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Measuring International Remittances in India

Concepts and Empirics

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July 2011

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Abstract

India is the top remittance receiving nation in the world. The international remittance receipts in India have grown at an impressive rate of 300 per cent during the past decade. Understanding the true impact of these foreign exchange flows is possible only with better knowledge and accurate measurement of the volume of these flows. This paper presents an empirical illustration of the different measures of international remittances for India, as measured by different institutions and surveys, and highlights the discrepancies between these measures. The broad objective of the paper is to understand the conceptual and empirical issues involved in measuring these flows. It uses data from the Reserve Bank of India (RBI), International Monetary Fund (IMF) and the National Sample Survey (NSS) of India on international remittances to show that there are large discrepancies in international remittance estimates. While the IMF estimate is twice that of the RBI, the RBI value is twice that of the household-level NSS survey data. This discrepancy can be partly explained by the varied nature of definitions used by these different agencies. Data is gathered at different levels by different sources and these sources do not coordinate among themselves. Also, there is a lack of transparency in the methods of collation and aggregation of the data at each level. One way to overcome this problem is to create a link between the local and the central data gathering institutions and have a centralised data generating mechanism, where data is gathered at the local level and then compiled at the central level. The necessary condition for such a centralised data generating process would be to have a strong and efficient mechanism in place at the local level, supervised centrally across the country.

Keywords: Workers' Remittances, RBI, IMF, NSS, Private Transfers, NRI Deposits

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1. INTRODUCTION

International remittances flowing into developing countries have increased from USD 81 billion in 2000 to USD 300 billion in 2010, about a 270 per cent increase in the past decade. During the same period international remittances to India have increased from USD 13 billion to an estimated USD 55 billion — close to a 300 per cent increase — making India the top most remittance receiving nation in the world.[1] While these estimates are quite impressive, it is important to examine their validity, based on their sources and estimation methods.

One of the biggest challenges of research on remittances is the limited availability of data. International remittances are broadly defined as cross-border monetary transfers made by migrants residing abroad to their families in their country of origin, primarily to meet the financial needs of the families. As these are household-level transfers, the challenge is to appropriately account for these flows in the balance of payments (BOP) of the receiving country by differentiating them from other types of foreign exchange flows into the country.

The importance of appropriately measuring the volume of remittances and generating reliable sources of data was recognised at the Group of Eight (G8) Summit at Sea Island, Georgia in 2004, where discussions were held on designing strategies to improve the data on remittance flows in both sending and receiving countries.[2] Following this, the World Bank and the International Monetary Fund (IMF) conducted technical meetings where data compilers and data users from around the world sought to set an agenda for improving remittances data.[3] Since then, there have been several initiatives to improve the data available to users, including the data reported in the framework of BOP statistics. Since July 2008, improving data collection methods for international remittances has been included as a sub-theme within the framework of the Global Remittances Working Group (GRWG) set up by the World Bank.[4]

One problem with remittance accounting is that the components that constitute remittances are quite fuzzy and usually differ from country to country. To maintain consistency in the accounting framework across different countries, the IMF provides separate BOP heads for the accounting of foreign exchange transfers identified as remittances, and defines remittances as a sum of three BOP components – Workers' Remittances, Compensation and Benefits of the migrant worker, and Migrants Transfers. However, given the diversity in the nature of these flows, different countries have developed their own accounting frameworks to account for international remittances, which are often different from the IMF mandate. Another issue with international remittances is that they are often confused with other private capital flows such as portfolio investments by migrants in domestic stocks and sometimes even foreign direct investments (FDI). A recent World Bank survey of the central banks of different countries (Ratha, Mohapatra, and Irving 2010) suggests that the central banks of most countries find it challenging to separate migrant remittances from other small-value transfers such as trade payments, small investments, and even transfers by/to non-governmental

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[1] World Bank staff estimates based on the IMF's BOP Statistics Yearbook 2008.

[2] G8 Summit at Sea Island, Georgia, 8-10 June 2004. G8 Action Plan: Applying the Power of Entrepreneurship to the Eradication of Poverty, 9 June 2004. http://www.g8.utoronto.ca/summit/2004seaisland/poverty.html

[3] International Technical Meeting on Measuring Remittances, Washington: World Bank, 24-25 January 2005.

[4] GRWG is a group set up under the Financial and Private Sector Development, World Bank-IFC. Data improvement is one of four GRWG Thematic Areas. Its activities include: (1) Improving data collection (of North-South, South-South, intra-regional and internal remittances) in continuation of the Luxembourg Group (and the preceding G8 Working Group on remittance data); (2) Standardising migration and remittances questionnaires and modules in household surveys and censuses; (3) Collaborating with other institutional efforts to improve data on migration. http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTFINANCIALSECTOR/0,,contentMDK:22381512~menuPK:6681874~pagePK:210058~piPK:210062~theSitePK:282885,00.html

organisations (NGOs) and embassies. This creates discrepancies between remittance data reported by the IMF BOP statistics as compared with the data cited by the government agencies of the respective countries, resulting in under- or over-estimation of the true remittance value. To cite an example, Ghana's central bank in February 2010 reported the 'amount of private remittances in 2009 as USD 1.57 billion as compared to USD 1.68 billion in 2008' (Bank of Ghana 2010). However, the figure given by the IMF (i.e., the sum of workers' remittances, compensation of employees and migrants' transfers) was a paltry USD128 million, which was less than one-tenth of that reported by the central bank!

In view of an increasing discrepancy in the data on remittances reported by different institutions, the IMF along with the World Bank formulated a two-step strategy to improve remittance data: first, simplifying, clarifying, and expanding the definitions of remittance related items to meet the needs of data users; and second, developing practical compilation guidance to support compilers. The main objectives are to assess the strengths and weaknesses of estimates currently produced by member countries, and to agree on a work programme to improve remittances data. One such initiative was to develop the *International Transactions in Remittances: Guide for Compilers and Users* (also known as the *Remittances Compilation Guide* (RCG)). The RCG seeks to support data compilers in their effort to provide accurate, complete, and timely data on remittances, consistent with the improved concepts and definitions (IMF 2009). While the RCG mandate seeks for a consistent cross-country data compilation method on remittances, the very nature of these foreign exchange flows makes it a difficult task for the reporting countries.

