View metadata, citation and similar papers at core.ac.uk
brought to you by CORE
provided by Research Papers in Economics

MPRA
Munich Personal RePEc Archive

Worker's remittances as stable financial flows: some evidence from India

Singh, Bhupal

2006

Online at http://mpra.ub.uni-muenchen.de/22225/
MPRA Paper No. 22225, posted 20. April 2010 / 12:36

Worker's Remittances as Stable Financial Flows: Some Evidence from India

Narendra Jadhav and Bhupal Singh*

This paper dwells upon the financial dimension of workers' remittances as this issue has assumed significant policy attention across the spectrum of developing countries. Specifically, it addresses the following: i) Literature on workers'' remittances in a macro economic framework; ii) Stability of workers' remittances as a sustainable source of external finance; iii) Channels through the workers' remittances flows into India and the issue of high transaction cost entailed in transmitting funds; and (iv) Impact of policy reforms in India on the modes of remittance transfers.

(Published in Labour and Development, 11-12:1&2, pp.23-47, 2006).

Introduction

Financial flows from migrant workers has perhaps emerged as the most contemporary subject of interest among policy makers, researchers and domestic and global financial institutions. Globally, remittance flows from migrant workers currently estimated at US $ 100 billion, outweighing the importance of official development assistance, proving counter-cyclical and stable source of external finance *vis-à-vis* private capital flows. In India also, the subject has drawn attention as India emerged among the highest remittance receiving countries in the world, recording remittances to the tune of US $ 23 billion in 2003-04, which, in turn, have provided sustainable support to the balance of payments and reduced reliance on external aid. The phases of high trade deficits are found to be correlated with offsetting invisible surpluses – propelled by steady overseas remittances – strengthening the argument of countercyclical role of such inflows in the current account of balance of payments.

It is somewhat paradoxical that traditional theories of international trade, especially those in the neo-classical tradition, assumed away movements of factors of production including labour. Formal analysis of migrant remittances and their implications for development process of a receiving country has started taking a definite shape only during the last three decades. There is little doubt that this topic is generating interest, widely debated and that remittances can make important contributions to the development. Yet, remittances in the past did not receive the requisite attention, either by governments, international financial institutions or the local communities. Notwithstanding the late recognition, remittances from migrant workers are now considered to be of considerable economic importance for labour surplus economies like India. First, such flows are generally unilateral. Capital inflows to such countries generally create obligations for future outflows either in the form of debt servicing or investment income and other payments, whereas remittance inflows do not. Secondly, migrant remittances generally involve flow of fund between family members. Therefore, compared to other forms of cross-border flows, migrant remittances are less likely to be pro-cyclical. This makes such flows a more stable source of external financing. The counter-cyclicality of remittances was evident in the period 1998-2001, a

* The authors are with the Reserve Bank of India. The views expressed in the paper are those of the authors and of the institution to which they belong. The second author can be contacted by email at bhupalsingh1@gmail.com.

period characterized by decline in private capital flows to developing countries in the wake of the Asian financial crisis. Thirdly, in recent years, developing countries, as a whole, have turned into net capital exporting countries, while industrialised countries, as a group, have turned into importers of capital. In contrast, migrant remittances are more equitable in the sense that they flow from more developed countries to less developed countries. Given all these features of workers' remittances and almost monotonic rise in such flows in the recent past, various developing countries are taking wide-ranging measures to further attract such flows.

The surge in migrant workers' remittances to India, particularly during the decade of the 1980s responding to oil boom in the Middle East, and the new wave of information technology revolution in the 1990s, have placed India among the highest remittance receiving countries in the world. One component, which has consistently lent considerable support to India's balance of payments by financing widening trade deficit, has been workers' remittances. The full impact of the merchandise deficit has not been felt on current account deficit because of the appreciable increase in invisible receipts over the years, especially through private unrequited transfers - mainly workers' remittances.

This paper dwells upon the financial dimensions of workers' remittances as this issue has assumed significant policy attention across the spectrum of developing countries. First, it provides an overview of the normative literature on workers' remittances in a macroeconomic framework. Second, the issue of stability of workers' remittances and as a sustainable source of external finance in the context of developing countries with focus on India is analysed. Third, the various channels through which of the workers' remittances flow into India and the issue of high transaction cost entailed in remitting funds are discussed. How the policy reforms have led transition from informal to formal channel of remittances and the issues that need consideration to maintain steady inflows are also addressed. Finally, some concluding issues are raised.

I. Theoretical Perspective

The existing body of literature on workers' remittance brings forth the scarcity of empirical studies on linkage between remittances, savings, investment and growth in a macroeconomic framework (Buch et al, 2002). It is argued that the subject of workers' remittances has so far largely been ignored in globalisation debate in general and in international finance in particular, presuming consumption bias and limited aggregative impact on investment and growth. On the operational aspects of workers' remittances, specifically the quality and reliability of remittance services varies across countries with limited research on this issue (van Doorn, 2002).

Theoretical foundation of remittance flows can be traced to the Heckcher-Ohlin theorem of factor prices equalization. The comparative cost advantage of developing countries in labour – both skilled and unskilled – has led to rapid growth in the movement of labour to the developed or fast developing countries. The process is determined both from the demand as well as the supply side factors. In the destination country, the demand for immigrant labour is determined by both the prevailing domestic labour cost as well the supply of skilled/unskilled labour. From the viewpoint of the source country, the outward movement of labour would be determined by the wage differential, the skill content, cost and flexibility in movement/migration. Thus, the entire process of migration and consequent remittance flow is a complex interaction of a host of factors.

