

Remittances: the service provider perspective

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Abstract

The thesis examines international remittances (i.e. cross-border payments sent by migrant workers) from the perspective of existing or potential service providers. It explains their economic significance and impact, characterizes the consumers involved with remittances and their behavior, describes the remittance process, and classifies and compares remittance transfer mechanisms. It also analyzes global remittance flows and the consumers' cost. Furthermore, it summarizes the results of remittance provision market research, reviews representative examples of existing services, and identifies categories of providers. The thesis then evaluates the strategic positions of existing types of services, and identifies factors that should distinguish successful providers. Finally, it assesses the business opportunity for new technology providers.

Abstrakt

Práce zkoumá mezinárodní remitence (tj. přeshraniční platby přistěhovaleckých pracovníků) z pohledu existujících nebo potenciálních poskytovatelů těchto plateb. Je v ní vysvětlen jejich ekonomický význam a dopad, charakterizováni spotřebitelé, kterých se tyto platby dotýkají, a jejich chování, popsán proces provedení remitenční transakce, a klasifikovány a porovnány mechanismy převodu. Práce také analyzuje světové toky remitencí a spotřebitelské náklady. Jsou zde shrnuty výsledky výzkumu trhu poskytovatelů remitenčních převodů, prozkoumány reprezentativní příklady existujících platebních služeb a identifikovány kategorie poskytovatelů. Dále práce hodnotí obchodně-strategické pozice existujících druhů služeb a identifikuje faktory, které by měly odlišovat úspěšné poskytovatele. Na závěr je zhodnocena obchodní příležitost pro poskytovatele inovačních služeb.

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Contents

Abstract	ii
Abstrakt	ii
Acknowledgements	iii
Contents	iv
Tables.....	viii
Figures.....	viii
Abbreviations, acronyms and symbols	x
Executive summary	xi
1 Introduction.....	1
2 Basic framework.....	4
2.1 Terms and definitions.....	4
2.1.1 Remittances.....	4
2.1.1.1 General definition	4
2.1.1.2 Statistical definition	4
2.1.1.3 Payment systems definition.....	5
2.1.2 Key players involved in remittance transfers.....	5
2.1.2.1 Sender and receiver	5
2.1.2.2 Remittance service provider	5
2.1.2.3 Agents of remittance service providers.....	6
2.1.3 Remittance corridors	6
2.1.4 Remittance process.....	6
2.1.5 Remittance networks	7
2.1.6 Formal and informal remittance systems.....	8
2.2 Data sources.....	9
2.2.1 Description.....	9
2.2.2 Problems	10
3 Economic significance and impact.....	14
3.1 Roles of remittance payments	14
3.1.1 Stable source of external finance	14
3.1.2 Income critical to survival	19

3.2	Economic impact	19
3.2.1	Economic output and growth.....	19
3.2.2	Income equality.....	20
3.2.3	Global labor markets	21
3.2.4	Level of financial intermediation.....	21
3.2.5	Availability of credit to consumers	22
3.2.6	Foreign demand for local exports.....	23
3.2.7	Education and labor participation	23
3.3	Statistical evidence of economic impact.....	23
4	Consumer characteristics.....	27
4.1	Sender	27
4.1.1	Characteristics	27
4.1.2	Choice of service.....	31
4.1.3	Average value	31
4.1.4	Microeconomic motives to remit	32
4.2	Receiver	33
4.2.1	Characteristics	33
4.2.2	Uses of remittances	35
4.2.3	Distribution of remittances among different uses	36
5	Consumers' cost	38
5.1	Major MTOs survey.....	38
5.1.1	Methods and challenges.....	38
5.1.2	Western Union	40
5.1.3	MoneyGram	42
5.2	Other estimates.....	44
5.2.1	USA—Latin America corridor.....	44
5.2.2	Other corridors	47
6	Process and mechanisms.....	50
6.1	Remittance process.....	50
6.2	Remittance transfer mechanisms and their features	52
6.2.1	Checks and bank drafts.....	52
6.2.2	Paper money orders	53
6.2.3	Postal giro transfers	53
6.2.4	Cash-based electronic transfers.....	53
6.2.5	Hybrid electronic transfers.....	54
6.2.6	Card-based transfers	55
6.2.6.1	Receiver-centric model	55
6.2.6.2	Sender-centric model	55
6.2.6.3	Card-to-card model	56
6.2.7	Account-to-account transfers	56

6.2.8	Mobile virtual account transfers.....	56
6.2.9	Person-to-person online transfers.....	57
6.3	Comparison of remittance transfer mechanisms	58
7	Provider market research	61
7.1	Money transfer operators	61
7.1.1	Western Union	63
7.1.2	MoneyGram	64
7.1.3	Other large and operators.....	65
7.1.4	Small operators.....	66
7.2	Banks.....	67
7.2.1	Wells Fargo	68
7.2.2	ICICI Bank.....	69
7.2.3	Bank of America	71
7.3	Credit unions	71
7.3.1	IRnet	72
7.4	Postal service organizations	72
7.4.1	United States Postal Service	73
7.5	New technology providers	74
7.5.1	Xoom	75
7.5.2	PayPal	76
7.5.3	Moneybookers.....	78
7.5.4	iKobo	80
7.5.5	HomeRemit.com	81
7.5.6	G-Cash	82
7.5.7	Remit2India.....	83
7.6	Public sector initiatives.....	84
8	Strategy	85
8.1	Strategic positions of existing services	85
8.1.1	Modified SWOT analyses.....	86
8.1.2	Evaluation of competitive potential	93
8.2	Factors distinguishing successful ventures	96
8.3	Innovative services access channels	98
9	Global remittance flows	102
9.1	Receiver statistics	103
9.1.1	Country, country-group and regional comparison	103
9.1.2	Dynamics and trends	113

9.2	Sender statistics	124
9.2.1	Country, country-group and regional comparison	124
9.2.2	Dynamics and trends	126
9.3	Corridors	129
9.3.1	Flows between regions	129
9.3.2	Flows between countries.....	131
9.4	Barriers to free flow of remittances	132
9.4.1	Technical and institutional incompatibilities	132
9.4.2	Cultural inertia	133
9.4.3	High entry barriers to cross-border payments provision industry.....	134
9.4.4	Political aversion	134
10	Conclusion	135
11	Sources	137
12	Appendix	145
12.1	Receiver statistics recalculated using the IMF data.....	146
12.1.1	Country, country-group and regional comparison	146
12.1.2	Dynamics and trends	153
12.2	Detailed receiver statistics by region	160
12.2.1	Latin America and the Caribbean.....	160
12.2.2	East Asia and Pacific	162
12.2.3	Europe and Central Asia.....	164
12.2.4	Middle East and North Africa.....	166
12.2.5	South Asia.....	168
12.2.6	Sub-Saharan Africa	170
12.2.7	New members of the European Union	172
12.3	Detailed receiver statistics by country income groups	173
12.4	Other receiver statistics.....	177
12.5	Disbursement mechanisms used by consumers	179
12.6	Country groups definition and methodology.....	180
12.6.1	IMF's World Economic Outlook country groups and regions	180
12.6.2	IMF's Balance of Payments Statistics Yearbook 2005 (part 2) country groups and regions	181
12.6.3	The World Bank's World Development Indicators country groups and regions	183

Tables

Table 2.1:	Unrecorded remittances	11
Table 2.2:	Unrecorded remittances based on econometric modeling (1985–2000)	11
Table 2.3:	Sum of workers’ remittances and compensation of employees (1998–2004)	12
Table 3.1:	Adults receiving remittances in Latin America	19
Table 3.2:	Banked population in selected countries (2004).....	22
Table 3.3:	Impact of workers’ remittances	26
Table 4.1:	Unbanked remittance senders in the USA (2004).....	29
Table 4.2:	Spending remittances.....	37
Table 5.1:	Percentage cost of sending remittances from USA via Western Union (November 29, 2006).....	41
Table 5.2:	Percentage cost of sending remittances via MoneyGram (November 29, 2006).....	43
Table 5.3:	Percentage cost of sending GBP 100 from the UK.....	47
Table 5.4:	Average percentage cost of sending \$200 in selected corridors (2003)	48
Table 6.1:	Comparison of remittance transfer mechanisms.....	58
Table 6.2:	Advantages and disadvantages of money transfer mechanisms	59
Table 8.1:	Modified SWOT for large MTOs.....	86
Table 8.2:	Modified SWOT for small MTOs	87
Table 8.3:	Modified SWOT for banks (excluding innovative remittance services)	88
Table 8.4:	Modified SWOT for innovative bank remittance services	89
Table 8.5:	Modified SWOT for credit unions.....	90
Table 8.6:	Modified SWOT for postal services	91
Table 8.7:	Modified SWOT for new technology providers	92
Table 8.8:	Evaluation of competitive potential of remittance services.....	95
Table 9.1:	Received remittances (2000–2004), regions	114
Table 9.2:	Estimated flows of remittances by corridors (2000)	130
Table 9.3:	Remittances origins to Latin American countries (2003).....	130
Table 9.4:	The world’s largest remittance corridors (2000)	132
Table 12.1:	Received remittances (2000–2004), regions, IMF data.....	153

Figures

Figure 3.1:	Received remittances and other foreign exchange flows (1970–2003).....	15
Figure 3.2:	Received remittances and other foreign exchange flows as % of GDP (1970–2003).....	16
Figure 3.3:	Volatility of remittances and other foreign exchange inflows (1980–2003)	17
Figure 3.4:	Cyclicalities of remittances and other foreign exchange inflows (1980–2003)	18
Figure 4.1:	Senders’ perceptions of “why money transfer service takes additional money” (2002)	30
Figure 4.2:	Average value of individual remittance payment (2002)	32
Figure 4.3:	Frequency of receiving remittances (2003).....	35
Figure 5.1:	Percentage cost of sending remittances from USA via Western Union (November 29, 2006).....	42
Figure 5.2:	Percentage cost of sending remittances via MoneyGram (November 29, 2006).....	44
Figure 5.3:	Percentage charges applied by banks and credit unions to transfer \$400 from USA to Mexico by method (2003 and 2004).....	45
Figure 5.4:	Percentage cost of sending remittances from USA to Latin America (1990 and 2003).....	45
Figure 5.5:	Volume and cost of remittances from USA to Mexico	46
Figure 5.6:	Percentage cost of sending remittances from USA to Latin America (February 2004)	47
Figure 5.7:	Percentage cost of a ZAR 300 international transfer from South Africa to SADC countries (2005).....	49
Figure 6.1:	Remittance transfer operation	54
Figure 6.2:	Value chain of remittance service providers	60
Figure 8.1:	Key components in an RSP’s value chain.....	96
Figure 8.2:	Annual received remittances and indicators of technological development (2000–2004), regions	99

Figure 8.3: Annual received remittances and indicators of technological development (2000–2004), top 30 receivers	100
Figure 9.1: Annual received remittances (2000–2004), regions.....	105
Figure 9.2: Annual received remittances (2000–2004), countries.....	106
Figure 9.3: Annual received remittances per inhabitant (2000–2004), regions.....	108
Figure 9.4: Annual received remittances per inhabitant (2000–2004), top 30 receivers.....	109
Figure 9.5: Annual received remittances as % of GDP (2000–2004), country income groups	111
Figure 9.6: Annual received remittances as % of GDP (2000–2004), top 30 countries	112
Figure 9.7: Annual received remittances (1970–2003), IMF country groups	113
Figure 9.8: Received remittances (2000–2004), regions	115
Figure 9.9: Annual growth of received remittances and GDP growth (2000–2004), regions	117
Figure 9.10: Absolute annual increase of received remittances (2000–2004), regions.....	119
Figure 9.11: Absolute annual increase of received remittances per inhabitant (2000–2004), regions.....	120
Figure 9.12: Annual received remittances (2000–2004), top five receivers	121
Figure 9.13: Annual remittances and their growth (2000–2004), top 10 receivers	123
Figure 9.14: Annual sent remittances (2000–2004), IMF country groups.....	124
Figure 9.15: Annual sent remittances (2000–2004), countries.....	125
Figure 9.16: Sent remittances (1970–2003), top five senders.....	126
Figure 9.17: Annual sent remittances and their growth (2000–2004), top 30 senders.....	128
Figure 9.18: Regional distribution of remittances to Africa (2001)	131
Figure 12.1: Annual received remittances (2000–2004), IMF country groups, IMF data	146
Figure 12.2: Annual received remittances (2000–2004), regions, IMF data.....	147
Figure 12.3: Annual received remittances (2000–2004), countries, IMF data	148
Figure 12.4: Annual received remittances per inhabitant (2000–2004), regions, IMF data.....	149
Figure 12.5: Annual received remittances per inhabitant (2000–2004), top 30 receivers, IMF data.....	150
Figure 12.6: Annual received remittances as % of GDP (2000–2004), income groups, IMF data.....	151
Figure 12.7: Annual received remittances as % of GDP (2000–2004), top 30 countries, IMF data.....	152
Figure 12.8: Received remittances (2000–2004), regions, IMF data.....	154
Figure 12.9: Annual growth of received remittances and GDP growth (2000–2004), regions, IMF data	155
Figure 12.10: Absolute annual increase of received remittances (2000–2004), regions, IMF data.....	156
Figure 12.11: Absolute annual increase of received remittances per inhabitant (2000–2004), regions, IMF data	157
Figure 12.12: Annual remittances received (2000–2004), top five receivers, IMF data.....	158
Figure 12.13: Annual remittances and their growth (2000–2004), top 10 receivers, IMF data	159
Figure 12.14: Annual received remittances (2000–2004), Latin America and the Caribbean	160
Figure 12.15: Annual received remittances (2000–2004), Latin America and the Caribbean, pie chart	161
Figure 12.16: Annual received remittances (2000–2004), East Asia and Pacific	162
Figure 12.17: Annual received remittances (2000–2004), East Asia and Pacific, pie chart	163
Figure 12.18: Annual received remittances (2000–2004), Europe and Central Asia	164
Figure 12.19: Annual received remittances (2000–2004), Europe and Central Asia, pie chart	165
Figure 12.20: Annual received remittances (2000–2004), Middle East and North Africa.....	166
Figure 12.21: Annual received remittances (2000–2004), Middle East and North Africa, pie chart.....	167
Figure 12.22: Annual received remittances (2000–2004), South Asia.....	168
Figure 12.23: Annual received remittances (2000–2004), South Asia, pie chart.....	169
Figure 12.24: Annual received remittances (2000–2004), Sub-Saharan Africa.....	170
Figure 12.25: Annual received remittances (2000–2004), Sub-Saharan Africa, pie chart.....	172
Figure 12.26: Annual received remittances (2000–2004), new members of the European Union	172
Figure 12.27: Annual received remittances (2000–2004), high income countries	173
Figure 12.28: Annual received remittances (2000–2004), upper middle income countries.....	174
Figure 12.29: Annual received remittances (2000–2004), lower middle income countries.....	175
Figure 12.30: Annual received remittances (2000–2004), low income countries	176
Figure 12.31: Annual received remittances as % of GDP (2000–2004), regions.....	177
Figure 12.32: Received remittances, FDI and ODA (2000–2004).....	178
Figure 12.33: Disbursement mechanisms used in the USA—Latin America and the Caribbean corridor (2003)	179
Figure 12.34: Disbursement mechanisms used to receive money in Africa (2003)	180

Abbreviations, acronyms and symbols

AML	Anti-money laundering
API	Application program interface
ATM	Automated teller machine
BDT	Bangladesh taka
CFT	Combating the financing of terrorism
DFID	Department for International Development of the UK Government
EFT	Electronic funds transfer
EUR	Euro
FATF	Financial Action Task Force on Money Laundering
FDI	Foreign direct investment
FSP	Financial service provider
G8	Group of Eight (Canada, France, Germany, Italy, Japan, Russia, UK and USA)
GBP	Great Britain pound sterling
GDP	Gross domestic product
ID	Identity card
IDR	Indonesian rupiah
IFS	UPU's International Financial System
IMF	International Monetary Fund
INR	India rupee
IVTS	Informal value transfer systems
MO/TO	Mail order/telephone order
MTCN	Money transfer control number
MTO	Money transfer operator
MXN	Mexican peso
n.a./nav	Not available
nap	Not applicable
ODA	Official development assistance and official aid
OECD	Organization for Economic Cooperation and Development
P2P	Person-to-person
PHP	Philippines peso
PIN	Personal identification number
PKR	Pakistan rupee
RSP	Remittance service provider
SADC	Southern African Development Community
SIM	Subscriber information module
SMS	Short Message Service
SWIFT	Society for Worldwide Interbank Financial Telecommunication
TMO	Tele Money Order
UK	United Kingdom of Great Britain and Northern Ireland
U.S./USA	United States/United States of America
UN	United Nations
UPU	Universal Postal Union
USD	U.S. dollar
WEO	World Economic Outlook (IMF's database and related publications and resources)
WOCCU	World Council of Credit Unions
WWW	World Wide Web
XML	Extensible markup language
ZAR	South African rand
\$	U.S. dollar

Executive summary

Millions of workers around the globe seek comparative advantage by moving abroad, and most of them send money home to their families and relatives in the form of cross-border person-to-person payments of relatively low value, called remittances. This thesis looks at international remittances from the perspective of remittance service providers (RSPs).

Economic significance and impact

Remittances are the second most important source of external finance to developing countries. They have grown steadily over a long period of time, and have low volatility and cyclicalities. Remittances are critical to the survival of millions of individuals and families in developing and emerging economies. Up to a tenth of world population is directly involved with sending and receiving remittances and this number is rising. In some countries, more than a quarter of the adult population receives remittances.

Remittances are important for economic and social development. They reduce income and wealth disparities, and create new networks of economic and social links. They can increase consumption, investment and saving, and thus economic output and growth. In both the sending and the receiving countries, the scope and the scale of remittances helps to open financial intermediation services to millions of people, and emerging remittance services might also improve financial literacy.

Consumer characteristics

Remittance senders are often relatively young and low-income workers who lack bank accounts and who are poorly educated and financially illiterate. Many of them send money monthly and place a high priority on the transfers. Individual transactions mostly have relatively low value, for example in the USA between \$100 and \$300, and while the cost of sending remittances is a major concern, senders often do not understand the transfer cost structure. Typical senders have limited knowledge of information technology, and they mainly choose a service provider based on the proximity of agent/branch, transfer speed, recommendations of friends and family, and habit. The main microeconomic motives to remit are altruism, self-interest (e.g., investment in own

assets), family loan repayment, and diversification of risk in an environment of incomplete markets.

Remittance receivers are often relatively poor and without bank accounts, and live in rural areas. They are concerned about security, privacy and taxes. The majority of remittance receipts are spent on family subsistence and on improvement of the recipients' standard of living. Other uses include emergency expenses, business financing, asset investment, small development project financing and charity.

Consumers' cost

There are numerous practical and methodological challenges to estimating the percentage cost that consumers incur while sending remittances. The primary research reported in the thesis relied on direct inquiries with service providers to obtain cost estimates for the world's largest corridors. The thesis also reviewed secondary sources for cost estimates.

The total percentage charge for a \$200 transfer through Western Union ranged between 11.08% (USA to Mexico) and 16.76% (USA to India). The cost of sending \$400 was approximately three percentage points lower. The cost of MoneyGram transfers between the same countries ranged from 4% to 9.21% but often did not include all applicable currency conversions, which can easily add several percentage points to the total cost.

Across all services, excluding traditional wire transfers, the cost of sending \$400 from the USA to Mexico in 2004 ranged from 1.5% to 5%, and the cost of sending the average amount to selected Latin American countries was between 4.4% and 12.1%. The cost of sending GBP 100 from the UK in 2005 often had a large variance across different services (5% to 35%). The cost of sending money to Latin America has decreased significantly since the 1990s. The cost has also decreased in other corridors.

Process and mechanisms

Remittance transfer process is generally made up from five basic elements: capturing, disbursement, messaging, settlement and liquidity provision.

It is possible to distinguish several types of remittance transfers according to the payment means and instruments involved. These broad groups, called transfer mechanisms, are

checks and bank drafts, paper money orders, postal giro transfers, cash-based electronic transfers, hybrid electronic transfers, card-based transfers, account-to-account transfers, mobile virtual account transfers and person-to-person online transfers. Transfer mechanisms differ in user requirements, limitations and other features. The most widespread disbursement mechanism is a cash pick-up at an RSP agent or branch.

Provider market research

Money transfer operators (MTOs) are businesses established with the primary purpose of transferring money from one place to another. Western Union is one of these and dominates the remittance markets in many countries. Besides traditional paper money orders and cash-based electronic transfers, it offers a range of innovative products, such as an online version of the “Western Union Money Transfer” service that enables sending money online almost instantly using Visa or MasterCard credit/debit cards. MoneyGram is the second largest MTO in the world, and in some countries, it offers home delivery and ATM cards as disbursement options. Beyond these two, there are numerous smaller MTOs providing services in a small number of corridors.

Traditional wire transfers provided by banks are usually not suitable for recurring cross-border low-value payments due to high fees, long delivery time and other limitations. Banks have historically excluded remittance senders, and only recently have they developed new products suitable for sending remittances. Banks often concentrate on relationship business and may use remittances as an entry or adjunct to other services. Wells Fargo provides automated next-day transfers to beneficiaries’ accounts at partner banks abroad. It also offers sender-centric card-based transfers. Most transfers through ICICI Bank’s Money2India services are free or carrying a nominal charge. Bank of America’s SafeSend enables transfers to Mexico and is free to customers with a personal checking account.

Credit unions often promote good operating principles and transparency, reach remote geographic areas not covered by banks, provide financial services to low-income households, and face less strict regulation in many developing countries. The main credit union initiative for remittances is the IRnet network.

Postal service organizations have traditionally offered international paper money orders and more recently have introduced electronic transfers.

New technology providers often try to exploit business opportunities in underserved or inefficient markets. Xoom Corporation offers “online-to-offline” money transfers to 23 countries. PayPal does business in 103 countries and regions and provides its services in 16 currencies. Its network can be used to send remittances in many corridors. Moneybookers offers electronic money issuance and cross-border transfers in 29 currencies. iKobo is an interesting example of sender-centric card-based transfer model, although it lacks transparency and credibility. HomeRemit.com offers online transfers from Canada, the UK and the USA to more than 30 countries. G-Cash enables mobile phone subscribers in the Philippines to send and receive payments via SMS text messages. The subscribers can receive funds from non-subscribers in 14 foreign countries. Remit2India enables Internet initiated transfers from 23 countries to India.

Strategy

Despite high fees, large MTOs have many crucial strengths. They are universal and provide real-time transfers. Small MTOs face more challenges than the large ones due to flexibility, scalability and process limitations. The traditional cross-border transfer services provided by banks are secure and reliable, but also expensive and slow. In contrast, innovative bank remittance services represent a very attractive value proposition as they combine banks’ institutional capacities with innovative technology and processes. Credit unions provide secure and reliable services, and reach remote recipient areas. However they exclude potential customers and often have inconvenient locations and business hours. Postal service organizations have a large and dense network of customer access points and offer easy to use cash-to-cash products. Nevertheless, they might be slow, expensive and overly restrictive. New technology providers offer important innovative features and low fees, but they exclude potential customers, have a limited coverage of receiving countries, and face multiple significant threats.

The services of large MTOs, innovative remittance services of banks and postal services seem to have a strong competitive position. The position of new technology providers is much weaker. Small MTOs are in the least favorable position.

Sustainable businesses should (1) constantly reevaluate their competitive position; (2) have a clear value proposition that fits specific consumer needs; (3) think innovatively; (4) build relationships with customers; (5) understand well their own institutional capacity; (6) constantly improve their internal processes; (7) quickly react to changing market conditions; and (8) be able to quickly adopt new technologies. Successful ventures should also possess specific characteristics in the areas of business strategy, service characteristics, operations, user interface, access channels and marketing.

In low and middle income countries, the number of mobile phone subscribers exceeds the number of Internet users by a factor of two or more. That would imply that the mobile phone platform is the more suitable access channel between the two. However, mobile phone applications are challenged by poor compatibility, accessibility and user-friendliness.

Global remittance flows

The Latin America and Caribbean, the East Asia and Pacific and the South Asia regions are the main receivers of remittances—receiving more than one fifth of the total flows to low and middle income countries each and 69% altogether. India receives 70% of all remittances to South Asia, China receives 47% of all remittances to East Asia and Pacific, and Mexico receives 43% of all remittances to Latin America and the Caribbean. In other regions, the remittances are more evenly distributed among individual countries.

Between 2000 and 2004, the Middle East and North Africa region received an average of \$57 per inhabitant, followed by Latin America and the Caribbean which received \$56 per person. The averages in specific countries were much higher, for example Lebanon received \$678 per person and Tonga, Jamaica, Bosnia and Herzegovina, Barbados, Jordan and El Salvador received more than \$300 per person.

Remittances represent approximately 3.3% of GDP among low income countries, 1.8% among lower middle income countries, and 1% among upper middle income countries. The percentages for the top 30 countries are much higher than the average, and range between 6.5% and 38.8%.

Over the fifteen-year period ending in 2003, remittance inflows to developing countries of Western Hemisphere increased almost eight fold, and inflows to developing Asia grew three times. Between 2000 and 2004, the average annual increase of remittance receipts was largest in East Asia and Pacific (26%), followed by Latin America and the Caribbean (20%) and South Asia (17%). These regions also experienced the highest absolute increase in received remittances. The fastest growing country receipts are those of India, China and Mexico. Year-on-year increase in remittances exceeds the average GDP growth for all regions.

Most remittances come from the developed countries (66%). However, 21% comes from the Middle East. The world's largest country sender, the USA, sent between 2000 and 2004 on average \$35.4 billion annually. Other top senders were Saudi Arabia (\$14.9 billion), Switzerland (\$9.9 billion), Germany (\$8.4 billion), Luxembourg, France, Lebanon, Italy, Spain and Israel. Together, these countries sent about 72% of the world's total.

Among the top ten senders by total value, the flows from Lebanon, Spain, Luxembourg, Italy and Switzerland grew fastest between 2000 and 2004 (14.1% to 32.8% annually). Outflows from the USA grew a moderate 5.8%, but that translated into a large absolute increase given the already enormous total value.

The largest remittance corridor is intra-regional, within Asia. The estimated value of its flows for 2000 was \$31.5 billion, or more than a third of the world's total. The largest inter-regional corridor is North America—Latin America and the Caribbean (18% of the world's total). The largest country corridors in 2000 were USA—Mexico (\$7.6 billion), Saudi Arabia—India (\$3.6 billion) and Malaysia—Indonesia (\$3.1 billion).

There are barriers to free flow of remittances, which create challenges, but also opportunities for existing and potential service providers. The main barriers are technical and institutional incompatibilities, cultural inertia, high entry barriers to the cross-border retail payments industry and political aversion to remittances and labor migration.

Business opportunity for new technology providers

New technology providers might exploit inefficiencies in the existing remittance transfer services as a business opportunity, but face numerous challenges, particularly those related to capturing and disbursement, system security, user-friendliness, consumer trust and loyalty, competitive pressures, licensing and regulation, operational capacity and liquidity. Some concepts have proven to be viable, but the long term sustainability of others is unclear. Moreover, large established providers have started to demonstrate their strengths by introducing innovative services.

Transformation of the remittance service provision field is likely to be an evolutionary process, where established institutions are going to play the main role. The most abrupt change will not be the proliferation of brand new providers with brand new service models, but the disappearance of small providers that currently exploit market inefficiencies and that will not be able to adapt to changes in technology and market conditions.

1 Introduction

Labor migration is an increasingly important factor of globalization.¹ Millions of workers in the world seek comparative advantage by moving abroad and most of them send money home to their families and relatives in the form of cross-border person-to-person payments of relatively low value, called remittances.² Labor migration and the accompanying remittance flows are projected to remain high in the 21st century.

Officially reported worldwide flows of remittances have grown steadily. According to the World Bank (CPSS, 2006), they exceeded \$230 billion in 2005 and involved over 170 million senders worldwide. It is estimated that at least one person in ten is directly involved with remittances as the sender or recipient. The actual amount of remittances is higher than official figures because significant portions are unreported and informal transfers.

Despite their importance,³ the features, mechanisms, processes and economic impact of remittance transfers have remained largely unaddressed by business and academic research. If performed at all, the research neglected the role of remittance service providers, and did not attempt to see remittances from their perspective.

Providing remittance services is a complex undertaking due to the high speed of change in technology and business practices, differences in regulation and infrastructure across borders, increasing competition in the market and many other reasons.

¹ According to the UN (2007), there were more than 190 million international migrants in 2005 in contrast to just 75 million in 1960. In 2005, about 3% of the world's population were international migrants. Bhargavi (2003) discusses various aspects, significance and impact of migration. Harrison, Britton and Swanson (2004) describe the regional patterns of international migration.

² Unless specified otherwise, the thesis refers to international or cross-border flows whenever it mentions remittances.

³ Remittances may constitute a substantial percentage of the GDP of a developing country and overall account for approximately one third of global external development finance. After FDI, they are the most important source of external finance and are at least six times higher than official aid. Many argue that they are also more effective than official aid due to their targeted person-to-person nature.

This thesis looks at remittances from the perspective of service providers. Although it touches other relevant topics, such as the economic impact, it focuses on the business and payment systems aspects of remittances.⁴

For existing and potential providers, the increasing remittance flows and the existence of barriers that prevent their free movement represent a business opportunity. Furst and Nolle (2004) note that the money-transfer growth was forecasted to be 18 percent through 2010, and that much of it should come from remittances.

The goals of the descriptive part of the thesis are to (1) explain the economic significance and impact of remittances, (2) characterize the consumers involved with remittances, (3) describe the remittance process, and (4) classify and compare remittance transfer mechanisms.

The goals of the analytical part of the thesis are to (1) analyze global remittance flows, (2) analyze the consumers' cost, (3) research the remittance provision market, review representative examples of existing services, and identify categories of providers, (4) evaluate the strategic positions of existing types of services, (5) identify factors that should distinguish successful providers, and (6) assess the business opportunity for new technology providers.

Chapter 2 defines and introduces key terms and reviews the data sources about remittance flows together with their problems. Chapter 3 explains why remittances are important for consumers and how they affect their lives. Chapter 4 characterizes senders and receivers, and explores the senders' choice of service, the microeconomic motives to remit and the main uses of remittances. Chapter 5 analyzes the consumer's cost. Chapter 6 describes the remittance process, introduces a classification of remittance transfer mechanisms, and compares the distinguished types of mechanisms. Chapter 7 summarizes the results of a remittance service provision market research, and provides representative examples of particular services. Chapter 8 evaluates and compares the strategic positions of existing types of services, outlines the key factors that should distinguish successful ventures, and

⁴ Remittances can be also explored in their other dimensions. For example, Adams and Page (2005) estimated the impact of international migration and remittances on poverty in the developing world based on a data set from 71 countries. Adams (2006) analyzed based on a household survey the impact of international remittances on poverty in Ghana. Yang and Martínez (2005) estimated the impact of remittance on poverty rate using external shocks (changes in exchange rates).

briefly discusses innovative services access channels. Finally, chapter 9 analyzes global remittance flows and their dynamics.

The Appendix (chapter 12) presents recalculated receiver statistics from section 8.1 using the IMF's Balance of Payments Statistics Yearbook (IMF, 2005) data. It further provides detailed receiver statistics for individual regions and country groups based on data from the World Development Indicators Database (WB, 2006). It also looks at the disbursement mechanisms used by consumers. Finally, it summarizes the country groups definitions used in the thesis.

A reader may benefit from the thesis in three main areas. It will (1) highlight market trends; (2) reveal the basic operational and business features of providing remittance services; (3) help the reader understand the market forces and the positions of different market players.

2 Basic framework

This chapter defines and introduces some of the key terms related to remittances and remittance service provision. It further reviews the data sources that can be used to analyze remittance flows and their dynamics. Finally, it discusses problems associated with the available data sources.

2.1 *Terms and definitions*

2.1.1 Remittances

2.1.1.1 *General definition*

Nyberg Sorensen (2004) defines monetary remittances⁵ as a portion of an international migrant's⁶ earnings sent from the country where the migrant resides to his or her country of origin. Most typically, the sender is a migrant worker employed in a developed economy transferring money to his or her family living in developing world. However, besides this case, monetary remittances can be also transfers from refugees and migrants who do not have a legal status of a migrant worker. The senders and receivers further tend to have relatively low incomes. Senders may also not be fully integrated into the social, economic and legal structures of their host country.

2.1.1.2 *Statistical definition*

Ratha (2003) defines workers' remittances using the IMF's Balance of Payments Statistics Yearbook as a sum of three of components: 1) "workers' remittances" (under current transfers subcategory of the current account, item 2391), 2) "compensation of employees" (under income subcategory of the current account, item 2310) including wages, salaries and other benefits of non-resident workers, and 3) "migrant transfers" (under capital transfers subcategory of the capital account, item 2431).⁷ He points out that

⁵ Aside from monetary remittances, Nyberg Sorensen (2004) also defines social remittances. These are ideas, practices and social capital flowing to the senders' home countries. Social remittances will not be covered in this text.

⁶ According to IMF, migrant is a person, who comes to a foreign country with the intention to stay over one year.

⁷ For certain countries, "compensation of employees" is excluded from the total remittances. For other countries, IMF's Balance of Payments Statistics Yearbook may also specify that remittances are recorded

this definition is believed to approximate the value of workers' remittances better than the data reported under the workers' remittances (item 2391) by itself.

As explained in IMF (2005b), IMF Statistics Department applies slightly different approach to measuring remittances than Ratha (2003). Instead of three categories, it only adds two—"workers' remittances" and "compensation of employees".

2.1.1.3 Payment systems definition

CPSS (2006) defines remittance transfers as "cross-border person-to-person payments of relatively low value" (p.4). It further specifies that such payments are usually recurrent transfers by migrant workers. Theoretically, remittances transfer can occur within one country (e.g. from cities to rural areas), however CPSS (2006), similarly to this thesis, focuses on the international transfers. Main features of remittances are their person-to-person character (as opposed to payments for international purchases of goods and services)⁸ and their relatively low value (in contrast to large wholesale transactions performed by banks and other financial institutions). Though recurrent, the individual transactions tend to represent separate instructions, rather than a standing order.

2.1.2 Key players involved in remittance transfers

2.1.2.1 Sender and receiver

The sender or remitter is the natural or legal person who provides the payment instruction to the remittance service provider (or its agent). Receiver (also recipient or beneficiary) is the natural person who receives the monetary value transferred by the sender (De Vasconcelos, 2004).

2.1.2.2 Remittance service provider

According to CPSS (2006), a remittance service provider (RSP) is any person or institution which provides transfers of remittances as a business. Such definition does not include individuals who physically carry cash for themselves or on behalf of another

under "other current transfers". Details on the definitions and methods used by IMF can be found in Appendix 2.1 in IMF (2005c), pp.97–100.

⁸ The person-to-person character might be hard to distinguish from the remittance service provider perspective, because any transfer can involve a business on either side.

individual or people who send cash by post or by couriers. Couriers and friends and relatives however represent one of the possible channels for transferring remittances.

RSPs form a subset of payment service providers and in practice RSPs often provide other payment services besides remittance transfers. In practice, there might be two RSPs involved in a remittance transfer: the “capturing RSP” in the sending country and the “disbursing RSP” in the receiver country. The two RSPs utilize a common platform on which they communicate and cooperate to provide the service.

2.1.2.3 Agents of remittance service providers

RSPs might use agents to capture and disburse funds on their behalf. These agents might be branches of the particular RSP or separate entities that have a legal contract with the RSP.

2.1.3 Remittance corridors

Corridor is a notional path or direction along which the remittances flow. There are country corridors and regional corridors. Each country corridor is characterized (or defined) by the sending country and the receiving country. A regional corridor is characterized by sending and receiving regions. A corridor can be domestic or international, and intra- or inter- regional, depending on the mutual position of the two entities that characterize it. International and inter-regional corridors are usually understood as being one way.⁹

2.1.4 Remittance process

CPSS (2006) outlines the basic components of the remittance transfer: capturing, disbursement, messaging and settlements. Capturing, which is also referred to as funds/money collection/deposit/upload or transaction origination, involves the sender’s payment to the capturing RSP or its agent. Disbursement, also called funds/money delivery/distribution/retrieval, is the payment of the disbursing RSP or its agent to the receiver. Besides monetary transfers, capturing and disbursement also involve transfers of

⁹ For example, the corridor USA—Mexico refers to remittances sent from the USA to Mexico, and excludes the transfers in the opposite direction. In the case of domestic and intra-regional corridors, the direction of movement of flows is irrelevant.

information, for example the recipient identification and contact information provided by the sender or the RSP's information about the sender provided to the receiver.

Messaging describes the process of passing the information about the remittance from the capturing RSP or agent to the disbursing RSP or agent. Subsequently, settlement describes the movement of funds on the accounts. As messaging and settlement rarely happen simultaneously, the problem of liquidity arises. Liquidity arrangements are rules and agreements related to liquidity management. More on the remittance process can be found in section 6.1.

2.1.5 Remittance networks

According to CPSS (2006), a remittance service relies on a remittance network, which consists of access points for fund capturing and disbursement, and procedures that link these points to enable messaging and settlement. Remittance services can thus be characterized by the type of network they utilize. CPSS (2006) distinguishes four basic types of services: unilateral, franchised, negotiated and open.

Unilateral services are provided by a single RSP without involving other institutions. They can be based on physical access points (e.g., a service provided by an international bank with branches in multiple countries) or virtual (e.g., services using Internet on mobile phones instead of access points).

In franchised services, the central provider builds the infrastructure and assures business support functions for independent agents, which operate as access points for capturing and disbursement. The model may not be legally a franchise, but similarly to usual franchises, there would be contracts with standardized terms between the infrastructure provider and the access points. Typical examples are the large money transfer operators (MTOs).

A negotiated service is created by a joint effort of a limited number of institutions which can provide capturing and/or disbursement in different regions. The organizations involved are mostly non-competing, which enables them to negotiate and benefit from a common proprietary service. Examples could be bilateral or multilateral agreements between banks and services provided by credit unions and postal organizations.

An open service is offered by an RSP as a proprietary service, which on one side of the transfer (typically the receiving side) uses an open network¹⁰ instead of access points. Such network is currently the international banking network that consists of national payment systems interconnected through correspondent banking arrangements or direct links.¹¹ Traditional bank cross-border wire transfers are typical examples of open services.

2.1.6 Formal and informal remittance systems

Hernández-Coss (2005) summarizes the distinction between formal and informal remittance systems according to Financial Action Task Force on Money Laundering (FATF).¹² The formal systems are characteristic by their participation in the regulated financial sector as it is defined by FATF. Formal money transfer systems are supervised by government bodies and governed by law determining the conditions and rules of their creation, operation and closure. In practice, most of the formal systems are provided by MTOs, banks, credit unions and postal service organizations. All services that are not regulated are considered informal systems—these might be for example money transfer services offered by various ethnic stores and couriers. Hand-delivery of cash and hawala systems are also informal.

CPSS (2006) criticizes the distinction between formal and informal for being unclear—sometimes it refers to regulation, other times to size, legal form or scope of services offered by different transfer agents. CPSS (2006) further emphasizes that such a distinction is not relevant from the payment system perspective. Also the notion of formal as better may not be valid as some “informal systems” can be, for example, small specialized providers offering more efficient services and thus stimulating competition in the market.

¹⁰ An open network is a network that can be directly or indirectly accessed by any RSP.

¹¹ Operational details of correspondent banking and other cross-border payment arrangement are described in Clark et al. (2004).

¹² FATF is an inter-governmental body founded by the G8 in 1989. The purpose of the FATF is to develop policies to fight money laundering and terrorist financing. More details can be found at <http://www.fatf-gafi.org/> (accessed September 25, 2006).

In contrast to the previous notions of formal and informal, Freund and Spatafora (2005) define informal remittance services as all types of money transfer systems that are not based on formal contracts, and thus are unlikely to be recorded in balance of payments statistics. Examples of such informal channels would be friends and relatives delivering cash by hand, courier companies specializing in delivering cash, or hawala and hundi systems.

Wilson (2002) identifies “informal funds transfer systems”, “alternative remittance systems” or “informal value transfer systems” (IVTS). In Arabic, “hawala” means transfer. It is most often found in the Middle East. In the Indian Subcontinent hawala is called “hundi”. Hawala is conducted without a use of a formal financial institution such as a bank or money exchange. This is also the main feature that distinguishes it from other types of transactions. Informal systems such as hawala are used because in some market environments they can be faster, more reliable, more flexible and cheaper than transfer through formal financial institutions.¹³

This thesis does not cover the traditional informal remittance systems as it rather focuses on the open, transparent, commercial, formal contract-based schemes.

2.2 Data sources

2.2.1 Description

Carling (2005) describes two primary sources of remittance data: 1) balance of payments statistics collected by central banks, and 2) surveys among remittance senders and receivers. Unlike balance of payments statistics, surveys can reveal information about remittances transferred through informal channels and the use of remittances. However, there seem to be relatively few surveys to explain the worldwide remittance flows in their entire complexity. Furthermore, there might be also methodological problems linked to the surveys.

Carling (2005) asserts that for the purpose of international comparison and for mapping the trends over time, the balance of payments statistics are the best source of information.

¹³ UK RWG (2005) illustrates the mechanism of hawala transaction and settlement. Wilson (2002) provides more detailed description of informal funds transfer systems from an economic and accounting perspective.

On the other hand, remittance survey data is likely to be most useful for examining the social and microeconomic dynamics, and for estimating the scale of unrecorded transfers.

The remittance figures obtained from the balance of payments statistics are composed as a sum of two or three different items as explained in section 2.1.1.2. The “workers’ remittances” item tends to be the most important indicator for remittance in receiving countries. The received remittances are usually presented as inflows (credits), as opposed to net inflows (credit minus debit). This is because the sent remittances are not relevant or conceptually linked to the received remittances. Despite that, net inflows are sometimes considered for certain purposes.

IMF (2005b) summarizes recent decisions about changes in data compilation and methodology. These may include 1) replacing “workers’ remittances” item in the balance of payments by a new item called “personal transfers” which would include all current transfers from non-resident households including cash and in-kind transfers, 2) reporting a new aggregate entitled “personal remittances” comprising of “personal transfers” and net “compensation of employees”, 3) creating a new aggregate called “total remittances” consisting of net “compensation of employees” and current transfers (in cash or in kind) from resident sectors to non-resident households and nonprofit institutions serving households, and current transfers from non-resident sectors to resident households and nonprofit institutions serving households.

2.2.2 Problems

The statistical definition of remittances based on balance of payments data cannot capture informal flows of remittances, such as remittances delivered by hand-carriers, via a hawala system or remittances in-kind (e.g., in the form of consumer goods). Although not recorded, these channels might represent a significant portion of the official channels as pointed out by Puri and Ritzema (1994) and Carling (2005), and shown in Table 2.1 and Table 2.2. Official remittance figures thus tend to be underestimated.

Sander (2003) further notes that the level of under-reporting or degree of under-estimation differs among countries. Countries with less developed financial sectors can be logically expected to show higher discrepancies between recorded and unrecorded flows.

Table 2.1: Unrecorded remittances*As a percentage of total remittances*

Country	Estimation period	Unrecorded remittances 1)
Bangladesh	1981–86	20
South Korea	1980–85	8
India 2)	1983	40
Egypt	1985–86	33
Philippines	1990, 1982	50
Pakistan	1986	43
Sri Lanka	1980–1985	13
Sudan	1984	85
Thailand	1977–86	18
Tonga	1992–93	43
Western Samoa	1992–93	42

Notes:

- 1) The estimate was calculated as $((TR - RB) / TR) * 100$, where TR are total estimated remittances and RB are remittances through banking channels.
- 2) Estimate represents remittance behavior of migrant workers from Kerala only.

Source: Puri and Ritzema (1994) citing multiple sources

Table 2.2: Unrecorded remittances based on econometric modeling (1985–2000)*As a percentage of total remittances*

Country	1985	1990	1995	2000
Bangladesh	80	80	21	20
El Salvador	80	26	21	20
Guatemala	70	25	10	10
Indonesia	20	20	21	21
Pakistan	40	41	41	50
Sri Lanka	27	29	20	20
Tanzania	70	70	11	11
Turkey	10	10	11	11

Note: Proportions are modeled on the basis of the size of black market premiums on exchange rates.

Source: Carling (2005) citing El Qorchi, Maimbo and Wilson (2003)

Another problem with the statistical definition is the discrepancy between the reported inflows and outflow. The credits and debits simply do not match as demonstrated in Table 2.3.

Table 2.3: Sum of workers' remittances and compensation of employees (1998–2004)

World, in \$ millions

	1998	1999	2000	2001	2002	2003	2004
Credit	103,992	108,008	112,164	120,932	138,712	170,121	193,685
Debit	103,506	105,182	107,683	115,440	131,237	143,380	161,635
Discrepancy	486	2,826	4,481	5,492	7,475	26,741	32,050

Source: IMF (2005b) based on IMF (2005)

Another issue is related to the statistical definition of remittances as outlined in section 2.1.1.2. Such definition does not include remittances that may be hidden under the “other current transfers” category of the current account, or even under capital transfers due to tax and other benefits. The distinction is often very difficult, if not impossible.

The methods of compiling data in the balance of payments statistics differs from one country to another. In some countries, the primary data comes from bank reporting systems, while in other countries it is obtained through household surveys. Differences in methodology, such as different reporting thresholds or parameters of estimation, also represent important weaknesses of the current compilation procedures.

Besides methodological differences among countries, authorities also tend to change methods from one year to another, which creates sudden unrealistic jumps and further distorts the values of any indicators calculated from these figures. This has to be kept in mind when reading all sections of this document that use or refer to the estimates of worldwide flows of remittances based on balance of payment data. Special attention also has to be given to aggregate figures and indicators, which can be distorted by unavailability of data for certain years and countries. For example, a missing value in an

annual time series data for a country will lower most country-group growth indicators. The missing value can even reverse the sign of the country-group growth indicator.¹⁴

Marcuss (2005) points out that while IMF's balance of payments statistics indicate the recorded amounts sent from some countries, they do not trace further flows between countries. Therefore a use of third-party country during the remittance transfer will result in inaccuracies of country-specific flows.

CBO (2005) points out that estimating the value of remittance flows involves obtaining monetary data from developing countries, which tend to be less reliable and less available than economic data about advanced economies. Sander (2003) also asserts that IMF's Balance of Payments Statistics Yearbook suffers low quality of submitted data. Particularly data on African countries tends to be weak requiring a use of estimates and proxies.¹⁵

¹⁴ For individual countries, the formulas used in this thesis exclude missing values to prevent the distortion. However, even this treatment cannot distinguish unrealistic estimates provided in the data sample.

¹⁵ In 2000 and 2001, for example, less than two thirds of the countries were covered.

3 Economic significance and impact

This chapter explains why remittances are important for consumers and how they affect their lives. Understanding these issues is vital for existing and potential service providers, as it allows them to appropriately design, adjust and market their services.

3.1 Roles of remittance payments

3.1.1 Stable source of external finance

Solimano (2003) points out that after foreign direct investment (FDI) remittances are the second most important source of external finance to developing countries. IAD (2004) goes even further when stating that remittances are the most significant source of new capital for Latin America and the Caribbean. The report alleges that remittances are more important for the economic and social development of Latin American countries than FDI, official aid and government and private loans.

Ratha (2003) argues that according to the data from 1990s, remittances appear to be one of the least volatile sources of foreign exchange earnings for developing countries. Unlike capital flows, remittances seem relatively stable over economic cycles. Ratha (2003) points out the steady increase of remittances in the period of Asian financial crisis (between 1998 and 2001), during which both the FDI and official flows temporarily declined.

Indeed, Ratha's (2003) arguments seem valid based on analysis of available data, namely the comparison of remittances with FDI, official development assistance, official aid and non-FDI private capital inflows.

Figure 3.1 shows that the remittance inflows to developing countries grew more than four times over a twenty-year period ending in 2003. They have also exceeded official aid. In 2003, they were almost six times higher. At the same time, they exceeded 70% of FDI. As shown in Figure 3.2, remittances also grew in terms of their proportion to GDP. In 1984, they represented on average about 0.7% of GDP. By 2003, this figure has doubled.

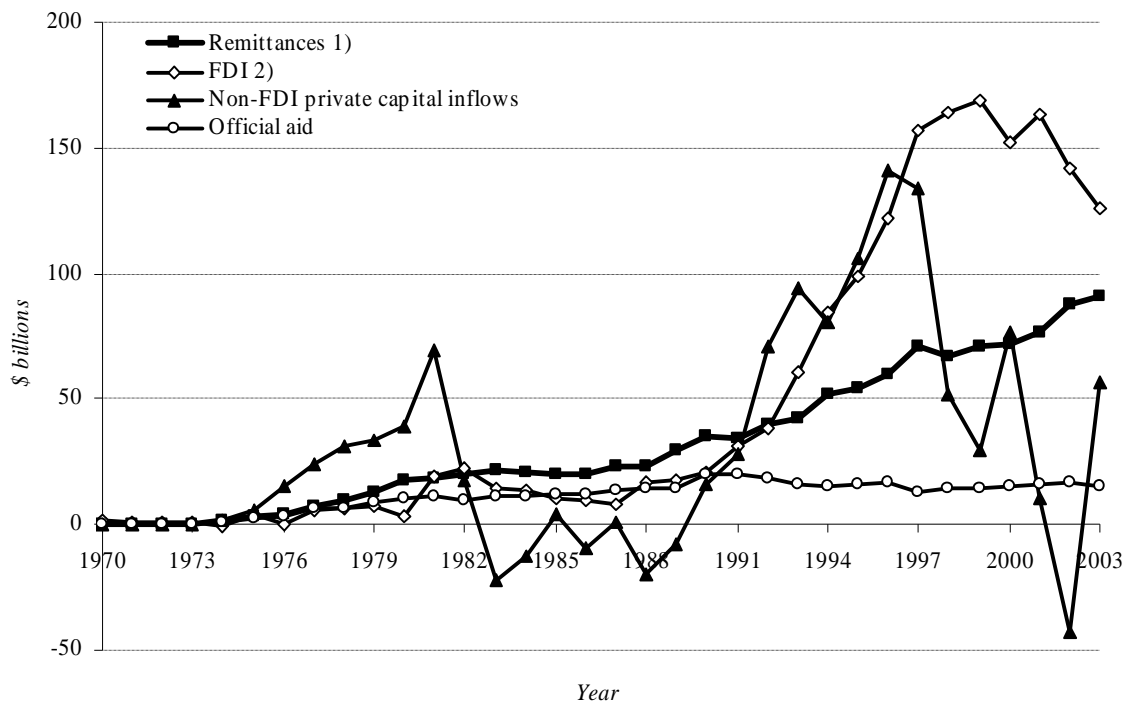
It is notable, that remittances grew steadily over a long period of time, and volatility of remittances was lowest out of all major foreign exchange flows including official aid. Figure 3.3 shows that the standard deviation of remittances to GDP ratio was about 0.14, while the standard deviation of FDI to GDP ratio was 0.94, which was still well below the most volatile export to GDP ratio (4.19).

Remittances also seem to have relatively low cyclicity. As exhibited in Figure 3.4, the correlation between remittance inflows and GDP was 0.11 between 1980 and 2003, which was more than the relevant figure for FDI (0.07), but less than the correlation for official aid, non-FDI private capital inflows and exports.

Figure 3.1: Received remittances and other foreign exchange flows (1970–2003)

(Received workers' remittances, compensation of employees and migrant transfers, FDI, non-FDI private capital inflows and official aid)

Developing countries



Notes:

- 1) Constructed according to Appendix 2.1 in IMF (2005c), pp.97–100.
- 2) Gross inflows

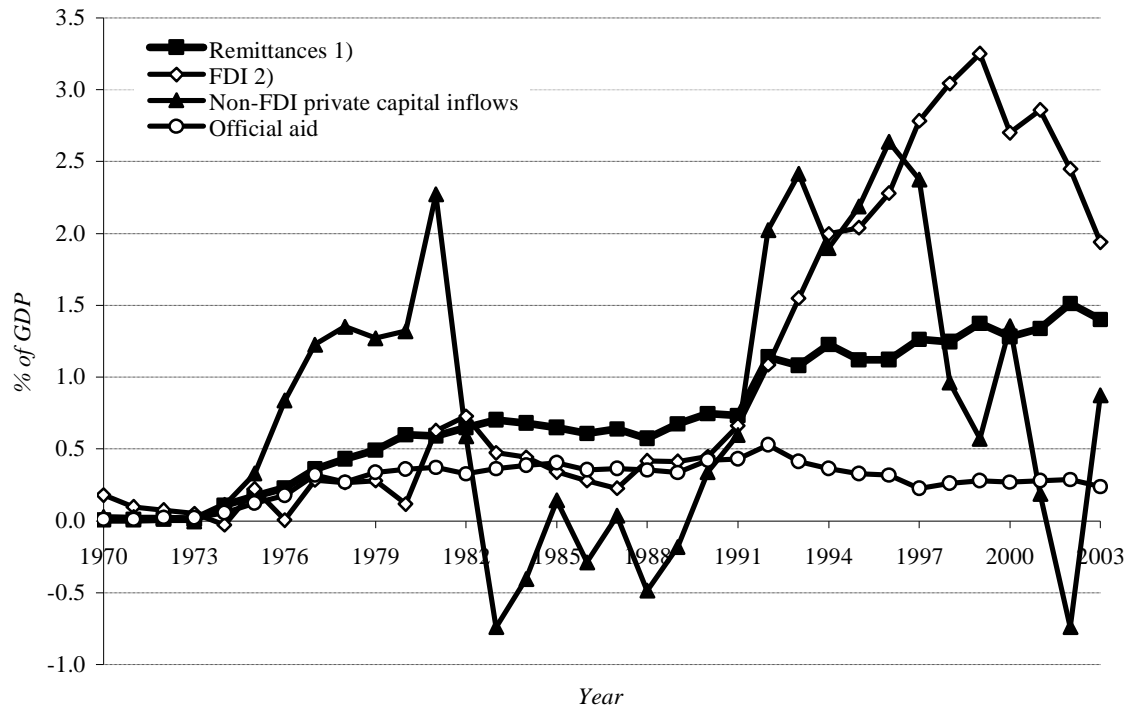
The group of developing countries considered here consists of Africa, Developing Asia, Central and Eastern Europe, Middle East and Western Hemisphere as they are specified in section 12.6.1.

