## Economic Watch <br> Mexico

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Economic Analysis

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## Evolution of sending remittance mechanism has favored more resources sent at lower costs

- Remittance model has performed well increasing the speed and safety in money transfers. It has advanced from hand to hand delivery, ordinary mail, money orders, to electronic transfers through bank accounts, use of debit cards, and Internet and cell phones transactions.
- Between 1990 and 2010, the estimated number of international migrants in the world increased 1.4 times, but the flow of remittances in the world grew 6.4 times.
- Among the factors that explain this situation are: technological developments in remittance markets, a decreasing trend in the cost of sending remittances, a greater participation by new companies in the money transfer market, reductions in remittances sent through informal channels and accounting improvements of remittances by central banks.
- Worldwide, remittance costs have tended to decline. Between 2008 and 2011Q1 the total average global cost to sending US\$200 decreased from $9.81 \%$ to $9 \%$. South Asia and Latin America and the Caribbean have the lower costs in remittance transfers, $6.56 \%$ and $6.82 \%$, respectively; while the highest costs by region are observed in Sub-Saharan Africa and East Asia and Pacific, 12.73\% and $10.1 \%$, respectively.
- The cost of sending remittances to Mexico drops by more than $60 \%$ between 1999 and 2011. On the average, Mexico paid a cost 27\% less than World average, $19 \%$ less than the rest of the EAGLEs, and $3.5 \%$ less than the average for Latin America and the Caribbean.
- It is expected that, beyond the key factors that explain the migration, in the following years the remittance costs will continue their downward trend, because the supply of services will continue to increase, more companies are going to participate in the market, and technological developments will continue on their growing path.

In 2010, about 214 million persons who live outside their native country sent through remittances, an estimated annual US $\$ 325$ million to the developing countries. The amount of these transactions is equivalent to one third of the Gross Domestic Product (GDP) of Mexico from that same year, or considering that in the world there are about 1.200 million poor' who live on less than one dollar a day in developing countries, with this amount we could paid the annual salary of 900 million of the poorest persons in the world. Despite this, there are little information and studies available regarding the cost for the service of remittance transfers. A higher cost translates to less money for receiving-remittances persons and their families, and, therefore, fewer resources to address their needs of food, shelter, clothing, education, among others.
This document identifies the main changes in sending remittance channels and describes the costs to sending remittances to different regions.

## Remittances have grown more than migration

Remittances are always seen associated with migration, and maybe they have exists from the beginning of people's movement, but it was from the decade of 1990s and more patently from 2000s when we see a clearly expansion of it. Figures from the United Nations Population Division (2009) show that between 1990 and 2010 the estimated number of international migrants in the world increased 1.4 times, rising from 156 million to 214 million people. In the same period, the flow of remittances in the world grew from US $\$ 68$ billion to US $\$ 440$ billion, i.e. a 6.4 fold increase, according to World Bank data (2011).

Figure 1

Legal immigration to the United States
(Annual flows, in thousands of people)


Source: BBVA Research with U.S. Department of Homeland Security

Figure 2
Migration and Remittances worldwide


Source: BBVA Research with United Nations and World Bank figures

What explains the great expansion in remittances worldwide in recent years? Factors such as technological developments in remittance markets, a decreasing trend in the cost of sending remittances, a greater participation by new companies in the money transfer market, reductions in remittances sent through informal channels and accounting improvements of remittances by central banks are important factors that explain grow of remittances (See Lozano 2004).

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## Changes in remittances transfer mechanisms have been positive

Migrants in the second half of the nineteenth and early twentieth century who were headed to places of destination to work for fixed periods, in general, had to await for the conclusion of their working period to carry some part of the income they had earned to their places of origin or send it through family or friends on their way back to their communities. The waiting time for receiving remittances for relatives of migrants could be long and sometimes the funds did not reach their destination. There was great uncertainty involved in sending these savings back home.
At that time, telegrams companies began to appear in some regions, and in these cases some immigrants made use of such services to sending remittances.

Even though since the late nineteenth century some companies began to offer money transfer services (Ochoa et al, 2003), in many cases the use of the mail, through wire transfers, remained as the principal means in different regions for money transfers until the late 1980's and early 1990's. International money orders were taking on greater importance than wire transfers and in the first half of the 1990s they were the main way in which many households worldwide received remittances (See Lozano, 1998). Among its advantages is its low cost, but the time before the money order was received could be relatively long because the funds were sent to the beneficiaries through the postal service or through acquaintances. In addition, there was the risk of not receiving the funds due to the loss of the money order as such.
In 1995, about 40\% of remittances sent to Mexico were made through money orders, which led to the emergence of a large number of foreign exchange bureaus in the 1980s and 1990s in places with important migratory flows (Perez and Alvarez, 2007).