In the case of India, the Reserve Bank of India (RBI) defines remittances as the sum of four Current Account foreign exchange inflows: family-level direct transfers, local withdrawals from Non-Resident Indian (NRI) deposit accounts, gifts and donations made by the NRIs to religious and charitable institutions, and gold and silver brought in by NRIs in baggage. Thus, in order to get better and more accurate data on international remittance receipts in India, it is important to track the inflow channels of each of these flows. While the RBI is the central authority which provides aggregate data on each of these flows, there are also household-level surveys conducted by the Government Statistics Department which give an estimate of the family-level remittance transfers in the country. Apart from this, a few states have conducted independent surveys to track household-level transfers.

While there has been serious effort to strengthen the data at all levels – global, national and state, there appear to be significant deviations in the data generated by all these sources. This is reflected in the fact that the IMF estimates of international remittances to India is often much higher than the RBI estimates. Similarly, the national-level aggregated household survey data give a much lower volume of family-level remittances as compared to the RBI data. Thus, in spite of the effort to revamp the data collection methods, the problem regarding the consistency of the data gathered at different levels still exists. This paper makes an attempt to highlight these discrepancies, using as an example the international remittances data on India. The paper uses both a conceptual and an empirical framework to highlight the differences between the IMF documented data and the RBI estimates, and also the deviation of RBI data from the aggregate household survey estimates.

The next section (section 2) begins with the conceptual issues involved in defining remittances. It gives an elaborate description of how international remittances are defined by both the IMF and the RBI, and then uses empirical data to highlight the deviation between the two. Section 3 explains the empirical challenges in measuring remittances and provides a detailed account of how international remittances are measured in

India and the relative importance of the different components which constitute remittances. It then highlights the deviation between the RBI data and the household survey data. Section 4 discusses certain important points which are raised in the paper, and section 5 summarises and concludes the paper.

2. Defining Remittances: Conceptual Issues

To understand the empirical discrepancies in the estimated values of remittances, it is important to understand the conceptual differences in defining remittances among different institutions and agencies. While international remittances broadly refer to the foreign exchange transfers made by migrants to their family members back home, there are different forms in which these flows are channelled into the country. Moreover, there are other kinds of migrant transfers (non-household) that are not generally captured in standard remittance definitions or data.

2.1 IMF Definition of International Remittances

The IMF defines remittances as the sum of three BOP components – Workers' Remittances, Employee Compensation and Benefits, and Migrant Transfers. While Workers' Remittances and Employee Compensation are accounted as Current Transfers, Migrant Transfers are accounted in Capital Transfer. According to the definition in the IMF Balance of Payment Manual (BOPM5), Workers' Remittances are defined as Current Transfers made by *migrants*, who are employed in new economies for at least a year, to their sending countries (Balance of Payments Manual 2006, Ch15 Para:302). Employee Compensation and Benefits comprise wages, salaries, and other benefits (in cash or in kind) earned by *individuals* in economies other than those in which they are residents for work performed for and paid for by residents of those economies. This also includes the contributions paid by employers on behalf of employees, to social security schemes or to private insurance or pension funds (whether funded or unfunded) to secure benefits for employees (Balance of Payments Manual 2006,Ch14 Para:269). Thus it is a measure of total compensation received by the migrant employed in the host economy at any point in time. Migrant Transfers are a form of Capital Transfer. They involve transfers of ownership of fixed assets and transfers of funds linked to or conditional upon acquisition or disposal of fixed assets. These transfers are not transactions between two parties but contra-entries to flows of goods and changes in financial items that arise from the migration (change of residence for at least a year) of individuals from one economy to another (Balance of Payments Manual 2006,Ch17 Para:352). Since these transfers are not monetary per se, and are simply change of ownership of physical assets, they appear in the Capital Account.

To distinguish between Workers' Remittances and Employee Compensation and Benefits, the residency status of the migrant is important. Though BOPM5 does not provide a formal definition of a migrant, in common parlance a migrant is defined as a person who comes to a country other than his/her country of origin, and stays there, or is expected to stay, for a year or more (exceptions being students, medical patients, diplomats and military personnel). Thus, while Workers' Remittances are the transfers made by migrants who have been staying out of their country of origin for a year or more, Employee Compensation and Benefits are the total wages, salaries and other benefits of individuals who have been residing outside the country for less than a year.

According to the IMF mandate, total international remittances are defined as the sum of Workers' Remittances, Employee Compensation and Benefits, and Migrant Transfers. Inclusion of Migrant Transfers in the accounting of remittances is a point of contention. While Employee

Compensation and Benefits and Workers' Remittances are the income and a part of the income component, respectively, of the migrant that are transferred back home, Migrant Transfers are simply assets which have moved from one country to the other, without any change in the ownership. These transfers fall neither into the category of income of the migrants nor into savings. There is no true transfer of wealth between two individuals and hence it ceases to fall even in the category of a 'transfer'. Thus it would be inappropriate to include such transactions in the accounting of remittances as it may result in an over-estimation of the actual remittance flows. Also, Migrant Transfers are not as frequent as the other two transfers. Hence, the inclusion of Migrant Transfers may result in sudden jumps in international remittance figures for certain years, thus introducing erratic changes in the total remittance flows.

The second point of contention is the inclusion of Employee Compensation and Benefits in estimating international remittances. These are the total earnings of the migrant staying abroad for less than a year, and cannot be ideally categorised as transfers made by the migrant to his or her family members for the purpose of sustenance. Also, the motivation behind, and utilisation of, these earnings would be different from those of remittance transfers, which are often altruistically motivated. Thus, including Employee Compensation and Benefits in remittance estimation may give rise to incorrect conclusions about factors motivating remittances and the utilisation pattern of these transfers.

These points of contention are important when compared with the RBI framework of remittance estimation, which uses a completely different set of parameters to measure international remittances.

2.2 INTERNATIONAL REMITTANCES ACCOUNTING IN INDIA

The RBI, the central monetary authority of India, is responsible for collating and producing data on foreign exchange transmission in the form of remittances for India. The RBI accounts for international remittances under the head 'Private Transfers', which is reflected under the Invisible Transfers category of the Current Account of India's BOP (Figure 1).

Total international remittances as represented by Private Transfers in the RBI BOP account is the sum of the following:

- Family-level remittance transfers
- Local redemption/withdrawal of NRI deposits
- Gifts or donations made to charitable institutions
- Gold and silver brought through baggage by the passengers

The family-level remittance transfers are direct transfers made by overseas Indians directly to their families, through official banking channels or other money transfer organisations (MTOs). The purpose of these flows is assumed to be mostly for family maintenance.