Source: IMF (2005c)

Figure 3.2: Received remittances and other foreign exchange flows as % of GDP (1970–2003)

(Received workers' remittances, compensation of employees and migrant transfers, FDI, non-FDI private capital inflows and official aid as a percentage of GDP)

Developing countries



Notes:

- 1) Constructed according to Appendix 2.1 in IMF (2005c), pp.97–100.
- 2) Gross inflows

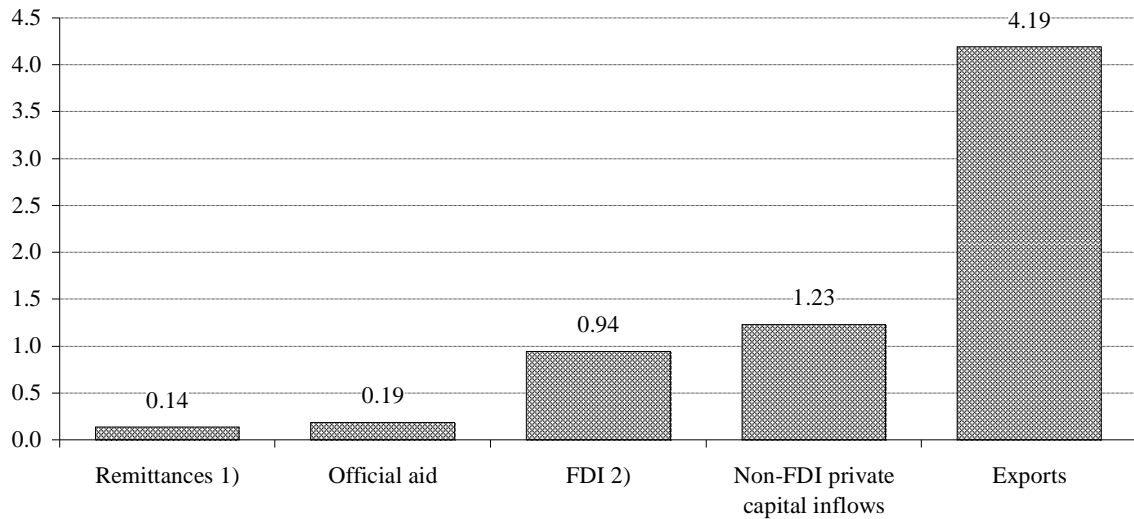
The group of developing countries considered here consists of Africa, Developing Asia, Central and Eastern Europe, Middle East and Western Hemisphere as they are specified in section 12.6.1.

Source: IMF (2005c)

Figure 3.3: Volatility of remittances and other foreign exchange inflows (1980–2003)

(Volatility of received workers' remittances, compensation of employees and migrant transfers, official aid, FDI, non-FDI private capital inflows and exports as a percentage of GDP)

Developing countries



Notes:

1) Constructed according to Appendix 2.1 in IMF (2005c), pp.97–100.

2) Gross inflows

IMF (2005c) defines volatility as the standard deviation of the ratio of the relevant inflow to GDP.

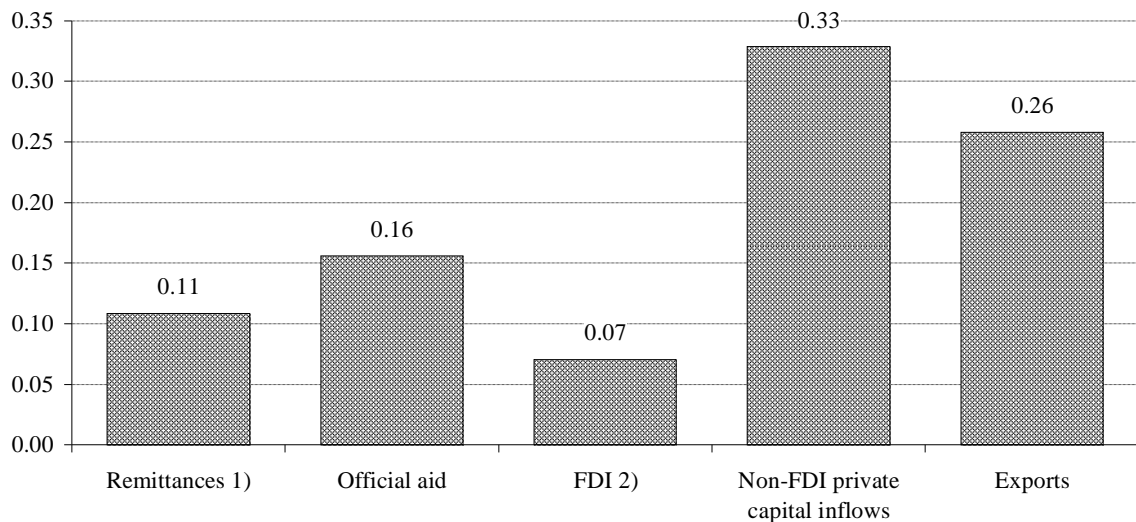
The group of developing countries considered here consists of Africa, Developing Asia, Central and Eastern Europe, Middle East and Western Hemisphere as they are specified in section 12.6.1.

Source: IMF (2005c)

Figure 3.4: Cyclicality of remittances and other foreign exchange inflows (1980–2003)

(Cyclicality of received workers' remittances, compensation of employees and migrant transfers, official aid, FDI, non-FDI private capital inflows and exports as a percentage of GDP)

Developing countries



Notes:

- 1) Constructed according to Appendix 2.1 in IMF (2005c), pp.97–100.
- 2) Gross inflows

IMF (2005c) defines cyclicality is defined as the correlation between the detrended relevant inflow and detrended GDP.

The group of developing countries considered here consists of Africa, Developing Asia, Central and Eastern Europe, Middle East and Western Hemisphere as they are specified in section 12.6.1.

Source: IMF (2005c)

Ratha (2003) explains the stability of remittances by several factors. First, part of the remittances is used by their recipients for consumption, which is generally likely to be less volatile than investment. Second, the part of remittance inflows used for investment is usually directed towards local projects, which are less responsive to the changing moods of investors in the international and global markets. Third, the receivers' total disposable income might be close to subsistence level, therefore not leaving much room for adjustment during periods of economic recession. In these times, remittance senders might therefore increase the amounts sent, which has counter-cyclical effect. Fourth, economic downturn might motivate some of the receivers to migrate abroad and turn into senders.

3.1.2 Income critical to survival

De Vasconcelos (2005b) argues that remittances are critical to survival for millions of individuals and families in developing and emerging economies. Table 3.1 shows that in some countries, remittances are received by a substantial portion of adults. Remittances have the power to directly reach their recipients in remote places where foreign aid may not be available. For many countries, the amount of received remittances exceeds the combined flows of FDI and official development assistance and official aid.

Summarizing the results of a focus group study conducted in South Africa, Truen et al. (2005) suggest that remittances form a crucial source of income for their recipients. Some representative answers to the question about the reason for sending remittances were: “I send to my grandmother—without that money she is dead,” and “They are depending on me at home, because my kids are there and if I do not send, what will my kids eat the whole month? My mother is not working and she is looking after them.” (Truen et al., 2005, p.25).

Table 3.1: Adults receiving remittances in Latin America

As a percentage of the total number of adults

Country	Adults receiving remittances
Ecuador	14
El Salvador	28
Honduras	16
Guatemala	24
Mexico	18

Source: De Vasconcelos (2004b)

3.2 Economic impact

3.2.1 Economic output and growth

Remittances influence the economies of the receiver countries. Particularly in developing countries, they can represent a strong economic force. Solimano (2003) notes that remittances affect economic development through their impact on consumption,

investment, savings and income distribution. Total output and economic growth are affected indirectly through savings, investment and consumption.

Remittances can increase total savings through their effect on both domestic and foreign savings. An example of increased foreign savings could be migrant association (sometimes called “home town associations”) formed abroad, which periodically provide funds to finance community projects in migrants’ home regions. Through migrant associations, the foreign savings are invested into small infrastructure projects, such as construction of local roads, parks, water treatment facilities etc. Another way that foreign savings may become investment funds is through initial financing of small businesses started by returning migrants.

VISA (2004) states that the scale of the impact of remittances on economic growth depends on the instruments used to transfer and spend remittances. Remittance funds kept in cash, cannot be invested through financial intermediation, and thus represent a lost opportunity for generation of economic activity. Cash funds are also more vulnerable to physical damage and theft.¹⁶

3.2.2 Income equality

Carling (2005) explains that the effect of remittances on reduction of income inequality depends on the income level from which the migrants originate. If they mostly come from lower income levels, the effect will be more profound. On the other hand, if the initial cost of migration is too high, it may disqualify the poorest social strata from participation, and thus amplify income differences. The influence of remittances may be complex affecting different income level groups unevenly.

Carling (2005) also points out that remittances may have a secondary effect on income distribution as they alter relative prices in the receiving regions. Primarily, remittances can increase the purchasing power of the receivers, but secondarily they may increase demand for goods and production factors favored by the receivers and therefore cause the prices to grow. This can enable secondary indirect redistribution of remittances to those who do not receive them directly, e.g. local land owners.

3.2.3 Global labor markets

De Vasconcelos (2005b) maintains that there might be 125 million migrant workers sending money to 500 million residents of developing countries. CPSS (2006) argues that the number of workers is 175 million. Remittances deserve attention since one tenth of world population might be directly involved with them. The size of remittance flows is influenced by the scope of economic migration, which according to De Vasconcelos (2005b) has grown four times faster than the total world population in the past few decades.

According to Marcuss (2005), in 1965, only 75 million people lived outside of their country of birth, while in 2005, they represented 3% of the world population. The trend of increasing international migration is expected to continue throughout the 21st century. De Vasconcelos (2005b) notes that remittances create new networks of economic and social links, which he calls “transnational families”. He goes even further inferring that global economic and political systems will have to adjust to the new reality of transforming world labor markets, similarly to how they had to adjust to developments in international trade, investment and communication in the past.

3.2.4 Level of financial intermediation

De Vasconcelos (2005b) alleges that financial systems in most developing countries are available to the economically and socially most powerful minority, while remaining out of reach of the majority of the population. This is also demonstrated in Table 3.2, which contrasts the banked populations in selected countries.

The scope and the scale of remittances might help open the financial intermediation services to millions of people on both the sending and receiving side. This is likely to generate numerous positive externalities. Particularly profound impact is likely to be caused by the gradual shift from cash-to-cash transfers to account-to-account transfers. The decline in the cost of sending money may also have a strong effect on financial literacy.

¹⁶ Theft per se does not destroy the value of the funds, but increases the chances that they will be used for less productive illegal activities.

Table 3.2: Banked population in selected countries (2004)

Country	Total population	Banked (%) <i>1)</i>
Germany	81,915,000	98
Singapore	4,325,000	95
UK	59,855,000	91
USA	293,580,000	88
Japan	127,857,000	85
Canada	31,765,000	85
Australia	19,921,000	85
Ireland	3,950,000	63
Malaysia	23,824,000	55
Argentina	38,852,000	49
South Africa	44,813,000	46
Mexico	104,726,000	35
Poland	38,460,000	30
Egypt	72,649,000	23
India	1,065,070,607	20

Notes:

1) Percentage of population 15 years and older with a bank account

Source: CBC (2004)

3.2.5 Availability of credit to consumers

New remittance products are likely to stimulate the growth of related services. IMF (2005c) points out that remittances can expand the availability of credit, particularly to the poorest. They might also promote the use of microfinance products, which have recently appeared to be crucial for economic development.

Ratha (2003) explains how remittances may reduce the banks' borrowing costs through improved bank credit rating. This has been observed at some developing-country banks that chose to issue bonds backed by future remittance receivables and fees generated from channeling remittance flows. The lower bank borrowing cost may then be passed onto consumers.¹⁷

¹⁷ Ratha (2003, p.161) provides a concrete example.

3.2.6 Foreign demand for local exports

As with other significant inflows of foreign currency in a situation with floating exchange rates, remittances can result in an appreciation of the local currency, which in turn increases the prices of local exports abroad. Exports then become less competitive and demand for them drops.

The negative effect on the demand for exported goods might be partially offset by emigrants abroad. They can increase the demand for export through the “nostalgic” consumption. Emigrants may even open stores in foreign countries specializing in products imported from their home country.

3.2.7 Education and labor participation

Although officially a large part of remittances is spent on personal consumption, this consumption spending might be in fact represented by expenditure on education or improvement of professional qualification. Such spending can be viewed as investment in human capital. Remittances may thus encourage people to work and improve their economic and social status.

On the other hand, Carling (2005) argues that under some circumstances, remittances may discourage recipients from working. Some people might become less interested in joining the economic and social networks of their home countries in the hope of eventually migrating abroad, which however may not be realistic in all cases. Solimano (2003) calls the disincentives to obtain skills demanded in the labor market and attempt to escape poverty through work a “culture of dependence”.

3.3 *Statistical evidence of economic impact*

Ratha (2003) and CBO (2005) summarize the main economic effects reported in real-data studies. Remittances may:

- 1) increase disposable income of consumers;
- 2) increase foreign exchange reserves;
- 3) stimulate output growth;

- 4) generate positive multiplier effects when remittances are allocated to consumption;
- 5) offset the output loss stemming from emigration of highly skilled workers;
- 6) offset the tax revenue loss stemming from emigration of workers;
- 7) increase savings and investment and increase the marginal propensity to save;
- 8) provide foreign exchange financing for importing domestically unavailable scarce inputs;
- 9) provide a source of investment into development projects (e.g., schools, medical facilities and small infrastructure);
- 10) induce initial capital accumulation in under-developed rural regions;
- 11) significantly contribute to small business development in countries with poorly developed financial sector;
- 12) promote investment in micro-enterprises;
- 13) reduce poverty; and
- 14) reduce differences in income distribution.¹⁸

IMF (2005c) conducted a cross-country regression analysis of the development impact of remittances. The results are summarized in Table 3.3. An increase in remittances to GDP ratio seems to reduce both the poverty headcount and the poverty gap.¹⁹ The remittances also seem to reduce the volatility of aggregate output, investment and consumption. Furthermore, the impact on volatility appears to be relatively large. An increase of remittances/GDP ratio by 2.5 percentage points corresponds to approximately 17% decrease of output volatility. The impact on the reduction of “output worst drop” (i.e. the largest annual percentage decrease of output over the sample period) is even greater, suggesting that remittances may ease economic recessions. Finally, remittances seem to positively influence credit rating of sovereign debt. Together, these results may indicate that remittances have a stabilizing effect on economic activity in receiver countries.

¹⁸ However, remittances may also increase income inequality as the relatively high fixed costs associated with the initial expenditure on emigration and international travel disqualify the lower income groups from participation. It has been shown that in some cases, higher income groups also received higher share of income from remittances. Remittances may also increase the urban-rural income distribution gap if they are mostly invested in urban areas.

¹⁹ The poverty headcount and poverty gap are explained in the note to Table 3.3. An increase of remittances/GDP ratio by 2.5 percentage points is associated with approximately 0.5 percentage point decrease of the share of people living in poverty.

Regression performed by IMF (2005c) could not indicate a statistically significant impact of remittances on output growth. However, IMF (2005c) explains that this is likely due to the data limitations, modeling approach and methodological constraints. It believes that more informative results could be obtained through census studies and household surveys. In the past, such studies found that remittance improve the education level of children, positively influence entrepreneurial activity, and are associated with greater asset accumulation by families. Also, IMF (2005c) cites unpublished study of Rajan and Subramanian (2005), which found that remittances do not have adverse systemic effects on a country's international economic competitiveness including labor-intensive, low-skilled and tradable sectors.²⁰

²⁰ This is in contrast to other sources of income, namely official development assistance and revenues from natural resources, which might have adverse effects.

Table 3.3: Impact of workers' remittances

Dependent variable	Impact of workers' remittances 4)	
	Full sample	Remittance-dependent 5)
<i>Growth 1)</i>		
Output growth	-0.30	-0.27
Education	-0.43	1.93
Investment	0.48	0.12
<i>Poverty 2)</i>		
Poverty headcount	-0.02*	-0.02*
Poverty gap	-0.01*	-0.01*
<i>Volatility 3)</i>		
Output volatility	-0.29**	-0.17**
Output worst drop	-0.74**	-0.63**
Consumption volatility	-0.45**	-0.19*
Investment volatility	-1.31**	0.01
Credit ratings	0.22**	0.22**

Notes:

The details about the sample data can be found in Appendix 2.1 of IMF (2005c), pp.97–100.

- 1) "Output growth" is in real, per capita terms. "Education" is approximated by the secondary education enrollment rate. "Investment" is measured using the investment/GDP ratio.
- 2) Poverty measures are in natural logarithms. Where available, they are consumption-based, otherwise they are income-based. "Poverty headcount" is defined as a portion of the population with income below the poverty line. "Poverty gap" is defined as an average number of percentage points by which the income of the poor lies below the income corresponding to the poverty line. The income corresponding to the poverty line is \$1.08 a day at 1993 international prices.
- 3) All variables are in real, per capita terms. "Volatility" is defined as the standard deviation of the annual growth rate. "Worst drop" is the largest annual percentage decrease.
- 4) In poverty regressions, workers' remittances are measured using logarithms of the remittances/GDP ratio. In all other regressions, they are measured directly by the remittances/GDP ratio. Estimated coefficients are standardized, i.e. they show by how many standard deviations the dependent variable will increase or decrease, if remittances increase by one standard deviation. The symbols * or ** indicate that the estimates are significant on the 10% or 5% confidence level respectively. Details about additional control variables are described in Appendix 2.1 in IMF (2005c), pp.97–100.
- 5) "Remittance-dependent" economies are those where the ratio of remittances to GDP exceeds 1%.

Source: IMF (2005c)

4 Consumer characteristics

Similarly to other businesses, remittance service providers need to understand their target customers. Regarding remittance services, these are the senders and receivers. This chapter aims to characterize both groups. Furthermore, it explores the factors that determine the sender's choice of service provider and the microeconomic motives to remit. On the receiver side, it investigates what remittances are mostly used for. All these considerations directly or indirectly impact what consumers require from transfer services and the institutions that provide them.

4.1 Sender

4.1.1 Characteristics

Bhargavi (2003) states that temporary migrants tend to send more remittances than permanent migrants. Also migrants with relatively lower skills tend to generate more remittances than professionals working abroad. Finally, migrants from poor backgrounds usually send a greater proportion of their income compared to migrants from wealthy backgrounds.

Suro et al. (2002) present the results of surveys of Latin American immigrant community in the USA.²¹ They found that 47% of all Latinos born outside the USA regularly send money to their country of origin. Furthermore, those that have immigrated recently and those who have immigrated before the age of 20 tend to have the highest propensity to remit. Remitters are often relatively young workers, who are poorly educated and financially illiterate. Some demographic characteristics are provided in Box 4.1.

²¹ Suro et al. (2002) present selected results from the "National Survey of Latinos" carried out between April 4 and June 11, 2002 among a nationally representative sample of 4,213 adults, 18 years and older, who were selected at random. They further summarize the results of in-depth personal interviews conducted in July and August 2002 in Miami and Los Angeles with respondents who were over 18 years old, born in Latin America, resided in the USA, and sent remittances to their families in their home countries on a regular basis.

Box 4.1: Demographic characteristics of remitters (2002)

Latin American immigrants in the USA

- 60% are male
- 63% are under the age of 40 (the average age is 37)
- 59% are married
- 59% have not completed high school
- 72% rent their homes
- Average age of immigration is 25 years old
- Average of four people live in household
- 64% of those who are employed are unskilled laborers
- 50% have visited their home country in the last three years
- 45% say they plan to move back to their home country
- 55% do not have credit cards
- 43% do not have bank accounts

Source: Suro et al. (2002)

A more recent survey by Bendixen and Associates (2004), who conducted 3802 interviews with Latin American immigrants²² living in 37 U.S. states and the District of Columbia,²³ confirmed the general results of Suro et al. (2002). It showed that 61% of immigrants send money to their families. The percentage of immigrants sending remittances ranged from 38% to 84% in different states. The annual income of 80% of respondents fell below the USA national average annual wage for 2002 reported by the Bureau of Labor Statistics (2006). Also, 46% of respondents did not complete high school, and only 10% had graduated from college.

According to Suro (2003), over 66% of remitters send money at least once a month. Senders who immigrated within the past five years tend to remit the most frequently, with 75% of them sending money monthly.

Suro et al. (2002) further revealed that 43% of regular senders did not have a bank account and 55% did not have a credit card. In many cases the remittance senders misunderstood the functions and costs of banking. They avoided banks to escape banking fees, yet they would pay even higher fees for various check cashing and money order

²² Immigrants in the survey came from Argentina, Cuba, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Honduras, México, Nicaragua, Panama, Paraguay, Peru, El Salvador, Uruguay and Venezuela.

²³ Alaska, Delaware, Hawaii, Maine, Montana, Mississippi, New Hampshire, North Dakota, Rhode Island, South Dakota, Vermont, West Virginia and Wyoming were excluded.

services that they used regularly. The lack of knowledge about money transfer alternatives was prevalent across all senders, including even those who send money for other than family subsistence purposes, such as for investment, and those who have a bank account. Suro et al. (2002) found that less than one quarter of remitters with bank accounts knew that banks could send remittances. In general, most senders do not open checking accounts with banks because of unsuitable fee structures, relatively high minimum balance requirements or their undocumented immigration status.²⁴ Table 4.1 confirms that the percentage of these so called unbanked remittance senders can be very high and varies among different immigrant communities.

Table 4.1: Unbanked remittance senders in the USA (2004)

As a percentage of senders

Remittance destination	Senders without a bank account
Mexico	75.2
Honduras	70.7
Guatemala	68.8
El Salvador	64.3
Colombia	53.0
Nicaragua	49.3
Cuba	41.7
Dominican Republic	38.0
Ecuador	35.0
Guyana	21.2

Note: Data is based on a survey of immigrants in New York, Los Angeles and Miami commissioned by Manuel Orozco and administered by Emmanuel Sylvestre and Associates in 2004.

Source: Orozco (2005)

Senders place a high priority on sending remittances. In many cases, they send remittances even before paying their own regular expenses, such as rent and utilities. A significant portion of remitters also send everything that is left after they have covered

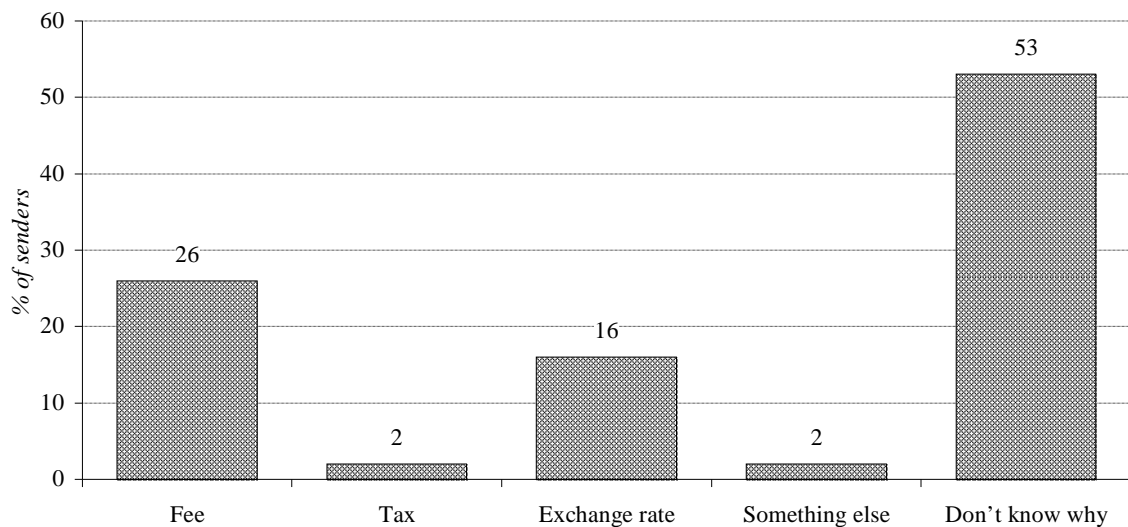
²⁴ They do not possess identification documents required by banks. According to Bendixen and Associates (2004), undocumented immigrants represented 32% of all immigrants, and 5% of respondents did not answer the question about their immigration status.

their own expenses. The high priority placed on remittances seems to be related to the family subsistence use of remittances described in section 4.2.2.

The cost of sending remittances is a major concern of senders, yet they often lack understanding of the transfer cost structure. They are often unaware of the cost prior to the transaction, and in some cases are still unaware after the transaction is completed. This is not only due to low financial education among senders, but also due to the obscure pricing schemes of many service providers. Remitters may know the flat per-transaction fee, but may not realize that to get the total price they must also factor in other related costs, such as the cost of check-cashing services, the currency conversion fee, the exchange rate differential, the applicable taxes and the provisions of the distributing agent on the receiving end. As shown in Figure 4.1, more than half of U.S. Latino remitters could not identify why recipients might receive a lower amount than what they sent.

Figure 4.1: Senders’ perceptions of “why money transfer service takes additional money” (2002)

Latin American immigrants in the USA



Source: Suro et al. (2002)

The transaction costs are particularly significant as remittances are low value payments coming mostly from relatively low-wage workers. Flat fees may therefore easily translate into very high or even prohibitive percentage costs.

Senders' familiarity with consumer applications of information technology is limited according to Suro et al. (2002), which is mostly due to their socio-economic profile. They have particularly limited experience with technologies commonly used in banking user applications. However, they are to some extent familiar with the use of ATM's and payment cards. Respondents in the survey of Suro et al. (2002) were also able to identify very well the advantages of a hypothetical technology-based transfer service. Senders are capable of learning how to use innovative products and willing to do so if they see a benefit. Lower cost is a major driver that would make senders switch to an innovative service, followed by lower time spent arranging the transfer, faster arrival of funds to the recipient and greater protection against crime on the receiving side.

4.1.2 Choice of service

Suro et al. (2002) state that remittance senders mainly choose a service provider based on physical proximity of the agency/branch, the speed, at which the money reaches the recipient, and habit. Effective cost comparisons are rare, which is understandable given the complexity of fee and cost structures. Many senders initially chose a service based on the recommendation of a friend or family member. Over 60% of participants in the Suro et al. (2002) survey were loyal to a specific service provider and never explored any alternatives.

Andreassen (2006) identified some factors influencing the choice of service through interviews with remittance service providers. The main ones were the number of sending and receiving locations, convenient hours of operation, speed of transfer, customization options (such as a short phone call to the receiver provided as a part of service) and consumers' trust in service. On the other hand, factors hampering consumers' adoption of money transfer services could be a notion of high cost and a language barrier at the sending point.

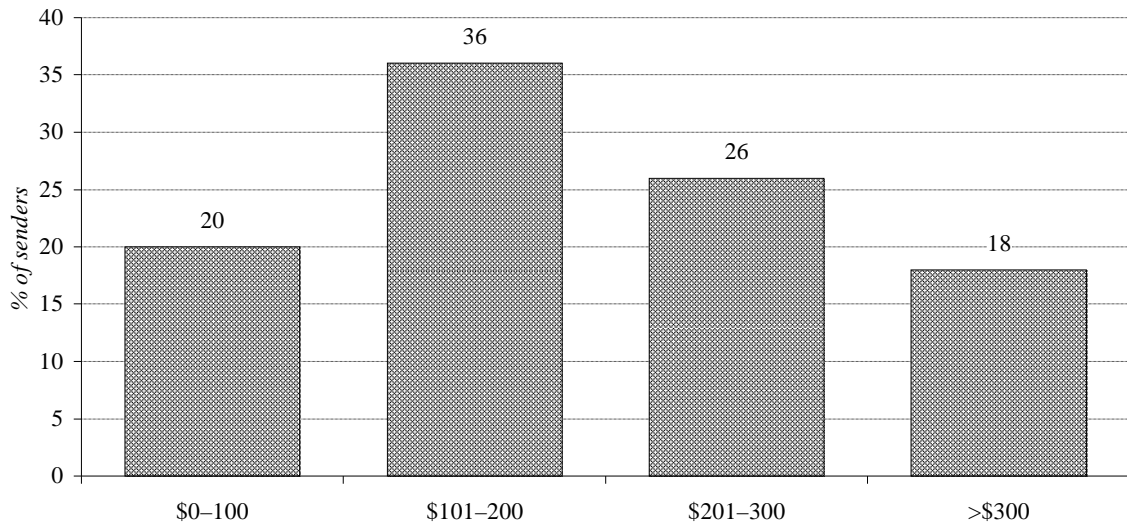
4.1.3 Average value

By definition, remittances are payments of relatively low value. According to Bendixen and Associates (2004), the average value of a single remittance transfer made by Latin American immigrants in the USA was about \$240. Suro (2003) supports this figure stating that 56% of remitters send between \$100 and \$300 at a time. Results from Suro et

al. (2002) are reproduced in Figure 4.2. They show that only 18% of transfers have higher value than \$300.

Figure 4.2: Average value of individual remittance payment (2002)

Latin American immigrants in the USA



Source: Suro et al. (2002)

4.1.4 Microeconomic motives to remit

The previously stated reasons for remitting can be approached analytically. Solimano (2003) identified four microeconomic motives for sending remittances: 1) the altruistic motive, 2) the self interest motive, 3) family loan repayment, and 4) family co-insurance payments.

Within the altruistic motive, the migrant sends money home out of concern for family and the local community. Immigrant workers may also send money to their country of origin for charitable purposes on a regular basis or for certain occasions, such as religious holidays and festivals connected with giving handouts to poor. Migrants are able to provide support as they earn more money abroad than they would in the home country for the same work. Besides purely altruistic motives, remitters may also seek esteem and recognition in their home country after they have accumulated sufficient wealth to realize their primary purpose for migration.

The self interest motive for sending remittances is essentially some kind of investment in assets in the home country that the migrant is familiar with. These can be standard assets, such as real estate, land, shares in business ventures, or they can be tacit, such as a claim of inheritance.²⁵

The loan repayment motive is the first type of a kind of implicit family contract. In this case, the family pays for the cost of migration and views this as an investment. Once migrants settle in the destination country, will start repaying the implicit loan with interest in the form of remittances.

The second type of the implicit family contract is co-insurance. This perspective assumes that economic agents seek diversification of risk in the environment of incomplete markets. Both the migrant and the family may have limited access to suitable investment alternatives, such as formal institutionalized financial and capital markets. Through sending some of its members abroad, a family may insure itself against recessions and asymmetric shocks in their home country. On the contrary, migrants may see their families at home as an insurance against unfavorable developments in the host country. If necessary they might even have an option to return to their countries of origin.

4.2 Receiver

4.2.1 Characteristics

Leibsohn (2004) and other sources suggest that remittance receivers are often relatively poor and live in rural areas. Suro (2003) also says that in most Latin American countries remittance recipients tend to belong to the lower socio-economic strata. However, in Mexico the research could not identify any statistically significant differences between the remittance receivers and the general population in terms of demographic characteristics such as age, income distribution and level of education.

According to Suro (2003) the majority of remittance receivers in Latin America are women. Gender was the most significant demographic characteristic that distinguished remittance recipients from the general population. In Mexico, 54% of receivers were

²⁵ Migrants may support the family and contribute to accumulation of family wealth with the expectation and shared understanding that they would become primary heirs.

women, while in Central America, 63% were women. Sander (2003) also notes that remittances to Africa often go to households headed by women.

Hernández-Coss (2005b) reveals an important feature of remittance recipients in Vietnam, which however may apply in other countries as well. Receivers may desire anonymity. They may not want their neighbors and local government officials to know whether, and how much, they receive. Once other people in a local community learn the details about personal remittance receipts, they may question where the money comes from, whether the source is legal, monitor its spending and they may even ask for gifts, bribes or loans. Receivers might be also subject to crime if the neighborhood knows that they receive money, especially if it is distributed in cash and the receivers are unbanked.

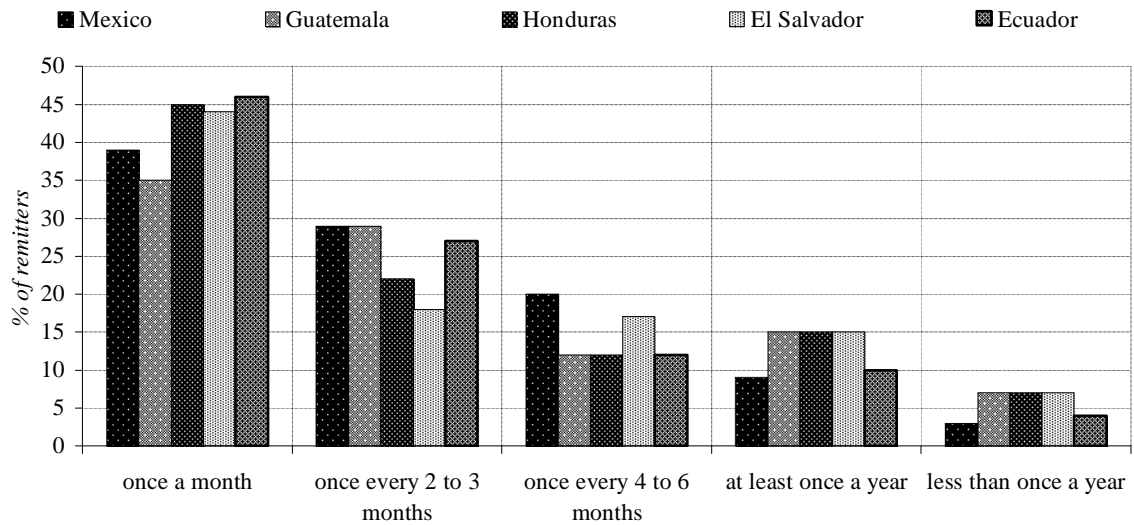
Remittance recipients are likely to be concerned about any taxes that remittances are subject to. In many countries, security of the final distribution of remittances might be a major concern. Receivers will most likely care about the legal protection and stability of regulatory framework related to remittances. A situation mentioned by Hernández-Coss (2005b), when government of Vietnam seized larger remittances coming through official channels, certainly does not promote trust or the use of formal transfer channels. Legal restrictions such as value limits are likely to shape receivers behavior and choice of transfer method.

It seems reasonable to assume that receivers' preferences for financial instruments used to obtain and spend remittances depend on the level of their financial literacy and on the payments and financial infrastructure available in their region. Remittance mechanisms used in different regions may vary because of differences in payments infrastructure among regions. For example, the use of payment cards depends on merchants' acceptance and the availability of ATMs.

Many remittance recipients in Latin America covered by the survey reported in Suro (2003) indicated that remittance transfers are relatively frequent, and thus confirmed the findings of remitter research. For example in Mexico, 39% of receivers obtained remittances monthly and 88% at least once every six months as shown in Figure 4.3.

Figure 4.3: Frequency of receiving remittances (2003)

Receivers in Mexico, Guatemala, Honduras, El Salvador and Ecuador



Source: Suro (2003)

In many countries, recipients do not have bank accounts. Suro (2003) indicates that in Mexico only 33% of receivers have a bank account, while in Central America it is only 22%.

Leibsohn (2004) mentions, that in some countries, including the Philippines, Vietnam and Pakistan, households with higher income receive greater share of remittances compared to those with lower income.

4.2.2 Uses of remittances

DFID (2005), Genesis (2003) and Sander (2003) used focus group studies and surveys to identify the main uses of remittances. While it is likely that some remittances are used to support criminal activities, those purposes are not particularly relevant as opportunities for reputable service providers, and this section focuses on the legal, positive and productive uses for remittances.

For families in less developed regions, remittances sent by family members working abroad can represent a main source of income. The money often pays for basic living expenses and for children's education. In some cases remittances are spent on consumer

durables or even luxury goods. Money is also spent on events of socio-cultural life, such as birth, marriage or pilgrimage.

Some remittances are requested for specific urgent needs. Such needs might repeat, but are not regular. The money can be used to pay medical bills, to sustain families in times of economic recession and to solve sudden family or personal crises, such as loss of employment.

Remittances can also finance initial investment into a small business started by a recipient, or pay for the ongoing business expenses. Furthermore, families can use remittances to purchase property, land, livestock and other assets, and to provide microfinance loans to members of the local community.

Remittances may finance small-scale development projects of local communities, such as building of basic infrastructure networks (electricity, water supply etc.), roads, schools and hospitals. They may also support the operation of public institutions, non-profit organizations and churches. Some money from remittances is given to charity.

4.2.3 Distribution of remittances among different uses

The distribution of remittances among different uses is likely to vary across regions, country income groups and individual countries. Sander (2003) notes that 70 to 90 percent of remittances received in Africa are spend on family subsistence and improvement of standard of living.

Suro (2003) provides some estimates of broad spending categories, which are summarized in Table 4.2. Although, the estimates are based on Central America, the uses of remittances are likely to be similar in most labor exporting countries as Chindea (2005) notes. The particular numbers of course differ among countries and regions. It holds, however, that remittances are in large part spent on household expenditures and thus constitute an important part of household budget.

Table 4.2: Spending remittances

Central America, in percent

Purpose	Central America	Ecuador	Mexico
Household expenditures	77	61	78
Education	7	2	7
Savings	6	8	8
Investment	6	8	1
Other/luxury items	3	17	4
Real estate	1	4	1

Source: Suro (2003)

5 Consumers' cost

This chapter presents an analysis of the cost that consumers incur by sending remittances. Despite practical and methodological challenges, such analysis provides an insight into the major theme of discussions around remittance service provision. Section 5.1, summarizes the results of a primary survey of major MTOs. Section 5.2 then reviews other sources. Most of the results based on surveys of a larger sample of providers report on the USA—Latin America corridor, because data for other corridors are scarce. However, the general conclusions that can be derived seem applicable to other markets.²⁶

5.1 Major MTOs survey

5.1.1 Methods and challenges

Estimating the total cost that a consumer will incur for a remittance transfer is very difficult for reasons including the following:

- 1) The services of different remittance service providers are not comparable. They differ in the speed of delivery, disbursement methods and the resulting customer convenience, geographical coverage, limits and restrictions and other features.
- 2) The percentage cost depends on the absolute amount transferred.
- 3) The total cost is not known until the transfer is completed and it can be verified how much money actually arrived to the receiver.
- 4) In most cases, the total cost includes the cost of currency conversion, which is difficult to predict as the exchange rates used by MTOs are almost never announced in advance and change continuously.

Three basic approaches can be used to estimate the cost of transfers. First, one may actually send money and upon the completion of the transaction, compare the amount that was sent to the amount received. Second, it is possible to survey senders and receivers and ask them about the charges they incur. Finally, one may make inquiries to the service providers regarding the transaction fees. Unfortunately, all these approaches have severe pitfalls.

The difficulties of the first method are obvious. In order to map the cost of remitting in different corridors, it is necessary to make actual transfers. At least one transfer per corridor, service provider and amount is necessary. That can be, of course, very costly, and even if performed, one has to assume that the particular transaction can represent an average transaction of the same attributes, which may not be the case.

Asking senders and receivers is also quite demanding in terms of resources that need to be employed. It is necessary to first correctly define the groups of senders and receivers, then choose suitable cross sections, and finally interview the chosen respondents. Some difficulties of this approach were suggested in sections covering sender and receiver characteristics. Consumers often do not understand the function of transfer systems, and very often do not know precisely how much they are charged by service providers. This is especially true when opportunity costs are taken into account. The lack of transparency in the terms of service and hidden fees make it difficult for the consumers to have a clear picture about the costs they incur. Therefore, the validity of the obtained survey results is questionable. This problem is coupled with other usual challenges of obtaining reliable results from consumer surveys.

At first, querying service providers may seem like the most feasible alternative. However, its problems emerge as soon as it is attempted. Service providers are not willing to provide the information about their services as they see no benefits in doing so. It has been mentioned that shopping for a service provider is very rare among customers. Rather they choose based on habit, other people's references, proximity of the agent etc. On top of the unwillingness to provide information, operators may not be able to provide it. This can be due to the setup of a particular system. For example within an MTO network, agents may be able to set their own prices and margins for services that they resell, thus the actual current price information may not be available centrally to the MTO.

A disadvantage common to all research methods is that any meaningful cost estimation must assume that the reviewed services or channels are used by senders. That of course is not trivial, because the use of different channels itself is unknown. Furthermore, to obtain

²⁶ After all, USA—Mexico is the world's largest country corridor, and North America—Latin America and the Caribbean is the world's largest inter-regional corridor.

comparable results, all subjects should be measured at the same time, which is not feasible.

The following primary research used the service provider inquiry method to obtain consumer cost estimates of transferring money through some of the channels that were identified by Harrison, Britton and Swanson (2004) as the world's largest. Two world's leading MTOs were reviewed: Western Union and MoneyGram. The price information was obtained in part from their respective websites and in part via contacting their customer service departments.

The hypothetical task was to transfer money captured in the sender's country in the national currency and disbursed in the receiver's country in the national currency. For some corridors, however, it appeared that money can only be deposited and/or retrieved in U.S. dollars or euro. This is why Table 5.1 and Table 5.2 list capturing and disbursement currency and the number of excluded currency conversions as compared to the ideal case. Two transfer amounts were considered: \$200 and \$400. Where applicable these amounts were converted into the sending currency using the exchange rate provided by Reuters (2006). The total cost of transfer was calculated as a sum of the transfer fee and the loss on currency conversion due to the exchange rate premium imposed by the operator.

5.1.2 Western Union

Western Union only provided price estimates for transfers initiated in the USA, therefore only those corridors suggested by Harrison, Britton and Swanson (2004) that involve the USA were covered. The cost of sending money through agents outside the USA differs among agents and Western Union does not provide any information on it. Out of the several transfer options offered by Western Union, "Money in Minutes" was chosen because it was available for all reviewed corridors.²⁷ Out of the six corridors for which the information was available, only in the case of USA—South Korea, Western Union did not enable disbursement of the money in the currency of the receiver's country. That has to be taken into account when evaluating the relative costs, because the additional

²⁷ In some cases, Western Union provided a less expensive alternative where the delivery of the money took longer.

currency conversion that a recipient would have to perform to obtain the local currency would require additional cost, perhaps of several percentage points.

Table 5.1 shows the results for hypothetical amount of \$200. Figure 5.1 then depicts the total percentage cost graphically together with the total cost for a hypothetical amount of \$400 for comparison.

The total percentage charge for a \$200 transfer using “Money in Minutes” ranged between 11.08% (Mexico) and 16.76% (India). The cost of sending \$400 was approximately three percentage points lower.

Table 5.1: Percentage cost of sending remittances from USA via Western Union (November 29, 2006)

Some major receiver countries

Recipient's country	Capturing currency	Disbursement currency	Amount sent (USD)	Currency conversion percentage cost	Total percentage cost 2)	Excluded currency conversions 1)
Mexico	USD	MXN	200.00	2.08	11.08	0
China	USD	CNY	200.00	0.02	13.52	0
Philippines	USD	PHP	200.00	2.77	16.27	0
India	USD	INR	200.00	3.26	16.76	0
Vietnam	USD	VND	200.00	0.95	14.45	0
South Korea	USD	USD	200.00	0.00	13.50	1

Notes:

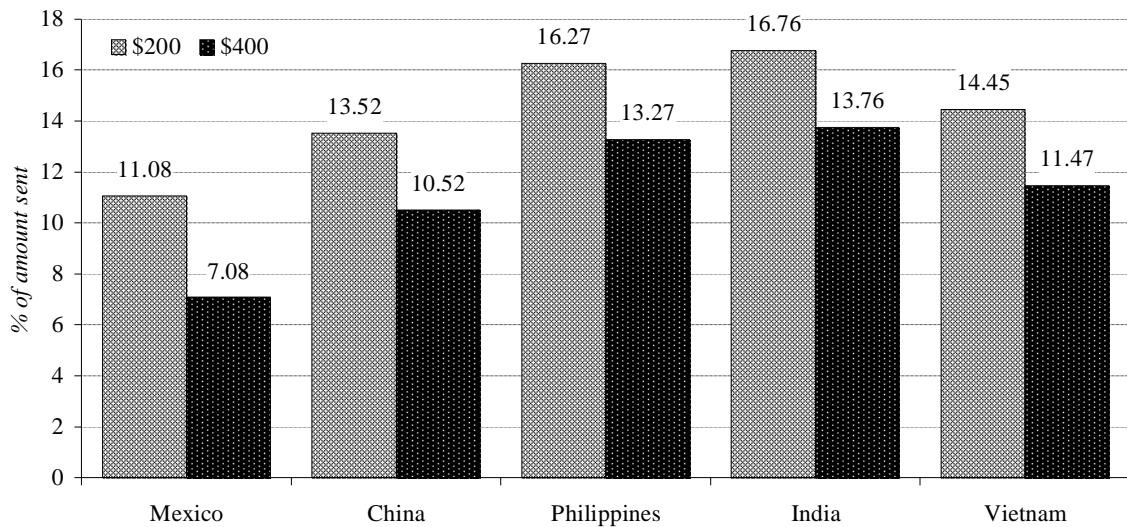
- 1) Assuming a transfer from sender's national currency to receiver's national currency. Every currency conversion will increase the total cost of transfer, typically by several percentage points.
- 2) Total percentage cost is a sum of the transfer fee as a percentage of the sending amount and the relative loss on currency conversion due to the exchange rate premium imposed by the operator. The calculation uses exchange rates obtained from Reuters (2006) on November 29, 2006 at 22:00 GMT as a benchmark.

Recipient countries were selected based on Harrison, Britton and Swanson (2004). The cost estimates assume the use of Western Union's “Money in Minutes” service.

Source: Western Union (2006), Reuters (2006), author's calculations

Figure 5.1: Percentage cost of sending remittances from USA via Western Union (November 29, 2006)

Some major receiver countries



Source: Western Union (2006), Reuters (2006), author's calculations

5.1.3 MoneyGram

MoneyGram (2006) provided cost estimates for all corridors, not just the ones involving the USA. For many corridors however, MoneyGram did not offer collection and/or disbursement in local currency, but only in U.S. dollars. Table 5.2 shows that in Saudi Arabia and Malaysia, MoneyGram only accepted U.S. dollars. In Egypt, China, South Korea and Vietnam, it only paid out U.S. dollars. This has to be taken into account while evaluating the total cost of transfer as every currency conversion may add several percentage points to the total cost. Transfer option called “10 Minute Service” was chosen because it was available for all reviewed corridors, and because it has roughly similar features to the reviewed service of Western Union.

Table 5.2 shows the relative cost of sending a hypothetical amount of \$200. Figure 5.2 then depicts the total percentage cost graphically together with the total cost for a hypothetical amount of \$400.

The total percentage charge for a \$200 transfer using “10 Minute Service” ranged from 4% for transfers from Saudi Arabia to Egypt sent and retrieved in U.S. dollars, to 9.21% for transfers from Germany to Turkey done entirely in Euro. The cost of sending \$400

was approximately two to three percentage points lower. The least expensive transfers sent in the sending country's national currency and retrieved in the receiving country's national currency were from USA to India (6.5%), Mexico (6.51%) and Philippines (6.84%).

Table 5.2: Percentage cost of sending remittances via MoneyGram (November 29, 2006)

Major remittance corridors

Sender's country	Recipient's country	Capturing currency	Disbursement currency	Amount sent 2)	Currency conversion percentage cost	Total percentage cost 3)	Excluded currency conversions 1)
USA	Mexico	USD	MXN	200.00	1.51	6.51	0
Saudi Arabia	India	USD	INR	200.00	4.00	8.00	1
Malaysia	Indonesia	USD	IDR	200.00	1.69	9.19	1
Saudi Arabia	Pakistan	USD	PKR	200.00	2.06	6.06	1
Saudi Arabia	Philippines	USD	PHP	200.00	2.84	8.84	1
Saudi Arabia	Egypt	USD	USD	200.00	0.00	4.00	2
USA	China	USD	USD	200.00	0.00	5.00	1
Germany	Turkey	EUR	EUR	151.98	0.00	9.21	1
USA	Philippines	USD	PHP	200.00	1.84	6.84	0
Japan	South Korea	JPY	USD	23,266.00	0.76	7.21	1
USA	India	USD	INR	200.00	1.50	6.50	0
Saudi Arabia	Indonesia	USD	IDR	200.00	1.69	5.68	1
USA	Vietnam	USD	USD	200.00	0.00	5.00	1
Saudi Arabia	Bangladesh	USD	BDT	200.00	1.10	5.10	1
USA	South Korea	USD	USD	200.00	0.00	5.00	1

Notes:

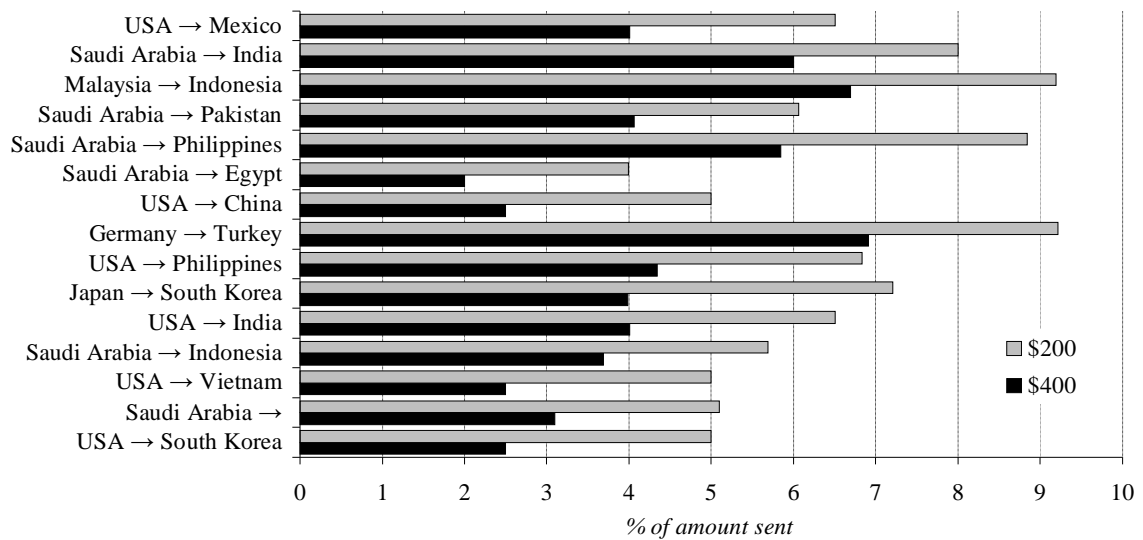
- 1) Assuming a transfer from sender's national currency to receiver's national currency. Every currency conversion will increase the total cost of transfer, typically by several percentage points.
- 2) Expressed in sending currency, equivalent of \$200.
- 3) Total percentage cost is a sum of the transfer fee as a percentage of the sending amount and the relative loss on currency conversion due to the exchange rate premium imposed by the operator. The calculation uses exchange rates obtained from Reuters (2006) on November 29, 2006 at 22:00 GMT as a benchmark.

Major remittance corridors were selected based on Harrison, Britton and Swanson (2004). The cost estimates assume the use of MoneyGram's "10 Minute Service".