There are two main theoretical approaches to migrant remittances. According to the first approach known as "Migrant Syndrome" (Reichart, 1981), inward remittances resulting from migration can only partially compensate for the loss of human capital. It is contended that migration carries "Dutch disease" effect on the migration source economies as there is competition for limited labour by the local production entities that may result in decline in the production of tradable goods. The contrarian view on migration and remittances is provided

by the developmental perspective rooted in the New Economics of Labour Migration (NELM) (Stark and Bloom, 1985). This approach considers migration as an integral part of the household objective to enhance income levels, investment capacity and acquire insurance against risk. It is argued that remittances can ease the production and investment constraints, mitigate risk and set in motion a development dynamics. It has been argued that remittances serve as a form of insurance against risk thus assuming the nature of countercyclical flows (Taylor, 1999). Hulme *et al* (2001) also argued that remittances are future risk premium and should enable households to accumulate assets that minimise their vulnerability to financial shocks.

Poirine (1997) viewed remittances an implicit family loan arrangement, exhibiting "three waves" shape. Under this theoretical perspective, remittances are repayment made by the migrant worker to the source household for the loan contract made for human capital development of the migrant worker. In the first stage, migrant worker remits a significant portion of income to the source family in order to repay the implicit loan obligations. During the second stage, the migrant remittances are implicit loans to siblings to finance their education in the source country. According to Poirine (1997), the average aggregated value of remittances to a country will be higher given that the higher is the ratio of temporary migrants in the stream of total migrant since the former passes through the three waves of migration mentioned above in a shorter period of time.

A review of existing body of theoretical literature reflects on the developmental perspective and reveals the following issues:

- Worker's remittances, after paying for the migration cost, contribute to the household income;
- Remittances release financial constraints on the household production, leading to first round indirect effect on income. The remittances release the borrowing constraints/budget constraint, particularly for the small scale investments or unorganised business enterprises;
- The aggregate demand effect generated by the remittance inflows has a linkage effect to raise economic activity in non-migrant household;
- Deriving from the Informal Loan Theory, remittances have investment and growth enhancing impact if the migrant returns to the source country once the implicit loan is fully repaid.
- As the implicit loan contract has inter-temporal dimension, the remittances flows can be spread over time, implying relative stability in such flows.

II. Are Workers' Remittances Stable Inflows?

The large and volatile movements in capital flows to developing countries during the 1980s and the 1990s, have highlighted the downside risks associated with such flows - abrupt rise in monetary aggregates, asset price volatility, sharp misalignment of exchange rate and disruption of domestic financial sector. Various forms of capital flows, especially short-term private capital, have now been recognised as procyclical in nature. It is in the backdrop of financial crisis in developing countries, particularly in the 1990s, and the pursuit of stability in external financial flows that the cross border remittance flows have assumed increasing significance. As workers' remittances are influenced by a different set of motives such as lifecycle savings, family obligations, implicit loan contract, therefore, such flows are less sensitive to factors such as interest rate arbitrage, which drive the capital flows. Remittances appear to be much more stable source of income than private flows, both direct and portfolio, which tend to be more volatile and flow into a limited set of countries (Peter,

2002; Sander, 2003; Ratha, 2003). The stable nature of workers' remittances is clearly borne out by the measure of volatility, coefficient of variation, which turns out to be much lower in the case of remittances *vis-à-vis* the components of capital flows to developing countries (Table 1).

Table 1: Relative Volatility of Capital Flows vis-à-vis Workers' Remittances to Developing Countries, 1993-2003

(US $ billion)

Items	Standard Deviation	Mean	Coefficient of Variation (%)
Direct Investments	49	162	30.3
Portfolio	46	62	74.8
Others	86	31	274.3
Total Capital Flows	95	255	37.3
Workers' Remittances	14	70	19.8

The stable nature of workers' remittances to India is evident in that these inflows have stabilised around 3.2 per cent of GDP since the latter half of the 1990s. In India, the relative volatility, measured in terms of coefficient of variation, of private transfers increased in the recent period (1992 to 2004) as compared with the earlier period (1976 to 1991). Within the private transfers, the workers' remittances for family maintenance and the local withdrawal from NRI deposits witnessed differential volatility as the latter is more induced by interest rate changes. Despite inter-temporal variation in volatility, private transfer has, however, witnessed the lowest volatility after merchandise exports during the period 1992 to 2004 as compared with other components of current receipts such as income and services exports (Table 2). Similarly, the volatility is less as compared with capital account items such as NRI deposits and foreign direct investment and portfolio investment. The issues of counter cyclical nature of workers' remittances in India and the time varying cyclicality of such remittances would require further research.

Table 2: Relative Volatility of Workers' Remittances and Other Trade and Capital Flows to India

US $ million

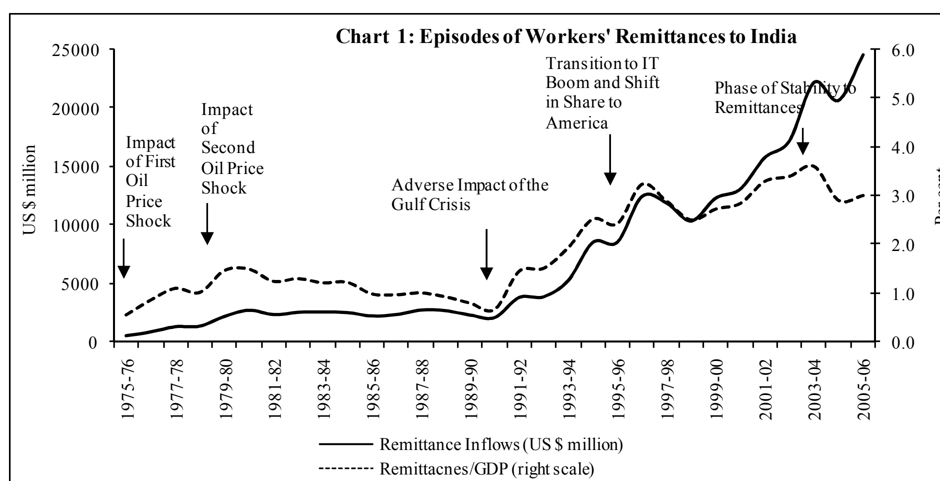
	1976-91			1992-04		
	SD	Mean	CV	SD	Mean	CV
Current Account						
Private Transfers (Remittances)	686	2074	33.1	5521	11239	49.1
Services	1161	2782	41.7	6670	11801	56.5
Income	196	466	42.1	1016	1537	66.1
Merchandise Exports	3857	10021	38.5	13532	36099	37.5
Capital Account						
NRI Deposits	810	859	94.4	1133	1803	62.8
Foreign Direct Investment to India				1200	2082	57.6
Portfolio Inflows				2935	2969	98.9
Total Foreign Investment	144	300	48.1	3934	5418	72.6