Local redemption or withdrawal of NRI deposits is a relatively new phenomenon. In order to tap the investment potential of NRIs, the Government of India introduced, starting in the 1970s, various savings deposit schemes with commercial banks in India, with special attractive conditions specifically for the NRIs. These schemes gave NRIs the opportunity to save in their home country either in rupees or repatriable dollar accounts. These deposits are often in rupee form and are non-repatriable like the Non-resident External Rupee Accounts (NRE(R)A) and Non-Resident Ordinary Rupee Accounts (NRO) deposit schemes. NRI deposits are accounted for in the Capital Account of the BOP (Figure 1). Though these accounts are officially held by the NRIs, their family members could be given limited withdrawal rights. Local withdrawals made from these NRI deposits are often used domestically and hence are considered as a part of international workers' remittances (RBI 2008).

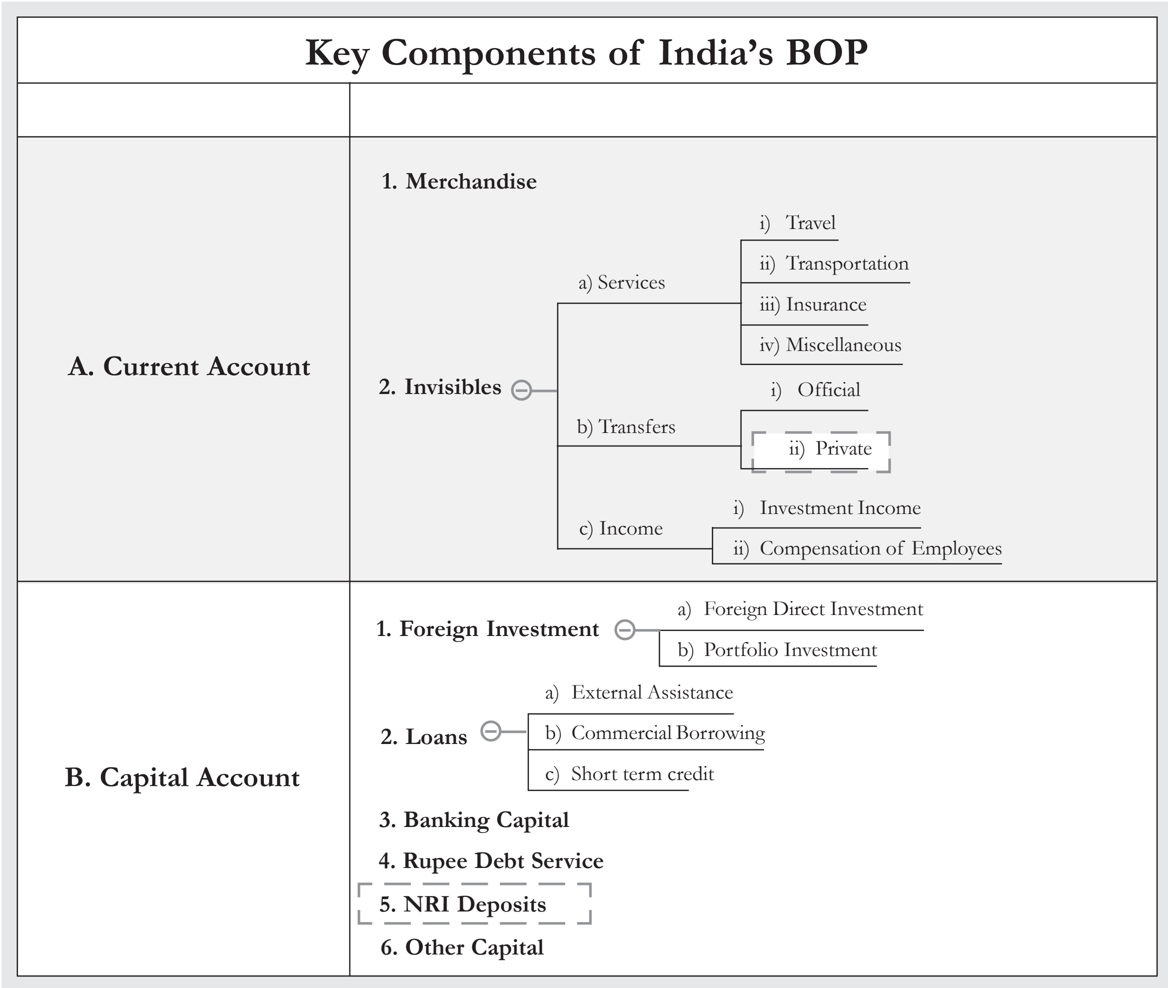


Figure1: Structure of India's BOP Accounts

Gifts and donations are defined as money repatriated by the NRIs to charitable or religious institutions in India. Though these are not family-level transfers, nevertheless they are quid-pro-quo in nature and are transfers made either through a network or directly to an institution without any intention of capital gain, and hence are considered to be a part of international remittance transfers. Gold and silver brought through passenger baggage refers to the import of gold and silver by the NRIs, which was earlier permitted by the Government of India under special import licenses (during the late 1990s banks and other agencies were also permitted to import gold and hence gold import through passengers lost its importance).

Table 1 gives the composition and trend of Private Transfers in India from 1989 to 2009. Column 11 of Table 1 gives the total international remittances received in India, based on RBI accounting. The important components of remittances are the receipts for family maintenance (column 1), personal gifts and donations (column 2), local redemptions (column 3) and imports of gold and silver (column 4). From the table it is observed that while the family-level transfer has witnessed a steady increase over the past two decades (except for few aberrations in early 2000 and during 2004-05), there has been a jump in the local withdrawals in 2003-04. There is also an increasing trend in the gifts and donations by the NRIs to charitable and religious institutions in India. From 2002 to 2004 the volume of such contributions has doubled. This is an interesting trend which was not as prominent in earlier years, which suggests that the conventional notion of international

Table 1: Composition and Trend of Private Transfers to India (USD million)

