

Remittances

Their Role, Trends and Australian Opportunities



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Executive Summary

- The remittance (money transfer) market provides valuable services to individuals, is large in size and contributes substantially to GDP. Over AUD 7 billion per annum of transactions are reported to AUSTRAC. A ball park estimate of the direct contribution to Australian GDP is in the range of AUD 336 to AUD 588 million per annum.
- The remittance market is growing due to migrant/ temporary worker needs, foreign traveller and international student needs, and particularly the growth of e-commerce.
- Remittance services are provided by specialist money transfer operators (MTOs) such as Western Union, informal operators and banks. Fees charged by formal MTOs appear to be significantly less than those charged by banks.
- New and innovative payments techniques are changing the competitive shape of the industry and create opportunities for collaboration between specialist MTOs and banks and other depository institutions. They also raise issues regarding direct access of non-banks to the domestic and international payments systems and the inter-operability of those systems with other messaging and communications systems.
- Provision of remittance services is resource intensive and costly, involving development of international networks of affiliates, and this is reflected in fees charged to users. Fees appear high because of the generally small scale of transactions and may be particularly high for transactions in certain corridors (pairs of countries) where geography and financial sector development in the receiving country are among factors which cause resource costs involved to be high. Remittances to the Pacific Islands are a case in point.
- Governments and international agencies tend to attribute high remittance fees to inadequate competition or exploitation by some operators of poorly informed customers. Actions to address any such issues are appropriate – but there may be greater scope for fee reductions through policies which address impediments to lowering resource costs incurred by remittance operators in making transfers.
- A significant cost relates to foreign currency conversions. MTOs reduce costs for retail customers, where compared to individual bank transactions, by aggregating and batching.

By doing so, however, they take on the resulting foreign exchange risk or conversion component of customer transactions.

- Government supported websites providing comparison prices for remittance services are a simple and valuable service. But whether they will be accessed and used effectively by less financially literate users of informal remittance providers, where most benefits might be expected, is yet to be seen.
- The official Balance of Payments definition of remittances only refers to outward migrant remittances and compensation of workers on temporary visas which amount to around AUD4 billion per annum in Australia. This is around half the level of financial flows facilitated by MTOs. Globally, remittances (using the Balance of Payments definition) are over USD 500 billion per annum
- Much of the research into remittances focuses upon the determinants of decisions by migrants to remit funds and the benefits to developing countries from the receipt of remittances, and highlights the valuable social and economic role of the remittance industry. Remittances often exceed foreign aid receipts and portfolio investment into developing countries and contribute to higher living standards, economic growth and stability and financial sector development and inclusion.
- Australian MTOs are subject to strict reporting requirements to AUSTRAC which adds to costs. A 2006 US survey found that regulatory compliance costs were four of the six largest perceived barriers to entry to the industry.
- The growth of new transferable stores of value (such as phone credit), access devices (mobile phones, tablet devices etc) and access channels (internet, phone networks) provide opportunities and challenges for traditional MTO business models based on widespread agent networks. So also, do potential changes in domestic retail payments system and in international arrangements, which may increase competitiveness of banks. However, MTOs have particular skills and network advantages which banks may be unable or unwilling to duplicate internationally and where opportunities for collaboration exist to reduce service provision costs for the mutual benefit of both customers and industry participants.

1. Introduction

The remittance industry provides money transfer services between individuals who are geographically separated. While most commonly associated with international transfers of funds (and thereby involving foreign exchange transactions), the industry is also important for transfers within national boundaries – particularly so in some emerging nations.

Remittances play an important role in the global economy. More than USD 483 billion dollars were remitted globally in 2011, and such remittances provide a relatively stable and much needed capital inflow for many underdeveloped countries. Remittances aid in the alleviation of poverty and can also provide capital to fund household investments and savings in emerging countries.¹

The term “remittances” can be used in a number of different ways in discussions of international financial flows. Box 1 provides guidance to the official definitions used by international agencies and in construction of official balance of payments statistics. Figures on remittances produced by international agencies on this basis are particularly relevant for understanding consequences of migration for economic development in the migrant’s home country. It should be noted however that official figures for remittances are generally believed to be substantially understated. In addition to the formal remittance services provided by banks and Money Transfer Operators, such as Western Union and MoneyGram, a high volume of informal remittances occur by methods such as sending cash with friends.

Consequently, official figures also do not necessarily provide good information about the scale of money transfer service activities or opportunities available to participants in the remittance industry.² They do not, for example, capture the need for international money transfers arising from foreign travel or parental support of international students. Moreover, E-commerce, is changing the need for money transfer services beyond those traditionally associated with transfer payments (such as from migrant residents or guest workers in one country to family

¹ (Catrinescu, Matloob, Matloob, & Quillin, 2009)

² For example, the item compensation of employees (such as payments to foreign guest workers) may not involve any physical remittance of funds to the home country, if all that income is used by the worker for consumption.

members in another country). There is increasing need for provision of payments services associated with internet and other long-distance digital purchase transactions. As noted by the BIS³, “the [E-commerce] market holds potential for cross-border payments, for which the current range of efficient payment instruments is still limited and again not always in line with user needs”.

BOX 1: Remittances – Official Balance of Payments Terminology

Remittances are generally defined as the sum of the following three components. Each can involve both credit (inflow) and debit (outflow) items in the balance of payments

- (a) Workers Remittances = current transfers of funds by migrants who are residents to individuals, such as family members, in another country
- (b) Compensation of employees = wages and salaries for work in countries other than where they are residents (ie wages of guest/temporary workers)
- (c) Migrant transfers = net worth of individuals transferred when they become residents of another country

Payments instruments and access methods are also taking an increasing variety of forms, potentially blurring the boundary between bank-based payments systems and alternative systems. This creates a number of potential issues for the efficiency and regulation of the traditional bank-based payments system and its inter-operability with, and access arrangements for, non-bank payments providers and the remittance industry.

How technological and operational innovation (involving new payment card technologies, mobile money transfers, changes in clearing and settlement arrangements, and electronic communications) may affect competitive positions of alternative remittance service providers remains to be seen. But with remittances being primarily cross-country in nature, international differences in the speed, type and acceptance of new technologies, financial literacy, and

³ (Committee on Payment and Settlement Systems & Bank for International Settlements, 2012, p. 49)

regulatory and institutional arrangements have implications for how business models may develop in ways best suited to particular country pairs (or corridors, as they are typically called). These various electronic and telecommunications innovations have already significantly increased access to and reliability of money transfer services in many developing countries. (The M-Pesa mobile phone based money transfer service in Kenya is one which attracts much attention). They also have the potential to reduce the traditionally high costs of providing international remittance services.

The cost of providing remittance services from Australia is still high compared to other developed nations, and those costs are reflected in the fees charged to individuals using the services. This suggests that there is still scope for major improvements in the Australian remittance industry that may be achieved through greater co-operation between the key players such as the commercial banks and the global MTO's. Developments in electronic communications for use in remittances also hold promise of lower costs, but involve substantial investments in technology and consequent fixed costs which may require large scale and/or cooperative ventures to be successful and feasible.

At the domestic level, there is also potential for significant change. The Reserve Bank of Australia⁴, has foreshadowed the need for substantial change in retail payments arrangements, including the need for real (or near real)-time processing and settlement of retail transactions on a 24/7 basis. Also necessary are improvements in the ability of bank-based electronic payments mechanisms to provide remittance information to the recipient of a payment. (Currently, only a small, inadequate, amount of textual information can be sent as part of the payment instruction). Finally, there is arguably a need for alternative payment address instructions beyond a bank BSB and account number, such as a mobile phone number, which could facilitate involvement of other participants in the payments network.

This report aims to shed light on this less well recognised component of the Australian financial sector by providing a description of the current state of affairs in the industry as well as an analysis of the risks and issues currently facing providers of remittance services in Australia.

⁴ (Reserve Bank of Australia, 2011)

2. Remittances: The Economic Essentials

2.1 Needs and Objectives

The remittance industry meets the need of individuals who wish to transfer money to another individual (or themselves) in another place. Where it is not possible, or extremely costly, to physically effect such transfers of money personally, individuals engage the services of various types of agents to arrange the transfer. While typically associated with international transactions, domestic money transfer services between individuals or with micro-enterprises are also important – and becoming increasingly so with the development of e-commerce. Box 2 provides a brief history of remittance services.

In engaging agents to provide money transfer services individuals will be concerned with issues such as:

- Risk – of the transaction being completed and funds delivered safely to the recipient;
- Speed – with which the transaction is completed and funds available to the recipient;
- Convenience – how much personal time and effort is involved for both the sender and receiver in undertaking the transaction;
- Complexity – how easy is it for the sender and receiver to understand the service provided and nature of fees charged; and,
- Cost – how large are the fees charged by the service provider, and what form do they take.

BOX 2: A Brief History of Remittances

The remittance process has existed for many centuries. It evolved in South Asia as the *hawala* system, although it appears to date back to around 700 AD during the Tang Dynasty in China as the *fei-ch'ien* system. Tea merchants from the South of China would provide any revenue generated from the sale of goods in the Northern Capital to the tax office in that city. In exchange, the tax office would provide the merchant with a certificate. When the merchant returned home to the South of China, they could exchange the certificate to the provincial government office and receive a refund on the cash they had deposited in the northern capital

Buencamino and Gorbunov⁵ provide an overview of the origins and practices of such informal remittance services.

While that process enabled merchants to avoid carrying cash (and associated risks) on their return journey, and did not involve transfer of funds to a different person (as in modern day remittances), the process involved illustrates the valuable economic function provided by remittance services. Purchasing power is transferred to a person in a different location rapidly and safely. In the process, services such as conversion into a different currency, information provision (notification of the transfer to the recipient and of its successful completion to the initiator), and verification (of the recipient's identity) are also provided.

While remittances today are typically thought of as involving transfers from emigrants back to their home country, the reverse flow was also common historically, giving rise to use of the term "remittance man" to describe expatriates from the UK (and elsewhere) living in colonial countries and supported by funds from their home country.

Over time, the scope of remittance services has increased, influenced by large historical waves of mass migration. The geographical distance over which funds could be transmitted has increased and transactions involving foreign exchange currency conversion have become dominant. The number of providers, both formal and informal, has increased, with private sector operators (rather than governments) playing the dominant role. However, government agencies, particularly the postal services, have played an important role. In 1878, the Universal Postal Union introduced postal money orders, enabling remittance payments to be made internationally through the postal network⁶. Postal services also operate in partnership with private operators as collection and disbursement centres. However, until very recently, the underlying process of remittance transfers had not undergone any significant change.