Source: MoneyGram (2006), Reuters (2006), author's calculations

Figure 5.2: Percentage cost of sending remittances via MoneyGram (November 29, 2006)

Major remittance corridors



Source: MoneyGram (2006), Reuters (2006), author's calculations

5.2 Other estimates

5.2.1 USA—Latin America corridor

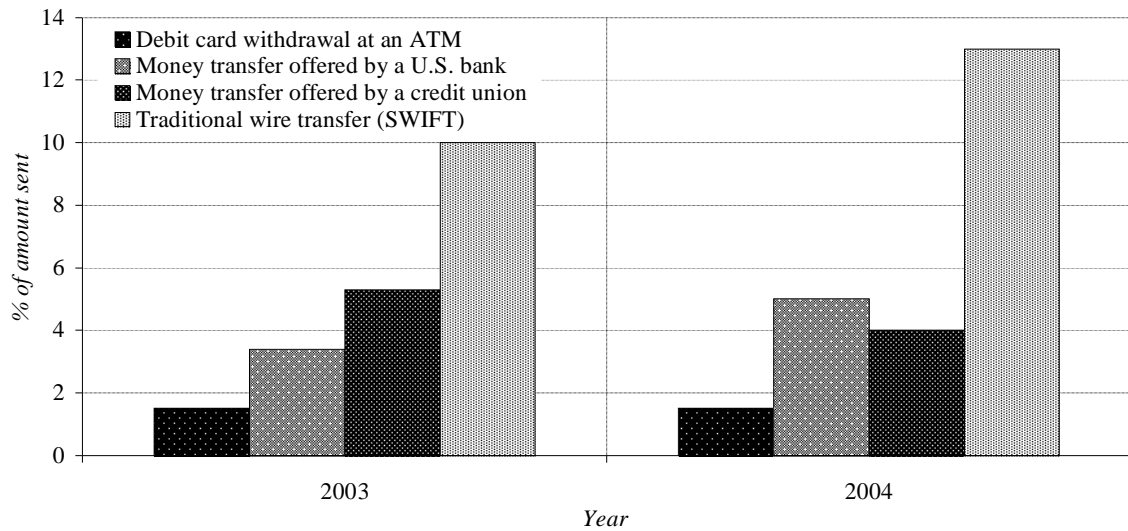
Research of Orozco (2005) focuses on the USA—Latin America corridor. It provides the most extensive study of the U.S. remittance transfer industry. The data was obtained directly from individual service providers, namely 84 MTOs and 60 financial institutions.²⁸

Orozco (2005) revealed that the cost of sending money is approximately the same regardless of whether MTOs or banks are used with the exception of debit card withdrawals, which tend to be cheaper.²⁹ Figure 5.3 illustrates the average charges applied by bank and credit unions in the USA for sending money using different methods.

²⁸ Orozco (2005) also conducted interviews with executives of 22 of those financial institutions to find out about related products offered to the senders.

²⁹ Orozco (2005) also mentions that banks accounted for less than 3% of the remittance traffic (or 1.2 million transactions) in 2003.

Figure 5.3: Percentage charges applied by banks and credit unions to transfer \$400 from USA to Mexico by method (2003 and 2004)

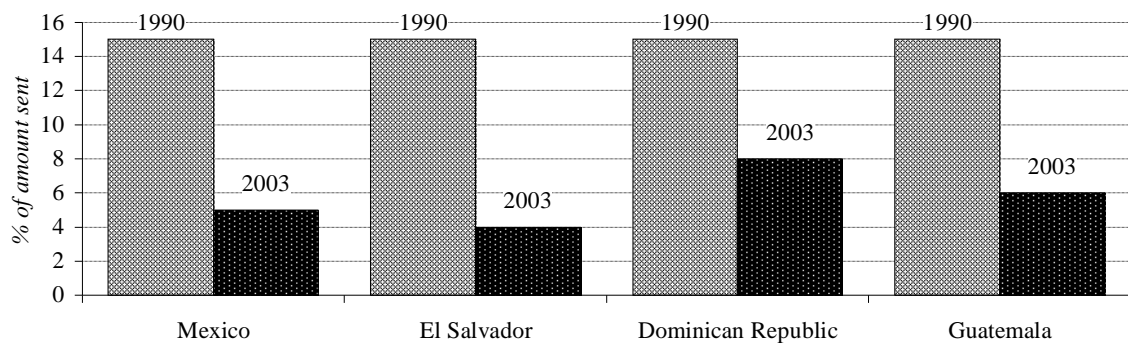


Source: Orozco (2005)

Figure 5.4 demonstrates that the costs of sending money to Latin America have decreased significantly since the 1990s. However, Orozco (2005) points out that the rate of decline has slowed since 2001 despite increased competition among service providers and despite the larger volumes that are being transferred.

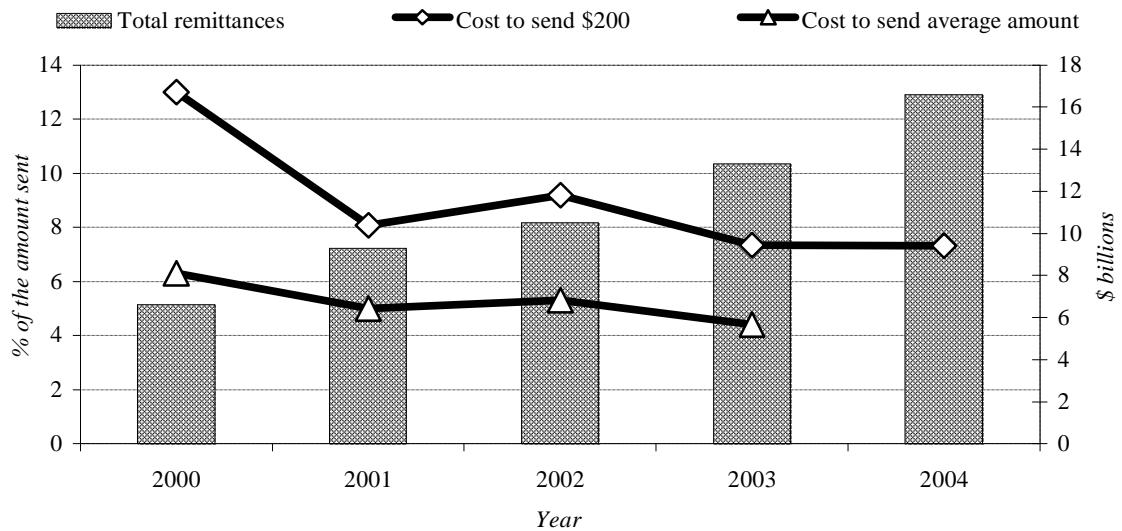
Figure 5.4: Percentage cost of sending remittances from USA to Latin America (1990 and 2003)

Mexico, El Salvador, Dominican Republic, Guatemala



Source: IMF (2005c)

Figure 5.5: Volume and cost of remittances from USA to Mexico

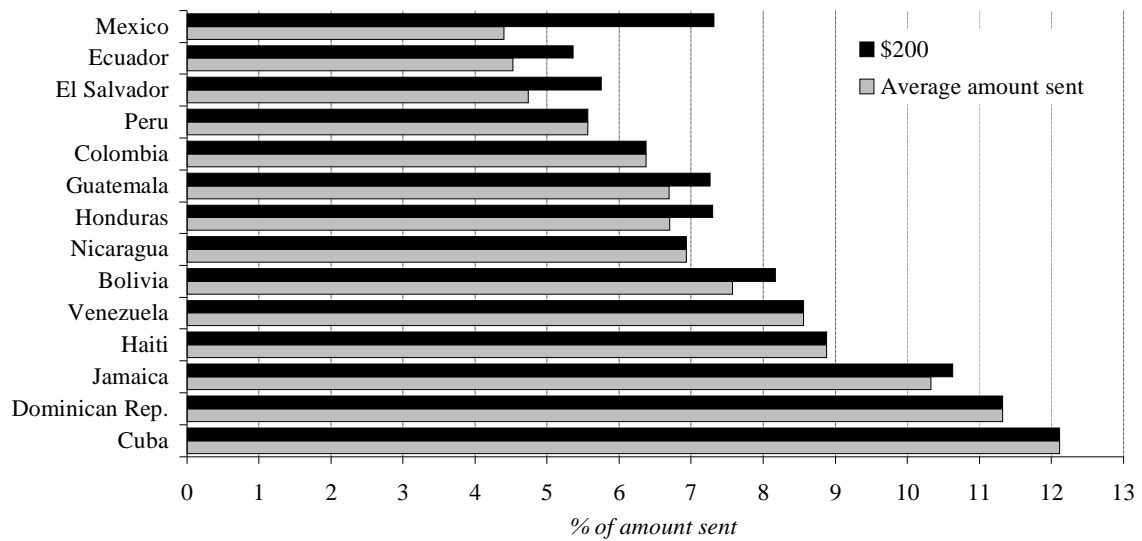


Note: Orozco (2005) states that the average amount to Mexico was \$400.

Sources: Orozco (2005) and De Vasconcelos (2005b)

Figure 5.6 summarizes the costs of remitting to Latin America according to Orozco (2005). It shows that the cost for sending the average amount was the lowest in the largest corridor (USA—Mexico). Orozco (2005) also notes that the prices charged by transfer firms are influenced by demographic concentrations of immigrants from the same country. Larger communities of immigrants concentrated in one city push down prices.

Figure 5.6: Percentage cost of sending remittances from USA to Latin America (February 2004)



Source: Orozco (2005)

5.2.2 Other corridors

Secondary sources covering remittance transfer costs outside the corridors formed by the USA and Latin America are rather scarce. Pearce and Seymour (2005) surveyed RSPs in the UK and found that there is a great variance in the percentage cost charged by different providers as shown in Table 5.3.

Table 5.3: Percentage cost of sending GBP 100 from the UK

Destination	Number of RSPs surveyed	Percentage cost	
		Lowest	Highest
Bangladesh	13	2.5	35
China	15	5.0	35
Ghana	18	5.0	35
India	18	5.0	40
Kenya	15	5.0	35
Nigeria	15	5.0	35

Source: Pearce and Seymour (2005)

Orozco (2003) surveyed RSPs in several country corridors and calculated the average percentage charges applied by different providers. The results are summarized in Table 5.4. Large MTOs appeared to be most expensive with an average charge of 11.6%.

Table 5.4: Average percentage cost of sending \$200 in selected corridors (2003)

From	To	Number of companies reviewed				Average percentage charge to send \$200		
		Banks	MTOs	Other	All	Banks	Large MTOs	Ethnic stores/ exchange houses
USA	Egypt	0	2	0	2	n.a.	13.8	n.a.
USA	Zimbabwe	n.a.	n.a.	n.a.	n.a.	n.a.	11.9	n.a.
USA	Philippines	5	14	5	24	8.0	10.3	10.1
USA	Bangladesh	n.a.	n.a.	n.a.	n.a.	8.0	n.a.	9.2
USA	Ghana	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	7.5
USA	India	n.a.	n.a.	n.a.	n.a.	7.0	12.2	8.3
Germany, USA	Greece	4	2	0	6	6.8	9.5	n.a.
France, USA	Portugal	3	2	0	5	3.4	12.3	n.a.
Germany, USA	Turkey	3	2	0	5	3.1	9.5	n.a.
South Africa, USA	Mozambique	1	0	0	1	1.0	n.a.	n.a.
Saudi Arabia, UK, USA	Pakistan 1)	7	1	0	8	0.4	13.0	3.0
<i>Mean</i>		<i>nap</i>	<i>nap</i>	<i>nap</i>	<i>nap</i>	<i>4.7</i>	<i>11.6</i>	<i>7.6</i>

Notes:

Countries are ordered by the cheapest channel.

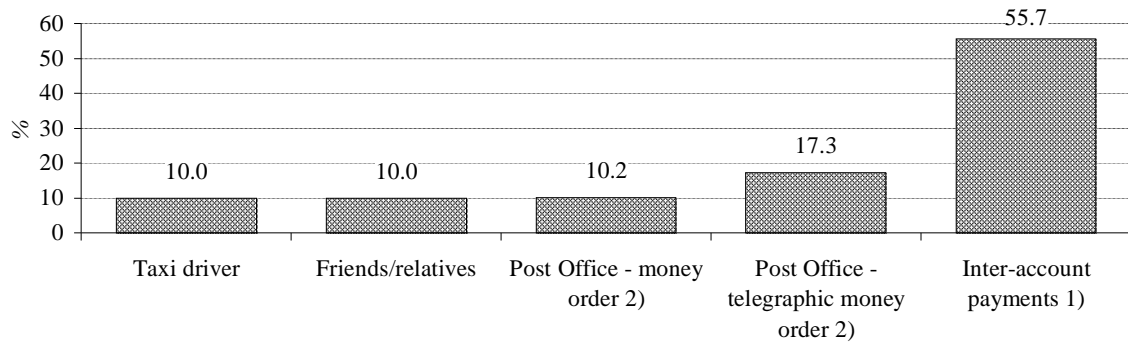
- 1) Majority of remittances to Pakistan were transferred through hawala. Therefore some formal money transfer businesses needed to maintain low prices to be able to compete.

Source: Orozco (2003)

De Vasconcelos (2005) states that the average percentage cost of sending remittances from Japan to Latin America is only about 3%. The estimated flow is \$2.65 billion of which more than 80% goes to Brazil. The average value per transaction is relatively high, around \$600. About 70% of Latin Americans living in Japan send money home.

Truen et al. (2005) examined the remittance flows from South Africa to the countries that form the Southern African Development Community. They found that the costs through formal channels are relatively high, particularly the transfers between bank accounts. In contrast, commonly used cash-based informal channels appeared cheapest out of the examined options. The estimates are depicted in Figure 5.7.

Figure 5.7: Percentage cost of a ZAR 300 international transfer from South Africa to SADC countries (2005)



Notes:

Presented data was obtained through focus group discussions, bank websites and telephone inquiries.

1) Averaged across major providers.

2) Not available in all SADC countries. Where applicable, averaged across SADC countries.

Southern African Development Community (SADC) countries are Angola, Botswana, Lesotho, Malawi, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe.

Source: Truen et al. (2005), author's calculations

6 Process and mechanisms

This chapter generally describes the elements of a remittance transfer. It further introduces a classification of remittance transfer mechanisms according to the payment means and instruments involved. It also compares the distinguished types of mechanisms.

In line with the rest of the thesis, this chapter focuses on financial (monetary) remittances and omits remittances in kind and other value and benefit transfers. Similarly, the informal value transfer systems and hand-carried cash are not covered under mechanisms in section 6.2 as they are out of the scope of the thesis.³⁰

6.1 Remittance process

According to CPSS (2006), the remittance transfer process is generally comprised of five basic elements: capturing, disbursement, messaging, settlement and liquidity provision.

Capturing consists of a payment by the sender to the capturing RSP or its agent, usually using a domestic payment system, and the provision of specified information required for the completion of the transfer. The payment can be made using various payment means and instruments acceptable to both sides. The minimum required information is the receiver identification. The RSP may also require the sender identification,³¹ selection of transfer options (e.g., pay-out currency and disbursement method) and a security password or code that the sender must communicate to the receiver for the purpose of receiver authentication during disbursement. The RSP may provide a transaction code and confirmation to the sender for the purpose of tracking and recipient authentication. The location of the capturing transaction can be physical (e.g., a retail outlet or RSP branch) or virtual (e.g., an Internet site or mobile operator access channel). The character of the location affects the payment means and instruments that can be used for the transaction.

³⁰ More information about the types of IVTS can be found in Carling (2005) and Maimbo et al. (2005). Hernández-Coss (2005b) provides an interesting insight into the operation of IVTS in Vietnam based on interviews with operators and also summarizes the advantages of IVTS over formal systems. Approaches to estimating the flows of informal remittances are outlined in Freund and Spatafora (2005). Genesis (2003) compares different informal products used in South Africa.

³¹ This is mostly for the purpose of AML/CFT regulation.

The main part of disbursement is the payment by the disbursing RSP or its agent to the receiver. Various means and instruments can be used, although the options are subject to the limitations of the payments systems in the receiving country. The RSP may also pass transfer-related information to the receiver. The receiver identification may be required for claiming the funds depending on the disbursement method. Receivers can identify themselves by presenting an ID, transaction code, password or a combination of those. If the receiver has an account with the RSP, authentication may not be required to receive funds, but to withdraw them or use them for payment.

Messaging describes the transfer of information about the remittance payment from the capturing RSP or its agent to the disbursing RSP or its agent. Depending on the character of the network³² the information may travel together with the funds along the funds settlement process, or it may be communicated independently of the funds settlement directly from the capturing RSP or its agent or the disbursing RSP or its agent. In the later case, the information would be usually recorded by the RSPs. The information can be transferred through public or proprietary channels.

Settlement usually involves a series of separate payments within the transfer of funds from the capturing RSP or its agent to the disbursing RSP or its agent.³³ Each payment can be made differently. Settlement mostly consists of credit transfers between bank accounts, where one of the transfers is cross-border. The settlement payments may be batched³⁴ and netted.³⁵ The cross-border transfer may be partially internalized if the capturing and disbursing RSPs belong to a single organization and this organization has bank accounts in both the sending and the receiving country.

Internalization of cross-border transfers raises the issue of ensuring liquidity. The problem of liquidity provision also stems from a more fundamental feature of remittances, namely the fact that the transactions within the remittance transfer process

³² See section 2.1.5 for the description of different types of networks.

³³ Specific stylized examples of settlement processes can be found in Annex 3 of CPSS (2006).

³⁴ Batching means that a set of separate end-user remittance transactions made during a specified time period is replaced by a single funds transfer, which amounts to the sum of separate transactions.

³⁵ Netting is a procedure, in which two mutual funds transfers between two parties are reduced to a single transfer of the net amount.

may not be sequential. For example, the disbursing agent may need to pay out money to the recipient before it receives the corresponding payment from the capturing agent. In franchised services, where the agent that the recipient will choose to collect the funds is unknown prior to the actual disbursement, such a situation is even inevitable. Time mismatches of corresponding incoming and outgoing payments also arise in the settlement chain. Such situations generate credit risk and create a need for ensuring liquidity. Liquidity provision has a cost, either the cost of borrowing³⁶ or the opportunity cost of maintaining a liquid balance.³⁷ The cost of liquidity is one of the reasons why faster transfers are more costly.

6.2 Remittance transfer mechanisms and their features

It is possible to distinguish several types of remittance transfers according to the payment means and instruments involved on the end-user side.³⁸ These broad groups, also referred to as transfer mechanisms, are checks and bank drafts, paper money orders, postal giro transfers, cash-based electronic transfers, card-based transfers, account-to-account transfers, mobile virtual account transfers and person-to-person online transfers. Following sections describe the basic characteristics of each mechanism.

6.2.1 Checks and bank drafts

Paper checks and banks drafts are the traditional types of documented money transfers. Generally, senders have established relationships with a bank. They write a check (or request a draft) and send it to the receiver. The receiver presents this document to a bank (or check-cashing agency), which will credit the receiver's account or pay out cash less applicable processing and foreign currency exchange fees. There are different ways of processing these transactions; the details vary across countries and processors.³⁹ Despite

³⁶ The borrowing cost includes the interest rate and the cost of maintenance of the available credit facility.

³⁷ The cost of maintaining a liquid balance is also coupled with the cost of managing (i.e. setting and reevaluating) such balance.

³⁸ This section uses Carling (2005); Conde (2004); Crowe (2006); Isern, Deshpande and van Doorn (2005); Mendoza (2005); Pires (2005), Retail Banking Research Ltd. (2005); Suer (2006); Verjee (2004); and Visa (2004).

³⁹ For example, the receiver may deposit the check in his or her bank. The bank will pass the check along with a payment request (in bulk) to an intermediary for verification and settlement. Once the paying bank

automation the procedure tends to be cumbersome and labor intensive. Physical processing of checks is on decline. It is not very suitable for remittances due to slow speed and high transaction costs. For these reasons, it is not further explored in this thesis.

6.2.2 Paper money orders

Paper-based money orders are similar to checks, but they are issued and redeemed by various financial service providers, not just banks. Traditionally, the biggest providers were postal services and MTOs. The paper money orders can be usually cashed upon receiver's presentment at a service provider's branch or partner location, which makes them faster than checks. However, the disadvantages of physical processing and sending apply to them as well. High volume, low value postal money orders are popular in some domestic markets. On the international scale, they tend to be expensive. This thesis focuses on electronic, rather than paper-based mechanisms.

6.2.3 Postal giro transfers

Giro transfers are offered by post offices in many countries. Senders usually need to hold a postal bank account to fund the transactions. They can then send money internationally to other postal accounts, bank accounts or post offices (addresses) for cash pick-up. The service is often used by small business for small-scale import and export payments. The transaction takes several days to be processed.

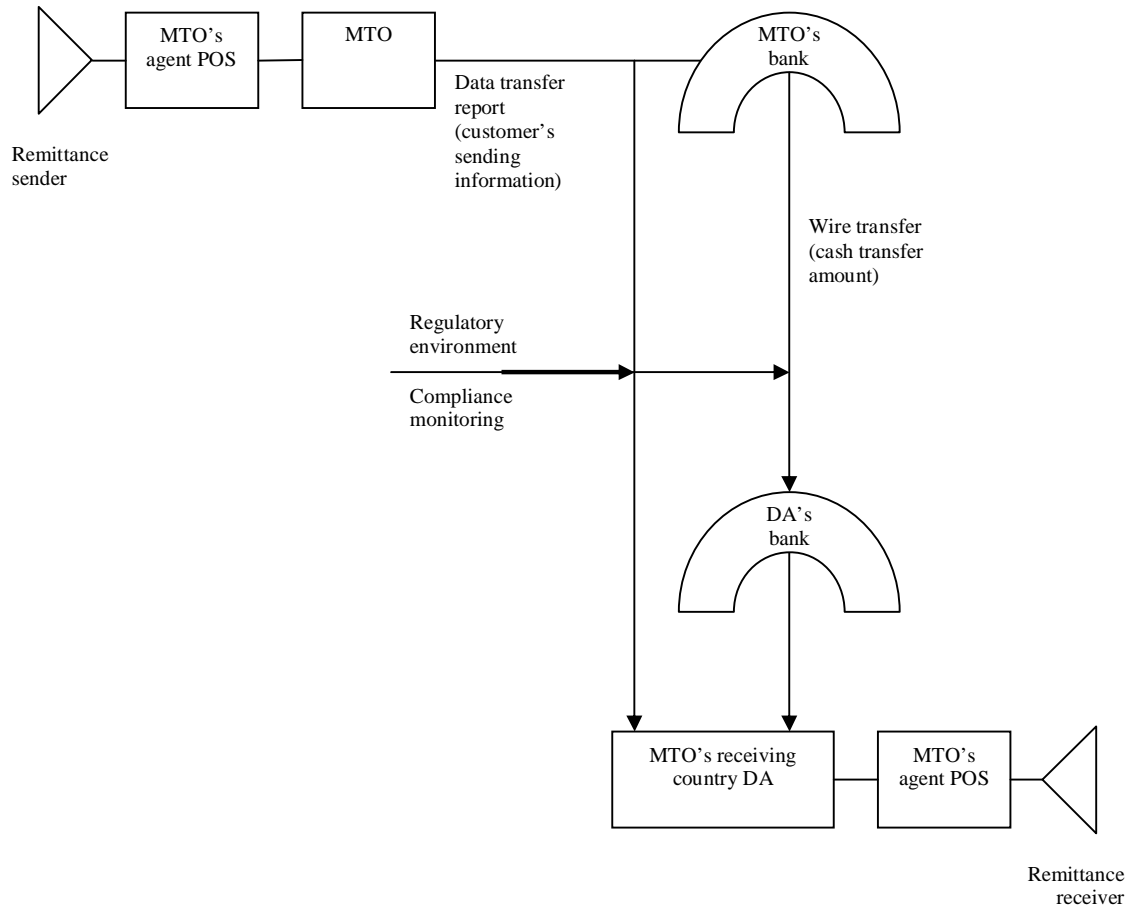
6.2.4 Cash-based electronic transfers

Cash-based electronic transfers are usually provided by MTOs. Remittance senders deposit cash at an MTO branch or agent location and receivers retrieve cash at an MTO branch or agent location in a foreign country or it is delivered directly to their home address. The transfer is done electronically through the MTO's proprietary network or through a third party system (in the case of small and/or specialized providers). Receivers usually present a reference number for the transaction, identify themselves and/or provide

(the bank of the sender) is identified, it is presented with the check and request. If it verifies the transaction, the intermediary debits the account of the paying bank and credits the account of the receiver's bank. The sender's bank debits the sender's account. The receiver's bank credits the account of the receiver or pays out cash. The receiver may also get an advance upon presenting the check, although in the case of cross-border transfers, bank may require him to wait until the payment is verified.

a password chosen and communicated to them by the sender. In the case of proprietary networks of large MTOs, the transfer happens instantly. Figure 6.1 shows a basic scheme of an MTO cash-based electronic transfer.

Figure 6.1: Remittance transfer operation



Notes:

DA means “disbursing agent” (on the receiving side)

Source: De Vasconcelos (2004b)

6.2.5 Hybrid electronic transfers

Hybrid electronic transfers are also usually offered by MTOs, but can be also provided by other RSPs. The differences from the cash-based transfers are the innovative capturing and disbursement mechanisms. The senders can charge the transfer amount on their credit or debit card. The receivers may have the funds deposited directly to their bank accounts.

That creates new types of transfers, such as card-to-cash, card-to-bank account and cash-to-bank account. The transfers are typically processed via RSP's proprietary networks similarly to cash-to-cash electronic transfers.

6.2.6 Card-based transfers

Card-based transfers leverage the widespread and growing networks of ATMs and POS terminals. Typically the sender electronically transfers money into some kind of receiver's account which has a debit card linked to it. The receiver may then withdraw money in cash through an ATM or use the card to make payments at POS terminal-equipped merchants. Due to greater end-to-end automation, this type of transfer potentially has lower cost of service compared to the cash-based transfers. Crowe (2006) described three models of card-based transfers: (1) receiver-centric, (2) sender-centric and (3) card-to-card.

6.2.6.1 Receiver-centric model

In the receiver-centric model, the money transfer service is offered by the receiver's bank. Sender either uses a credit/debit card at a remote service of the acquirer⁴⁰ to purchase monetary value or uses some other funds transfer mechanism⁴¹ to refill the receiver's (notional) account. This money can then be retrieved by the receiver in the form of cash or prepaid card or it can be transferred to another bank account.

6.2.6.2 Sender-centric model

In the sender-centric model, the sender's bank or RSP establishes a prepaid account with a debit card linked to it. The sender can deposit money to the account using cash at a branch, an ATM or an Internet site. The issued card is then sent to the receiver. The receiver can retrieve cash from the card through an ATM or at a bank branch. The recipient can also use the card directly to make purchases at POS terminals. Often, the account can be refilled, in which case the receiver is notified about the available balance. Some services may even enable the receiver to log in to an account on the Internet to check the balance.

⁴⁰ The purchase is typically processed as Internet or MO/TO transactions.

⁴¹ For example, a classical account-to-account bank credit transfer.

6.2.6.3 *Card-to-card model*

In the card-to-card model, the sender must possess a debit or prepaid card, while the receiver needs to have credit, debit or prepaid card of the same issuer (brand). The sender initiates the transaction online or over the phone. The value is transferred from the sender to the receiver through the card association network and credited to the receiver's account. Receivers can then withdraw the money via an ATM or at a branch (using cash advance in the case of a credit card). They can also pay with the card at POS terminals. The card-to-card model requires that banks on both sides support the money transfer service. Compared to the traditional inter-bank funds transfer, the card-to-card transfer can have lower cost.

6.2.7 Account-to-account transfers

Cross-border account-to-account transfers are usually provided by banks and credit unions. Although most banks all over the world have switched to the SWIFT messaging system, the widespread electronic funds transfers (EFT or "wire" transfers) are relatively slow and expensive.⁴² That makes them more suitable for commercial payments of larger value rather than small remittances. Also the requirement that both the sender and receiver have a conventional bank checking account may be quite limiting.

In reaction to traditional wire transfers' unsuitability for sending remittances, some banks and credit unions currently offer very flexible and economical transfer services for specific remittance channels. Such services can be based on inter-bank cooperation, correspondent banking or a common messaging and settlement platform. They can also apply new technologies. Although the receivers typically need to have a bank or credit union account, it may not be necessary for some disbursement options.

6.2.8 Mobile virtual account transfers

Transfers leveraging mobile phones are an innovative twist on the traditional cash-based electronic transfers. They are characterized by virtual accounts that can store monetary value and that are linked to a particular subscriber number. The virtual account may

⁴² More on SWIFT's involvement in remittances can be found in Kaap (2006).

optionally have a debit card and/or bank account linked to it.⁴³ The transfer between the accounts is usually provided by the mobile operator. The capturing and disbursement may be delivered by partners, such as MTOs or retail stores.

For example, the system may function as follows. The sender deposits money at a partner location (sending agent). Both the sending agent and the receiver have mobile phones with enabled virtual accounts and money transfer capabilities. Upon collection of cash, the sending agent instructs the operator transfer system via a text message to send the collected amount to the receiver's virtual account (identified by the receiver's phone number). Almost instantly, a text message is sent by the operator to inform the recipient of the received funds. The receivers have several options for retrieving the funds. If they were issued a debit card linked to their virtual accounts, they can use an ATM or bank branch to get cash, or make payments at merchant POS terminals. Otherwise, they may go to a partnering retail establishment (receiving agent) which also possesses a mobile phone with enabled virtual account and money transfer capabilities, and make a mobile transfer to it in exchange for cash. The sending and receiving agents' virtual accounts are typically linked to bank accounts, which enables the agents to manage the balance on them.

6.2.9 Person-to-person online transfers

Online payment services enable transfers of funds among users' prepaid accounts, traditional bank accounts and credit/debit card accounts. The providers may also issue debit cards linked to the prepaid accounts enabling funds withdrawals through ATMs and payments at merchant POS terminals.

Senders use credit/debit cards or bank accounts to load funds into their prepaid accounts. They can then send money from the prepaid account to an e-mail address. The system automatically generates and sends a notification about the intended payment to the e-mail address. Recipients who have already registered and use the service are notified and can accept the payment after logging into their account. Unregistered receivers are asked to sign up for the service to be able to retrieve the money.

⁴³ More on mobile virtual accounts and other payment instruments using mobile devices can be found in Zika (2005).

Person-to-person online payment services became widely used for online auction payments but lately expanded worldwide creating an interesting real-time alternative for remittance transfers. A single provider may offer accounts in multiple currencies⁴⁴ and links to local payment infrastructure enabling capturing and disbursement.

6.3 Comparison of remittance transfer mechanisms

Table 6.1 summarizes the main requirements, limitations and service dimensions of different transfer mechanisms. Table 6.2 compares advantages and disadvantages of different mechanisms from the perspective of the customers and the financial service providers. Finally Figure 6.2 summarizes different possibilities of how an RSP's value chain might look.

Table 6.1: Comparison of remittance transfer mechanisms

	Checks and bank drafts	Paper money orders	Postal giro transfers	Cash-based transfers	Card-based transfers	Account-to-account transfers	Mobile virtual account transfers	P2P online transfers	IVTS	Hand-carried cash
<i>Requirements and limitations</i>										
Sender must have a bank account	yes	no	yes	no	yes	yes	no	yes	no	no
Receiver must have a bank account	no	no	no	no	no	yes	no	yes	no	no
Only available for certain countries	no	no	yes	no	yes	no	yes	yes	yes	yes
<i>Service dimensions</i>										
Cost	-	-	-	-	+	-	+	+	+	+
Proximity and outreach	o	+	o	+	-	o	+	+	o	o
Speed and ease	-	-	-	+	+	-	+	+	+	o

Notes:

Service dimensions are roughly classified as follows: + = good, - = poor, and o = medium or variable.

Source: Adapted from Carling (2005) and extended by the author

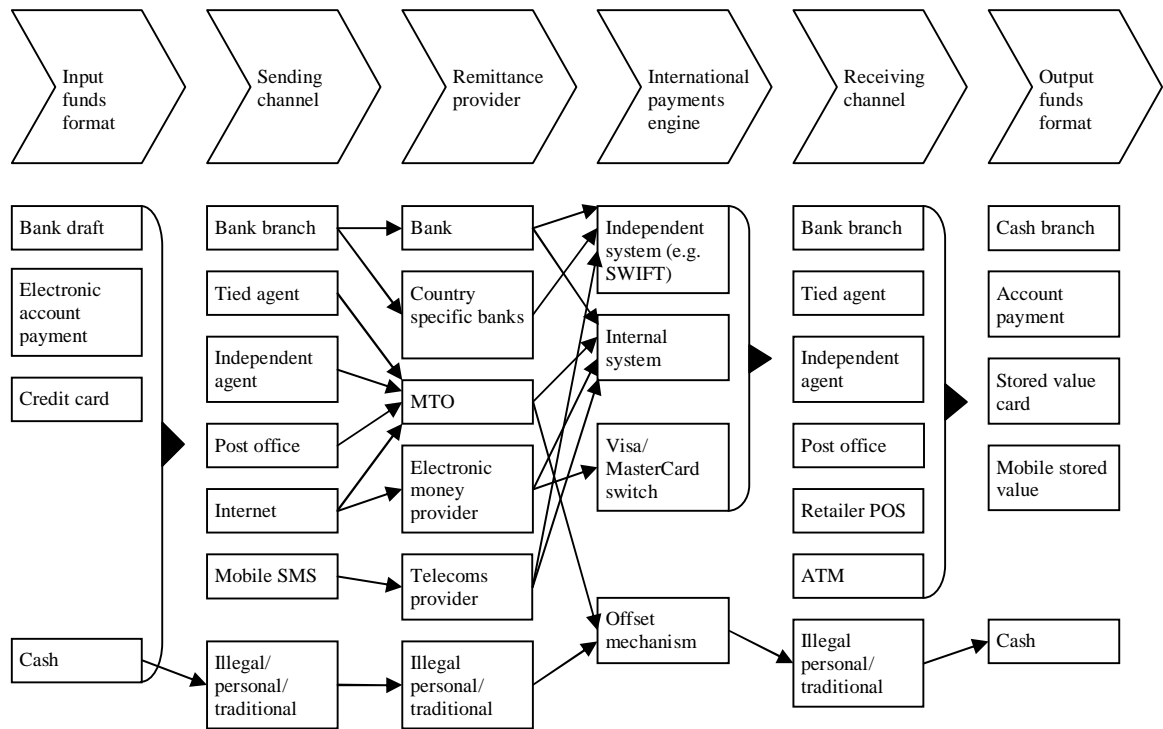
⁴⁴ In this case, providers also enable currency conversion. Some of them may even allow balances in multiple currencies within one customer account.

Table 6.2: Advantages and disadvantages of money transfer mechanisms

	Customers	Financial service providers (FSPs)	Restrictions to access by FSPs
Checks and bank drafts	Slow; subject to loss/theft; must be physically delivered; require bank accounts to send (not necessarily to receive)	Incur relatively high processing costs	Depends on local regulation; access often limited to regulated financial institutions only
Paper money orders	Slow; subject to loss/theft; must be physically delivered; do not require bank accounts to send or receive	Incur relatively high processing costs	Postal money orders for postal FSPs only; others can be issued/paid at variety of FSPs
Postal giro transfers	Requires a postal account for sending, but generally cheaper and more accessible than bank-based EFTs	Infrastructure requirements and costs can vary depending on agency relationship; generally more lucrative than other transfer mechanisms	Only postal FSPs can originate transactions; both postal and other FSPs can receive
Cash-based electronic transfers	Real-time delivery possible; no bank accounts required; numerous access points; higher price	Large network of agents is crucial; need to leverage the economies of scale	Depends on local regulation; agents sometimes restricted to banks, with fewer restrictions on subagents
Card-based transfers	Can be almost instant; require a bank account or credit card to send and an access to an ATM or POS to receive	Relatively low labor costs once the system is set up; customer identification important	Both the sending and receiving agent must have a contractual relationship with the card association; possible regulatory restrictions in some countries
Account-to-account transfers (electronic funds transfer)	Faster than paper-based instruments; requires bank accounts to send and receive; cheaper than cash-based transfers	Lower labor costs than checks, but requires link to network and infrastructure; fees lower than for cash-based transfers	Can be accessed by many FSPs through financial institutions with which they conduct business
Mobile virtual account transfers	Easy to setup and use; convenient, safe; requires a mobile phone; cheap; no bank account required	Low labor costs, requires link to network and infrastructure; requires to maintain a network of agents	Licensing and regulatory restrictions in many countries
P2P online transfers	Easy to setup and use; convenient, safe; requires an Internet connection; cheap; bank account or credit card required to send, ATM, POS or bank account required to receive	High transaction volume needed; difficult launch due to strong network effects	Licensing and regulatory restrictions in many countries

Source: Adapted from Isern, Deshpande and van Doorn (2005) and extended by the author

Figure 6.2: Value chain of remittance service providers



Source: Adapted from UK RWG (2005)

7 Provider market research

The aim in this chapter was to map the remittance service provision market through market research. First the representative services would be found, then these would be linked to their providers, and finally the providers would be grouped and described to establish their main categories. For each identified provider category, this chapter presents a general description and representative examples of particular services.

The examples focus on schemes that are specifically designed or suitable for remittance transfer. More attention is also devoted to innovative, unusual and inventive schemes. Their features are explored in greater details than obvious features of schemes that have existed for a long time, have been described by many sources, or can be very easily accessed and reviewed. For example, this is one of the reasons, why traditional services of MTOs, banks, credit unions and postal service organizations are not covered in detail.⁴⁵ Consequently, it is also the reason, why the services of new technology providers are inspected in depth.

The representative examples are mostly based on primary research of the different services, as sufficient description could not be found in any secondary sources. Many services were also used in order to examine their features.

7.1 Money transfer operators

As Leibsohn (2004) explains, MTOs are businesses that were established with a primary purpose of transferring money from one place to another. Unlike banks which tend to generate revenue from customer relationship oriented activities, such as deposit-taking and lending, MTOs generate revenue primarily from transaction processing. They tend to have a large portion of fixed costs, thus realize economies of scale. MTOs have been traditionally popular among the unbanked population.

MTOs' pricing schemes depend on many factors related to the actual costs incurred by the MTO and competitive forces in the market place. It is predictable that MTOs will

⁴⁵ Other reasons might be their broad scope and complexity. The thesis aimed at contrasting the notorious alternatives for sending remittances with the less obvious ones. A detailed description of the previous would prohibit it.

charge more in markets with lower levels of competition and in corridors they dominate. Dominance in a corridor can mean both the presence on the sending and receiving end. Particularly the receiving side tends to be covered disparately. Some rural regions may be relatively underserved by financial intermediaries and the choice of a remittance provider may be very limited.

The main components of the service charge are the actual cost of transfer to the operator, operational costs (overhead, marketing etc.), the collecting and distributing agent provisions and the operator's profit margin. The actual cost of the transfer itself depends on technology, financial infrastructure in a given corridor and other factors.⁴⁶

Besides the fee for transaction, MTOs make money on the exchange rate differential. Leibsohn (2004) mentions that this differential could be six to ten percent compared to officially available rates. Examination of Western Union and MoneyGram in section 5.1 however showed relatively favorable exchange rates offered by these companies.⁴⁷

MTO agents often perform other business activities besides remittance transfers. They do not need to be licensed themselves. MTOs usually provide equipment, training, branding and advertising. Agents can be sole traders, but also larger companies leveraging their existing branch networks.

MTOs are subject to licensing and regulation, which presents one of the significant barriers to enter the business and increase the start-up costs. Regulation focuses on prevention of money laundering and terrorist financing. Common control mechanisms in place are know-your-customer requirements, suspicious transaction monitoring and reporting, audits, staff training, written compliance manuals etc. Other regulatory requirements might aim at minimum net worth (capital) and information transparency.

⁴⁶ For example, Orozco (2002) estimated the cost structure for a specific service providing transfers from USA to Mexico as follows: 40% goes towards the actual cost of transfer and other operational costs, 50% is the provision for the agent, 10% is the profit. However, the distribution may vary greatly. The actual cost of transfer can be much lower than estimated by Orozco (2002).

⁴⁷ These rates were estimates published by the respective companies on their websites. They were however not guaranteed and the actual rates applied by agents might have been different. The sample of countries was also very limited, but yet it showed disparity among the exchange rate markups for different countries.

7.1.1 Western Union

The world's largest MTO is Western Union owned by First Data Corporation with more than 245,000 agent locations in 200 countries (Western Union, 2006). Western Union dominates the remittance markets in many countries including the USA. It has strong brand recognition. Besides traditional paper money orders and cash-based electronic transfers, it offers a range of innovative products, such as hybrid electronic transfers. It also provides other related services, such as bill payment.⁴⁸

Western Union uses three main access channels: agent locations, phone, and the Internet. The basic product offered is “Western Union Money Transfer”, which however has many modification with different rules and restrictions, mainly depending on the source and destination countries and on the disbursement options.

To initiate the transfer at an agent location, customers need to fill in a paper form with the transaction details and pay. To initiate a transfer over the phone, senders are assisted by customer service representatives, and can pay by credit/debit card.⁴⁹ The phone service is available 24 hours a day. Other features of the transfer are conceptually similar to the online service described next.

The online version of “Western Union Money Transfer” service enables sending money online using Visa or MasterCard credit/debit cards.⁵⁰ The money might be available for pick-up at an agent location almost instantly, although restrictions apply. The delivery time also depends on the service options selected by the sender (e.g., the “Next Day” or “Direct to Bank/Economy” services).

The sender fills in the receiver's name, city, state (region) and country, or selects a receiver from the list of previously saved ones. They enter the amount to be sent in the source currency or the amount to be received in the recipient's local currency where applicable. Exchange rate and the target amount that will be received are displayed where

⁴⁸ Western Union also offers “Western Union Gold Card Rewards Program”, which is an incentive scheme.

⁴⁹ The cards accepted over the phone are usually Visa and MasterCard, but other cards might be accepted as well depending on the country (e.g., Switch and Solo are accepted in the UK).

⁵⁰ The cards must be issued by a bank located in the sender's country. The service is available for senders from Austria, Australia, Canada, Germany, France, UK, Ireland, Netherlands, Norway, New Zealand, Sweden and the USA. Western Union uses the “Verified by Visa” and “MasterCard SecureCode” applications.

applicable.⁵¹ Western Union applies minimum and maximum limits based on the user's transaction history and based on the countries involved.⁵² Senders sign in or create a new registration by providing their personal identification information, and they must enter a phone number where they can be reached to verify the transfer. Optionally, they can enter a personal message for the recipient of up to 200 characters for an additional charge, and enter a phone number used to notify the receiver about the incoming transfer. Finally, senders enter the credit/debit card information, review the transaction details and submit. Senders are given a "money transfer control number" (MTCN) generated for the transaction. To collect funds, receivers fill in a paper form, and present an acceptable ID and the MTCN. The MTCN is also required for transaction tracking.

Western Union's "Direct to Bank" and "Economy" services enable sending money directly to qualifying bank accounts in the USA, Mexico and Philippines. "Direct to Bank" transfer can be initiated at an agent location. "Economy" service is offered online and allows payment by U.S. bank issued Visa or MasterCard credit/debit cards. Transactions usually take three business days, and costs less than the instant "Money in Minutes" service.⁵³ The maximum daily limit is \$3,000, and other limits apply. The sender must know the receiver's bank account details.

7.1.2 MoneyGram

MoneyGram is the second largest MTO in the world with approximately 104,000 agent locations in more than 170 countries (MoneyGram, 2006b).⁵⁴ MoneyGram offers a range of services, such as paper money orders, cash-based electronic transfers, hybrid electronic transfers, and electronic bill payment (MoneyGram, 2006). The company uses the partner networks of retail stores, check-caching outlets, banks, post offices, foreign exchange

⁵¹ Senders can also choose that the funds will be delivered in U.S. dollars. For some countries, disbursement in U.S. dollars is the only option.

⁵² For example, in the case of transfers from the USA, the amount must be at least \$1 and less than \$3,000, or equivalent in recipient's local currency. For transfers from the UK, the maximum amount is GBP 500 per transfer and GBP 999.99 per a 30 day period. Depending on the amounts sent, customers might be also required to provide additional proof of identification or other documents depending on local regulation.

⁵³ "Money in Minutes" is the brand name for the basic (instant) "Western Union Money Transfer" service offered in the USA.

⁵⁴ MoneyGram agents were present in 170 countries as of December 31, 2005 according to MoneyGram (2006c).

offices, travel agencies and other establishments. In some countries (e.g., the Philippines), MoneyGram offers home delivery and ATM cards as disbursement options.

“MoneyGram International Money Transfer” is a cash-based electronic transfer service. The funds can be available to the receiver within ten minutes after the transaction is submitted. “MoneyGram eMoney Transfer” is a hybrid electronic transfer that enables sending money online. With the “Same Day Service” the funds are usually available for disbursement in ten minutes. Transactions through the “Economy Service” might take three to five business days.

To send money via the “Same Day Service” or the “Economy Service”, users must first create a personal profile. Then they fill in the receiver’s name, the amount and the intended destination country. Depending on the destination country, the senders also select the disbursement method and currency. Sending limits apply. For most destinations the maximum that can be sent is \$899.99 per transfer⁵⁵ and \$3,000 per a 30 day period. Senders may attach a free short message for the recipient. Subsequently, senders choose a payment method. The “Same Day Service” transfers can be funded using a Visa and MasterCard credit/debit cards or ACH direct debit from a U.S. bank account. The “Economy Service” requires the ACH direct debit.⁵⁶ Finally, senders review and submit the transaction, and obtain a confirmation and a reference number that can be communicated to the receiver to facilitate the disbursement. The reference number can be also used for online transaction tracking. To collect the funds, receivers must fill in a form, and present an ID.

7.1.3 Other large and operators

After 20 years in business, Vigo Remittance Corp. has developed a strong market share in the USA—Latin America corridor. In 2005, it was acquired by First Data Corp. Vigo offers money transfers to 50 countries in Latin America, the Caribbean, Eastern Europe and Asia. It operates more than 4000 capturing locations in the USA and more than

⁵⁵ A maximum of \$899.99 applies to transaction funded from a bank account. Credit card funded transactions are usually limited to \$500.

⁵⁶ A bank account used for the direct debit must first be verified. The verification ensures that the user has access to the entered bank account. Within the procedure, MoneyGram makes two small deposits to the sender’s bank account. Several days later the sender accesses his or her account history, reads the deposit values and enters them at an appropriate section of the MoneyGram profile.

48,000 disbursement locations (Vigo, 2005). Most of the disbursement locations are in Latin America and the Caribbean.

Global Payments Inc. provides remittance services under its DoIEx (Dollar Express) and Europhil brands. With more than 700 company-owned and operated capturing locations in the USA, DoIEx focuses on the Latin American corridor, where it has approximately 10,000 disbursement locations provided through banks, foreign exchange offices and retail outlets. According to Payments News (2004), Europhil as an independent company was originally based in Madrid, and operated branches in Belgium and the UK.⁵⁷ Most of Europhil transfers are sent to Latin America, Morocco and the Philippines.

Travelex Money Transfer, formerly a wholly-owned subsidiary of Travelex Ltd., was acquired by Coinstar Inc. in 2006 (Payments News, 2006).⁵⁸ It operates around 17,000 agent locations in 138 countries. The service was provided mostly through agreements with banks, post offices and other retail outlets, though the company also had its own locations.

7.1.4 Small operators

Afritrans Ltd⁵⁹ is one of many examples of relatively small MTOs providing services in a small number of corridors, in this case from the UK to South Africa, Namibia, Swaziland, Zambia and Botswana (Afritrans Ltd, 2007). Recipients must have bank accounts to receive funds. Senders must first download, print, and complete forms with their identification, receiver information and transfer details, and then send them to Afritrans (Afritrans Ltd, 2007b).⁶⁰ Afterwards, they deposit money to Afritrans' dedicated UK bank account through an online transfer, check, direct debit or cash. The transfer fee is GBP 8. Afritrans provides information about the exchange rates used during the transaction, and also offers preliminary estimates online. The money usually arrives at the

⁵⁷ Global Payments Inc. acquired Europhil in 2004 (Payments News, 2004).

⁵⁸ In January 2007, it was being re-branded to Coinstar Money Transfer.

⁵⁹ Afritrans Ltd is a money service business registered in the UK with Her Majesty's Revenue and Customs.

⁶⁰ The first time senders use the service, they must also provide a copy of passport and a proof of address (e.g., a utility bill). Amounts larger than GBP 10,000 require a proof of from where the funds came.

destination bank account within two days from the moment it is deposited into Afritrans' UK account.

7.2 Banks

Traditional cross-border transfer services provided by banks (wire transfers) are usually not suitable for smaller recurring value payments due to high charges, long delivery time and other limitations. The percentage cost of a hypothetical remittance wire transfer could be easily 10, 20 or even 30 percent, and it may take over a week for the money to reach the receiver's account. Furthermore, the whole scenario assumes that the sender and the receiver have bank accounts, that the receiver can easily find out about the incoming item, and that the receiver can simply withdraw funds or use them for payments.

On top of the unsuitability of their service, banks in the past tended to exclude remittance senders. They concentrated on serving higher-income market and were not open to low-income consumers and undocumented migrants.

The situation has changed recently however as banks have started to recognize the market potential of the growing remittance provision segment. They also started to see the opportunity of cross-marketing and of bringing the unbanked population into the financial intermediation system. Initiatives aimed at Mexican immigrants in the USA demonstrate this trend.⁶¹

Banks have invented new products tailored to remittance senders, reduced the account maintenance fees and launched marketing campaigns aimed at immigrant communities.⁶² They have started to leverage new technology, including systems developed by card associations, to provide cost efficient services, for example the card-based transfers described in section 6.2.6.

⁶¹ Since 2001, some banks began to accept the *Certificado de Matricula Consular* (the *Matricula*) in combination with other identification documents, which enabled Mexican immigrant to legally open bank accounts (Leibsohn, 2004). The *Matricula* is an identification document issued by the Mexican government through consulates certifying that the holder is an immigrant of Mexican nationality.

⁶² For example, Leibsohn (2004) mentions that some banks in the USA acquired Mexican banks, or created partnerships with them, in order to improve their remittance disbursement capacity.

Large banks can take advantage of their low cost of capital and their existing network of retail locations to charge competitive prices below those of traditional, especially smaller MTOs. Unlike MTOs, which tend to focus on the transaction business where volume is essential, banks often concentrate on relationship business and may use their remittance services as a gateway to providing loans, deposit taking and investment intermediation. They may try to develop relationships with unbanked migrants despite the lack of short term profitability expecting that once their new customers develop savings habits, and improve their economic position, they will switch to products that are more profitable for the bank. Such a strategy seems to be reasonable considering the increasing number of migrants and their growing purchasing power. As with remittance senders, banks also aim at attracting remittance receivers by creating and marketing suitable products.

7.2.1 Wells Fargo

Wells Fargo offers a range of remittance services (Wells Fargo, 2007). The three main products are “International Remittance Account”, “InterCuenta Express Account” and “International ATM Remittance Account”.

“International Remittance Accounts” are provided in cooperation with partner banks in China (Agricultural Bank of China), the Philippines (Bank of the Philippine Island), India (ICICI Bank Ltd.) and Vietnam (Industrial and Commercial Bank of Vietnam). “InterCuenta Express Accounts” are provided through partner banks in Mexico (BBVA Bancomer, Banorte and HSBC Mexico), Guatemala (Banco Industrial S.A. and Banco de Desarrollo Rural S.A.) and El Salvador (Banco Agricola S.A.).

The approach is based on “sweep accounts”: money send to these accounts is automatically forwarded to the accounts of beneficiaries held at partner banks abroad. The funds are typically available to the receivers the next day. Remittance receivers therefore must open a bank account at a partner bank in order to receive funds. Each sweep account is limited to a single beneficiary designated by the sender.⁶³ Deposits can

⁶³ Thus, a sender, who wants to send money to multiple beneficiaries, must open multiple separate sweep accounts. The sender can change the beneficiary of a particular sweep account at any time by providing the beneficiary’s full name and address.

be made at Wells Fargo branches and ATMs.⁶⁴ Transfers to China, El Salvador and Vietnam are made in U.S. dollars. For remaining countries, the U.S. dollar amounts sent are converted to local currencies.⁶⁵ The bank charges flat fees of \$5 (Mexico, El Salvador, Guatemala, India and Philippines) and \$8 (China and Vietnam) per transfer. Daily transfer limits are \$1,000 for China and \$3,000 for the remaining countries.

The “International ATM Remittance Account” corresponds to the sender-centric card-based transfer model described in section 6.2.6.2. Upon opening the account and forwarding the provided ATM card to the receiver, the sender can deposit U.S. dollars to the account through Wells Fargo branches and ATMs. The funds can be withdrawn by the receiver in Philippines pesos using the ATM card at one of the Expressnet and MegaLink ATMs.⁶⁶ International ATM Remittance Accounts are subject to Federal Reserve’s Regulation D, which restricts so called “limited transactions”.⁶⁷ Beneficiaries can withdraw a maximum of \$400 per day in peso equivalent. There is a flat charge of \$5 per deposit. There are no maintenance fees, account opening fees, or minimum balance requirements. Each account can only have a single beneficiary or cardholder.⁶⁸

7.2.2 ICICI Bank

ICICI Bank offers a wide range of remittance transfer services to India under its Money2India brand (ICICI Bank, 2007). The money is deposited by the sender in local currency and converted into Indian rupee. The service presents the exchange rate. Most transfers are free or carrying a nominal charge (e.g., \$2) for amounts smaller than a

⁶⁴ ATM deposits require the sender to have a Wells Fargo debit card. Customers who do not have a Wells Fargo card already may receive an ATM card upon opening an “International Remittance Account”.

⁶⁵ Wells Fargo (2007) states that the bank offers “very competitive exchange rates”.

⁶⁶ According to Wells Fargo (2007b), ExpressNet and Megalink operate more than 4,000 ATMs in Philippines.

⁶⁷ Limited transactions include ACH transfers, online transfers, automatic transfers and telephone transfers. Over-the-counter and ATM withdrawals, and transfers between accounts through an ATM are excluded. Therefore, in practice Regulation D restricts deposits into the account, but not ATM withdrawals.