SD = Standard deviation, CV = Coefficient of variation

The relative stability in worker's remittance as mentioned above, may be typically influenced by the predominance of local withdrawal in NRI deposits - an indirect channel of remitting funds by migrant workers. The inflows to NRI deposits subsequently assume the form of "local withdrawal" from the deposits denominated in Indian rupees. Thus, while in the ' first leg' of inflow, funds remitted form part of NRI deposits, in the 'second leg' the funds withdrawn locally form part of private transfers. Since the funds remitted by NRI's through

the above-mentioned *modus operandi* are analytically not very different from worker's remittances, such remittances have been clubbed with worker's remittances.[1] The significance of such remittances is evident from the fact that their contribution to total private remittances has risen to more than 50 per cent. Unlike worker's remittances for family maintenance, such remittances may be more influenced by interest rate movements as those initially assume the form of investments and subsequently get assimilated into private transfers. Therefore, the overall behaviour of workers' remittances may be influenced by interest rate differentials in the Indian case. The available body of literature on interest rate differential (also the exchange rate) impacting on remittance flows is, however, inconclusive.[2]

The regional pattern of migration provides important insight on the sustainability of remittance inflows. In the Indian context, during the last three decades, noticeable waves of migration can be identified. First, in response to large demand for semi-skilled/unskilled labour from the oil exporting countries of the Middle East, labour migration began in mid-1970s and peaked in the early 1980s. This was in response to labour shortages in those countries associated with the economic boom emanating from the oil discoveries and oil price shock of the 1970s. The second important wave of migration of workers began since the mid-1990s, in response to expanding demand for highly skilled workers from the industrialized countries arising from the productivity boom in those countries. Relative to the earlier wave of migration, the current wave is dominated by the high skill content of workers particularly in information technology sectors (Chart 1).



A structural shift in the regional sources of remittance flows to India is evident during the 1990s responding to the changing pattern of demand from predominantly unskilled/semi-skilled to highly skilled labour. There have been distinct episodes of shifts in remittance inflows to India as evident from the tests on structural break in remittance series. First, the test for structural break for sample period from 1969-2005 suggest a regime shift in the levels of remittance inflows after 1979-80, reflecting the impact of the second oil price shock. Second, for the sample period covering 1979-2005, reflecting the dynamics in the more recent period, the structural break in the levels of workers' remittances occurred after 1990-91 – mirroring the new wave of migration to technology related sectors in developed countries (Table 3).

[1] Patra and Kapur (2003) also contend that IMF by classifying remittances routed through local withdrawals from non-resident deposit accounts under 'other current transfers', considerably under estimate the remittance flows to India.

[2] Swamy (1981) found that the interest rate differentials between the host and the destination countries and exchange rates were not significant variables in affecting remittance flows. Straubhoar (1986) also provides empirical support to such observations. Russel (1986) however, remarks that these may not be a threshold level of difference; the interest rate and exchange rate differentials have to attain so as to impact on remittance flows. In the Indian case, Nayyar (1989) argued that repatriated deposits grew at a faster rate in response to interest rate differentials resulting from declining interest rates in international capital markets. Another study in the Indian case in respect of NRI deposit flows concludes that the flow of NRI deposits respond positively to the difference between interest rates on these deposits and LIBOR (Gordon and Gupta, 2003).

Table 3: Structural Break in Remittance Flows to India*

Variable	Maximum Value of Loglikelihood Ratio#	Chi-Square	Year+
Sample Periods: 1969-70 to 2004-05			
Remittances-GDP Ratio	48.91	30.82 (0.00)	1979-80
Log of Remittances	50.60	45.34 (0.00)	1978-79
Sample Period: 1980-81 to 2004-05			
Remittances-GDP Ratio	35.02	30.65 (0.00)	1984-85
Log of Remittances	36.38	36.38 (0.00)	1990-91

* Estimated by switching regression technique.
# Likelihood ratio of the hypothesis of no-switching.
+ The most probable date of The end of The first regime.
Figures in bracket indicate significance level.

As the oil boom in the Middle East countries has slowed down, the contribution of the region has significantly come down between 1997-98 and 2002-03 (Table 4). However, the slowdown in such remittance flows have not impacted on the aggregate remittance inflows to India, which has been sustained by higher inflows from the America and Europe. Notwithstanding the current sustained growth in remittance flows to India, the issue of sustainability of high growth in such remittance flows remains a question in view of uncertainty relating to information technology sector and restrictions imposed on movement of workers in developed countries.