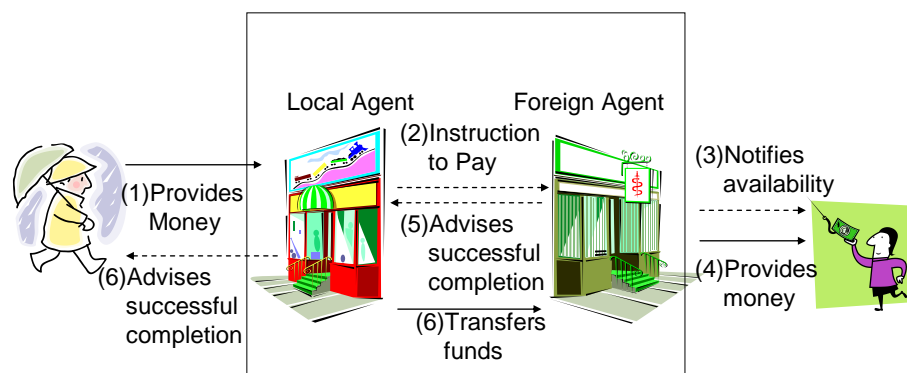
⁵ (Buencamino & Gorbunov, 2002)

⁶ (Lysdal & Rientra, 2012)

2.2 Steps in the Money Transfer Process

Figure 1 provides a schematic illustration of the money transfer process, with the sequencing of transactions and actions indicated in brackets. It illustrates the importance of both information flows and monetary flows, as well as the need for cooperation and trust between the domestic and foreign agents involved in receiving and paying out money. (For large formal MTOs acquiring and disbursing agents will be contracted in some form of affiliate relationship, while informal money transfer operators rely on strength of relationships. In some cases, informal arrangements may be based on a courier physically transporting cash).

Figure 1: The Money Transfer Process - A Schematic Illustration



Source: (Andreassen, 2006)

In most cases the remittance process occurs in three phases, the funds capture phase, the funds disbursement phase and the communications and settlement phase.⁷ In the funds capture phase an individual goes to a commercial bank, MTO or any other remitter and provides funds to be transferred to a third party overseas. In the funds disbursement phase the remitter either disburses the funds through one of their branches in the receiving country or uses an agent to disburse the funds to the recipient.⁸

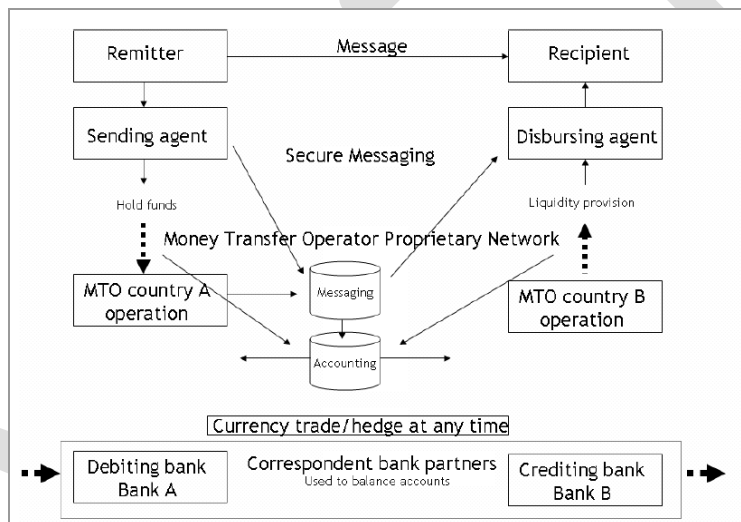
In the settlement stage of the international remittance process the remitter must settle the transaction involving different currencies across borders. For many large remitters this is largely

⁷ Annexes 2 and 3 of (Committee on Payment and Settlement Systems & World Bank, 2007) provide more detailed information.

⁸ There are a number of different processes a remitting firm can use to ensure the funds are disbursed to the correct recipient. ID checks and codes sent to a recipient's mobile phone are two of the more common procedures.

an in-house accounting process that is undertaken through a centralised corporate treasury function, which does large scale foreign exchange transactions reflecting its overall flows of funds as required. However for smaller remitters that use third-party disbursement agents, a third-party intermediary, usually an international bank, is used to wire funds to the disbursement agent’s bank account.⁹ Lags between fixing the exchange rate for the customer and undertaking the corresponding foreign exchange transactions create risks for remitters, which can either be hedged or the risk assumed on their own trading accounts. Compensation for that risk-bearing may be reflected in fees charged to customers. Figure 2 illustrates the role of foreign exchange in the remittance process.

Figure 2: The Role of Foreign Exchange in the Remittance Process



Source: (Andreassen, 2006)

The development of a network of agents and/or branches is fundamental to the business models of large scale money transfer operators (MTOs), enabling them to provide such services between a wide range of points on the globe. At the same time, specialist informal providers of remittance money transfer services may operate only in one “channel” involving two countries or regions between which there has been substantial migration, and where regular flows between specific locations and the same parties do not require development of large networks.

⁹ Some informal services which rely on business relationships between acquiring and disbursing agents might make the required settlement by, for example, over or under-invoicing for a trade transaction between them to reflect funds paid out.

Thus, there are a variety of business models which are feasible ranging from one extreme in which all operations are undertaken within a single company, to the alternative where each component of the transaction is between separate entities. In practice, most business models will involve some combination of internal transactions together with use of third parties as agents or suppliers of particular services. In that latter regard, one important component of cross-border transactions involves conversion of money provided in one currency into provision of money in a different currency, thus requiring involvement in the foreign exchange market and the services of banks.

It is worth noting the difference in business models between MTOs and Banks, who also provide facilities for sending money internationally, as this explains the importance of the remittance industry outside of banks. First, individuals wishing to send funds via the banking system will generally need to have an account at the sending bank. Second, the transfer of funds to an overseas bank branch will occur simultaneously with the transfer of (limited) information about recipient identity, and has typically involved some lags. Third, the recipient will need to have an account at the receiving bank – which is unlikely to be a branch of the originating bank. Thus, banks have typically not had, nor developed, the same breadth of acquiring and disbursement agents in a range of countries as have MTOs, and have not allowed access to funds to the recipient until the inter-bank transfer has been completed. Thus, while use of bank access to the SWIFT¹⁰ network for foreign exchange transactions is ultimately a necessary part of MTO operations, the remittance industry has thrived by overcoming inefficiencies in the global banking transactions market for retail customers which banks have been unable or uninterested in resolving.

Figure 1 also enables identification of a number of the issues facing the industry. One is the method of payment between customers and the MTO, which could involve currency or transfers out of and into bank accounts (or other acceptable media). Another is the method of

¹⁰ SWIFT (the Society for Worldwide Interbank Financial Telecommunication) enables foreign exchange transactions between its member-owner banks (see <http://www.swift.com/>).

accessing services which can range from physical attendance at the agent’s office, through use of postal facilities, to internet or telecommunications channels.

2.3 The Cost of Remittance Services

Such developments have implications for the future cost of providing money transfer services, which have been an issue of worldwide political concern for some time. In 2009 at the L’Aquila Summit, for example, the G8 countries called¹¹ for a reduction in the cost of remittances of 50 per cent. Such calls are generally based on perceptions that high fees charged for remittances reflect the exploitation of monopoly power, or of customers who have low levels of financial literacy and therefore unable to assess the true cost or compare alternative fees of services they are purchasing.

Those perceptions may have validity in certain cases, but it is important to recognise that the business of providing money transfer services is, as Figure 1 should suggest, an activity which involves significant resource costs for providers, which need to be recouped in fees charged. The typical remittance transaction involves a relatively small sum of money, and not inconsequential time spent in documenting, processing and verifying transactions, including meeting regulatory and compliance obligations. Enabling convenience and speed of transactions for senders and receivers at diverse locations involves expenditures on physical assets or agency arrangements, and costly transactions with third parties such as banks, in the case of foreign exchange. Box 3 provides an idea of the average costs which might be incurred in a remittance transaction – assuming an “old-fashioned” technology.

Box 3: Determinants of Money Transfer Costs

To illustrate the resource costs in remittances, consider a quite simple, “low-tech” example of a money-transfer operator with an office in both a sending (high income) and receiving (low income) country. Assume: 16 transactions per day (4,000 annually); one full time worker in each office costing USD 40,000 per annum in the high income country and USD 20,000 per annum in the low income country; office rental costs of USD 10,000 and USD 5,000 per annum

¹¹ (G8 Summit 2009, 2009)

respectively. The assumptions about transaction numbers and labour costs imply approximately 30 minutes average time for each transaction in each office. That does not seem unreasonable for a range of activities involving receipt of forms and money, documenting and initiating transactions, notifying participants and verifying identities, banking and arranging currency exchange, meeting regulatory and compliance requirements.

Average labour costs per transaction are thus USD 10 and USD 5 in the two countries and recoupment of office rental costs per transaction are USD 2.50 and USD 1.25 respectively. To this should be added marketing, advertising and office consumable costs, a required return on, and of (depreciation on) physical capital employed in the business, and costs such as foreign exchange conversion costs paid to banks. Aggregating the components, an average cost per transaction of approximately USD 20 is implied, such that a similar fee charged per transaction would not involve abnormal profits. For an individual remittance transaction size of, say, USD 200 (which is relatively common) the required fee is thus in the order of 10 per cent of the amount transacted.

These calculations are illustrative only, and costs could vary (both above and below) depending on technology, business models and amounts of business transacted. In this regard it is worth noting the analysis of MTOs in the UK by DMA (2010) for UKAid, which provides information on cost structures. Their findings include: “cost of compliance is found to be approximately 2% to 10% of operational costs”; “bank charges amount to approximately 10% of revenue earned on each transfer when depositing cash at the bank”; and “the agent-to-agent model has an intrinsically high cost due to its structure (up to 60% of revenue is spent directly on commissions to agents) which means profit margins are low. This is especially the case for smaller operators...”¹²

Because the average size of remittance transactions is small, the average cost of performing each transaction (including recovery of fixed costs) is relatively high, consequently fees will appear high relative to transaction size even in a perfectly competitive environment. That is not to say that excessive fees might not be charged by some operators, nor that improvements in

¹² (Developing Market Associates, 2010, p. 7)

technology and communications cannot reduce average costs. Indeed, there is considerable variability in remittance fees between different types of market participants and between country corridors (pairs of sending and receiving countries). Beck and Peria¹³, for example, find that fees are lower for corridors for which migration has been large – which could reflect economies of scale or increased competition in larger markets. Similarly, there are significant differences between the fees charged by informal operators, MTOs, and banks, with banks generally charging higher fees than MTOs. While these differences could reflect differential costs due to differences in technology used, they could also reflect exploitation of “local monopoly” power – if other operators do not service those corridors.

2.4 The Pricing of Remittance Services

Remittance pricing can be complex. Remittance service providers can be expected to vary the prices of transactions “based on a range of factors, including the specific sending and receiving locations, the size of the transfer, the speed of transfer, the method of payment, and the method of pickup.”¹⁴ All of these factors influence the resource costs involved as well as the risks faced by the remittance service provider.

There are three main elements that make up the total cost to the consumer of a remittance transaction. 1) The explicit fee charged at the time of transfer by the sending service provider, 2) fees charged at the time of disbursement by the service provider in the recipient country, 3) the exchange rate applied to the transaction. While the explicit fees charged by the sending service provider (and possibly the disbursement agent) are obvious to the remitter, the cost incurred through the exchange rate “spread” can be less transparent and difficult to interpret. Box 4 provides an illustration of the issues involved.

The foreign exchange spread on remittance transactions has the appearance of a pure profit for the remittance provider. However, it must be recognised that it is not possible for individual small transactions to be made at wholesale market rates. Physical resource costs are incurred in aggregating a large number of transactions into a parcel large enough to obtain wholesale

¹³ (Beck & Peria, 2009)

¹⁴ (CFPB, 2011, p. 13)

market rates. As Andreassan¹⁵ notes, “remittance firms offer opportunities for cost savings. International wire transfers through banks are costly and slow. Remittance firms ‘bundle’ a number of transfers, send the bundled funds through the banking system, and ‘unbundle’ the funds at the other end. In this way, the settlement charges are spread over many remittance transactions. In this way, remittance firms reduce the cost of transferring funds.”