⁶⁸ The beneficiary can be changed at any time, in which case a new ATM card is sent out to the sender and the original card is disabled.

certain amount (e.g., \$1,000). Various maximum transaction and periodic limits apply, although they are relatively high in proportion to usual remittance amounts.⁶⁹

The “e-transfer” is an online service that enables sending money from U.S. consumer checking, savings or money market accounts via ACH direct debit. Senders must first register at the ICICI Bank website and provide their U.S. account information. The account is subsequently validated.⁷⁰ Upon validation, the senders can initiate transactions through the ICICI Bank site. The money can be received to an ICICI Bank account in India or to an account held at another Indian bank.⁷¹ Funds can also be credited to a Visa credit or debit card, to an ICICI Bank issued remittance prepaid card, or can be withdrawn through a demand draft payable at more than 2,300 locations throughout India. Senders can track transactions through the Money2India site. The service enables automatic recurring transactions as well.⁷²

ICICI Bank’s “Power Transfer” enables sending money to India through correspondent banks in Australia, Canada, Eurozone, Hong Kong, Norway, Singapore, Sweden, Switzerland, United Arab Emirates, UK and USA.⁷³ The sender signs into the Money2India service, and selects Power Transfer, which will take him through creating a wire transfer order. The result is a payment instruction recorded in the ICICI Bank system and a printable instruction for the sender’s bank to initiate a credit transfer from the sender’s account to an ICICI Bank nostro account held at one of the correspondent banks. The sender then sends the instruction to his or her bank. Money2India service enables

⁶⁹ For example e-transfer to a bank account is limited to a maximum of \$5,000 per day and \$15,000 per week; e-transfer to a Visa card to \$3,000 per day, \$12,000 per week and \$2,500 per transaction; and e-transfer to demand draft to \$3,000 per day and \$15,000 per week.

⁷⁰ ICICI Bank makes two small deposits each under \$1 and one withdrawal from the bank account. The value of the withdrawal equals the sum of deposits, thus the three transactions combined do not affect the account balance. Several days later the sender accesses his or her account history, reads the deposit values and enters them at an appropriate section of the Money2India profile. This procedure ensures that the user has access to the entered bank account.

⁷¹ ICICI Bank can forward the funds to any bank account held at a bank participating in the electronic credit facility provided by the Reserve Bank of India. According to ICICI Bank (2007), there are over 125 such banks in India.

⁷² Transfers are free to an ICICI Bank account.

⁷³ The correspondent banks are JP Morgan Chase (Australia and Singapore), Royal Bank of Canada (Canada), Deutsche Bank AG (Eurozone), HSBC (Hong Kong), DnB NOR (Norway), Nordea Bank AB (Sweden), UBS AG (Switzerland), Emirates Bank International PJSC (United Arab Emirates), Lloyd TSB (UK) and Bank of New York (USA).

transaction tracking. The funds can be collected through the same channels as in the case of ICICI Bank's "e-transfer".

Through "Cheque Transfer", remitters can send money from Canada, Eurozone, Singapore, UK and USA by entering the transaction in the Money2India system and mailing a paper check to one of ICICI Bank's lockboxes. The funds can be received to an ICICI Bank account or a remittance card.

ICICI Bank's "Direct Debit" ("NetExpress") service enables transfers from Australia, Canada, France, Germany, Singapore and the UK using domestic direct debit. The users first insert the transaction details at Money2India system, and then they enter the respective direct debit instruction at their banks' online banking applications. Disbursement channels are the same as with "e-transfer".

7.2.3 Bank of America

Bank of America initially launched its "SafeSend" remittance service to Mexico using prepaid card technology, but later switched to a different model. According to Bank of America (2007), "SafeSend" is now provided as a free service to customers who open a personal checking account with the bank.⁷⁴ The money can be received through more than 3,600 agent locations consisting of outlets of Banco Santander, Banorte, Bansefi, L@Red de la Gente and Telecomm-Telegrafos. The senders initiate the transfer over the phone and receivers collect funds by presenting an ID and an authorization code. The money can be usually picked up the same or the next business day depending on the disbursing agent opening hours. There are no additional periodic, per-transaction or withdrawal fees. There is no minimum amount, a maximum of \$1,500 per transfer, and a limit of three transfers with cumulative value of \$3,000 per 30 days.

7.3 Credit unions

Similarly to banks, credit unions seem to be interested in remittances not only for transaction revenue, but also for relationship building and gaining new customers for their other savings, loan and insurance products. They may also try to target the part of population that lacks financial literacy. According to Leibsohn (2004), the role of credit

⁷⁴ Bank of America accepts Mexican Matricula as identification (see footnote 61 for explanation).

unions is significant, because they promote good operating principles and transparency, reach remote geographic areas not covered by banks, provide financial services to low-income households, and may face less strict regulation in many developing countries. On the other hand, credit unions are typically smaller, have fewer service locations, may be required by law to only serve their members, and may have limited growth potential.

7.3.1 IRnet

In the USA, the primary platform enabling credit unions to enter the remittance provision market has since 1999 been the International Remittance Network (IRnet) established by the World Council of Credit Unions, Inc. (WOCCU).⁷⁵ WOCCU operates the service with its strategic MTO partners MoneyGram, Travelex and Vigo Remittance Corp. MTO partners provide the infrastructure allowing international transfers. IRnet enables sending money (1) from a U.S. credit union to a credit union abroad, (2) from a U.S. credit union to a partner location, and (3) from a U.S. partner location to a credit union abroad (WOCCU, 2007b). Currently, there are credit unions distributing funds in Bolivia, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Kenya, Mexico and Nicaragua.

According to IRnet operating rules, fees and exchange rates must be disclosed at the sending point, and no fees are charged to the beneficiaries to retrieve the money. Credit unions that wish to offer the service must pay a small sign up fee (\$300 to \$700), quarterly support fee (up to \$150) and a per-transaction fee of \$0.25 to \$0.75 depending on a credit union's quarterly transaction volume. The fee charged to the sender is set by each credit union. WOCCU provides training and marketing resources for credit unions offering the IRnet service.

7.4 *Postal service organizations*

In many countries, postal service organizations have played an important role in providing financial services to low-income people. Traditionally, they have offered international paper money orders. More recently, postal services introduced electronic

⁷⁵ WOCCU "is the world's leading advocate, platform for knowledge exchange and development agency for credit unions" (WOCCU, 2007). WOCCU members include regional and national credit union associations, cooperative organizations, and business service organizations in 92 countries, representing 42,616 credit unions serving about 157 million members. More about WOCCU's activities in the field of remittances can be found in WOCCU (2004).

transfers. The main agency creating international standards has been the Universal Postal Union (UPU). According to UPU (2005), around 30 postal service organizations use its International Financial System (IFS), an electronic data interchange for sending money orders. Some postal service organizations also use the Eurogiro system for cash and account transfers. The latest innovation has been the so called “Tele Money Order” (TMO) created by interconnecting the IFS and Eurogiro system.⁷⁶ The introduction of TMO widely extends the reach of electronic funds transfer services provided by post and should increase efficiency and decrease costs. The main advantages of TMO compared to paper money orders are the potential for full straight through processing, shorter delivery (2 days) and better tracking possibilities.⁷⁷

7.4.1 United States Postal Service

The United States Postal Service (USPS)⁷⁸ offers paper money orders to 29 countries⁷⁹ valued at up to \$700⁸⁰ for \$3.45. The orders can be purchased at USPS locations, and sent via “Global Priority Mail” or “Global Express Mail” to the beneficiaries, who can cash them at their post offices in local currency. In partnership with Bancomer Transfer Services Inc., USPS also offers electronic transfers to 10 countries (USPS, 2006).⁸¹ From 2,800 USPS branches, customers can send up to \$2,000 per transaction per day.⁸² The

⁷⁶ Eurogiro Network A/S is a club of financial institutions offering payment solutions in cross-border payments. Eurogiro is used in more than 40 countries and has access to around 200 countries via global alliances (UPU, 2005). Concise information about Eurogiro and its activities related to remittances can be found in Parl (2006).

⁷⁷ More details on TMO can be found in Eurogiro (2004).

⁷⁸ USPS is the “world’s leading provider of mailing and delivery services” (USPS, 2006). It delivers over 46% of the world’s total mail volume.

⁷⁹ Albania, Anguilla, Antigua and Barbuda, Bahamas, Barbados, Belize, Bolivia, British Virgin Islands, Canada, Cape Verde, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guinea, Guyana, Honduras, Jamaica, Japan, Mali, Mexico, Montserrat, Peru, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Sierra Leone and Trinidad and Tobago

⁸⁰ The maximum limits are different for Canada (\$1000), El Salvador (\$500) and Guyana (\$500).

⁸¹ The funds are disbursed through partner financial institutions. The service is available in Argentina (BBVA Banco Frances), Columbia (Banco Davivienda, BBVA Colombia, Banco Ganahorrar), Dominican Republic (Banco del Progreso, Banco BHD), Ecuador (Banco de Guayaquil, Banco del Austro, Banco Internacional, Produbanco), El Salvador (Banco Salvadoreno, Banco Uno, Agricola, Credomatic), Guatemala (Banco Industrial, Banco Uno, Banco de Desarrollo Rural, Credomatic), Honduras (Banco Uno, Banco Mercantil, Banco Ficohsa, Credomatic), Mexico (BBVA Bancomer), Nicaragua (Banco Uno, Banpro, Credomatic) and Peru (Interbank, BBVA Banco Continental).

⁸² Transfer exceeding \$1,000 require identification of the sender.

funds should be available to the recipients in 15 minutes. Senders obtain a receipt containing the exchange rate applied, service fee and the final amount that will be received by the beneficiary in local currency. Recipients are not required to have a bank account and do not pay additional fees to retrieve the money. Transaction fees vary by destination, tend to increase with the amount sent, and tend to start at or above \$10. USPS provides the fee information over the phone, but not on its website.

7.5 New technology providers

Besides the traditional providers of financial services, there are new entrants to the remittance provision market. There are several kinds of new initiatives. For example, some non-financial companies, such as large retail store chains, may provide remittances indirectly by allowing people living abroad to prepay goods and services for their relatives. Similarly, large merchants may create strategic partnership with traditional providers to offer a target value transfer product. The focus here will be on standalone remittance services, which are not linked to buying other products.

New technology providers often try to spot the business opportunity that they see in an underserved market or inefficient procedures of existing providers. Often they start on a relatively small scale focusing on one or several remittance corridors. They also utilize new technology both in the user interface and in the back office procedures. Typically, they would not have a branch network, but they might have agents and form partnership with other companies (e.g., financial institutions, MTOs, retail chains, telecommunication companies etc.). Partnerships are also common for regulatory and compliance purposes.⁸³ They might compete on lower cost, faster delivery and greater convenience compared to the established providers.

⁸³ For example, the provider might use a bank to handle the funds transfers as the activity requires a license. In other cases, the provider might ensure the technological and operational side of the business, but according to the terms of service, the users open accounts and/or enter in other legal arrangements with a licensed partner bank. Similarly, the disbursement of the funds abroad can be legally done through third-party funds handlers (so called “local market associates”).

7.5.1 Xoom

Xoom Corporation⁸⁴ offers “online-to-offline” hybrid electronic transfers to 23 countries.⁸⁵ Remittances can be sent in U.S. dollars and are disbursed in local currency. The sender first creates a login account at Xoom website. To send money, the remitter enters receiver name, address and phone number, chooses the amount to be sent and selects the disbursement and payment option.

Disbursement options vary across countries and include pick-up at a Xoom partner (agent) location, delivery to receiver’s address by courier and bank account deposit. Transfers can be funded via direct debit from a U.S. bank account, credit/debit card issued in the USA and via PayPal. Transfer fees depend on the amount, destination and funding source. Both the fees and the applicable exchange rate are provided before submitting the transfer. Some fees are very competitive.⁸⁶ The transfer amounts must be between \$25 and \$2,500.

Xoom (2007) states that average transfer times depend especially on the disbursement method and are 24 hours for pick-up, four business days for home delivery and three business days for direct deposit.⁸⁷ Xoom enables online transaction tracking. Xoom also offers its platform in the form of a wholesale service to third parties.⁸⁸

⁸⁴ Xoom Corporation is licensed as money transmitter in most U.S. states where such licensing is required. In Alabama, Connecticut, District of Columbia, Kentucky, Pennsylvania, Puerto Rico, Rhode Island, Utah, Vermont, and West Virginia, it legally uses the cooperation with MetaBank, a federally-chartered savings bank, to provide the service. By signing up for the service, the users open an FDIC-insured account with MetaBank.

⁸⁵ The destination countries and regions are Argentina, Bangladesh, Bolivia, Brazil, Chile, Dominican Republic, Ecuador, El Salvador, Guatemala, Hong Kong, India, Jamaica, Mexico, Morocco, Nicaragua, Nepal, Panama, Paraguay, Peru, Philippines, Sri Lanka, Uruguay and Vietnam (Xoom Corporation, 2007).

⁸⁶ Generally direct-deposit funded transfers (“Value Service”) are cheaper than other transfers (“Standard Service”). For example Value Service fees to India are \$5 to \$0 (decreasing with the amount), Standard Service is \$8 to \$15 (increasing with the amount). Value Service to Mexico is \$2.99 to \$4.99, Standard Service is \$3.99 to \$25.99.

⁸⁷ The minimum times are lower. Pick-up transfers can be available within minutes, other transfers the next business day. Initial direct deposit-funded transfer requires a bank approval, which usually takes four days (Xoom, 2007).

⁸⁸ Xoom WebAgent is designed for in-person and remote access environments, such as retail outlets and call centers. Xoom Gateway is an XML-based API for programmatic access to Xoom’s remittance service.

7.5.2 PayPal

PayPal⁸⁹ is a person-to-person online payment service that enables cross-border payments for goods and money transfers (PayPal, 2007). In recent years, PayPal expanded to 103 countries and regions and offers its services in 16 currencies.⁹⁰ The legal definition of the service, the contractual relationships between the service provider and the user, the service options, the service characteristics, the transfer and balance limits and the additional services vary across countries.⁹¹

PayPal has 14 localized sites⁹² with full functionality (i.e. enabling to add, withdraw, send and receive money). In 21 countries and regions,⁹³ it facilitates sending and receiving funds and withdrawing funds to a U.S. or local bank account.⁹⁴ In seven countries⁹⁵ users can send, receive and withdraw money to a U.S. bank account. In another seven countries,⁹⁶ users can also withdraw funds through a paper check in addition to withdrawals to a U.S. bank account. Finally, in 54 countries,⁹⁷ PayPal offers only the basic functionality of sending money.

⁸⁹ PayPal, Inc. is licensed as a money transmitter in most U.S. states where such licensing is required. PayPal (Europe) Ltd. is authorized and regulated by the Financial Services Authority in the UK as an electronic money institution.

⁹⁰ Canadian dollar, Euro, Great Britain pound sterling, U.S. dollar, Japanese yen, Australian dollar, New Zealand dollar, Swiss franc, Hong Kong dollar, Singapore dollar, Swedish krona, Danish krone, Polish zloty, Norwegian krone, Hungarian forint and Czech koruna

⁹¹ One of the most fundamental legal differences is the regulatory definition of the service in Europe and the USA. PayPal (Europe) Ltd. is an electronic money issuer, whereas PayPal, Inc. is a money transmitter. More on this can be found in Zika (2005).

⁹² Australia, Austria, Belgium, Canada, China, France, Germany, Italy, Netherlands, Poland, Spain, Switzerland, UK and USA

⁹³ Czech Republic, Denmark, Finland, French Guiana, Greece, Guadeloupe, Hong Kong, Hungary, Ireland, Japan, Martinique, Mexico, New Zealand, Norway, Portugal, Reunion, Singapore, South Korea, Sweden, Taiwan and Thailand

⁹⁴ U.S. bank accounts had to be denominated in U.S. dollars, local bank accounts in local currency.

⁹⁵ Costa Rica, Dominican Republic, Iceland, Israel, Malaysia, Turkey and Venezuela

⁹⁶ Argentina, Brazil, Chile, Ecuador, India, Jamaica and Uruguay

⁹⁷ Andorra, Anguilla, Aruba, Bahamas, Bahrain, Barbados, Bermuda, Botswana, British Virgin Islands, Brunei, Cape Verde, Cayman Islands, Croatia, Cyprus, Estonia, Falkland Islands, Fiji, French Polynesia, Gibraltar, Indonesia, Jordan, Latvia, Liechtenstein, Lithuania, Luxembourg ("Business Accounts" may also receive funds), Maldives, Malta, Mayotte, Montserrat, Namibia, Netherlands Antilles, New Caledonia, Philippines, Pitcairn Islands, Qatar, Russia, Samoa, Slovakia, Slovenia, Solomon Islands, South Africa, St. Helena, St. Kitts and Nevis, St. Lucia, St. Pierre and Miquelon, Togo, Tonga, Trinidad and Tobago, Tunisia, Turks and Caicos Islands, Ukraine, United Arab Emirates, Vietnam and Wallis and Futuna Islands.

To send money, a person must first create an account. Subsequently, the sender uses the intended beneficiary's e-mail address or mobile phone number to identify the receiver, chooses the amount and the currency,⁹⁸ and selects a funding source. Funding sources include bank account direct debit,⁹⁹ credit/debit card, eCheck and PayPal balance.¹⁰⁰ The receiver is notified by an e-mail or a text message and asked to retrieve the funds at PayPal. If there is no PayPal account associated with the recipient's e-mail address or phone number, the receiver must log in and add the address or phone number to his account, or open a new account. Withdrawal options vary between countries and include bank account, paper check and PayPal Debit MasterCard. Transfers between PayPal accounts are almost instant. The processing time for other transfers depends on the funding source and withdrawal option and could be several business days.¹⁰¹

“PayPal Mobile” is functionally similar to the Internet service except it uses mobile phone text messaging or automated voice service as the communication channels.¹⁰² To send money, the user signs up for a PayPal account online, and activates the mobile service. Thereafter the remitter can send a text message in a specific format including the amount and the receiver's phone number to PayPal to initiate a transaction. The sender is called back by an automated voice service and asked to enter a PIN for authentication. Alternatively, the sender can call PayPal's automated voice service to submit the transaction. The receiver is notified via phone about how to retrieve the money. Receivers that do not have a PayPal account are required to open one to retrieve the money.

PayPal offers “Personal” and “Premier/Business” accounts where adding funds and sending money is free, but receiving money is charged by a combination of fixed and percentage fee depending on the funding source and the monthly receipts in the case of

⁹⁸ Users can hold balance in multiple currencies within one account. If the sender does not hold balance in the particular currency, then the transaction is funded by conversion from the account's primary currency.

⁹⁹ Setting up a direct debit requires bank account verification. PayPal sends two random small deposits between \$0.01 and \$0.99 to the user's bank account. The users must then read the values of those deposits in the bank account transaction history or statement and enter them to PayPal.

¹⁰⁰ Users in the USA can fund transfer from “PayPal Buyer Credit”, a loan product hosted by GE Money Bank.

¹⁰¹ Author's estimate would be four to seven business days for most transactions.

¹⁰² PayPal Mobile is available in Canada, UK and USA. PayPal Mobile messaging service is only available with selected mobile operators (wireless carriers).

“Premier/Business” accounts.¹⁰³ There are sending and receiving limits depending on various factors, which however should not be prohibitive for smaller remittances. Withdrawing money is free to U.S. bank accounts, and for a fixed fee to other accounts and amounts below certain limits. Currency conversions are performed at a rate determined by PayPal and including a 2.5% spread above the wholesale rate PayPal receives. The rate is displayed at the time of transaction.

7.5.3 Moneybookers

Moneybookers¹⁰⁴ is similar in its money transfer functionality to PayPal. It provides electronic money issuance and cross-border transfers in 29 currencies.¹⁰⁵ To send money, users first deposit funds to their Moneybookers accounts. Then they can transfer the money to other users or non-users, who are asked to register in order to retrieve the money. Moneybookers also allows standing orders.

Users in 34 countries can use local payment methods to deposit and withdraw funds.¹⁰⁶ Users worldwide can use SWIFT wire transfer to deposit and withdraw money (although this method usually involves the very high fees charged by banks). To deposit money they can also use credit/debit cards.¹⁰⁷ Customers in OECD countries can withdraw money through a paper check. For bank account deposits, Moneybookers uses the credit transfer method, where users need to instruct their bank, rather than direct debit. Bank

¹⁰³ For example, in January 2007, receiving payments from PayPal balance and bank accounts was free for “Personal” accounts, and 1.9% to 2.9% + \$0.30 for U.S. “Premier/Business” accounts. Receiving payments funded by credit/debit cards and “PayPal Buyer Credit” was 1.9% to 2.9% + \$0.30 for U.S. “Premier/Business” accounts and 4.9% + \$0.30 for U.S. “Personal” accounts with the limit of five transactions per 12 month period (receiving more than five transfers requires an upgrade). For other countries, the fee schedules differed slightly.

¹⁰⁴ Moneybookers Ltd. is authorized and regulated by Financial Services Authority in the UK as an electronic money institution.

¹⁰⁵ Euro, Great Britain pound sterling, Bulgarian lev, U.S. dollar, Australian dollar, Canadian dollar, Czech koruna, Danish krone, Estonian koruna, Hong Kong dollar, Hungarian forint, Israeli shekel, Japanese yen, Lithuanian litas, Latvia lat, Malaysian ringgit, new Taiwan dollar, new Turkish lira, New Zealand dollar, Norwegian krone, Polish zloty, Singapore dollar, Slovakian koruna, Slovenian tollar, South-African rand, South-Korean won, Swedish krona, Swiss franc and Thailand baht

¹⁰⁶ Users could deposit and withdraw money to/from local bank accounts in Andorra, Australia, Austria, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, France, Germany, Greece, Hungary, Ireland, Italy, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Spain, Sweden, Switzerland and UK. Some type of a local payment method could be also used in China, Croatia, Finland, India, Japan, Latvia, Lithuania, Slovenia, Singapore and USA.

¹⁰⁷ Visa, MasterCard, American Express, JCB and Diners Club are accepted.

account deposits take between two and five days, credit card deposits are almost instant once the card has been verified,¹⁰⁸ check deposits can take up to 10 days. Cash or non-user (third-party) deposits to Moneybookers pooled accounts are strictly prohibited due to money laundering protection. Moneybookers offers personal and company accounts with different features but with the same fees.¹⁰⁹ It only allows one account per user and a single currency.¹¹⁰

Moneybookers enables mobile payments through its automated voice service.¹¹¹ Users must first activate it via their Internet profile, then they can send money to a phone number. The receivers are contacted via SMS or voice system with instructions how to retrieve the funds. Recipients without a Moneybookers account are required to open one.

Money deposits from local bank accounts were free (except for banks' processing fees on outgoing domestic transactions). Deposits from credit/debit cards cost 1.9% of the deposited amount.¹¹² Sending money costs 1% of the amount sent, up to EUR 0.50. Mobile payments are EUR 0.50 plus the cost of the call. Receiving money is free. Withdrawals to a local bank are EUR 1.80, via check EUR 3.50.¹¹³ Moneybookers uses the daily reference rates of the European Central Bank increased by 0.95% for currency conversions only involving euro, U.S. dollar and GBP, and 1.3% for other conversions.

The initial sending limit is EUR 1,000 per 90 days. It can be raised upon verification of a credit/debit card (EUR 3,000), a mailing address (EUR 5,000) or a bank account (EUR 15,000). There is no minimum withdrawal amount.

¹⁰⁸ To verify a credit/debit card, Moneybookers will make a random charge between EUR 1.01 and EUR 2.99. The user must then check the card's transaction history or statement for the exact amount and enter it into the Moneybookers profile.

¹⁰⁹ For example, the company account can be loaded from a business bank account, whereas deposits to personal accounts must be made from a bank account held in the user's own name.

¹¹⁰ The account currency can only be changed when the transaction history was empty through an inquiry to the customer service.

¹¹¹ The service is accessible through local numbers for callers in Germany and the UK and through a German phone number for other callers.

¹¹² Credit/debit card deposit limits apply and vary across card issuers and card types.

¹¹³ Checks can only be sent to Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Greece, Hungary, Iceland, India, Ireland, Italy, Japan, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, South Korea, Spain, Sweden, Switzerland, Turkey, UK and USA.

7.5.4 iKobo

The service of iKobo uses the sender-centric card-based transfer model. It allows users to maintain a balance on their account. Despite the interesting concept, the fact that the service has existed since 2001, and the \$4 million funding it has received from investors (Payments News, 2006b), the service lacks transparency and credibility. According to iKobo's terms, the users open a remittance account with a "financial institutional partner" by enrollment with iKobo (iKobo, 2007b). The name of this partner is however not mentioned in the terms at all. From, iKobo (2007c), it appears that the partner institution is Global Bank of Commerce, Ltd., an "off-shore" bank registered in Antigua and Barbuda.¹¹⁴

To send money, the user first creates an account at iKobo's website, adds a U.S. bank account or a credit/debit card as a funding source,¹¹⁵ and also adds a receiver to the receiver list by providing his or her name, address, e-mail address and phone number.¹¹⁶ Afterwards the sender can initiate a transaction by choosing the receiver, the amount and the funding source. For new receivers who have not previously used the service iKobo opens a new account and issues a Visa debit card linked to it, and ships the card to the receiver.¹¹⁷ The transfer amount is credited to the receiver's account.¹¹⁸

Recipients can withdraw the money through an ATM or use their debit cards at POS. iKobo charges \$5 + 3% of the amount sent for the transfers. The card is shipped via USPS or FedEx for \$1.99 within the USA and \$9.95 worldwide. iKobo cardholders are charged a monthly maintenance fee of \$0.99 and ATM withdrawal fee of \$1.99. Once the

¹¹⁴ Global Bank of Commerce, Ltd. (2007) confirms this.

¹¹⁵ iKobo authenticates credit/debit cards using Verified by Visa or MasterCard SecureCode features if those are enabled for the particular card. If not, iKobo uses its own undisclosed "fraud check" procedure (it charges the sender's credit/debit card a refundable verification amount of up to \$10 before the first use of that card). The details of this procedure are not provided. Bank accounts also need to be verified for direct debit before they are used as a funding source. iKobo charges the user's bank account two random small deposits each under \$1. The users must then read the charged amounts in the bank account transaction history or statement and enter them at iKobo.

¹¹⁶ E-mail and phone number are optional.

¹¹⁷ The PIN is e-mailed to the recipient, or the sender in the case where no e-mail was provided for the recipient.

¹¹⁸ Recipients, like other users, can log in to their account to view their balance and to make transfers from their remaining balance to other users' accounts. They use their e-mail address or the number of their iKobo card to log in.

card has been issued the transfers funded from an iKobo balance or a credit/debit card are almost instant. There is a sending limit of \$500 per transaction and sending and receiving limit of \$1,000 per month. The limits can be increased by additional user authentication.

7.5.5 HomeRemit.com

HomeRemit.com¹¹⁹ offers Internet-initiated transfers from Canada, UK and USA to more than 30 countries (HomeRemit.com, 2007).¹²⁰ Users must first establish an account and be verified by the provider.¹²¹ To send money, they sign in, and then enter the amount to be sent, the payment details, and the name and address of the receiver.

Transfers can be funded through credit/debit cards and Internet Check. The money can be disbursed via home delivery, bank account deposit or receiver's pick-up at an agent location. Customers can track transactions online. Sending limits depend on the source and destination countries, funding source and transaction history with HomeRemit.com, but are relatively high compared to usual remittance amounts. The delivery of funds to the receiver usually takes four to six days. Users can track pending transactions and set up recurring payments. HomeRemit.com provides exchange rate and fee calculators on its site. Transfer fees depend particularly on the amount sent, origination country, destination country and method of payment. "Internet Check" tends to be cheaper than a credit/debit card. Some transactions are even offered for free (e.g., "Internet Check"-funded transfers from USA to India).

¹¹⁹ HomeRemit.com utilizes a turnkey cross-border money transfer system provided by PayQuik.com, Inc. For compliance and regulatory purposes, the service is provided in cooperation with MetaBank, federally-chartered savings bank. By signing up for the service, the users open an FDIC-insured account with MetaBank.

¹²⁰ Argentina, Armenia, Bolivia, Brazil, Bulgaria, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Georgia, Guatemala, Honduras, India, Kyrgyzstan, Latvia, Lithuania, Nepal, Nicaragua, Pakistan, Panama, Paraguay, Peru, Philippines, Republic of Moldova, Russian Federation, Tajikistan, Ukraine, Uruguay, Uzbekistan and Venezuela

¹²¹ Verification is done either through social security number, or through supplementary identification documents (driver's license and bank account statement or credit card statement depending on the selected funding source).

7.5.6 G-Cash

G-Cash¹²² is a service based on mobile virtual accounts that enables mobile phone subscribers of Globe Telecom and Touch Mobile in the Philippines to send and receive payments via SMS text messages (G-Cash, 2007). Subscribers can also receive funds from non-subscribers in 14 foreign countries¹²³ through G-Cash authorized partners. To send money non-subscribers fill in a form including the amount and the receiver¹²⁴ details (name, address and phone number), present a valid ID and pay the transaction amount and the processing fee. The recipients can withdraw money in cash through G-Cash outlets¹²⁵ and “Globe Business Centers”. Alternatively, they can use the stored value to buy goods and services at G-Cash outlets, make online purchases, pay bills and make G-Cash transfers to other subscribers.

Cash deposits and withdrawals cost 1% of the amount with a minimum of PHP 10. Other services, such as transfers between G-Cash accounts and balance inquiries, are PHP 1 if requested via a text message and free if requested via the phone’s SIM menu. G-Cash does not provide information about the exchange rate applied in currency conversions.

The maximum balance that can be held at a G-Cash account, maximum transaction amount and maximum deposit and withdrawal amounts are PHP 10,000. Maximum amount that a subscriber can send or withdraw in cash is PHP 40,000 per day and PHP 100,000 per month. G-Cash outlets have higher limits.¹²⁶

¹²² G-Cash is operated by G-Xchange, Inc., a wholly owned subsidiary of Globe Telecom, Inc., a publicly traded company in the Philippines.

¹²³ Australia, Bahrain, Brunei, Canada, Hong Kong, Israel, Italy, Malaysia, Saudi Arabia, Singapore, Taiwan, United Arab Emirates, UK and USA (G-Cash, 2007b)

¹²⁴ Recipient must be a G-Cash subscriber. Recipients with expired phone numbers must claim the money at Globe service centers. The remittance cannot be claimed back at the sending merchant.

¹²⁵ G-Cash outlets are merchants that accept G-Cash and exchange G-Cash balance for cash. To withdraw money, a subscriber first fills in a service form detailing the transaction and presents an ID. The outlet’s clerk provides the subscriber with the outlet’s phone number. Then the subscriber submits a sending transactions through his or her mobile phone. Finally, the merchant clerk pays out cash to the subscriber. The processing fee can be paid separately or deducted from the transaction amount.

¹²⁶ G-Cash outlets may provide to their customers lower maximum and higher minimum amounts than those set for the entire system.

7.5.7 Remit2India

Remit2India¹²⁷ enables Internet-initiated transfers from 23 countries to India (Remit2India, 2007). To send money, users must register online, provide bank details for funding the transaction and specify the recipient. The transactions can be made from nine currencies¹²⁸ to Indian Rupee. In the USA, the funding is through direct debits via ACH. In Australia, Germany, Singapore and United Arab Emirates, users must instruct their banks to make credit transfers to local bank accounts held by Remit2India. In some countries, senders can mail in checks. Alternatively, they can use an international wire transfer, Moneybookers and PayPal. The money can be received to an account held at one of the 54 partner banks in India. It can be also disbursed through a demand draft delivered to the beneficiary via courier.

Finally, beneficiaries may obtain a Visa debit (ATM) card to retrieve the money.¹²⁹ Remit2India offers transaction tracking. The initial issuance of the debit card costs INR 150. Fees and exchange rates are available on the website and shown during the transaction. The upper limit on debit card withdrawals and POS purchases is INR 40,000 per day.

¹²⁷ Remit2India is operated by TimesofMoney, a part of Times Internet Limited, a wholly owned subsidiary of The Times of India Group, a public limited company under the Indian Companies Act (TimesofMoney, 2007). The funds transfer facility is ensured by Citibank N.A. and UTI Bank Ltd. (Remit2India, 2007)

¹²⁸ U.S. dollar, Canadian dollar, Singapore dollar, Great Britain pound sterling, Euro, Japanese yen, United Arab Emirates dirham, Australian dollar and Hong Kong dollar

¹²⁹ The ATM delivery option is provided in cooperation with UTI Bank registered in India.

7.6 Public sector initiatives

The remittance services market can be influenced by public sector initiatives. This is most likely to happen in a specific significant remittance corridor. An example could be “Directo a México” introduced in 2005 as a marketing tool to promote FedACH “International Mexico Service” managed by Federal Reserve Financial Services. It enables account-to-account international transfers between USA and Mexico through existing ACH infrastructure used for domestic payments. Central banks of the USA and Mexico (Federal Reserve Banks and Banco de México) function as a gateway operators. Originating banks in the U.S. are charged \$0.67 per transaction and the funds are available in receivers’ bank accounts in Mexico the next business day (Federal Reserve Financial Services, 2007).

8 Strategy

This chapter analyzes remittance services from the strategic standpoint. First, strategic positions of existing types of services are evaluated and compared. Then, main factors that should distinguish successful ventures are identified.

The chapter is concluded with a brief look at an important and often discussed questions related to the innovative services. Namely, what access channels should be used? Or alternatively, are the widely used Internet user interfaces the most appropriate?

8.1 Strategic positions of existing services

For the purpose of strategic analysis, the existing remittance services are distinguished here by their providers. For banks, two separate categories were created, because traditional bank transfer products (such as wire transfers) are very different from innovative products designed especially for remittance transfers.

Modified SWOT analyses were performed to provide an overview of prevailing issues and to contrast the services. These analyses apparently should not represent any specific providers. A regular SWOT analysis for a particular provider would differ from the analysis of the whole group. The tables list only the most important characteristics for the purpose of conciseness. These are prevalent characteristics that should apply to most providers within the group, but not all.

After having explored the main issues, the distinguished groups of services were evaluated based on selected criteria that were considered as most relevant to the competitive potential or position of the different services. Each service was marked in each category and an overall mark was calculated as a weighted average.

8.1.1 Modified SWOT analyses

Table 8.1 shows that despite the criticism of high fees, large MTOs have many crucial strengths. They are universal and accessible through tens and hundreds of thousands of locations, they are household names for most senders and receivers, they provide easy to use transfers in real time, and their services are backed by sound institutional capacities. Decreasing profit margins present a serious threat to the transaction-oriented businesses that do not cross sell other products.

Table 8.1: Modified SWOT for large MTOs

Strengths	Weaknesses
Brand recognition Customer loyalty Worldwide presence and multiple corridors Real-time funds transfer Automated processes Established relationships with suppliers, business partners and/or agents Large network of convenient retail locations/customer access points Convenient hours of operation Easy-to-use products that do not require the customers to be technologically savvy Knowledge base—suppliers, partners, technology, customers Low cost of borrowing Strong influence with regulators and legislators Access to payments infrastructure Availability of funds for large scale marketing campaigns Large business size and sufficiently long business history which induce consumer trust Availability of cash-to-cash transactions	High fees Strict sending limits High administrative cost of maintaining the large network of locations/agents
Opportunities	Threats
Marketing to unbanked consumers Economies of scale Implementation of new technologies Easy access to financing for innovation Partnerships with large financial institution in sending and receiving countries Innovative access channels and disbursement options Broad access to general public	Decreasing profit margins in the remittance provision business, commoditization Corporate bureaucracy Slow reaction to changes in consumer behavior Anti-competition law suits

Small MTOs seem to face more challenges than the large ones especially in the changing remittance provision landscape. The fact that they tend to focus on a specific corridor or a

few corridors would not be necessarily a disadvantage, but limited flexibility of their service is especially problematic if coupled with a slow reaction to changes in consumer behavior. Also the internal processes of small MTOs might be inadequate. Transfers might be slow and require manual operations. Process limitations are closely related to scalability and growth potential. The importance of efficiency is highlighted by the decreasing profit margins in remittance provision. On the other hand, small MTOs offer relatively easy to use products and they often have a close connection with local immigrant communities.

Table 8.2: Modified SWOT for small MTOs

Strengths	Weaknesses
Easy-to-use products that do not require the customers to be technologically savvy Customer loyalty Low operational costs due to absence of large network of retail locations/agents Convenient hours of operation Access to local immigrant community (particularly in the case of ethnic stores) Staff able to communicate in senders' native language Availability of cash-to-cash transactions	High fees Manual processes, data entry Limited scalability of the business Relatively unknown brand Slow transfers (long delivery time) Strict sending limits Limited reach to distant/rural areas in the receiving country High cost of borrowing Small number of customer access points Low influence with regulatory authorities
Opportunities	Threats
Marketing to unbanked consumers Specialization on a narrow market segment or specific remittance corridor and provision of services that are superior to those of large traditional providers Provision of customized services	Decreasing profit margins in the remittance provision business, commoditization Dependence on banking infrastructure Slow reaction to changes in consumer behavior Liquidity management New legislation and regulation Provider market consolidation Increasing competition from new entrants Ineffective marketing

Banks have traditionally provided international transfers. The main disadvantage however is that they are not suited for low value transactions. Low value wire transfers are expensive and slow. Furthermore, banks exclude many potential customers and their branches usually have inconvenient business hours. On the other hand, banking services are secure and reliable. Many banks' long business history induces trust, although immigrants and receivers might be generally suspicious about the banking system due to their negative experience from developing countries. One of banks' main advantages over

money transmitters is that they focus on a relationship-based business and thus they are less affected by decreasing profit margins in transaction processing. Banks could use transfer products as a gateway to new customers and market to them other higher-margin products they may need.

Table 8.3: Modified SWOT for banks (excluding innovative remittance services)

Strengths	Weaknesses
Secure and reliable services	Slow transfers (long delivery time)
Brand recognition	High fees
Customer loyalty	Limited reach to distant/rural areas in the receiving country
Knowledge base—suppliers, partners, technology, customers	Exclusion of undocumented immigrants
Established relationships with suppliers, business partners and/or agents	Exclusion of low-income, unbanked or financially uneducated consumers, and consumers with bad credit history or bad banking record
Strong impact on regulators and legislators	Lack of access to local immigrant communities
Access to payments infrastructure	Inconvenient locations
Large business size and sufficiently long business history which induce consumer trust	Inconvenient hours of operation
Opportunities	Threats
Economies of scale	Lack of immigrants' trust in banking system
Implementation of new technologies	Lack of trust in banking system in receiving countries
Cross-selling of related products	Corporate bureaucracy
Approaching unbanked customers and bringing them into the financial intermediation system	Slow reaction to changes in consumer behavior
Large network of retail locations/customer access points	Ineffective marketing
Easy access to financing for innovation, low cost of borrowing	
Partnerships with large financial institution in receiving countries	
Innovative access channels	

Innovative bank remittance services represent a very attractive value proposition as they combine banks' institutional capacities with innovative technology and processes. As a result, banks can provide cheap and relatively fast transfers. On the other hand, innovative services have higher user requirements and limited coverage of receiver countries. They also exclude many potential clients. A major opportunity for innovative services is that they can be used to market other banking services and to bring unbanked consumers to the banking system. Banks that want to provide innovative remittance services face a challenge of designing a profitable business model.

Table 8.4: Modified SWOT for innovative bank remittance services

Strengths	Weaknesses
Low fees Fast transfers Secure and reliable services Use of new technologies Innovative access channels Brand recognition Customer loyalty Knowledge base—suppliers, partners, technology, customers Established relationships with suppliers, business partners and/or agents Strong influence with regulators and legislators Access to payments infrastructure Large business size and sufficiently long business history which induce consumer trust	Requires customers to be comfortable using Internet and/or mobile phone applications Exclusion of low-income, unbanked or financially uneducated consumers, and consumers with bad credit history or bad banking record Exclusion of undocumented immigrants Coverage of only a few remittance corridors Low visibility of the service Lack of access to local immigrant communities
Opportunities	Threats
Economies of scale Cross-selling of related products Approaching unbanked customers and bringing them into the financial intermediation system Availability of funds for large scale marketing campaigns Providing bank's large network of retail locations (can be used for marketing) Easy access to financing for innovation, low cost of borrowing Partnerships with large financial institution in receiving countries Innovative low-cost solutions	Low profitability of the service Lack of immigrants' trust in banking system Lack of trust in banking system in receiving countries Increasing competition from new entrants Ineffective marketing

Credit unions provide relatively secure and reliable services. The fees vary, but can be reasonable. They have access to payments infrastructure and can take advantage of new technology solutions provided by WOCCU. In receiving countries, credit unions may reach areas that are not covered by banks and they might be less exclusive than banks which have focused on high income clientele. Also they might have better access to local immigrant communities as compared to banks. However, they still exclude undocumented, low-income and financially uneducated immigrants and may have inconvenient locations and business hours. The main opportunities seem to be the implementation of new technologies and the international cooperation between the credit unions.

Table 8.5: Modified SWOT for credit unions

Strengths	Weaknesses
Secure and reliable services Customer loyalty Coverage of remote areas in receiver countries Less exclusive than banks in receiver countries Established relationships with suppliers, business partners and/or agents Easy-to-use products that do not require the customers to be technologically savvy Access to payments infrastructure Service transparency Sufficiently long business history which induce consumer trust Access to local immigrant community	Exclusion of undocumented immigrants Exclusion of low-income and financially uneducated consumers Inconvenient locations Inconvenient hours of operation
Opportunities	Threats
Implementation of new technologies Worldwide network of cooperating credit unions Cross-selling of related products Approaching unbanked customers and bringing them into the financial intermediation system Innovative access channels Provision of customized services Alliances with financial infrastructure providers	Slow reaction to changes in consumer behavior Increasing competition from new entrants Ineffective marketing

Postal service organizations are known and trusted by the general public in most countries. They have a large and dense network of customer access points and offer easy to use cash-to-cash products. At the same time, postal service organizations have substantial institutional capacity to roll out and operate remittance services. That makes them good candidates for remittance provision. However, postal transfers are often slow, relatively expensive and subject to strict limits. In some cases they may not be very technologically advanced (e.g., based on physical delivery of a paper check). Post offices also tend to have inconvenient business hours. Postal services main opportunities lie in their access to general public, international cooperation and in the implementation of new technologies for automated transfers.

Table 8.6: Modified SWOT for postal services

Strengths	Weaknesses
Consumer trust Large and dense network of customer access points Easy-to-use products that do not require the customers to be technologically savvy Availability of cash-to-cash transactions Access to payments infrastructure Service transparency Automated processes Knowledge base—suppliers, partners, technology, customers Strong influence with regulators and legislators	Slow transfers (long delivery time) High fees Strict sending limits Slow implementation of innovative technology Inconvenient hours of operation
Opportunities	Threats
Broad access to general public, including undocumented immigrants and unbanked consumers Worldwide network of interconnected postal service organizations Implementation of new technologies Partnerships with large financial institution in receiving countries Innovative access channels Economies of scale Alliances with financial infrastructure providers	Decreasing profit margins in the remittance provision business, commoditization Corporate bureaucracy

New technology providers offer important innovative features, especially real-time transfers and 24-hour online access. The fees vary, but can be relatively low and competitive compared to the fees charged by banks and MTOs. New technology providers tend to have automated processes and often do not need to administer a large network of locations.

On the other hand, they are relatively unknown, impose strict transaction limits, have limited coverage of receiving countries and exclude many potential customers. They also have low impact on regulatory authorities and often encounter an incomplete legal framework due to their innovative nature.

New technology providers face multiple significant threats, some of which might be more difficult for them to handle compared to other providers. Some of the main threats are inability to reach critical mass quickly enough, decreasing profit margins in remittance business, compliance, dependence on competitors, frail back-office systems, computer

crime, fraud and liquidity management. Innovative low scale systems can be also easily replicated by competitors.

Some of the risks can be mitigated through partnerships with financial institutions and through well-prepared and constantly reevaluated strategy based on excellent knowledge of customer needs.

Table 8.7: Modified SWOT for new technology providers

Strengths	Weaknesses
Real-time funds transfer 24-hour online access Lower fees compared to banks and MTOs Automated processes Service transparency Low operational costs due to absence of large network of retail locations/agents More efficient operations due to lower level of corporate bureaucracy Scalable business	Relatively unknown brand Strict sending limits Limited reach to distant/rural areas in the receiving country Exclusion of undocumented immigrants Exclusion of unbanked consumers Requires customers to be comfortable using Internet and/or mobile phone applications High cost of borrowing Low visibility of the service Low influence with regulatory authorities Customers' data security concerns
Opportunities	Threats
Alliances with financial infrastructure providers Specialization on a narrow market segment or specific remittance corridor and provision of services that are superior to those of large traditional providers Innovative access channels and processes Quick reaction to new technological trends Provision of customized services Outsourcing of business processes that do not contribute to the firm's strategic advantage	Inability to reach critical mass of users Decreasing profit margins in the remittance provision business, commoditization Traditional providers adopting new technologies Price competition and discriminatory pricing from large traditional providers High cost and complexity of licensing and regulatory compliance, different laws in different countries, incomplete legal framework, changes in law that are hard to predict Dependence on financial infrastructure controlled by direct competitors (traditional providers) Frail back-office systems, systems that are incapable of swift reaction to increased volumes Limited ability of protection from computer crime (hacker attacks, fraud) Liquidity management Other providers may easily copy innovative procedures and processes Inappropriate price setting Incorrect initial and ongoing financial analysis and projections

8.1.2 Evaluation of competitive potential

Table 8.8 evaluates different remittance services. Different criteria were assembled and graded by relative importance on the scale of one to five, where five is the most important. The criteria with importance level of four and five were then chosen to evaluate the services. The scale was again one to five, where five was the best. The overall evaluation is calculated as a weighted average from the particular marks taking into account their relative importance.

The chosen categories of providers are very broad and therefore the marks cannot be understood as evaluation of specific providers that would fall in these categories. Some providers would surely score very differently from the rest of their group. The intention was to look at the mass of the providers as a whole.

The results of the comparison should be interpreted carefully. A small difference in the overall mark can hardly be seen as significant. However, one could distinguish four groups of services that seem to differ in their competitive potential. The services of large MTOs and the innovative remittance services of banks seem to have a high overall score suggesting their strong competitive position. Similarly, postal services have a relatively high score. On the other hand, small MTOs scored quite low. The rest of the services were in between with close overall marks. Interestingly, this group included the new technology providers.

The new technology providers had poor results due to many challenges they face, especially system security, consumer trust and loyalty, contact with local immigrant communities, exclusion of unbanked consumers and consumers with limited ability to use the Internet, low brand recognition, negligible impact on regulators and legislators, and the great complexity of compliance.

Small MTOs face even bigger problems in the dynamic remittance provision marketplace. They often have high and unclear fees, do not use modern access channels, do not provide convincing proof of security and reliability, have limited growth potential and overall problematic strategic outlook, and may even lack efficient internal processes.

Large MTOs on the contrary seem to have much higher competitive potential. One of their few downsides is the relatively high fees they charge. The result of this comparison might at the same time suggest their justification. It might be that large MTOs simply charge a premium for the unmatched service characteristics and relative quality.

Innovative bank remittance services currently seem to represent the only real threat to large MTOs. Except for limited access to local immigrant communities of senders and exclusion of unbanked consumers and consumers with limited ability to use the Internet, they possess very favorable features. Many innovative bank remittance services provide transparent, flexible, efficient and cost effective transfer options.

Postal services fall short of large MTOs and innovative bank remittance services but have done significantly better than the remaining services. Their main limitations were the lack of adoption of innovative technology on the customer interface and overall lower speed of technology adoption. Their products are potentially available to a large target customer group, but often lack desirable features, especially fast speed and low cost. Post offices also tend to have inconvenient opening hours.

Table 8.8: Evaluation of competitive potential of remittance services

Criterion	Importance of criterion	Large MTOs	Innovative bank remittance services	Postal services	New technology providers	Banks *	Credit unions	Small MTOs
<i>Transfer</i>								
Fees	5	2	5	3	4	1	3	2
Internet/mobile access	5	3	5	1	5	3	2	1
Capturing	4	5	3	5	3	3	3	3
Disbursement	4	5	5	5	4	3	3	4
Speed of transfer	4	5	5	3	5	3	4	3
Security	4	5	5	5	2	5	5	2
Reliability	4	5	5	4	3	5	4	2
<i>Customer</i>								
User requirements on simplicity	5	5	3	5	3	3	3	4
Consumer trust	5	5	4	5	2	4	4	3
Convenient hours of operation	5	5	5	3	4	3	3	5
Access to local immigrant community	5	3	2	4	2	2	3	5
Customer loyalty	4	5	3	4	2	4	5	4
Non-exclusion of potential customers	4	5	1	5	2	1	1	5
Communication in senders' native language	4	4	3	3	3	3	3	5
<i>Providers' strategy</i>								
Innovative thinking	5	4	5	3	5	2	3	2
Reaction to changes in market conditions	5	4	5	2	4	2	2	2
Growth potential	5	4	5	4	5	3	3	2
Brand recognition	4	5	5	5	2	5	3	2
Speed of adoption of new technologies	4	4	4	2	5	3	3	1
Impact on regulators and legislators	4	5	5	4	1	5	4	1
<i>Providers' processes</i>								
Automated processes	5	5	5	4	5	5	5	2
Compliance	5	5	5	5	1	5	5	2
Marketing, promotion	5	5	4	4	4	3	3	2
Use of technology in back-office functions	5	5	5	5	4	5	4	2
Use of technology in front-desk functions	4	4	5	2	5	4	2	2
Overall evaluation		4.45	4.30	3.79	3.43	3.37	3.32	2.71

Note:

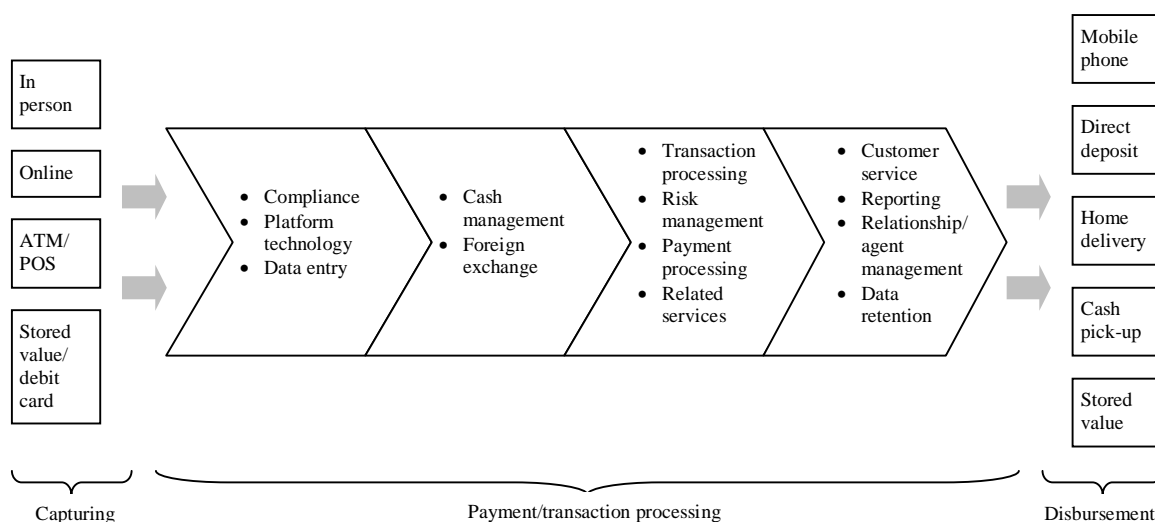
* excluding innovative remittance services

8.2 Factors distinguishing successful ventures

Based on the strategic analysis, it is possible to derive a set of general characteristics that successful ventures should possess. The emphasis here is on the long term perspective rather than transitory short term opportunities. For example, temporarily lower prices would not, by itself, be an indication of a successful venture.

Generally speaking, sustainable businesses in the field of remittance provision should (1) constantly reevaluate their competitive position; (2) have a clear value proposition that fits specific consumer needs; (3) think innovatively; (4) build relationships with customers; (5) understand well their own institutional capacity; (6) constantly improve their internal processes; (7) quickly react to changing market conditions; and (8) be able to quickly adopt new technologies. These rules should be applied throughout the provider's value chain as it is depicted in Figure 8.1.

Figure 8.1: Key components in an RSP's value chain



Source: Adapted from Trivedi (2005)

More specifically, essential factors for long-term successful businesses were identified in several areas that follow.

In **business strategy**: (1) strategic partnerships with financial institutions for the purpose of regulatory compliance where necessary; and (2) strategic partnerships with non-financial companies.¹³⁰

In the **service** area: (1) fast speed of transfers, preferably real-time transfers; (2) reasonable transaction limits that are not too restrictive; (3) efficient and simple capturing and disbursement options; (4) provision of services tailored to different customer groups and individual customers; (5) use of entrepreneurial principal in service delivery;¹³¹ (6) ability to learn from other existing commodity and transaction businesses; (7) ability to serve low-income and financially uneducated clients;¹³² (8) ability to serve undocumented immigrants; and (9) additional services.¹³³

In **operations** area: (1) use of back-office computer systems to achieve full automation; (2) capability of protection against fraud and system security threats; (3) sound and scalable operations, and (4) ability to deal with government regulations and reporting requirements.

