinity/femininity and uncertainty avoidance, which are now statistically insignificant whereas in our initial results these variables were both found to be statistically significant. In addition, however, the impact of corruption is more pronounced than in our initial dataset and the impact of regulatory institutions is statistically insignificant, not the case in our

initial model. In addition, we find individualism to be statistically significant in Model 2, whereas in our initial results was found to be statistically insignificant.

Concerning the base model variables, we report different results for gross capital formation and real exchange rates. The former is found to be statistically insignificant and the latter statistically significant in contrast with our initial model where they are found to be statistically significant and insignificant respectively. Lastly, we report education expenditure to be insignificant in Models 3 and 4 in contrast to our initial regressions. It is worth noting that many of these were shown in our conceptual analysis to have ambivalent effects on our dependent variable, pointing to the need for caution in attributing any particular significance to results provided by a single equation. Instead the results which are robust to our various tests are the ones that afford us with more confidence. Overall, we report more differences with our normalised data rather than the deflated ones, especially in our cultural variables. These variables and manipulations of data have not been considered in any previous studies on the determinants of the level of remittances that we know of. Therefore, we can only make some novel suggestions why this may be the case.

We submit that one reason for these differences may lie in the fact that cultural variables are likely to be correlated to the size of an economy. For example it is likely that in smaller countries, individual behaviour may be more visible and scrutinised than in larger, more impersonal, counties. This is likely to render the role and impact of cultural characteristics more pronounced in most cases in smaller countries as a result of the fear of social disapproval. For example individualism may be lower in small countries (due to social monitoring being easier), while uncertainty avoidance higher (given the stigma of failure being more difficult to erase). Power distance could go both ways; hence normalisation may not give rise to appreciable changes. Hence, normalising the data may hence give rise to differences in results attributable to controlling for the effects of the size of the country. As it happens our findings that normalisation led to a significant coefficient for individualism and does not impact power distance, seem to support our suggestions. Having said these, identifying the precise ways in which country size can impact on cultural attributes has not been explored in literature so far and hence it represents a very fruitful avenue for future research.

3.5 Concluding Remarks, Limitations and Policy Implications

In conclusion, the issue of what motivates and determines the level of remittances is fascinating, under-researched and pertinent. Our more comprehensive than hitherto available data set, provided a unique opportunity to explore this important issue. The results have important policy implications for an appreciation of globalisation and economic performance. Its analysis adds insights to our understanding of the nature and determinants of development under conditions of globalisation that can assist economic developmental policies. Importantly we find that a cross fertilisation between IB and development economics literature helps provide novel insights and findings on these two important capital flows, globalisation and its impact on economic performance.

Besides our unique data set, strengths of our paper include the incorporation of cultural factors, the use of moderators, and the employment of a general to specific estimating method. All these as well as the use of current, constant and normalised data, render some added confidence to our results. Moreover, we report evidence that cultural indicators do indeed have an impact on the level of remittances and this is a ground-breaking finding. In addition, we find institutional environment to be statistically significant this way suggesting that institutions play an important role in determining the level of remittances sent. These findings are of significance for the understanding of the determinants of remittances and they add new foundations for the development of proper policy devise and academic research.

The hypotheses we rejected are of interest. In particular, we found that more feminine societies attract more remittances (a finding in support of altruism), that power distance affects remittances positively (in support of the investment-portfolio view) and that more advanced institutions may impact on remittances negatively (which supports the idea that the more developed a country is, the less remittances it attracts). These findings are in line with 'tempered altruism' and reject the pessimistic views about remittances. In all cases they are very interesting findings that call for further investigation.

On the minus side, data limitations still persist, as noted throughout, while some of our proxies can be subject to debate. Having said this, we have not come across any

better ones in extant literature, not least for the aforementioned data limitations. In this context, we feel that our results add value to the literature and hope to motivate others to pursue further research on this fascinating and underexplored topic.

Concerning further research we believe that further examination of the institutional and cultural determinants of remittances for individual countries, in their interrelationship with FDI, will help support our specific results and hence, provide insight on targeted policy making, namely help individual countries to devise individual policies, which will consider the uniqueness of each country, and therefore boost efficiency in the ways remittances are received and allocated, this way promoting economic growth and development.

Figure 3-1 Conceptual Framework and Hypotheses

| Corruption Perception Index | Political Institutions | Regulatory Institutions | Masculinity | Power Distance | Uncertainty Avoidance | Individualism |

H1(-)   H2(-)   H3(-)   H4(+)   H5(-)   H6(-)   H7(+)

Control Variables (Base Model):

- Altruism
- Indicators of Economic Activity
- Skill Composition of Migrants
- Return Factors

Level of Migrant Remittances

Control Variables:

- FDI
- Employment
- Inflation Rates
- Productivity
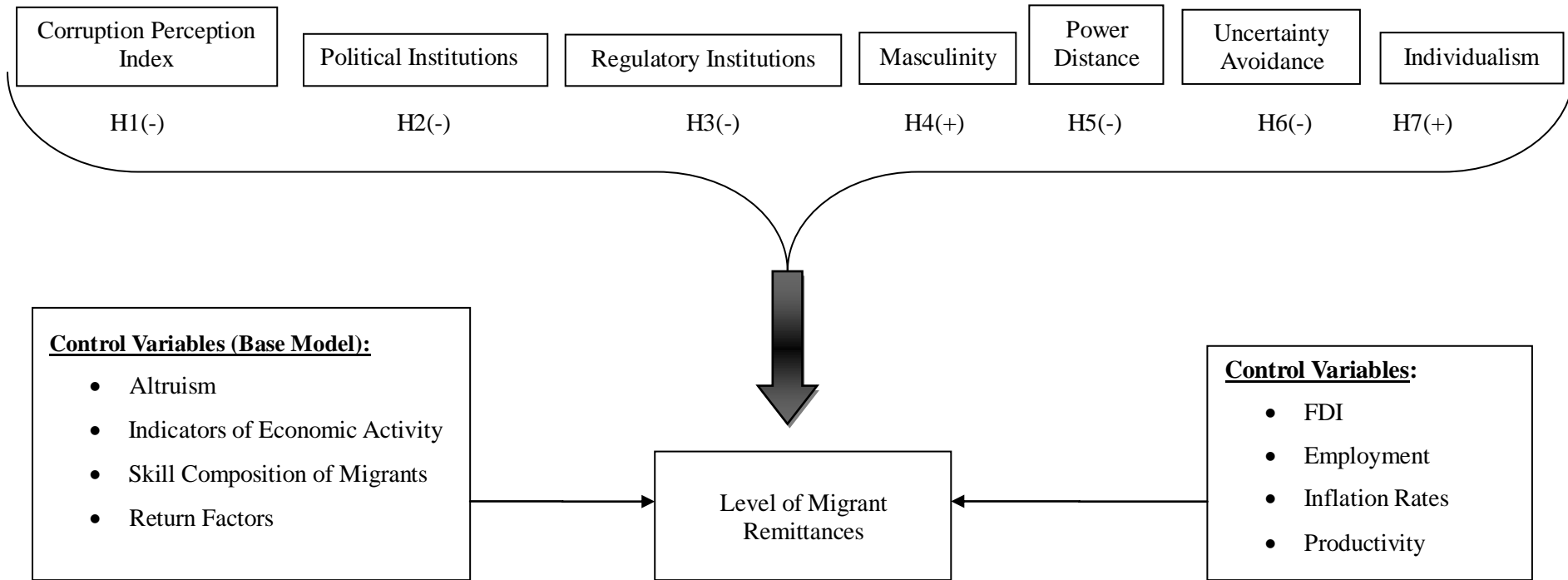
Note: The full arrow denotes the moderating effects of H1, H2, H3, H4, H5, H6 and H7.

Table 3-1 Microeconomic and Macroeconomic Determinants of Remittances

Variables	Indicative Proxies	Source
Altruism	Natural disasters, Dependency ratio	EM-DAT: The OFDA/CRED International Disaster database, World Bank/*World Development Indicators*
Inflation Rate of Recipient Country	Consumer Price Index (CPI)	World Bank, World Development Indicators
Skill Composition of Migrants	Literacy Levels/Schooling	World Bank, World Development Indicators
Indicators of Economic Activity	GDP, GDP Growth Rates, Investment	World Bank, World Development Indicators
Return Factors (domestic interest rates, foreign exchange rates etc.)	Home Interest Rates, Host Exchange Rates, etc.	IMF Financial Data
Income Level of Home Country	Gross Domestic Product	World Bank, World Development Indicators
Poverty Level of Home Country	Gini Coefficient	World Bank, World Development Indicators
Business Environment	Business Risk Service (BRS)	http://www.beri.com/brs.asp

Table 3-2 Moderating Variables

Variables	Proxies	Source
Improved access to savings and investment mechanisms	Dual Exchange Rates	IMF, *Annual Report on Exchange Arrangements and Exchange Rate Restrictions*
Role of Institutions	Worldwide Governance Indicators, POLCON	World Bank, http://www-management.wharton.upenn.edu/henisz/
Risk of Default (political uncertainty etc.)	Political Risk Rating	International Country Risk Guide dataset (ICRG)
Institutional Development	Corruption Perception Index	Transparency International
Cultural Dimensions	Power Distance Index	http://www.geert-hofstede.com/
	Individualism	http://www.geert-hofstede.com/
	Uncertainty Avoidance Index	http://www.geert-hofstede.com/
	Masculinity	http://www.geert-hofstede.com/
	Long-Term Orientation	http://www.geert-hofstede.com/

Table 3-3 Other Variables (data to be used only if source/recipient countries are identified)

Variables	Proxies	Sources
Subjective Variables	Colonial Ties	CEPII dataset
Size of the Diaspora	Stock of Migrant Workers in Host Country	United Nations, International Migration Data
Location of the Diaspora	Data on Expatriates/ Known Source-Recipient Countries	OECD's Database on Immigration and Expatriates (year 2000)
Real per Capita Income of Host Country	GDP per capita	World Bank, World Development Indicators
	Hourly Industrial Wage of Host Country	World Bank, World Development Indicators
Future Migration Plans	Years of Absence	Data on Specific Country
Gravity Variables	Border, Language, Distance	Andrew Rose's website
Risk-Sharing Motives		Data from Specific Country
Income-Risk Proxies		Data from Specific Country
Payments for Services Rendered/ Exchange		Data from Specific Country
Income Level of Migrant		Data from Specific Country

Table 3-4 Sources and Formulas of Variables

Variables	Source	Formula
Dependent Variables		
Migrant Remittances	UNCTAD secretariat calculations, based on World Bank, *Migration and Remittances*	A series on remittances expressed in millions of dollars. Migrants' remittances are the sum of workers' remittances, compensation of employees and migrants' transfers. Migrants' transfers cover for flows of goods and changes in financial items that arise from migration (change of residence for at least one year).
Institutional Variables		
Corruption Perception Index	Transparency International	Scores countries on how corrupt their public sectors are perceived to be, using multiple criteria.
Political Institutions	World Governance Indicators - Kaufmann, D., Kraay A. and M. Mastruzzi (2010), "The Worldwide Governance Indicators: Methodology and Analytical Issues", World Bank Policy Research Working Paper No. 5430.	Author's Calculations: Mean number of Control of Corruption, Government Effectiveness and Political Stability and Absence of Violence/ Terrorism.
Regulatory Institutions	World Governance Indicators - Kaufmann, D., Kraay A. and M. Mastruzzi (2010), "The Worldwide Governance Indicators: Methodology and Analytical Issues", World Bank Policy Research Working Paper No. 5430.	Author's Calculations: Mean number of Regulatory Quality, Rule of Law and Voice and Accountability.
Cultural Variables		
Power Distance	Geert Hofstede	This dimension expresses the degree to which the less powerful members of a society accept and expect that power is distributed unequally.

Individualism	Geert Hofstede	The high side of this dimension, called individualism, can be defined as a preference for a loosely-knit social framework in which individuals are expected to take care of only themselves and their immediate families.
Masculinity	Geert Hofstede	The masculinity side of this dimension represents a preference in society for achievement, heroism, assertiveness and material rewards for success.
Uncertainty Avoidance	Geert Hofstede	The uncertainty avoidance dimension expresses the degree to which the members of a society feel uncomfortable with uncertainty and ambiguity.
Control Variables (Base Model)		
Dependency Ratio	World Bank staff estimates from various sources including census reports, the United Nations Population Division's World Population Prospects, national statistical offices, household surveys conducted by national agencies, and ICF International.	Age dependency ratio is the ratio of dependents--people younger than 15 or older than 64--to the working-age population--those ages 15-64. Data are shown as the proportion of dependents per 100 working-age population.
GDP	UNCTAD secretariat calculations, based on UN DESA Statistics Division, *National Accounts Main Aggregates Database*	Real gross domestic product (GDP) by expenditure approach, total, annual, US Dollars at current prices and current exchange rates in millions of dollars.
Gross Capital Formation	World Bank national accounts data, and OECD National Accounts data files.	Gross capital formation (formerly gross domestic investment) consists of outlays on additions to the fixed assets of the economy plus net changes in the level of inventories. Data are in current U.S. dollars.
Education Expenditure	World Bank staff estimates using data from the	Education expenditure refers to the current

	United Nations Statistics Division's Statistical Yearbook, and the UNESCO Institute for Statistics online database.	operating expenditures in education, including wages and salaries and excluding capital investments in buildings and equipment.
Real Interest Rates	World Bank based on International Monetary Fund, International Financial Statistics and data files using World Bank data on the GDP deflator.	Real interest rate is the lending interest rate adjusted for inflation as measured by the GDP deflator. The terms and conditions attached to lending rates differ by country, however, limiting their comparability.
Real Exchange Rates	UNCTAD secretariat calculations, based on - UNCTAD, *UNCTADstat* Exchange Rates - UNCTAD, *UNCTADstat* Merchandise Trade Matrix	Real effective exchange rate (CPI based), annual.
Control Variables		
FDI, Inward	*UNCTADstat*	Inward foreign direct investment flows, annual, US Dollars at current prices and current exchange rates in millions of dollars.
Inflation Rates	UNCTAD calculations, based on - ILO, *LABORSTA* - OECD, *OECD.Stat* - IMF, *International Financial Statistics* - Economist Intelligence Unit, *Country Data* - National sources	Consumer price indices (CPI), annual, with base year 2000.
Employment	*UNCTADstat* – (i) Total population expressed in thousands: Sources: - UN DESA Population Division, *World Population Prospects: The 2012 Revision* - UN DESA Population Division, *World Urbanisation Prospects: The 2011 Revision* - UNCTAD secretariat estimates (ii) Total labour force expressed in thousands: Sources: - ILO, *LABORSTA* - FAO, *FAOSTAT*	Author's Calculations: Total Labour Force/Total Population
Productivity	*UNCTADstat*	Author's Calculations: GDP/Employment

Table 3-5 Descriptive Statistics and Expected Effect

Variables	Mean	Standard Deviation	Expected Effect
Dependent Variables			
Migrant Remittances	2285.112	4506.487	+
Institutional Variables			
Corruption Perception Index	4.902662	2.363255	-
Political Institutions	55.77616	25.86689	-
Regulatory Institutions	58.34905	26.04207	-
Cultural Variables			
Power Distance	62.65934	20.43329	+/-
Individualism	38.71429	21.90955	+/-
Masculinity	48.84615	18.21241	+/-
Uncertainty Avoidance	65.25275	20.83903	+/-
Control Variables (Base Model)			
Dependency Ratio	60.02549	15.81715	+
GDP	414811.9	1323235	
Gross Capital Formation	9.45e+10	2.81e+11	+
Education Expenditure	1.83e+10	6.20e+10	+
Real Interest Rates	6.67343	12.35027	+
Real Exchange Rates	101.4574	20.41916	+
Control Variables			
FDI, Inward	9541.892	26443.93	+
Inflation Rates	128.9336	157.7434	-
Employment	.4408789	.0679432	+
Productivity	848876	2576016	+

Table 3-6 Regression Results - Determinants of Migrant Remittances

Variable	Model 1: Panel OLS Regression, re Direct Effects	Model 2: Panel OLS Regression, re Moderating Effects
Dependent Variable:	**Migrant Remittances**	**Migrant Remittances**
Independent Variables:		
H1: Corruption Perception Index (CPI)		1.59 (0.111)
H2: Political Institutions		-5.67*** (0.000)
H3: Regulatory Institutions		2.76** (0.006)
H4: Masculinity/Femininity (Hofstede)		-3.36*** (0.001)
H5: Power Distance (Hofstede)		2.55** (0.011)
H6: Uncertainty Avoidance (Hofstede)		-3.01** (0.003)
H7: Individualism (Hofstede)		0.79 (0.427)
Control Variables (Base Model)		
Dependency Ratio	-6.04*** (0.000)	-6.26*** (0.000)
Gross Capital Formation	12.90*** (0.000)	10.42*** (0.000)
GDP	-9.57*** (0.000)	-7.56*** (0.000)
Education Expenditure	-13.52*** (0.000)	-11.79*** (0.000)
Real Interest Rates	-2.38** (0.017)	-1.52 (0.130)
Real Exchange Rates	-1.02 (0.309)	-0.62 (0.535)
Control Variables		
FDI Inflows	2.92** (0.003)	2.69** (0.007)
Inflation Rates	2.26** (0.024)	1.85* (0.065)
Employment	-0.74 (0.461)	-0.88 (0.376)
Productivity	13.82*** (0.000)	11.15*** (0.000)
Constant	3.10** (0.002)	3.49*** (0.000)

Notes: (1) standard errors are in parentheses, (2) interaction terms are mean-centred, (3) *p<0.1; **p<0.05; ***p<0.001.