Box 4: Exchange Rate Spreads

The cost of the exchange rate spread is often viewed as the difference between the exchange rate offered by a remittance service provider and that offered in the foreign exchange wholesale market. Take the example of a US migrant to Australia who wants to remit \$100 Australian Dollars back to his family in the United States. The exchange rate he is quoted by a remittance service provider is 1 US dollar per Australian Dollar and the wholesale exchange rate is 1.028 US dollars per Australian dollar. The exchange rate spread is 2.8 per cent. Rather than receiving the USD 102.8 dollars that would have been sent had the migrant had access to the wholesale rate, the migrant’s family would receive only USD 100 dollars. The spread therefore represents a 2.8 per cent transaction cost. The spread can vary greatly depending on the remittance service provider, and currencies involved. Thus, for example, another provider might quote an exchange rate of 0.99 US dollars per Australian dollar – which is a larger spread and, because fewer US dollars are received, involves a higher cost to the customer. In comparing alternative remittance providers, it is important to recognise differences in the exchange rate quoted. In the US, the Dodd Frank Act includes specific requirements for clear disclosure of the exchange rate involved.

The time involved in doing so also exposes the provider to foreign exchange risk when a fixed price is provided to the retail customer, for which some compensation might be expected. How large the various costs and risks are an empirical matter. It would be expected that competition and adoption of best practice information and transactions technology would drive these costs

¹⁵ (Andreassen, 2006)

(and the spread) down over time, and that this effect would be greater in those channels (country pairs) where there is a large volume of business.

Globally the prices of remittance services have been decreasing, 2011 statistics from the World Bank show that the global average cost of remitting has decreased from 9.81 per cent in 2008 to 9.3 per cent in late 2011. The reduction in price in the G8 countries is more pronounced, with the price dropping from 10.26 per cent in 2008 to 8.53 per cent over the same period¹⁶. While the average price of remitting from Australia is still well above the global average current domestic and global developments are expected to see this cost decline further, thereby promoting further growth in remittance transactions. G8 initiatives to promote competition in the industry and empower customers with price comparison services may quicken the trend – although whether less financially literate consumers using informal remittance providers will effectively use those services is open to question.

2.5 Risk and Remittance Services

The main risk for a user of remittance services is the risk of non-completion of the transaction and loss of money provided to the MTO. A further risk is the possibility that the amount of funds received by the recipient differs from that expected, due to incomplete information about fees which might be levied upon collection or the exchange rate involved in the transaction.

Such risks can be expected to be greater when informal remittance services are used, and particularly where transactions are infrequent or one-off in nature, although Rees¹⁷ reports that a survey of users of informal services in Australia did not elicit any significant evidence of problems. For other MTOs the establishment and maintenance of a reputation for reliable service is a crucial part of the business model to ensure repeat business and word-of-mouth advertising.

¹⁶ (The World Bank, 2011b)

¹⁷ (Rees, 2010)

In some countries such as the UK, remittance operators will come under the remit of Financial Ombudsman services which, as well as providing an avenue for dispute resolution, may also involve imposition of regulations on pricing structures and information provision arrangements. In Australia, individuals can take complaints to the Financial Ombudsman.

As remittance services continue to evolve, some of their activities take on some of the attributes of banking. There are two aspects to this. The first is when customers are provided with facilities to build up amounts in an account at the service provider which can be subsequently used for making remittances or other payments, those accounts start to resemble bank deposits. The risk exists of the service provider going into liquidation and the funds being lost. The second aspect is that such account balances may become acceptable as a means of payment by a sufficient number of individuals. The remittance provider is then providing an alternative to the bank based payments system which should have some degree of interoperability.

3 The Global Remittance Industry

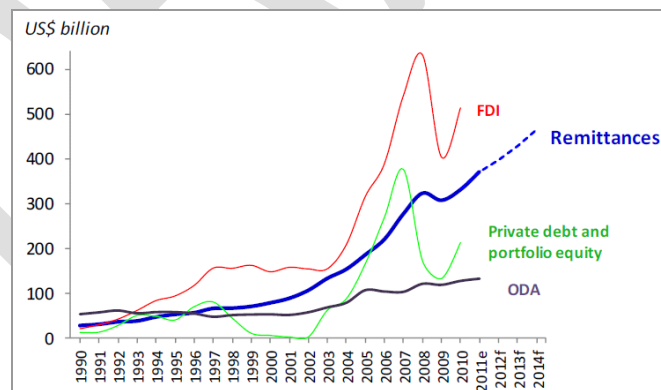
In this section we focus primarily upon the role of remittances from migrants and foreign workers.

3.1 The Size and Pattern of Global Remittances

In 2011, the World Bank estimated that USD 501 billion dollars were remitted by migrant workers globally. Of this total, USD 372 billion or more than 70 per cent of the total was received by developing countries¹⁸. However, official figures are likely to substantially understate total remittances due to the use of informal channels. Freund and Spatafora¹⁹ estimate that informal remittances range between 35 to 75 per cent of formal remittances for the set of developing countries they examine.

Migrant remittances comprise a crucial proportion of monetary inflows to many developing countries. Recent statistics from the World Bank show that migrant remittances provide a larger capital inflow to developing countries than both official development assistance (ODA) and private debt/equity portfolio investment combined. Only foreign direct investment (FDI) makes up a larger proportion of capital inflows.

Figure 3: Remittance and Other Resource Flows to Developing Countries, 1990-2014 (projected)



Source: (The World Bank, 2012c)

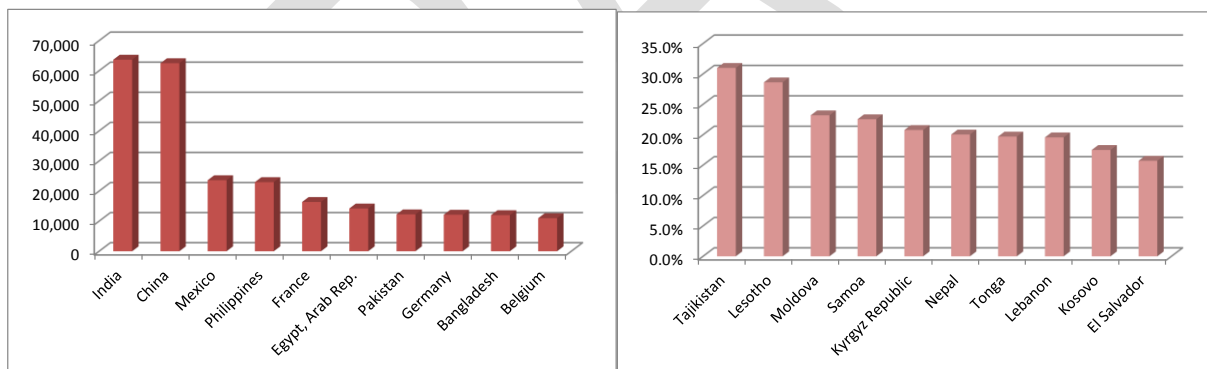
¹⁸ (The World Bank, 2012c)

¹⁹ (Freund & Spatafora, 2005)

Traditionally, the largest recipients of remittances have been developing nations that have a large percentage of the working age population emigrate internationally to earn wages and partake in opportunities that exceed those offered in their home countries. This was true in the 19th century when the largest remitters came from Spanish, Italian and Irish migrants and remains true today with the largest remittance inflows being received by India, China and Mexico.

While gross dollar (or other currency) measures provide an indication of the largest remittance corridors and indeed the largest emigrating countries, a more important measure for many developing countries is the value of remittance inflows as a percentage of the country’s total GDP. That figure shows the relative increase in spending power of residents made available by such unrequited transfers from overseas. For some developing countries this can be anywhere up to 30 per cent. Not surprisingly the top 10 recipients of remittance inflows are underdeveloped countries with wealthier neighbouring countries. Two of Australia’s neighbours, Tonga and Samoa are included in this list.

Figure 4: Total Remittance Inflows and Remittance Inflows as a Percentage of GDP (2010)



Source: Derived from World Bank Remittance Inflows data.²⁰

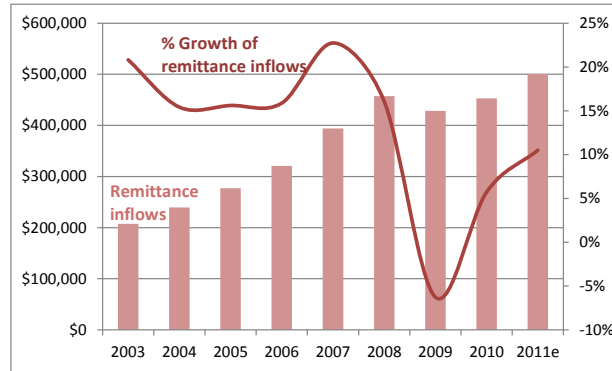
3.2 Recent Trends

Prior to the Global Financial Crisis, total remittances were growing at an average annual rate of around 20 per cent from a base of approximately USD200 billion in 2003. However, 2009 saw the rate of growth decrease sharply with an annual growth rate of negative 5 per cent for the

²⁰ (The World Bank, 2012b)

year. Growth in the sector has subsequently moved back into positive territory however forecasts from the World Bank suggest that growth will not resume at its pre-GFC rate with predictions falling in the 7-8 per cent range through to 2014.

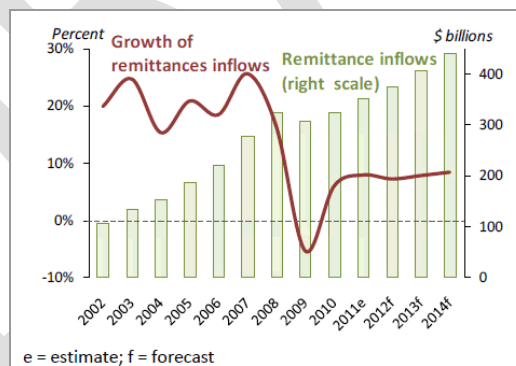
Figure 5: Total Global Remittance Inflows 2003-10



Source: Derived from World Bank Remittance Inflows data.

Remittances to developing countries have followed and are forecast to continue on a very similar trend to that of total remittances over the last decade. This is not surprising given that remittance inflows to developing countries during that time have tended to make up more than 70 per cent of total remittances.

Figure 6 Total Remittance Inflows to Developing Countries 2002-14



Source: (The World Bank, 2011a)

3.3 The Features and Impact of Global Remittances

There is a vast literature researching and assessing the features and impact of global remittances. It has already been noted that for many developing countries, remittances received exceed foreign aid receipts and make a significant contribution to the Balance of

Payments. Inflows from this source enable higher levels of national expenditure and imports. Giuliano and Ruiz-Arranz²¹ find that remittances can assist economic growth in developing countries, consistent with the hypothesis that they provide an alternative source of funding for investment when financial markets are underdeveloped. Faini²² examines the argument that remittances may be an offset to the “brain drain” of educated, skilled, workers which developing economies may face due to higher income potential abroad, and that the scale of such remittances may provide a better financial return on the human capital involved than if emigration had not occurred. However, his empirical estimates give a negative relationship between skilled emigration and remittance flows.