Table 4: Source Regions of Private Transfers to India

(Per cent)

Year	Africa	America	Asia	Europe	International Institutions	Total (US $ mn)
1997-98	2.3	37.1	31.3	26.0	3.3	11875
1998-99	1.7	36.7	37.1	23.6	0.9	10341
1999-00	1.0	45.5	31.9	20.6	1.0	12290
2000-01	1.3	44.9	34.3	19.0	0.5	13065
2001-02	4.5	48.2	23.0	23.2	1.1	15760
2002-03	0.6	51.1	22.0	25.8	0.5	17189

Remittances as a Sustainable External Finance

Although workers' remittances are increasingly recognized as developmental financial flows, the consensus on the consumption bias of remittances *vis-à-vis* the investment is still a subject of debate (Durand et al., 1996; Georges, 1990; Massey and Parrado, 1994; Oberoi and Singh, 1980; Cornelius, 1990; Durand and Massey, 1992). However, it has been argued that the multiplier effect of remittances is significant even if they have inbuilt consumption bias. Assuming the consumption bias of workers' remittances, there is definite second round effect on investment as the rising consumption demand from the remittance-receiving household is likely to provide boost to the goods producing sectors. Faini (2002) found that remittances can contribute to faster growth in the source countries, particularly if they find a favourable policy environment that does not discriminate against productive investments. A number of studies have indicated that migrants should be expected

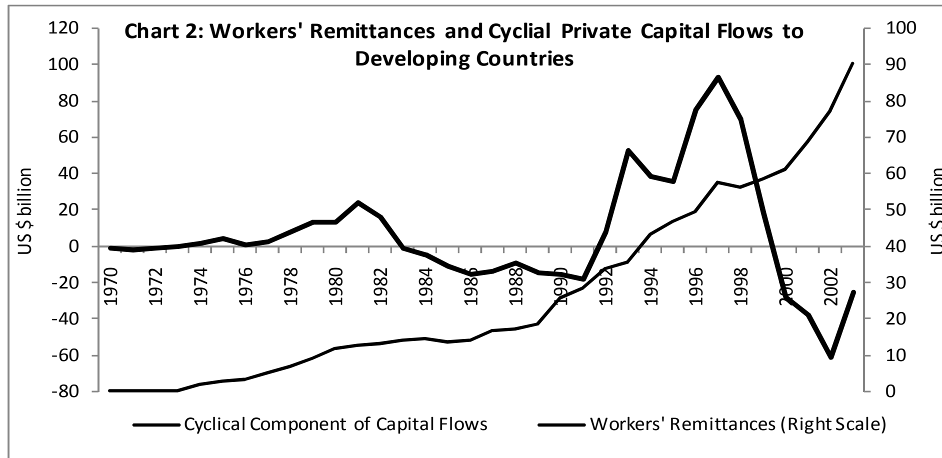
to change their allocation of resources only if conditions are created that makes productive investment viable and if there are policies to channel their funds into investments.

Cross country experience indicate that remittances have provided a stable source of income under deteriorating labor market conditions and difficult economic times in Mexico, the Dominican Republic, and El Salvador for subsistence needs. In the Dominican Republic, remittances are received by individual income groups, although the poorer recipients rely on them more heavily (Itzigsohn, 1995). Although direct investments represent only a modest percentage of the use of remittances in the Dominican Republic, El Salvador, and Mexico, there is evidence of business development stimulated by remittances.

Private transfers to India stabilised at about 14 per cent of household savings during the 1990s. As significant portions of total remittance inflows from NRIs come through the route of local withdrawal from NRI deposits, it would be safe to assume that these withdrawals might be getting channelised into domestic savings/investments. A case study of emigration from Kerala and Punjab reveals that it has not only helped in raising the living standard of households of the migrant worker but also helped in the development of the high emigration areas (Nangia and Saha, 2002).

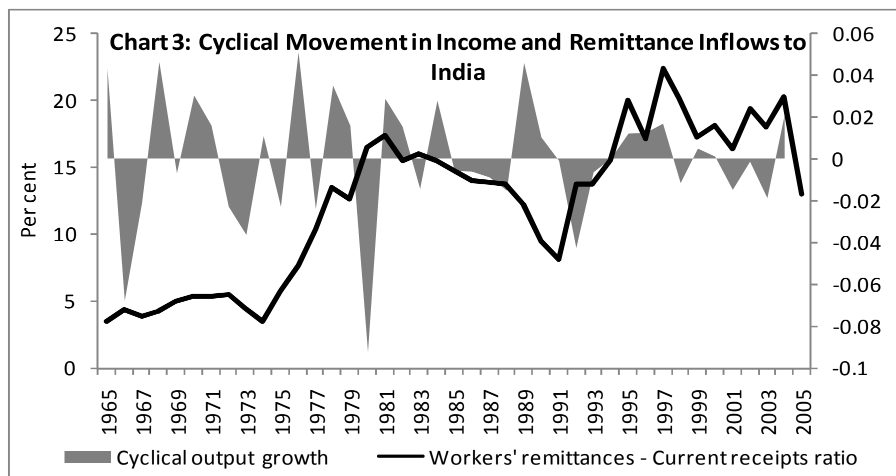
The home bias of workers' remittances also imparts it the characteristics of counter cyclicality. Counter-cyclical nature of remittances works at both micro and macro level. At micro level, remittances act as insurance against unanticipated economic shocks such as crop failures, adverse terms of trade shocks, and enables households in consumption smoothing. At the macro level, remittances provide a safety net against macroeconomic shocks such as sharp fall in domestic savings, large capital outflows or drop in capital inflows. The critical role of remittances is further underlined by the empirical regularities of procycaility in aid flows to developing countries (Bulir and Hamann, 2001; Pallage and Robe, 2001). This countercylical nature of workers remittances has been evident in episodes of fincial crisis in many developing countries. Further, while capital flows tend to rise during favourable economic cycles and fall in bad times, remittances appear to react less violently and show remarkable stability over time (Ratha, 2003). Some preliminary evidence of countercyclicality associated with workers' remittances is observed when juxtaposed with the cyclicality in capital flows to developing countries (Chart 2)[3]. Workers' remittances appear to have provided cushion to external financing by developing countries as a group during two distinct episodes. First, in the aftermath of the Latin American debt crisis of 1982 there was a considerable slowdown in capital flows to developing countries, particularly in respect of commercial bank lending. As the capital flows during the late 1980s declined to less than a third of their level in the late 1970s and the early 1980s, workers' remittances to developing countries maintained a steady growth of around 10 per cent during the same period. Second, in the late 1990s, capital flows to developing countries received severe shocks – first from the Asian crisis of 1997-98, then by the turmoil in global fixed income markets and subsequently by the collapse of the Argentine currency board peg (2001) and the spate of corporate failures and accounting irregularities in the US (2002). During this period of pronounced cyclical downturn in capital flows to developing countries, workers' remittances displayed striking stability with a cumulative increase of above 80 per cent between 1997 and 2003.