Table 3-7 Regression Results - Determinants of Migrant Remittances (Deflated Data - Robustness Test 1)

Variable	Model 1: Panel OLS Regression, re Direct Effects	Model 2: Panel OLS Regression, re Moderating Effects
Dependent Variable:	**Migrant Remittances**	**Migrant Remittances**
Independent Variables:		
H1: Corruption Perception Index (CPI)		1.79* (0.074)
H2: Political Institutions		-5.24*** (0.000)
H3: Regulatory Institutions		2.28** (0.022)
H4: Masculinity/Femininity (Hofstede)		-2.11** (0.035)
H5: Power Distance (Hofstede)		3.06** (0.002)
H6: Uncertainty Avoidance (Hofstede)		-1.89* (0.059)
H7: Individualism (Hofstede)		1.95* (0.051)
Control Variables (Base Model)		
Dependency Ratio	-7.85*** (0.000)	-6.70*** (0.000)
Gross Capital Formation	10.14*** (0.000)	9.79*** (0.000)
GDP	6.09*** (0.000)	-0.40 (0.689)
Education Expenditure	-9.88*** (0.000)	-9.18*** (0.000)
Real Interest Rates	0.44 (0.661)	-0.58 (0.565)
Real Exchange Rates	0.69 (0.489)	-0.02 (0.980)
Control Variables		
FDI Inflows	-0.48 (0.629)	0.98 (0.328)
Inflation Rates	2.75** (0.006)	1.34 (0.180)
Employment	-3.96*** (0.000)	-1.90* (0.058)
Productivity	-3.45*** (0.000)	2.50** (0.012)
Constant	6.22*** (0.000)	3.17** (0.002)

Notes: (1) standard errors are in parentheses, (2) interaction terms are mean-centred, (3) $*p<0.1$; $**p<0.05$; $***p<0.001$.

Table 3-8 Regression Results - Determinants of Migrant Remittances (Normalised Data - Robustness Test 2)

Variable	Model 1: Panel OLS Regression, re Direct Effects (Normalised Data)	Model 2: Panel OLS Regression, re Direct Effects (Normalised Data)	Model 3: Panel OLS Regression, re Moderating Effects (Deflated Normalised Data)	Model 4: Panel OLS Regression, re Moderating Effects (Deflated Normalised Data)
Dependent Variable:	**Migrant Remittances**	**Migrant Remittances**	**Migrant Remittances**	**Migrant Remittances**
Independent Variables:				
H1: Corruption Perception Index (CPI)		4.78*** (0.000)		3.43*** (0.001)
H2: Political Institutions		-2.12** (0.034)		-1.75** (0.080)
H3: Regulatory Institutions		0.58 (0.559)		0.69 (0.493)
H4: Masculinity/Femininity (Hofstede)		0.21 (0.834)		0.18 (0.860)
H5: Power Distance (Hofstede)		2.22** (0.026)		1.84* (0.066)
H6: Uncertainty Avoidance (Hofstede)		-0.88 (0.378)		0.13 (0.895)
H7: Individualism (Hofstede)		-2.31** (0.021)		-1.30 (0.193)
Control Variables (Base Model)				
Dependency Ratio	-7.28*** (0.000)	-5.62*** (0.000)	-7.95*** (0.000)	-5.07*** (0.000)
Gross Capital Formation	1.32 (0.188)	0.58 (0.560)	-2.40** (0.017)	-0.51 (0.611)
GDP	-10.04*** (0.000)	-9.72*** (0.000)	0.78 (0.434)	-3.77*** (0.000)
Education Expenditure	1.51 (0.130)	2.45** (0.014)	0.66 (0.512)	0.72 (0.472)
Real Interest Rates	-2.29** (0.022)	-0.79 (0.427)	-1.32 (0.188)	-0.70 (0.486)
Real Exchange Rates	1.69* (0.091)	2.02** (0.044)	4.12*** (0.000)	2.62*** (0.009)
Control Variables				

FDI Inflows	4.18*** (0.000)	4.14*** (0.000)	1.52 (0.129)	3.77*** (0.000)
Inflation Rates	0.42 (0.675)	-0.65 (0.517)	0.28 (0.783)	-0.43 (0.668)
Employment	-0.08 (0.937)	0.72 (0.469)	-3.29*** (0.001)	-0.57 (0.568)
Productivity	11.68*** (0.000)	10.78*** (0.000)	0.10 (0.924)	5.03*** (0.000)
Constant	2.65** (0.008)	0.67 (0.505)	5.60*** (0.000)	0.81 (0.418)

Notes: (1) standard errors are in parentheses, (2) interaction terms are mean-centred, (3) *p<0.1; **p<0.05; ***p<0.001.

CHAPTER 4

Migrant Remittances and Economic Performance: Channels through which Remittances Impact on Performance, FDI and the Role of Culture and Institutions*

Abstract

This chapter complements the literature on the effects of inward FDI on economic performance, by exploring the impact of remittances, as well as FDI, on the recipient countries. In addition, the chapter examines the channels through which remittances impact on economic performance, and two distinct sets of moderating factors of this relationship, namely culture and institutional quality. We propose that the focus of the extant literature on the direct effects alone and the failure to account for FDI and the aforementioned country-specific factors, make it difficult to fully appreciate the impact of remittances, and FDI. Our analysis and evidence demonstrates that the impact of remittances, as well as FDI, is positive, it operates through important channels, and it is moderated by culture and institutions.

4.1 Introduction

Foreign direct investment (FDI) by multinational enterprises (MNEs) is widely acknowledged to be an important route through which economic performance and development can be fostered. The benefits of FDI are said to include the transfer of knowledge, skills and capital, the creation of employment and the development of either new, or more competitive, markets (Li and Liu, 2005; Ozturk, 2007, Dunning and Lundan, 2008). As FDI represents only one type of international capital flow in the global economy, an exclusive focus on FDI provides an incomplete account of the extent to which capital flows can foster economic development. To conceptualize economic development under globalisation more comprehensively, we need to examine other types of capital flows. To this end, this study focuses on the role of migrant remittances – an important, yet understudied, type of capital flow.

For various reasons, remittances by migrant workers can be a potent alternative or complement to development through FDI. Firstly, remittances are quantitative, sizable and on the increase (MPI, 2010). Moreover, they are less volatile as, unlike FDI, they are not motivated by profitability. They also target directly the needy and may serve purposes that include investment in education, the creation of small businesses and other entrepreneurial activities. These too, like FDI, may lead to the creation of employment and new markets (Lucas and Stark, 1985; King and Levine, 1993; Ratha, 2003). Remittances may also result in durable investments in human capital, and foster a more independent bottom-up developmental process, than that achieved through investments by foreign firms (Yang, 2003; Hanson and Woodruff, 2003). On the other hand, however, and unlike FDI which is by definition investment, remittances may be used not only for investment, but also for consumption and other purposes. If for example they are used for conspicuous consumption, such as the purchase of luxury, especially imported, products, this can compromise their long-term developmental impact (Chami et al, 2005).

Despite the importance of the topic for an appreciation of globalisation, hence International Business (IB) scholarship, little research has attempted to analyze the role of remittances in general and in its relationship to FDI in particular. As remittances are quite sizable in general and especially as a percentage of gross

domestic product (GDP) in some cases (they exceed 10 percent of GDP in some countries (MPI, 2010)), the absence of such analysis limits not only scholarly understanding of the nature, scope and consequences of globalisation, but also the development of effective policies. To address this research gap, we aim to extend current thinking by exploring how remittances affect economic performance, alongside FDI, the channels through which they do so, and the various of country-specific factors that can moderate these effects. To achieve this, we develop and test a set of hypotheses pertaining to the impact of remittances on economic performance, the channels through which remittances operate, and the institutional and cultural factors, that can potentially moderate their economic effects. In addition, we examine the moderating role of institutional and cultural indicators on the channels of remittances, thereby taking our research a step further.

4.2 Conceptual Background on Remittances and Economic Performance

4.2.1 The Nature and Economic Uses of Remittances

Remittances refer to transfers of funds by migrant workers to their home countries. According to the International Fund for Agricultural Development, in 2005, 150 million migrants worldwide sent more than US$300 billion to their families in mostly developing countries. Remittances have been an important means of financial support to their recipients; however these flows have historically been 'hidden' and often uncounted, as they were often transferred through unofficial channels-for example letters, through travelling relatives etc. In recent years, there has been a dramatic increase in recorded remittances. This and the potential advantages of remittances vis-à-vis FDI and other capital flows (Barajas et al, 2009; Yang, 2011), have led to a growing number of papers in development economics examining their economic impact on poverty, inequality, education, infant mortality, entrepreneurship, and overall economic performance. Various authors and international organisations have gone as far as considering remittances to be the new development mantra (Kapur, 2004).

Remittances have been mainly analyzed through the neoclassical economics approach of the "new economics of labour migration" (NELM), which argues that

migration may stimulate development, lessen production and investment constraints faced by households in imperfect market environments, and create income growth linkages (Taylor, 1999; Ratha, 2003; Carling, 2004). Remittances therefore, can be seen as a means of increasing disposable incomes, boosting consumption and ultimately alleviating poverty. Hence remittances have been viewed as a source of financial development that could reduce poverty and boost economic performance (Ratha, 2003; King and Levine, 1993; Jongwanich, 2007). The literature has also emphasized that remittances are more stable and less volatile than private capital flows (both direct and portfolio), and may respond to business cycles fluctuations, for example by increasing during economic slowdowns (Gammeltoft, 2002; Ratha, 2003), hence functioning in a useful countercyclical fashion.

The impact of the current economic crisis on FDI flows and the related idea that this may represent a halt and potentially a reversal of the globalisation trend (UNCTAD, 2009), makes the examination of remittances timely. While the flows of both FDI and remittances are decreasing as the crisis deepens, the reduction of FDI is far more pronounced. Evidence indicates a near 40 percent reduction in global FDI flows in 2009 (UNCTAD, 2009), which stands in contrast to a relatively low (9 percent) decline in remittances (Catrinescu et al, 2009; Yang, 2011). This may be explained by the fact that migrants may be motivated mostly by altruism, rather than profits. This implies that remittances may also function as a buffer in hard times.

The effects of remittances on economic performance depends, at least in part, on the uses of remittances, in other words the extent to which they are used for productive or less productive purposes, e.g. investment versus consumption, as well as the type of investment or consumption. For example, conspicuous consumption for luxury goods is less likely to have beneficial effects on economic performance than investment. Until recently, a number of authors in the development economics literature voiced a belief that remittances might have had limited gains for growth as they were 'frittered away' on personal-conspicuous consumption, social ceremonies, real estate and price escalating trading (Ghosh 2006, pp. 65).

The uses of remittances relate to the reasons that motivate migrants to remit. According to the literature there are six distinct microeconomic motives of remittances; altruism, exchange, inheritance, insurance, investment and a *strategic*

motive. The models based on these determinants share many predictions and hence, it has not proven possible to test for all these motives independently, not least because of the inadequacy of existing data (Rapoport and Docquier, 2005). In this context, it has been suggested that the most obvious motive to remit is some form of altruism, albeit a tempered one (Lucas and Stark, 1985).

Studies on the motives of remittances seem to support a variant of the altruism model. Inflation rates of the recipient country have been found to affect positively the flow of remittances, thereby suggesting that the flow of remittances increases in the face of higher prices in the receiving country, so that the recipient households can maintain their existing levels of consumption (El-Sakka and McNabb, 1999). It has been acknowledged however, that altruism *alone* does not constitute a full explanation of the motivations to remit and the literature suggests that exchange, investment and inheritance also share a part in the decision to remit. Hence, a model of remittances named 'tempered altruism' or 'enlightened self-interest' was developed to capture this (Lucas and Stark, 1985). In addition, it has been considered as a stylized fact that while "a significant portion, and often the majority, of remitted funds are spent on consumption", a (smaller) portion of remittances is used on investment, though usually in housing and land (Chami et al 2005, pp. 8-9).

In its turn, consumption is often considered to have a weaker effect on economic performance than investment, hence supporting a pessimistic view on their impact on development (Stark and Levhari, 1982; Ahlburg, 1991). Despite the above, it has been argued that aiming to increase the share of investment in the uses of remittances, might be counterproductive. The impact remitting has on poverty reduction is due to their counter-cyclical nature thereby enabling consumption smoothing for recipients. The more remittances assume the role of investment capital, the more sensitive they are likely to become to changes in the business environment or ups and downs in the economy (Ghosh, 2006). In other words, if the share of remittances used for investment purposes increases, remittances may lose their counter-cyclical characteristic and start acting in line with the conventional investment patterns, including FDI, dictated by the business cycle - rising in boom periods and decreasing during slumps.

In addition to the above, however, we claim below, that the impact of consumption

on economic performance, both directly and through their impact on investment, might have been underplayed in extant literature, which moreover has mostly failed to consider the impact of remittances through specific channels, such as consumption versus investment. We aim to address these limitations below.

4.2.2 Economic Effects of Remittances-Theory and Evidence

A number of empirical studies have concluded that remittances have a positive and significant impact on the productivity of the recipient country (Leon-Ledesma and Piracha, 2001). By contrast, other studies suggest that remittances may have a negligible impact, or even hinder economic performance. For example, Glytsos (2005) examined the role of remittances in development as related to foreign exchange and savings constraints in countries on both sides of the Mediterranean basin. He focused on the impact of remittances on the balance of payments, savings and investment, and on structural changes in the economy. Along the lines of Bliss (1989, pp. 1196-1997), who argued that "a country may be constrained from achieving a faster rate of development either by a shortage of saving, or by a shortage of foreign exchange", Glytsos stated that the lack of foreign exchange constitutes a constraint to economic development because investment goods cannot be imported. In his empirical analysis he found both positive and negative effects of remittances, which vary amongst countries. As far as structural change is concerned, the author found that remittances may affect demographic changes, education, family and economic characteristics, income distribution of the migrant family etc. Concerning the Balance of Payments (BOP), the overall conclusion of his study was that during the 40-year period examined, remittances on the European side of the Mediterranean basin had decreased, hence becoming a weaker source of financing imports in that region (Glytsos, 2002).

A critique of remittances relates to the 'Dutch disease', namely the idea that a large inflow of foreign currency can reduce a country's international price competitiveness by appreciating its real exchange rate. Amuedo-Dorantes and Pozo (2004) investigated the effect of 'private' gifts in the form of remittances on real exchange rates in a panel of 13 Latin American and Caribbean countries. They concluded that a

doubling in the flow of remittances leads to an approximate 22 percent increase in the real exchange rate. Additionally, Bourdet and Falck (2006) found that a 10 percent increase in Cape Verde's remittance flows leads to a 1.2 percent appreciation of the Cape Verdean real exchange rate. In contrast to the above, Rajan and Subramanian (2005) argued that remittance flows have limited, if any, adverse effects on a country's competitiveness, as they differ substantially from any other capital flows that may exhibit Dutch disease effects.

Remittances, unlike FDI, or natural resource windfalls, for example do not have the capacity to engender corruption or non-efficient spending, as they flow to private units rather than to the state. Moreover, Rajan and Subramanian (2005) concluded that remittances are deterred by overvalued exchange rates, as in such cases, emigrants find it cheaper to send goods directly. Hence, remittances may in fact be self-correcting and thus, any Dutch disease effects not applicable or sustained. Similarly, the World Bank (2006, pp. 104) agreed that "the 'Dutch disease' effects of remittances are of relatively minor concern, insofar as remittances grow gradually over long periods", and even if they do arise, the appreciated real exchange rate level can be mitigated through the adoption of policies that offset the adverse affects, such as more liberal trade policies. Hence, the empirical evidence on 'Dutch disease' effects of remittances is also inconclusive (World Bank, 2006).

Given the above, a potentially more instructive investigation could begin by narrowing the question down to examine under what circumstances remittance flows are likely to reduce competitiveness and economic performance. In this context, Gupta et al (2007, pp. 8) indicated that it this is more likely to occur "In countries where remittances inflows are large compared to the size of the economy, where supply constraints are a significant hindrance to the expansion of the nontradables sector, and where a significant portion of remittances are spent on domestic goods". While, as noted, the World Bank's (2006) general position is that 'Dutch disease' effects of remittances are relatively minor, it concurred with Gupta et al (2007), by pointing out that "it is plausible that this effect exists and is significant for some small economies where remittances are very high" (World Bank 2006, pp. 104).