In the area of **user interface and access channels**: (1) low requirements on customers' technological skills and financial knowledge;¹³⁴ (2) effective use of existing technologies to improve the access channels;¹³⁵ (3) easy-to-use user interface; (4) use of simple

¹³⁰ For example providers can partner with retail chains and mobile operators for the purpose of marketing and service delivery.

¹³¹ For example in recipient countries, individual users or small businesses might provide access to the service for a fee.

¹³² Ways of attracting and serving low-income customers are described with examples in Letelier, Flores and Spinosa (2003). Bair (2003) reviews the key issues in marketing banking services to Latin American immigrants in the USA.

¹³³ These could be for example inter-account payments enabling the provider to keep the funds on its books rather than paying them out in cash immediately after the completion of the transfer.

¹³⁴ Furthermore, the products should be designed to leverage skills that potential customers already have.

¹³⁵ Providers should utilize the potential of POS terminals, ATMs, Internet and mobile phones. Particularly the potential of mobile phones should not be underestimated as in many recipient countries the adoption of mobile phone technology exceeds Internet adoption.

language and examples that anyone can understand;¹³⁶ (5) easy-to-understand explanation of the security and privacy protection mechanisms to the customer; (6) convenient hours of operation, preferably 24-hour access; (7) transparency of fees and exchange rates; (8) reduction of paperwork in communication with customers; (9) provision of efficient and user-friendly transaction tracking; and (10) respect for customers' privacy.¹³⁷

In **marketing** (1) effective targeted marketing reaching local immigrant communities in their native tongue; (2) marketing of other products that the customers need; (3) ability to educate potential customers on how to use the service; and (4) suitable incentive schemes.

8.3 Innovative services access channels

Figure 8.2 shows interesting statistics. Among the different regions of low and middle income countries, the number of mobile phone subscribers exceeds the number of Internet users by more than a factor of two, and in most regions it is even higher. On average, there are more than three times as many mobile phone subscribers than there are Internet users. In Latin America and the Caribbean, the largest receiver region, for example, mobile phone subscribers represent 31.6% of population while only 11.5% of people have Internet access. In East Asia and Pacific, the percentages are 23.9 versus 7.4, and in the Middle East and North Africa, 17.6 versus 4.2. In Europe and Central Asia, mobile phone subscribers represent almost half of the population.

The situation among the top 20 country receivers of remittances is depicted in Figure 8.3. The number of mobile phone subscribers exceeds the number of Internet users by the factor of 2 in India, 3.5 in China, 2.7 in Mexico, 7.5 in the Philippines, 10 in Bangladesh and 4.7 in the Russian Federation. Mobile phone subscribers represent 76.6% of population in Poland, 58% in Serbia and Montenegro, 51.7% in Russian Federation, 48.4% in Turkey, and 40.4% in the Philippines.

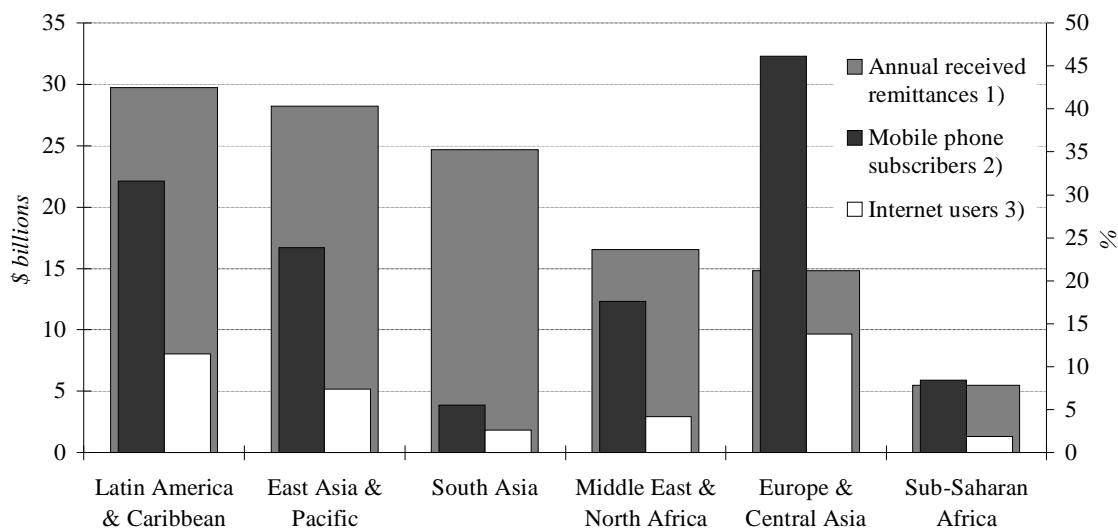
¹³⁶ For example, stating the target amount obtained by the recipient together with the exchange rate is more transparent than just posting the exchange rate by itself.

¹³⁷ Providers should only collect information required by the anti-money-laundering, know-your-customer and reporting regulations.

Figure 8.2: Annual received remittances and indicators of technological development (2000–2004)

(Average annual received workers' remittances and compensation of employees, and mobile phone subscribers and Internet users as a percentage of population)

Low and middle income countries by region



Notes:

- 1) Average annual received workers' remittances and compensation of employees (2000–2004)
- 2) Number of mobile phone subscribers as a percentage of 2004 population. The data about mobile phone subscribers is from CIA (2006).
- 3) Number of Internet users as a percentage of 2004 population

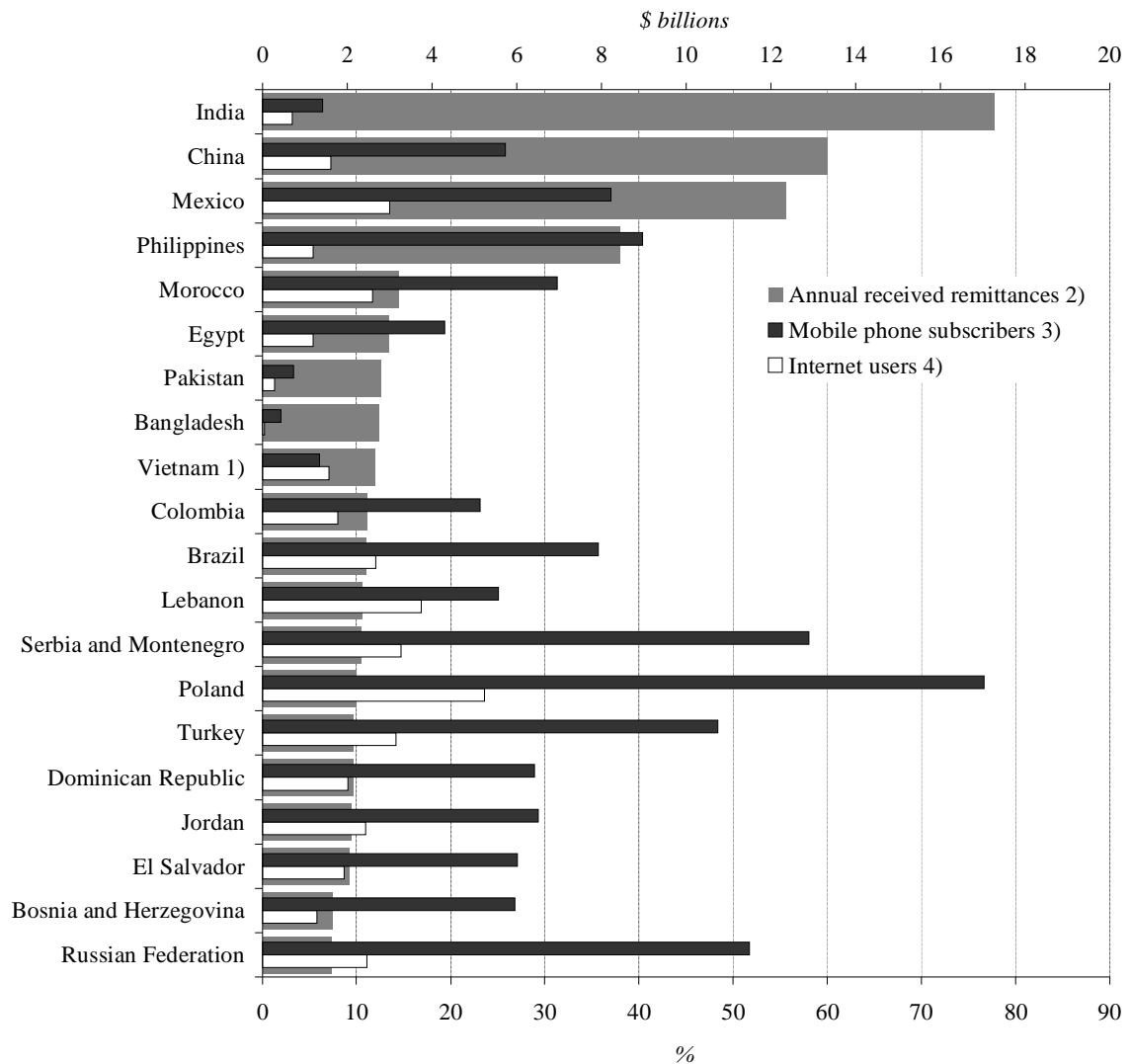
Country groups are specified in section 12.6.3.

Source: CIA (2006), WB (2006), author's calculations

Figure 8.3: Annual received remittances and indicators of technological development (2000–2004)

(Average annual received workers' remittances and compensation of employees, and mobile phone subscribers and Internet users as a percentage of population)

Top 20 low and middle income countries according to average annual received workers' remittances and compensation of employees



Notes:

1) Remittance data for 2000 was not available. ■ 2) Average annual received workers' remittances and compensation of employees (2000–2004) ■ 3) Number of mobile phone subscribers as a percentage of 2004 population. The data about mobile phone subscribers is from CIA (2006). ■ 4) Number of Internet users as a percentage of 2004 population

“Average annual received workers' remittances and compensation of employees (2000–2004)” could not be calculated for the following countries: North Korea, Timor-Leste, Federated States of Micronesia, Marshall Islands, American Samoa, Northern Mariana Islands, Palau, Uzbekistan, Turkmenistan, Cuba, Djibouti, Iraq, Afghanistan, Bhutan, Burundi, Central African Republic, Chad, Democratic Republic of the Congo, Liberia, Somalia, Zambia, Zimbabwe, Angola, Equatorial Guinea, Mayotte.

Source: CIA (2006), WB (2006), author's calculations

All these results imply that the mobile phone platform is likely to be a more suitable access channel for remittance services than the Internet. In reality however, with some exceptions, the innovative remittance services utilize Internet user interfaces rather than mobile phones. The reason lies in the more universal and open character of Internet platform as compared to the fragmented platform of mobile phones. In other words, it is easier to develop and make accessible applications for the Internet. Mobile phone applications face the challenge of compatibility with a broad range of devices. At the same time, the most widespread technologies available on mobile devices, such as SMS, are not extremely suitable for user-friendly remittance services.

Moreover, remittance transfer providers utilizing mobile phones must ensure that their services will be accessible through different carriers. This might require separate gateways and contractual agreements with individual operators in individual countries. The transfers of data or service messages over mobile networks are also in most cases more costly than transfers over the Internet.

The existence of challenges should not imply however, that mobile phones do not represent an access channel with a great potential for remittance provision. The current situation, where there are significantly more people in low and middle income countries that have their own mobile phone than there are people with Internet access, is unlikely to change anytime soon. Also, mobile phone subscribers have learnt how to use different services that might not be most user-friendly or efficient, but are readily available and understandable (e.g., requesting mobile multimedia content through text messages). The task is thus to overcome the existing challenges and realize the unexploited potential.

9 Global remittance flows

A thesis about remittances, and particularly one that looks at remittances from the service providers' perspective, would not be complete without an analysis of global remittance flows. This chapter has two parts. The first identifies what countries and country-groups are the largest remittance receivers, how important remittance flows are for them, and how the flows have changed over time.¹³⁸ The second part examines the most significant sender countries, and the time development of flows originating from them. Both parts identify the countries that have experienced the fastest growth in remittance payments.

Besides the most significant sources and destinations, it is also important to recognize the busiest regional and country corridors where remittances are sent. This is particularly relevant for service providers which need to choose both ends of the transfer products they are going to offer. Corridors are analyzed in section 9.3.

The discussion of remittances is concluded here by a review of barriers that prevent their free flow. Existing obstacles in the field of cross-border retail payments are burdensome for affected consumers, but also provide opportunity for existing and potential remittance service providers. A consideration of the current and expected future state of cross-border retail payments is crucial for strategy formulation.

For the purpose of comparing the total value of remittance flows to and from different countries and regions, one can look at the most recent annual officially reported figures.¹³⁹ The two main sources of the receiver (credit) data are the Balance of Payments Statistics Yearbook (IMF, 2005) and the World Development Indicators Database (WB, 2006). Unfortunately, the numbers reported for some countries differ between these two sources. IMF and World Bank also use different country and regional classification.

The section describing the receiver side of remittance flows will be mostly based on WB (2006) as this source provides data for a larger number of countries and is more

¹³⁸ Country-group definitions and methodology are summarized in section 12.5 in the Appendix.

¹³⁹ The difficulties and challenges related to the reliability of the official balance of payments data were briefly discussed in section 2.2.

complete in time.¹⁴⁰ For comparison purposes, the receiver statistics and chart recalculated using the IMF (2005) data are provided in section 12.1 in the Appendix. For the sender statistics, there is no choice but to use the IMF (2005) data.

In order to eliminate possible year to year distortion, averages computed from the annual figures for 2000 through 2004 are used for comparison in this chapter. As described in section 2.2.2, there are multiple methodological problems with the data and also the indicators based on them. Particularly the missing values in an annual time series data for a country lower most country-group growth indicators and may even reverse its sign.¹⁴¹

9.1 Receiver statistics

9.1.1 Country, country-group and regional comparison

Low and middle income countries are by the definition of remittances (as transfers made mostly to less developed countries, usually by migrant workers) considered to be the destination for remittances. Therefore this section focuses on them and leaves out the statistics for developed (or high income) countries. In low and middle income countries, the amount of received remittances is believed to be reflected by the sum of reported received workers' remittances and compensation of employees.

As illustrated in Figure 9.1, the Latin America and Caribbean and the East Asia and Pacific regions are the main receivers of remittances; each receiving about 24% of the total flows.¹⁴² They are followed by South Asia receiving roughly 21%.

According to IMF (2005), Latin America and the Caribbean receive the largest portion of remittances flowing to low and middle income countries, namely 30%. The total amount reported to have flown to this region is close to the sum based on WB (2005). IMF (2005) reports significantly lower flows to East Asia and Pacific, only \$15.1 billion, compared to \$28.2 billion obtained from WB (2006). As a result, the region seems less significant in

¹⁴⁰ The author also believes that the WB (2006) receiver data is more reliable and suitable for comparisons.

¹⁴¹ For individual countries, the formulas exclude missing values to prevent the distortion. Yet they cannot distinguish unrealistic estimates included in the data.

¹⁴² This section uses country groupings defined by the World Bank's for the purpose of World Development Indicators publications, unless specified otherwise. The composition of the groups is described in section 12.6.3.

the percentage terms (16% of flows to low and middle income countries, as opposed to 24%). The main cause of the lower aggregate figure is the significantly lower value for China (on average roughly \$10 billion annually less) and the unavailable data for Vietnam (\$2.7 billion annually according to World Bank).

A look at individual country receivers¹⁴³ reveals the interesting finding that a great portion of remittances within a region flows to a single country or a small group of countries. India receives 70% of all remittances to South Asia, China receives 47% of all remittances to East Asia and Pacific, and Mexico receives 43% of all remittances to Latin America and the Caribbean. In the Europe and Central Asia region, the remittances are more distributed with Serbia and Montenegro, Poland and Turkey each receiving approximately 15% of remittance inflows.¹⁴⁴ Similarly in Middle East and North Africa, there are several largest receivers, namely Egypt (18%), Lebanon (14%) and Jordan (13%). Africa is dominated by Nigeria with 26% and Sudan with 18% of all received remittances.

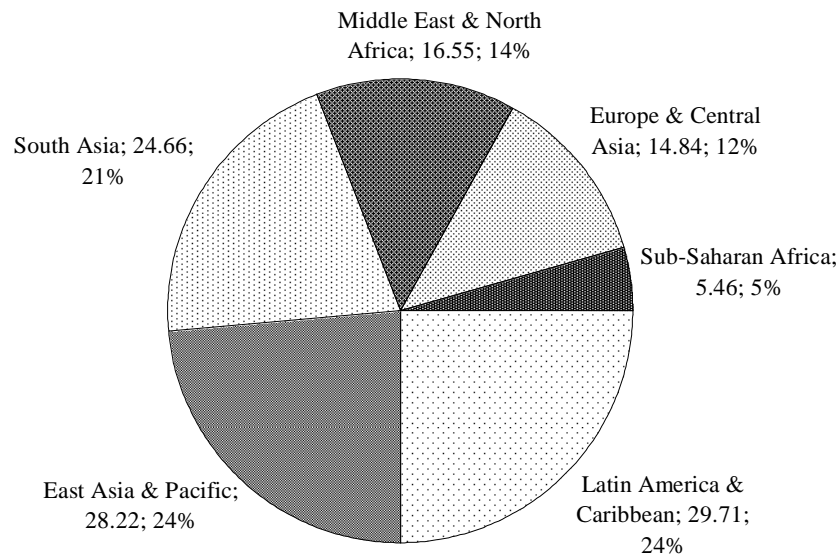
¹⁴³ Region by region country comparisons are provided in section 12.2.

¹⁴⁴ At the same time, it is notable that Poland receives 59% of all remittances flowing to new member countries of the EU.

Figure 9.1: Annual received remittances (2000–2004)

(Average annual received workers' remittances and compensation of employees)

Low and middle income countries by region, in \$ billions



Notes:

“Average annual received workers' remittances and compensation of employees (2000–2004)” could not be calculated for the following countries: North Korea, Timor-Leste, Federated States of Micronesia, Marshall Islands, American Samoa, Northern Mariana Islands, Palau, Uzbekistan, Turkmenistan, Cuba, Djibouti, Iraq, Afghanistan, Bhutan, Burundi, Central African Republic, Chad, Democratic Republic of the Congo, Liberia, Somalia, Zambia, Zimbabwe, Angola, Equatorial Guinea and Mayotte.

Remittance data for 2000 was not available for Vietnam, Tonga, Seychelles, Tajikistan, Uruguay and Suriname. ■ Remittance data for 2001 was not available for Tajikistan, Uruguay and Suriname. ■ Received workers' remittances and compensation of employees reported for São Tomé and Príncipe were zero in 2000.

Country groups are specified in section 12.6.3.

Source: WB (2006), author's calculations

The concentration of a large portion of remittances to just a few countries is also reflected in the overall world distribution of remittance receipts. India obtains 17%, China 13%, Mexico 12% and the Philippines 8% of all world remittances, as shown in Figure 9.2.

The most notable differences between the top 12 receivers of remittances according to WB (2006) and IMF (2005) are in the numbers for China and Lebanon.¹⁴⁵ China is the second largest receiver according to WB (2006) with \$13.4 billion, but according to IMF (2005) it only received \$3.12 billion annually between 2000 and 2004, which moves

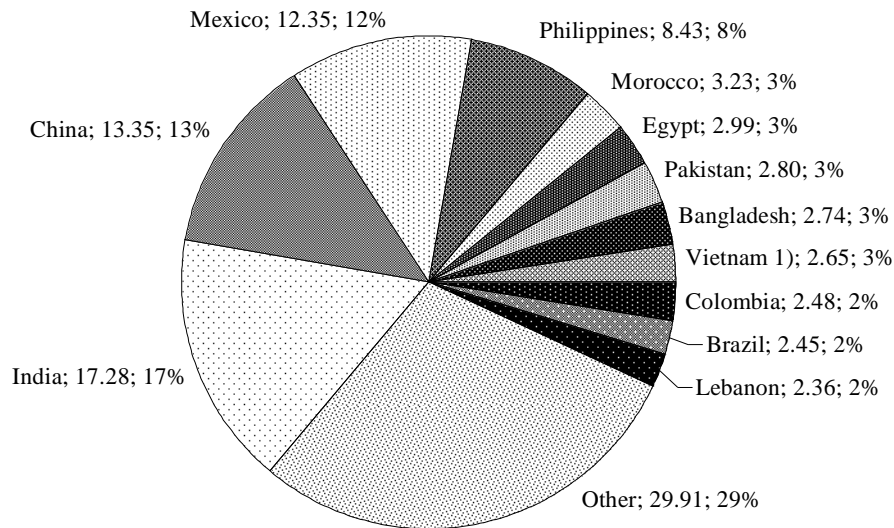
¹⁴⁵ IMF (2005) also does not provide data for Vietnam, which appears among the top recipients according to WB (2006).

it down to the sixth position in the list. On the contrary, Lebanon received more according to IMF (2005), \$4.3 billion in contrast to World Bank's \$2.4 billion.¹⁴⁶

Figure 9.2: Annual received remittances (2000–2004)

(Average annual received workers' remittances and compensation of employees)

Low and middle income countries, in \$ billions



Notes:

1) Remittance data for 2000 was not available.

“Average annual received workers' remittances and compensation of employees (2000–2004)” could not be calculated for the following countries: North Korea, Timor-Leste, Federated States of Micronesia, Marshall Islands, American Samoa, Northern Mariana Islands, Palau, Uzbekistan, Turkmenistan, Cuba, Djibouti, Iraq, Afghanistan, Bhutan, Burundi, Central African Republic, Chad, Democratic Republic of the Congo, Liberia, Somalia, Zambia, Zimbabwe, Angola, Equatorial Guinea and Mayotte.

Country groups are specified in section 12.6.3.

Source: WB (2006), author's calculations

Apparently, the total inflows of remittances do not reflect the differences in the population of different regions. To solve this problem, remittances per inhabitant might be constructed as it is done in Figure 9.3.¹⁴⁷ The largest amount of remittances per inhabitant was \$57 observed in Middle East and North Africa region, followed by \$56 in

¹⁴⁶ The average based on IMF (2005) excluded years 2000 and 2001 for which the data was not available. The difference however seems to be caused by relatively high figures for the years 2003 and 2004.

¹⁴⁷ The annual remittances per inhabitant are constructed by dividing the sum of annual received workers' remittances and compensation of employees for years 2000 to 2004 by the population figures for the respective years and then averaging the results.

Latin America and the Caribbean. On average, a single person in these two regions received significantly more (two, three, or even six times) than a person in any of the remaining regions.

Average received remittances per inhabitant calculated from the IMF (2005) data are lower. The biggest difference can be noticed in case of East Asia and Pacific, where the WB (2006) data suggests almost double the amount (\$15). This result is again affected by the discussed impacts of China and Vietnam. Also, according to IMF (2005), the Middle East and North Africa region does not receive the highest remittances per head, but falls behind Latin America and the Caribbean with only \$48, in contrast to the \$57 based on WB (2006). This is caused mainly by the unavailable data for Algeria. The Europe and Central Asia region receives \$24 per inhabitant according to IMF (2005), which is \$7 less than what the WB (2006) would imply. The main reason is the absence of data for Serbia and Montenegro in IMF (2005).

For the top receivers, these figures can be five to ten times higher, for example a single inhabitant of Lebanon received on average \$678 and inhabitants of Tonga, Jamaica, Bosnia and Herzegovina, Barbados, Jordan and El Salvador received more than \$300 per person. The average receipts among the top thirty receivers ranged from \$80 to \$678 as illustrated in Figure 9.4.

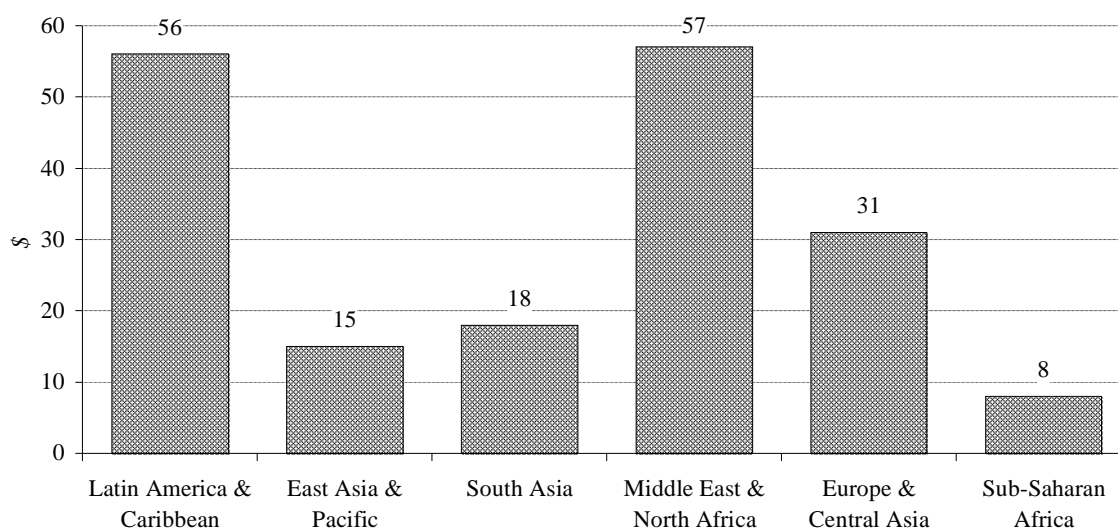
According to IMF (2005), a Lebanese received in remittances on average \$1,222 per year, almost twice the amount calculated from the WB (2006) data. On the other hand, an inhabitant of Jamaica received only \$389 according to IMF (2005), compared to World Bank's \$475. Vanuatu and St. Kitts and Nevis¹⁴⁸ also received significantly lower amounts of remittances per head compared to WB (2006). An inhabitant of Mauritius only received negligible amounts in contrast to relatively high \$171 based on WB (2006). Data for Serbia and Montenegro, Samoa and Grenada, which are among the top 30 receivers (in per inhabitant terms), is not available from IMF (2005).

¹⁴⁸ Remittance data for 2002, 2003 and 2004 was not available for St. Kitts and Nevis. Still, WB (2006) reported \$4 million in 2000 and 2001, compared to IMF's \$1 million.

Figure 9.3: Annual received remittances per inhabitant (2000–2004)

(Average annual received workers' remittances and compensation of employees per inhabitant)

Low and middle income countries by region



Notes:

Ordered by average annual received workers' remittances and compensation of employees (2000–2004).

“Average annual received workers' remittances and compensation of employees per inhabitant (2000–2004)” could not be calculated for the following countries: North Korea, Timor-Leste, Federated States of Micronesia, Marshall Islands, American Samoa, Northern Mariana Islands, Palau, Uzbekistan, Turkmenistan, Cuba, Djibouti, Iraq, Afghanistan, Bhutan, Burundi, Central African Republic, Chad, Democratic Republic of the Congo, Liberia, Somalia, Zambia, Zimbabwe, Angola, Equatorial Guinea and Mayotte.

Remittance data for 2000 was not available for Vietnam, Tonga, Seychelles, Tajikistan, Uruguay and Suriname. ■ Remittance data for 2001 was not available for Tajikistan, Uruguay and Suriname. ■ Received workers' remittances and compensation of employees reported for São Tomé and Príncipe were zero in 2000.

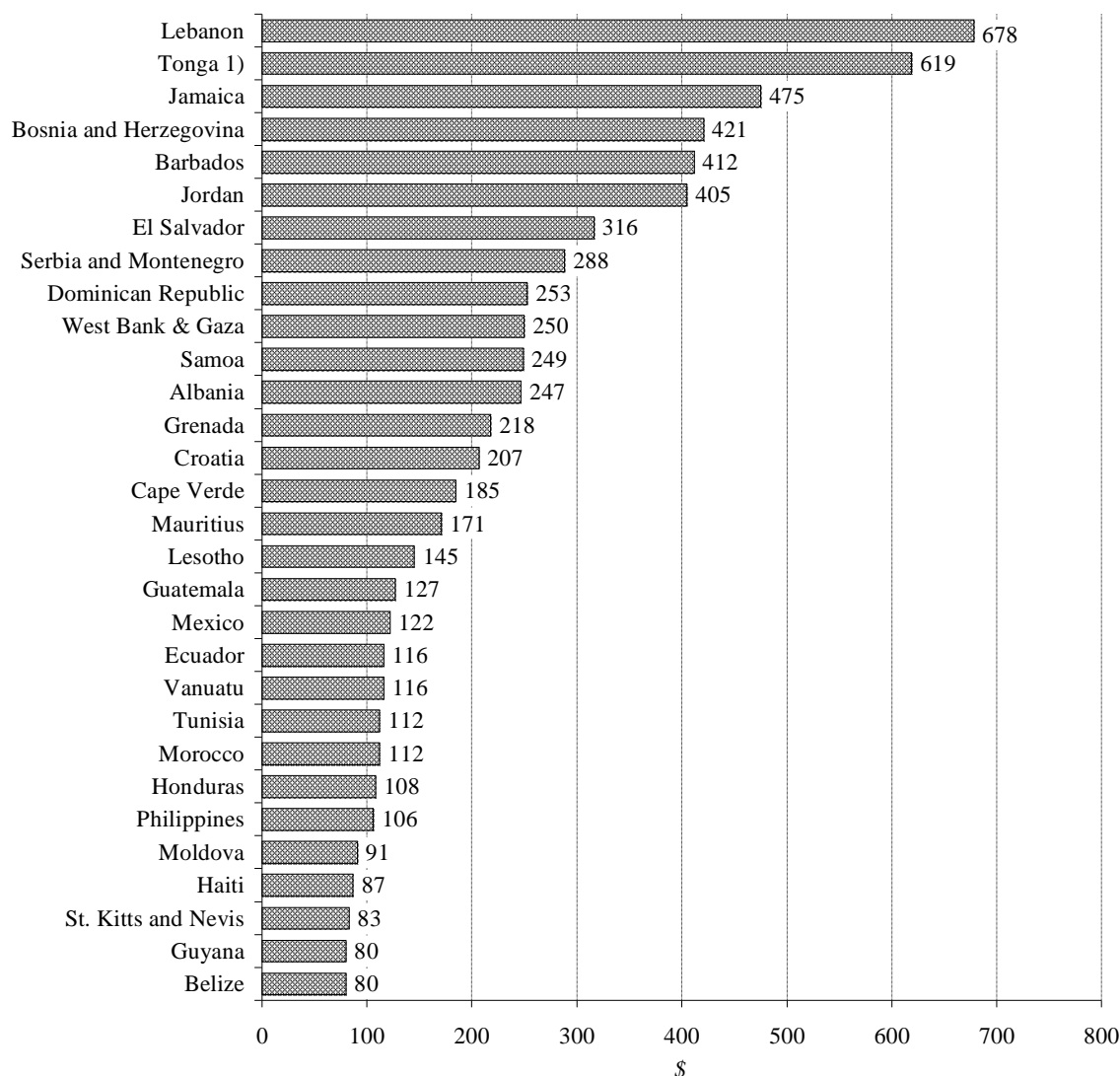
Country groups are specified in section 12.6.3.

Source: WB (2006), author's calculations

Figure 9.4: Annual received remittances per inhabitant (2000–2004)

(Average annual received workers' remittances and compensation of employees per inhabitant)

Top 30 low and middle income countries according to average annual received workers' remittances and compensation of employees per inhabitant



Notes:

1) Remittance data for 2000 was not available.

“Average annual received workers' remittances and compensation of employees per inhabitant (2000–2004)” could not be calculated for the following countries: North Korea, Timor-Leste, Federated States of Micronesia, Marshall Islands, American Samoa, Northern Mariana Islands, Palau, Uzbekistan, Turkmenistan, Cuba, Djibouti, Iraq, Afghanistan, Bhutan, Burundi, Central African Republic, Chad, Democratic Republic of the Congo, Liberia, Somalia, Zambia, Zimbabwe, Angola, Equatorial Guinea and Mayotte.

Country groups are specified in section 12.6.3.

Source: WB (2006), author's calculations

The importance of remittances as a source of national income and thus disposable income can be judged by relating their value to GDP.¹⁴⁹ As it can be seen in Figure 9.5, the size of remittances as a percentage of GDP was indirectly proportional to the income level. The average numbers were approximately 3.3% of GDP among the low income countries, 1.8% among lower middle income countries, and 1% among upper middle income countries. For high income countries, the percentage was close to zero.

According to IMF (2005), remittances received by low and lower middle income countries represent a smaller percentage of GDP, 2.6% and 1.3% respectively, which reflects the already discussed differences in reported remittance receipts.

An examination of individual countries reveals that for some of them the remittances may represent a portion of GDP that is significantly higher than the above mentioned averages. For the top thirty countries, the indicator ranges from 6.5% to 38.8% as shown in Figure 9.6. For Tonga, Bosnia and Herzegovina, Lesotho, Jordan, West Bank and Gaza, Haiti, and Moldova, remittances represent more than one fifth of GDP.

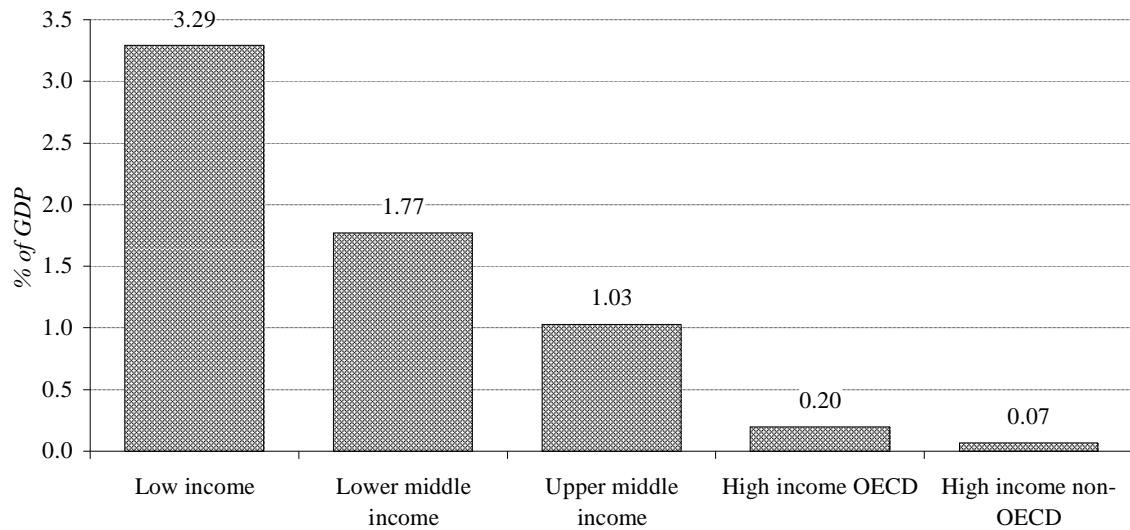
According to IMF (2005), remittances received by in West Bank and Gaza represented only 14% of GDP, seven percentage points less than what WB (2006) suggests. IMF (2005) does not provide the data for Samoa and Vietnam, which are in the top thirty list according to WB (2006).

¹⁴⁹ Annual remittances as a percentage of GDP were calculated by dividing the sum of received workers' remittances and compensation of employees for years 2000 to 2004 by the annual GDP figures for the respective years and then averaging these results.

Figure 9.5: Annual received remittances as % of GDP (2000–2004)

(Average annual received workers' remittances and compensation of employees as a percentage of GDP)

World by country income group



Notes:

“Average annual received workers’ remittances and compensation of employees as a percentage of GDP (2000–2004)” could not be calculated for the following countries: North Korea, Timor-Leste, Federated States of Micronesia, Marshall Islands, American Samoa, Northern Mariana Islands, Palau, Myanmar, Uzbekistan, Turkmenistan, Cuba, Djibouti, Iraq, Afghanistan, Bhutan, Burundi, Central African Republic, Chad, Democratic Republic of the Congo, Liberia, Somalia, Zambia, Zimbabwe, Angola, Equatorial Guinea and Mayotte.

Remittance data for 2000 was not available for Vietnam, Tonga, Seychelles, Tajikistan, Uruguay and Suriname. ■ Remittance data for 2001 was not available for Tajikistan, Uruguay and Suriname. ■ Received workers’ remittances and compensation of employees reported for São Tomé and Príncipe were zero in 2000.

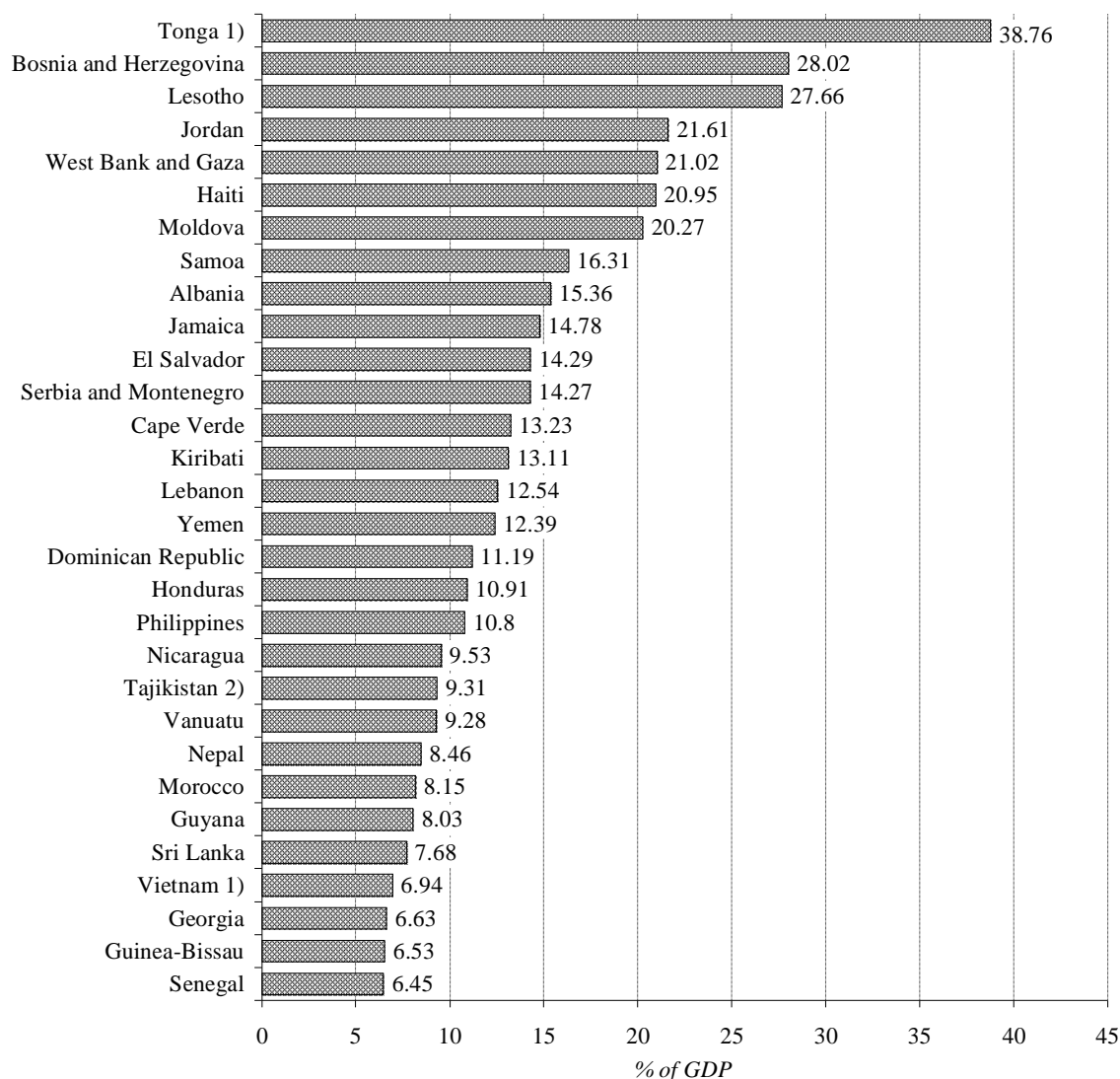
Country groups are specified in section 12.6.3.

Source: WB (2006), author’s calculations

Figure 9.6: Annual received remittances as % of GDP (2000–2004)

(Average annual received workers' remittances and compensation of employees as a percentage of GDP)

Top 30 countries according to average annual received workers' remittances and compensation of employees as a percentage of GDP



Notes:

- 1) Remittance data for 2000 was not available.
- 2) Remittance data for 2000 and 2001 was not available.

“Average annual received workers' remittances and compensation of employees as a percentage of GDP (2000–2004)” could not be calculated for the following countries: North Korea, Timor-Leste, Federated States of Micronesia, Marshall Islands, American Samoa, Northern Mariana Islands, Palau, Myanmar, Uzbekistan, Turkmenistan, Cuba, Djibouti, Iraq, Afghanistan, Bhutan, Burundi, Central African Republic, Chad, Democratic Republic of the Congo, Liberia, Somalia, Zambia, Zimbabwe, Angola, Equatorial Guinea and Mayotte.

Source: WB (2006), author's calculations

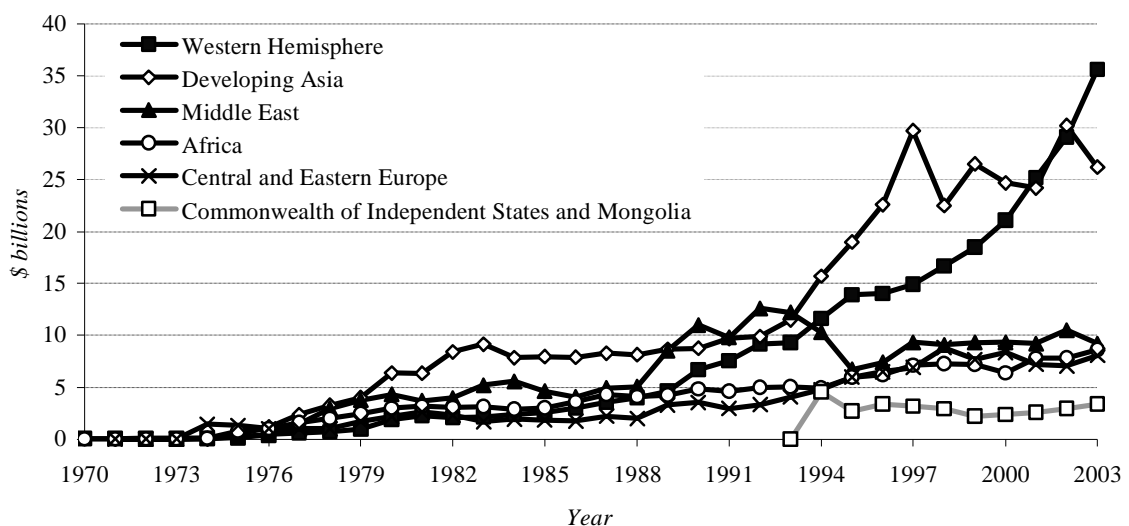
9.1.2 Dynamics and trends

Looking at the development of remittances in the past three decades, one can observe that developing countries in Asia and Latin America experienced the strongest growth, especially since the 1990s. Figure 9.7 shows that over the fifteen-year period ending in 2003, remittance inflows to the countries classified in the Western Hemisphere group of the World Economic Outlook (IMF, 2005d) increased almost eight fold, and inflows to Developing Asia countries grew three times.

Figure 9.7: Annual received remittances (1970–2003)

(Sum of annual received workers' remittances, compensation of employees and migrant transfers)

Developing countries according to IMF's World Economic Outlook country groups



Notes:

- 1) Constructed according to Appendix 2.1 in IMF (2005c), pp.97–100.
- 2) Gross inflows

Country groups are specified in section 12.6.1.

Source: IMF (2005c)

The total values of remittances received by regions defined according to the World Bank's classification each year between 2000 and 2004 are summarized in Table 9.1 and graphically depicted in Figure 9.8.

Table 9.1: Received remittances (2000–2004)

(Received workers' remittances and compensation of employees)

Low and middle income countries by region, in \$ billions

Region	2000	2001	2002	2003	2004
Latin America and the Caribbean	20.1	24.4	28.1	34.8	41.1
East Asia and Pacific	16.7	20.1	27.2	35.9	41.3
South Asia	17.2	19.2	24.2	31.1	31.7
Middle East and North Africa	13.2	15.1	15.6	18.6	20.4
Europe and Central Asia	13.4	13.0	13.3	15.1	19.4
Sub-Saharan Africa	4.6	4.6	5.0	5.7	7.3
<i>Total</i>	<i>85.2</i>	<i>96.4</i>	<i>113.2</i>	<i>141.2</i>	<i>161.1</i>

Notes:

“Received workers’ remittances and compensation of employees (2000–2004)” was not available for the following countries: North Korea, Timor-Leste, Federated States of Micronesia, Marshall Islands, American Samoa, Northern Mariana Islands, Palau, Uzbekistan, Turkmenistan, Cuba, Djibouti, Iraq, Afghanistan, Bhutan, Burundi, Central African Republic, Chad, Democratic Republic of the Congo, Liberia, Somalia, Zambia, Zimbabwe, Angola, Equatorial Guinea and Mayotte.

Remittance data for 2000 was not available for Vietnam, Tonga, Seychelles, Tajikistan, Uruguay and Suriname. ■ Remittance data for 2001 was not available for Tajikistan, Uruguay and Suriname. ■ Received workers’ remittances and compensation of employees reported for São Tomé and Príncipe were zero in 2000.

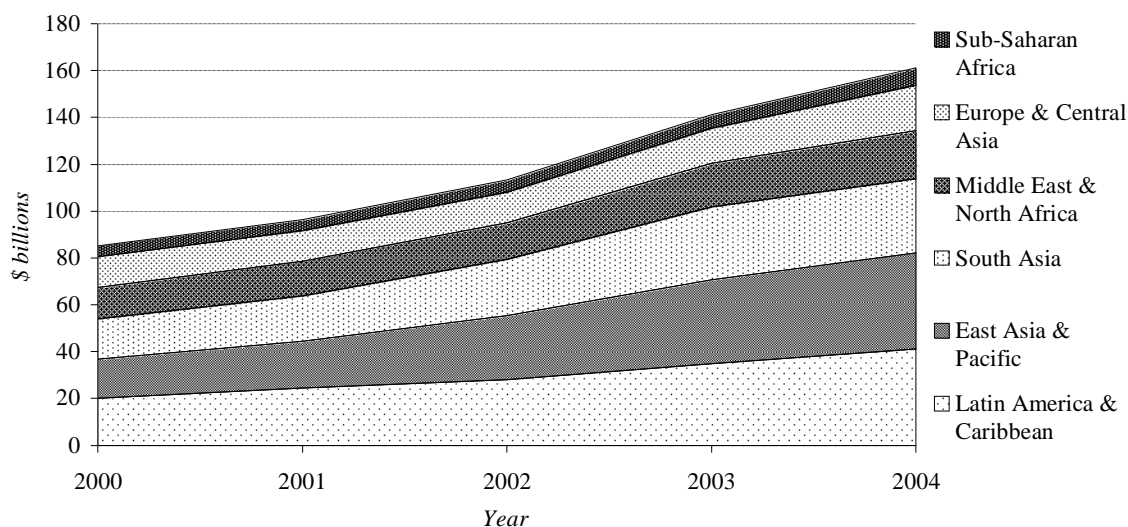
Country groups are specified in section 12.4.3.

Source: WB (2006), author’s calculations

Figure 9.8: Received remittances (2000–2004)

(Received workers' remittances and compensation of employees)

Low and middle income countries by region



Note: Same notes as in Table 9.1 apply here.

Source: WB (2006)

The strong growth of remittances into Asia and Latin America can be also seen from Figure 9.9. The growth of remittances is compared here with the GDP growth. Interestingly, for all regions, the year-on-year increase of remittance exceeds the average growth of GDP of the respective regions, as well as the World's overall GDP growth. The three regions with the fastest growth of remittances between 2000 and 2004¹⁵⁰ were East Asia and Pacific (26%), Latin America and the Caribbean (20%) and South Asia (17%).¹⁵¹ These figures show that remittances do not merely increase proportionally to the economic growth, but grow a significantly faster pace and become increasingly important sources of income.

¹⁵⁰ The ranking strongly depends on the methodologies used and given the measurement and reporting problems may not be reliable. For example Europe and Central Asia's relatively low growth of received remittances is mainly caused by the reported year-on-year decrease of remittance receipts for Turkey between 2000 and 2001 and their low growth between 2001 and 2002. The annual increases of remittance flows to Europe and Central Asia for 2002–2003 and 2003–2004 were 13.9% and 28.5% respectively. Similarly, the average growth for Sub-Saharan Africa was influenced by the decline of the reported remittances flowing to Nigeria in 2001. The average annual growth between 2002 and 2004 was 17%, as opposed to 12.7% for 2000–2004.

Except for East Asia and Pacific, the differences in the growth of remittances received by regional groups of low and middle income countries calculated according to WB (2006) and IMF (2005) are mainly caused by missing data for particular countries and years.

The most obvious case is South Asia, which has a negative 2000–2004 growth because of unavailability of 2004 data for India. As India's receipts represent the biggest portion of the inflows to the entire region, its exclusion completely distorts and even inverts the growth indicator. If 2004 was omitted, the average annual growth would come to 22.05%, which is very close to the corresponding value calculated using the WB (2006) data (22.03%).

The growth calculated for the Middle East and North Africa is more than six percentage points higher according to IMF (2005). This is mostly due to the inclusion of the previously missing data for Lebanon in the 2002 total which drives the 2001–2002 regional growth. The 2002–2003 growth based on IMF (2005) is significantly higher due to \$2 billion larger 2003 inflows reported for Lebanon. These two factors prevail despite the unavailable data for Algeria and also the Lebanon's missing values for 2000 and 2001, which lower the IMF (2005) based growth.

The average growth of remittances received by Europe and Central Asia is 4.55% according to IMF (2005), less than half the WB (2006) value. This is caused mainly by the lower 2003–2004 increase affected by the absence of Serbia and Montenegro in the IMF (2005) aggregate. Serbia and Montenegro represent a large portion of the WB (2006) total and exhibit a high 55.2% year-on-year growth. When year 2004 is excluded from the calculations, the growth indicators based on the two sources are less than 2.5 percentage points apart.

The 3.56 percentage point lower average annual growth for Sub-Saharan Africa is influenced by the lower 2003–2004 growth caused by the missing 2004 value for Senegal in the IMF (2005) data. Average growth indicators based only on data between 2000 and 2003 would be less than one percentage point apart.

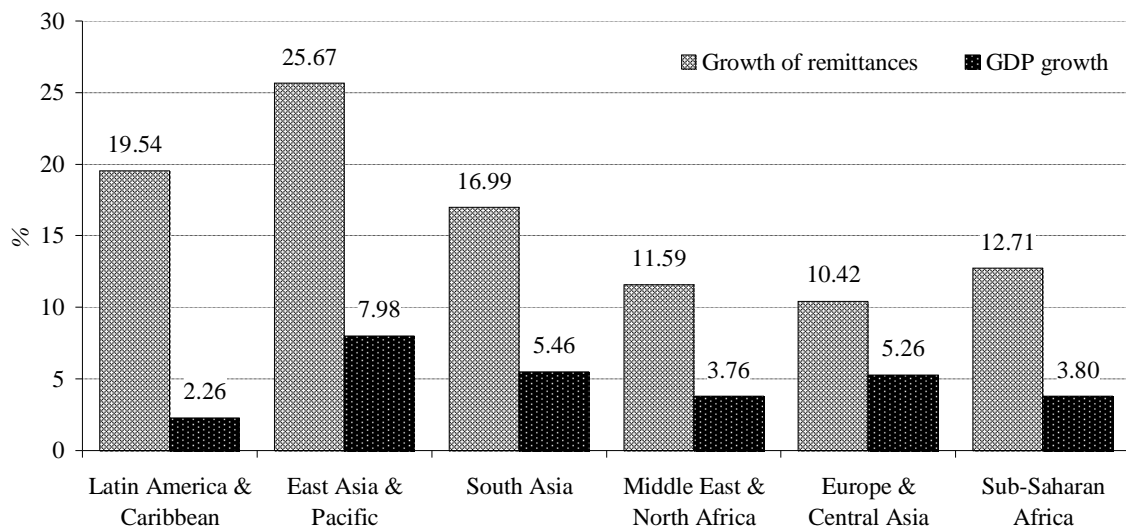
¹⁵¹ The figure for South Asia seems to be underestimated due to the reported value of remittances received by India in 2004, which equals the previous year's figure. The average annual growth between years 2000 and 2003 is approximately 22%.

East Asia and Pacific has a 3.5 percentage point lower growth based on IMF (2005) mainly due to the decline between 2000 and 2001 caused by significantly lower total value of received remittances reported for China. China drives the growth according to WB (2006).

Figure 9.9: Annual growth of received remittances and GDP growth (2000–2004)

(Average percentage annual growth of received workers’ remittances and compensation of employees and average annual GDP growth)

Low and middle income countries by region



Notes:

Regions are ordered by average annual received workers’ remittances and compensation of employees (2000–2004).

“Average percentage annual growth of received workers’ remittances and compensation of employees (2000–2004)” could not be calculated for the following countries: North Korea, Timor-Leste, Federated States of Micronesia, Marshall Islands, American Samoa, Northern Mariana Islands, Palau, Uzbekistan, Turkmenistan, Cuba, Djibouti, Iraq, Afghanistan, Bhutan, Burundi, Central African Republic, Chad, Democratic Republic of the Congo, Liberia, Somalia, Zambia, Zimbabwe, Angola, Equatorial Guinea, Mayotte and Eritrea.