[3] Cyclical component of capital flows to developing countries is estimated using the Hodrick-Prescott Filter.



Source: World Bank data base.

In the Indian case, the exploratory evidence suggests some countercyclicality in workers' remittances, particularly observed in instances of major macroeconomic shocks. The phases of significant cyclical drop in output have been associated with steady inflows in workers' remittances and their contribution to current receipts – an indicator of resilience of workers' remittances (Chart 3). During the phases of cyclical drop in output, the contribution of workers' remittances to current receipts has transited to a higher level. However, these preliminary evidence need to be put for more rigorous empirical scrutiny to derive firm conclusions.



Sustainability of Remittances Inflows

The important question often posed is whether the current stream of remittance from developed to developing countries can be sustained in the medium to log term? Considerable ambiguity continues to mar such debate. The issue of sustainability should not be interpreted in a narrow perspective of performance of oil producing economies and cyclical downturns in the industrial economies. The issue needs to be critically assessed from the angle of future global demand for cross border worker force and imminent correction in global demographic deficit - labour demand-supply imbalances. The emerging global demographic transition – indicating rising potential for labour demand from developing countries due to rapid fall in the share of active work force - and tertiarisation of output process – implying grater service orientation of output at the global level with inbuilt bias for skilled workforce – are the two critical factors that indicate sustainability of remittance flows from migrant workers to developing countries.

One direct effect of population ageing is labour shortages that are caused by declining birth rates and increasing life spans, translating into higher old-age dependency ratio (i.e., proportion of population aged 65 and older to population aged 15 to 64). The proportion of working age people in developed countries has been roughly constant over the last 50 years at around 60 per cent, and has in fact increased slightly with the float over baby boom (Table 5). The issue of concern in developed countries is that the proportion of working age people is now expected to decline from these levels to about 50 per cent by 2050, with the corresponding rise in dependency ratios - hence the heightened concern with ageing in recent years in developed countries (Mohan, 2004). At present, most of the developing countries in Asia are in the middle path of demographic transition and potentially in a favorable position on the economic front due to relatively large working populations. Thus, the demographic cycles indicate that the remittance flows to developing countries may be sustained in the medium term.

The concern on slowdown in migrant remittances seems to have been little exaggerated. In the recent past, there has been a shift in the labour force migrating from India. The demand for labour from the Middle Eastern countries has swung from manual labourers to skilled workers and technical professionals (Jadhav, 2003). This would in fact increase the remittances as technical jobs are better paid. Furthermore, since the Arab countries are still to reorient their education system to meet modern job requirements, demand for foreign labour would continue. Of course, the element of competition from other labour exporting countries would remain. It is, however, likely that a decline in the demand for labour from the Gulf countries, would be offset by increase in demand for Indian software experts from the developed world. In fact, increase in remittances in the recent years is partly attributable to rising demand for software personnel from India in industrialised countries.

Table 5: Trends in Proportion of Working Age Population (15-59)

Regions/Countries	1950	1975	2000	2025	2050
World	57.6	54.7	60.0	60.7	58.0
More developed regions	60.9	60.4	62.3	56.8	51.0
Less developed regions	56.0	52.7	59.5	61.4	59.0
Least developed regions	53.5	50.3	52.0	56.2	61.4
Asia	56.7	53.7	61.0	62.4	57.9
Eastern Asia	58.5	54.8	64.9	61.3	53.2
South-Central Asia	55.3	53.2	57.8	63.1	60.6
South-East Asia	55.1	52.2	60.5	63.8	58.2
Western Asia	54.3	51.7	57.0	59.5	59.4
China	59.0	53.6	65.0	62.1	53.8
India	**55.5**	**54.0**	**58.9**	**64.3**	**59.7**
Bangladesh	56.2	49.1	56.4	63.5	62.0
Sri Lanka	52.6	56.7	64.4	62.0	55.1
Pakistan	53.8	52.5	52.5	58.3	64.4
Indonesia	54.6	53.3	61.6	64.2	57.7
Thailand	52.8	52.4	65.2	63.3	55.8
Malaysia	51.8	52.3	59.3	63.0	59.4
Philippines	50.9	50.8	56.9	64.7	60.1

Source: United Nations, "World Population Ageing 1950-2050", Population Division, Department of Economic and Social Affairs, 2002.

On account of relative stability of worker's remittances, policy makers across developing countries have emphasised the need for preferential treatment of remittances in the overall hierarchy of capital inflows. Sub-optimal conditions in the money transfer markets at the global level – monopolistic and non-transparent markets, high transaction cost, credit risk emanating from the use of informal channels – pose one of the biggest challenges to enhance such flows. The following issues emerge from the experiments of countries and policy debate that need attention in order to enhance workers' remittances.

First, it is estimated that the transaction cost of remitting money through wire transfers, money orders, and couriers is about 15 percent of the remittance sent (Meyers, 1998). The measures suggested for reducing the transaction costs include expanding bank branches and money receivers to rural areas, partnerships between banks, postal services, and money transfer and exchange agencies, improved regulation of international money transmitters. Using electronic transfers, the cost of transaction will decrease, making the remittances more efficient. A network linking US credit unions with others in Latin America has helped bring down costs, widen access to banks and encourage saving.

Second, some European investment banks have experimented "asset securitisation", which involves lending money to banks in Mexico based on the expected inflow of funds from remittances. Such transactions allowed the banks to issue secured bonds before they actually had the money - based on the expected amount of remittances that would enter the system through wire transfers - and then reinvest the money they did receive.