It has also been documented that remittances are more stable over time than other capital inflows, thereby having less consequences for exchange rate volatility (or balance of payments crises). Chami et al²³ also find evidence that higher levels of remittances contribute to greater stability of output growth in developing countries, since their magnitude tends to vary inversely with economic activity in the receiving country.

Various studies have examined the determinants of patterns and volumes of global remittances. Naturally, patterns of migration are important. And while remittances of migrants decline with the length of time in their new country, there are still significant flows for many years. Governments of some countries have also tried to tap into their diaspora as sources of funding as direct investment or purchasers of sovereign debt for investment needs in the home country. “Diaspora Bonds” are thought by some to involve lower cost of funding because of emigrants desire to contribute to development in their country of origin and lesser concerns about sovereign risk.

Yang²⁴ provides a recent survey of much of the relevant literature. Migrants (and casual workers) may remit funds for reasons ranging from altruism to support consumption of relatives, providing funds to enable relatives to buy air travel to visit, through to the making of

²¹ (Giuliano & Ruiz-Arranz, 2009)

²² (Faini, 2006)

²³ (Chami, Dalia, & Montiel, 2009)

²⁴ (Yang, 2011)

personal investments in their home country. They may also have a demand for savings facilities in both their country of domicile and country of origin, such that entities able to provide both remittance services and deposit accounts in both countries may have some competitive advantage. Typically, relatively small amounts are sent in relatively frequent transactions which, given the large fixed cost element in remittance fees, raises obvious questions about the causes of such behaviour. It is also apparent from research findings that remittance volumes are to some degree sensitive to changes in fee levels. Lower fees increase the number (and/or size) of transactions undertaken, although an elasticity of less than unity means that total fees paid are less. Relatively stable receipts of remittances may act as an insurance buffer against economic fluctuations for recipients.

DRAFT

4. Remittances and the Australian Financial Sector

4.1 Providers of Remittance Services in Australia

Official figures on the relative importance of different providers of remittance services in Australia are not publicly available, but it is a large industry with a significant number of participants. The Regulatory Impact Statement for proposed legislation relating to Anti Money Laundering provides some information. “AUSTRAC estimates that there are around 6,400 providers of remittance services in Australia”²⁵. Of those, around 400 are independent operators using their own systems and processes to provide remittance services. Most of the remainder are affiliates of large network providers, of which there were approximately 25 in 2010, or of intermediaries who have relationships with the large network providers.²⁶ For those affiliates, which include newsagencies, post offices, and convenience stores etc, remittance services are often only a small part of their business activities. One large network provider had over 800 affiliates, four had between 40 and 800, and the remaining 21 had less than 40 affiliates.

Remittance providers are required to report transactions to AUSTRAC, with around 20 million reports being received annually with a total value of around AUD 7.3 billion in 2009-10.

Industry information shows that the remittance market in Australia is dominated by two Money Transfer Operators and the four major banks. Western Union is by far the largest of the MTOs with MoneyGram the other major operator. Both operate worldwide. Many of the other MTOs specialize in specific corridors, such as iRemit which specialises in remittances to the Philippines.

Technological change and industry developments mean that traditional MTOs face new competitive challenges. The growth of mobile telephony, means that providers of mobile phone networks have the infrastructure to provide money transfer services. In principle, individuals can purchase mobile phone credits, transfer that credit to another individual via SMS, with that

²⁵ (Attorney General's Department, 2010)

²⁶ These figures do not include banks and other Authorised Deposit Taking Institutions.

individual able to exchange the credit for cash at an agent of the network operator. *M-Pesa*, which has been successful in Kenya provides an example of how such a system can work, although widespread application to international, and domestic, money transfers requires cooperation between various domestic and foreign network operators. While a potential competitive challenge, such developments may also provide opportunities for traditional MTOs who may be able to intermediate and provide efficiently parts of the payment process infrastructure (such as disbursement agents) which mobile phone network operators may lack.

Another challenge arises from the banking sector. SWIFT has relatively recently developed SWIFTRemit as a service enabling member banks to better perform international remittance transfers.²⁷ It provides standardized correspondent bank templates and messaging and settlement arrangements which can enable banks to establish relationships with correspondent banks overseas for rapid transfers of funds from their customer to a customer of the correspondent bank. By allowing for the use of mobile phone numbers as identifiers for payment instructions, the potential exists for using the correspondent bank branch network to enable payments to be made and collected even by individuals who are not customers of that bank.

The remittance sector is a significant contributor to employment and GDP – both directly and via its demand for inputs from other sectors. While there are no specific figures available on the numbers employed by the sector, the existence of 6,400 providers indicates at least that number of individuals are involved in the sector – although many of those would be involved in a part-time capacity running agencies in conjunction with their other business activities. Similarly, there are no specific figures for the sector’s contribution to GDP, but Box 5 provides an estimate. More generally, the contribution made to social welfare by provision of valued services to migrants and others should not be disregarded.

²⁷ (SwiftRemit, 2012)

BOX 5: The Contribution of the Remittance Industry to GDP

There are no official figures on the contribution of the Remittance industry to Australian GDP. However, it is possible to make some ball-park estimates, and ACFS estimates that the contribution is in the region of AUD 336 – AUD 588 million per annum.

The first step required is to estimate total revenue of the industry. Noting the alternative definitions and figures for remittances provided earlier in this report, we take AUD 4 billion and AUD 7 billion as low and high estimates of the remittance amounts facilitated by the domestic industry per annum. Some part of that may be inward remittances, where the domestic industry receives “abroad-agent” disbursement fees, while outward remittances will involve international disbursement fee payments to agents abroad. Based on available remittance cost figures (see subsequent sections), total industry revenue is estimated at 12 per cent of those figures, giving AUD 480 and AUD 840 million. From this needs to be subtracted the amount of intermediate inputs to the production process (purchases of goods and services from other firms). Drawing on information from the accounts of large and small deposit taking institutions and Australia Post, as organisations which perform some of the same functions, would suggest estimates of the ratio of intermediate inputs to total revenue of 0.3 to 0.5. UK estimates of MTO costs by DMA²⁸ are, when rent, IT costs and payments to overseas agents are taken into account, at the lower end of this range (although varying dependent on the type of business model). Recognizing also that some part of the volume figure derives from inward remittances for which revenue is likely to be lower than we have assumed, we assume a figure of 0.3 for intermediate inputs/total revenue such that contribution to GDP is assumed to be 0.7 of total revenue. Applying this figure to a revenue range of AUD 480 to AUD 840 million gives a ballpark estimate of direct contribution to GDP which ranges from AUD 336 to AUD 588 million per annum

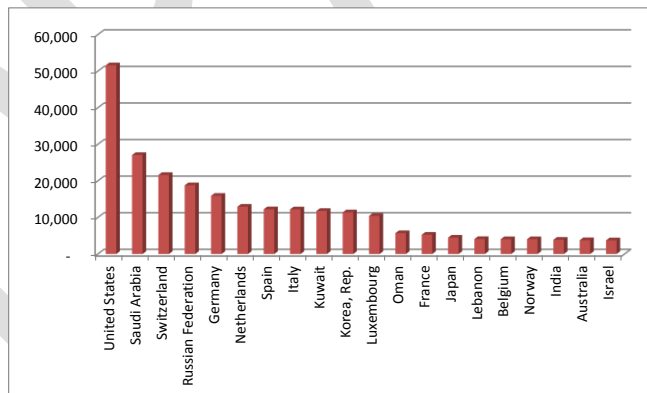
²⁸ (Developing Market Associates, 2010)

4.2 The Size of the Australian Remittance Industry

The demand for international money transfer services reflects a number of different needs. Migrants and workers on temporary visas wish to send money home on a regular basis. They, and others, wish to send money occasionally as a gift or to meet emergency needs. Parents need to send money to their children studying abroad, and individuals wish to have access to money while travelling abroad. Digital, on-line, shopping is adding yet another dimension to the demand for these services. In this section we focus primarily on the past and future growth associated with migration.

Remittances by migrants and foreign workers from Australia in 2011 were estimated at AUD 3.7 billion dollars by the World Bank. On this basis, the World Bank estimates that in 2010, Australia was the 19th largest provider of remittances in the world. These World Bank figures are consistent with the ABS Balance of Payments figures which for 2011-12 give an outflow figure for workers remittances of AUD 944 million, and compensation of employees of AUD 3,308 million. Remittance debits have shown steady growth in recent years and were AUD 3.99 billion in 2008-9, AUD 4.11 billion in 2009-10, and AUD 4.30 billion in 2010-11.²⁹

Figure 7: Total Remittance Outflows by County 2011



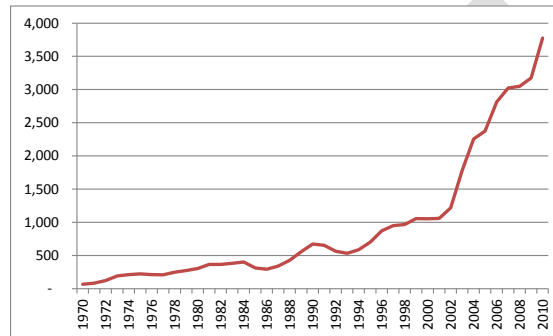
Source: (The World Bank, 2012a)

A comparison of the value of total remittance outflows (using the official Balance of Payments definition) from 2000 to 2010 highlights the exceptional growth the Australian remittance sector has experienced in the last decade. In 2000, the total value of outward remittances

²⁹ ABS Balance of Payments and International Investment Position, Australia, March 2012, Cat No 5302.0

barely exceeded USD 1 billion dollars meaning that the nominal value of outward remittances has grown by more than 250 per cent over the period (see Figure 10). A component of this growth which is measured by the World Bank in USD can be explained by the Australian dollar's appreciation over the greenback however even after converting the outflows into Australian dollar equivalent there is still a 136 per cent increase.³⁰

Figure 8: Officially Recorded Remittance Outflows, Australia: 1970-2011 (USD billion)



Source: (The World Bank, 2012a)

But for the providers of money transfer services, alternative measures may provide better indicators of the demand for their services. Those figures for the formal definition of outward remittances are roughly matched in magnitude by other current transfer debits recorded in the balance of payments statistics at around AUD 3.5 billion per annum, with these transfers also requiring the use of international payments services. Adding those figures gives a total of potential outward (non-business) flows with which money transfer operators could be involved in originating of around AUD 7 billion per annum. Inward current transfers (credits in the balance of payments) are also in the vicinity of AUD 3.5 billion, and domestic money transfer operators may play a role here in disbursement of funds, or as global operators by providing both the sending and receiving services.³¹ Around AUD 7.3 billion of transactions were reported by MTOs to AUSTRAC in 2009-10 which, recognising that some part of remittance payments are made by banks (and not included in those reported transactions), is compatible with the figures above.