	Receipts for family maintenance	Personal gifts and donations	Local redemptions from NRNRD	Imports of gold and silver	Migrant transfers by Indian nationals*	Repatriation of saving by Indian residents abroad*	Receipts of retirement benefit funds from abroad*	Reimbursement of M.O. drawings*	ID Bonds transferred to residents*	Others*	Total
	1	2	3	4	5	6	7	8	9	10	11
1989-90	720	405	0	0	0	1161	10	0	0	1	2297
1990-91	626	417	0	0	2	1027	11	0	0	1	2084
1991-92	702	344	0	0	1	2738	11	0	0	1	3797
1992-93	730	445	0	1076	0	1604	5	3	0	1	3864
1993-94	514	838	0	1670	4	2241	15	4	0	1	5287
1994-95	1727	587	0	2100	7	3665	17	8	0	1	8112
1995-96	1003	1359	0	1943	3	4198	13	19	0	2	8540
1996-97	2518	726	3427	2718	11	1935	11	10	1017	62	12435
1997-98	5232	526	3418	2699							11875
1998-99	7661	650	1859	171							10341
1999-00	7423	734	4120	13							12290
2000-01	7747	581	4727	10							13065
2001-02	6578	623	8546	13							15760
2002-03	9914	613	6644	18							17189
2003-04	10379	1199	10585	19							22182
2004-05	9973	2168	8907	27							21075
2005-06	10455	2026	12454	16							24951
2006-07	14740	2860	13208	27							30835
2007-08	21920	2641	18919	26							43506
2008-09	14288	1525	11217	12							46903

Source: Data compiled from *RBI Bulletin* (RBI 1993, 1999, 2001, 2008). Data in USD millions.

*These were later merged into broader headings

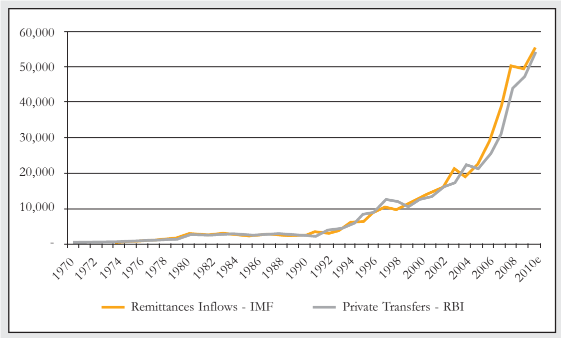
remittances being just a family-level transfer needs to change. The nature of remittances is undergoing a change and flows such as local withdrawals and NRI donations have become more significant in recent years. The available data however is not sufficient to explain why this shift may have occurred, or whether it is an actual change in the nature of flows or an outcome of the data collection methods themselves.

2.3 Deviations in Different Measurements of Remittances

From the above discussion it can be observed that while IMF BOP accounts define remittances as Workers' Remittances, the RBI defines remittances as Private Transfers. There is also a difference between the ways data are collated by each of these institutions. The RBI receives data from banks and other non-banking financial institutions on their foreign exchange transactions, on a fortnightly basis. The data received by the RBI has different categories of foreign exchange transactions, which are then disaggregated to calculate the remittance component. Thus, RBI data has several sub-components which when aggregated give the total remittance figure for India. The IMF estimation process, on the other hand, is not very clear. The IMF handbook suggests that it gathers the data on international workers' remittances directly from central banks, i.e., the RBI in the case of India, and also through its own surveys of banks and other financial institutions within the country. Nevertheless, not much is mentioned about the kind and the respondents of the surveys. Thus IMF data has a single broad category of estimated remittances –'Workers' Remittances'.

Figure 2 gives a trend and volume comparison of international remittances as estimated by the IMF and the RBI. Though the overall trend of remittances is comparable for both sources, the deviation in the estimated volumes of both is quite large (Figure 3).

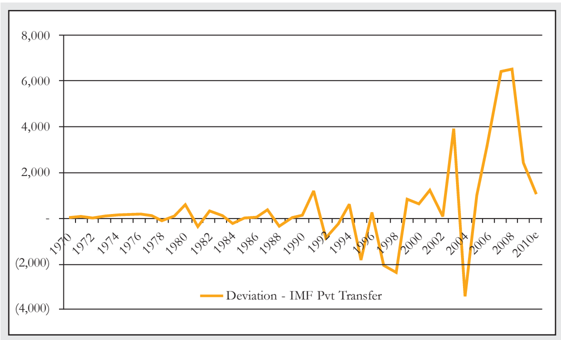
Figure 3 provides the deviation of RBI data from IMF data on international remittances



Source: IMF BOP Statistics, RBI BOP Current Accounts (USD million)

Figure2: International Remittances - IMF vs. RBI

(IMF remittances – RBI remittances). The figure shows that while the deviation between the IMF estimate and the RBI value was much less in the earlier period, the gap has increased in recent years.



Source: Author's calculation (USD million)

Figure3: Deviation between IMF and RBI Data on International Remittances

To test whether the difference in the IMF and RBI estimates of remittances are statistically significant we conduct a Paired T-test. The T-test compares the means of two sets of observations and tests whether the means are significantly different from each other. The null hypothesis of the test is that the means of the two sets of observations are the same. The T-test results are given in Table 2. From the probability estimates, we can conclude that the null hypothesis of equal means can be marginally rejected, and it can be said that the deviation between the IMF and RBI estimates is significant, and also that the IMF estimates are significantly larger than the RBI estimates of international remittances.

One of the most important reasons for the discrepancy in the data is the definition of international remittances. While IMF defines remittances as the sum of three different types of foreign exchange transfers by the migrants, RBI has very different categories to compute remittances. Thus the computational structures used by both the institutions are different and hence difficult to compare. Nevertheless, the data does indicate the inconsistency in reporting the true estimated value of remittances in national and global forums. It raises serious doubts about the data gathering and data reporting processes of both institutions.

Table 2: Paired T-Test between IMF and RBI Estimates of Remittances

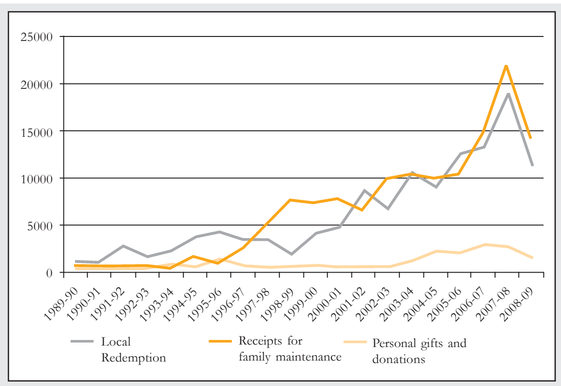
Variable	Obs.	Mean	Std. Dev.	[95% Conf. Interval]	
IMF	41	10213.83	14431.15	5658.793	14768.86
RBI	41	9759.707	13362.75	5541.903	13977.51
Diff.	41	454.1202	1865.346	-134.6557	1042.896
mean(diff.) = mean (IMF-RBI)				t = 1.5588	
Ho: mean (diff.) = 0				degrees of freedom = 40	
Ha: mean (diff.) > 0					
Pr.(T>t) = 0.0635		Reject Null Hypothesis			

3. Measuring Remittances: Empirical Challenges

In this section I explore more deeply the components of the international remittances as defined by the RBI and then highlight the gap between the RBI estimates and the National Sample Survey Organisation's (NSSO) household survey estimates of remittances.