Remittance data for 2000 was not available for Vietnam, Tonga, Seychelles, Tajikistan, Uruguay and Suriname. ■ Remittance data for 2001 was not available for Tajikistan, Uruguay and Suriname. ■ Received workers’ remittances and compensation of employees reported for São Tomé and Príncipe were zero in 2000.

Country groups are specified in section 12.6.3.

Source: WB (2006), author’s calculations

Between 2000 and 2004, East Asia and Pacific, Latin America and the Caribbean and South Asia experienced the highest percentage and also absolute increase of remittances. The absolute increase reflects the current magnitude of flows to different regions and thus

the significance of these regions as destinations for remittances. On average, remittances to East Asia and Pacific grew by \$6.1 billion annually. Figure 9.10 exhibits the values of the same indicator for the remaining regions. The figure also shows that in absolute terms, Sub-Saharan Africa still falls behind the Middle East and North Africa and Europe and Central Asia, although in relative terms, remittances to Sub-Saharan Africa have recently grown faster than inflows to the other two.

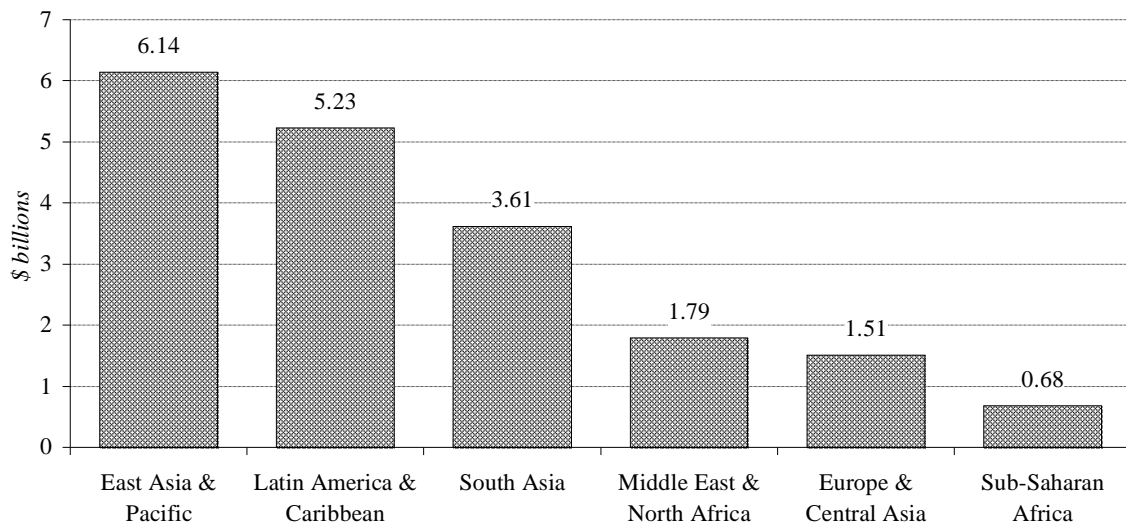
The absolute annual increase of received remittances recalculated using the IMF (2005) data suffers from the same shortcomings that apply to the annual percentage growth indicators for the regional groups. In particular, the South Asia exhibits a year-on-year decline, which however reflects the missing data for India in 2004. The average increase for East Asia and Pacific is less than half the value calculated using WB (2006) due to the absence of data for Vietnam in IMF (2005) and most importantly the significantly lower remittance inflows reported for China.¹⁵² The lower absolute increase for Europe and Central Asia is affected by the absence of Serbia and Montenegro in the IMF (2005) data.

¹⁵² Average absolute annual increase in received workers' remittances and compensation of employees (2000–2004) according to IMF (2005) and WB (2006) were \$1.36 billion and \$3.76 billion respectively.

Figure 9.10: Absolute annual increase of received remittances (2000–2004)

(Average absolute annual increase in received workers' remittances and compensation of employees)

Low and middle income countries by region



Notes:

“Average absolute annual increase in received workers' remittances and compensation of employees (2000–2004)” could not be calculated for the following countries: North Korea, Timor-Leste, Federated States of Micronesia, Marshall Islands, American Samoa, Northern Mariana Islands, Palau, Uzbekistan, Turkmenistan, Cuba, Djibouti, Iraq, Afghanistan, Bhutan, Burundi, Central African Republic, Chad, Democratic Republic of the Congo, Liberia, Somalia, Zambia, Zimbabwe, Angola, Equatorial Guinea, Mayotte and Eritrea.

Remittance data for 2000 was not available for Vietnam, Tonga, Seychelles, Tajikistan, Uruguay and Suriname. ■ Remittance data for 2001 was not available for Tajikistan, Uruguay and Suriname. ■ Received workers' remittances and compensation of employees reported for São Tomé and Príncipe were zero in 2000.

Country groups are specified in section 12.6.3.

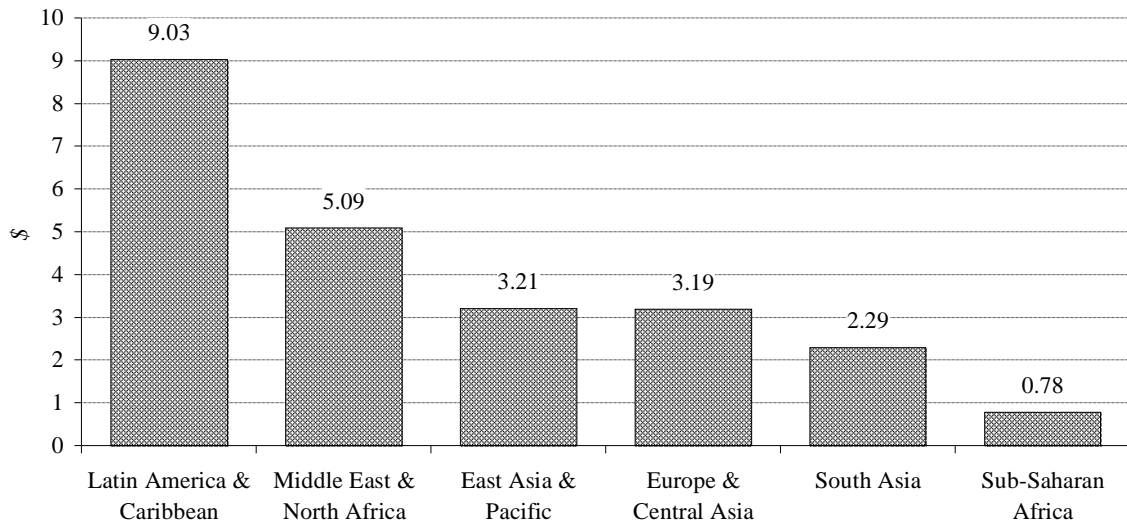
Source: WB (2006), author's calculations

Figure 9.11 separates the trend of increasing remittances from the population growth. Interestingly, this adjustment shuffles the order of the regions. The high absolute increase of remittances to East Asia and Pacific is to a great extent caused by the high population growth of this region. Compared to East Asia and Pacific, both in Latin America and the Caribbean and in the Middle East and North America the increase is more attributed to the increased receipts by individual recipients rather than an increase in their number.

Figure 9.11: Absolute annual increase of received remittances per inhabitant (2000–2004)

(Average absolute annual increase in received workers’ remittances and compensation of employees per inhabitant)

Low and middle income countries by region



Notes:

“Average absolute annual increase in received workers’ remittances and compensation of employees per inhabitant (2000–2004)” could not be calculated for the following countries: North Korea, Timor-Leste, Federated States of Micronesia, Marshall Islands, American Samoa, Northern Mariana Islands, Palau, Uzbekistan, Turkmenistan, Cuba, Djibouti, Iraq, Afghanistan, Bhutan, Burundi, Central African Republic, Chad, Democratic Republic of the Congo, Liberia, Somalia, Zambia, Zimbabwe, Angola, Equatorial Guinea, Mayotte and Eritrea.

Remittance data for 2000 was not available for Vietnam, Tonga, Seychelles, Tajikistan, Uruguay and Suriname. ■ Remittance data for 2001 was not available for Tajikistan, Uruguay and Suriname. ■ Received workers’ remittances and compensation of employees reported for São Tomé and Príncipe were zero in 2000.

Country groups are specified in section 12.6.3.

Source: WB (2006), author’s calculations

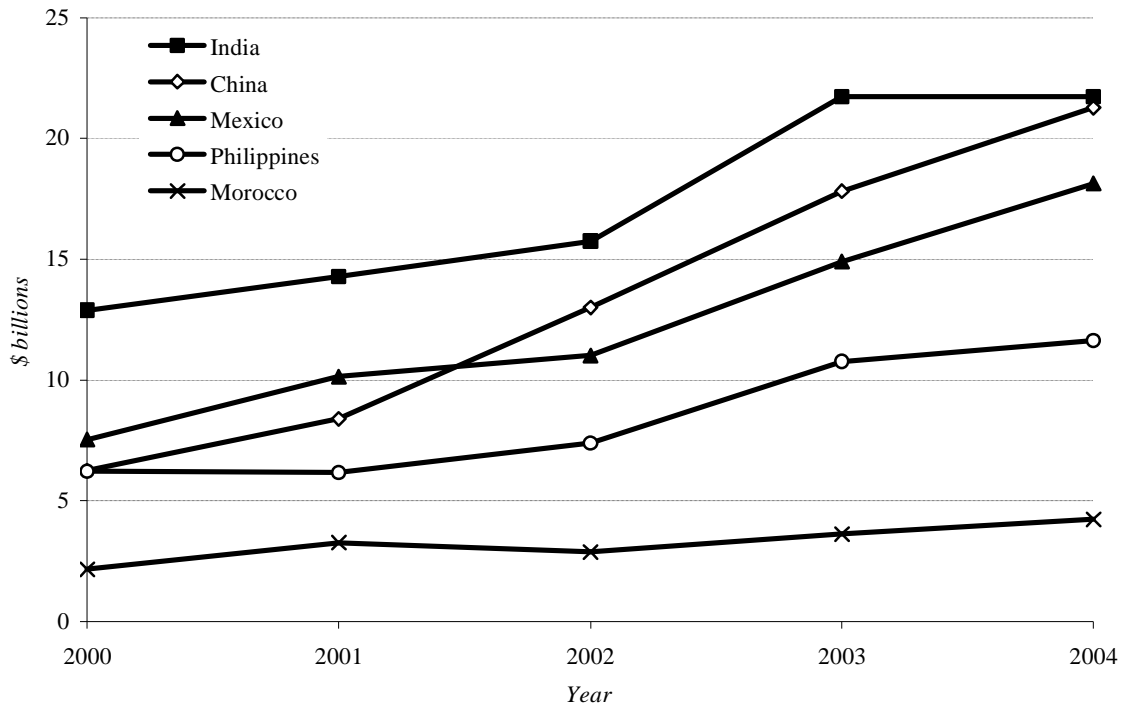
Figure 9.12 captures the remittance receipts of the top five country receivers between 2000 and 2004. According to the World Bank, the largest receiver of remittances in 2004 was India with \$21.7 billion. However, China experienced a soaring growth in the new millennium. Its remittance inflows grew more than three times over the five year period and reached \$21.3 billion suggesting that they may soon exceed the inflows to India, where remittances did not even double over the same period. Mexico has seen significant increase in the recent years. Its remittance receipts more than doubled over the five-year

period and reached \$18.1 billion in 2004. Morocco and Philippines saw lower growth, although their remittances almost doubled over the five year period ending by 2004.

Figure 9.12: Annual received remittances (2000–2004)

(Annual received workers’ remittances and compensation of employees)

Top five low and middle income countries according to average annual received workers’ remittances and compensation of employees



Notes:

“Annual received workers’ remittances and compensation of employees” for any of the years between 2000 and 2004 could not be obtained for the following countries: North Korea, Timor-Leste, Federated States of Micronesia, Marshall Islands, American Samoa, Northern Mariana Islands, Palau, Uzbekistan, Turkmenistan, Cuba, Djibouti, Iraq, Afghanistan, Bhutan, Burundi, Central African Republic, Chad, Democratic Republic of the Congo, Liberia, Somalia, Zambia, Zimbabwe, Angola, Equatorial Guinea and Mayotte.

Country groups are specified in section 12.6.3.

Source: WB (2006), author’s calculations

Figure 9.13 puts together the relative growth of remittance inflows and their magnitude for the ten largest receivers among low and middle income countries. The presented results are averages for a five-year period ending by 2004. The figure shows again that China and Mexico are already large and fast growing receivers. India and Philippines also belong to the largest receivers, but show slower year-on-year growth of 14.8% and 18.2% respectively. Pakistan experiences the highest growth of 47.6% out of the all countries with total annual remittances above \$2 billion. The remittances of countries grouped in the large cluster with receipts around \$2.5 billion¹⁵³ tend to grow annually by 15 to 20 per cent. Out of the large receivers with inflows of over \$2 billion per year, only Turkey reported negative average growth between 2000 and 2004.¹⁵⁴

IMF (2005) shows similar results, except for China, for which it indicates a very high growth (73.6%) but much lower average annual value (\$3.1 billion). IMF (2005) does not provide remittance data for Vietnam, thus a comparison is not possible.

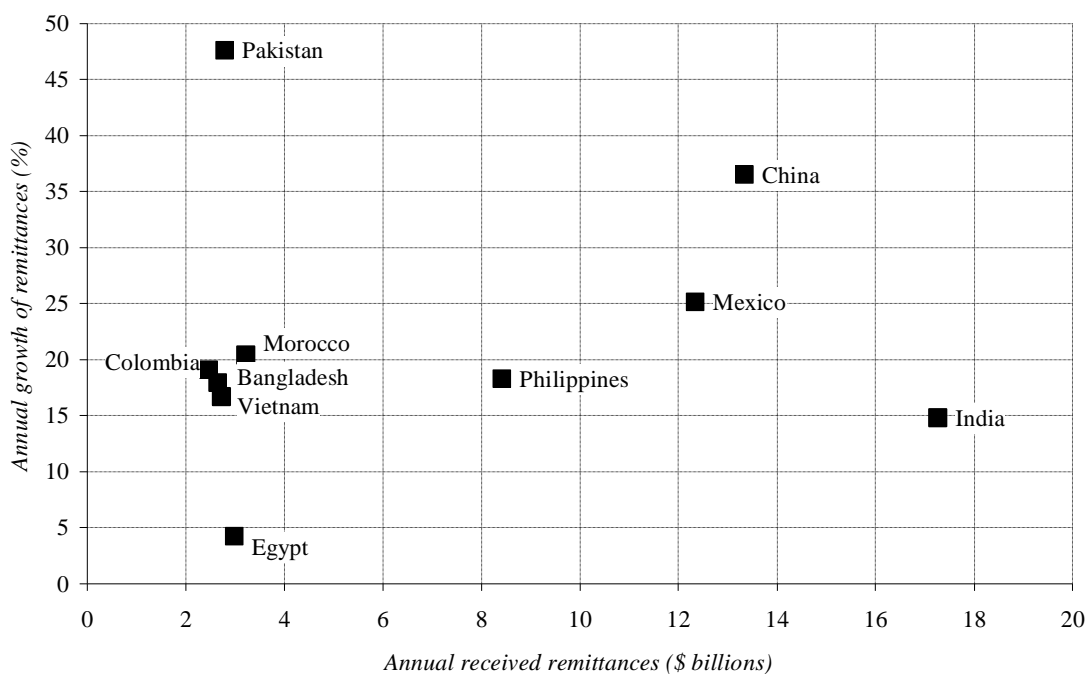
¹⁵³ Not shown in the figure. For clarity reasons, the figure only shows the top ten recipients. The cluster is represented by the Bangladesh, Vietnam and Colombia.

¹⁵⁴ Turkey is not depicted in the chart as it is not among the top ten country recipients.

Figure 9.13: Annual remittances and their growth (2000–2004)

(Average annual received workers' remittances and compensation of employees and their annual percentage growth)

Top 10 low and middle income countries according to average annual received workers' remittances and compensation of employees



Notes:

“Average annual received workers' remittances and compensation of employees (2000–2004)” could not be calculated for the following countries: North Korea, Timor-Leste, Federated States of Micronesia, Marshall Islands, American Samoa, Northern Mariana Islands, Palau, Uzbekistan, Turkmenistan, Cuba, Djibouti, Iraq, Afghanistan, Bhutan, Burundi, Central African Republic, Chad, Democratic Republic of the Congo, Liberia, Somalia, Zambia, Zimbabwe, Angola, Equatorial Guinea and Mayotte.

Country groups are specified in section 12.6.3.

Source: WB (2006), author's calculations

9.2 Sender statistics

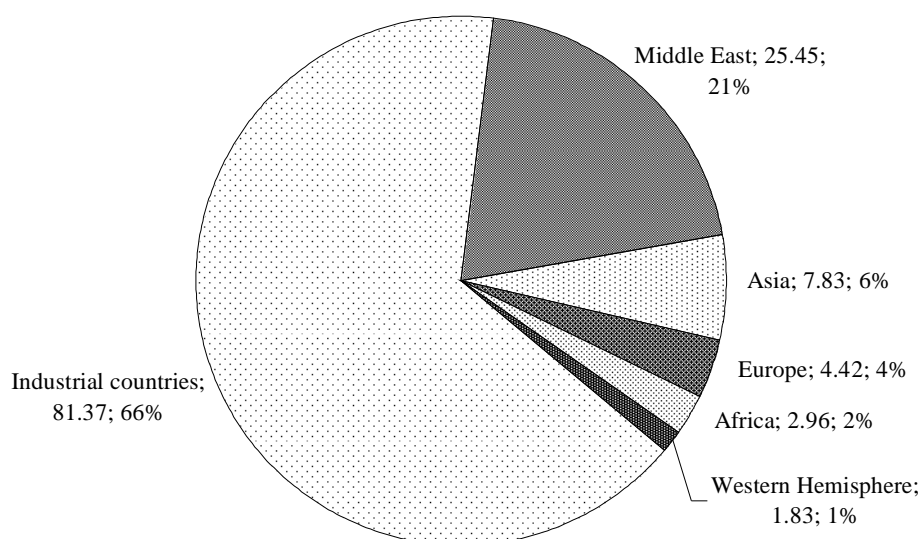
9.2.1 Country, country-group and regional comparison

Most remittances come from the developed or “industrial” countries. That of course should not be surprising given the very nature of these payments. What might be unexpected is that one fifth of world remittances originate in the Middle East as presented in Figure 9.14.

Figure 9.14: Annual sent remittances (2000–2004)

(Average annual sent workers’ remittances and compensation of employees)

World by IMF country groups, in \$ billions



Notes:

“Average annual sent workers’ remittances and compensation of employees (2000–2004)” could not be calculated for the following countries: Andorra, Bermuda, Brunei, Canada, Cayman Islands, Channel Islands, Greenland, Guam, Isle of Man, Liechtenstein, Puerto Rico, Qatar, San Marino, Singapore, United Arab Emirates, Virgin Islands (U.S.), Antigua and Barbuda, American Samoa, Fiji, Kiribati, Marshall Islands, North Korea, Northern Mariana Islands, Palau, Samoa, Solomon Islands, Timor-Leste, Vietnam, Thailand, Laos, Serbia and Montenegro, Turkmenistan, Uzbekistan, Turkey, Cuba, Grenada, St. Lucia, Mexico, Peru, Haiti, Nicaragua, Paraguay, Trinidad and Tobago, Dominica, St. Vincent and the Grenadines, Algeria, Djibouti, Iran, Iraq, Afghanistan, Bhutan, Cameroon, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Equatorial Guinea, Gambia, Kenya, Liberia, Mauritania, Mayotte, Somalia and Zimbabwe.

Country groups are specified in section 12.6.2

Source: IMF (2005), author’s calculations

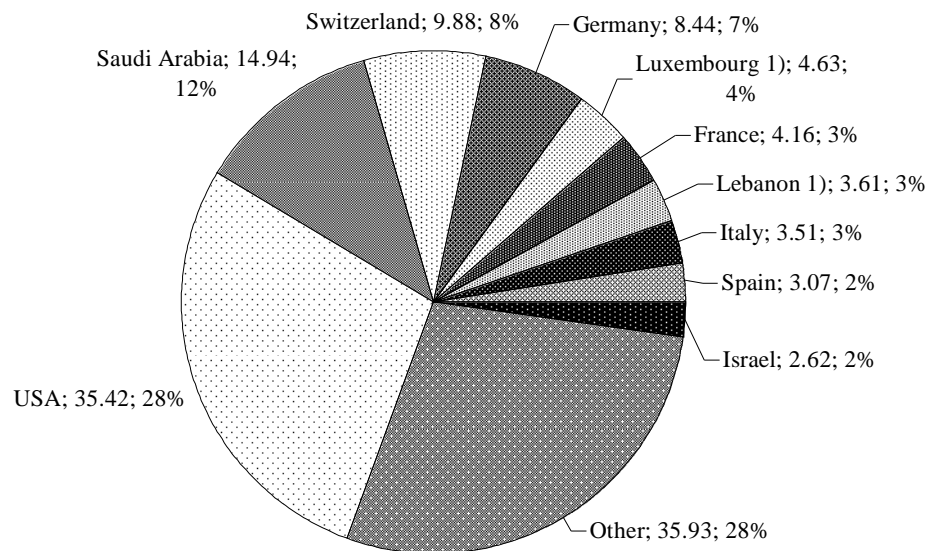
This becomes clearer after reviewing Figure 9.15, which captures the world’s largest sources of remittances. The list of top senders is dominated by the USA with average

annual sent remittances for the years 2000 to 2004 of \$35.4 billion, followed by Saudi Arabia with \$14.9 billion. Also from the Middle East, the top 30 (Figure 9.17) includes Lebanon (\$3.6 billion), Israel (\$2.6 billion), Kuwait (\$2.0 billion), Oman, Bahrain and Libya. Besides the USA, Saudi Arabia Lebanon and Israel, the remaining top 10 senders are European countries: Switzerland (\$9.9 billion), Germany (\$8.4 billion), Luxembourg (\$4.6 billion),¹⁵⁵ France (\$4.2 billion), Italy (\$3.5 billion) and Spain (\$3.1 billion). Interestingly, more than half of world remittance flows originate in only four countries.

Figure 9.15: Annual sent remittances (2000–2004)

(Average annual sent workers’ remittances and compensation of employees)

World, in \$ billions



Notes:

1) “Workers’ remittances” and “compensation of employees” (debit) data was not available for 2000 and 2001.

“Average annual sent workers’ remittances and compensation of employees (2000–2004)” could not be calculated for the following countries: Andorra, Bermuda, Brunei, Canada, Cayman Islands, Channel Islands, Greenland, Guam, Isle of Man, Liechtenstein, Puerto Rico, Qatar, San Marino, Singapore, United Arab Emirates, Virgin Islands (U.S.), Antigua and Barbuda, American Samoa, Fiji, Kiribati, Marshall Islands, North Korea, Northern Mariana Islands, Palau, Samoa, Solomon Islands, Timor-Leste, Vietnam, Thailand, Laos, Serbia and Montenegro, Turkmenistan, Uzbekistan, Turkey, Cuba, Grenada, St. Lucia, Mexico, Peru, Haiti, Nicaragua, Paraguay, Trinidad and Tobago, Dominica, St. Vincent and the Grenadines, Algeria, Djibouti, Iran, Iraq, Afghanistan, Bhutan, Cameroon, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Equatorial Guinea, Gambia, Kenya, Liberia, Mauritania, Mayotte, Somalia and Zimbabwe.

Source: IMF (2005), author’s calculations

¹⁵⁵ The average is based on figures for 2002, 2003 and 2004. Before 2002, only aggregate data together with Belgium is available.

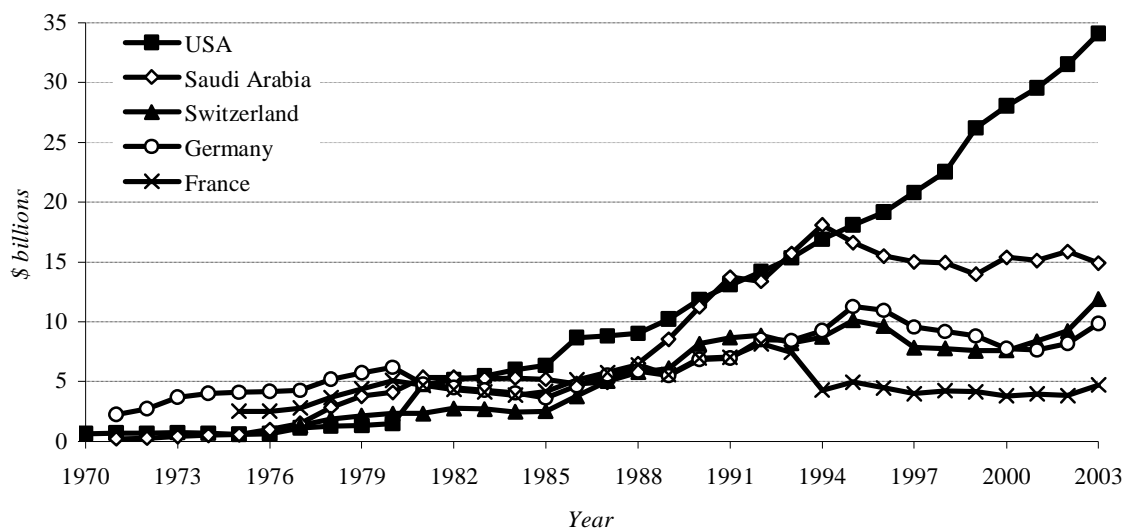
9.2.2 Dynamics and trends

Figure 9.16 shows in greater detail the flows of remittances from the top five senders, who according to the 2000 to 2004 average¹⁵⁶ represented \$72.8 billion, or 56% of the world flows. Most notably, remittances sent from the USA experienced a high growth and in 1995 exceeded all other sources. They currently dominate by far. Their value is more than double the value of Saudi Arabia in second place. Saudi Arabia saw a high growth until 1994, when its sent remittances started to decrease and leveled at around \$15 billion. Remittances from Germany and Switzerland launched on an increasing trend again in the new millennium, while France remains on or slightly below the \$5 billion mark.

Figure 9.16: Sent remittances (1970–2003)

(Sent workers' remittances, compensation of employees and migrant transfers)

Top five countries according to the sum of sent workers' remittances, compensation of employees and migrant transfers



Note: The remittances are constructed according to Appendix 2.1 in IMF (2005c), pp.97–100.

Source: IMF (2005c)

Figure 9.17 presents the average annual growths for the top thirty senders based on the 2000 to 2004 average of sent workers' remittances and compensation of employees. One can observe an extremely high growth for Malaysia and the Russian Federation.

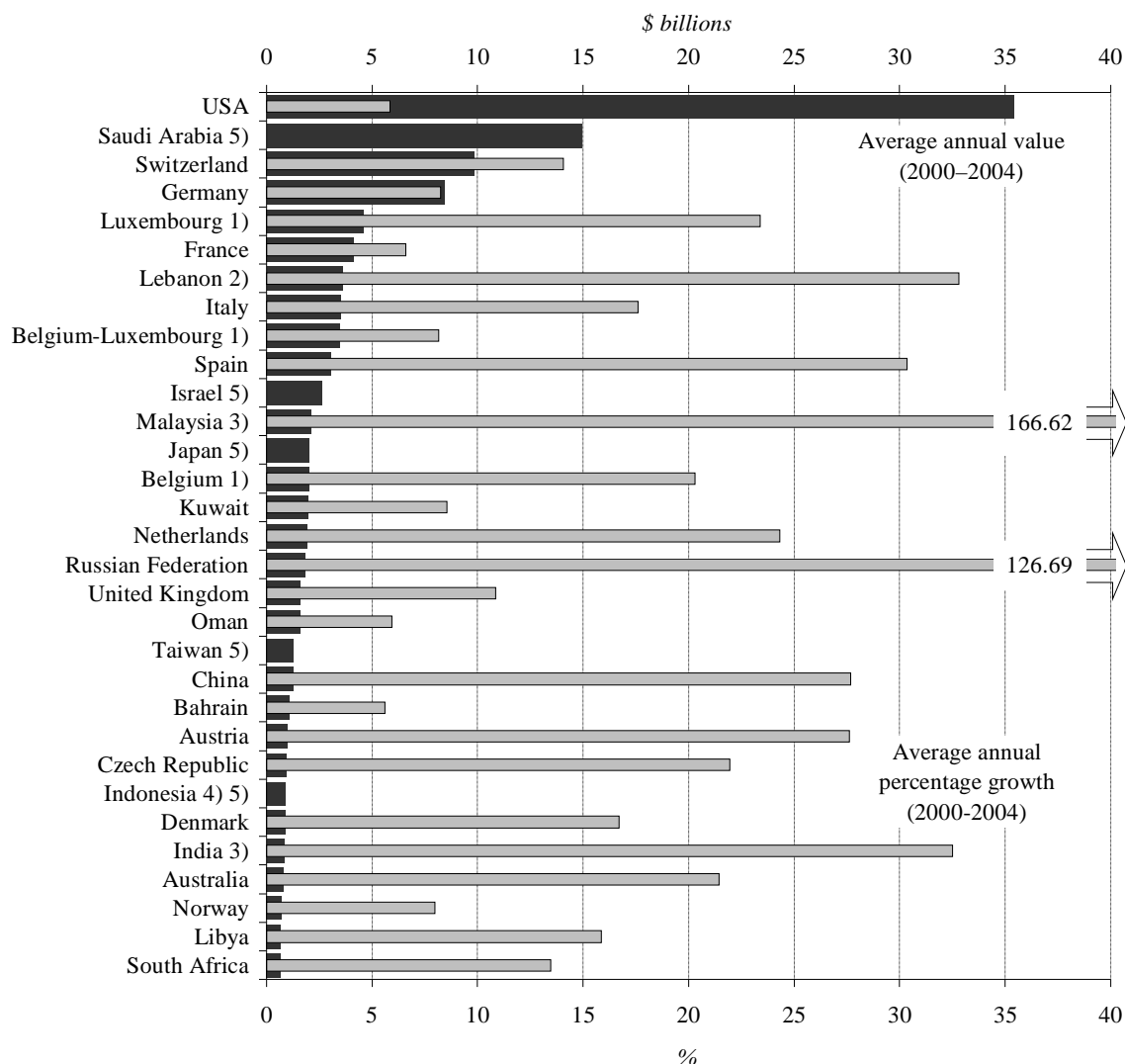
¹⁵⁶ Average of the sum of workers' remittances and compensation of employees, excluding migrant transfers included in Figure 9.16.

However, their total value is still relatively low. Looking at the top ten senders ordered according to the total value sent, Spain, Italy and Switzerland have seen the fastest growth between 2000 and 2004 of 30.4%, 17.6% and 14.1% respectively. Lebanon and Luxembourg also seem to have grown significantly with average annual increases of 32.8% and 23.4% respectively, although these results are not comparable as they are only based on data for 2002, 2003 and 2004. A very strong growth of more than 20% per year within the top 30 senders besides those already mentioned can be observed for Belgium, Netherlands, China, Austria, Czech Republic and Australia. Remittances from the second largest source, Saudi Arabia, decreased over the 2000 to 2004 period. Outflows from the USA grew by a moderate 5.8%, which however translated into large absolute increases given the already enormous total value. On average the remittances by the top thirty senders grew annually by a remarkable 27%, or still an outstanding 17% if Malaysia and Russian Federation are excluded as potential outliers.

Figure 9.17: Annual sent remittances and their growth (2000–2004)

(Average annual sent workers' remittances and compensation of employees and their average annual percentage growth)

Top 30 countries according to average annual sent workers' remittances and compensation of employees



Notes:

- 1) Only aggregate data is available for Belgium and Luxembourg before 2002.
- 2) “Workers’ remittances” and “compensation of employees” (debit) data was not available for 2000 and 2001.
- 3) “Workers’ remittances” and “compensation of employees” (debit) data was not available for 2004.
- 4) “Workers’ remittances” and “compensation of employees” (debit) data was not available for 2000–2003.
- 5) The average annual growth figures for Saudi Arabia, Israel, Taiwan and Japan were negative with the respective values of -2.99, -9.6, -14.1 and -4.76. Average annual growth for Indonesia was not available due to insufficient data.

“Average annual sent workers’ remittances and compensation of employees (2000–2004)” could not be calculated for the following countries: Andorra, Bermuda, Brunei, Canada, Cayman Islands, Channel Islands, Greenland, Guam, Isle of Man, Liechtenstein, Puerto Rico, Qatar, San Marino, Singapore, United Arab Emirates, Virgin Islands (U.S.), Antigua and Barbuda, American Samoa, Fiji, Kiribati, Marshall Islands, North Korea, Northern Mariana Islands, Palau, Samoa, Solomon Islands, Timor-Leste, Vietnam,

Thailand, Laos, Serbia and Montenegro, Turkmenistan, Uzbekistan, Turkey, Cuba, Grenada, St. Lucia, Mexico, Peru, Haiti, Nicaragua, Paraguay, Trinidad and Tobago, Dominica, St. Vincent and the Grenadines, Algeria, Djibouti, Iran, Iraq, Afghanistan, Bhutan, Cameroon, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Equatorial Guinea, Gambia, Kenya, Liberia, Mauritania, Mayotte, Somalia and Zimbabwe.

Source: IMF (2005), author's calculations

9.3 Corridors

9.3.1 Flows between regions

By far largest remittance corridor is intra-regional, namely the Asian one. Harrison, Britton and Swanson (2004) estimated its value to be \$31.5 billion in 2000 (34.4% of the world's total) as outlined in Table 9.2. This sum represented almost three quarters of the total remittances received by Asian countries. Besides that, Asia received over 18% of its remittances from North America. The rest originated mostly in Europe. Remittances from other regions were marginal.

Slightly over 10% of the world's total value of remittances was sent and received within Europe in 2000. Intra-regional flows represented almost half of all remittances received by European countries. Almost one third then came from North America and about 17% from Asia. European countries sent to Asia close to what they received from it, namely \$3.2 billion in 2000 (approximately 3.5% of the world's total).

The vast majority of remittances to Latin America and the Caribbean comes from North America, the USA in particular. Less than half the total value of the intra-Asian flows, it is the largest inter-regional corridor and the second largest corridor in general. In 2000, it represented almost 18% of the world's total. In 2003, the share of remittances to Latin American countries originating in the USA was over 80% as shown in Table 9.3.¹⁵⁷

African countries received the largest portion of their remittances from other African countries. In 2000, it was over one third. Another third originated in Asia and one quarter came from Europe. Only 7% of African remittance receipts originated in North America. Interestingly, vast majority of African remittances is received by North African countries as shown in Figure 9.18.

¹⁵⁷ Note the precipitous growth of remittance flows to Latin America between 2000 and 2003.

Table 9.2: Estimated flows of remittances by corridors (2000)*In \$ billions*

Sending region	Receiving region						Total
	Africa	Asia	Europe	Latin America, Caribbean	North America	Oceania	
Africa	3.7	0.5	0.1	0.0	0.0	0.0	4.2
Asia	3.4	31.5	3.4	0.5	0.2	0.0	39.0
Europe	2.6	3.2	9.5	0.4	0.4	0.1	16.2
Latin America, Caribbean	0.0	0.1	0.6	1.1	0.1	0.0	1.8
North America	0.7	7.9	5.7	14.2	0.9	0.1	29.6
Oceania	0.0	0.2	0.4	0.0	0.0	0.1	0.8
<i>Total</i>	<i>10.4</i>	<i>43.4</i>	<i>19.6</i>	<i>16.2</i>	<i>1.6</i>	<i>0.3</i>	<i>91.5</i>

Note: The figures are estimates calculated on the basis of statistics from different sources.

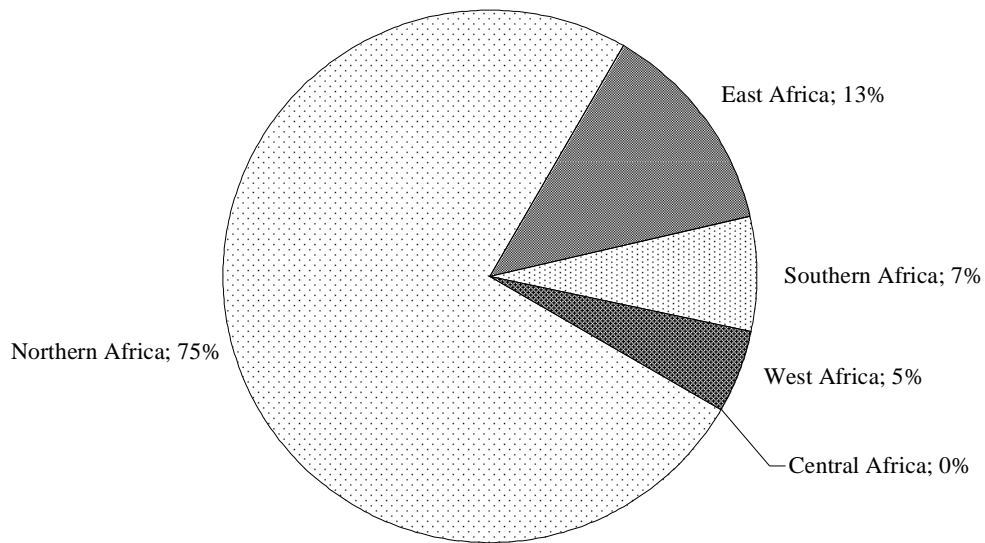
Source: Carling (2005) citing Harrison, Britton and Swanson (2004)

Table 9.3: Remittances origins to Latin American countries (2003)*In \$ billions*

Originating country	Remittance receipts
USA	31
Japan	3
Europe	2
Canada	1
Intra-regional	1.5

Source: De Vasconcelos (2004b)

Figure 9.18: Regional distribution of remittances to Africa (2001)



Source: Sander (2003)

9.3.2 Flows between countries

The list of world's most significant remittance country corridors is dominated by Saudi Arabia and the USA on the sender side. The world's largest bilateral corridor is USA—Mexico, which Harrison, Britton and Swanson (2004) estimated to \$7.6 billion in 2000. The second largest corridor, Saudi Arabia—India, was less than half the value and it was closely followed by the Malaysia—Indonesia corridor. Notable sums of remittances from Saudi Arabia also flow to Pakistan, the Philippines and Egypt. The second largest flow originating in the USA is destined for China. The largest European flow is from Germany to Turkey.

Table 9.4: The world's largest remittance corridors (2000)

In \$ billions

From → to	Amount	From → to	Amount
USA → Mexico	7.6	USA → Philippines	1.2
Saudi Arabia → India	3.6	Japan → South Korea	1.0
Malaysia → Indonesia	3.1	USA → India	1.0
Saudi Arabia → Pakistan	1.8	Saudi Arabia → Indonesia	1.0
Saudi Arabia → Philippines	1.6	USA → Vietnam	0.8
Saudi Arabia → Egypt	1.4	Saudi Arabia → Bangladesh	0.7
USA → China	1.4	USA → South Korea	0.7
Germany → Turkey	1.2	France → Portugal	0.7

Note: The figures are estimates calculated on the basis of statistics from different sources.

Source: Carling (2005) citing Harrison, Britton and Swanson (2004)

9.4 Barriers to free flow of remittances

While domestic retail payments have become very efficient and cost effective due to advances in technology, traditional formal cross-border retail payments remain quite inefficient and costly, especially for small value payments such as remittances. That leads to the extensive use of informal value transfer systems and numerous inefficiencies. For affected consumers the situation is a burden. For existing and potential remittance service providers, the current state might create challenges, but also provides opportunity. In either case, a thorough consideration of the current and expected future state of cross-border retail payments is crucial for strategy formulation.

This section summarizes the main causes of inefficiencies in cross-border retail payments. It is based on Genesis (2003) and Taylor (2004).

9.4.1 Technical and institutional incompatibilities

Two major problems of formal remittance transfer systems are the technical and institutional incompatibilities. While many countries have well-functioning systems of automated clearing and settlement for domestic payments, similar systems may not be available on the international front. Instead, banks (obvious candidates for provision of

money transfer services) may need to rely on unproductive arrangements, such as corresponding banking that may require human interventions and hand entry of information at various points.

As a result the cross-border transfers are slow and regardless of the particular pricing scheme also expensive for the consumer. High fees reflect the high labor cost involved. The proliferation of SWIFT messaging system improved the situation. However, the costs of international bank transfers remain significantly higher than the cost of domestic payments.

9.4.2 Cultural inertia

So called “cultural inertia” may present a barrier to the greater use of formal mechanisms. The results of the interviews with consumers reported in Genesis (2003) have proven that people often use the transfer mechanism to which they are accustomed rather than exploring other alternatives or trying new mechanisms. People seem to make choices based on other reasons than price and quality.

Such behavior may either be considered as economically irrational or it may suggest an existence of high personal subjective cost related to finding new information and changing own habits or patterns of behavior. Of course the problem could be also on the side of financial intermediaries who fail to sufficiently and transparently promote their services.

Genesis (2003) mentions a real-life example of the mentioned problem: a bank account holder regularly sending money to another bank account holder in a different country reported using informal transfer mechanisms despite the availability of an account-to-account transfer. The respondent has never considered the alternative. Apparently, this situation may be complicated by other factors, such as tax avoidance, etc. However, in a number of cases, the main motivation for repeatedly doing things a certain way regardless of the economic rationale seems to be the habit itself.

9.4.3 High entry barriers to cross-border payments provision industry

Another factor causing high prices and relatively low service levels for retail cross-border transfers are the high entry barriers to the industry. Money transfer services are heavily regulated in most countries and the standards differ from one country to another. The costs related to licensing, reporting and operational requirements might be prohibitive for small start-up businesses.

Furthermore, potential new entrants face economies of scale and branding challenges. The existence of strong larger market players with established brand names makes it rather difficult for a new entrant to succeed, especially on the multi-corridor level.

9.4.4 Political aversion

Some reasons stifling the international flows of remittances might be political. Remittance senders are often foreigners who do not have voting rights in the host country. Therefore they lack any leverage to influence policy makers.

Furthermore, remittances are often perceived negatively by the public as well as politicians and governments. In their minds they might be linked to socially undesirable occurrences of abuse, such as money laundering or terrorism financing. These problems are often exaggerated and highly politicized. Although it is possible that remittances can be abused, it is hard to find any evidence that they would stimulate illegal behavior. Neither could be shown that absence of remittances would prevent illegal activities.

Beyond all the above, politicians have another argument for not supporting an efficient remittance transfer industry. They may claim that the lack of cheap and easy money transfer discourages the potential illegal migrant workers to seek work abroad in the first place. However, evidence suggests that the abundance of informal value transfer systems makes blocking formal mechanisms an ineffective way to prevent illegal migration. Assuming that the illegal migration is not influenced by the availability of formal money transfer mechanisms, the limited offerings and more complicated access to formal remittance channels is likely to stimulate a gray economy and activities beyond control by the government and authorities.

10 Conclusion

This thesis examined international remittances from the perspective of service providers. The goals outlined in the Introduction were to explain the economic significance and impact of remittances, characterize the consumers involved with remittances, describe the remittance process and service providers, classify and compare remittance transfer mechanisms, analyze global remittance flows, analyze the consumer cost, evaluate the strategic positions of existing types of services, and identify factors that should distinguish successful providers.

Reaching these goals was supposed provide the basis for answering the main underlying question. Namely, is there a business opportunity for new technology providers of remittance transfer services?

The thesis found that new technology providers might exploit inefficiencies in the existing remittance transfer services as a business opportunity, but face numerous challenges.

Some concepts illustrated in section 7.5 have proven to be viable. PayPal's services are prime examples. Consumers should hope that there will be more in the future. Other concepts seem quite promising. For example, G-Cash is one of the pioneers in successful implementation of the mobile phone access channel. Moneybookers has built a striking network of connections to domestic payment systems in many countries and gained important experience in compliance.

On the other hand, the long term sustainability of some concepts is unclear although they currently offer advantages to consumers. For example, iKobo's service is not transparent from the compliance perspective and could be easily replicated by a bank. Also improved transfer products designed by card associations may threaten it. Xoom offers better prices in some corridors compared to major MTOs, but also has usability limitations and essentially does not provide anything that a major MTO could not successfully provide as well.

New technology providers face tough challenges. Among the main ones are (1) ensuring capturing and disbursement that is suitable for remittance senders, who might

undocumented, financially uneducated and unfamiliar with the use of Internet and other technologies; (2) ensuring system security and fraud protection; (3) ensuring that the innovative services are efficient, and yet easy to use; (4) gaining consumer trust, customer loyalty, and reaching critical mass of users; (5) surviving competitive pressure from stronger established providers; (6) dealing with difficult licensing and regulatory requirements; (7) ensuring sound operations and liquidity; and (8) staying on the edge in a business field that is subject to technological change, commoditization and decreasing profit margins.

Moreover, large established providers have started to demonstrate their strengths. Once they fully leverage new technologies and realize the potential of remittance service provision, they will be hard to compete with. The services of large banks (such as ICICI Bank's Money2India) offering free cross-border account-to-account transfers or hybrid electronic transfers of large MTOs are good examples. Competitive pressures in the remittance service provision market will become even bigger if regulators and legislators increase their effort to create fertile conditions for cross-border retail payment systems integration.

Current market rigidities and inefficiencies might be short-lived and cannot support a successful long term strategy. New technology providers that want to remain in business, must address the above-mentioned challenges and follow the recommendations summarized in section 8.2.

Transformation of the remittance service provision field is likely to be an evolutionary process, where established institutions are going to play the main role. The most abrupt change will not be the proliferation of brand new providers with brand new service models, but the disappearance of small providers that currently exploit market inefficiencies and that will not be able to adapt to changes in technology and market conditions.

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12 Appendix

The Appendix presents recalculated receiver statistics from section 9.1 using the IMF's Balance of Payments Statistics Yearbook (IMF, 2005) data. It also provides detailed receiver statistics for individual regions and country groups based on data from the World Development Indicators Database (WB, 2006). Section 12.5 briefly illustrates what disbursement mechanisms are usually used by consumers. Finally, it summarizes the country groups definitions used in the thesis.

12.1 Receiver statistics recalculated using the IMF data

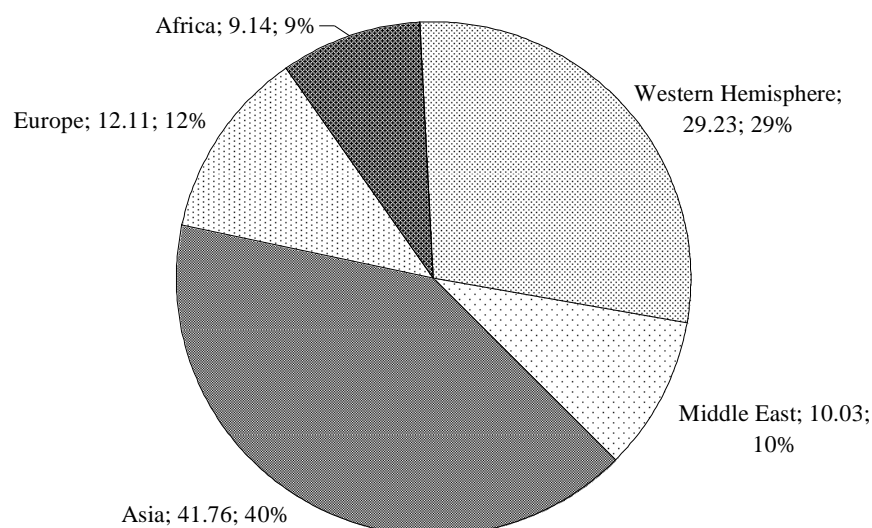
This section presents recalculated statistics from section 9.1 using the IMF's Balance of Payments Statistics Yearbook (IMF, 2005) data. For comparison, it replicates the country groups used in World Development Indicators Database (WB, 2006), although the data for some countries covered by WB (2006) may not be available from IMF (2005). Furthermore, results for IMF's own country group classification are presented where applicable.

12.1.1 Country, country-group and regional comparison

Figure 12.1: Annual received remittances (2000–2004)

(Average annual received workers' remittances and compensation of employees)

Developing countries by region, in \$ billions



Notes:

“Average annual received workers' remittances and compensation of employees (2000–2004)” could not be calculated for the following countries: Afghanistan, Algeria, American Samoa, Angola, Bhutan, Burundi, Cameroon, Central African Republic, Chad, Comoros, Cuba, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Fiji, Gambia, Grenada, Iran, Iraq, Kenya, Kiribati, Liberia, Marshall Islands, Mauritania, Mayotte, North Korea, Northern Mariana Islands, Palau, Papua New Guinea, Samoa, Serbia and Montenegro, Solomon Islands, Somalia, St. Lucia, Timor-Leste, Turkmenistan, Uzbekistan, Vietnam, Zambia and Zimbabwe.

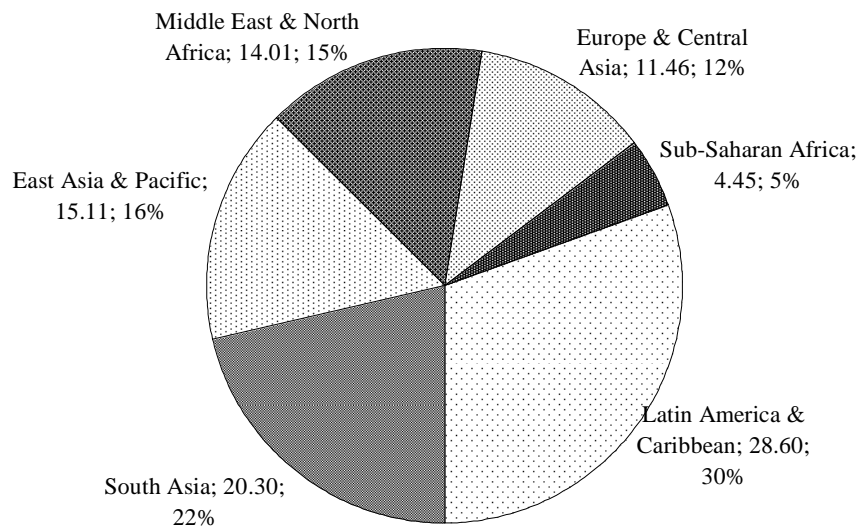
Country groups are specified in section 12.6.2.

Source: IMF (2005), author's calculations

Figure 12.2: Annual received remittances (2000–2004)

(Average annual received workers' remittances and compensation of employees)

Low and middle income countries by region, in \$ billions



Note: Country groups are specified in section 12.6.3.

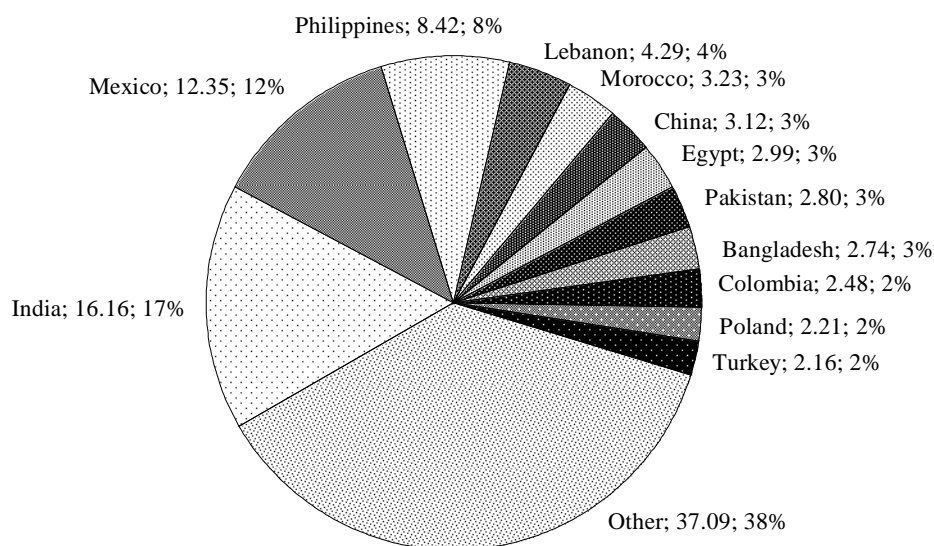
“Average annual received workers’ remittances and compensation of employees (2000–2004)” could not be calculated for the following countries: Afghanistan, Algeria, American Samoa, Angola, Bhutan, Burundi, Cameroon, Central African Republic, Chad, Comoros, Cuba, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Fiji, Gambia, Grenada, Iran, Iraq, Kenya, Kiribati, Liberia, Marshall Islands, Mauritania, Mayotte, North Korea, Northern Mariana Islands, Palau, Papua New Guinea, Samoa, Serbia and Montenegro, Solomon Islands, Somalia, St. Lucia, Timor-Leste, Turkmenistan, Uzbekistan, Vietnam, Zambia and Zimbabwe.

Source: IMF (2005), author’s calculations

Figure 12.3: Annual received remittances (2000–2004)

(Average annual received workers' remittances and compensation of employees)

Low and middle income countries, in \$ billions



Note:

- 1) Remittance data for 2004 was not available.
- 2) Remittance data for 2000 and 2001 was not available.