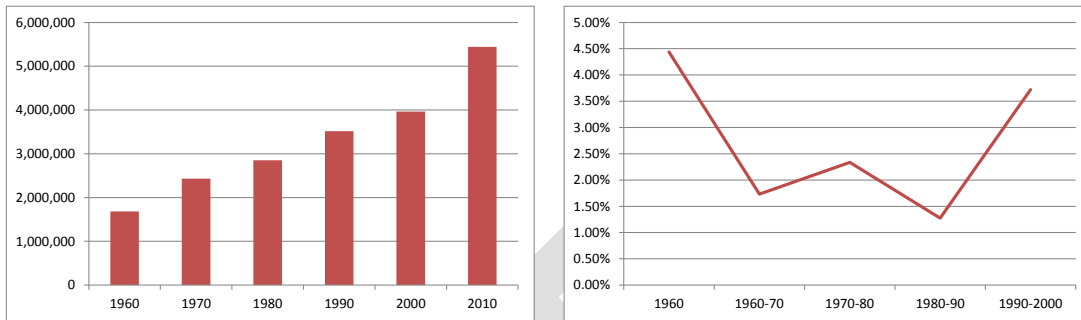
³⁰ This was estimated using the RBA historical exchange rate of USD/AUD of .6583 recorded on the 4th of January 2000.

³¹ Unfortunately, the official figures do not separate out remittances from other current transfer credits.

4.3 Migration and the Growth of Remittances

There are a number of potential explanations for the growth in remittance outflows. One is simply the scale of migration which has led to an increase in the migrant population (see Figure 9). Close to 1.5 million new migrants came to Australia in the last 10 years.

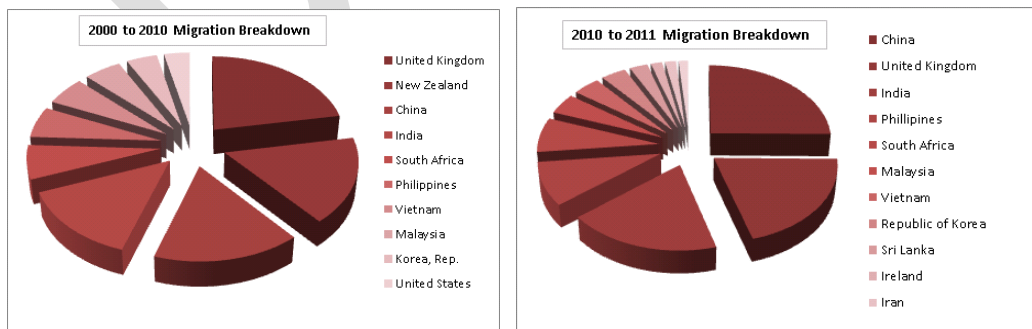
Figure 9: Total Number of Migrants in Australia and Average Migration Growth Rate



Source: Derived from the World Bank Bilateral Migration Matrix 2010 (The World Bank, 2010)

Another is the composition of migration - for example, there has been a sharp increase of migrants from countries with large remittance inflows (see Figure 10). Chinese, Indian, Philippine and Vietnamese migrants make up more than 23 percent of total Australian migrants over the last decade and the proportion of migrants from these countries has continued to increase in recent years. Furthermore, Australia's neighbouring Pacific Island nations rely heavily on remittances as sources of capital. Samoa and Tonga are estimated to rank among the leading recipients of remittances in relation to GDP for all developing countries and the primary sources of these remittances to Pacific Island nations are Australia, New Zealand and the US.³²

Figure 10: The Changing Composition of Migrant Inflows

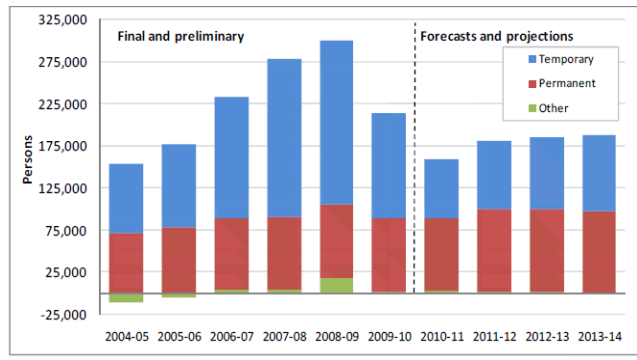


Source: Derived from World Bank the World Bank Bilateral Migration Matrix

³² (Australian Government & New Zealand Government, 2010)

It can be expected that migrant remittances will continue to grow. Net annual immigration of close to 200,000 is forecast for coming years (Figure 11) with slightly more than half of those arrivals being temporary (including guest workers) and the remainder permanent.

Figure 11: Net Overseas Migration, Statistics and Forecasts



Source: (Department of Immigration and Citizenship, 2011)

Whether continued migration flows will increase total remittances is dependent on whether this inflow of new migrants offsets the number of long-term migrants that reduce or stop sending remittances. Studies show that there is an inverse relationship between the duration of stay in a destination country and the level of migrant remittances.³³ Another determinant will be changes in the cost and ease with which remittances can be made. The development of new technologies such as mobile money transfers, electronic purses and remittance cards means that the number of people without access to remittance services in recipient countries will decrease.

Also particularly important for the future growth of remittances more broadly defined is the growth of retail cross-border spending based on the internet, often involving person to person sales, which provides further opportunities for suppliers of money transfer services. Paypal is perhaps the best known example of a relatively recent successful entrant into this sector, arising from its connection with the online auction and sales site E-Bay.³⁴ Many analysts are predicting rapid growth in “e-tailing” with The Economist³⁵ reporting predictions of 10 per cent

³³ (Salmone, 2006)

³⁴ Others include Paymate (<http://www.paymate.com/cms/>), POLi (<http://www.polipayments.com/>), and payclick (<https://www.payclick.com.au>)

³⁵ (The Economist Online, 2012)

growth per annum over the next five years in the contribution of the internet to GDP in G20 countries.

4.4 The Pricing and Cost of Remittances in Australia

Remitting funds is an expensive practice. Globally it is estimated that the average cost of a remittance transaction is 10 percent of the amount sent but this cost can vary greatly depending on the sending and receiving country. Due to the importance of remittance flows to such a large number of underdeveloped countries, lowering the price of remittances has become a priority of the World Bank and many policymakers.

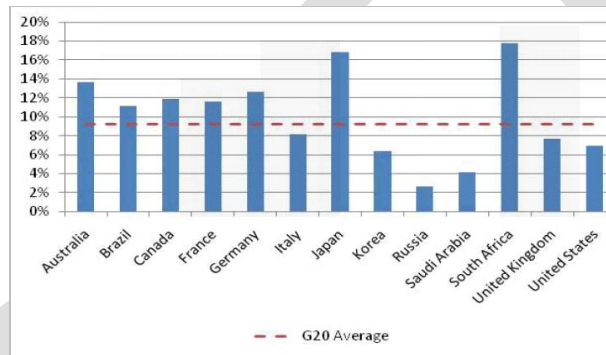
In October 2011, the then Foreign Minister, Kevin Rudd, committed AUD 3.5 million dollars to strategies aimed at reducing the cost of remitting to Pacific Island nations. The strategies cited were increasing price transparency, improving financial literacy and finding innovative approaches to expanding financial services for those outside the banking system. These are strategies also being employed internationally with policies to lower the costs of remittances. Regulatory reform to allow the introduction of new financial products is already being implemented in New Zealand

Only the latter elements of these strategies (improving financial inclusion and allowing new financial products) are focused upon reducing the underlying costs of providing remittance services by facilitating or permitting use of lower cost techniques. The real resource costs of providing money transfer services for small transactions can be very significant relative to the scale of the transfer when collection, disbursement, currency conversion, and regulatory compliance costs are taken into account. The other strategies, such as increasing price transparency and financial literacy are focused upon increasing the ability of consumers to better assess the prices offered by suppliers and assume that such empowerment of consumers will drive down prices charged. While highly desirable for consumer protection reasons, the expectation that there will be an ultimate effect on prices charged is based upon an unproven assumption that there is inadequate competition in the market for remittance services. In that

regard, it is worthy of note that Andreassen³⁶ found that four of the six highest perceived barriers to entry into the US remittance business were regulatory in nature (with the others being building an agent network and raising working capital).

It is the case that the average cost of remitting from Australia is above the G20 average (and above that charged in New Zealand). According to recent statistics from the World Bank, of the G20 countries, Australia is the third most expensive to send remittances from with an average remittance cost of approximately 14 per cent. Only Japan and South Africa have a higher average remittance price.

Figure 12: Average Price of Remittance across the G20 Countries, Q3 2011



Source: (The World Bank, 2011b)

Some part of that higher cost seems likely to reflect the country corridors involved. The average cost of sending funds to Pacific Island countries is 21.7 per cent in Australia and 15.2 per cent from New Zealand, although those differences may reflect New Zealand having a larger diaspora population (with consequent scale economies) and taking regulatory initiatives to allow innovative lower cost products.³⁷ At least some part of the high costs of remittances to Pacific Island countries appears to reflect financial sector development and coverage in those countries.

“In the Pacific, there is little interoperability between bank ATM and electronic funds transfer at point of sale (EFTPOS) networks (other than some bilateral arrangements), limiting customer numbers and thereby the financial viability of these networks. In addition, branch and ATM

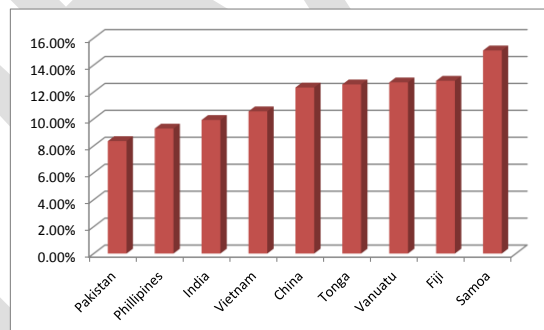
³⁶ (Andreassen, 2006)

³⁷ (Pacific Islands Forum Economics Ministers' Meeting, 2010)

networks are often confined to large population centres, limiting the rural reach of remittances via financial institutions. ³⁸

A 2010 report released jointly by the Australian and New Zealand Governments found that remitting through traditional financial institutions was on average 29 per cent more expensive than remitting through an MTO. ³⁹ Another important determinant of the cost of a remittance transfer is the destination country of the transfer. A recent report by the United States' Consumer Financial Protection Bureau found that even in areas with a high number of remittance service providers, remittance costs could be high when sending funds to unusual or rural destinations or to countries with risky business environments. ⁴⁰ While not perfectly correlated, Figure 13 shows a similar trend when looking at different Australian remittance channels. The more popular, less rural channels such as Pakistan, Philippines, India and Vietnam have a much lower average cost than the less serviced pacific island countries. There is evidence however that new payments systems being created by technological innovations are causing the costs associated with remitting to more remote locations to converge over time. The advent of mobile bank branches, branchless banking, and improving infrastructure is gradually increasing access.

Figure 13: Cost of Remitting AUD 200 from Australia to Selected Countries



Source: World Bank Remittance Price Database

A third factor that contributes to the cost of remittances is the amount of regulation imposed on remittance service providers. Compliance with regulation regarding money laundering and

³⁸ (Pacific Islands Forum Economics Ministers' Meeting, 2010, p. 8)

³⁹ (Australian Government & New Zealand Government, 2010)

⁴⁰ (CFPB, 2011)

terrorist financing purposes can be costly. A 2006 survey conducted in the US found that costs associated with compliance were four of the six biggest perceived barriers to entry for remittance service providers.