3.1 PRIVATE TRANSFERS IN INDIA

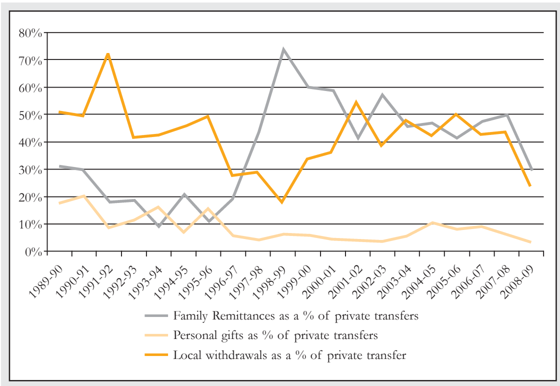
To understand the composition of international remittances in India, it is important to study and analyse the trends of the various components of Private Transfers, as defined by the RBI. The trend of these flows reveals certain interesting results. Figure 4, generated from the RBI data from 1990-2009, shows the trends of family remittances, local withdrawals from NRI deposits and personal gifts. These trends, apart from a few erratic changes, have been on a rise (except the 2008-09 amounts, which are provisional figures). The increase is more pronounced during the early 2000s, following which both the flows have been constantly rising. The same can be observed for the gifts and donations, which have seen a jump in the mid-2000s.



Source: RBI HSIE

Figure 4: Trends of the Important Components of Private Flows in India

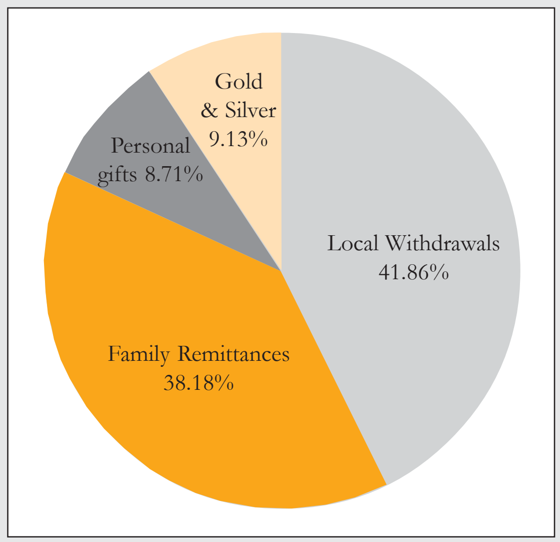
Figure 5 gives the percentage of these flows with respect to total private flows, i.e., contribution of each of these flows to total international remittances. The figure shows that while the percentage contribution of local withdrawals was higher than family-level transfers in the early 1990s, there was a sudden drop in these withdrawals in the late 1990s, when family-level transfers saw a sudden increase. This could be due to the introduction of new channels of fund transfer through banks and other private agencies or a fall in the total cost of transfers. Though the local withdrawals fell in the late 1990s they resurged again in the early 2000s. This was due to the change in policies regarding NRI deposit schemes and the introduction of new deposit schemes, giving NRIs better opportunity to save in their home country. The different deposit schemes for NRIs and the trends of the inflow and outflow from these deposits are explained in the next section.



Source: Author's calculation

Figure 5: Components of Private Flows as a Percentage of Total Flows

Observing the trend and average volume of the different types of private flows, it emerges that local withdrawals and family-level remittance transfers are the two most imporant components of private flows, followed by gifts and charities, and gold and silver brought in baggage. A point to note here is that this represents only the official channels of remittance transfer, and does not include the unofficial channels of '*hawala*', '*hundi*', etc., which are often believed to be much larger than the official transfers. One interesting point is that on an average, local withdrawals exceed family transfers. While family remittance transfers form about 38 per cent of the total remittance receipt, local withdrawals form about 42 per cent of the total international remittance received by India (Figure 6).



Source: Author's calculation

Figure 6: Average Composition of Private Transfers in India (Official Channels)

This is a significant finding because the conventional notion of remittances has been the family-level transfer, primarily meant for family consumption. With an increase in local withdrawals there is the indication of a change in both the nature of remittances being transferred back and also the pattern of its utilisation. This is further probed in the next section.

Given the relative importance of the different components of international remittance receipts in India, it is important to track the channels of inflow of each of these flows, to estimate their volumes and understand their transmission mechanism in the economy. The banking sector provides information about foreign exchange transactions under private flows to the RBI on a regular basis. Apart from that, the family transfer component of the total remittances is also tracked through household surveys. One such household survey is performed by the NSSO, which conducts a country-wide sample survey on remittance receipts and many other socio-economic parameters. While the RBI usually gives an aggregated figure for the country as a whole, it is possible to derive state-wise or region-wise data from the NSS surveys. Also, a few states in India like Kerala, Punjab and Goa have undertaken their own household surveys to track the channels and uses of family remittances within the state. Similar surveys are also being planned for other states (e.g., Gujarat).

While such household surveys help in tracking the family transfer component of total remittances, there is hardly any initiative to track the local withdrawals from NRI deposits. The RBI BOP accounts are the only sources of data on NRI withdrawals. There is a severe dearth of data on the state-wise or region-wise distribution of local withdrawals from NRI deposits, and their uses.

Tracking the monetary flows in the form of gifts and donations is quite tricky. One reason is that, as in the case of withdrawals from NRI deposits, there are no state-wise or region-wise data on the amount of money flowing to charitable organisations, and the RBI is the only source of aggregate data. The second reason is that RBI data captures only the flows which are channelled through officially recognised charitable organisations. In the case of gifts and other philanthropic donations, much of the money is likely to be channelled through the family at home, and so would appear as remittances. Instead, it is likely that a part of the family-level transfers are not being spent for family maintenance but are being channelled into other sectors and uses, such as for local development or religious institutions. These are complexities in NRI resource transfers that are not at all captured in existing data sources.