“Average annual received workers' remittances and compensation of employees (2000–2004)” could not be calculated for the following countries: Afghanistan, Algeria, American Samoa, Angola, Bhutan, Burundi, Cameroon, Central African Republic, Chad, Comoros, Cuba, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Fiji, Gambia, Grenada, Iran, Iraq, Kenya, Kiribati, Liberia, Marshall Islands, Mauritania, Mayotte, North Korea, Northern Mariana Islands, Palau, Papua New Guinea, Samoa, Serbia and Montenegro, Solomon Islands, Somalia, St. Lucia, Timor-Leste, Turkmenistan, Uzbekistan, Vietnam, Zambia and Zimbabwe.

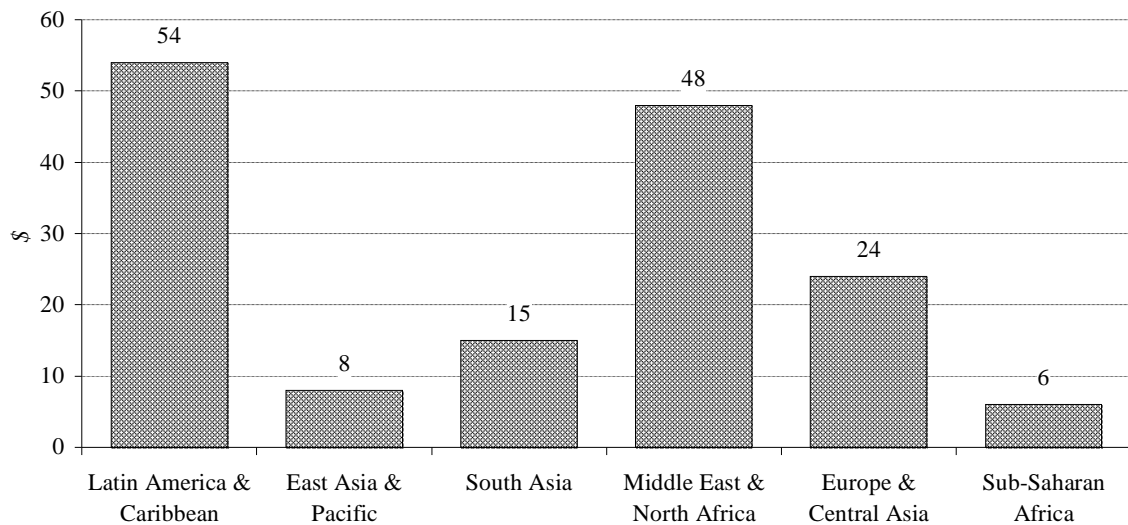
Country groups are specified in section 12.6.3.

Source: IMF (2005), author's calculations

Figure 12.4: Annual received remittances per inhabitant (2000–2004)

(Average annual received workers' remittances and compensation of employees per inhabitant)

Low and middle income countries by region



Notes:

Ordered by average annual received workers' remittances and compensation of employees (2000–2004) calculated from the WB (2006) data to enable comparison.

“Average annual received workers' remittances and compensation of employees per inhabitant (2000–2004)” could not be calculated for the following countries: Afghanistan, Algeria, American Samoa, Angola, Bhutan, Burundi, Cameroon, Central African Republic, Chad, Comoros, Cuba, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Fiji, Gambia, Grenada, Iran, Iraq, Kenya, Kiribati, Liberia, Marshall Islands, Mauritania, Mayotte, North Korea, Northern Mariana Islands, Palau, Papua New Guinea, Samoa, Serbia and Montenegro, Solomon Islands, Somalia, St. Lucia, Timor-Leste, Turkmenistan, Uzbekistan, Vietnam, Zambia and Zimbabwe.

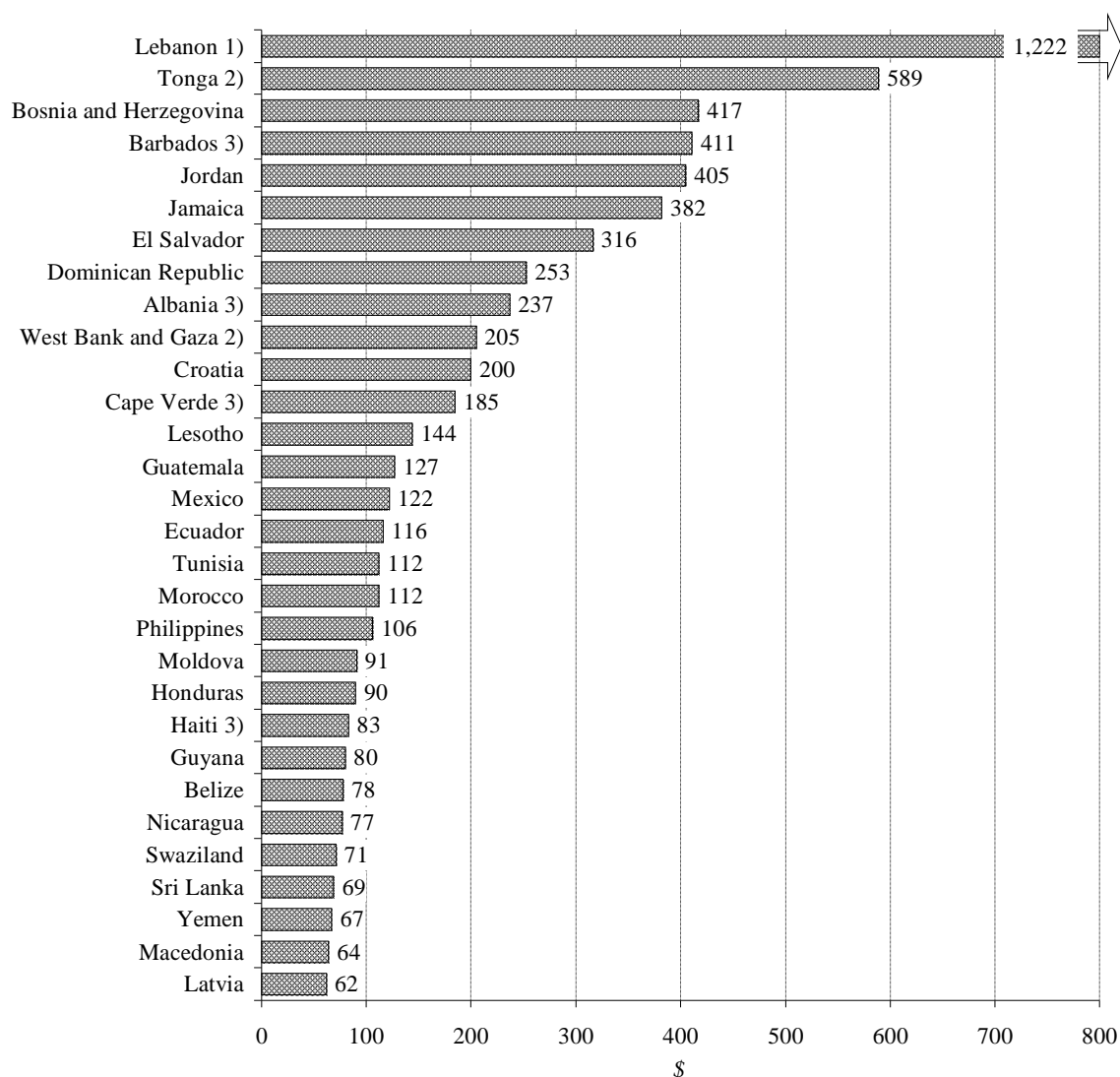
Country groups are specified in section 12.6.3.

Source: IMF (2005), author's calculations

Figure 12.5: Annual received remittances per inhabitant (2000–2004)

(Average annual received workers' remittances and compensation of employees per inhabitant)

Top 30 low and middle income countries according to average annual received workers' remittances and compensation of employees per inhabitant



Notes:

1) Remittance data for 2000 and 2001 was not available. ■ 2) Remittance data for 2000, 2003 and 2004 was not available. ■ 3) Remittance data for 2004 was not available.

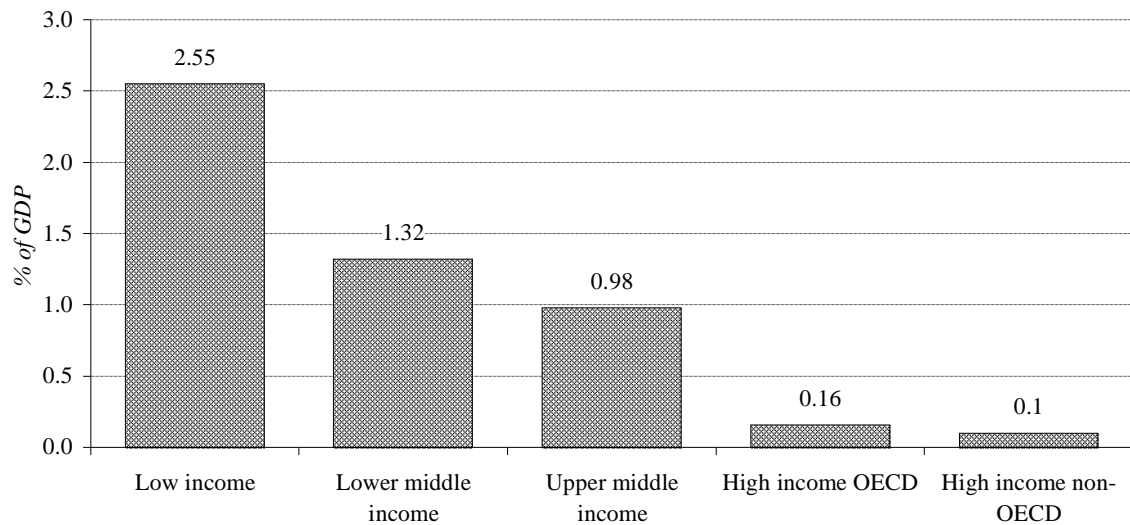
“Average annual received workers' remittances and compensation of employees per inhabitant (2000–2004)” could not be calculated for the following countries: Afghanistan, Algeria, American Samoa, Angola, Bhutan, Burundi, Cameroon, Central African Republic, Chad, Comoros, Cuba, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Fiji, Gambia, Grenada, Iran, Iraq, Kenya, Kiribati, Liberia, Marshall Islands, Mauritania, Mayotte, North Korea, Northern Mariana Islands, Palau, Papua New Guinea, Samoa, Serbia and Montenegro, Solomon Islands, Somalia, St. Lucia, Timor-Leste, Turkmenistan, Uzbekistan, Vietnam, Zambia and Zimbabwe.

Source: IMF (2005), author's calculations

Figure 12.6: Annual received remittances as % of GDP (2000–2004)

(Average annual received workers' remittances and compensation of employees as a percentage of GDP)

World by country income group



Notes:

“Average annual received workers' remittances and compensation of employees as a percentage of GDP (2000–2004)” could not be calculated for the following countries: Afghanistan, Algeria, American Samoa, Andorra, Angola, Bahamas, Bahrain, Bermuda, Bhutan, Brunei, Burundi, Cameroon, Canada, Cayman Islands, Central African Republic, Chad, Channel Islands, Comoros, Cuba, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Faeroe Islands, Fiji, French Polynesia, Gambia, Greenland, Grenada, Guam, Iran, Iraq, Isle of Man, Kenya, Kiribati, Kuwait, Liberia, Liechtenstein, Marshall Islands, Mauritania, Mayotte, Monaco, Myanmar, Netherlands Antilles, New Caledonia, North Korea, Northern Mariana Islands, Palau, Papua New Guinea, Puerto Rico, Qatar, Samoa, San Marino, Saudi Arabia, Serbia and Montenegro, Singapore, Solomon Islands, Somalia, St. Lucia, Timor-Leste, Turkmenistan, United Arab Emirates, Uzbekistan, Vietnam, Virgin Islands (U.S.), Zambia and Zimbabwe.

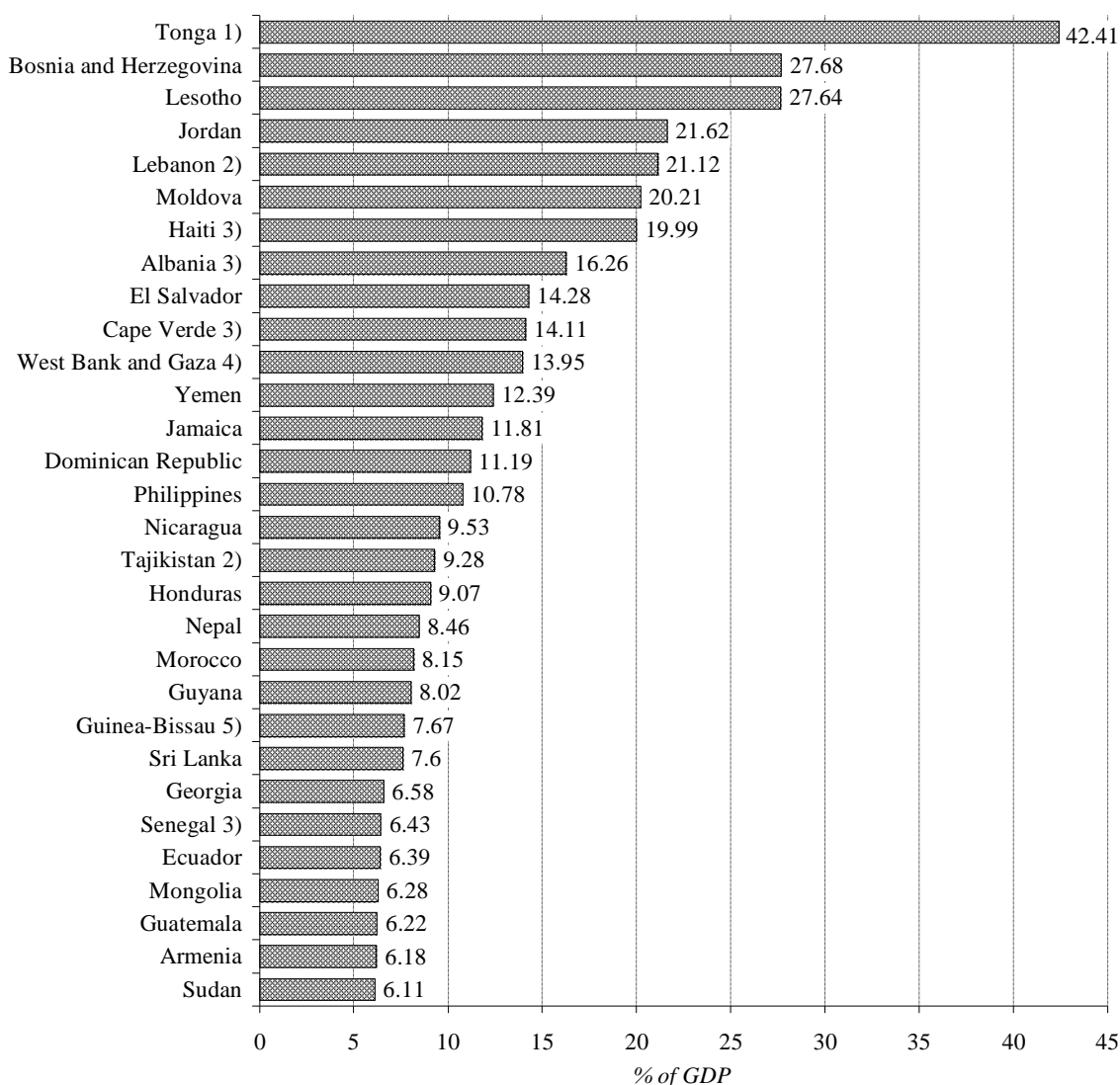
Country groups are specified in section 12.6.3.

Source: IMF (2005), author's calculations

Figure 12.7: Annual received remittances as % of GDP (2000–2004)

(Average annual received workers' remittances and compensation of employees as a percentage of GDP)

Top 30 countries according to average annual received workers' remittances and compensation of employees as a percentage of GDP



Notes:

- 1) Remittance data for 2000, 2003 and 2004 was not available.
- 2) Remittance data for 2000 and 2001 was not available.
- 3) Remittance data for 2004 was not available.
- 4) Remittance data for 2002, 2003 and 2004 was not available.
- 5) Remittance data for 2000 and 2004 was not available.

“Average annual received workers' remittances and compensation of employees as a percentage of GDP (2000–2004)” could not be calculated for the following countries: Afghanistan, Algeria, American Samoa, Andorra, Angola, Bahamas, Bahrain, Bermuda, Bhutan, Brunei, Burundi, Cameroon, Canada, Cayman Islands, Central African Republic, Chad, Channel Islands, Comoros, Cuba, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Faeroe Islands, Fiji, French Polynesia, Gambia, Greenland, Grenada, Guam, Iran, Iraq, Isle of Man, Kenya, Kiribati, Kuwait, Liberia, Liechtenstein, Marshall Islands, Mauritania, Mayotte, Monaco, Myanmar, Netherlands Antilles, New Caledonia, North Korea, Northern Mariana Islands, Palau, Papua New Guinea, Puerto Rico, Qatar, Samoa, San Marino, Saudi Arabia, Serbia

and Montenegro, Singapore, Solomon Islands, Somalia, St. Lucia, Timor-Leste, Turkmenistan, United Arab Emirates, Uzbekistan, Vietnam, Virgin Islands (U.S.), Zambia, Zimbabwe.

Source: IMF (2005), author's calculations

12.1.2 Dynamics and trends

Table 12.1: Received remittances (2000–2004)

(Received workers' remittances and compensation of employees)

Low and middle income countries by region, in \$ billions

	2000	2001	2002	2003	2004
Latin America and the Caribbean	19.8	24.0	27.0	33.1	39.1
East Asia and Pacific	10.4	10.4	13.2	19.4	22.2
South Asia 1)	17.2	19.2	24.1	31.1	9.9
Middle East and North Africa	10.0	11.0	13.0	17.0	19.1
Europe and Central Asia	11.2	10.6	10.4	11.8	13.2
Sub-Saharan Africa	3.8	3.8	4.3	4.9	5.4
<i>Total</i>	<i>72.5</i>	<i>78.9</i>	<i>92.0</i>	<i>117.2</i>	<i>109.0</i>

Notes:

- 1) The seeming decline of remittances to South Asia in 2004 is caused by missing 2004 data for India. IMF (2005) reports remittances received by India to be \$21.7 billion in 2003.

“Received workers' remittances and compensation of employees (2000–2004)” was not available for the following countries: Afghanistan, Algeria, American Samoa, Angola, Bhutan, Burundi, Cameroon, Central African Republic, Chad, Comoros, Cuba, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Fiji, Gambia, Grenada, Iran, Iraq, Kenya, Kiribati, Liberia, Marshall Islands, Mauritania, Mayotte, North Korea, Northern Mariana Islands, Palau, Papua New Guinea, Samoa, Serbia and Montenegro, Solomon Islands, Somalia, St. Lucia, Timor-Leste, Turkmenistan, Uzbekistan, Vietnam, Zambia and Zimbabwe.

Remittance data for 2000 was not available for French Polynesia, New Caledonia, Macao, Tajikistan, Uruguay, Suriname, Lebanon, Guinea-Bissau, Mauritius, São Tomé and Príncipe and Seychelles.

■ Remittance data for 2001 was not available for French Polynesia, New Caledonia, Macao, Tajikistan, Slovak Republic, Uruguay, Suriname and Lebanon. ■ Remittance data for 2002 was not available for St. Kitts and Nevis, West Bank and Gaza and Burkina Faso. ■ Remittance data for 2003 was not available for Antigua and Barbuda, Dominica, St. Kitts and Nevis, West Bank and Gaza, Burkina Faso, Republic of the Congo, Malawi, São Tomé and Príncipe. ■ Remittance data for 2004 was not available for Macao, Faeroe Islands, Antigua and Barbuda, Albania, Slovak Republic, Haiti, Barbados, Trinidad and Tobago, Chile, Dominica, St. Kitts and Nevis, West Bank and Gaza, India, Senegal, Mali, Togo, Cape Verde, Benin, Burkina Faso, Botswana, Niger, Guinea-Bissau, Madagascar, Republic of the Congo, Gabon, Malawi and São Tomé and Príncipe.

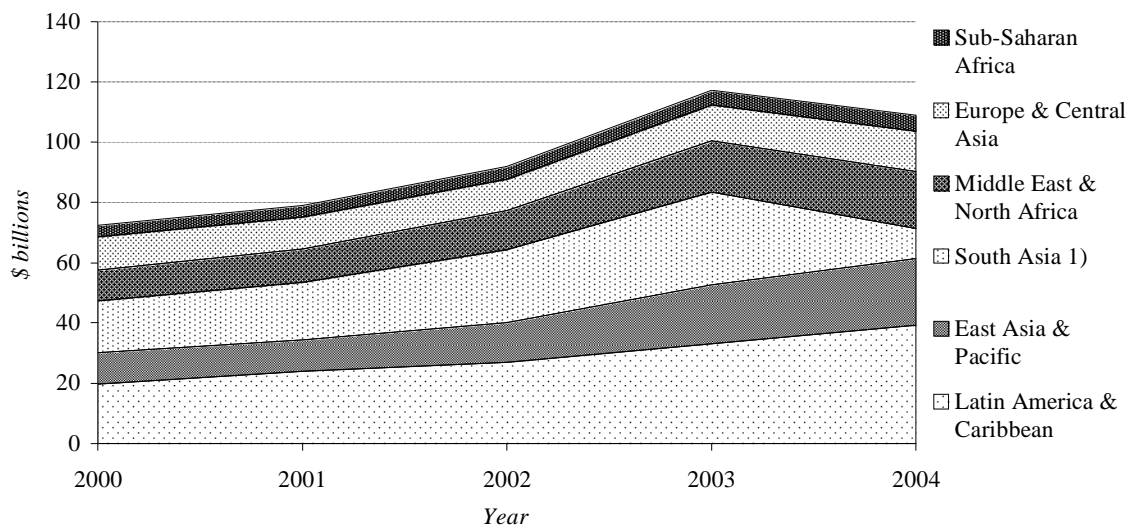
Country groups are specified in section 12.4.3.

Source: IMF (2005), author's calculations

Figure 12.8: Received remittances (2000–2004)

(Received workers' remittances and compensation of employees)

Low and middle income countries by region



Notes:

Same notes as in Table 12.1 apply here.

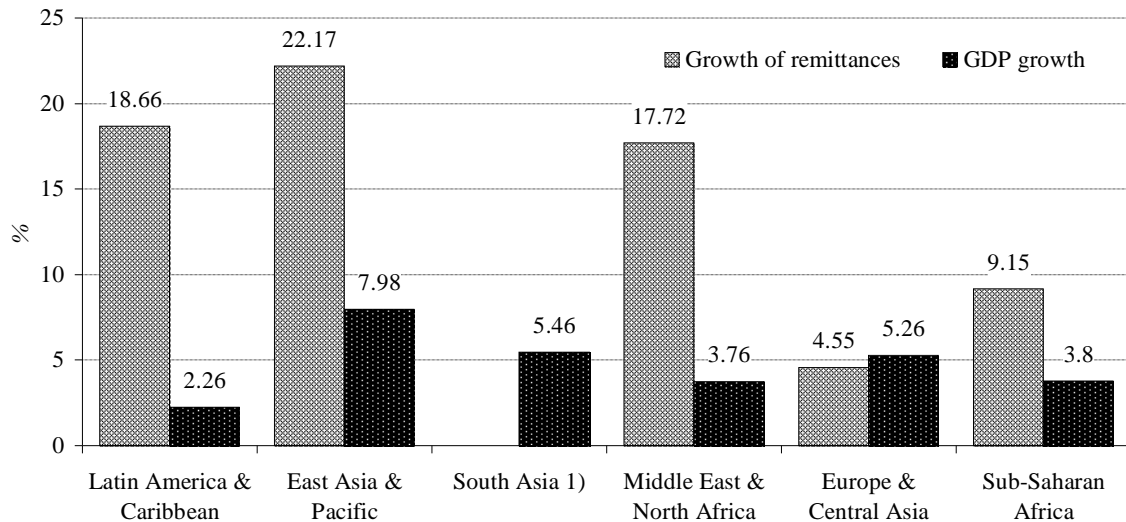
1) The seeming decline of remittances to South Asia in 2004 is caused by missing 2004 data for India. IMF (2005) reports remittances received by India to be \$21.7 billion in 2003.

Source: IMF (2005), author's calculations

Figure 12.9: Annual growth of received remittances and GDP growth (2000–2004)

(Average percentage annual growth of received workers' remittances and compensation of employees and average annual GDP growth)

Low and middle income countries by region



Notes:

- 1) The calculated percentage growth of remittances received by South Asia was negative (-0.48) due to exclusion of India in 2004.

Ordered by average annual received workers' remittances and compensation of employees (2000–2004) calculated from the WB (2006) data to enable comparison.

“Average percentage annual growth of received workers' remittances and compensation of employees (2000–2004)” could not be calculated for the following countries: American Samoa, Fiji, Kiribati, Marshall Islands, North Korea, Northern Mariana Islands, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Vietnam, Federated States of Micronesia, Serbia and Montenegro, Turkmenistan, Uzbekistan, Cuba, Grenada, St. Lucia, St. Vincent and the Grenadines, Algeria, Djibouti, Iran, Iraq, Afghanistan, Bhutan, Angola, Burundi, Cameroon, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Equatorial Guinea, Gambia, Kenya, Liberia, Mauritania, Mayotte, Somalia, Zambia, Zimbabwe and Eritrea.

Remittance data for 2000 was not available for French Polynesia, New Caledonia, Macao, Tajikistan, Uruguay, Suriname, Lebanon, Guinea-Bissau, Mauritius, São Tomé and Príncipe and Seychelles. ■ Remittance data for 2001 was not available for French Polynesia, New Caledonia, Macao, Tajikistan, Slovak Republic, Uruguay, Suriname and Lebanon. ■ Remittance data for 2002 was not available for St. Kitts and Nevis, West Bank and Gaza and Burkina Faso. ■ Remittance data for 2003 was not available for Antigua and Barbuda, Dominica, St. Kitts and Nevis, West Bank and Gaza, Burkina Faso, Republic of the Congo, Malawi, São Tomé and Príncipe. ■ Remittance data for 2004 was not available for Macao, Faeroe Islands, Antigua and Barbuda, Albania, Slovak Republic, Haiti, Barbados, Trinidad and Tobago, Chile, Dominica, St. Kitts and Nevis, West Bank and Gaza, India, Senegal, Mali, Togo, Cape Verde, Benin, Burkina Faso, Botswana, Niger, Guinea-Bissau, Madagascar, Republic of the Congo, Gabon, Malawi and São Tomé and Príncipe.

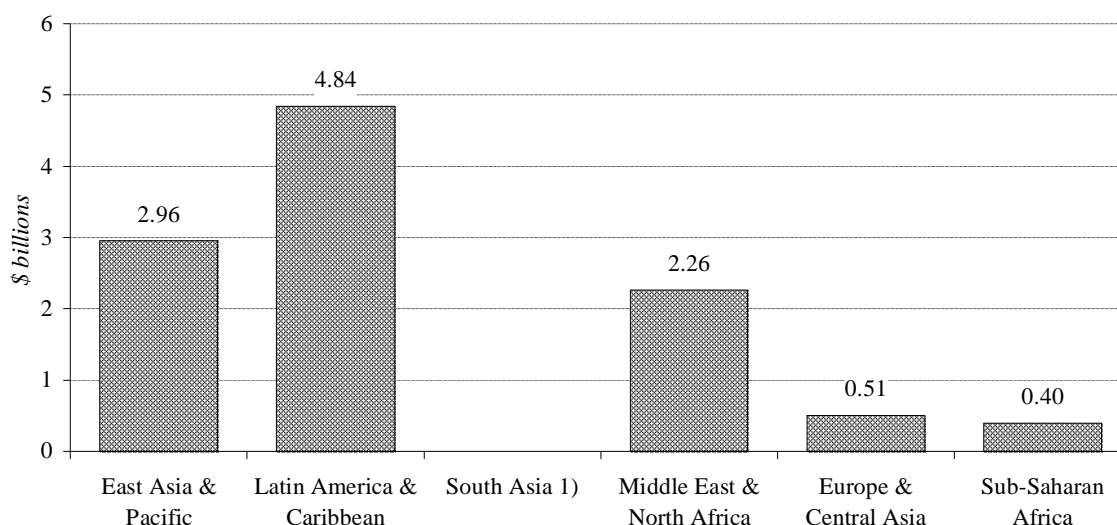
Country groups are specified in section 12.6.3.

Source: IMF (2005), author's calculations

Figure 12.10: Absolute annual increase of received remittances (2000–2004)

(Average absolute annual increase in received workers' remittances and compensation of employees)

Low and middle income countries by region



Notes:

Ordered by “Average absolute annual increase in received workers’ remittances and compensation of employees (2000–2004)” calculated using the WB (2006) for comparison.

1) The calculated absolute increase of remittances received by South Asia was negative (-1.82) due to exclusion of India in 2004.

“Average absolute annual increase in received workers’ remittances and compensation of employees (2000–2004)” could not be calculated for the following countries: American Samoa, Fiji, Kiribati, Marshall Islands, North Korea, Northern Mariana Islands, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Vietnam, Federated States of Micronesia, Serbia and Montenegro, Turkmenistan, Uzbekistan, Cuba, Grenada, St. Lucia, St. Vincent and the Grenadines, Algeria, Djibouti, Iran, Iraq, Afghanistan, Bhutan, Angola, Burundi, Cameroon, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Equatorial Guinea, Gambia, Kenya, Liberia, Mauritania, Mayotte, Somalia, Zambia, Zimbabwe and Eritrea.

Remittance data for 2000 was not available for French Polynesia, New Caledonia, Macao, Tajikistan, Uruguay, Suriname, Lebanon, Guinea-Bissau, Mauritius, São Tomé and Príncipe and Seychelles. ■ Remittance data for 2001 was not available for French Polynesia, New Caledonia, Macao, Tajikistan, Slovak Republic, Uruguay, Suriname and Lebanon. ■ Remittance data for 2002 was not available for St. Kitts and Nevis, West Bank and Gaza and Burkina Faso. ■ Remittance data for 2003 was not available for Antigua and Barbuda, Dominica, St. Kitts and Nevis, West Bank and Gaza, Burkina Faso, Republic of the Congo, Malawi, São Tomé and Príncipe. ■ Remittance data for 2004 was not available for Macao, Faeroe Islands, Antigua and Barbuda, Albania, Slovak Republic, Haiti, Barbados, Trinidad and Tobago, Chile, Dominica, St. Kitts and Nevis, West Bank and Gaza, India, Senegal, Mali, Togo, Cape Verde, Benin, Burkina Faso, Botswana, Niger, Guinea-Bissau, Madagascar, Republic of the Congo, Gabon, Malawi and São Tomé and Príncipe.

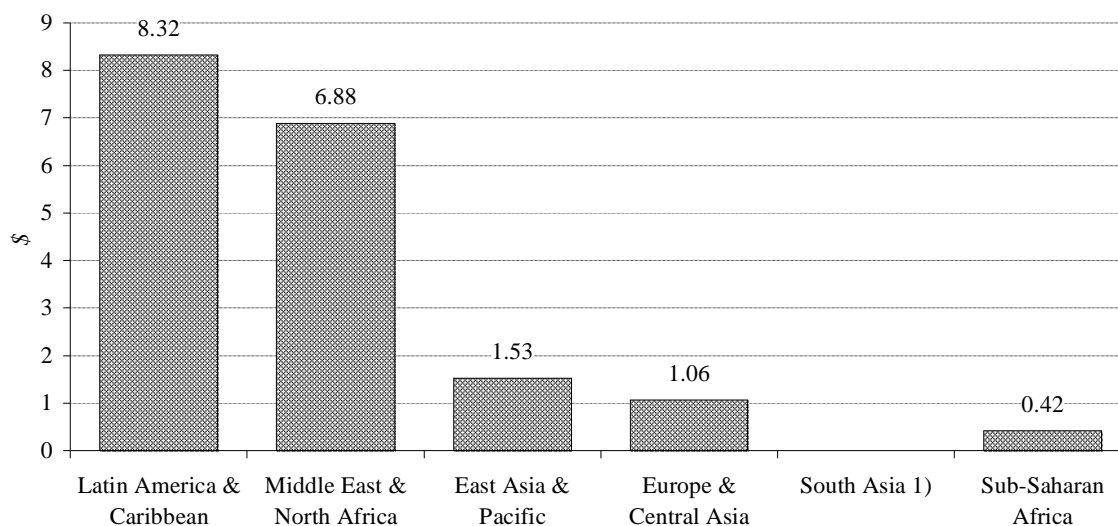
Country groups are specified in section 12.6.3.

Source: IMF (2005), author’s calculations

Figure 12.11: Absolute annual increase of received remittances per inhabitant (2000–2004)

(Average absolute annual increase in received workers' remittances and compensation of employees per inhabitant)

Low and middle income countries by region



Notes:

“Average absolute annual increase in received workers’ remittances and compensation of employees per inhabitant (2000–2004)” could not be calculated for the following countries: American Samoa, Fiji, Kiribati, Marshall Islands, North Korea, Northern Mariana Islands, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Vietnam, Federated States of Micronesia, Serbia and Montenegro, Turkmenistan, Uzbekistan, Cuba, Grenada, St. Lucia, St. Vincent and the Grenadines, Algeria, Djibouti, Iran, Iraq, Afghanistan, Bhutan, Angola, Burundi, Cameroon, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Equatorial Guinea, Gambia, Kenya, Liberia, Mauritania, Mayotte, Somalia, Zambia, Zimbabwe and Eritrea.

Remittance data for 2000 was not available for French Polynesia, New Caledonia, Macao, Tajikistan, Uruguay, Suriname, Lebanon, Guinea-Bissau, Mauritius, São Tomé and Príncipe and Seychelles. ■ Remittance data for 2001 was not available for French Polynesia, New Caledonia, Macao, Tajikistan, Slovak Republic, Uruguay, Suriname and Lebanon. ■ Remittance data for 2002 was not available for St. Kitts and Nevis, West Bank and Gaza and Burkina Faso. ■ Remittance data for 2003 was not available for Antigua and Barbuda, Dominica, St. Kitts and Nevis, West Bank and Gaza, Burkina Faso, Republic of the Congo, Malawi, São Tomé and Príncipe. ■ Remittance data for 2004 was not available for Macao, Faeroe Islands, Antigua and Barbuda, Albania, Slovak Republic, Haiti, Barbados, Trinidad and Tobago, Chile, Dominica, St. Kitts and Nevis, West Bank and Gaza, India, Senegal, Mali, Togo, Cape Verde, Benin, Burkina Faso, Botswana, Niger, Guinea-Bissau, Madagascar, Republic of the Congo, Gabon, Malawi and São Tomé and Príncipe.

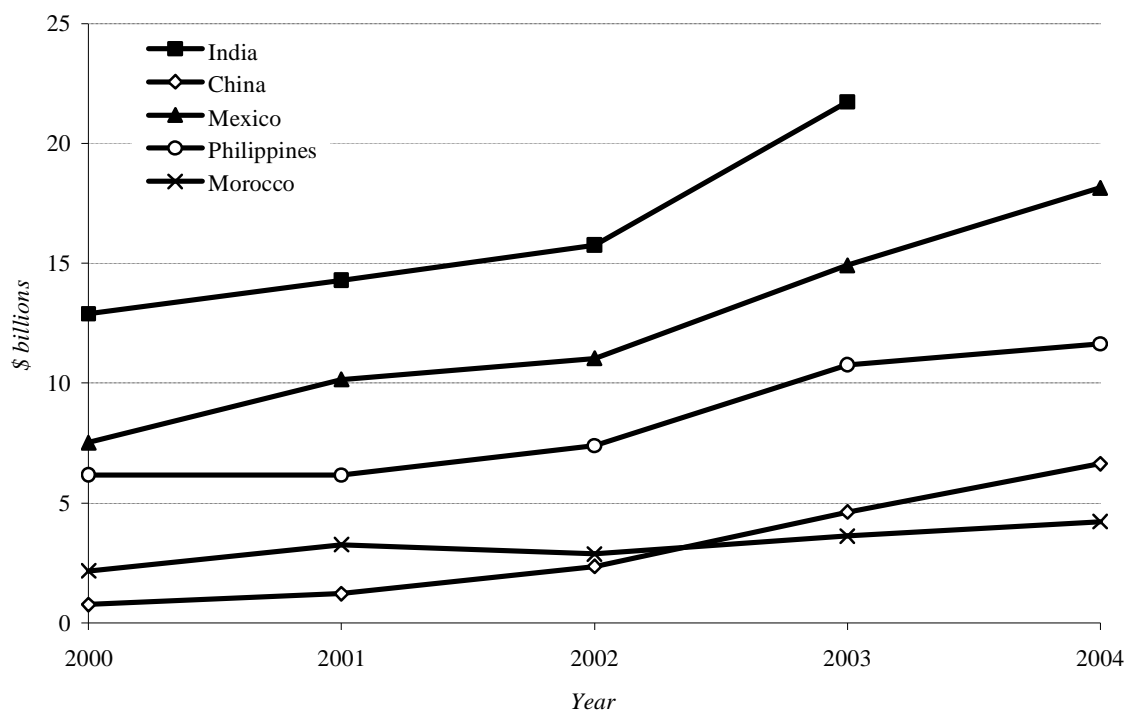
Country groups are specified in section 12.6.3.

Source: IMF (2005), author’s calculations

Figure 12.12: Annual remittances received (2000–2004)

(Annual received workers' remittances and compensation of employees)

*India, China, Mexico, Philippines and Morocco*¹⁵⁸



Notes:

“Annual received workers’ remittances and compensation of employees” for any of the years between 2000 and 2004 could not be obtained for the following countries: American Samoa, Fiji, Kiribati, Marshall Islands, North Korea, Northern Mariana Islands, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Vietnam, Serbia and Montenegro, Turkmenistan, Uzbekistan, Cuba, Grenada, St. Lucia, Algeria, Djibouti, Iran, Iraq, Afghanistan, Bhutan, Angola, Burundi, Cameroon, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Equatorial Guinea, Gambia, Kenya, Liberia, Mauritania, Mayotte, Somalia, Zambia and Zimbabwe.

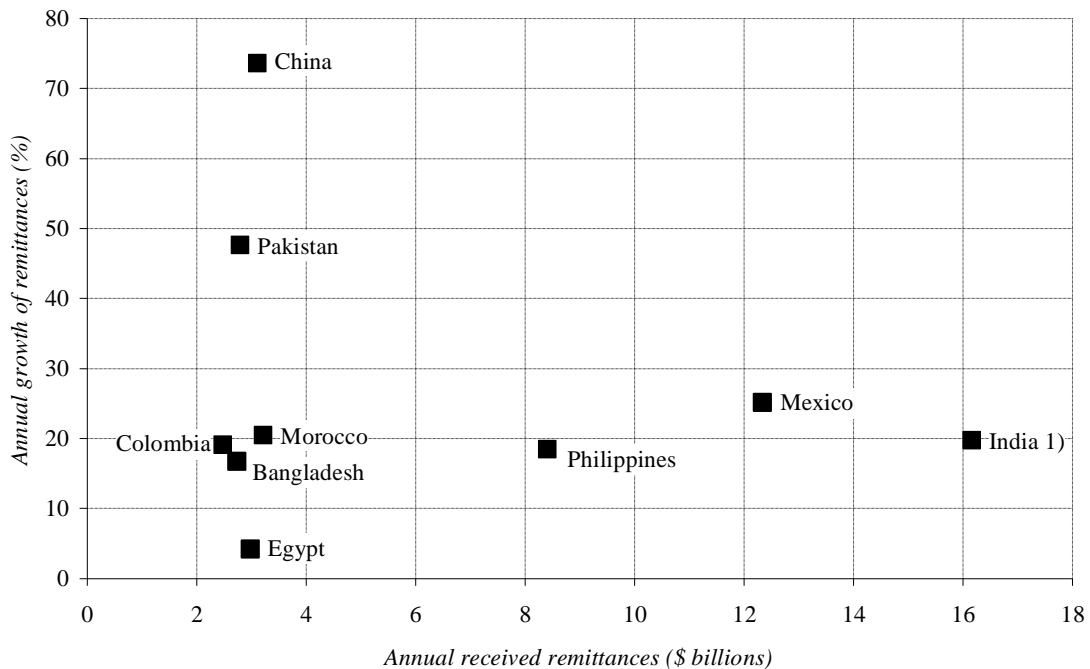
Source: IMF (2005), author’s calculations

¹⁵⁸ Based on WB (2006) these are the top five low and middle income countries according to average annual received workers’ remittances and compensation of employees. They are depicted here to enable comparison. Strictly according to IMF (2005) the top-five list would include Lebanon instead of China.

Figure 12.13: Annual remittances and their growth (2000–2004)

(Average annual received workers’ remittances and compensation of employees and their annual percentage growth)

*India, China, Mexico, Philippines, Morocco, Egypt, Pakistan, Bangladesh, Colombia*¹⁵⁹



Notes:

1) Remittance data for 2004 was not available.

Remittance data for Vietnam, which is among the top ten world receivers according to WB (2006), was not available from IMF (2005).

“Average annual received workers’ remittances and compensation of employees (2000–2004)” could not be calculated for the following countries: American Samoa, Fiji, Kiribati, Marshall Islands, North Korea, Northern Mariana Islands, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Vietnam, Serbia and Montenegro, Turkmenistan, Uzbekistan, Cuba, Grenada, St. Lucia, Algeria, Djibouti, Iran, Iraq, Afghanistan, Bhutan, Angola, Burundi, Cameroon, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Equatorial Guinea, Gambia, Kenya, Liberia, Mauritania, Mayotte, Somalia, Zambia and Zimbabwe.

Country groups are specified in section 12.6.3.

Source: IMF (2005), author’s calculations

¹⁵⁹ Based on WB (2006) these are nine of the top ten low and middle income countries according to average annual received workers’ remittances and compensation of employees. They are depicted here to enable comparison. Data for Vietnam is not available from IMF (2005). According to IMF (2005) the top-ten list would include Lebanon.

12.2 Detailed receiver statistics by region

12.2.1 Latin America and the Caribbean

Figure 12.14: Annual received remittances (2000–2004)

(Average annual received workers' remittances and compensation of employees)

Low and middle income countries in Latin America and the Caribbean

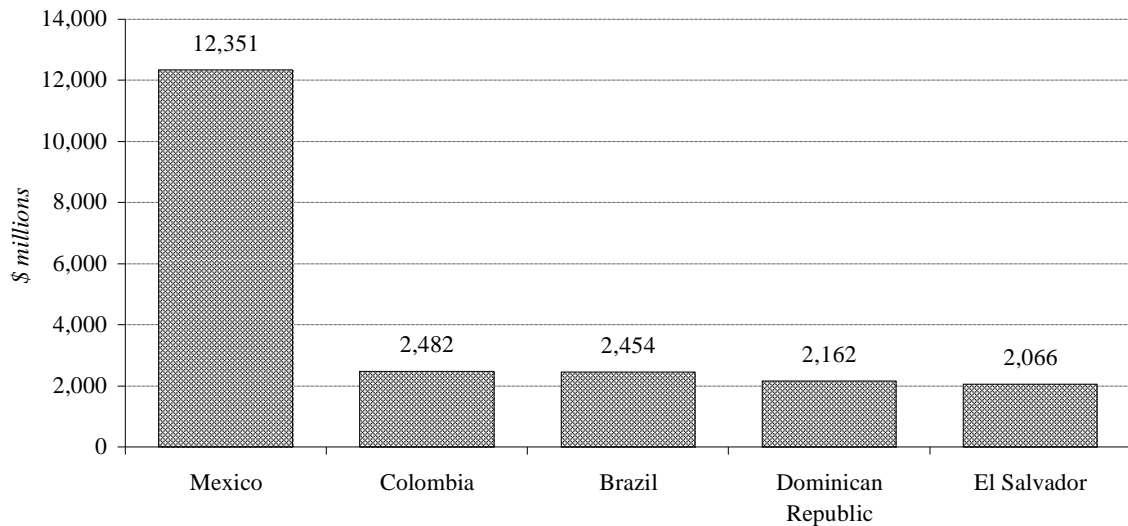


Figure 12.14 (continued)

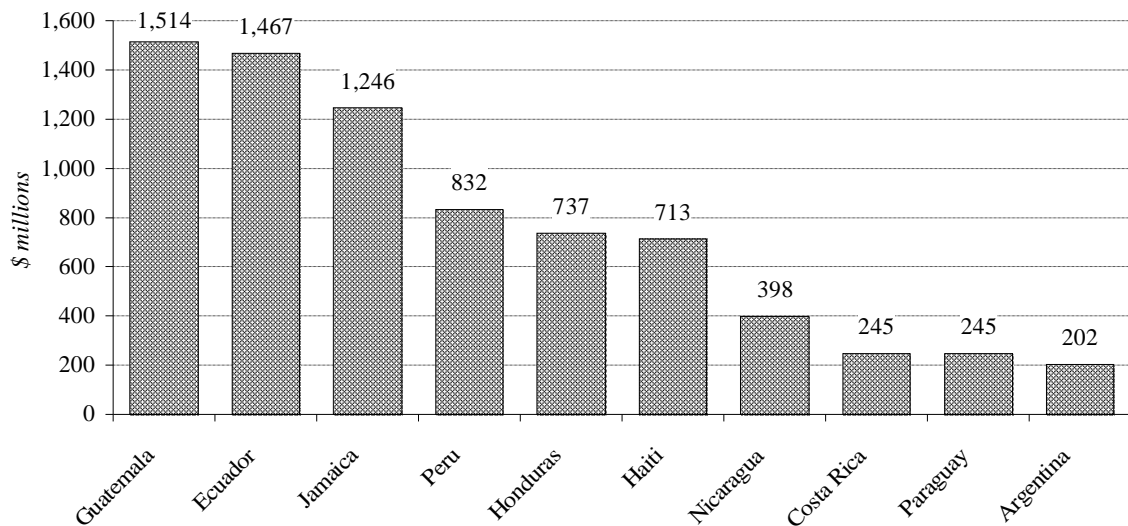
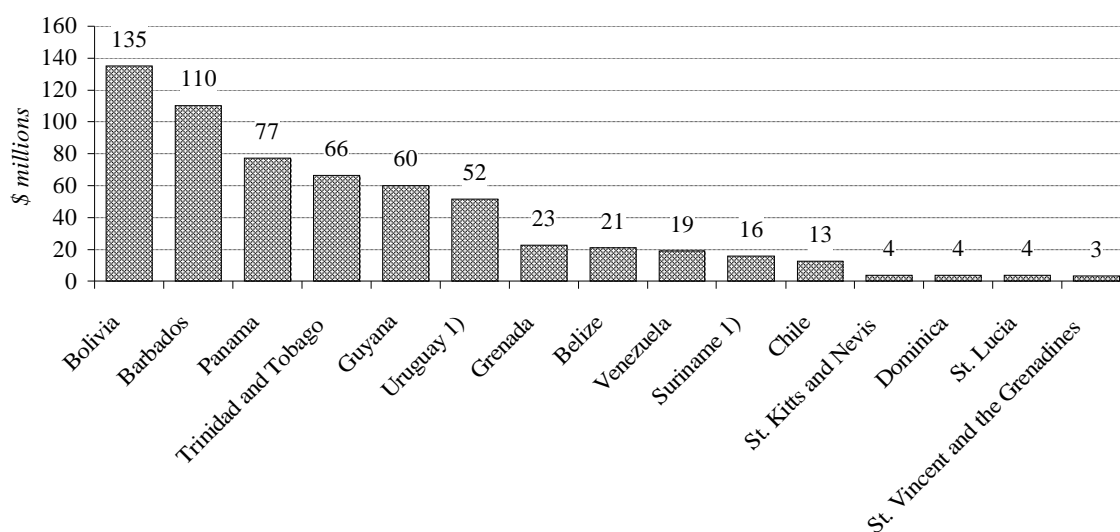


Figure 12.14 (continued)



Notes:

“Average annual received workers’ remittances and compensation of employees (2000–2004)” could not be calculated for Cuba.

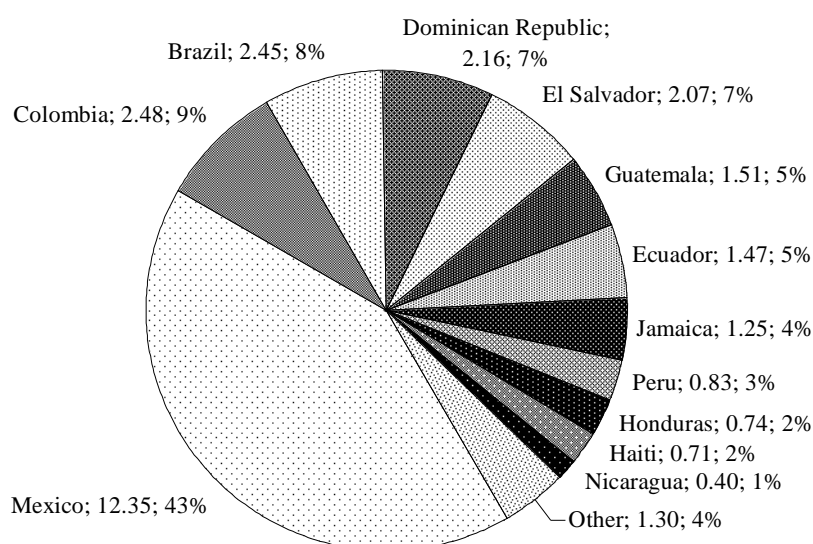
1) Remittance data for 2000, 2001 was not available.

Source: WB (2006), author’s calculations

Figure 12.15: Annual received remittances (2000–2004)

(Average annual received workers’ remittances and compensation of employees)

Low and middle income countries in Latin America and the Caribbean, in \$ billions



Note: “Average annual received workers’ remittances and compensation of employees (2000–2004)” could not be calculated for Cuba.

Source: WB (2006), author’s calculations

12.2.2 East Asia and Pacific

Figure 12.16: Annual received remittances (2000–2004)

(Average annual received workers' remittances and compensation of employees)

Low and middle income countries in East Asia and Pacific

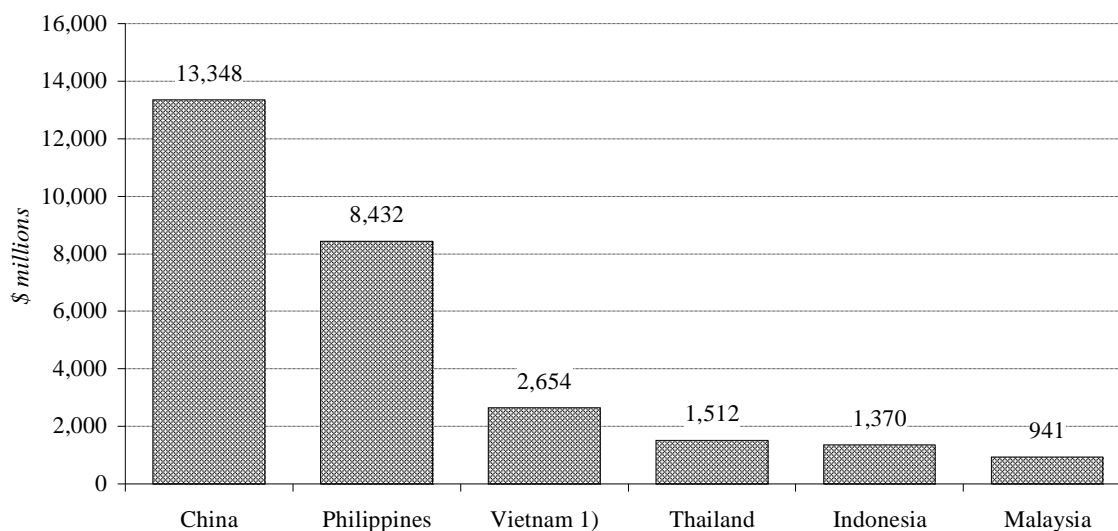
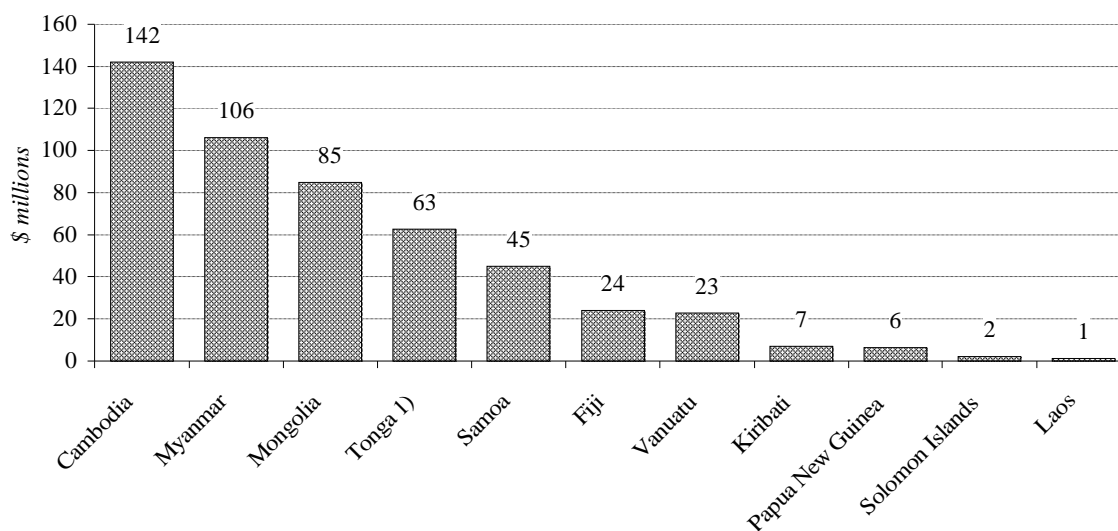


Figure 12.16 (continued)



Notes:

1) Remittance data for 2000 was not available.