5. Trends in Remittance Payments Arrangements

Technological change and innovation are driving major, and related, changes in both domestic payments arrangements and in the remittance sector. To appreciate the scope of potential changes it is appropriate to note the options available to an individual when they interact with a payments or money transfer operator to initiate a transaction. Figure 14 illustrates the elements of the transaction involved. Traditional remittance arrangements typically involved individuals presenting cash physically at the branch of a MTO, with similar arrangements for disbursement. For some time, and increasingly so, there are a range of alternative methods available – many of which involve substantial technological fixed costs but very low variable costs per transaction and much increased convenience for users. For example, a MTO may provide facilities that enable an individual to use their home computer to transfer funds from their personal bank account to that of the MTO, and provide payment instructions to initiate the transaction.

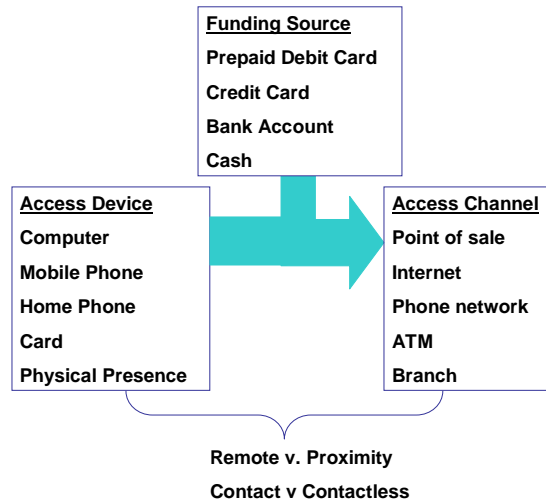
As noted by the US Consumer Protection Bureau “... as RTPs [Remittance Transfer Providers] expand beyond cash and account-based transfer products, some are also allowing consumers to initiate transactions by phone, through the Internet, with mobile phone text messages, or at automated stand-alone kiosks. Some RTPs initiate transactions exclusively through technology-based rather than in-person channels.”⁴¹

These developments also have potentially significant implications for the structure of the industry and competitiveness of various types of participants. As the BIS notes “globally active players, such as international card schemes, global mobile operators or internet enterprises, may have the advantage in leveraging their coverage and market power when offering

⁴¹ (CFPB, 2011)

innovative payment solutions across borders, possibly in a flexible manner responding to concrete local needs.”⁴²

Figure 14: Payments Funding and Access Options



Source: K Davis, ACFS 2012

5.1 Common Remittance Techniques

While new remittance systems have gained increasing popularity internationally, cash-to-cash and bank account remittances remain the most popular means of remittances from Australia.⁴³ Figure 15 provides an overview of common remittance techniques, although innovations, prompted by technological change, are occurring constantly. Such innovations have objectives such as reducing identification, documentation and other transaction initiation and completion costs, reducing customer convenience and time costs of interacting with the system, improving the speed and reliability of messaging and settlement systems, enabling individual operators to expand their geographical scope of operations. While many of the innovations are particularly relevant to providing traditional remittance services for payments from developed markets to developing markets where financial inclusion and financial sector development is often relatively low, there is also increasing interest in the provision of payments services for digital

⁴² (Committee on Payment and Settlement Systems & Bank for International Settlements, 2012, p. 50)

⁴³ This was derived from market research compiled by Western Union.

(electronic) commerce involving individuals (or other micro-enterprises) at both ends of the transaction.

Figure 15: Common Forms of Remittance Services

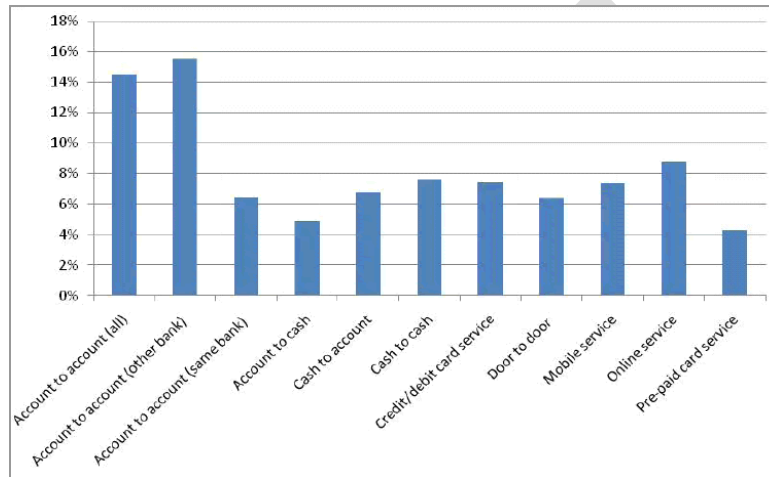
Remittance Types	Description
Cash-to-Cash (formal)	The sender remits funds by providing cash to a remitter, usually an MTO or retail agent of an MTO, the funds are then disbursed in cash by a corresponding agent in the recipients home country.
Cash-to-Cash (informal)	This method of remittance lends itself the most to avoiding monitoring and regulation. Examples of informal cash-to-cash remittances include: the Hawala system, physically transporting the cash across borders or having a network physically transfer the funds across borders.
Dual Card Model	Two cards are issued with access to the same account
Card-to-Cash	The sender remits funds via a debit card while the recipient receives the funds in cash, via a bank, MTO or other remitting agent.
Recipient-only card model	The sender purchases a card loaded with funds which is either sent directly to the recipient or issued in the recipient's country. The sender can then reload funds onto the card from their country of residence.
Account-to-Cash	The sender remits funds via an account, usually a bank account and the funds are disbursed in cash via an agent in the recipients' home country.
Account-to-Account	This has been traditionally conducted via bank accounts. However, MTOs like Western Union have begun forming alliances with commercial banks to offer these services. Innovative online service providers such as Klickex in New Zealand have also begun offering low-cost account-to-account services.
Electronic Wallets	The ubiquity of the internet has given rise to a number of online remittance service providers that record a regular remitters details to save the user from repeating the input of information. Online remittance services or "E-wallets" are provided by the large commercial banks, large MTOs and specialist providers such as B-Pay. A major advantage of "E-wallets" is that in some cases a user can load funds directly to the online service provider meaning they provide access to many unbanked users.
M-payments systems	A derivative of "e-wallet" technology that has been facilitated by the popularity of smart phones is M-payments systems. M-payments systems are essentially an e-wallet service that allows users to remit money via a mobile phone.

Source: ACFS 2012

Figure 16 shows estimates of the difference in average cost to customers of different types of remittance processes. As can be seen, apart from the case of inter-account transfers at the

same bank (which are relatively uncommon for international remittances), account based (bank) transfers are significantly more expensive than other forms of remittance arrangements such as those offered by MTOs. The World Bank notes that cash transactions remain the most commonly used, and that “On-line and mobile services do not seem competitive yet in terms of availability and cost.”⁴⁴

Figure 16: Average Remittance Cost by Product Type



Source: Remittance Prices Worldwide (Issue 3, 2011) the World Bank

5.2 Alternative Techniques and Emerging Trends

“People working in the ‘payments space’ use that phrase to refer to a new world of retail electronic payment systems – everything from credit cards based on magnetic stripe technology, to radio-frequency ID chips used to store value and/or access a remote account, to mobile phones used in various ways as carriers of money, or airtime minutes, text messages and other things that can be transferred from mobile-to-mobile as a form of currency, to mobile point-of sale terminals reverse-engineered to serve as a channel for banking and financial services”⁴⁵

There is a wide range of techniques for effecting remittance payments emerging. These also have substantial implications for business models of participating institutions, including potential for cooperative agreements between various types of participants, and for public

⁴⁴ (The World Bank, 2011b, p. 1)

⁴⁵ (Maurer, 2012)

policy. A few of these techniques are discussed below to convey the flavour of potential developments.

Card based remittances

Use of plastic cards can be used in remittance arrangements in a variety of ways including arrangements where one or both of the sender and receiver make use of a card. The following are non-exhaustive examples of how such arrangements can operate.

- Card-to-cash involves the sender using a card to initiate and fund a transaction with the recipient obtaining cash from the disbursing agent.
- Dual card arrangements enable the sender to add funds to an account for their own access by card and for the receiver to also access (subject to imposed limits) via use of a card at an ATM or branch
- Recipient-only card situations can enable the receiver to access funds in an account at an ATM or branch. Prepaid cards can also be issued to the recipient which can be topped up by the sender from time to time through the provider's network.

While access to funds via ATM in the recipient's country may be feasible (although not always in some developing markets where payments networks are still developing), that may incur costs charged by the ATM owner. International delivery of cards may also be complicated – both for logistical and compliance reasons. Figure 17 outlines some of differences in cost and fee arrangements of the various card structures. Orozco et al⁴⁶ also provide figures illustrating the relative cost of card based transactions relative to bank wire transfers (for the US in 2006) which suggest that while the initial card based transaction is slightly more expensive, subsequent transactions are significantly cheaper.

Predicting future trends is always difficult, but it is relevant to note the potential uses of *stored value cards*, such as used in a number of urban transit systems. While they have been, generally, limited to a specific purpose (transport fees), there is potential for use to make other payments such as to the accounts of MTOs for initiating remittance payments. While such cards

⁴⁶ (Orozco, Jacob, & Tescher, 2007)

(previously loaded with value by the individual) could be the immediate source of funds to initiate a remittance transaction as well as being the access device, there remain issues associated with efficient access channels as well as the need to incorporate personal information about the sender and receiver into the transaction process.

Figure 17: Sample Fee Structures by Card Model

Model	Recipient Only	Dual Card	Sub-Account with Local Partner
Sample Fees	<p><u>Sender</u> pays shipping fee to purchase and send card.</p> <p><u>Recipient</u> pays a monthly fee and an international ATM fee for each withdrawal.</p> <p>Sender pays <u>transfer</u> fees to load funds onto the card, which are competitive with existing remittance fees.</p>	<p><u>Sender</u> pays typical fees for prepaid card (activation fee, reloading fees and either a monthly maintenance or a transaction fee).</p> <p><u>Recipient</u> gets card free but pays international ATM fees to withdraw funds.</p> <p>No <u>transfer</u> fees.</p>	<p><u>Sender</u> pays typical fees for prepaid card (activation fee, reloading fees and either a monthly maintenance or a transaction fee).</p> <p><u>Recipient</u> may pay the same to local partner, but will not pay international ATM withdrawal fees.</p> <p>Funds <u>transfer</u> through ACH, so would be fairly low fee to the sender.</p>

Source: (Orozco et al., 2007)

Mobile Phone Remittance Methods

One of the success stories in innovations in domestic remittances is M-Pesa in Kenya, which draws on the widespread use of mobile phones and agents associated with the network provider. Essentially the process involves individuals transferring phone credit from their account to the account of another individual by way of an SMS message. The recipient can then convert that credit into cash through one of the many agents of the phone company, or via traders who act as intermediaries buying credit for cash.

This system has advantages of low cost and minimal customer identification requirements. But it requires the widespread use of a common mobile phone network, or cooperation between network providers, and infrastructure, to enable credit on one system to be converted into credit on another. In the case of international remittances, where there are different national providers of mobile phone networks and foreign exchange currency conversion considerations involved, there are significant impediments to the growth of this remittance technique.