As discussed earlier, the World Bank has also reported that 'Smaller and poorer countries tend to receive relatively larger remittances when the size of the economy

is taken into account' (Ratha 2007, pp. 3). In fact, in the same publication, the Bank (2006, pp. 89) explains that when remittances are calculated in per capita terms or as a share of GDP, the emerging top 20 recipients are all developing countries - each one receiving remittance flows of more than 10 percent of GDP. It may therefore appear inconsistent for the Bank to conclude that lost competitiveness is less of a concern because it would only pose a serious problem in countries where remittances make up a large percentage of GDP, whilst simultaneously advocating the idea that remittances as a share of GDP are greatest in the poorest countries.

A study that supported the idea of a negative correlation between remittances and GDP was conducted by Chami et al (2005), who focused on some micro-foundations, previously missing from the majority of studies on remittances. In particular, they investigated whether remittances constitute a source of capital for development. They queried whether remittances act in a similar way to other capital flows, for example FDI, or they are non-profit-driven compensatory transfers, and hence, are more likely to have a negative correlation to GDP growth. The authors used the family as the basic unit of their analysis and described the relationship between the migrant and the family as altruistic. The implication from their analysis was that remittances are of a compensatory nature, in other words they are sent to recipient households as a means of overcoming hardships and protecting recipients from negative shocks. Hence remittances would appear to have a negative correlation to economic performance.

For the aforementioned reasons Chami et al (2005) hypothesized that remittances would have a negative relationship to income growth, in contrast with other capital flows such as FDI that are profit-driven. Their empirical estimations reported evidence suggesting a negative relationship between remittances and GDP growth. They concluded that remittances do not seem to serve as capital for development but rather as compensation for poor economic performance.

Despite the fact that Chami et al (2005) combined micro-foundations with empirical evidence, it would be hard to argue that their study can offset all the arguments and evidence in support of the (indirect) beneficial effects of remittances, for example through education and health. In addition, other studies which provide criticism of the potential benefits of remittances in economic development, fail to report

unambiguous results. Last but not least, the conceptual literature reports a relationship between remittances and economic performance, notably output (GDP), and/or GDP per capita (PC) (hence our focus here), not the rates of growth, which Chami et al (2005) used as their dependent variable.

In addition to the above, it is arguable that one reason for the conflicting evidence found by the various studies so far, is that they focus on the direct relationship between remittances and economic performance. However, remittances are likely to impact on performance through various channels. It is therefore important to consider these channels, and identify the way in which they influence the impact of remittances on economic performance. Furthermore, the literature has failed so far to consider important potential moderating factors, more commonly used in the IB literature, such as culture and institutions. As already seen, moreover, very few studies in development economics and none to our knowledge in IB, have considered the impact of both FDI and remittances on economic performance in the context of the same estimated equation. In this chapter we do this as well, by including FDI as an independent- control variable.

In the following section, we conceptualise the role of channels and moderating factors before proceeding to our econometric investigation.

4.3 Channels of Remittances

4.3.1 Introduction

As noted, extant literature has only focused on the direct effects of remittances on economic performance. This is despite extensive discussions on the possibility that the effects of remittances may differ, depending on the way in which they are channelled into the economy, for example consumption versus investment. In this Section we aim to address this limitation. In addition to the direct effects, we consider a number of channels and examine conceptually and empirically the impact of remittances through these channels. Below we focus on the main such channels discussed in literature.

4.3.2 Domestic Consumption and Investment

The first channel we explore is domestic demand (consumption and investment). Despite the fact that the use of remittances for conspicuous consumption purposes may have a limited impact on economic performance, consumption is an important part of demand, which in turn impacts positively on GDP. More specifically, in the short-term, remittances are expected to have a positive effect on consumption, as recipients of remittances (usually, low income groups) tend to have a relatively high propensity to consume, an observation that goes back to Keynes (1936). This in turn, will be expected to have a positive effect on GDP (Begg et al, 2008). Remittances can be of compensatory nature as well, by behaving as transfers that aim to ease tough economic times (Chami et al, 2005). In addition to these, some consumption may be channeled into durable goods, which are a form of investment. Last but not least, many scholars in macroeconomics observed that investment demand depends on consumption; hence consumption and investment can be positively related (Begg et al, 2008).

Another channel through which remittances affect economic performance is through domestic investment. In this case remittances will have a similar effect to other types of investments such as FDI-indeed domestic and foreign investment can be complementary (Borensztein et al, 1998). As investment is also part of aggregate demand, it is anticipated to have a positive impact on GDP. On the basis of the above, we would therefore expect remittances to positively affect economic performance through both investment and consumption.

Furthermore, remittances have been found to ease liquidity constraints within a household, which in turn, can lead in both productive investments and educational development by contributing in investments in physical and human capital (Rapoport and Docquier, 2005), to which we now turn.

4.3.3 Investments in Human Capital

While expenditures on food, housing, schooling and healthcare can be considered as consumption, satisfying the basic needs of a migrant's family (food and shelter),

education and health can be considered as investments in human capital. As noted, literature suggests that remittances can be used for targeted investments in human capital and education, the creation of small businesses and other entrepreneurial activities, hence boosting domestic supply and productivity, and impacting positively on economic performance (World Bank, 2006).

Consequently, a channel through which remittances may impact positively on economic performance and development is education. Remittances are associated with improved schooling for children, hence enhancing human capital, and reducing child labour (Yang, 2003; Hanson and Woodruff, 2003; Alcaraz et al, 2012). In addition, evidence suggests that children in migrant households complete more years of schooling (Hanson and Woodruff, 2003). For example, for girls in Mexico, the estimated increase ranged between 0.2 – 0.9 years. A study on Botswana found remittances to have a risk-spreading effect between urban and rural populations and to increase investment in education (Lucas and Stark, 1985). Furthermore, remittances have been found to improve the educational system in Mexico (Hanson and Woodruff, 2003; Lopez-Cordova, 2004), the Philippines (Yang, 2003) and El Salvador (Cox-Edwards and Ureta, 2003), implying that this could be a widespread effect. In addition, when dealing with saving and investment out of remittances, in Greece for example, the top priority spending of remittances was in education, in other words investment in human capital (Glytsos, 2002). The need for policy making and implementation has been highlighted, as countries have not yet managed to use remittances to the maximum potential for their development.

Further evidence suggests that remittances have a positive impact on health in the countries of origin. Various studies on this issue have been conducted in Mexico, as its data availability is among the best. Evidence suggests that an 8 percent increase in the level of remittance flow in Mexican households, would result in a 5 percent decrease in infant mortality (Lopez-Cordova 2004, pp.14). In addition, healthcare expenditures in Mexico rose in response to incoming remittances, with hospitalization receiving the largest investment, but primary care benefiting too (Amuedo-Dorantes et al, 2007). It is arguable that improved health will increase both productivity and aggregate outputs through, for example, increased days of work.

However, the utilization of remittances could be conditioned by the level of human

capital in the recipient country, in other words the impact of remittances on economic performance may be better realised when there is a minimum threshold of human capital in the country of origin. This could be the case as the level of human capital could determine the degree of the absorptive capacity of an economy, as well as foster, or restrict its adoption and implementation of new technologies (Nelson and Phelps, 1966; Benhabib and Spiegel, 1994; Borensztein et al, 1998). In this context, it has been suggested that human capital can stimulate economic performance by affecting the growth rate of total factor productivity (Romer, 1994). Hence, education and health can be crucial moderating factors for the realization of the impact of remittances on economic performance.

4.3.4 Industry and Enterprise Development

In spite of a widespread belief that remittances are spent primarily in household consumption, there is evidence suggesting that productive investments are sometimes funded through remittances, and these usually involve micro-enterprises. Generally, development initiatives are increasingly orientated towards small enterprise development, frequently through the promotion of micro-credit for small entrepreneurs. In this context, migration and remittances can be seen as a mechanism to provide capital for the development of small businesses, hence contributing to development and poverty alleviation. The promotion of small enterprises through the acquisition of financial capital has been shown to be enhanced by remittances, which have also been used to ease credit constraints faced by these businesses (Yang, 2004; Woodruff and Zenteno, 2004).

In particular, significant contributions to savings and investment have been reported in the island economies of Tonga and Samoa (Brown, 1994). Evidence also suggests that remittances in Tunisia tend to boost workers with limited access to the financial market and encourage them to invest (Mesnard, 2004). Remittances can also improve a country's creditworthiness and therefore augment its access to international capital markets (Jongwanich, 2007). The computation of a country's credit ratings can also depends on its level of remittance flows. The higher the level of remittance flows the better the credit rating rank the country can reach (World Bank, 2006). The better

these are, the more they are likely to improve a country's industrial sector.

Arguably the best proxy for the performance of the industrial sector is industry value added. For example value added has been claimed to be the best measure of economic performance for corporations and industrial sectors, better than alternatives such as revenue or employment (Kay, 1993). In addition value added is more comparable to GDP which is also a value added-based concept. The problem with value added is that data is often limited. In our case, however, we have been able to collect such data, hence our focus here on industry value added.

4.4 Conceptual Framework and Hypotheses Development

Our conceptual framework focuses on the direct effects of remittances, but also on a number of channels through which these effects operate, as well as on factors that moderate these effects. Its main contribution lies in the fact that despite the aforementioned extensive literature, there has been little attempt to conceptualise and categorise the role of the channels, as well as the moderating factors, such as corruption, institutions and culture, and the magnitude of their effects on the impact of remittances on economic performance of recipient countries. Building on the above analyses and findings, Figure 4-1 depicts the various indicators which can moderate the potential impact of remittances on GDP and GDP per capita (PC) - our proxies for aggregate economic performance, see below. In brief, the moderating factors include the institutional environment, corruption and culture. In addition, we employ a number of control variables as follows: FDI inflows, inflation rates, employment and productivity. These are also discussed further below. Testing for the channels, as well as host country cultural and institutional characteristics, can allow us to appreciate better the capacity of the recipient country to utilize remittances. This can provide further insight on whether remittances have a positive or negative impact on economic performance and help explicate the differences between different countries. Importantly this is the first study in IB to consider FDI and remittances in the same estimated framework, thereby allowing us to also compare their effects.

4.4.1 The moderating role of institutions, policies and culture on remittances

Institutions are widely recognised as potentially important determinants of economic performance. The New Institutional Economics (NIE) focused on the formal rules and informal norms that underpin individual behaviours and form social interactions, hence institutional frameworks. In the literature institutions are defined as "humanly devised constraints that structure political, economic and social interaction" (North, 1991). More specifically, these are said to "consist of both informal constraints (sanctions, taboos, customs, traditions, and codes of conduct), and formal rules (constitutions, laws, property rights)" (ibid, 1991). When institutional codes are weak or do not evolve there is lack of the requisite social stability that helps make an economic system viable (North, 1990). In the case of remittances social and economic stability could be argued to be important in determining the amounts of money sent and the channels through which remittances are directed within an economy.

Therefore, the role of institutions can be of critical importance to the understanding of the means and efficiency through which remittances are channelled, as they can act as moderating factors. A country with a more advanced institutional level and better quality of economic and social policies can help remittances to contribute more effectively to its long-term performance (Catrinescu et al, 2009). Similarly, in a country with sound economic policies, the impact of remittances if likely to be more pronounced (Faini, 2002).

Faini (2002) examined the hypothesis that remittances' effect on long-term growth is determined, in part, by the source country's policies and institutions. The evidence showed that institutions do indeed play a significant role in promoting remittances' positive impact in source countries, as a sounder institutional environment affects the volume and efficiency of investment. Thus, better institutions would help remittances to be channelled more efficiently, resulting in higher output.

Overall, institutions are widely agreed to play a significant role in fostering remittances' impact in source countries, as a stronger institutional environment affects the volume and efficiency of investment (Catrinescu et al, 2009). Thus, better

institutions and policies would help remittances to be channelled more efficiently, resulting in a higher output.

Le (2008) investigated the fundamental determinants of per capita income growth by focusing on three main factors; international trade, remittances and institutions. Le employed large samples of developing countries to examine empirically the above, has come to the conclusion that in the long-run, growth is strongly affected by the quality of institutions and the level of international trade of the country, in conjunction, however, with a low level of remittances (Le, 2008). More specifically, the evidence found was in support of the view that remittances can hamper economic performance by potentially harming the trade sector by appreciating the domestic currency and, also, by fuelling inflation and creating a disincentive to work (ibid, 2008). In this context, suggestions have been made that policy makers should adopt appropriate policies to strengthen institutional quality and trade openness, but nor encourage remittances.

None of the aforementioned studies have focused on the channels through which remittances affect performance, thereby potentially underplaying significantly their effects. In addition they failed to consider the role of FDI, hence under-specifying the estimated relationships. It is interesting to test whether such findings survive the more comprehensively specified equation, and the richer data base employed in this paper.

Despite such limitations, such studies highlighted the importance of sound institutions and policies to support and promote economic performance. As already noted moreover, research on the role of institutions concerning the impact of the latter on economic performance, suggested that institutions can play a moderating role (Catrinescu et al, 2009; Aggarwal et al, 2011). In particular, the stronger are the institutions, the higher is likely to be the impact of remittances on economic performance. For the better understanding of the moderating role of institutional quality we examine two categories of institutions, political and regulatory (Kaufmann et al, 2010). In addition we pay special attention to corruption. This is because it is widely adhered to that corruption can be seen as cultural trait that can play a very important, usually negative, role on economic performance (Mauro, 1995).

On the above basis we hypothesise (H) the following:

H1: Remittances will have a greater positive impact on economic performance in countries with lower levels of corruption.

H2: Remittances will have a greater positive impact on economic performance in countries with better-quality political institutions.

H3: Remittances will have a greater positive impact on economic performance in countries with better-quality regulatory institutions.

It is arguable that similar considerations apply for cultural considerations. For example, cultural differences between countries could potentially help explain under which circumstances remittances are used for (conspicuous) consumption or investment purposes, and therefore whether they impact positively (or negatively) on economic performance. In addition, as already noted attributes such as corruption, can be seen as both institutionally and culturally-determined.

Culture has played a crucial role in political economy, but has been underplayed by development economists. Its importance in IB scholarship, on the other hand, is well documented (Berry et al, 2010).

Literature on political economy has focused on analysing the causality flows between culture and economic relations and performance, both when culture affects economic relations (Mill, 1843) and when culture is a by-product of economic relations (Marx, 1859). A synthesis of these two directions of causalities produced another view which established a link between culture and political outcomes known as cultural hegemony (Gramsci, 1949). Cultural hegemony suggests that the superiority of a social group will be the dominant one and will influence the rest of society morally and intellectually.

In addition to the above, some literature has introduced cultural capital as a fourth form of capital which can be found in three forms; in an embodied, objectified or institutionalised state with the former one being the most significant one (Bourdieu, 1986). Generally, "most of the properties of cultural capital can be deduced from the fact that, in its fundamental state, it is linked to the body and presupposes

embodiment" (ibid 1986, pp. 244). This definition is very similar to that of human capital in neoclassical economics (Robbins, 1991).

From the above analysis we can conclude that the role of culture in economic relations and its significance in affecting or being affected by economic structures is very important. Hence, remittances which by definition are likely to be affected by the 'culture' of individuals (for example the degree of altruism, which is meant to motivate them) are anticipated to be directly affected by the different social structures, which we need to account for in our analysis.

For the purposes of our chapter we adopt the definition of culture as "those customary beliefs, values, and social constraints that ethnic, religious, and social groups transmit fairly unchanged from generation to generation" (Guiso et al, 2006) and we assume that immigrants remitting back to their country of origin share similar cultural traits with those of the recipient country. For the development of our hypotheses we adopt the categories developed by Hofstede (2010). These categories have been criticised by various authors (Tung and Verbeke, 2010). On the other hand, they are the ones for which there is data available and also comparability with other studies is made possible. Hofstede had suggested that indicators for measuring national culture such as masculinity vs. femininity, power distance, individualism versus collectivism and uncertainty avoidance can help provide a more nuanced appreciation of differing economic behaviours and performance (Hofstede, 2010).

It can be suggested that the degree of "masculinity" versus 'femininity' might also impact on the use of remittances. For Hofstede, masculinity "represents a preference in society for achievement, heroism, assertiveness and material reward for success. Society at large is more competitive. Its opposite, femininity, stands for a preference for cooperation, modesty, caring for the weak and quality of life. Society at large is more consensus-oriented" (Hofstede, 2010). It follows that more masculine societies could be expected to be associated with higher entrepreneurial activity, while more feminine societies might be expected to be motivated by altruism. Given that the last mentioned has been hypothesised by many to be negatively correlated to economic performance, it could be suggested that:

H4: Remittances will have a greater positive impact on economic performance in

countries with higher masculinity scores.

Another cultural dimension, concerns 'power distance'. For Hofstede, power distance expresses "the degree to which the less powerful members of a society accept and expect that power is distributed unequally. People in societies exhibiting a large degree of power distance accept a hierarchical order in which everybody has a place and which needs no further justification, whilst in societies with low power distance people strive to equalise the distribution of power and demand justification for inequalities of power" (Hofstede, 2010). The higher power distance is the lower is the likelihood that remittances will be used for investment. This is because higher power distance can imply concentrated power structures, hence barriers to new entrants. Accordingly:

H5: Remittances will have a greater positive impact on economic performance in countries with lower scores in power distance.