Third, the concept of "remittance banks" has also been suggested whereby migrants would deposit their remittances with such banks, which would transfer the requested percentage of remittances to the migrants' families. The remainder of the funds would stay in the bank and be used as leverage for international and regional funds for development projects. The funds also could go into an investment fund for local projects or be used as additional financing for small business development, along with technical support (Meyers, 1998).

Fourth, harnessing the synergy of postal network holds potential for reducing transaction cost and enhancing the width of remittances transmission networks. It is suggested that transforming the role of post offices would help lubricate international remittance transfers as these are seen as single biggest global distributional channel (Kapur, 2003). Linking the postal "giro" payment systems worldwide – widely used in Japan and Europe - could facilitate international postal transfers.

III. Transaction Costs and Switch to Formal Channels

The issues of channels of remittances to developing countries and transaction costs have been at the heart of policy debate on remittances. The most common instruments are checks, money orders and transfers via telegraph. Other modes include electronic transfers, couriers, the postal service, self-carry, hand-carry by friends or family members. Besides the above-mentioned channels, the inflows can also take the form of in-kind transfers and funds transferred by non-residents through various saving schemes, which are subsequently transformed into local deposits or channelised into the domestic economy. Apart from the official channels, remittances may take place through informal channels. Puri and Ritzema (1999) find that the survey of available estimates of unrecorded remittances for 11 countries performed during the late 1970s and early 1990s put the estimates of such remittances between 8 to 85 per cent of total remittance flows. The efforts to curb money laundering and financing terrorism have affected remittances through informal networks and a large number of workers are looking for formal banking channels (Ratha, 2003). In India also, it is argued that a sizeable portion of remittances was channeled through illegal channels, known as *hawala* transactions in India before the adoption of market-based exchange rate regime. There is a view that the 'paperless' informal nature of *hawala* transactions coupled with low transaction costs, often make such channels attractive *vis-à-vis* the official route for transfer of remittances. With the introduction of market-based exchange rate and general easing of restrictions on foreign currency transactions during the 1990s, there are indications that the attractiveness of such illegal routes have gone down significantly.

The expansion in financial networks in tandem with information technology led breakthrough in payments and settlement systems seems to have significantly brought down

the cost of remittance transfer at the global level, although time series information to compare such costs over time are not readily available. The cross-country evidence suggests that money transmission fees generally account for 10 percent of the funds remitted (Table 6). The cost of remittances through informal channels is observed much lower than through institutional channels (El-Qorchi, 2002). The money transfer sector in the US has approximately 43,000 outlets, dominated by Western Union and Money Gram and the fee range from 6 to 15 percent of the amount sent (Meyers, 1998). Wire transfer companies such as Western Union has 6,000 offices throughout Mexico, including branches in post offices. Due to increasing competition from other wire transfer companies and banks and credit unions, their market share has dropped from 40 to 15 percent. The competition has reduced the cost considerably, from 15 percent of the amount remitted in the late 1990s to an average of 7.3 percent in early 2004. The average cost of sending remittances to India from the US through Western Union Money Transfer is estimated to be about 3 per cent. The remittance cost from Gulf countries is estimated to be lower, suggesting that transaction cost in the Indian case is lower vis-à-vis other developing countries.

Table 6: Comparative Cost of Remitting Funds

Agency/Estimates	Remittance Source/Destination	Remittance Cost (Percentage of Funds Transferred)
Non-Profit Credit Unions Affiliated with World Council of Credit Unions and International Remittance Network	Mexico to US	1 to 1.5 per cent (US $ 10-$ 15 per $1000)
Commercial Money Transfer Agents	Mexico to US	5 to 7.6 per cent (US $ 50- $ 76 per $ 1000)
Orozco, 2004	US to Latin American Countries	4.4 per cent
Teba Bank, South Africa	Cross border Transfers	0.75 to 3.0 per cent ($ 3 for amounts up to $400)
Meli Melo Transfers, Canada	Cross border Transfers	0.75 to 3.0 per cent ($ 3 for amounts up to $400)
Money Transfer Agents, Hong Kong	Hong Kong to Philippines	$ 2.5 per transaction
Multilateral Investment Fund 2002, Orozco,	Cuba	12.8 per cent*
2002, World Bank, 2003	Colombia	12.6 per cent*
	Jamaica	11.7 per cent*
	Dominican Republic	11.2 per cent*
	Haiti	10.7 per cent*
	Guatemala	9.4 per cent*
	Nicaragua	9.3 per cent*
	Mexico	9.1 per cent*
	El Salvador	7.5 per cent*
Author's Estimates	US to India	1.5 to 15 per cent@

* Include transfer fee and also exchange rate commission.
@ These indicate only the remittance transfer charges, excluding the implicit commission on exchange rate offered. The fee charged mainly pertains to electronic/wire transfer systems. While the rates charged for small denomination transactions are higher, *e.g.,* US $ 10-15 for a remittance of US $ 100. It tapers-off for higher denomination remittance transactions, *e.g.,* US $ 25-40 is charged for a remittance of US $ 2,500, which is the maximum permissible limit per transaction for individuals.
Source: World Bank, Global Development Finance, 2003 and 2004, Multilateral Investment Fund 2002, Orozco, 2002 and 2004.

In the Indian case, during the mid-1980s around 25 to 30 per cent of the total remittances from the Gulf countries were reported to be routed through informal channels. However, during the 1990s the use of informal channels has declined in significance mainly due to the impact of liberalization of foreign exchange regime. In addition, the operation of e-banking services that provides instantaneous transfer facilities also encourages migrants to use formal means for remittances. There are 87 commercial banks designated as authorized dealers, which can receive and transfer remittances. Besides, there are 53 Money Transfer

(MT) agents. In India, presently ADs have freedom to decide their own fee structure. Depending on the country of remittance, purpose (differentiating in remittances for investment in NRI deposits or other purposes), currency and the amount remitted, the fee structure varies. There are agreements between financial institutions in source countries and local financial institutions for the transfer and delivery of remittances *e.g.,* between ICICI bank and Bank of Montreal. These are through correspondent relationships. Institutions such as Western Union Money Transfer (WUMT) have ties ups with post offices in India to deliver funds. Moreover, it also uses sub-agents to deliver funds.