3.2 NRI Deposits

To better understand the trends in the local withdrawals, we map them against the total NRI deposits outstanding at the year end. NRI deposits amount to around 4.3 per cent of the total deposits held by commercial banks in India (RBI 2011).

Table 3: NRI Deposits Outstanding as of 31 March (USD million)

Year	NR(E)RA	FCNR(A)*	FCNR(B)**	NR(NR)RD+	NRO	Total
1992	3025	9792	-	-	-	12817
1993	2740	10617	-	621	-	13978
1994	3523	9300	1108	1754	-	15685
1995	4556	7051	3063	2486	-	17156
1996	3916	4255	5720	3542	-	17433
1997	4983	2306	7496	5604	-	20389
1998	5637	1	8467	6262	-	20367
1999	6045	-	7835	6618	-	20498
2000	6758	-	8172	6754	-	21684
2001	7147	-	9076	6849	-	23072
2002	8449	-	9673	7052	-	25174
2003	14923	-	10199	3407	-	28529
2004	20559	-	10961	1746	-	33266
2005	21291	-	11452	232	-	32975
2006	22070	-	13064	-	1148	36282
2007	24495	-	15129	-	1616	41240
2008	26716	-	14168	-	2788	43672
2009	23570	-	13211	-	4773	41554
2010	26251	-	14258	-	7381	47890

FCNR(A) : Foreign Currency Non-Resident (Accounts).
FCNR(B) : Foreign Currency Non-Resident (Banks).
NRO : Non-Resident Ordinary Rupee Accounts.
NR(E)RA : Non-Resident (External) Rupee Accounts.
NR(NR)RD : Non-Resident (Non-Repatriable) Rupee Deposits.

* Withdrawn w.e.f. Aug 1994 ** Introduced in May 1993 + Introduced in June 1992 and discontinued w.e.f. April 2002

Source: RBI Handbook of Statistics on Indian Economy

Table 3 gives the outstanding NRI deposits as of 31 March, from 1992 to 2010.

These deposits are reflected in the Capital Account of the BOP (Figure 1). Since liberalisation, with different types of schemes and savings options with the commercial banks, the amount of NRI deposits outstanding have been steadily rising.[5] When mapped with the private flows, while the trend of both the NRI deposits and private flows are similar, the volume of the net outstanding NRI deposits have been much larger than the amount of Private Transfers (Figure 7). Thus, though the importance of the NRI deposits as a source of foreign exchange in India is recongnised, these are not a part of the conventionally defined remittances in India. This goes back to the broader question of what should constitute remittances. Should remittances be defined as transfers within families or as from anindividual to her/his family/organisation? Can NRI savings within the country of origin, not being directly used by her/his family members, also be a part of remittances? This links it to the

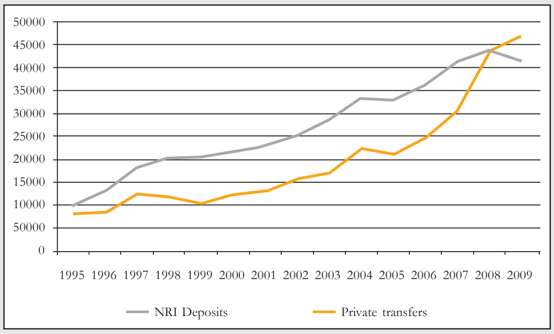
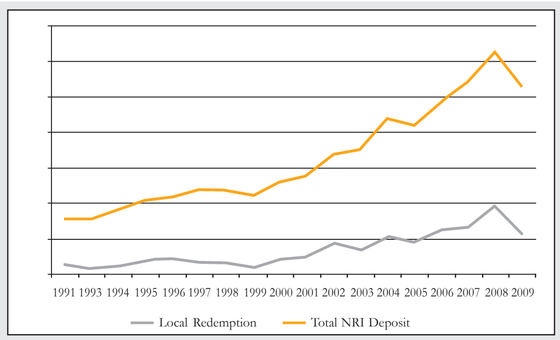


Figure 7: Trends in NRI Deposits (Net Outstanding) and Private Transfers

[5] The value of NRI deposits is the outstanding amount as of year-end, i.e., total NRI deposits net of local withdrawals. This is done because the NRI deposits are compared with the private flows. The private flows take into account the local withdrawals and hence are netted from the NRI deposits to avoid double counting.

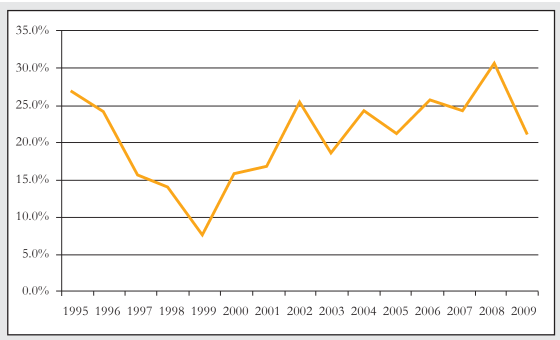
larger conceptual issue of who is categorised as a migrant and what are the resources she/he takes with her/him and sends back to the home country. This requires a different paradigm of analysis and is not explored in this paper.

The local withdrawals made from these accounts have similar trends as the NRI deposits, except for a few deviations. Figure 8 shows the trend of total NRI deposits (net outstanding plus local withdrawals) and local withdrawals from these deposits, and Figure 9 shows the local withdrawals as a percentage of total NRI deposits (net outstanding plus local withdrawals).



Source: RBI monthly bulletins

Figure 8: Trend in Total NRI Deposits and Local Withdrawals



Source: Author's calculation

Figure 9: Local Withdrawals as a Percentage of Total NRI Deposits

The local withdrawals from the NRI deposits have been on an average around 20 per cent of the total NRI deposits. While from the household surveys some estimation can be made of the pattern of utilisation of household remittances, not much can be said about the utilisation of locally withdrawn money from the NRI deposits. Though believed to be put into local investment by the NRIs and/or their families, scattered evidence suggests that they are also channelled into developmental work, for example, to set up medical and educational institutions, etc. However, there has not been any empirical work which can substantiate this, consequently leaving this questionto be further explored.

3.3 Household Surveys for Family Remittances

From the RBI data we can say that the family-level remittance transfers on an average form around 38 per cent of the total remittance receipt in India, as estimated by the RBI. They are an important component of remittances as these are money received directly by the families, and the volume of money received has important implications on the local demand economy, affecting inflation and growth in the region.