## New methods of sending remittances: the contribution of technological changes

Subsequently, technological advances have allowed for streamlining the sending of remittances and transforming the ways in which this is done. The greatest changes have been relatively recent, and in general have occurred since the late 1990s and the beginning of the 2000s. Thus, electronic transfers have gradually grown in importance worldwide as they have increased the speed of sending money and expanded the supply of these services. In the case of Mexico, while in 1995 about 50\% of remittances were sent by electronic means, the corresponding figure is now 97\%.

One of the first alternatives was the "cash" option, that is, in the place from which the transfer is being made, money is send to a bank or a money transfer operator (MTO), which then transfers the funds to the place of destination, with the resources being able to be obtained at different points (given the participation of new intermediaries) such as banks, currency exchange houses, retail chains, pharmacies, telegraph offices, among others. In some cases it is also possible to transfer the cash into a bank account in the destination country.
This option began to take on importance in the second half of the 1990 s as a manner of sending remittances to Mexico.
The use payment system card, especially debit cards2, has been increasingly important as a mechanism for receiving remittances in recent years. However this expansion has not been as extensive in small rural communities far from the cities because of few or no ATMs or retail stores that accept cards as a means of payment.
${ }^{2}$ According to Orozco (2003), debit cards offer the lowest cost to send remittances from the United States to Mexico.

Figure 3
Distribution of remittances to Mexico by channel
(\%)


Source: BBVA Research with Banco de México data

There are different mechanisms for the use of cards, one of which is to send remittances through a bank account to the card of another person in another country. In some cases two people in different countries can have access to the same account using two cards. In addition, prepaid cards are now in use; they are purchased by the issuer and the money is received directly by the recipient in another country, with the issuer able to pay funds into the card.
In recent years, "online transfers" have also proliferated. Through a website a person can send money charged to his credit card, debit card or a bank account. The money can be retrieved in the form of cash or be paid into a bank account.
Recently, remittances sent through cell phones have increased in popularity and it is probable that their importance will increase in the coming years. Through this system, the user can enter cash in their cell phone, which is recorded in an accounting system integrated with their account and have the funds sent to a cell phone number abroad, where the recipient receives a text message informing him or her that the money has arrived. In this case, banks and MTO have agreements with cell phone companies to make the transfer.
Remittance transfers via cell phones have advanced the most mainly in African and Asian countries. Among the Asian countries are the Philippines, Malaysia, India, Pakistan, and Bangladesh. In the list of African countries are Kenya, Uganda, Rwanda, Benin, Ghana, Cameroon, Tunisia, Guinea Bissau, Ivory Coast, and South Africa. 3 In the case of Mexico, both the money transfer companies as well as the payment networks, including banks, have begun the search for solutions to provide these services to their customers and users.

A greater development of systems to sending remittances through cell phones will depend on the further development of the required infrastructure. Ratha and others (2007) have noted that in some countries, anti-money laundering regulations and laws against the financing of terrorism seem to be a restriction on reducing the costs of sending remittances, which has affected banks and mobile phone companies' ability to provide remittance transfer services via mobile phones.

[^1]With all these changes, new companies of different sizes have entered the sector by making the sending of remittances more efficient, reducing transfer times, and encouraging a greater number of such transfers. In response, remittances have recently posted much higher growth than the increase in the number of international immigrants, and therefore it can be shown that the advances presented have been beneficial for the recipient households.

## Remittance prices have tended to decline worldwide

Since 2008, there is a public database that concentrates the costs charged by different companies in different remittance corridors at a world level, that is worked out by the World Bank and it is called Remittance Prices Worldwide (RPW). Even though there is no Information for past years in this system, it is known that the costs of sending remittance worldwide have tended to drop and that currently they are lower than those existing in the decade of the 90's. (see Orozco, 2002, Orozco, 2004, Ratha and Riedberg, 2005). The changes that have occurred in the remittance market (a higher number of participants, greater technological development, and higher service supply, among others) have generated a reduction in costs.