Switch to Formal Channels

A liberalised exchange regime, progressive dismantling of restrictions on repatriability of funds by the non-residents, infrastructure in the forex market, and institutional set up to improve the efficiency of fund transfers and prudential regulations played an important role in facilitating inward workers' remittances to India. Measures taken in the past to foster the use of formal channels include market determined exchange rate, current account convertibility and speeding up remittances through bank branches. Banks are entering into agreements for wire transfer of funds. Increased competition has helped bringing down the cost of funds. To expand the outreach of remittances services to rural area and remote locations, the measures undertaken include entry of market participants liberalisation in entry norms for market participants, MTs allowed to operate through sub-agents, more bank branches have been authorized to deliver such services. While bulk of the inward remittances to India take place through banking channels, two schemes, *viz.,* Money Transfer Service Scheme (MTSS) and Rupee Drawing Arrangements (RDA), have recently gained momentum on account of their speed and ease of operation.

MTSS is a quick and easy way of transferring personal remittances from abroad to beneficiaries in India. Only personal remittances such as remittances towards family maintenance and remittances favouring foreign tourists visiting India are permissible. The system envisages a tie-up between reputed money transfer companies abroad and agents in India who would disburse the funds to the beneficiaries at ongoing exchange rates. The system does not envisage the repatriation of such inward remittances. The India agent is also not allowed to remit any amount on account of exchange loss to the overseas principal. The Indian agent who has to be an Authorised Dealer, Full Fledged Money Changer or registered Non-Banking Financial Company (NBFC), IATA approved Travel agents (net worth of Rs.25 lakhs) requires RBI approval to enter into such an arrangement. The agent is allowed to open a special rupee account with an AD through which all the remittances disbursed under the scheme, are to be routed. The Indian agent pays the beneficiaries first, on instructions from the overseas principal and is reimbursed the amount and his commission, by the overseas principal, within a day or two through normal banking channels. Currently, there are 14 overseas principals who have tie-ups with 39 Indian entities.

RDA is entered into by banks in India with Private Exchange Houses in the Gulf Region, Singapore and Hong Kong for channelising inward remittances. Authorised Dealers need the prior approval of the Reserve Bank to enter into RDA with Exchange Houses. Under RDA, banks may enter into arrangements under Designated Depository Agency (DDA), Non-Designated Depository Agency, or Speed Remittance procedures - the Exchange House sends instructions electronically to the bank with complete details of the beneficiary and funds their rupee account through the bank's nostro account well in advance before issuing payment instructions. Currently, there are 29 banks which have entered into 188 RDA with Exchange Houses. Remittances received through RDA have increased from US $ 4.8 billion in 2002 to US $ 5.3 billion in 2003 and US $ 6.1 billion in 2004.

IV. Conclusion

The preliminary evidence on remittance flows suggests that the workers' remittances appear to be stable financial flows – both for developing countries and India – with counter-cyclical properties. The demographic cycles indicate that the remittance flows to developing countries may be sustained in the medium term. India's service orientation of output structure, comparative advantage in certain categories of professional and business services and global demographic patterns offer credential to the sustainability of remittance inflows.

An important challenge at the global level is prevailing high transaction costs of transferring funds – leading to use of informal channels. Liberalized exchange regime, market determined exchange rates, penetration of formal financial intermediaries, efficient regulation of labour market intermediaries, synergies in domestic and international financial network for fund transfers, securitisation of remittances are recognised as superior measures to facilitate remittances as compared with the subsidy based measures. Improvement in the financial infrastructure with economy in time and cost can help augment remittance inflows through formal channels particularly from unskilled/semi-skilled temporary migrant workers, who are believed to rely more in formal channels like *Hawala*. In Latin America, increased competition, monitoring and transparency in the money transfer market, particularly with regard to exchange rate, commissions and fees, has led to greater accountability on the part of money transfer agents. The same experience has been witnessed in India.

Yet another important challenge to developing countries continue to be posed by restrictions on movement of labour by developed countries, creating sharp asymmetry in cross border movement of factors of production. Under the GATS framework, regarding specific liberalisation of cross-border movement of workers, no concrete steps have been initiated. On the contrary there are certain developments, which are putting additional barriers to cross-border labour movement. Industrialised countries generally have yearly ceilings on the number of visa they would issue during a year to allow entry of personnel from other countries for temporary employment in that country. In recent years, many industrialised countries have reduced the ceilings on the number of visas to be issued annually. In addition, under regional and bilateral agreements, they have earmarked certain number of visas to be issued to regional/bilateral partners. This, in turn, implies a reduction in the visas to be issued to residents of the countries, which are not members to such regional/bilateral agreements. These factors constrict the potential gains from factor movement for developing countries.

References

Brown, Richard P.C. (1997), "Estimating Remittance Functions for Pacific Island Migrants", *World Development*, 25 (4): 613-626.

Buch, C.M., Anja Kuckulenz and Marie-Helene Le Manch (2002), "Worker Remittances and Capital Flows", *Kiel Working Paper* No.1130, Kiel Institute for World Economic, Germany.

Bulir, A. and A.J. Hamann, (2001), How Volatile and Unpredictable are Aid Flows, and What Are the Policy Implications? *IMF Working Paper*, WP/01/167.

Cornelius, W. (1990), "Labour Migration to the US: Development, Outcomes, and Alternatives in Mexican Sending Communities", *Report of the Commission for the Study of International Migration and Cooperative Economic Development*, Washington.