Individualism is another cultural dimension, employed by Hofstede. Individualism can be defined as a "preference for a loosely-knit social framework in which individuals are expected to take care of themselves and their immediate families only. Its opposite, Collectivism, represents a preference for a tightly-knit framework in society in which individuals can expect their relatives or members of a particular in-group to look after them in exchange for unquestioning loyalty" (Hofstede, 2010). The higher this is the more likely is that remittances will be used for self advancement, hence private investment, rather than altruism. Accordingly, while societies with higher degrees of individualism may well remit less, the sums they remit are likely to have a bigger impact on performance. Hence,

H6: Remittances will have a higher positive impact on economic performance in countries which exhibit higher degree of individualism.

A fourth important cultural dimension is uncertainty avoidance. Uncertainty avoidance represents "the degree to which the members of a society feel uncomfortable with uncertainty and ambiguity. Countries exhibiting strong UAI maintain rigid codes of belief and behaviour and are intolerant of unorthodox behaviour and ideas. Weak UAI societies maintain a more relaxed attitude in which practice counts more than principles" (Hofstede, 2010). The higher this is, the less

likely is that remittances will be channelled to investment, as this presupposes risk taking behaviour. Accordingly:

H7: Remittances will have a greater positive impact on economic performance in countries with lower scores in uncertainty avoidance.

In the next section, we test for the direct and indirect effects of remittances on GDP and GDP per capita, estimating the indirect effects by using their interaction terms with remittances, as additional independent variables.

4.5 Empirical Investigation

4.5.1 Sample and Data

We have collected data for a sample of 91 countries (31 developed and 60 developing) on fifteen variables (FDI, remittances, GDP, inflation rates, productivity, employment, real exchange rates, final consumption expenditure, investment, education, health expenditure, institutional environment, corruption and four cultural dimensions). To capture the changing role of remittances over time, we collected data for the period 1995 to 2009. To our knowledge this is the most comprehensive data set available to date. For this, we used primarily the UNCTADStat dataset, as well as the World Bank, with the addition of cultural variables. For the institutional variables we used the Worldwide Governance Indicators available from the World Bank, and the Corruption Perception Index from Transparency International, while our cultural variables were gathered from the Geert Hofstede Index. A more detailed analysis of the variables used, their sources and formulas is provided in Table 4-1. For our statistical investigation we employed a panel dataset.

Concerning limitations of our dataset we have extensively talked about migrant remittances, FDI and gross capital formation in Chapter 3. Concerning the additional variables which we employed in this chapter, for expenditures on health the collection and estimation methodologies, as well as definitions may differ according to individual countries. In addition, many developing countries use Demographic and Health Surveys or Multiple Indicator Cluster Surveys funded by donors to obtain health system data. Data on industry value added also present certain shortcomings.

The WB highlights the importance of industrial output to be measured through regular censuses and surveys of firms. However, as in the case in most of our previous variables, most developing countries lack the capacity to run these surveys frequently enough. In addition, the quality of data on this proxy can be affected by the choice of sampling unit (i.e. the enterprise or the establishment) and evasion of excise and other taxes and nondisclosure of income which lower the estimates of value added. In addition, output should include all such unreported activity as well as the value of illegal activities and other unrecorded, informal, or small-scale operations, data which cannot be collected using conventional surveys of firms.

It is important to note that these limitations reported affect all empirical studies, not just ours. Concerning our results it is arguable that the large size of our data base, its comprehensive nature and the fact that it has employed data from the best sources available, provides us with some confidence, not so much about the accuracy of our results, but rather about their reliability vis-à-vis other studies that have employed less sophisticated and comprehensive data sets. Importantly our robustness checks are more comprehensive than in extant literature, notably because of our normalisation. Having said this, it remains the case that the results should be treated with caution until more reliable data becomes available.

As already noted, partly because of data limitations, but also for comparability with extant literature, we have chosen to use current prices for all our variables in our baseline model. In particular, there was lack of data in constant terms for some of the variables employed in our regressions, as well as lack of consistency in terms of the base years used. For this and the potential criticisms pertaining to the appropriate deflator used, we decided to use current terms for all our variables and control for the inflation rate. However, for the purposes of robustness, we have also run our regressions with data in constant prices. The results were substantively the same, giving us more confidence about our baseline results. We analyse these results further in our Results section. In addition, we have employed normalised data in order to account for the size of the economy and provide an extra robustness check. We normalised our data both for the regressions in current and constant terms. Considering the substantial differences in the size of countries, it is not surprising that the results were somewhat different. However, substantively the main findings

were quite similar, hence providing further comfort for the reliability of our results. These are discussed in more detail in the text.

The GDP deflator we employed is different for each individual country and is the most common deflator employed in such cases. This and the fact that we have also used the inflation rate as an additional independent/control variable, provides added comfort on the reliability of our results. We note that many well known studies on remittances have employed their data in current terms (Catrinescu et al, 2009). In this context, comparability of results suggested the use data of current prices as well. For further comfort we also employed deflated data and have undertaken robustness tests which have not been performed in earlier studies. We acknowledge that data and other limitations may persist; we suggest however, that our study adds to the extant literature in a number of ways, including the data, method and technique.

As already noted in Chapter 3 (see Section 3.4.1), it is arguable that data limitations impact on the reliability of our results less than in most other studies that rely on smaller and less comprehensive data sets. As we noted, the choice and combination of sources that we selected for this dataset, as well as the large sample of countries and time series employed render our dataset one of the most comprehensive, perhaps the most comprehensive, available. Our sample includes both developing and developed economies without missing any key countries. It is an aggregate dataset over a 15-year period and therefore rather representative of both developed and developing countries. While data limitations are likely to persist, we feel that our database is one of the strengths of this thesis, at least as compared to other studies.

4.5.2 Model and Measures

To capture economic performance and productivity of a recipient country we used two dependent variables, namely real total GDP and GDP per capita. Both are widely regarded as good proxies of economic performance and economic development. GDP is a measure of value added-wealth creation, while GDP per capita is also seen as a proxy for GDP per employed person, which is a measure of aggregate productivity, which in turn is widely considered to be the best proxy for economic performance (Krugman, 1994; Porter, 1990). For our dependent variables we used

UNCTAD's calculations based on UN DESA Statistics Division. More specifically, GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes, minus any subsidies not included in the value of the products. GDP per capita is GDP divided by midyear population, thereby a proxy of total factor productivity. The data are expressed in current U.S. dollars.

We employ an extensive list of proxies for our independent variables derived from the extant literature as follows:

Remittances: To capture for the impact of remittances we gathered data on total remittances, which cover workers' remittances, compensation of employees and migrants' transfers. The *Balance of Payments Manual* (IMF, 1993) defines workers' remittances as "goods and financial instruments transferred by migrants living and working (being residents) in a new economy, to residents of the country in which the migrants formerly resided. A migrant must live and work in the new economy for more than one year to be considered a resident there. Compensation of employees includes wages, salaries, and other benefits, in cash or in kind, earned by individuals - in economies where they are not residents - for work performed for residents of the host economies. It covers seasonal and other short-term workers and border workers. Migrants' transfers cover for flows of goods and changes in financial items that arise from migration (change of residence for at least one year)". We used UNCTADStat for our remittance data collection as their calculations are based on multiple sources including IMF - *Balance of Payments Statistics,* World Bank - *Migration and Remittances,* Economist Intelligence Unit - *Country Data* and national sources. Hence, they are the most inclusive. Data are in current U.S. dollars.

Corruption: To proxy corruption we used the Corruption Perception Index (CPI) provided by Transparency International. CPI ranks countries based on perceptions of corruption in their public sectors.

Institutional Variables: In order to capture the moderating effect of institutions on the impact of remittances on long-term economic performance, we employed data from the World Bank's Worldwide Governance Indicators (WGI) project, which reports aggregate and individual governance indicators for six dimensions of governance: control of corruption, government effectiveness, political stability and absence of

violence/terrorism, regulatory quality, rule of law and voice and accountability. In general, "Governance consists of the traditions and institutions by which authority in a country is exercised. This includes the process by which governments are selected, monitored and replaced; the capacity of the government to effectively formulate and implement sound policies; and the respect of citizens and the state for the institutions that govern economic and social interactions among them" (Kaufmann et al, 2010). On the above basis, we consider the WGI project to be the best proxy available for examining institutions.

For estimation purposes we created two groups of institutions, the political one including control of corruption, government effectiveness and political stability and absence of violence/terrorism, and the regulatory one including regulatory quality, rule of law and voice and accountability (Kaufmann et al, 2010). We averaged the values of the variables in each category and divided them by their number.

Cultural Indicators: We consider Hofstede's Cultural Index to be one of the most comprehensive on national and organisational culture. Due to data availability, we employ data for four out of five cultural dimensions, namely power distance, individualism, uncertainty avoidance and masculinity/femininity.

Aggregate Consumption: To capture the impact of aggregate consumption on economic growth we gathered data for recipient countries' final consumption expenditure from the World Bank. Final consumption expenditure (formerly total consumption) is a component of GDP and is the sum of household final consumption expenditure (private consumption) and general government final consumption expenditure (general government consumption). Data are in current U.S. dollars.

Aggregate Investment: We proxied investment by using data on gross capital formation, which we gathered from UNCTADStat. Gross capital formation (formerly gross domestic investment) is a widely used proxy for investment and comprises of outlays on additions to the fixed assets of the economy, plus net changes in the level of inventories. According to the 1993 SNA, net acquisitions of valuables are also considered as capital formation. Data are in current U.S. dollars.

Investments in Education: To capture for investments in education as a result of the inflow of remittances we employed data on education expenditure (adjusted savings:

education expenditure), which refers to the current operating expenditures in education, including wages and salaries and excluding capital investments in buildings and equipment. We gathered data from the World Bank, World Development Indicators (WDI) and Global Development Finance (GDF). Data are in current U.S. dollars.

Investments in Health: To capture for investments in health we used as proxy total health expenditure, which is the sum of public and private health expenditure. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health it does not include provision of water and sanitation. We gathered data from the World Bank, World Development Indicators (WDI) and Global Development Finance (GDF). Data are in current U.S. dollars.

Industry Value Added: We used industry value added data to account for industry and enterprise development - industrial competitiveness (Kay, 1993). Industry corresponds to ISIC divisions 10-45 and includes manufacturing (ISIC divisions 15-37). Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. The origin of value added is determined by the International Standard Industrial Classification (ISIC), revision 3. We gathered data using the World Bank using the World Development Indicators (WDI) and Global Development Finance (GDF). Data are in current U.S. dollars.

We analysed all the above proxies and variables in the context of their direct effects on economic performance. However, in order to be able to identify the moderating factors through which remittances impact on long-term economic performance, we have added interaction terms to all the aforementioned indicators. This led to the following additional variables: rem*corruption perception index (H1), rem*political institutions (H2), rem*regulatory institutions (H3), rem*power distance (H4), rem*individualism (H5), rem*uncertainty avoidance (H6) and rem*masculinity/ femininity (H7). Interaction terms are mean-centred to make results more interpretable.

Lastly, our *control variables* are drawn from the extensive literature on the determinants of GDP (Ozturk, 2007; Lucas, 1988; Mankiw et al, 1992; Begg et al, 2008) and include:

FDI Inflows: "Foreign direct investment (FDI) is defined as an investment involving a long-term relationship and reflecting a lasting interest in and control by a resident entity in one economy (foreign direct investor or parent enterprise) of an enterprise resident in a different economy (FDI enterprise or affiliate enterprise or foreign affiliate)" (UNCTAD, 2005). Since the literature has not yet considered any possible interrelationship between remittances and FDI, both being most important capital flows, it is imperative that we control for FDI as there is no extant literature to determine any possible effects of one on another. We gathered data from UNCTAD, Division on Investment and Enterprise, as they provide the most comprehensive data on FDI flows. Data are on current U.S. dollars.

Inflation Rates: "The Consumer Price Indices (CPI) is a measure of inflation that considers the weighted average of prices of a basket of consumer goods and services, purchased by a consumer. The CPI is calculated by taking price changes for each item in the predetermined basket of goods and services during a month. Changes in CPI are used to assess price changes associated with the cost of living. Most of original data have been rebased into year 2000" (UNCTADStat, undated). Therefore, we control for inflation rates as they can hugely affect the volume of remittances send as well as the level of their impact. In addition, the literature suggests that high inflation rates reduce growth by reducing investment and productivity growth (Fischer, 1993). We employed data on inflation rates using UNCTADStat.

Employment: Employment of human resources is a most important determinant of economic performance. This is for the obvious reason that the higher is employment, the higher will be the GDP for a given level of productivity. We employ data on employment from UNCTADStat by dividing the total labour force of a given country by its total population.

Productivity: Productivity has been widely examined in the literature (Piteli, 2010) and we control for it in our GDP regressions. The reason lies in the fact that productivity is widely considered a very significant contributor to economic

performance (Krugman, 1994). We employ data from UNCTADStat by dividing GDP by employment in a given country.

4.5.3 Regression Analysis

For estimation purposes, we employ the following equations.

$GDP_{it} = a_0 + a_1 REM_{it} + a_2 FDI_{it} + a_3 Direct\ Effects_{it} + a_4 Interaction\ Terms_{it} + a_5 Institutional\ Quality_{it} + a_6 Cultural\ Dimensions_{it} + a_7 Control\ Variables_{it} + a_8 z_{it} + u_{it}$ **(Equation 4.1)**

$GDPPC_{it} = a_0 + a_1 REM_{it} + a_2 FDI_{it} + a_3 Direct\ Effects_{it} + a_4 Interaction\ Terms_{it} + a_5 Institutional\ Quality_{it} + a_6 Cultural\ Dimensions_{it} + a_7 Control\ Variables_{it} + a_8 z_{it} + u_{it}$ **(Equation 4.2)**

These equations are in line with earlier studies on the impact of FDI and/or remittances on economic performance, but also add value in that they include a richer set of variables, employ a more comprehensive data set, include more control variables and account for channels, as well as for moderating factors. All these are value adding innovations that are anticipated to lead to more reliable findings.

The above is also facilitated by our econometric methodology, which is 'general to specific' (Charemza and Deadman, 1997). This suggests "starting from a general dynamic statistical model, which captures the essential characteristics of the underlying data set, standard testing procedures are used to reduce its complexity by eliminating statistically insignificant variables and to check the validity of the reductions in order to ensure the congruency of the model. As the reduction process is inherently iterative, many reduction paths can be considered, which may lead to different terminal specifications. Encompassing is then used to test between these, usually non-nested, specifications, and only models, which survive the encompassing step, are kept for further consideration. If more than one model survives the 'testimation' process, it becomes the new general model, and the specification process is re-applied to it" (Krolzig and Hendry 1999, pp.1). Below we report our results derived by using panel OLS regressions. The reported equation is derived from this method, namely it is the one selected from the data.

4.5.4 Results

From the results reported in Table 4-3, it emerges that remittances have a positive impact on GDP and GDP per capita (PC), thus confirming our hypotheses. Most of the institutional quality indicators are statistically significant, which illustrates that an unstable political environment has a negative impact on remittances and therefore on economic performance. It is important to note that the interaction effects of remittances and their moderating factors allow us to deduce that the direct effects of remittances on GDP and GDP per capita are moderated by corruption and poor institutional quality, in the presence of which, remittances may yield no significant, or a negative impact on GDP or GDPPC. Interestingly, we find different cultural dimensions statistically significant for GDP and GDPPC respectively, suggesting that cultural differences can also account for the different impact of remittances in different countries. Overall, we find support for our hypotheses 1, 2, 3, 4, 6, and 7 for GDP and 1 for GDPPC, see below. We also find the direct effect of power distance to be statistically significant, and the same being the case for the direct effects of both political and regulatory institutions.

Table 4-3 shows that the impact of remittances on GDP is positive and it is moderated by a number of institutional and cultural factors. We find remittances to positively impact on GDP at 0.1 percent level of significance. We also report the direct effects of the channels we examine (consumption, investment, health expenditure and industry competitiveness) to be positive and statistically significant at 0.1 percent and the direct effect of education to be non-significant. Concerning moderating institutional factors we find regulatory institutions to negatively affect the impact of remittances on economic performance and political institutions positively at 0.1 percent. We also report significant results for corruption, which is found to positively moderate remittances at the 0.1 percent level of significance. This is a potentially controversial finding. It could however be attributed to the idea that countries perceived as more corrupt, are likely to be less developed, hence attracting higher levels of remittances. Last but not least, we find FDI to impact positively on GDP at the 0.1 percent level. The direct effects of our control variables (employment and productivity) are similarly significant at the 0.1 percent level, while inflation rates to be significant at the ten percent level.

As regards the impact of remittances on GDPPC we find their direct effect to be statistically insignificant and the direct effects of control variables education, inflation rates and employment to be significant at five and 0.1 percent respectively. We find the interaction term of corruption to be statistically significant at the ten percent level. The direct effects of both political and regulatory institutions are found to be statistically significant at 5 and 0.1 percent respectively, and power distance at five percent.

Culture is also seen to affect remittances and therefore, their impact on economic performance. In the case of GDP, we find the direct effects of masculinity and uncertainty avoidance to be negative and statistically significant at five and ten percent levels of significance. We report the interaction terms of uncertainty avoidance and masculinity to be negative and statistically significant at 0.1 percent and individualism positive and significant at five percent. We could not find evidence suggesting that cultural indicators moderate the impact of remittances on GDPPC.