Unlike the other forms of remittances (local withdrawals, NRI gifts, etc.), family-level remittances in India are captured by different sources and at different levels – local, national and global. The 64th Round of the NSS on migration (NSS 2010) was the first such household survey to include dedicated survey questions on international remittances. Using data from the 64thRound, the international remittances received by families can be estimated for a state or even a district and can then be aggregated to get an estimate of the national figure. The data collected by the RBI from commercial banks on international money tranfers through individual savings accounts, and direct money tranfers through registered MTOs, gives the RBI estimate of family-level transfers at the national level. The other source of data on family remittances, estimated at the global level, is the IMF. Table 4 compares the value of family remittances as estimated by these three different sources, for the year 2007-08.[6]

[6] The NSS 64th Round survey was undertaken in the year 2007-08.

Table 4: Comparison of Different Sources of International Remittances in India for 2007-08 (USD million)

	NSS 64th round (HH Remittances)	RBI (Family Maintenance)	IMF (Worker's Remittances)
2007-08	11348	21920	31962*

Source: Author's calculation.
*Taking family-level remittances as 38% of total workers' remittances, as calculated fromthe RBI data.

The table is quite revealing. It highlights the stark divergence between the data from the three different sources. The amount estimated by the IMF is about three times that of the NSS estimate, while the RBI estimate is about twice the NSS estimate.

The reason for the divergence between the NSS and the RBI or IMF data to a large extent can be attributed to the difference in the units of analysis. While RBI and IMF gather the data on international remittances through official sources like banks, MTOs, other financial institutions, etc., NSS data are based on the household recall of the total remittances received from abroad in the last one year period. Thus there exists differences in the basic approach of data collection.

The NSS questionnaire, in addition to the migration and remittance status of the households, also captures the socio-economic and consumption particulars of each household. With a strong focus on households, the NSS data is helpful to derivethe household-specific effects of remittances for households receiving remittances, *vis-à-vis* households without remittances. Thus, generalising the household-level effects to the overall macro impact of remittances may lead to large errors.

Given such differences in the methodologies of collecting data on international remittances, a certain amount of divergence is acceptable. However, the current state of divergence poses serious questions regarding the consistency and reliability of the data on international remittance transfers which may have strong implications on the estimated impact of these flows on the economy.

4. Discussion

The above sections highlight the conceptual and empirical divergences in the measurement of international remittances by different agencies. This review raises several important points that require further discussion and research.

4.1 Data Gathering vs. Data Consistency

There is serious contention regarding the estimates of international remittances by different sources. The large differences in reported data raise significant doubts on the consistency of the data. Following the steps proposed by the World Bank and the IMF, the data gathering process for remittances has been strengthened to a large extent, but the data are gathered at different levels, by different sources, and all these sources are not coordinated with one another. Also, there is a lack of transparency in the methods of collation and aggregation of the data at each level. While the RBI gathers data on foreign exchange transactions from the commercial banks and other financial institutions, information on the categories of these foreign exchange transfers and the disaggregated state-wise or region-wise data is usually not available in the public domain. Similarly, for the IMF, while it gathers data primarily from the the central banks of the countries (RBI for India)and from other independent surveys, the form in which the data is gathered and aggregated is not publicly available. For India, the NSS household survey data are the only data which are available at the unit level, i.e., for each household,but even the NSS data have several shortcomings. First, since the survey is based on the random sample drawn from town-/village- level population (sample size being approximately 0.1 percent of the total population), there are very few data points on households receiving international remittances, thus making the sample of international migrant hosueholds very small. Hence, there is a possibility of incurring huge sampling errors while trying to aggregate it over the entire population. Second, since the NSS is a household-level survey, it only captures the family-level remittance tranfers. Other forms of remittance transfers (local withdrawals from NRI bank accounts, gifts and donations by NRIs, etc.) are not included in the total remittance estimation. Given the apparent importance of these other components of international remittances, the NSS data represents only a small part of the total remittance receipt in India.

Though none of the data sources can be exhaustive in nature, ideally the estimates from each of these sources should be consistent and comparable to each other. However, as we have seen, there are large divergences between these various estimates. Such divergence may have significant negative effect on research on remittances, which has a strong empirical foundation and relies heavily on such data sources in developing models and analysis. In the absence of efficient and consistent data, the accuracy of the empirical validation and estimation of the consequences of these flows on the overall economy becomes questionable.

4.2 Centralised Data Generating Process

One reason for data inconsistency is that the current data gathering process is being undertaken by different sources at different levels quite independently, with very little or no coordination among themselves. One way to overcome the data inconsistency problem is to create a link between the local and the central data gathering institutions and have a centralised data generating mechanism. Centralised data generating would mean a single process which begins at the local level, where data is gathered, and then is compiled at the central level, where the locally gathered data is aggegated to generate national-level data. This should also involve transparency at every level. For example, the Government of India should initiate surveys in line with the NSS surveys, specifically designed to study international migration and remittances at the district and state levels. The proposed survey would capture not only the family-level transfers but also local withdrawals from NRI deposits in these regions, gifts and donations from NRIs, and other development and business sector investments made by NRIs. The locally collected data on remittances can then be aggregated at the central level. The necessary condition for such a centralised data generating process would be to have a strong and efficient mechanism in place at the local level, supervised centrally across the country.

A centralised data gathering process would involve coordination among several surveys run by the government at various levels.

- Starting with the Census survey, in the present Census questionnaire,while there are questions related to migration these only capture the in-migrants. The questionnaire does not capture any information on out-migrants and remittances. Thus, the first recommendation would be to create a different section in the census questionnaire which would capture information regarding the out-migrants, with special focus on international migrants, places they have migrated to, amount of remittances sent by them, etc. This type of information if gathered by the Census will help to categorise states/regions based on migration rate, places of migration, amount of remittances received, etc.

- Based on the categorisation made by the Census data, household surveys along the lines of NSSO surveys can be implemented to capture household behaviour with respect to consumption, health, education, etc., of the migrant families. With this data we can analyse the impact of migration and remittances on the socio-economic development of the household.

- The third proposition would be a novel survey to be excuted along with the household survey – a survey of banks and other financial institutions that deal in foreign exchange transactions. Such a survey is needed in view of the fact that remittances can no longer be regarded as just household-level flows. Apart from the family-level transfers, there are other forms in which NRIs save and invest in the country. Tracking the banking channel of money transfer by NRIs would help us to understand and estimate the total foreign exchange transferred, what proportion of it is used for family consumption, and how much is remaining or used for other purposes. However, such a survey would be able to track only transfers which are made through official channels and notthe unofficial transfers, which would require a completely different methodology to capture.