Electronic Wallets

Mobile phones and other electronic devices create the potential for individuals to access payments and remittance services in new ways – such as via “electronic wallets”. These emerging systems (Google Wallet is one example) involve individuals storing relevant personal and financial details securely with a service provider “in the cloud”. Using a mobile phone (or other device) with near field contact capability, a payment or transfer of funds to a merchant or service provider who is linked to the system can be made by placing the device in proximity to the merchant’s device. A debit to the individual’s specified credit or debit card or account will be initiated, with the individual verifying the transaction by entering the appropriate password. Such systems remove the need for use of a physical credit or debit card, potentially enabling individuals to discontinue carrying of actual wallets or purses. The need for time consuming and costly entry of information for each transaction is also removed.

How successful such systems will be remains to be seen, since they require widespread participation by merchants and others in order for individuals to be assured that desired transactions can be effected in this way. They also introduce mobile phone networks and internet service providers into the payments system in a fundamental way, which raises complicated questions about the pattern of future development of, and role of a range of participants in, the payments process.

What role they might play in international remittance services also remains to be seen. They can facilitate the initiation and completion of a remittance transaction, by transfer of funds from the sender’s electronic wallet to an MTO’s account and subsequently a transfer from the MTO’s account to the electronic wallet of the recipient. In principle, such transfers could be undertaken via telephony or the internet, thereby avoiding the need for physical attendance at an MTO office. But it is unclear how long it will be before (or if) such electronic wallets become pervasive among recipients in developing countries (or senders in developed countries) and thus undermine the traditional MTO business model based on widespread branch and agency networks.

6. Public Policy Issues

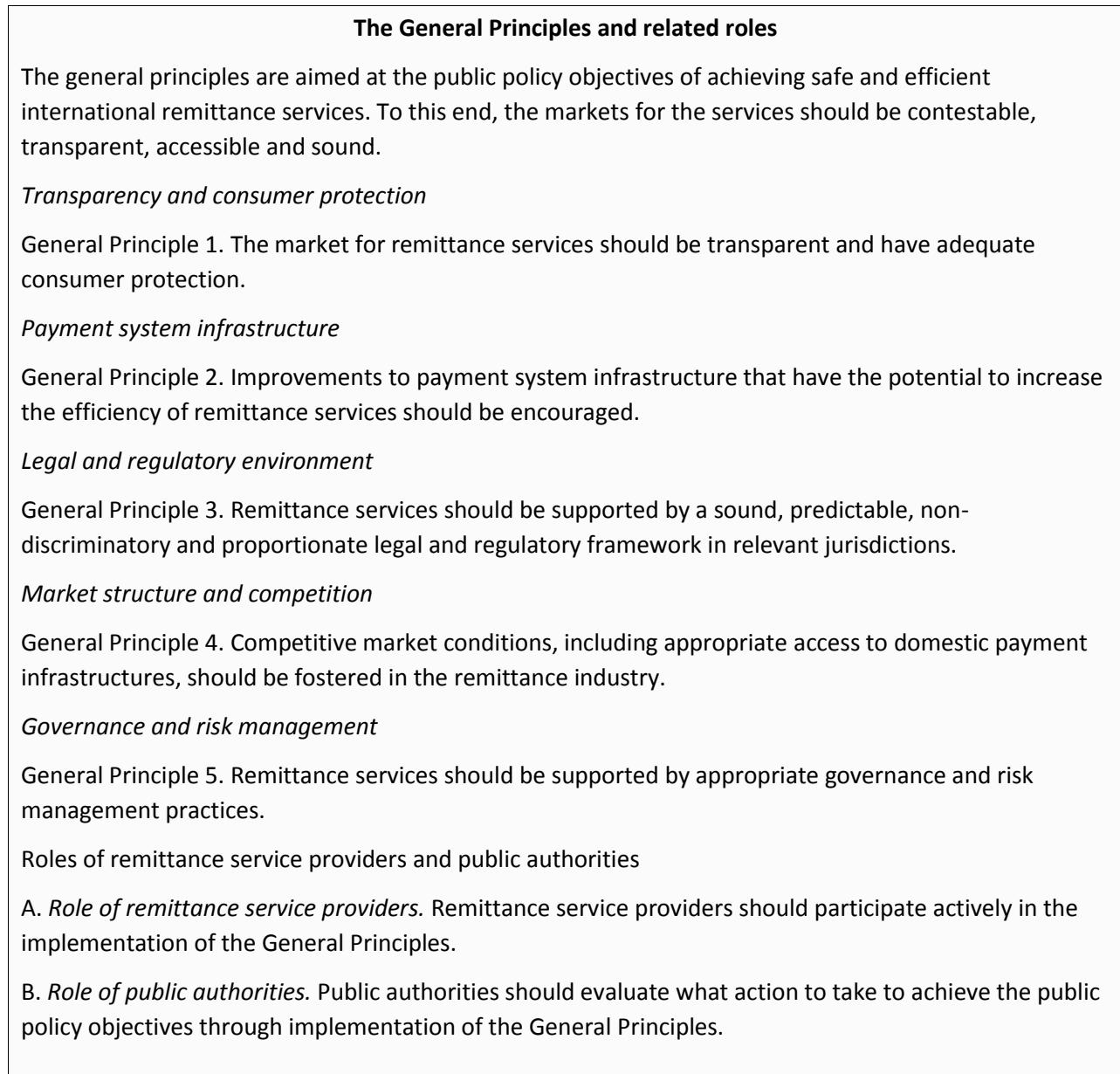
The remittance industry has been the focus of considerable policy interest worldwide for a number of reasons. One relates to its important role of providing remittance services to individuals, where those services provide both individual benefits but also macro-economic benefits for developing countries which are large receivers. Consequently, there is substantial interest in (a) ensuring that customers understand the nature of the costs involved for consumer protection reasons and (b) reducing the level of costs and fees involved which are viewed as an impediment to higher remittance volumes and which fall upon relatively low income groups. A second reason for focus is that remittance services can help build financial sector capacity and financial inclusion in the developing countries where remittances are received. Finally, there has been concern with the potential for remittance operations to be utilised for money laundering and transfers of funds to terrorist groups, although there is little reason to expect that the risks here are greater than those involved in banking sector transfers (as recent US Government actions against several major banks illustrates). Hence remittance operators have been subject to Anti Money Laundering regulatory requirements.

In line with approaches to other parts of the financial sector by international standard setters, the Bank for International Settlements and the World Bank have developed the set of principles outlined in Figure 18 for remittance policy to achieve the goal of safe and efficient international remittance services.

6.1 Financial Literacy, Information and Competition

One initiative to increase the transparency of the costs associated with remittances is the World Bank's Remittance Price Database. The database provides a reference for the costs associated with sending remittances from more than 30 countries and 90 receiving countries. The database includes the total explicit fees associated with a remittance transfer as well as any exchange rate spreads. The Remittance Price Database has also inspired the development of five national databases that track the costs of remittances via high volume channels from the databases home country.

Figure 18: General Principles for Remittances



Source: (Committee on Payment and Settlement Systems & Bank for International Settlements, 2012)

The SendMoneyPacific database is a joint initiative of AusAid and the New Zealand Aid Program which provides a database of the cost of remittances from Australia and New Zealand to eight Pacific Island countries. Figure 19 provides a screenshot of the database interface. These initiatives provide consumers with information enabling them to assess the relative cost of alternative suppliers, with objectives of both consumer protection and increasing competition and lowering fees as a result of more empowered consumers. But the extent to which “high”

fees reflect market power exploited by service providers or are the result of underlying cost structures, which need to be addressed by other regulatory or legislative changes is another matter. One such area which is particularly relevant and warranting attention is that of barriers to entry into direct participation in the payments system.

Figure 19: The SendMoneyPacific Database: The Cost of Remitting from Australia to Samoa

Compare Costs for sending AUD 200 from Australia to Samoa last updated on 22 Jun 2012 (includes all known costs – please hover over the column for operator FX rate and FX margin)

New Search from to amount \$200 \$500

Operator	Method of Transfer	Fee (AUD)	Total Cost (AUD)	Total Cost (%)	Samoa tala (WST)s Received for Initial AUD200	Speed of Transfer	Outlets
KlickEx - Low Priority	D	0.25	4.05	2.02%	464.02	2-5 business days	Samoa bank account
KlickEx - Priority	D	0.25	6.03	3.01%	459.35	1-3 business days	Samoa bank account
KlickEx - High Priority	D	0.25	9.24	4.62%	451.73	Next day	Samoa bank account
Digicel Mobile Money	D	4.00	10.18	5.09%	449.78	One hour or less	http://www.digicelmobilemoney.com/
Xpress Money	C	12.00	16.05	8.03%	436.16	One hour or less	www.xpressmoney.com
Nikua Money Transfer	C	5.00	19.41	9.70%	428.49	One hour or less	Samoa agent/branch
IMEX Money Transfer	C	10.00	20.81	10.41%	425.60	Same day	Samoa agent and bank branches

Source: SendMoneyPacific database, accessed 2nd July 2012

6.2 Payments System Policy Arrangements

MTOs interact with the banking sector which provides the core component of the domestic and international payments systems, providing services which banks have not been able to, or interested in, providing. In many cases, MTOs have established partnerships with banks to their mutual advantage and that of bank customers. But MTOs are excluded from direct participation in the payments systems, and thus have to buy essential services at prices which, if banking sector competition is inadequate, may inflate the cost of providing remittance services.

However, developments in both international and domestic payments system arrangements seem likely to change the nature of relationships and create particular issues for public policy. At the domestic level, the RBA's strategic review of payments systems⁴⁷ notes the potential for development of near-real-time payments processes for retail payments, and the development

⁴⁷ (Reserve Bank of Australia, 2011)

of technology and systems to enable increased information content to be transmitted with payment instructions. Also important is the question of whether interoperability with other systems should extend to enabling payment instructions to identify payees by means other than bank account numbers, such as mobile phone numbers, and thus facilitation of direct transfers to E-Wallets and other stores of value operated by non-banks. There are significant issues regarding the ability of entities other than banks (such as MTOs and mobile phone network providers) to engage directly with the payments system rather than, as is currently the case, indirectly through banks.

At the international level, the development of SWIFTRemit (see section 4.1 above) is aimed at providing member banks with improved competitive position in the remittances market. Since use of the international payments system (operated via SWIFT) is an essential component of providing international remittance services, the question arises of whether direct participation in the system should be available to MTOs as well as the pricing of accessing the system. Martinez raises the question of whether direct participation in clearing and settlement systems should be permitted as one way of reducing the costs involved in remittance arrangements.

Also relevant to the future development of retail payments arrangements is the question of interoperability.⁴⁸

A range of closed payments systems have developed where both participants in a transaction must be registered – with PayPal being perhaps the most well-known example. That system relies on transfers of value involving debits from and credits to standard payments instruments – such as credit or debit cards or bank accounts. It thus relies on the existing national payments system.

But also relevant are current and potential developments such as mobile money, expansion of use of stored value cards to facilitate other payments, or growing roles for “virtual currencies” such as on-line gaming and gambling, methods of storing and transferring value between participants which can be “cashed out”. These systems can involve transfers of stores of value

⁴⁸ (Martinez, 2005)

other than “money” as traditionally defined. To the extent that such stores of value become widely accepted, such that individuals are happy to hold balances of them for future payments and do not feel a need to “cash out” those balances, a “shadow” payments system could emerge alongside the traditional bank based system.