It is worth noting that the negative sign we report in masculinity levels could be explained by the fact that more feminine societies place greater emphasis on quality of life and therefore are expected to invest more in human capital than masculine societies. Moreover, this finding shows that altruism may not after all be correlated negatively to performance. Concerning GDPPC we do not find the interaction terms with cultural indicators to be statistically significant. The above results support our hypotheses H1, H2, H3, H4, H6 and H7.

Other important results relate to FDI. Our results show that both FDI and remittances have a positive impact on GDP and GDP per capita. This complements extant IB scholarship that has failed to consider the role of remittances in studies of the effects of FDI on economic performance and development economics literature that has failed to consider the role of FDI.

Table 4-4 reports our results obtained with the deflated series. These are very much in line with those of our base model, especially regarding the institutional and cultural variables. We have found only minor differences in some control variables. These primarily include inflation rates and final consumption expenditure, which were found to be statistically insignificant for GDP per capita, which was not the

case in our initial regressions. In addition, FDI inflows are now statistically significant also for the case of   GDP per capita. Concerning Model 1 we now find education expenditure to be statistically significant, which was statistically insignificant in our initial model. Lastly, we report political institutions to be statistically insignificant in Model 1, whereas in our initial model political institutions were found statistically significant at the five percent level. It is arguable that as we run for robustness the base model without the interaction terms, many of which are significant in the baseline one, that might result in under-specification, and loss of significance of some variables. As these are control variables, however, they do not impact on our findings in a substantive way.

Overall, the above results are very similar to our initial model, adding confidence to the reliability in our initial regressions and model. Concerning institutional and cultural variables, the results are essentially the same, therefore suggesting that our use of current prices, alongside the inflation rate as an independent control variable, did not impact in a major way on our results.

In our second robustness check we have included two groups of regressions. The first group includes normalised data of our initial dataset in current terms, whereas in the second group we normalised the deflated data and hence, the dataset is in constant terms. Table 4-5 shows that there are no major differences in the results of the two groups. Table 4-5 depicts our normalised results, which primarily differ in the results of inflation rates and cultural variables. We report inflation rates to be statistically insignificant for Models 3 and 4, whereas in our initial results they are significant for both GDP and GDP per capita. The rest of the differentiated findings from our initial ones are primarily the cultural ones for GDP (i.e. Models 1 and 3), including uncertainty avoidance and individualism that are now found to be statistically significant whereas in our initial results we reported no statistical significance. In addition, we report masculinity to be significant for both GDP and GDP per capita, in contrast to earlier results, where no statistical significant was found. Moreover, the impact of corruption is now more pronounced than in our initial dataset with the exception of Model 3. This is also true for regulatory institutions, which are found negative and statistically significant for GDP in contrast to our initial results. Furthermore, the impacts of final consumption expenditure and FDI inflows are now

statistically insignificant for all models, in contrast to earlier results where FDI inflows were found statistically significant for GDP and final consumption expenditure for GDP and GDP per capita. Lastly, industry value added and gross capital formation are reported statistically significant and employment statistically insignificant for GDP per capita (i.e. Models 2 and 4), which was not the case in our initial model.

In all the results with normalised data appear to be in line with, but arguably better than these of the baseline model. However the main hypotheses remain intact, hence providing us with some confidence for our results. Overall, we report more differences with our normalised data rather than the deflated ones, especially in our cultural variables. These variables and manipulations of data have not been considered in any previous studies on the determinants of the level of remittances that we know of. Therefore, we can only make novel suggestions why this may be the case. As we noted, we feel that one reason for these differences may lie in the fact that cultural variables are likely to be correlated with the size of a country. Similar considerations concerning the effects of the size of countries' population size on cultural characteristics apply here as well. In Chapter 3 we analysed the mechanisms through which such a relationship may operate. Our results in this chapter, suggest that individualism and uncertainty avoidance are statistically significant when we normalise our data, while we do not find power distance to be affected by normalisation. These are in line with our earlier suggestions regarding the relationship between country size and cultural attributes.

In conclusion and as we have already noted, there is significant scope for further future research on this important issue, beyond the scope of this thesis in the context of which normalisation served mainly as a robustness check that helped add credence to our results, albeit at the cost of comparability. For the last mentioned, our baseline model remains useful.

4.6 The Moderating Role of Culture and Institutions on Channels of Remittances

The purpose of this section is to take our analysis a step further by investigating the

moderating role of culture and institutional environment on the various channels of remittances, which we controlled for in Section 1 of this chapter. Namely we employ triple interactions between the channels of remittances which we analysed earlier and the moderators, namely institutional and cultural factors. More specifically, we examine how these moderators impact on the channels considered.

First we provide a conceptual basis for understanding the role that culture and institutions play as moderators in the way remittances impact on the recipient households and economies. This constitutes a first attempt to conceptualise and empirically analyse these individual relationships and aims to provide a basis for a better understanding of what affects the channels of remittances and hence, offer new policy advice on how to facilitate and promote this capital flow. On the basis of the above, Table 4-6 depicts the cultural and institutional moderators that impact on each channel of remittances. In brief, as already noted, the cultural indicators draw on the work of Hofstede and include power distance, masculinity, uncertainty avoidance and individualism. Institutional indicators include corruption, political and regulatory institutions. Channels of remittances include domestic demand (consumption and investment), investments in human capital (education and health) and industry value added. In addition, we employ a number of control variables as follows: FDI inflows, inflation rates, employment and productivity.

4.6.1 Hypotheses Development

Throughout this chapter, we established the importance of culture and the institutional environment in understanding the ways, means and efficacy through which remittances are channelled. In this subsection we investigate which of these moderating factors impact on which individual channel, as this could provide a fuller picture on how remittances impact on the economic performance of recipient countries.

As already noted, in the NIE a number of prominent scholars have expressed scepticism with regards to the optimality of the market mechanism and have been placing emphasis on the institutional arrangements that underpin market transactions (Rodrik, 2008; Stiglitz, 2000). Particular focus has been placed on the ways through

which non-market institutions can impact on market operations, including the state and other organisations and social relationships (North and Weingast, 1989; North, 1991). We have already shown that institutions and culture to be highly relevant for the analysis of remittances as these entail a more social side than other capital flows. In this context, understanding which institutional and cultural factors affect which channel of remittances can potentially be of great interest. Below we examine a set of hypotheses, on the potential moderating role of culture and institutions on each particular channel.

We have already established the importance of the institutional framework, cultural factors and corruption on investment. In this context, it can be hypothesised that:

Hypothesis 1: Remittances will have a greater positive impact on economic performance through investment when the appropriate institutional and cultural conditions are in place.

In particular, and on the basis of our discussion so far, we hypothesise the following:

H1a: Remittances will have a greater positive impact on economic performance through domestic investment in countries with lower levels of corruption.

H1b: Remittances will have a greater positive impact on economic performance through domestic investment in countries with better-quality political institutions.

H1c: Remittances will have a greater positive impact on economic performance through domestic investment in countries with better-quality regulatory institutions.

H1d: Remittances will have a greater positive impact on economic performance through domestic investment in countries with lower scores in power distance.

H1e: Remittances will have a greater positive impact on economic performance through domestic investment in countries with lower scores in uncertainty avoidance.

As already noted, culture, institutions and corruption can also play a role on the types of consumption. Accordingly it can be hypothesised that:

Hypothesis 2: Remittances will have a greater impact on economic performance through consumption when the appropriate cultural and institutional factors are in

place.

In particular,

H2a: Remittances will have a greater positive impact on economic performance through domestic consumption in countries with lower levels of corruption.

H2b: Remittances will have a greater positive impact on economic performance through domestic consumption in countries with better-quality political institutions.

H2c: Remittances will have a greater positive impact on economic performance through domestic consumption in countries with better-quality regulatory institutions.

H2d: Remittances will have a greater positive impact on economic performance through domestic consumption in countries with higher scores in masculinity.

H2e: Remittances will have a greater positive impact on economic performance through domestic consumption in countries with higher scores in individualism.

Money spent in education is a form of investment, hence also likely to be affected by institutional and cultural factors. Hence, we hypothesise that:

Hypothesis 3: Remittances will have a greater impact on economic performance through investments in education when the appropriate cultural and institutional factors are in place.

In particular,

H3a: Remittances will have a greater positive impact on economic performance through investments in education in countries with lower levels of corruption.

H3b: Remittances will have a greater positive impact on economic performance through investments in education in countries with better-quality political institutions.

H3c: Remittances will have a greater positive impact on economic performance through investments in education in countries with better-quality regulatory institutions.

H3d: Remittances will have a greater positive impact on economic performance through investments in education in countries with higher scores in masculinity.

H3e: Remittances will have a greater positive impact on economic performance through investments in education in countries with higher scores in individualism.

Similar considerations apply to the case of investments in health. Accordingly we hypothesise that:

Hypothesis 4: Remittances will have a greater impact on economic performance through investments in health when the appropriate cultural and institutional factors are in place.

In particular, we hypothesise on the above basis that:

H4a: Remittances will have a greater positive impact on economic performance through investments in health in countries with lower levels of corruption.

H4b: Remittances will have a greater positive impact on economic performance through investments in health in countries with better-quality political institutions.

H4c: Remittances will have a greater positive impact on economic performance through investments in health in countries with better-quality regulatory institutions.

H4d: Remittances will have a greater positive impact on economic performance through investments in health in countries with higher scores in masculinity.

H4e: Remittances will have a greater positive impact on economic performance through investments in health in countries with higher scores in individualism.

Industrial performance too is likely to be affected by cultural and institutional factors. Hence we hypothesise that:

Hypothesis 5: Remittances will have a greater impact on economic performance through industry value added when the appropriate cultural and institutional factors are in place.

Specifically,

H5a: Remittances will have a greater positive impact on economic performance through industry value added in countries with lower levels of corruption.

H5b: Remittances will have a greater positive impact on economic performance through industry value added in countries with better-quality political institutions.

H5c: Remittances will have a greater positive impact on economic performance through industry value added in countries with better-quality regulatory institutions.

H5d: Remittances will have a greater positive impact on economic performance through industry value added in countries with higher scores in masculinity.

H5e: Remittances will have a greater positive impact on economic performance through industry value added in countries with lower scores in uncertainty avoidance.

In the next section, we test for the direct (base model) and indirect effects of remittances on GDP and GDP per capita, estimating the indirect effects by using their interaction terms with remittances, as additional independent variables.

4.6.2 Model and Measures

We have already analysed all the above proxies and variables in the context of their direct effects on economic performance. However, in order to be able to identify which moderating factors affect which channel of migrant remittances, we have added triple interaction terms to the aforementioned indicators. This led to the following additional variables: rem.*gross capital formation*corruption (H1a), rem.*gross capital formation*political institutions (H1b), rem.*gross capital formation*regulatory institutions (H1c), rem.*gross capital formation*power distance (H1d), rem.*gross capital formation*uncertainty avoidance (H1e), rem.*final consumption expenditure*corruption (H2a), rem.*final consumption expenditure*political institutions (H2b), rem.*final consumption expenditure* regulatory institutions (H2c), rem.*final consumption expenditure* masculinity (H2d), rem.*final consumption expenditure*individualism (H2e), rem.*education expenditure*corruption (H3a), rem.*education expenditure*political institutions

(H3b), rem.*education expenditure*regulatory institutions (H3c), rem.*education expenditure*power distance (H3d), rem.*education expenditure*masculinity (H3e), rem.*health expenditure*corruption (H4a), rem.*health expenditure*political institutions (H4b), rem.*health expenditure* regulatory institutions (H4c), rem.*health expenditure*masculinity (H4d), rem.*health expenditure* individualism (H4e), rem.*industry value added*corruption (H5a), rem.*industry value added*political institutions (H5b), rem.*industry value added*regulatory institutions (H5c), rem.*industry value added*masculinity (H5d) and rem.*industry value added*uncertainty avoidance (H5e). Interaction terms are mean-centred to make results more interpretable.

4.6.3 Regression Analysis

We follow the same reasoning as in previous sub-section for the formation of our equations. In this context, we include triple interactions.

$GDP_{it} = a_0 + a_1REM_{it} + a_2FDI_{it} + a_3Direct\ Effects_{it} + a_4Interaction\ Terms_{it} + a_5Institutional\ Quality_{it} + a_6Cultural\ Dimensions_{it} + a_7Triple\ Interactions_{it} + a_8Control\ Variables_{it} + a_9z_{it} + u_{it}$ **(Equation 4.3)**

$GDPPC_{it} = a_0 + a_1REM_{it} + a_2FDI_{it} + a_3Direct\ Effects_{it} + a_4Interaction\ Terms_{it} + a_5Institutional\ Quality_{it} + a_6Cultural\ Dimensions_{it} + a_7Triple\ Interactions_{it} + a_8Control\ Variables_{it} + a_9z_{it} + u_{it}$ **(Equation 4.4)**

4.6.4 Results

From the results reported in Table 4-6 it emerges that cultural and institutional indicators do moderate the various channels of remittances, thus confirming our hypotheses. In particular, we find most of the institutional quality indicators to be statistically significant, which illustrates that a poor institutional environment negatively affects remittances and hence, their impact on economic performance. The results from the triple interaction effects highlight the moderating role of these indicators on the various channels of remittances and can help explain the

differentiation in remittance utilisation in various countries. We also find that different cultural dimensions statistically significant for GDP and GDP per capita (PC), suggesting that cultural indicators can also account for this differentiation in the modes of investments.

More specifically, Table 4-6 shows that investment (gross capital formation) is affected positively by regulatory institutions at 0.1 percent level of significance, which moderate its potential impact on GDPPC. In addition, power distance moderates the impact of investment on GDP and GDPPC positively at five percent, whilst uncertainty avoidance moderates positively at 0.1 percent the impact on GDP. Consumption is also affected by regulatory institutions, which moderate its potential impact on GDP negatively at five percent level of significance. Consumption is found to be moderated negatively by masculinity in both GDP and GDPPC at 0.1 percent significance level, whilst individualism moderates the impact of remittances through consumption on GDP positively at 0.1 percent level of significance. Furthermore, industry value added is moderated by political and regulatory institutions when considering GDPPC positively and negatively at five percent respectively. Uncertainty avoidance is found to negatively impact on GDP at five percent level of significance and masculinity positively at 0.1 percent on GDPPC.

Concerning human capital investments we find power distance to negatively affect the impact of education on GDP and GDPPC at five percent level of significance and masculinity to positively affect education at five percent on GDP and ten percent on GDPPC. Health is found to be affected by regulatory institutions at ten percent when GDP is the dependent variable. In addition, masculinity positively affects the potential impact of remittances through health expenditures on GDP and GDPPC at five percent level of significance, whilst individualism negatively affects health expenditures at 0.1 percent level of significance, when considering GDP. Individualism does not seem to be significant on GDPPC.

From the above results we can deduce that cultural and institutional variations in countries can help explain the variations in the utilisation of remittances in different countries. We can also safely conclude that regulatory institutions play a very important moderating role on remittances and hence, countries with sounder economic institutions will be able to better facilitate the channels of remittances and

promote economic performance. These results are a clear indication of the significance of country characteristics, and that these need to be taken into serious consideration in policy making. The above results support our hypotheses H1, H2, H3, H4 and H5. More specifically, we fail to reject H1d, H1e, H2c, H2d, H2e, H3d, H3e, H4c, H4d, H4e, H5b, H5c, H5d and H5e.

4.7 Discussion, Concluding Remarks, Limitations and Policy Implications

In conclusion, our Dynamic Panel Data analysis, which tries to address mis-specified dynamics and endogeneity problems from previous research, yields positive and significant coefficients for the impact of remittances on GDP and GDP per capita in most of the considered specifications. We can, therefore, conclude that we can reject the hypothesis of the existence of a negative impact of remittances on economic performance and that there is a strong indication of a positive impact. This is true in all cases, with current, constant and normalised data.

Additionally, both the conceptual and empirical analyses point to the fact that institutions play an important moderating role on remittances impact on economic performance. A sound institutional environment has been found to affect the volume and efficiency of investment; hence in the presence of good institutions, remittances are used more for investment purposes, ultimately leading to higher output. We also find support for our cultural differences hypotheses, which highlight the uniqueness of remittances and shows that individual country policies can be of benefit to the respective recipient countries.

We also found evidence that FDI affects positively economic performance when included in the same estimated equation. This cross fertilises IB and development economics and suggests that a more comprehensively specified equation points to a complementary positive impact of FDI and remittances on performance. These findings suggest that remittances should be promoted by governments and international community, in conjunction to FDI. This is the first time such an analysis has been performed and evidence found. Hence, at the very least, our research calls for further research in this important new area.

Concerning our further analysis with triple interactions our results provide a clear indication that country-specific characteristics are very important in understanding the individuality of each country and hence, the need to adopt policies which are as much as possible tailor-made to the institutional and cultural characteristics of a country, as opposed to 'one size fits all' type policies. Interestingly, we also find evidence that when considering channels of remittances, different indicators are statistically significant for GDP and GDP per capita. Hence, a recipient country can also adopt policies targeting each one of these two indicators. This specific analysis needs further research and development, which however is not in the scope of this chapter.