One of the limitations ofa centralised data generating process is that in imposing a unitary survey framework to analyse data from all the states and regions, there is a possibility of missing out on certain underlying traits specific to the region. While consistent data would be generated across all the regions, given the diversity in the regions with respect to migration patterns and remittances, there is a possibility that the region-specific characteristics will remain uncaptured. One strategy that researchers could use to overcome this problem is to supplement the survey data with historical accounts of the socio-economic development of the state/region and the history of the migration process from the state/region. This will also help to better contextualise the survey data for a particular state/region.

4.3 Alternate Sources of Reverse Flows

Another shortcoming of the existing data generating process on international remittances is that it lays special emphasis onhousehold remittances and their uses. While household remittances are an important component of the total remittance receipts, other forms of remittances, such as local withdrawals from the NRI deposits and philanthropic donations by NRIs, are on the rise. As is suggested in the RBI reports, most of the local withdrawals are used locally for investment purposes. Similarly, it is important to explore the important developmental sectors which seem to be the main attractions for NRI philanthropic donations. Most of these donations are made locally and often flow into the health, education and religious sectors. While the RBI is the primary source of data on these kinds of transfers, it has its own limitations. The RBI gathers data from the banks and other registered financial agencies. Many such donations are not channelled through registered organisations, rather they are donated by the family members on behalf of the migrant members. Hence, such transactions are not captured by the RBI as philantrophic donations. Also, RBI data states the volume of these transactions, but not how they are utilised. Thus, the data tracks the source of the funds but not their destination or actual uses.

Such alternative sources of reverse flows presumably have a direct impact (hitherto not captured by existing studies or data sources) on local and regional economic and social development. The economic literature on remittances, which is usually restricted to household-levels flows, has to be broadened to include these alternate forms of remittances in order to get a better understanding of the overall impact of international remittances on the economy.

5. Conclusion

This paper had two broad objectives: first, to understand the different components that constitute international remittance flows, and second, to examine the empirical and conceptual issues involved in measuring remittance flows. The paper highlights the discrepancies in both conceptual and empirical frameworks for measuring remittances by using different sources, and their implications for research on the impact of remittances on the economy.

Most studies define remittances as transfers made by the overseas migrants for family maintenance, and hence the studies are often restricted to household-level data on remittances and their uses. But owing to liberalisation, several other forms of foreign exchange transfers from overseas migrants have gained importance, complementing the conventional form of remittance transfers.

The RBI defines international remittances as not only family-level transfers, but also philanthropic donations made by NRIs to charitable institutions and local withdrawals made from NRI deposit accounts with commercial banks. The importance of these alternate sources of remittances is evident from Table 1, which shows a steady increase in the local withdrawals from NRI deposits as well as donations and gifts by the NRIs. This suggests that the conventional form of remittances is undergoing a gradual change from being just a household-level transfer primarily used for family maintenance, to a form of money transfer with the broader purpose of investment and development in the local economy.

The IMF, on the other hand, provides a different definition of remittances. The IMF defines international remittances as the sum of three BOP components: Workers' Remittances, Compensation of the Employees, and Migrants' Transfers. This difference in defining remittances may not be very stark conceptually, but it gives rise to very different empirical estimates. The paper shows that the IMF estimates are often an overestimation of the RBI figure. This finding throws into doubt the validity of remittance estimates provided by the two institutions and the issue of how to reconcile these figures.

This question becomes starker when compared with the household-level survey data. The IMF estimate of family-level remittances is estimated to be thrice that of the household survey estimate for a particular year, and the RBI amount is twice that of the survey estimate. This discrepancy highlights the problem of inconsistency in the data gathered from different sources.

Such discrepancies can have significant consequences for research examining the impact of remittances on the economy. To overcome this problem, one option would be to develop a centralised data generating process, where the data is gathered locally and is then centrally aggregated. While a centralised data generation process suffers the shortcoming of having a single fit-for-all framework for each region and hence may overlook region-specific characteristics, it would nevertheless provide data which is consistent across different regions of the country. The second option would be to broaden the scope of data gathering for remittances by extensively including other forms of transfers such as local withdrawals from NRI deposits and donations made by NRIs, and examining the end use of such transfers.

To summarise, the paper not only highlights the importance of compiling reliable data on international remittances, but also shows that it is equally important to generate data which is consistent and comparable across all sources. The guidelines proposed by the multilateral agencies to capture better and improved data may not be sufficient unless the various countries make an attempt to internalise the entire data gathering process and generate efficient and consistent data. Inaccurate or incomparable data may have severe implications on the outcomes of the research on remittances, and consequently on the policies formulated based on such data and research.

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ABOUT THE PROVINCIAL GLOBALISATION PROGRAMME

The Provincial Globalisation research programme ('ProGlo') explores transnational connections between Overseas Indians and their home regions, especially the effects of 'reverse flows' of resources, including remittances, philanthropy, investments, and knowledge.

The programme consists of five independent but interlinked research projects (three PhD and two postdoctoral) located in three states of India – Andhra Pradesh, Karnataka, and Gujarat. The research will document a broad range of resource transfers by migrants, including economic resources (such as household remittances, investments in land), 'social remittances' (including flows of ideas, support for NGOs), and cultural flows (such as religious donations), and their influence at the regional level.

The PhD projects are intensive studies of three selected regions – Anand District in Gujarat, Guntur District in Andhra Pradesh, and Dakshina Kannada District in Karnataka – focusing on the effects of resource transfers by migrants in the key provincial towns and their rural hinterlands. The two post-doctoral projects will provide macro- and meso-level mappings of transnational linkages and flows at the regional, state, and national levels. By tracing these transnational networks and the modalities and destinations of resource transfers comparatively across three regions, the research programme will provide insights into the economic, social, political, and cultural consequences of Overseas Indians' engagements with India.

'ProGlo' is a five-year collaborative research programme of the Amsterdam Institute for Social Science Research (AISSR), University of Amsterdam, the Netherlands, and the National Institute of Advanced Studies (NIAS), Bangalore, India, funded by the WOTRO Science for Global Development programme of the Netherlands Organisation for Scientific Research (NWO), the Netherlands, initiated in 2010.

www.provglo.org

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