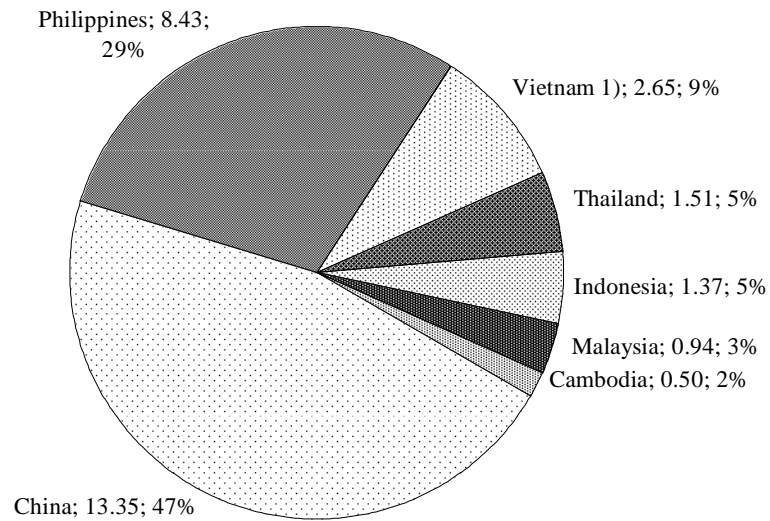
“Average annual received workers' remittances and compensation of employees (2000–2004)” could not be calculated for the following countries: American Samoa, Federated States of Micronesia, Marshall Islands, North Korea, Northern Mariana Islands, Palau and Timor-Leste.

Source: WB (2006), author's calculations

Figure 12.17: Annual received remittances (2000–2004)

(Average annual received workers' remittances and compensation of employees)

Low and middle income countries in East Asia and Pacific, in \$ billions



Notes:

1) Remittance data for 2000 was not available.

“Average annual received workers' remittances and compensation of employees (2000–2004)” could not be calculated for the following countries: American Samoa, Federated States of Micronesia, Marshall Islands, North Korea, Northern Mariana Islands, Palau and Timor-Leste.

Source: WB (2006), author's calculations

12.2.3 Europe and Central Asia

Figure 12.18: Annual received remittances (2000–2004)

(Average annual received workers' remittances and compensation of employees)

Low and middle income countries in Europe and Central Asia

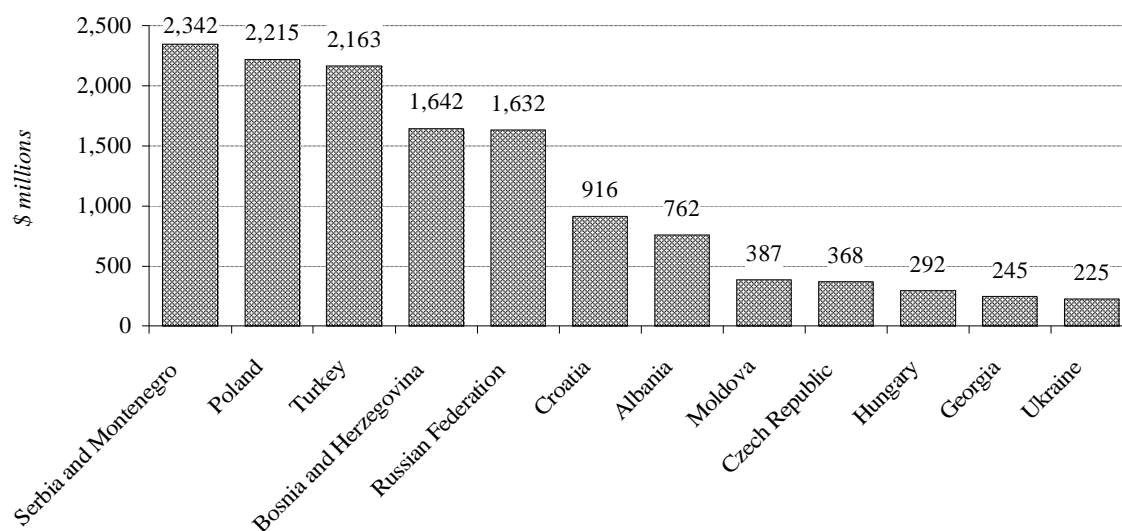
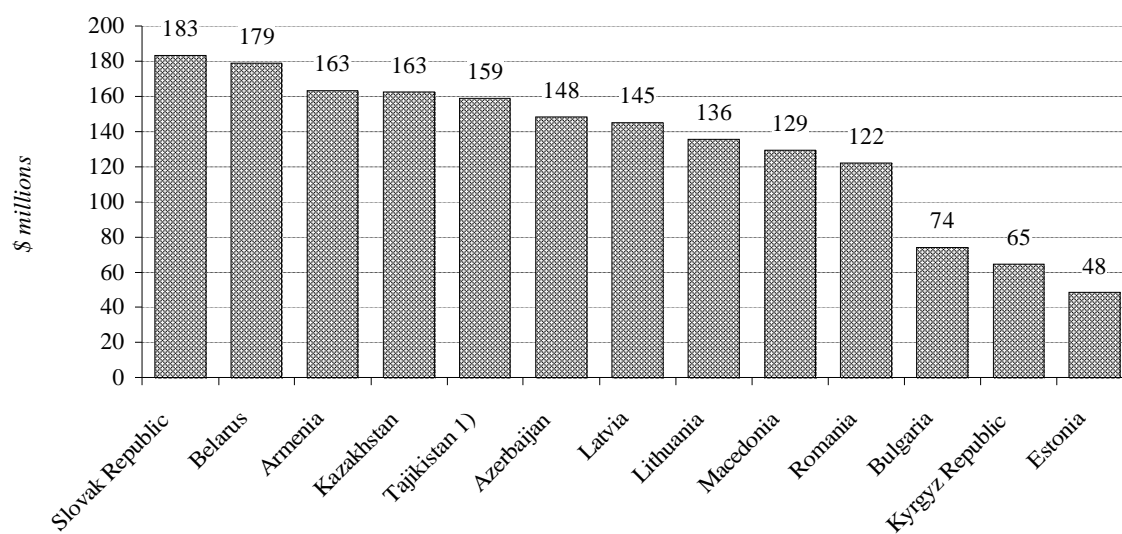


Figure 12.18 (continued)



Notes:

1) Remittance data for 2000, 2001 was not available.

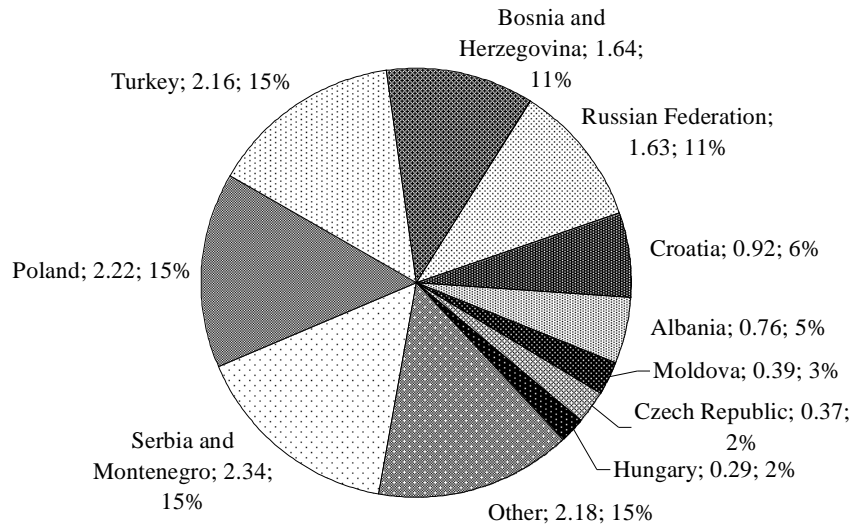
“Average annual received workers' remittances and compensation of employees (2000–2004)” could not be calculated for Turkmenistan and Uzbekistan.

Source: WB (2006), author's calculations

Figure 12.19: Annual received remittances (2000–2004)

(Average annual received workers' remittances and compensation of employees)

Low and middle income countries in Europe and Central Asia, in \$ billions



Notes:

1) Remittance data for 2000, 2001 was not available.

“Average annual received workers' remittances and compensation of employees (2000–2004)” could not be calculated for Turkmenistan and Uzbekistan.

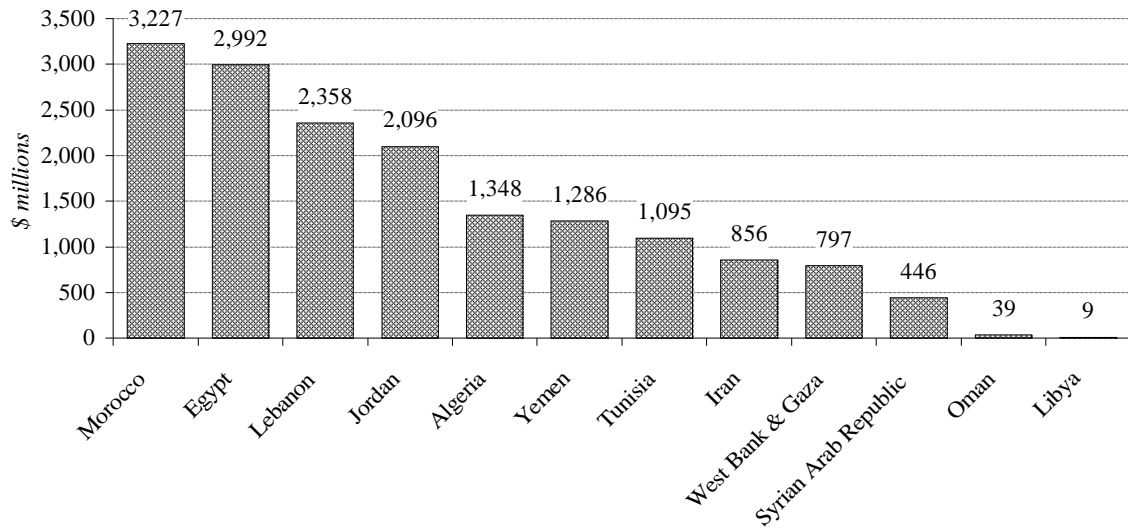
Source: WB (2006), author's calculations

12.2.4 Middle East and North Africa

Figure 12.20: Annual received remittances (2000–2004)

(Average annual received workers' remittances and compensation of employees)

Low and middle income countries in Middle East and North Africa



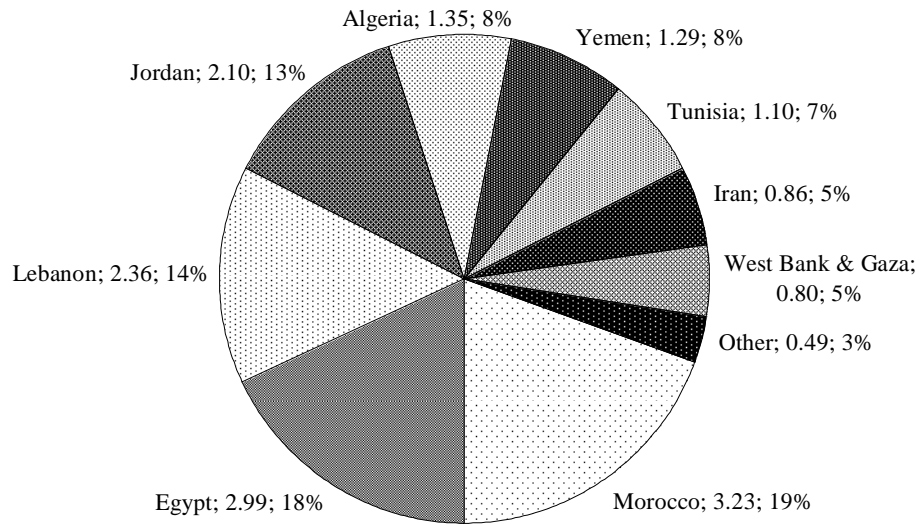
Note: “Average annual received workers' remittances and compensation of employees (2000–2004)” could not be calculated for Djibouti and Iraq.

Source: WB (2006), author's calculations

Figure 12.21: Annual received remittances (2000–2004)

(Average annual received workers' remittances and compensation of employees)

Low and middle income countries in Middle East and North Africa, in \$ billions



Note: "Average annual received workers' remittances and compensation of employees (2000–2004)" could not be calculated for Djibouti and Iraq.

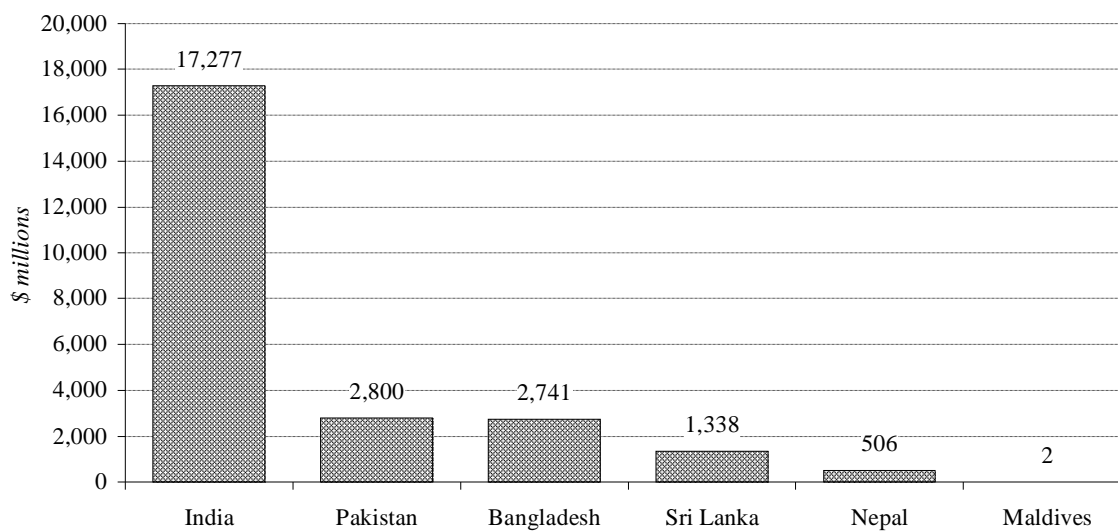
Source: WB (2006), author's calculations

12.2.5 South Asia

Figure 12.22: Annual received remittances (2000–2004)

(Average annual received workers' remittances and compensation of employees)

Low and middle income countries in South Asia



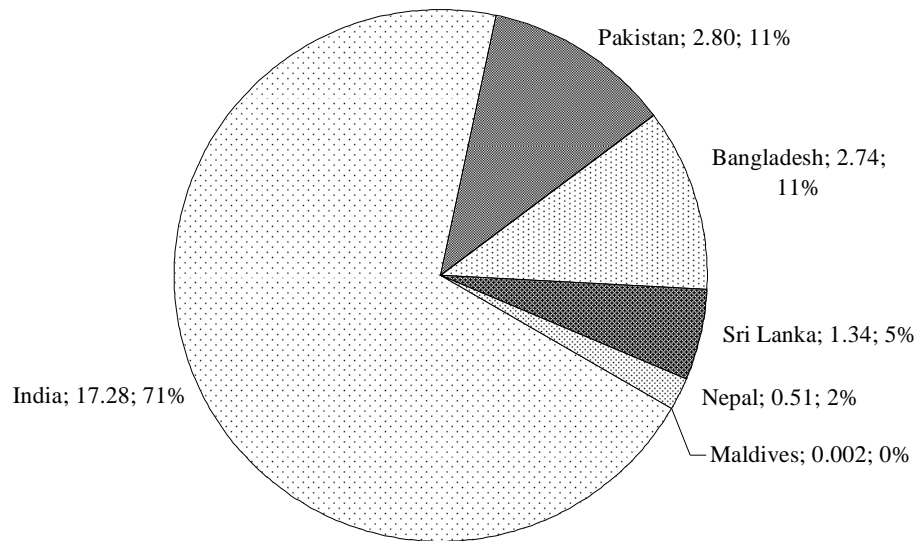
Note: "Average annual received workers' remittances and compensation of employees (2000–2004)" could not be calculated for Afghanistan and Bhutan.

Source: WB (2006), author's calculations

Figure 12.23: Annual received remittances (2000–2004)

(Average annual received workers' remittances and compensation of employees)

Low and middle income countries in South Asia, in \$ billions



Note: "Average annual received workers' remittances and compensation of employees (2000–2004)" could not be calculated for Afghanistan and Bhutan.

Source: WB (2006), author's calculations

12.2.6 Sub-Saharan Africa

Figure 12.24: Annual received remittances (2000–2004)

(Average annual received workers' remittances and compensation of employees)

Low and middle income countries in Sub-Saharan Africa

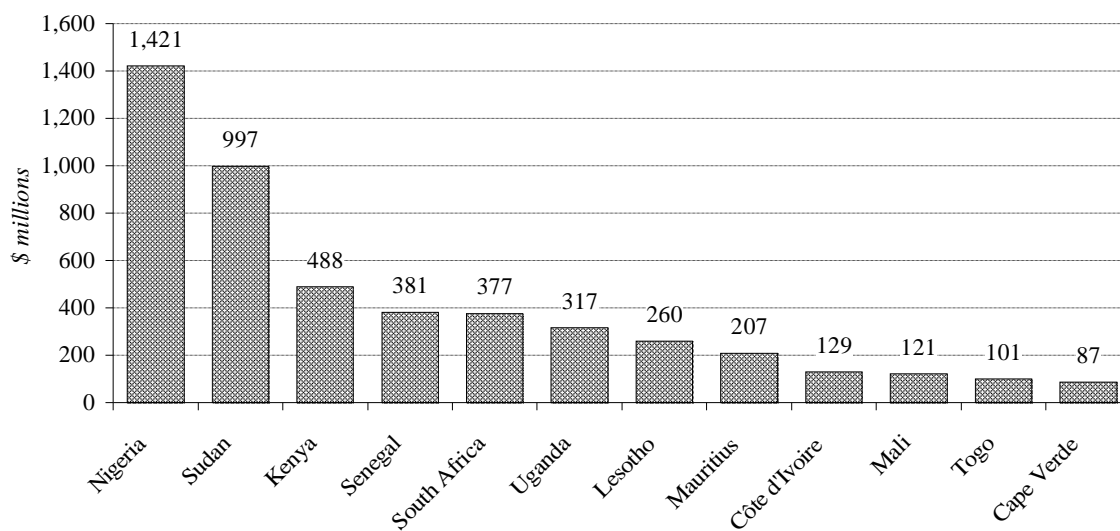


Figure 12.24 (continued)

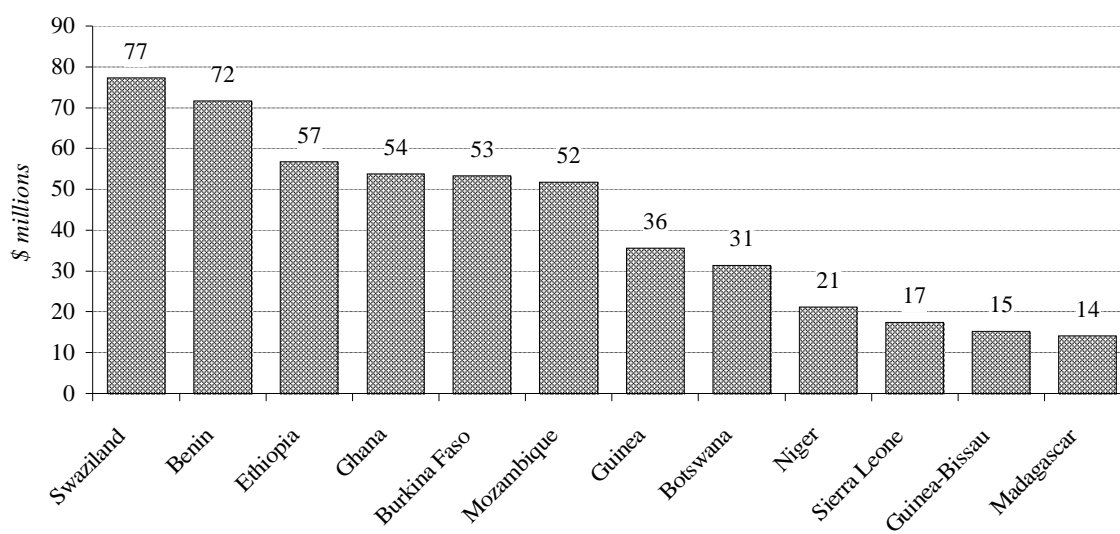
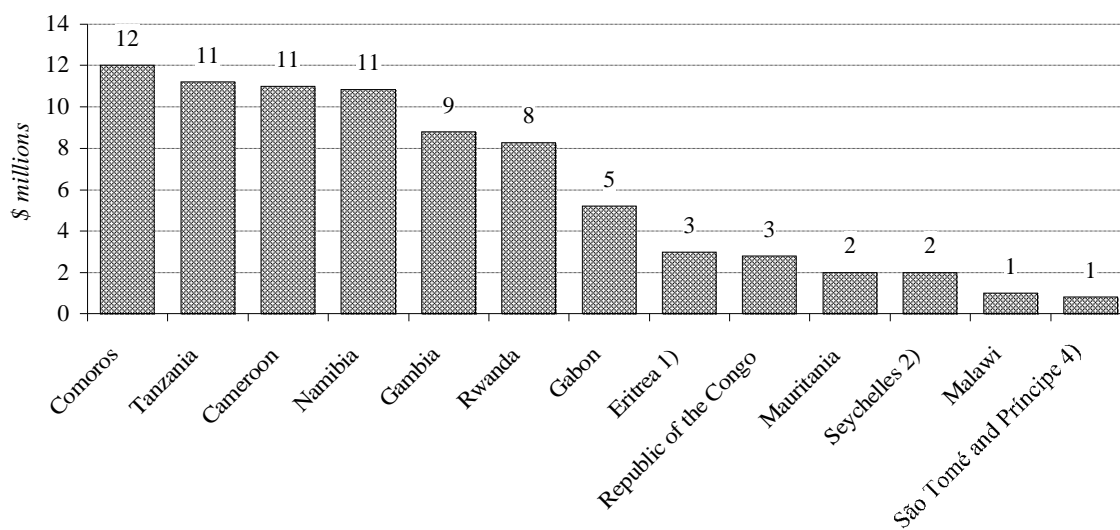


Figure 12.24 (continued)



Notes:

“Average annual received workers’ remittances and compensation of employees (2000–2004)” data was not available for the following countries: Angola, Burundi, Central African Republic, Chad, Democratic Republic of the Congo, Equatorial Guinea, Liberia, Mayotte, Somalia, Zambia and Zimbabwe.

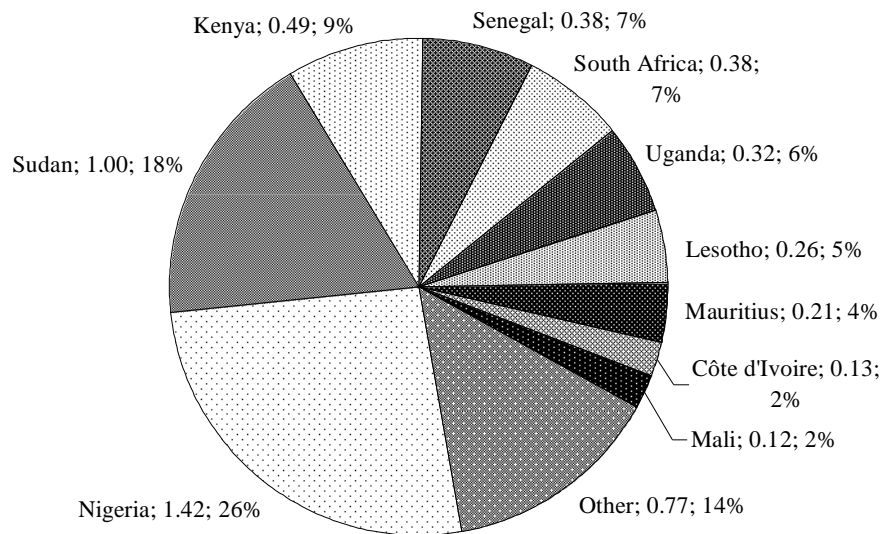
- 1) Remittance data for 2001–2004 was not available.
- 2) Remittance data for 2000 was not available.

Source: WB (2006), author’s calculations

Figure 12.25: Annual received remittances (2000–2004)

(Average annual received workers’ remittances and compensation of employees)

Low and middle income countries in Sub-Saharan Africa, in \$ billions



Note: “Average annual received workers’ remittances and compensation of employees (2000–2004)” data was not available for the following countries: Angola, Burundi, Central African Republic, Chad, Democratic Republic of the Congo, Equatorial Guinea, Liberia, Mayotte, Somalia, Zambia and Zimbabwe.

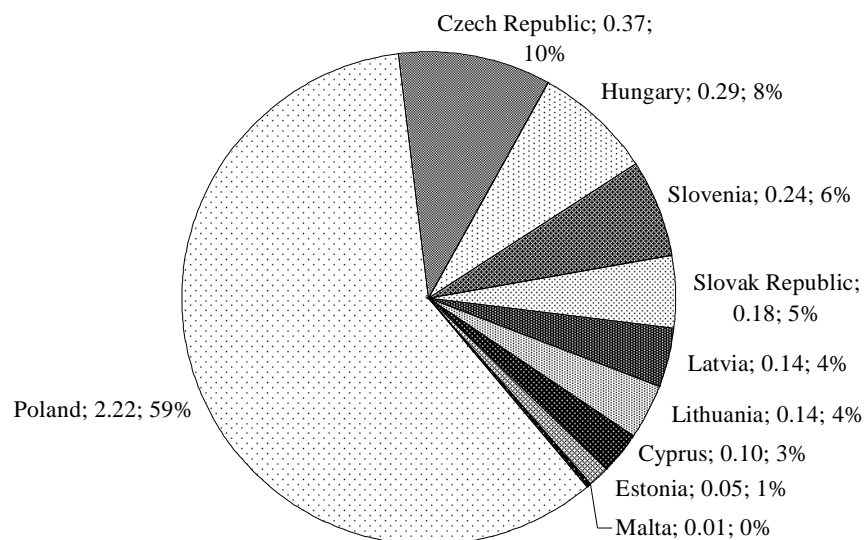
Source: WB (2006), author’s calculations

12.2.7 New members of the European Union

Figure 12.26: Annual received remittances (2000–2004)

(Average annual received workers’ remittances and compensation of employees)

New members of the European Union, in \$ billions



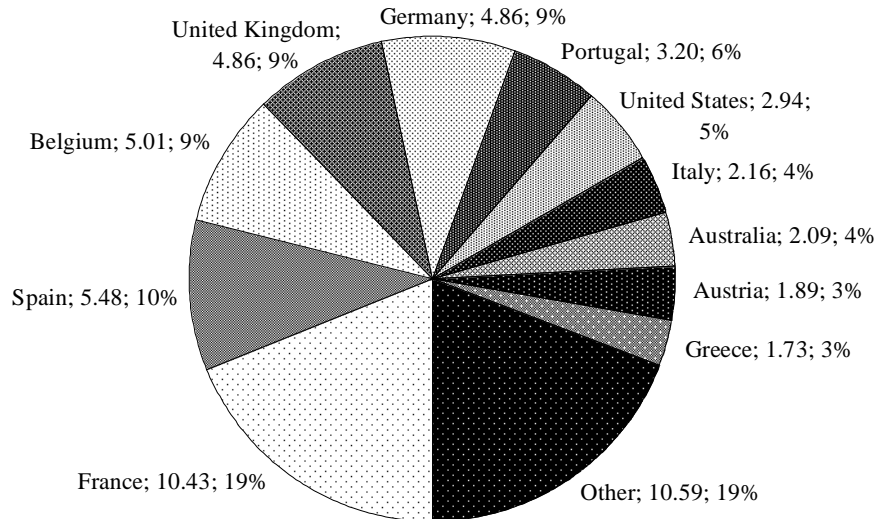
Source: WB (2006), author’s calculations

12.3 Detailed receiver statistics by country income groups

Figure 12.27: Annual received remittances (2000–2004)

(Average annual received workers' remittances and compensation of employees)

High income countries, in \$ billions



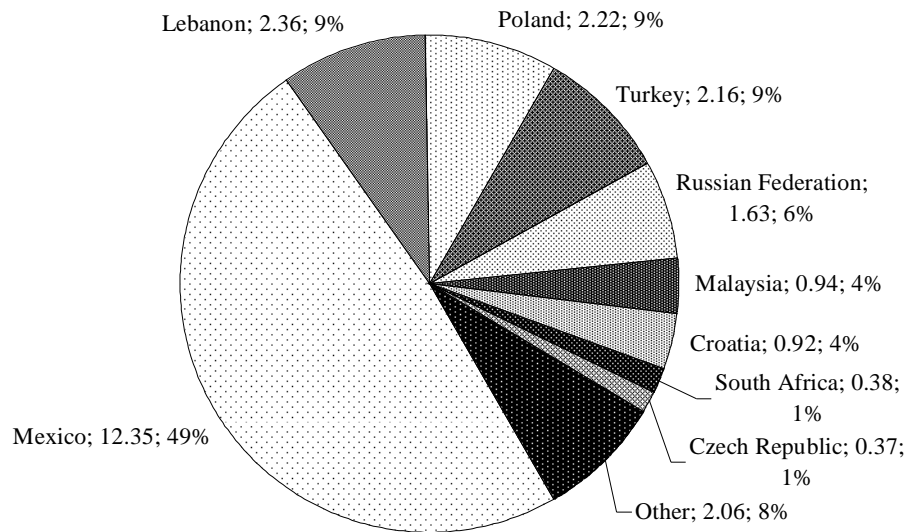
Note: "Average annual received workers' remittances and compensation of employees (2000–2004)" could not be calculated for the following countries: Brunei, Andorra, Bahamas, Bahrain, Bermuda, Canada, Cayman Islands, Channel Islands, Faeroe Islands, French Polynesia, Greenland, Guam, Isle of Man, Kuwait, Liechtenstein, Macao, Monaco, New Caledonia, Puerto Rico, Qatar, San Marino, Saudi Arabia, Singapore, United Arab Emirates and Virgin Islands (U.S.).

Source: WB (2006), author's calculations

Figure 12.28: Annual received remittances (2000–2004)

(Average annual received workers' remittances and compensation of employees)

Upper middle income countries, in \$ billions



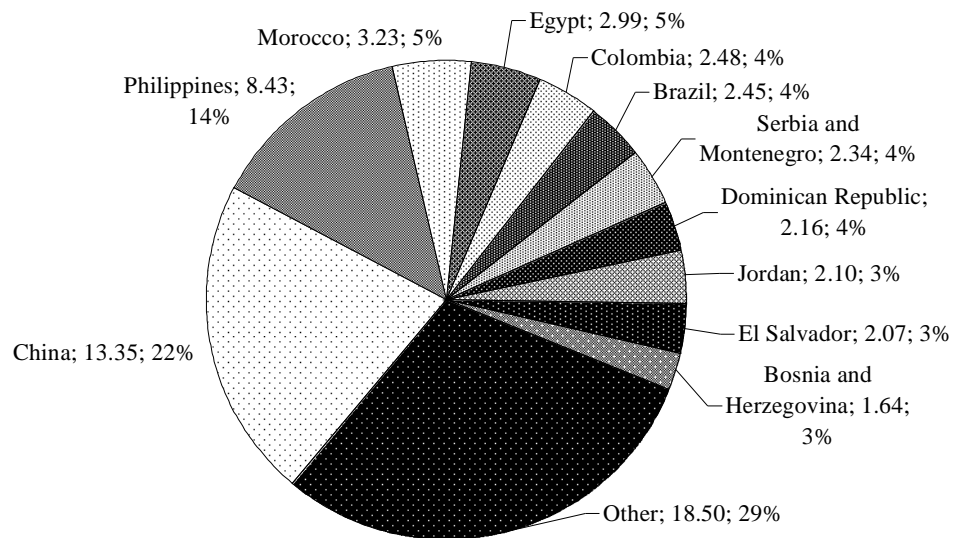
Note: "Average annual received workers' remittances and compensation of employees (2000–2004)" could not be calculated for the following countries: American Samoa, Northern Mariana Islands, Palau, Equatorial Guinea and Mayotte.

Source: WB (2006), author's calculations

Figure 12.29: Annual received remittances (2000–2004)

(Average annual received workers' remittances and compensation of employees)

Lower middle income countries, in \$ billions



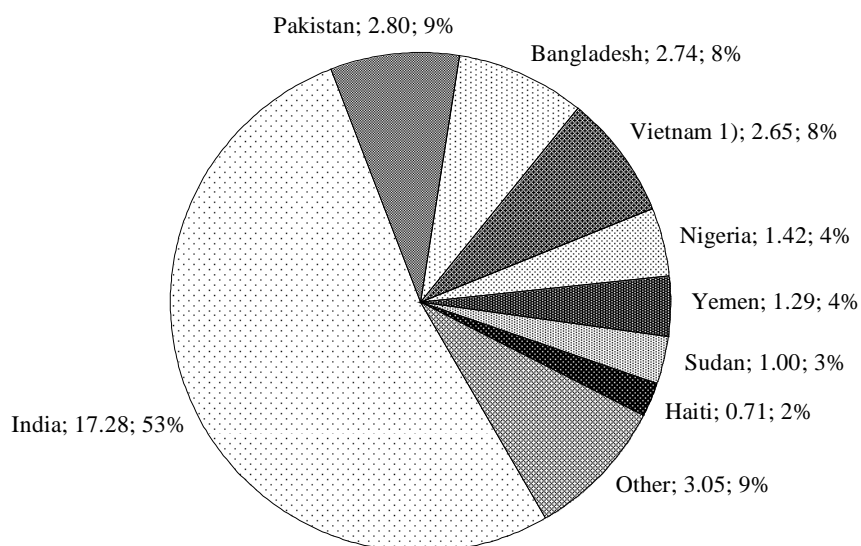
Note: "Average annual received workers' remittances and compensation of employees (2000–2004)" could not be calculated for the following countries: Federated States of Micronesia, Marshall Islands, Turkmenistan, Cuba, Djibouti, Iraq and Angola.

Source: WB (2006), author's calculations

Figure 12.30: Annual received remittances (2000–2004)

(Average annual received workers' remittances and compensation of employees)

Low income countries, in \$ billions



Notes:

1) Remittance data for 2000 was not available.

“Average annual received workers' remittances and compensation of employees (2000–2004)” could not be calculated for the following countries: North Korea, Timor-Leste, Uzbekistan, Afghanistan, Bhutan, Burundi, Central African Republic, Chad, Democratic Republic of the Congo, Liberia, Somalia, Zambia and Zimbabwe.

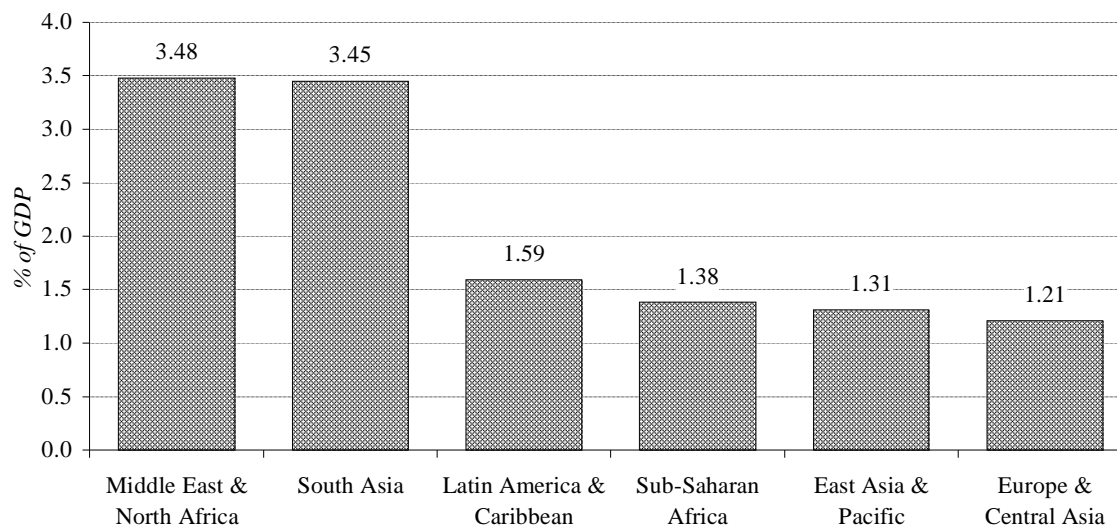
Source: WB (2006), author's calculations

12.4 Other receiver statistics

Figure 12.31: Annual received remittances as % of GDP (2000–2004)

(Average annual received workers' remittances and compensation of employees as a percentage of GDP)

Low and middle income countries by region

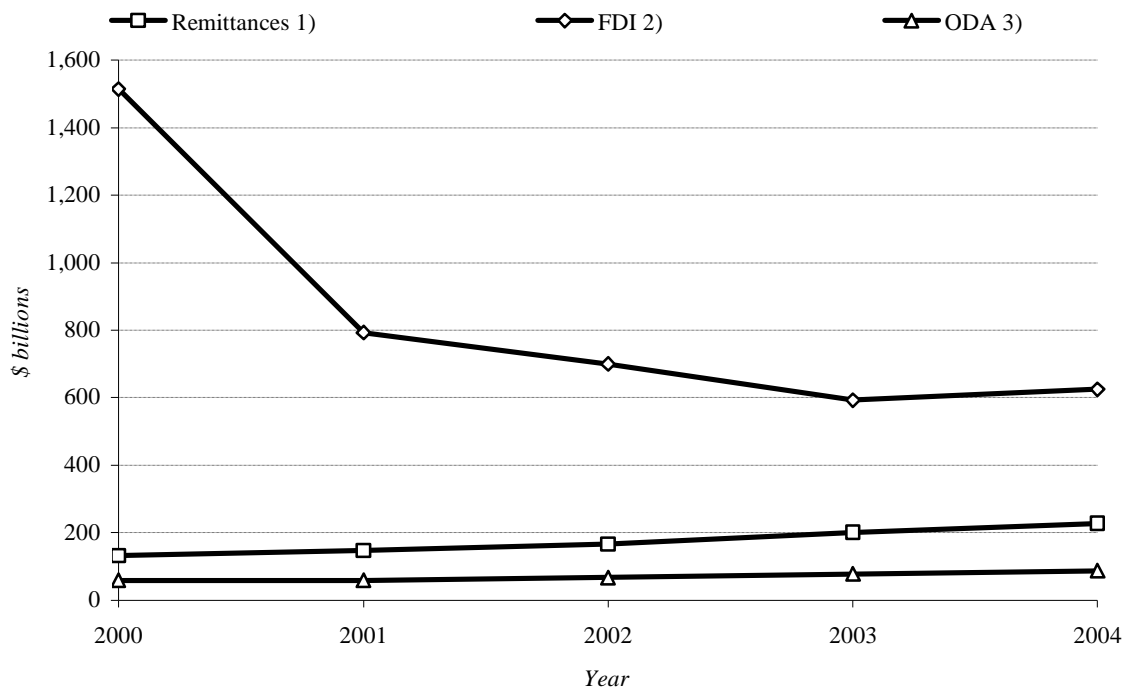


Source: WB (2006), author's calculations

Figure 12.32: Received remittances, FDI and ODA (2000–2004)

(Received workers' remittances and compensation of employees, FDI and ODA)

World



Notes:

- 1) Received workers' remittances and compensation of employees
- 2) Net inflows
- 3) Official development assistance and official aid

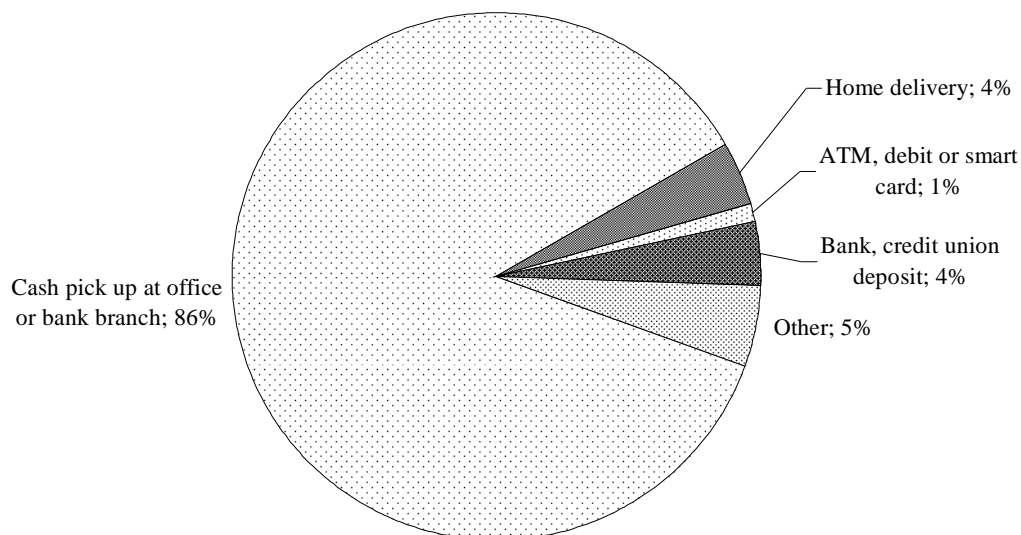
Source: WB (2006), author's calculations

12.5 Disbursement mechanisms used by consumers

Figure 12.33 suggests that most recipients living in Latin America pick up their remittances coming from the USA in cash at an RSP's agent office or a bank branch. Similarly, household surveys conducted in some African countries showed extensive use of cash disbursement (Figure 12.34). Although reliable and recent data is rarely available, it seems that this conclusion is also valid for other corridors as well. Despite the increasing use of technology by service providers and the stress on account-to-account payments, most consumers still prefer cash disbursement.

Figure 12.33: Disbursement mechanisms used in the USA—Latin America and the Caribbean corridor (2003)

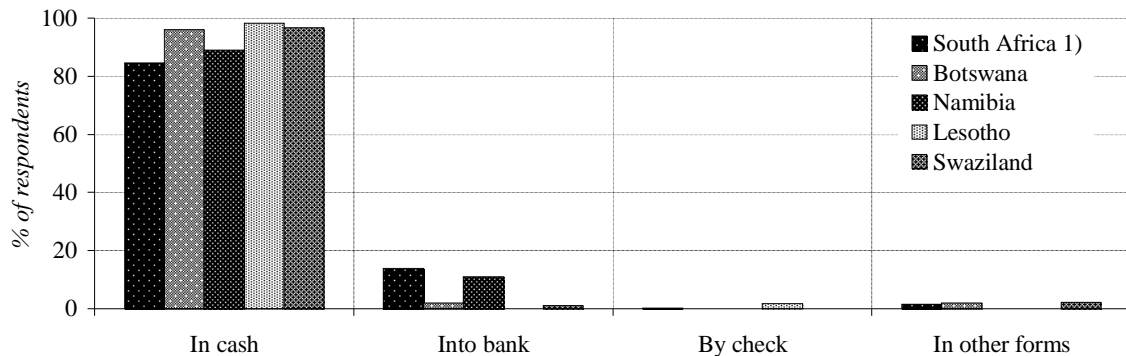
By estimated number of transactions processed



Source: Orozco (2005)

Figure 12.34: Disbursement mechanisms used to receive money in Africa (2003)

In percent of respondents in household surveys



Note:

1) Remittances from family

Source: Truen et al. (2005) citing Finscope South Africa and BNLS

12.6 Country groups definition and methodology

This section summarizes the country group definitions and methodology used by sources referenced in the thesis.

12.6.1 IMF's World Economic Outlook country groups and regions

This section lists the country groups and regions as defined by IMF (2005d).

“Industrial countries” (“**Advanced economies**”) group consists of Australia, Austria, Belgium, Canada, Cyprus, Denmark, Finland, France, Germany, Greece, Hong Kong,¹⁶⁰ Iceland, Ireland, Israel, Italy, Japan, South Korea, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, Taiwan, UK and USA.

“Africa” consists of Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Côte d’Ivoire, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Madagascar, Malawi, Mali,

¹⁶⁰ Hong Kong is a Special Administrative Region of China.

Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Republic of the Congo, Rwanda, São Tomé and Príncipe, Senegal, Seychelles, Sierra Leone, South Africa, Sudan, Swaziland, Tanzania, Togo, Tunisia, Uganda, Zambia and Zimbabwe. (Eritrea, Liberia and Somalia are excluded from the definition due to data quality concerns and/or insufficient data.)

“Asia” (“Developing Asia”) consists of Bangladesh, Bhutan, Cambodia, China, Fiji, India, Indonesia, Kiribati, Laos, Malaysia, Maldives, Myanmar, Nepal, Pakistan, Papua New Guinea, Philippines, Samoa, Solomon Islands, Sri Lanka, Thailand, Tonga, Vanuatu and Vietnam. (Afghanistan, Brunei and East Timor are excluded from the definition due to insufficient data.)

“Europe” (“Central and Eastern Europe”) consists of Albania, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Macedonia, Malta, Poland, Romania, Slovak Republic, Slovenia and Turkey. (Bosnia and Herzegovina, and Serbia and Montenegro are excluded from the definition due to data quality concerns.)

“Middle East” consists of Bahrain, Egypt, Iran, Jordan, Kuwait, Lebanon, Libya, Oman, Qatar, Saudi Arabia, Syrian Arab Rep., United Arab Emirates and Yemen. (Iraq is excluded from the definition due to data quality concerns.)

“Western Hemisphere” consists of Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Netherlands Antilles, Nicaragua, Panama, Paraguay, Peru, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, Uruguay and Venezuela.

12.6.2 IMF’s Balance of Payments Statistics Yearbook 2005 (part 2) country groups and regions

This section lists the country groups and regions as defined by IMF (2005).

“Industrial countries” group consists of Australia, Austria, Belgium, Belgium-Luxembourg, Canada, Denmark, Finland, France, Germany, Greece, Iceland,

Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, UK and USA.

“Africa” consists of Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Côte d’Ivoire, Democratic Republic of Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Republic of the Congo, Rwanda, São Tomé and Príncipe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Tanzania, Togo, Tunisia, Uganda, Zambia and Zimbabwe.

“Asia” consists of Afghanistan, Bangladesh, Bhutan, Brunei, Cambodia, China, Fiji, French Polynesia, Hong Kong,¹⁶¹ India, Indonesia, Kiribati, Laos, Macao, Malaysia, Maldives, Mongolia, Myanmar, Nepal, New Caledonia, Pakistan, Papua New Guinea, Philippines, Samoa, Singapore, Solomon Islands, South Korea, Sri Lanka, Taiwan, Thailand, Tonga, Vanuatu and Vietnam.

“Europe” consists of Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Faroe Islands, Georgia, Hungary, Kazakhstan, Kyrgyz Republic, Latvia, Lithuania, Macedonia, Malta, Moldova, Poland, Romania, Russian Federation, Slovak Republic, Slovenia, Tajikistan, Turkey, Turkmenistan, Ukraine and Uzbekistan.

“Middle East” consists of Bahrain, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, United Arab Emirates, West Bank and Gaza and Yemen.

“Western Hemisphere” consists of Anguilla, Antigua and Barbuda, Argentina, Aruba, Bahamas, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Montserrat, Netherlands Antilles, Nicaragua, Panama,

¹⁶¹ Hong Kong is a Special Administrative Region of China.

Paraguay, Peru, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, Uruguay and Venezuela.

12.6.3 The World Bank's World Development Indicators country groups and regions

The World Bank (WB, 2006b) distinguishes the following geographic regions: "East Asia and Pacific", "Europe and Central Asia", "Latin America and the Caribbean", "Middle East and North Africa", "South Asia" and "Sub-Saharan Africa". Classifications and data for these regions apply to low-income and middle-income economies only.

The division into groups according to income is revised annual on July 1 based on gross national income of the previous year (2005 here) calculated using the World Bank Atlas method. The groups are: "low income" (\$875 or less), "lower middle income" (\$876–\$3,465), "upper middle income" (\$3,466–\$10,725), and "high income" (\$10,726 or more). When reported, "middle income" group consists of "lower middle income" and "upper middle income" groups. Similarly, "low and middle income" group consists of "low income" and "middle income" groups. The World Bank also distinguishes OECD members and non-members within the "high income" group.

"East Asia and Pacific" consists of American Samoa, Cambodia, China, Federated States of Micronesia, Fiji, Indonesia, Kiribati, Laos, Malaysia, Marshall Islands, Mongolia, Myanmar, North Korea, Northern Mariana Islands, Palau, Papua New Guinea, Philippines, Samoa, Solomon Islands, Thailand, Timor-Leste, Tonga, Vanuatu and Vietnam.

"Europe and Central Asia" consists of Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyz Republic, Latvia, Lithuania, Macedonia, Moldova, Poland, Romania, Russian Federation, Serbia and Montenegro, Slovak Republic, Tajikistan, Turkey, Turkmenistan, Ukraine and Uzbekistan.

"Latin America and the Caribbean" consists of Argentina, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua,

Panama, Paraguay, Peru, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, Uruguay and Venezuela.

“Middle East and North Africa” consists of Algeria, Arab Republic, Djibouti, Egypt, Iran, Iraq, Jordan, Lebanon, Libya, Morocco, Oman, Syrian Arab Republic, Tunisia, West Bank and Gaza, and Yemen.

“South Asia” consists of Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka.

“Sub-Saharan Africa” consists of Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Côte d’Ivoire, Democratic Republic of the Congo, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mayotte, Mozambique, Namibia, Niger, Nigeria, Republic of the Congo, Rwanda, São Tomé and Príncipe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Tanzania, Togo, Uganda, Zambia and Zimbabwe.

“Low income” group consists of Afghanistan, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Comoros, Côte d’Ivoire, Democratic Republic of the Congo, Eritrea, Ethiopia, Gambia, Ghana, Guinea, Guinea-Bissau, Haiti, India, Kenya, North Korea, Kyrgyz Republic, Laos, Liberia, Madagascar, Malawi, Mali, Mauritania, Mongolia, Mozambique, Myanmar, Nepal, Niger, Nigeria, Pakistan, Papua New Guinea, Rwanda, São Tomé and Príncipe, Senegal, Sierra Leone, Solomon Islands, Somalia, Sudan, Tajikistan, Tanzania, Timor-Leste, Togo, Uganda, Uzbekistan, Vietnam, Yemen, Zambia and Zimbabwe

“Lower middle income” group consists of Albania, Algeria, Angola, Armenia, Azerbaijan, Belarus, Bolivia, Bosnia and Herzegovina, Brazil, Bulgaria, Cameroon, Cape Verde, China, Colombia, Cuba, Djibouti, Dominican Republic, Ecuador, Egypt, El Salvador, Federated States of Micronesia, Fiji, Georgia, Guatemala, Guyana, Honduras, Indonesia, Iran, Iraq, Jamaica, Jordan, Kazakhstan, Kiribati, Lesotho, Macedonia, Maldives, Marshall Islands, Moldova, Morocco, Namibia, Nicaragua, Paraguay, Peru, Philippines, Republic of the Congo, Samoa, Serbia and Montenegro, Sri Lanka,

Suriname, Swaziland, Syrian Arab Republic, Thailand, Tonga, Tunisia, Turkmenistan, Ukraine, Vanuatu and West Bank and Gaza.

“Upper middle income” group consists of American Samoa, Argentina, Barbados, Belize, Botswana, Chile, Costa Rica, Croatia, Czech Republic, Dominica, Equatorial Guinea, Estonia, Gabon, Grenada, Hungary, Latvia, Lebanon, Libya, Lithuania, Malaysia, Mauritius, Mayotte, Mexico, Northern Mariana Islands, Oman, Palau, Panama, Poland, Romania, Russian Federation, Seychelles, Slovak Republic, South Africa, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Trinidad and Tobago, Turkey, Uruguay and Venezuela.

“High income” group consists of Andorra, Antigua and Barbuda, Aruba, Australia, Austria, Bahamas, Bahrain, Belgium, Bermuda, Brunei Darussalam, Canada, Cayman Islands, Channel Islands, Cyprus, Denmark, Faeroe Islands, Finland, France, French Polynesia, Germany, Greece, Greenland, Guam, Hong Kong,¹⁶² Iceland, Ireland, Isle of Man, Israel, Italy, Japan, South Korea, Kuwait, Liechtenstein, Luxembourg, Macao, Malta, Monaco, Netherlands, Netherlands Antilles, New Caledonia, New Zealand, Norway, Portugal, Puerto Rico, Qatar, San Marino, Saudi Arabia, Singapore, Slovenia, Spain, Sweden, Switzerland, United Arab Emirates, UK, USA and Virgin Islands (U.S.).

“High income OECD” group consists of Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, South Korea, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, UK and USA.

¹⁶² Hong Kong is a Special Administrative Region of China.