At the level of policy, our results suggest that policy makers can strengthen the impact of remittances on economic performance by improving the institutional framework, promoting entrepreneurship, and limiting corruption and to aim to target policies to fit institutional and cultural norms. Such factors are very important in fostering the impact of remittances on economic performance even in explaining its direction. Policy implications thus highlight the nature and strength of domestic institutions, encouraging countries to adopt better quality institutions. This explains the mixed results found in the previous literature.

Concerning further research, it is argued that remittances boost demand and provide access to previously non-affordable goods. In particular, a focus on the role of financial institutions and financial intermediation has led to the conclusion that in countries with more advanced financial intermediaries, the income earnings of the poor improve more than those of the non-poor. This highlights the important role that financial intermediation may have in reducing income inequalities (Orozco and Fedewa, 2005). In addition, recent evidence suggests that poor financial institutions entail higher costs of transferring money, affect the level of transfer and may constitute a disincentive to remit large amounts, as it can be considered risky (Bettin et al, 2012). The role of financial intermediation is beyond the scope of our paper, but could be an interesting additional future research opportunity.

Figure 4-1 Conceptual Framework
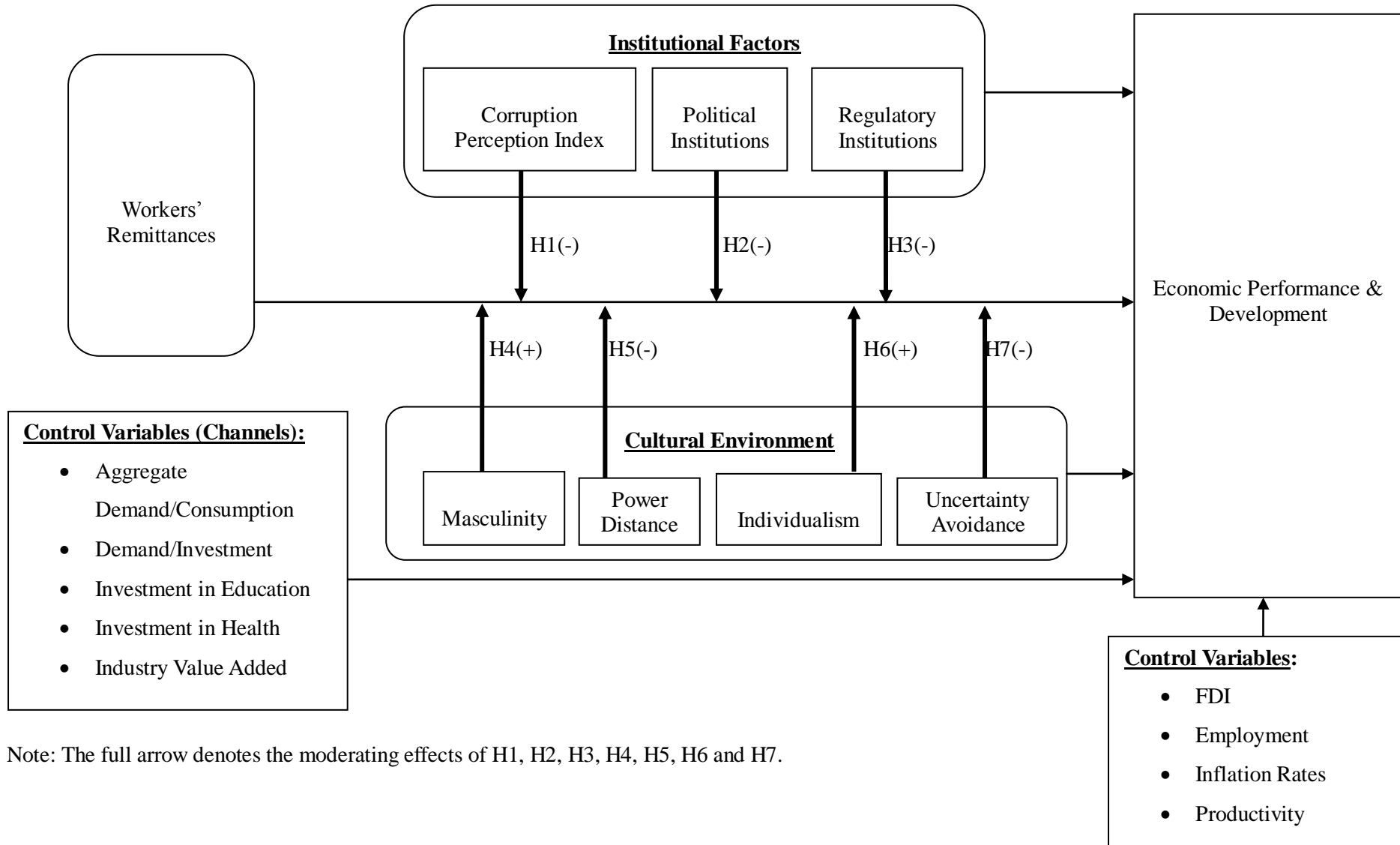
Note: The full arrow denotes the moderating effects of H1, H2, H3, H4, H5, H6 and H7.

Table 4-1 Sources and Formulas of Variables

Variables	Source	Formula
Dependent Variables		
GDP	UNCTAD secretariat calculations, based on UN DESA Statistics Division, *National Accounts Main Aggregates Database*	Real gross domestic product (GDP) by expenditure approach, total, annual, US Dollars at current prices and current exchange rates in millions of dollars.
GDP per capita	UNCTAD secretariat calculations, based on UN DESA Statistics Division, *National Accounts Main Aggregates Database*	Real gross domestic product (GDP) by expenditure approach, per capita, annual, US Dollars at current prices and current exchange rates in dollars.
Institutional Variables		
Corruption Perception Index	Transparency International	Scores countries on how corrupt their public sectors are perceived to be, using multiple criteria.
Political Institutions	World Governance Indicators - Kaufmann, D., Kraay A. and M. Mastruzzi (2010), "The Worldwide Governance Indicators: Methodology and Analytical Issues", World Bank Policy Research Working Paper No. 5430.	Author's Calculations: Mean number of Control of Corruption, Government Effectiveness and Political Stability and Absence of Violence/ Terrorism
Regulatory Institutions	World Governance Indicators - Kaufmann, D., Kraay A. and M. Mastruzzi (2010), "The Worldwide Governance Indicators: Methodology and Analytical Issues", World Bank Policy Research Working Paper No. 5430.	Author's Calculations: Mean number of Regulatory Quality, Rule of Law and Voice and Accountability
Cultural Variables		
Power Distance	Geert Hofstede	This dimension expresses the degree to which the less powerful members of a society accept and

		expect that power is distributed unequally.
Individualism	Geert Hofstede	The high side of this dimension, called individualism, can be defined as a preference for a loosely-knit social framework in which individuals are expected to take care of only themselves and their immediate families.
Masculinity	Geert Hofstede	The masculinity side of this dimension represents a preference in society for achievement, heroism, assertiveness and material rewards for success.
Uncertainty Avoidance	Geert Hofstede	The uncertainty avoidance dimension expresses the degree to which the members of a society feel uncomfortable with uncertainty and ambiguity.
Control Variables (Channels)		
Migrant Remittances	UNCTAD secretariat calculations, based on World Bank, *Migration and Remittances.*	A series on remittances expressed in millions of dollars. Migrants' remittances are the sum of workers' remittances, compensation of employees and migrants' transfers. Migrants' transfers cover for flows of goods and changes in financial items that arise from migration (change of residence for at least one year).
Final Consumption Expenditure	World Bank national accounts data, and OECD National Accounts data files.	Final consumption expenditure (formerly total consumption) is the sum of household final consumption expenditure (private consumption) and general government final consumption expenditure (general government consumption). Data are in current U.S. dollars.
Gross Capital Formation	World Bank national accounts data, and OECD National Accounts data files.	Gross capital formation (formerly gross domestic investment) consists of outlays on additions to the fixed assets of the economy plus net changes in

		the level of inventories. Data are in current U.S. dollars.
Education Expenditure	World Bank staff estimates using data from the United Nations Statistics Division's Statistical Yearbook, and the UNESCO Institute for Statistics online database.	Education expenditure refers to the current operating expenditures in education, including wages and salaries and excluding capital investments in buildings and equipment.
Health Expenditure	World Bank based on World Health Organization National Health Account database.	Total health expenditure is the sum of public and private health expenditures as a ratio of total population. Data are in current U.S. dollars.
Industry Value Added	World Bank national accounts data, and OECD National Accounts data files.	Industry comprises value added in mining, manufacturing, construction, electricity, water, and gas. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. Data are in current U.S. dollars.
Control Variables		
FDI, Inward	*UNCTADstat*	Inward foreign direct investment flows, annual, US Dollars at current prices and current exchange rates in millions of dollars.
Inflation Rates	UNCTAD calculations, based on - ILO, *LABORSTA* - OECD, *OECD.Stat* - IMF, *International Financial Statistics* - Economist Intelligence Unit, *Country Data* - National sources	Consumer price indices (CPI), annual, with base year 2000.
Employment	*UNCTADstat* – (i) Total population expressed in thousands: Sources: - UN DESA Population Division, *World Population Prospects: The 2012 Revision* - UN DESA Population Division, *World Urbanisation Prospects: The 2011 Revision* - UNCTAD secretariat estimates (ii) Total labour force expressed in thousands:	Author's Calculations: Total Labour Force/Total Population

	Sources: - ILO, *LABORSTA* - FAO, *FAOSTAT*	
Productivity	*UNCTADstat*	Author's Calculations: GDP/Employment

Table 4-2 Descriptive Statistics and Expected Effect

Variables	Mean	Standard Deviation	Expected Effect
Dependent Variables			
GDP	414811.9	1323235	
GDP per capita	11585.09	15516.74	
Institutional Variables			
Corruption Perception Index	4.902662	2.363255	-
Political Institutions	55.77616	25.86689	-
Regulatory Institutions	58.34905	26.04207	-
Cultural Variables			
Power Distance	62.65934	20.43329	+/-
Individualism	38.71429	21.90955	+/-
Masculinity	48.84615	18.21241	+/-
Uncertainty Avoidance	65.25275	20.83903	+/-
Control Variables (Channels)			
Migrant Remittances	2285.112	4506.487	+
Final Consumption Expenditure	3.51e+11	1.16e+12	+
Gross Capital Formation	9.45e+10	2.81e+11	+
Education Expenditure	1.83e+10	6.20e+10	+
Health Expenditure	40366.38	178691.1	+
Industry Value Added	1.13e+11	3.22e+11	+
Control Variables			

FDI, Inward	9541.892	26443.93	+
Inflation Rates	128.9336	157.7434	-
Employment	.4408789	.0679432	+
Productivity	848876	2576016	+

Table 4-3 Moderating Role of Institutions and Culture

Variable Name	Model 1: Panel OLS Regression, re Direct Effects	Model 2: Panel OLS Regression, re Direct Effects	Model 3: Panel OLS Regression, re Interaction Effects	Model 4: Panel OLS Regression, re Interaction Effects
Dependent Variable	**GDP**	**GDP per capita**	**GDP**	**GDP per capita**
Independent Variables				
Migrant Remittances	-1.84 (0.066)	0.44 (0.657)	3.66*** (0.000)	0.27 (0.786)
Corruption Perception Index	1.74* (0.082)	1.67* (0.095)	2.76** (0.006)	1.49 (0.137)
H1: Remittances*Corruption Perception Index			4.68*** (0.000)	1.65* (0.099)
Political Institutions	-2.10** (0.036)	-3.09** (0.002)	-1.20 (0.229)	-2.74** (0.006)
H2: Remittances*Political Institutions			4.04*** (0.000)	1.53 (0.127)
Regulatory Institutions	0.90 (0.367)	3.80*** (0.000)	0.07 (0.947)	3.82*** (0.000)
H3: Remittances*Regulatory Institutions			-4.45*** (0.000)	0.26 (0.796)
Masculinity (Hofstede)	-1.45 (0.148)	-0.52 (0.604)	-2.88** (0.004)	-0.97 (0.330)
H4: Remittances*Masculinity (Hofstede)			-3.70*** (0.000)	-0.63 (0.527)

Power Distance (Hofstede)	0.55 (0.583)	-2.39** (0.017)	-0.11 (0.909)	-2.74** (0.006)
H5: Remittances*Power Distance (Hofestede)			-0.15 (0.882)	0.11 (0.910)
Individualism (Hofestede)	0.56 (0.577)	0.72 (0.473)	0.75 (0.454)	0.79 (0.431)
H6: Remittances*Individualism (Hofestede)			2.17** (0.030)	0.60 (0.549)
Uncertainty Avoidance (Hofestede)	-0.79 (0.432)	1.16 (0.248)	-1.69* (0.091)	0.32 (0.749)
H7: Remittances*Uncertainty Avoidance (Hofestede)			-4.27*** (0.000)	-0.64 (0.519)
Control Variables (Channels)				
Final Consumption Expenditure	15.80*** (0.000)	-1.70* (0.090)	21.54*** (0.000)	-1.55 (0.121)
Gross Capital Formation	5.55*** (0.000)	-0.81 (0.421)	3.89*** (0.000)	-1.21 (0.225)
Education Expenditure	-0.31 (0.757)	4.85*** (0.000)	-0.45 (0.653)	2.40** (0.016)
Health Expenditure	12.56*** (0.000)	-2.02** (0.043)	11.09*** (0.000)	-0.36 (0.721)
Industry, Value Added	33.48*** (0.000)	0.30 (0.766)	31.85*** (0.000)	1.55 (0.122)
Control Variables				
FDI Inward	4.52*** (0.000)	-0.92 (0.357)	3.59*** (0.000)	-1.08 (0.280)
Inflation Rates	-2.98*** (0.003)	2.51** (0.012)	-1.69* (0.091)	3.34*** (0.001)
Employment	4.25*** (0.000)	7.54*** (0.000)	3.54*** (0.000)	7.29*** (0.000)
Productivity	18.12*** (0.000)		15.47*** (0.000)	
Constant	-2.60** (0.009)	-3.84*** (0.000)	-1.79* (0.074)	-3.14** (0.002)

Notes: (1) standard errors are in parentheses, (2) interaction terms are mean-centred, (3) *p<0.1; **p<0.05; ***p<0.001.

Table 4-4 Moderating Role of Institutions and Culture - Base Model (Deflated Data - Robustness Test 1)

Variable Name	Model 1: Panel OLS Regression, re Direct Effects	Model 2: Panel OLS Regression, re Direct Effects
Dependent Variable	**GDP**	**GDP per capita**
Independent Variables		
Migrant Remittances	-2.90** (0.004)	1.41 (0.158)
Corruption Perception Index	3.09** (0.002)	1.92* (0.055)
Political Institutions	-1.63 (0.104)	-2.71** (0.007)
Regulatory Institutions	0.11 (0.913)	3.97*** (0.000)
Masculinity/Femininity (Hofstede)	-0.28 (0.781)	-1.12 (0.263)
Power Distance (Hofstede)	-0.08 (0.936)	-2.50** (0.012)
Individualism (Hofstede)	-0.81 (0.417)	1.17 (0.244)
Uncertainty Avoidance (Hofstede)	-1.60 (0.111)	0.81 (0.416)
Control Variables (Channels)		
Final Consumption Expenditure	13.55*** (0.000)	1.04 (0.298)
Gross Capital Formation	7.38*** (0.000)	-0.96 (0.337)
Education Expenditure	-1.76* (0.078)	3.53*** (0.000)
Health Expenditure	13.91*** (0.000)	-3.66*** (0.000)
Industry, Value Added	28.78*** (0.000)	-0.70 (0.486)
Control Variables		
FDI Inward	4.82*** (0.000)	-1.74* (0.083)
Inflation Rates	2.59** (0.010)	-1.52 (0.129)
Employment	5.07*** (0.000)	7.54*** (0.000)
Productivity	28.77*** (0.000)	

Constant	-3.31*** (0.001)		-2.90** (0.004)

Notes: (1) standard errors are in parentheses, (2) interaction terms are mean-centred, (3) *p<0.1; **p<0.05; ***p<0.001.