Figure 4
Total average cost of sending US\$200 (\%)


Source: BBVA Research with figures from the Remittance Prices Worldwide (RPW) database
of the World Bank

RPW data also show a decreasing trend between 2008 and the first quarter of 2011, although moderate, in the total average global cost ${ }^{4}$ of sending US $\$ 200$, from $9.81 \%$ to $9 \%$; the above despite the fact that between the first quarter of 2010 and the first quarter of 2011 there has been a slight increase in the costs, a situation that can be associated with the recent world financial instability.

Among different types of remittance service providers Money Transfer Operators (MTO) show the greatest decreasing trend; in the commercial banks, the sending costs, even though they show a decrease in the period, have increased in recent months, while postal costs have been fluctuating. Considering the cost of sending US $\$ 200$ in remittances in the first quarter of 2011, it is seen that the highest average cost is present in the commercial banks with $13.2 \%$ (US\$26.3)

[^2]followed by Post Offices with 8.1\% (US\$16.2) and finally the MTO for which the average cost is of 7.1\% (US\$14.2).

In the total cost to sending remittances two components are considered: 1) the fee charged by the service provider to sending a certain amount of money, which is known previously or is informed at the time the transfer is made; and 2) the cost derived from the difference between the exchange rate at which the remittance provider pays to the person receiving the money compared to the currency at market price. This exchange rate can be set to the official rate published in the country for payments in foreign currency, could be at a market price, or it can be fixed using a spread that the service provider determines; it can be in terms of the exchange rate at the moment of sending or when the money is delivered, and it can or not be known by the person who make the transfer.

In general, the costs for the fee component represent the higher part of the total cost. Through the first quarter of 2011, they represented on average $77 \%$ for a transfer of US\$200. From the total cost, MTO have the highest proportion coming from the currency exchange spread with 27.9\%; while in the commercial banks this proportion is lower, 17.3\%.

Figure 5
Average distribution of the total cost
(\% of the total cost for sending US\$200)


Source: BBVA Research with figures from the Remittance Prices Worldwide (RPW) database
of the World Bank

In some cases, like remittances from Spain to Rumania that are sent and paid in Euros, or transactions from the United States to some countries in Latin America and the Caribbean that are sent and paid in dollars, the exchange rate spread is not charged. However, the persons receiving the money in foreign currency could pay out additional costs if they decide to convert it to local currency, so the real cost could be higher.
There are situations where the cost due to the current exchange rate spread is negative, because, among other reasons, such as: preferential exchange rates that the service provider offers, the presence of multiple official exchange rates in a country, or the existence of parallel or black currency markets. In these cases, the persons receiving the money benefit from a more favorable exchange rate.

RESEARCH

Southern Asia and Latin America and the Caribbean, the regions that pay the lowest costs for remittances received

In the first quarter of 2011, notorious dissimilarities can be observed when analyzing the cost of remittances by region of destination. While in South Asia (SA) and Latin America and the Caribbean (LAC), are reported the lower costs for remittance transfers, 6.56\% and 6.82\%, respectively; the highest costs are observed in Sub Saharan Africa (SSA) and East Asia and Pacific (EAP), $12.73 \%$ and $10.1 \%$, respectively. Thus, in SSA the cost to send US $\$ 200$ is almost twice as much as SA and LAC, which can be explained partially because in some regions there is little competition, there are no clear and specific regulations that would allow fluidity this type of activity, and the lack of technological and operating infrastructure. Inside EAP region, despite of China is the second largest remittances receiver worldwide; it faces little internal competition in its receiving remittances market.
Even that from 2008 to 2010, there were reductions in SSA and EAP in the cost of remittance transfers, in the first quarter of 2011 there was a considerable increase in both regions, thereby resulting in a higher cost for SSA, more so than the one it had in 2008. An increase in the cost of remittances, although to a lower extent, can also be observed in Europe and Central Asia (ECA) and in SA, when comparing the cost of the last period with the same quarter of the year before.

By regions, according to information available from World Bank's RPW, the Middle East and North Africa (MENA) had the highest reduction in the cost of remittances by going from 11.6\% to 8.0\% from 2008 to the first quarter of 2011 period; followed by Europe and Central Asia and Latin America and the Caribbean.