6.3 Consumer Protection

As well as the issues involved in protecting individuals from failed transactions (and providing mechanisms for grievances to be pursued) new developments in remittance arrangements introduce other consumer protection issues. In particular, where individuals pre-pay funds into accounts with MTOs, pre-paid cards, or electronic wallets, and use these as a temporary store of value they face the risk of failure of the counterparty and loss of funds. In this regard, these instruments take on some of the characteristics of bank deposits or money – as a store of value and as a means of exchange. How regulatory arrangements should be structured for dealing with this convergence, including for the soliciting of funds as well as for the safeguarding of funds deposited, is an open question.

6.4 Money Laundering

Regulation of remittances is important to ensure that remittances are not used to launder money or to fund criminal activities and terrorism. In many countries, to operate legally as a remittance service provider an organisation must record specific information pertaining to all remittance transactions and submit this information to national regulators and/or central banks. In Australia, this means organisations that have been officially lodged on the AUSTRAC Remittance Sector Register and meet AUSTRAC’s Anti-money Laundering (AML) and Counter Terrorism Financing (CTF) compliance standards. The informal remittance sector is made up of those providers of remittance services who are not officially registered within their country of operation but essentially operate using a similar process to formal remittance service providers. In India, this process is commonly referred to as the Hawala system but the process has as many names as the countries that use it. Other forms of informal remittance channels include sending cash with people that are travelling to a migrant’s home country and sending cash in an

envelope via the postal service. As informal providers do not engage in meeting compliance requirements they are able to provide a lower-cost but often higher risk service.

As informal remittance channels do not comply with reporting standards the total value of these flows remain largely uncaptured in the official remittance statistics computed by a country's central bank. The World Bank states that if the remittances sent through informal channels could be estimated, their size could be more than doubled in the official statistics.⁴⁹

Aside from the measurement problems the informal remittance sector cause for central banks, the inability to track the senders and recipients of informal remittances increases the potential for money laundering and terrorist funding to occur through these channels

⁴⁹ (Freund & Spatafora, 2005)

7. Conclusions

The Remittance Industry is a large and important part of the financial sector worldwide and in Australia. As well as providing valuable services to migrants and temporary guest workers wishing to send funds to relatives overseas (which is the focus of official Balance of Payments statistics) it facilitates transfers and payments for individuals for a wide variety of reasons. The increasing role of e-commerce and developments in information and communications technology provides both opportunities and challenges for the sector.

Challenges arise because of the potential development of new means of exchange of value such as phone credits, as well as the growing potential for phones and computers as access devices, and access channels such as the internet for initiating and completing transactions. How these will affect the competitiveness of the more traditional business model of MTOs, which involve networks of agents to overcome the costs created by geography and location, remains to be seen. They are likely to be quite significant in countries such as Australia. Developments such as the National Broadband Network were likely also to influence future development. But in developing economies, where receipts of migrant remittances are particularly important, less developed financial systems, and restricted access to banking services and electronic networks suggest that changes in business models may progress more slowly.

A critical issue in enabling the remittance industry to better fulfil its important economic and social role is the ability of MTOs to engage and collaborate with traditional operators of the domestic and international payments systems (ie the banks). While the banks do provide some competitive services (and payments systems initiatives may increase their ability to do so) MTOs have particular skills and business model characteristics which suggest that cooperation between banks and MTOs may reduce the costs of providing remittance services to the benefit of both customers and the institutions involved. And for both types of institutions, and for regulators, the potential challenges from mobile phone operators and internet service providers operating in the payments space introduce a new set of challenges demanding attention.

Reference List

- Andreassen, O. E. (2006). Remittance Service Providers in the United States: How remittance firms operate and how they perceive their business environment. *Financial Sector Discussion Series, Payments Systems and Remittances: The World Bank*.
- Attorney General's Department. (2010). Regulation Impact Statement - enhanced AML/CTF regulation of the alternative remittance sector, October, from <http://ris.finance.gov.au/2011/03/03/remittance-dealers-anti-money-laundering-and-counter-terrorism-financing-legislation-regulation-impact-statement-attorney-generals-department/>
- Australian Government, & New Zealand Government. (2010). *Trends in Remittance Fees and Charges*. Paper presented at the Pacific Islands Forum Economic Ministers Meeting, 26-29 October, 2010.
- Beck, T., & Peria, M. S. M. (2009). What Explains the Cost of Remittances? An Examination across 119 Country Corridors, *Policy Research Working Paper 5072: The World Bank Development Research Group Finance and Private Sector Team*.
- Buencamino, L., & Gorbunov, S. (2002). Informal Money Transfer Systems: Opportunities and Challenges for Development Finance. *DESA Discussion Paper, Paper No. 26, November 2002*.
- Catrinescu, N., Matloob, M., Matloob, P., & Quillin, B. (2009). Remittances, Institutions, and Economic Growth. *World Development, Elsevier, 37(1), 81-92*.
- CFPB. (2011). Report on remittance transfers: Report to the President, the Senate Committee on Banking, Housing, and Urban Affairs, and the House of Representatives Committee on Financial Services: Consumer Financial Protection Bureau.
- Chami, R., Dalia, H., & Montiel, P. (2009). Remittances: An Automatic Output Stabilizer? . *IMF Working Paper WP/09/91. IMF Institute, April 2009*.
- Committee on Payment and Settlement Systems & Bank for International Settlements. (2012). *Innovations in retail payments: Report of the Working Group on Innovations in Retail Payments, Committee on Payment and Settlement Systems, Bank for International Settlements*. Retrieved from <http://www.bis.org/publ/cpss102.pdf>.
- Committee on Payment and Settlement Systems & World Bank. (2007). *General principles for international remittance services*. Retrieved from <http://www.bis.org/publ/cpss76.pdf>.
- Demirguc-Kunt, A., Cordova, E. L., Peria, M. S. M., & Woodruff, C. (2009). Remittances and Banking Sector Breadth and Depth: Evidence from Mexico *Policy Research Working Paper 4983: The World Bank*.

Department of Immigration and Citizenship. (2011). The Outlook for Net Overseas Migration, May 2011.

Developing Market Associates. (2010). *Supply Side Constraints For Remittance Service Providers In The UK, Developing Markets Associates*. Retrieved from <http://www.developingmarkets.com/sites/default/files/Supply%20and%20Demand%2015-03-2010.pdf>

Faini, R. (2006). Remittances and the Brain Drain. *IZA Discussion Paper No. 1255, June 2006*.

Freund, C., & Spatafora, N. (2005). Remittances: Transaction Costs, Determinants, and Informal Flows. *World Bank Policy Research Working Paper 3704, September 2005*.

G8 Summit 2009. (2009). Development Ministers' Meeting ends Retrieved 16 June, 2012, from http://www.g8italia2009.it/G8/Home/News/G8-G8_Layout_locale-1199882116809_1199898077350.htm

Gibson, J., McKenzie, D. J., & Rohorua, H. (2006). How cost-elastic are remittances? Estimates from Tongan migrants in New Zealand. *Pacific Economic Bulletin, 21(1)*, 112.

Giuliano, P., & Ruiz-Arranz, M. (2009). Remittances, financial development, and growth. *Journal of Development Economics, 90*, 144-152.

International Conference on Remittances. (2009). Rome Roadmap for Remittances Retrieved 20 July 2012, from http://www.esteri.it/mae/approfondimenti/20091230_rome_road_map_for_remittances_fin.pdf.

Lysdal, A., & Rientra, T. (2012). Collaboration: Solution for the 'first/last' mile for remittances? *Journal of Payments Strategy & Systems, 6(1)*.

Maimbo, S., Strychacz, N., & Saranga, T. (2012). Facilitating Cross-Border Mobile Banking in Southern Africa. *Africa Trade Policy Notes, May 2012*.

Martinez, J. (2005). Workers' Remittances to Developing Countries: A Survey with Central Banks on Selected Public Policy Issues. *World Bank Policy Research Working Paper 3638, June 2005*.

Maurer, B. (2012). Mobile Money: Communication, Consumption and Change in the Payments Space. *Journal of Development Studies, 48(5)*, 589-604.

OECD. (2010). International Development Statistics Online. Retrieved 29 June 2012 <http://stats.oecd.org/qwids/>.

Orozco, M., Jacob, K., & Tescher, J. (2007). Card Based Remittances: A Closer Look at Demand and Supply, The Centre for Financial Services Innovation: The Centre for Financial Services Innovation.

Pacific Islands Forum Economics Ministers' Meeting. (2010). Trends in remittance fees and charges Retrieved July 18, 2012, from <http://www.rbnz.govt.nz/research/4229162.pdf>

Rees, D. (2010). Alternative remittance systems in Australia: Perceptions of users and providers *Trends & Issues in crime and criminal justice* (Vol. 393): Australian Institute of Criminology.

Reserve Bank of Australia. (2011). Strategic Review of Innovation in the Payments System: Issues for Consultation. *June 2011*.

Salmone, S. (2006). Remittances. Overview of the Existing Literature: European University Institute, RSCAS.

Singer, D. A. (2010). Migrant Remittances and Exchange Rate Regimes in the Developing World. *American Political Science Review*, 104(2), 307-323.

Sirkeci, I., Cohen, J. H., & Ratha, D. (2012). *Migration and Remittances during the Global Financial Crisis and Beyond*: World Bank.

SwiftRemit. (2012). Your mobile-engaged global platform for person-to-person payments Retrieved 20 June, 2012, from http://www.swift.com/products/workers_remittances

The Economist Online. (2012). Digital Shopkeepers Retrieved 10 June, 2012, from <http://www.economist.com/blogs/graphicdetail/2012/04/daily-chart-2>

The World Bank. (2010). Bilateral Migration Matrix 2010. Retrieved 10 June, 2012 <http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTDECPROSPECTS/0,,contentMDK:22759429~pagePK:64165401~piPK:64165026~theSitePK:476883,00.html>

The World Bank. (2011a). Migration and Development Brief 17, December 1, 2011 Retrieved 15 June, 2012, from <http://siteresources.worldbank.org/TOPICS/Resources/214970-1288877981391/MigrationandDevelopmentBrief17.pdf>

The World Bank. (2011b). Remittance Prices Worldwide, Issue 3, December 2011, from <http://remittanceprices.worldbank.org/~media/FDPKM/Remittances/Documents/RemittancePriceWorldwide-Analysis-Dec2011.pdf>

The World Bank. (2012a). Annual Remittance Data: Outflows Retrieved 10 June, 2012, from <http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTDECPROSPECTS/0,,contentMDK:22759429~pagePK:64165401~piPK:64165026~theSitePK:476883,00.html>

The World Bank. (2012b). Annual remittances data: Inflows. Retrieved 10 June, 2012 <http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTDECPROSPECTS/0,,contentMDK:22759429~pagePK:64165401~piPK:64165026~theSitePK:476883,00.html>

The World Bank. (2012c). Migration and Development Brief 18 Retrieved 29 August, 2012, from <http://siteresources.worldbank.org/INTPROSPECTS/Resources/334934-1110315015165/MigrationandDevelopmentBrief18.pdf>

Yang, D. (2011). Migrant Remittances. *Journal of Economic Perspectives*, 25(3), 129-152.

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