Durand, J., W. Kandell, E. Parrado and D.S. Massey (1996),"Migradollars and Development: A Reconsideration of the Mexican Case", *International Migration Review*, 30(2), PP 423-44.

Durand and Massey (1992), "Mexican Migration in the United States: A Critical Review", *Latin American Research Review*, 27, pp 3-42.

Georges, E. (1990), The Making of a Transnational Community: Migration, Development and Cultural Change in the Dominican Republic, New York, OUP.

El-Qorchi, M. (2002),"Hawala", *Finance and Development*, 39(4).

Faini, R. (2002), "Migration Remittances and Growth", Italian Ministry of the Economic and University of Brescia

Glytsos, N.P. (1997), "Remitting Behaviour of 'Temporary' and 'Permanent' Migrants: The Case of Greeks in Germany and Australia", *Labour*, 11(3): 409-435.

Hulme, D., Moore, K. and A. Shepherd (2001), "Chronic Poverty: Meanings and Analytical Frameworks", *CPRC WP* 2, IDPM, University of Manchester.

Itzigsohn, J. (1995), "Migrant Remittances, Labour Markets and Household Strategies: A Comparative Analysis of Low Income Household Strategies in the Caribbean Basin." *Social Forces*, 74(2), pp 633-55.

Jadhav, Narendra (2003), 'Maximising Development Benefits of Migrant Remittances: The Indian Experience', Paper presented at the International Conference on Migrant Remittances, Department for International Development and World Bank, London, October 9-10.

Kapur, D. (2003), "Remittances: The New Development Mantra?" paper prepared for the G-24 Technical Group Meeting, August 25.

Lucas, Robert E.B. and O. Stark (1985), "Motivations to Remit: Evidence from Botswana", *Journal of Political Economy*, 93: 901-18.

Massey, D. and E. Parrado (1994),"Migradollars: The Remittacnes and Savings of Mexican Migrants to the United States", *Population Research and Policy Review*, 13, 3-30.

Mattoo, Aditya (2002), "Introduction and Overview in Aditya Mattoo and Antonia Carzaniga, eds, Moving People to Deliver Services: Labor Mobility and the WTO", Oxford University Press.

Meyers, W.D. (1998), "Migrant Remittances to Latin America: Reviewing the Literature", *International Dialogue* – The Tomas Rivera Policy Institute.

Mohan, R. (2004) Fiscal Challenges to Population Aging: The Asian Experience, paper presented at the Global Demographic Change Symposium Sponsored by the Federal Reserve Bank of Kansas City, Jackson Hole, Wyoming, August 26-28, 2004.

Nayyar, Deepak (1989), "International Labour Migration from India: A Macro-Economic Analysis. In To the Gulf and Back Migration: Studies on the Economic Impact of Asian Labour Migration", edited by Rashid Amjad (pp. 95-142), Geneva: International Labour Office.

Nangia, P. and Saha, U. (2002), Profile of Emigrants from India: A Comparative Study of Kerala and Punjab.

Oberoi, A.S. and H.K. Singh (1980), "Migration, Remittances and Rural Development: Finding of a Case Study in Indian Punjab", *International Labour Review*, 199(2), pp 229-241.

Orozco, Manuel (2002), Statement to US Senate Committee on Banking, Housing and Urban Affairs, Oversight Hearing on Accounting and Investor Protection Issues, February.

Orozco, Manuel (2004), The Remittance Marketplace: Prices, Policy and Financial Institutions, Pew Hispanic Center Report Washington, DC: Georgetown University. Institute for the Study of International Migration.

Poirine, Bernard (1997), "A Theory of Remittances as an Implicit Family Loan Arrangement", *World Development*, 25(4): 589-611.

Quibria, M.G. (1986), "Migrant Workers and Remittances: Issues for Asian Developing Countries", *Asian Development Review*.

Pallage, S. and Michael A. Robe (2001), Foreign Aid and Business Cycle, *Review of International Economics*, 9(4), pp.641-672.

Patra, M.D. and M. Kapur (2003), "India's Workers Remittances: A User's Lament About Balance of Payments Compilation", sixteenth Meeting of the IMF Committee on Balance of Payments Statistics, Washington D.C., December 1-5.

Puri S. and T. Ritzema (1999)," Migrant Worker Remittances, Micro-Finance and Informal Economy: Prospects and Issues". WP 21, Social Finance Unit, ILO, Geneva.

Ratha, D. (2003), "Workers' Remittances: An Important and Stable Source of External Finance", Global Development Finance, pp 157-175.

Reichart, Joshua (1981), "The Migrant Syndrome: Seasonal U.S. Wage Labour and Rural Development in Central Mexico", *Human Organization*, 40: 56-66.

Russel, Sharon S. (1992), "Migrant Remittances and Development", International Migration and Development", *International Migration Quarterly Review*, 30(3/4), pp 267-287.

Sander, C. (2003),"Migrant Remittances to Developing Countries: A Scoping Study", Paper prepared for DFID, Bannock consulting, June.

Stark, O. and D. Bloom (1985), "The New Economics of Labor Migration", *American Economic Review*, 75: 173-8.

Straubhaar, T. (1986), "The Determinants of Remittances: The Case of Turkey", *Weltwirtschaftsliches Archive*, 122 (4): 728-40.

Swamy, G (1981), "International Migrant Workers' Remittances: Issues and Prospects", *Staff Working Paper* 481, World Bank, Washington.

Taylor, J.E. and P.L. Fletcher (2002), "Remittance and Development in Mexico", *Rural Mexico Research Review*.

Todaro, Michael (1969), "A Model if Migration and Urban Unemployment in Less-Developed Countries", *The American Economic Review*, 59 138-4.

Van Doorn, J. (2002), "Migration, remittances and development", Global Perspective, ILO.

World Bank (2004), Global Development Finance, various issues.