Table 4-5 Moderating Role of Institutions and Culture - Base Model (Normalised Data - Robustness Test 2)

Variable Name	*Model 1: Panel OLS Regression, re Direct Effects (Normalised Data)*	*Model 2: Panel OLS Regression, re Direct Effects (Normalised Data)*	*Model 3: Panel OLS Regression, re Moderating Effects (Deflated Normalised Data)*	*Model 4: Panel OLS Regression, re Moderating Effects (Deflated Normalised Data)*
Dependent Variable	**GDP**	**GDP per capita**	**GDP**	**GDP per capita**
Independent Variables				
Migrant Remittances	-0.95 (0.344)	15.65*** (0.000)	-0.38 (0.703)	13.84*** (0.000)
Corruption Perception Index	-2.84** (0.005)	-4.99*** (0.000)	-0.61 (0.543)	-3.30*** (0.001)
Political Institutions	3.01** (0.003)	5.13*** (0.000)	2.37** (0.018)	3.73*** (0.000)
Regulatory Institutions	-2.88** (0.004)	-3.07*** (0.002)	-2.56** (0.010)	-2.06** (0.039)
Masculinity/Femininity (Hofstede)	-3.47*** (0.001)	-2.45** (0.014)	-3.08** (0.002)	-2.00** (0.045)
Power Distance (Hofstede)	-1.57 (0.117)	-1.89* (0.058)	-1.56 (0.120)	-1.53 (0.125)
Individualism (Hofstede)	-3.31*** (0.001)	-0.72 (0.473)	-3.41*** (0.001)	-1.09 (0.275)
Uncertainty Avoidance (Hofstede)	-4.77*** (0.000)	-0.02 (0.980)	-4.59*** (0.000)	0.12 (0.906)
Control Variables (Channels)				
Final Consumption Expenditure	1.46 (0.144)	1.43 (0.153)	-0.86 (0.389)	0.23 (0.817)

Gross Capital Formation	10.05*** (0.000)	9.85*** (0.000)	12.11*** (0.000)	10.25*** (0.000)
Education Expenditure	0.62 (0.535)	2.34** (0.019)	-0.26 (0.797)	3.46*** (0.001)
Health Expenditure	12.42*** (0.000)	-2.36** (0.018)	19.34*** (0.000)	-0.84 (0.401)
Industry, Value Added	11.16*** (0.000)	-7.86*** (0.000)	8.71*** (0.000)	-8.78*** (0.000)
Control Variables				
FDI Inward	0.17 (0.862)	-1.42 (0.155)	-0.79 (0.428)	-1.60 (0.111)
Inflation Rates	-4.63*** (0.000)	-3.28*** (0.001)	0.76 (0.447)	-1.05 (0.295)
Employment	9.06*** (0.000)	-1.28 (0.200)	10.25*** (0.000)	-0.84 (0.402)
Productivity	52.48*** (0.000)		55.69*** (0.000)	
Constant	-1.00 (0.316)	2.87** (0.004)	-2.24** (0.025)	2.16** (0.030)

Notes: (1) standard errors are in parentheses, (2) interaction terms are mean-centred, (3) *p<0.1; **p<0.05; ***p<0.001.

Table 4-6 Channels of Remittances - Triple Interactions

Variable Name	Model 1: Panel OLS Regression, re Direct Effects	Model 2: Panel OLS Regression, re Direct Effects	Model 3: Panel OLS Regression, re Interaction Effects	Model 4: Panel OLS Regression, re Interaction Effects
Dependent Variable	**GDP**	**GDP per capita**	**GDP**	**GDP per capita**
Independent Variables				
Migrant Remittances	1.28 (0.199)	1.43 (0.153)	2.71** (0.007)	5.21*** (0.000)
Corruption Perception Index	1.25 (0.213)	1.51 (0.131)	3.34*** (0.001)	1.07 (0.285)
Political Institutions	-0.39 (0.694)	-2.76** (0.006)	-1.19 (0.235)	-2.36** (0.018)
Regulatory Institutions	-0.48 (0.630)	3.57*** (0.000)	-0.92 (0.359)	4.24*** (0.000)
Masculinity (Hofstede)	-0.14 (0.889)	-0.53 (0.597)	-0.93 (0.354)	-0.89 (0.372)
Power Distance (Hofstede)	0.43 (0.667)	-2.49** (0.013)	0.18 (0.861)	-2.49** (0.013)
Individualism (Hofstede)	-0.26 (0.799)	0.67 (0.505)	1.75* (0.081)	-0.15 (0.882)
Uncertainty Avoidance (Hofstede)	-0.30 (0.763)	1.01 (0.312)	-0.32 (0.751)	0.29 (0.769)
Channels of Remittances				
Gross Capital Formation	0.54 (0.590)	-1.41 (0.159)	5.49*** (0.000)	-1.81* (0.070)
Final Consumption Expenditure	22.18*** (0.000)	-1.22 (0.222)	23.42*** (0.000)	-2.12** (0.034)
Education Expenditure	4.00*** (0.000)	3.63*** (0.000)	-0.89 (0.375)	3.62*** (0.000)
Health Expenditure	3.32*** (0.001)	-2.08** (0.037)	8.20*** (0.000)	-1.72* (0.085)
Industry, Value Added	28.90*** (0.000)	0.63 (0.527)	24.23*** (0.000)	2.31** (0.021)
Interaction Terms				
Remittances*Gross Capital Formation	-2.57** (0.010)	0.57 (0.569)	0.06 (0.953)	-1.52 (0.128)
Remittances*Final Consumption Expenditure	5.81*** (0.000)	-0.26 (0.797)	1.53 (0.125)	1.42 (0.155)
Remittances*Education Expenditure	-9.95*** (0.000)	-0.80 (0.426)	-0.40 (0.690)	-0.86 (0.389)
Remittances*Health Expenditure	13.14*** (0.000)	2.68** (0.007)	0.31 (0.755)	2.88** (0.004)

Remittances*Industry Value Added	-1.52 (0.127)	-1.10 (0.272)	-1.34 (0.181)	-2.67** (0.007)
Triple Interaction Terms				
H1a: Rem.*Gross Capital Formation*Corruption			-0.10 (0.918)	0.64 (0.523)
H1b: Rem.*Gross Capital Formation*Political Institutions			-0.71 (0.477)	-1.26 (0.207)
H1c: Rem.*Gross Capital Formation*Regulatory Institutions			-0.45 (0.656)	4.28*** (0.000)
H1d: Rem.*Gross Capital Formation*Power Distance			2.68** (0.007)	2.69** (0.007)
H1e: Rem.*Gross Capital Formation*Uncertainty Avoidance			3.26*** (0.001)	0.18 (0.860)
H2a: Rem.*Final Consumption Expenditure*Corruption			-1.34 (0.179)	0.95 (0.343)
H2b: Rem.*Final Consumption Expenditure*Political Institutions			1.24 (0.216)	-0.62 (0.538)
H2c: Rem.*Final Consumption Expenditure*Regulatory Institutions			-2.47** (0.013)	-0.59 (0.552)
H2d: Rem.*Final Consumption Expenditure*Masculinity			-3.94*** (0.000)	-3.92*** (0.000)
H2e: Rem.*Final Consumption Expenditure*Individualism			5.25*** (0.000)	0.94 (0.346)
H3a: Rem.*Education Expenditure*Corruption			1.53 (0.125)	-0.82 (0.413)
H3b: Rem.*Education Expenditure*Political Institutions			-0.47 (0.640)	0.33 (0.744)
H3c: Rem.*Education Expenditure*Regulatory Institutions			-0.41 (0.680)	0.11 (0.916)
H3d: Rem.*Education Expenditure*Power Distance			-2.11** (0.035)	-2.81** (0.005)
H3e: Rem.*Education Expenditure*Masculinity			3.02** (0.002)	1.69* (0.092)

H4a: Rem.*Health Expenditure*Corruption			1.00 (0.316)	-0.29 (0.770)
H4b: Rem.*Health Expenditure*Political Institutions			-0.97 (0.331)	-0.12 (0.901)
H4c: Rem.*Health Expenditure*Regulatory Institutions			1.70* (0.090)	-1.19 (0.236)
H4d: Rem.*Health Expenditure*Masculinity			2.92** (0.004)	2.55** (0.011)
H4e: Rem.*Health Expenditure* Individualism			-6.09*** (0.000)	-0.30 (0.767)
H5a: Rem.*Industry Value Added*Corruption			-0.55 (0.583)	-1.17 (0.241)
H5b: Rem.*Industry Value Added*Political Institutions			0.74 (0.459)	2.32** (0.020)
H5c: Rem.*Industry Value Added*Regulatory Institutions			1.26 (0.207)	-2.56** (0.010)
H5d: Rem.*Industry Value Added*Masculinity			1.02 (0.309)	4.28*** (0.000)
H5e: Rem.*Industry Value Added*Uncertainty Avoidance			-2.87** (0.004)	-0.02 (0.981)
Control Variables				
FDI Inward	4.88*** (0.000)	-0.80 (0.426)	4.31*** (0.000)	-2.07** (0.038)
Inflation Rates	-3.28*** (0.001)	2.32** (0.020)	-2.72** (0.007)	2.44** (0.015)
Employment	4.78*** (0.000)	7.21*** (0.000)	5.62*** (0.000)	7.43*** (0.000)
Productivity	17.78*** (0.000)		14.45*** (0.000)	
Constant	-3.23*** (0.001)	-3.58*** (0.000)	-4.19*** (0.000)	-3.60*** (0.000)

Notes: (1) standard errors are in parentheses, (2) interaction terms are mean-centred, (3) *p<0.1; **p<0.05; ***p<0.001.

CHAPTER 5

CONCLUDING REMARKS

5.1 Background and Motivation

The current economic crisis has led to renewed interest in the presumption by economists on the benefits of free markets, and the related belief of many IB scholars on the benefits of globalisation. These have revitalised debates on the nature and effectiveness of extant economic policies informed by these views (Dunning and Lundan, 2008). This has been the case particularly as regards financial flows, institutions and regulation (Claessens et al, 2010), as well as microeconomic competitiveness policies (Cowling and Tomlinson, 2005). The severity of the crisis, in the context of increasing globalisation, has posed fresh doubts on the effects of global capitalism and its moral foundations, some of which were voiced already by scholars even before the crisis (Buckley and Ghauri, 2004).

In the era of globalisation, the IB literature has been challenged to deal with assertions and facts surrounding the globalisation phenomenon, and to suggest further theoretical pathways for addressing previously unexplored routes (Buckley and Ghauri, 2004). Calls have been made for the need to incorporate comparative political economic issues into IB research (Jackson and Deeg, 2008; Brouthers, 2013). Despite such calls, limited progress has been made so far, especially on the empirical front. A very important political economy issue closely related to globalisation, hence of direct interest to IB scholars is that of the internationalisation of labour and the capital flows, in the form of remittances, which arise as a result. These have received a lot of attention in recent years by development economists, especially in the context of the new economics of migration (Taylor, 1999; Ratha, 2003; Carling, 2004). Reasons for such interest include the complex nature of these phenomena, the increase in the financial flows from remittances and the related potential impact-benefits in the recipient and receiving economies.

In the above context, remittances represent a very important research opportunity for IB scholars, which however have not been picked up to date. Besides them being an

important aspect of globalisation, what renders the topic of remittances particularly important is that in contrast to FDI, remittances are not intrinsically profit driven. They are rather motivated by a combination of altruism and self-interest, this way differentiating them from other capital flows. These call for a wider comparative political economy analysis that takes into account political, institutional and cultural considerations-a major interest and focus of IB scholars (Brouthers, 2013).

Therefore, an analysis of international remittances is essential for a more complete appreciation of globalisation and IB scholarship. This research gap in the IB literature constituted our prime motive for the analysis of remittances, alongside the moderating role of institutions and culture on their level and impact. Importantly, we suggest that by picking up this challenge, IB scholarship can in turn help the analysis and appreciation of remittances precisely because of its interests and focus on FDI, as well as on institutional and cultural factors that have been underplayed by development economists. Hence our focus here on cross-fertilising the two fields of enquiry, to mutual advantage.

5.2 Contribution to IB Theory

Entry modalities, and in particular FDI, have virtually monopolised the interest of IB scholars for the past five decades. This might have gradually led to decreasing returns, with more and more being done on the same or similar topics (Brouthers, 2013). This led some scholars to suggest that IB literature may be 'running out of steam' (Buckley, 2002). Our aim in this thesis was to contribute in, and add value to, the IB literature by examining migrant remittances, an under-researched capital flow, which however is immensely important for many developing economies around the world, hence to provide a better appreciation of globalisation and development. The motives of remittances have been the focus of scholarly research by development economists, but totally ignored by IB scholars. Two of the most prevailing explanations in development economics on the motives to remit include altruism and risk-sharing, (the latter being seen as an insurance contract between migrant and household) on the one hand, and a portfolio motive (investment-related) motive, on the other. Many studies have employed data for capturing economic, behavioural

and social aspects of remittances. However, the evidence is still not clear on what determines the level of remittances, their impact on economic performance and importantly, what moderates both the motives-determinants and the impact. In part this is due to a failure by development economists to consider the role of FDI, as both a potential determinant of remittances and a co-determinant of economic performance, as well as the institutional and cultural factors that can impact on these relationships. Among others, this failure could be due to the lack of reliable data so far. All these limitations were addressed in our thesis, hence helping us derive more reliable results than hitherto available.

As noted, extant literature has underplayed the role of institutional factors in the context of remittances. In addition, culture has not yet been considered as a potential determinant, or moderator, of the level and impact of remittances. This thesis constitutes the first study that accounts for these factors. Incorporating and linking remittances to FDI literature helped provide a basis for understanding what one might call the 'other half' of globalisation by breaking new ground, adding insight and facilitating further research and policy making.

The role of institutions has been extensively examined in the economics and economic history literature and it has a prominent position in IB scholarship (Dunning and Lundan, 2008). Institutions are defined as "the rules of the game in a society or, more formally, are the humanly devised constraints that shape human interaction" (North, 1990). The nature of institutions and their manifestations for economic performance have been considered as stepping stones for understanding different country performances over time (North, 1990). The existence of institutions that foster social stability and economic performance are likely to play an important role in explaining the level of remittances sent, as well as the channels through which they impact on economic performance. Hence an analysis of institutions in the context of remittances is a necessary and potentially useful step for accounting for both the determinants of remittances and their impact on economic performance. Yet, as we noted, these have received scant attention in extant literature. Our analysis and results showed that both political and regulatory institutions are significant in explaining both the determinants and the impact of remittances. This suggests that public policies that impact on institutions can also affect the size and beneficial effects of remittances.

In addition to institutions, we considered the role of culture. The relationship between culture and the economy is also a subject of research and heated discussions (Acemoglu et al, 2005). Despite this fact, no one has previously considered their potential role on the determinants and effects of migrant remittances. As remittance flows involve individuals, we assume that the former are intrinsically affected by culture and social structures, rendering the inclusion of culture in our analysis essential. Our results confirmed our hypotheses as we reported a number of cultural indicators to be statistically significant both in determining remittances and in terms of their impact on economic performance. We believe that by exploring the role of culture on the level and impact of remittances, we open the gate to a new stream of research on remittances and IB. In all, we believe our study to be a novel contribution to IB literature, which we hope to lead to further research on this very important topic.

5.3 Summary of Thesis and Results

As noted the overall aim of the thesis was to cross-fertilise development economics and IB, by among others analysing the role of remittances in their relationship to FDI, and by incorporating into the analysis cultural and institutional considerations. We feel that has proven a rewarding endeavour. In particular, Chapter 2 set the scene by discussing the determinants of FDI in developed OECD countries. In this chapter we explored some production-supply-side variables which have not received much attention in the FDI literature, namely the role of total factor productivity and business profitability. For our analysis we employed an estimated equation derived from economic theory, which compared the main demand and supply-side determinants of FDI. This analysis added insight and value to the study of the determinants of FDI in developed economies by employing different proxies for the determinants in question and by testing for the relative importance of total factor productivity (TFP) as a determinant of FDI. Our results indicated the importance of total factor productivity as a determinant of FDI in developed countries, suggesting that country-specific factors are important for FDI.

Prominent between country-specific factors, are institutional and cultural ones.

These are also our focus in our subsequent chapters. For this reason, and in order to ensure comparability with subsequent chapters, and test the robustness of our results, we have rerun our regressions on the determinants of FDI using our new and more updated dataset, in Appendix 2-1. On balance our results supported and enriched our findings of the earlier, now published paper.

In Chapters 3 and 4 we explored the determinants and channels-pathways of remittances, as well as the way in which institutional and cultural factors impacted on both. To achieve this, we employed one of the most comprehensive datasets to date for a sample of 91 countries (31 developed and 60 developing), that we have created. We included in our dataset a list of independent variables alongside remittances, as well as GDP and GDP per capita as dependent ones. GDP aimed to capture the overall impact of remittances on economic activity, while GDP per capita, aimed to also account for efficiency-productivity (in that GDP per capita can be seen as a proxy for GDP per employed labour, which in turn is a measure of aggregate productivity). To capture the impact of remittances over time, we collected data for the period 1995 to 2009. For the institutional variables we used the Worldwide Governance Indicators available from the World Bank, and the Corruption Perception Index from Transparency International, while our cultural variables were gathered from the Geert Hofstede Index.

In Chapter 3 we focused on the determinants of remittances, as well as the channels through which they impact on economic performance. We have also considered the role of cultural and institutional factors. Our initial hypotheses suggested that institutional and cultural characteristics of migrants can potentially account for the variance in the levels of remittances. Our results confirmed our hypotheses suggesting the explanatory power of country-specific factors and specifically, that of institutional environment and culture.

Our analysis of the determinants of remittances suggested that these are primarily explicable in terms of decentralised decisions by migrants, influence by tempered altruism, and hence are likely to be countercyclical. Remittances are an important international capital flow, in terms of size comparable to FDI. Yet, it has received virtually no attention by IB scholars. It is widely recognise that globalisation involves capital but also labour. In this context ignoring the latter may be missing

out a lot. In particular there are calls to deal with new ideas in IB. We feel that migration and remittance flows could be one such idea.

Our reported interaction between FDI and remittances moreover, and the role of institutional and cultural factors, complement extant literature in development economics with IB concerns and ideas, hence cross fertilising the two fields of research. Our findings could provide an explanation as to why some types of FDI may be undertaken even in cases of economic crises. For example this may be the case because increased remittances protect demand from totally collapsing. This provides a rationale for governments to devise policies to foster remittance flows in periods of more acute need. In all, there are numerous new dimensions provided by our analysis. While many of these can be subjected to criticisms and/or different interpretations, it is arguable that they open new fascinating avenues for IB research. This we consider to be our main contribution in this thesis. Further research is warranted on these issues from us and other scholars.

In Chapter 4 we examined the impact of remittances, as well as FDI, on economic performance, paying attention to the moderating role of culture and institutions in this context. In order to do so, we employed interaction terms of remittances, institutions and culture. The results supported our hypotheses and indicated different measures being statistically significant for the two dependent variables used, GDP and GDP per capita. These novel results point to the need for more targeted public policies aimed at influencing the size and impact of remittances.

There is substantial literature in IB scholarship on the role of institutional and cultural factors (Asiedu, 2006; Bénassy-Quéré et al, 2007; Brouthers, 2013). These however have not been explored in the context of remittances - hence, our focus on the last mentioned (i.e. cultural and institutional factors) in the bulk of our thesis. In Chapters 3 and 4 our results confirmed our hypotheses by showing different institutional and cultural factors being statistically significant determinants of remittances and moderators of the amount remitted and their impact on GDP and GDP per capita.

Overall, our results showed that both remittances and FDI impact positively on GDP and GDP per capita, that FDI and remittances are complementary (although not in

all cases), and that institutional and cultural variables are important moderators of the decision to remit and of the impact of remittances on economic performance. The results are substantively similar when we use a variety of methods and robustness checks (constant and normalised data). Some reported differences with the normalised results could be attributed to the relationship between the size of a country and the various institutional and cultural characteristics. Other differences could be attributed to the quality of the data, the different methodology etc., certainly these are not unknown in econometric analyses, if anything our results are quite robust. Overall, these are potentially important results that have been underexplored in literature. They highlight different aspects of globalisation and how these can be complementary. They show that the almost exclusive focus of IB on FDI is rather limiting and that labour migration and remittances could well be one of the big new topics to be embraced by IB scholars.

Our results point to the need by policy makers to acknowledge both FDI and remittances as potential sources of development and devise policies and measures to attract suitable types of both. They also show that such policies need to take into account the institutional and cultural characteristics of each country. It might be premature to go any deeper on specific policies at this stage. Despite our comprehensive data base, there are various limitations that point to the need for caution. Our intended contribution has as much to do with opening this new research avenue, as to delve deeper into specific empirical findings and policy priorities. That might need to await further empirical work on these important, yet underexplored issues. Considering that cultural variables as well as the use of normalised data are firsts in the literature, there is no basis on which to directly compare these results of ours with other studies. Thankfully however, these are similar to the ones with current prices that are more readily comparable to other studies. Our results question the more pessimistic views on remittances.

5.4 The Interrelationship between FDI and Remittances

FDI and remittances both constitute significant capital flows and an examination of their potential interrelationship is significant both for discussion and policy making.

However, their combined role has not been considered so far, in the context of the same framework and econometric specification. This is another novel contribution we are making in this thesis to IB literature and more widely, by examining remittances and FDI as co-determinants of GDP and GDP per capita (PC).

At the conceptual level, a channel through which remittances affect FDI could be their positive impact on demand through consumption and investment for which we provided evidence in Chapter 4. Considering that in the national accounts remittances are seen as part of GDP, and that GDP (the size of the market) is considered an important determinant of FDI, then we would expect remittances to positively impact on FDI. More specifically, remittances have a positive effect on consumption, as recipients of remittances (usually, low income groups) tend to have a relatively high propensity to consume. This in turn, has a positive effect on GDP, as they also improve the standard of living of the recipient country. FDI inflows, which are attracted by the size of the market that is captured by GDP, will therefore rise.

We have also provided statistical evidence that remittances can be used for targeted investments in human capital and education, the creation of small businesses and other entrepreneurial activities, this way boosting domestic supply and productivity (World Bank, 2006), which is also a determinant of FDI (Piteli, 2010). Following this rationale, we would expect remittances to positively affect FDI inflows in a given country. A counter argument could be that countries with remittance flows are poor countries and poor countries do not attract FDI. In addition, if remittances are spent for conspicuous consumption they won't have an effect on FDI through this supply-side route. However, we did not find evidence to support this argument.

Concerning the impact of FDI on remittances, results may be more ambiguous. In the short-run, FDI increases income from wage rises, which in turn leads to increases in consumption. This way, GDP increases through the increase in demand. However, remittances, which are not driven by profit but 'altruism', target mostly less developed countries. Therefore, we would expect FDI to lead to decreases in the levels of remittances of a given country, at least after a certain level of income. The literature suggests that FDI has a positive impact on GDP and GDPPC as it creates markets and competition and it involves the transfer of knowledge, technologies,

skills and capital, this way leading to improved productivity levels. Therefore, as productivity levels go up, GDP follows, this way creating a disincentive for people to remit. It follows that while the short term impact of FDI on remittances is ambiguous, in the longer term the relationship may be negative.

However, our results suggest that FDI impacts positively on the level of remittances, suggesting this way that FDI and remittances are complementary in nature. In this context, recipient countries may benefit greatly from policies aimed to attract both types of capital flows.

In particular, we examined in a common conceptual framework both FDI and remittances and linked this framework to the estimated equations closer than earlier studies. We also tested in Chapter 3 for the interrelationship (whether it is one of complementarity or substitutability) between FDI and remittances, in order to check whether their impact on development is cumulative, or whether the one offsets the other. We found their relationship to be one of complementarity, namely that FDI and remittances are linked positively. We consider this an important result with serious policy implications, discussed below.

The figure below summarises and illustrates the interrelationship between remittances and FDI, the way in which impact on economic performance, and the moderating role of cultural and institutional factors.

Figure 5-1 FDI, Remittances and Economic Performance
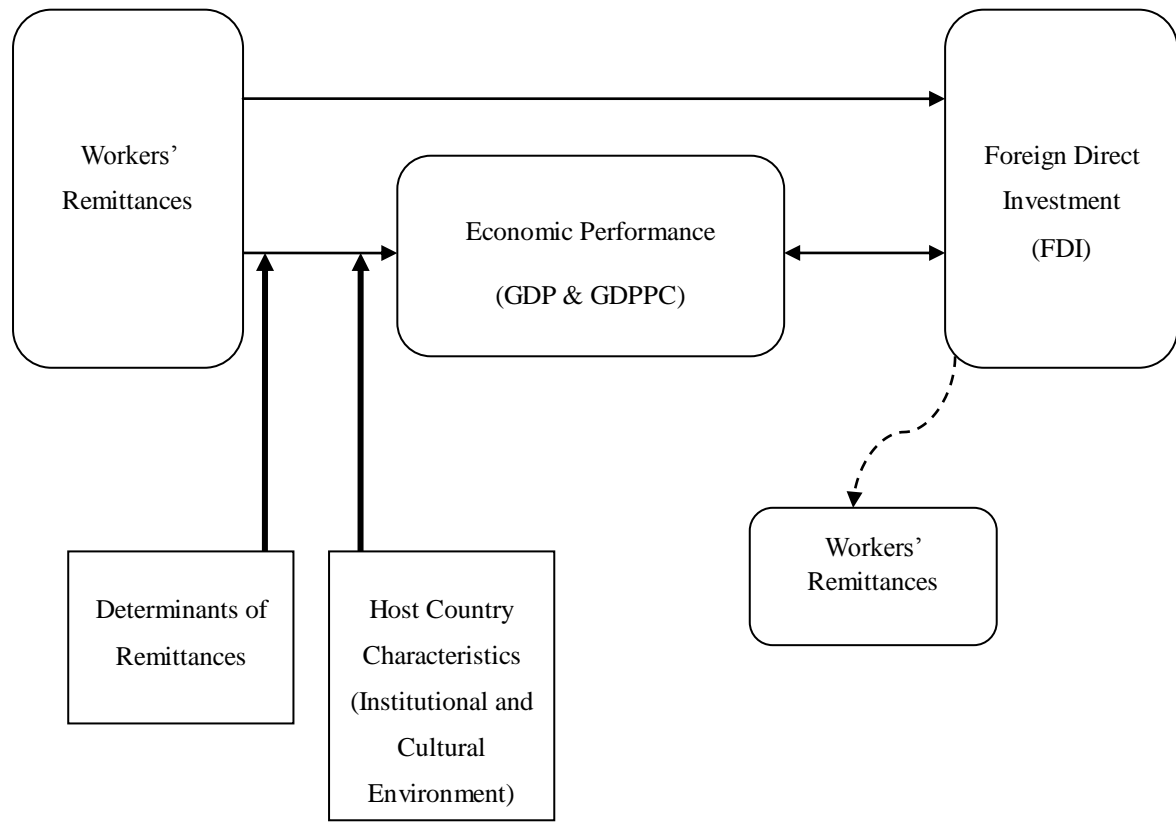
In terms of the analyses and findings in previous chapters, we have established that remittances impact positively on the economic performance of recipient countries, as well as that host country characteristics play an important role on why this might be the case. In our regression analyses in Chapters 3 and 4, we controlled for FDI flows. In Chapter 3, we tested for the direct effects of FDI on remittance flows. Both models suggested that FDI does indeed impact positively on remittances at the five percent level of significance. This is a very interesting finding suggesting that the level of remittances will be higher in recipient countries with higher FDI flows.

Figure 5-1 also illustrates the potential indirect impact of remittances on FDI through their impact on GDP and GDP per capita. Having established that remittances have a positive impact on economic performance, they may also have a positive indirect impact on FDI, as the latter is attracted by GDP and GDPPC. By explaining the rationale of Figure 5-1 we make a novel contribution to IB scholarship by providing an eye to better exploring the relationship between these

types of capital flows and their impact to economic performance. The examination of the relationship between FDI and remittances is also an indirect way to examine whether remittances have a positive or negative impact on economic performance. By establishing that FDI could help attract remittances, we also indirectly confirm the importance of institutions and culture, which are significant factors in attracting FDI in the first place. This relationship not only extends current thinking on globalisation, but it also provides new foundations for research in IB scholarship. Given the potentially bi-causal link between FDI and remittances, we have used dotted lines in the diagram to portray their link.

Overall, our results suggest that FDI impacts positively on the level of remittances, suggesting this way that FDI and remittances are complementary in nature. In this context, recipient countries may benefit greatly from policies aimed to attract both types of capital flows. Our findings open up new avenues and new conversations in IB literature. The contribution of this unified conceptual framework provides a fuller picture of globalisation and adds value to IB scholarship by incorporating the second most significant capital flow into FDI theory and practice.

The inclusion of FDI as a determinant of remittances is a first in literature and not self evident, justifying some further elaboration. We have already argued that one of the functions of remittances is to provide finance for small family business. Entrepreneurship and small business creation however are both a sign of improving business climate and the existence of a locally based production network that could be supporting and complementary to inward investment. In this context remittances could affect FDI. At the same time, however, FDI helps provide opportunities to the recipients of remittances to create new businesses where MNEs invest, hence require a supporting business ecosystem. In this sense FDI could help determine remittances. Clearly this is only going to be the case where the investment motive is stronger than the altruism motive. This is unlikely to be the case in many countries, especially the poorer.

In addition to the above, we have claimed that both FDI and remittances are contributing to aggregate demand. However demand for their products is an important determinant of MNE decisions to invest abroad, especially of market seeking MNEs. Hence the higher are remittances, the higher is demand and the more

likely that MNEs, particularly those in consumer goods sectors, will be attracted to invest in a country. Accordingly the analysis of the interrelationship between FDI and remittances, in particular whether these are substitutes or complements, is quite legitimate and deserves further exploration. Overall, our discussion points to reasons to expect FDI to impact on remittances, but not in all cases. It is not surprising therefore that the impact of FDI on remittances is significant in some but not all cases. More research on this issue, especially in different groups of countries, could help yield some interesting results. Here we merely point to the possibilities.

5.5 Implications for Policy and Practice

Our estimation results supported the enlightened altruism motive and confirmed that institutional and cultural differences of countries and remitters can account for the differences in the levels remitted and the impact of remittances in recipient economies. Clearly, there may be other potential explanations for our results and in this context, we emphasise the need for further investigation. However, we strongly believe that our analysis and conclusions confirm that institutions and culture are powerful factors that help uncovering variations on impacts of remittances, as well as explicating the mixed results reported in previous literature. Throughout this thesis our results have been in line with our initial hypotheses confirming the moderating role of institutional environment and culture on the amounts of money remitted and the impact of remittances on economic performance through the various channels. In addition, our results suggest a complementary relationship between remittances and FDI hence providing a new common area of research for the two most important capital flows in IB literature.

Unlike other capital flows, such as aid and FDI, remittances have not been associated with issues of 'dependency' of host markets (Baltagi et al, 2005). Dependency may even hamper the development of recipient countries (Moss et al, 2006). This observation further emphasises the importance and potential benefits of migrant remittances.

Our findings suggest the need for policy makers to strengthen the institutional framework and the cultural factors that foster remittance transfer and their efficient

use. For example, governments should aim to facilitate and incentivise the transfer of more remittances through official channels. Financial sector deficiencies, dual exchange practices and lack of official transfer agencies should be considered priorities for policy makers.

Improving the institutional framework, promoting entrepreneurship, and limiting corruption can help promote and facilitate the impact of remittances in recipient countries. In addition, targeted policies that take into consideration the cultural factors of a society are likely to be more effective in the efficient utilisation of remittances. It will also help academic research determine the variations in the sums remitted, as well as the direction of the potential impact. Policy makers should thus aim at strengthening domestic institutions and encouraging countries to adopt better financial intermediaries.

Our analysis is of relevance also to managerial practice. This is both because of the need for managers to consider institutional and cultural aspects, but also in recognising the complementarity of the two capital flows. This may suggest that MNE managers could benefit from knowledge of where remittances are channelled and their impact, so as to inform their investment decisions and further foster the observed complementarity. Moreover, managers should study in depth host-country cultural characteristics for better informed and more effective foreign investments. Our analysis of the determinants and the impact of remittances add a new dimension in the process of managerial decision making.

5.6 Limitations and Suggestions for Further Research

As we have already noted in some detail, limitations in our research stem from the availability and quality of the data, rendering a more in depth analysis on an aggregate level rather difficult. Some of our proxies and econometric techniques may also be questioned; however, we believe that given the data and previous analyses on the topic, we have made informed choices and reliable contributions. In particular, our data base is more comprehensive than hitherto available, while our proxies are based closely on IB theory, and previous research and good practice.

The current economic crisis and the consequent questioning of capitalism, global integration and their potential effects have placed an enormous reform agenda for academic research and policy making. The global aspect of the financial crisis has highlighted the potential dangers that integrated economic markets may pose, as a result of increased interconnectedness. The design of more stable national and international economic systems and policies seems to be of the essence today, and reforms to ensure the stability of the increasingly internationalised production and supply systems vital. Enhanced understanding of remittances, as the 'other half' of globalisation will help considerably towards this direction.

In the context of FDI and remittances, additional theoretical avenues include the full assimilation of spatial issues in the strategy of MNEs, the integration of the role of new institutions, for example NGOs, as well as fuller attention to the political implications of the activities and changing environment of MNEs (Buckley and Ghauri, 2004). These highlight the need for reconsidering the role of the state and political economy in establishing and promoting economic growth and development. Future research should focus on the potential benefits of state regulation in fostering sustainable development, and the role of remittances and FDI policies in this context.

The above underline the need for further research on the institutional and cultural determinants and moderating factors of remittances, as well as on the role of the state and political economy. Individual country studies will provide insight and facilitate more country-specific and thus, effective policy making. Individual policies will boost the potential benefits of remittances in recipient countries. Additionally, the role of financial institutions and intermediation should also be further investigated. Countries with more advanced financial institutions witness the incomes of the poor improve more than those of the non-poor, this way contributing in alleviating income inequalities (Orozco and Fedewa, 2005). Lastly, recent papers on the determinants of remittances have considered underdeveloped financial institutions to act as a disincentive to remit, as they entail higher transfer costs, suggesting the potential explanatory power of financial institutions and intermediation in the variations of the level of remittances (Bettin et al, 2012). Financial intermediation is beyond the scope of this thesis, but constitutes a future

research opportunity.

In all, we believe that today's economic crisis renders more than ever the analysis of what we called the 'other half' of globalisation, and its incorporation in IB scholarship, opportune and of the essence. As noted our 'half' does not mean to be taken literally, but rather as an indication that the analysis of capital flows by firms (notably FDI) in IB should be complemented by the analysis of the other comparable in size capital flow, which results from the mobility of productive labour. We appreciate that our contributions can only help start this debate. We aim to continue researching this very important topic and hope to motivate others to also do so.

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