Figure 6
Total average cost of sending US\$200 by region of destination
(\%)


Source: BBVA Research with figures from the Remittance Prices Worldwide (RPW) database of the World
Bank

## What are Latin America and the Caribbean remittances costs like?

In Latin America and the Caribbean (LAC) important disparities in costs are also observed in same period. Countries that have the lowest total average cost to send of US\$200 in remittances are Nicaragua (4.5\%), Peru (4.5\%) and Ecuador (4.6\%), Colombia (5.0\%), and El Salvador (5.2\%). In all of these countries, with the exception of Colombia, remittances sent from the United States can be
received in dollars; as a result the cost derived from the conversion from one currency to another is usually low or nil, Furthermore, in such countries the dollar is accepted by different shops. Ecuador and El Salvador adopted the dollar as its legal tender.
In the region, the costliest are Brazil ( $10.44 \%$ ) and Surinam (10.38\%). Mexico have a slightly lower cost to sending US\$200, than the average for Latin America and the Caribbean, although according to the World Bank (2011a) this country is one of those that have had the most influence on the declining trend that is observed in region costs, since it has improved its retail payment structure, which has allowed more options of election for the consumers and the efficient and secure reception of remittances has been promoted from most of the countries where they are received.

Figure 7
Total average cost of delivery of US\$200 to LAC
First quarter of 2011 (\%)


## The costs of sending remittances to the EAGLEs

This section analyzes the volume and cost of remittances to Mexico and compared with countries that make up the "Emerging and Growth-Leading Economies" (EAGLEs).
The EAGLEs are those countries that are expected to contribute more to GDP growth worldwide than the average of the large developed economies (the G-7, excluding the United States) over the next ten years (2010-2020). Mexico is part of this group of ten "EAGLEs" that includes, sort by size of their economy: China, India, Brazil, Indonesia, Korea, Russia, Egypt, Turkey and Taiwan.

Based on 2010 figures, the EAGLEs send out more than one fourth ( 57 million people) of international immigrants, with Mexico, India, Russia and China being the main countries in order of importance. The EAGLEs received remittances for an estimated annual total of US\$157 billion in 2010, which is equivalent to $48 \%$ of the total remittances that was sent to the developing countries that year, and $35.7 \%$ of the world total, with India, China and Mexico being the three countries with more remittances received worldwide. Within the EAGLEs, Mexico contributes almost one fifth of the emigrants in this group and one seventh of the volume of remittances. In addition, it is significant that $98 \%$ of the total of its remittances come from only one country (the United States), while in the rest of the EAGLEs, the source of origin of the remittances are from several countries.

In Latin America and the Caribbean, Mexico is the main immigrant-exporting country in the region, surpassing Colombia by more than five times, the second source of immigrants in the region. It surpasses five times the amount of remittances received in Brazil, the second most important country receiving remittances in Latin America. Two out of every five immigrants from Latin America and the Caribbean are Mexican; and two fifths of the total remittances regionally are sent to Mexico.

Table 1
Migration, remittances and their cost*:
México vs. EAGLEs and main economies in Latin America and the Caribbean

|  | $\begin{aligned} & \text { Emigrants in } \\ & 2010 \\ & \text { (in millions) } \end{aligned}$ | \% worldwide | Income from remittances in 2010 <br> (Billions of US dollars) | \% worldwide | Average cost per remittance sent to this destination 2011 $\text { in } 1 Q$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| EAGLEs | 56.6 | 26.2\% | 156.9 | 35.7\% | 8.11 |
| Mexico | 11.9 | 5.5\% | 22.6 | 5.1\% | 6.58 |
| India | 11.4 | 5.3\% | 55.0 | 12.5\% | 7.70 |
| Russia | 11.0 | 5.1\% | 5.6 | 1.3\% | n.a. |
| China | 8.3 | 3.9\% | 51.0 | 11.6\% | 12.58 |
| Turkey | 4.3 | 2.0\% | 1.0 | 0.2\% | 9.25 |
| Egypt | 3.7 | 1.7\% | 7.7 | 1.8\% | 3.96 |
| Indonesia | 2.5 | 1.2\% | 7.1 | 1.6\% | 6.25 |
| Korea | 2.1 | 1.0\% | 2.7 | 0.6\% | n.a. |
| Brazil | 1.4 | 0.6\% | 4.3 | 1.0\% | 10.44 |
| Taiwan | n.a. | n.a. | n.a.. | n.a.. | n.a. |
| LAC | 30.2 | 14.0\% | 58.1 | 13.2\% | 6.82 |
| Mexico | 11.9 | 5.5\% | 22.6 | 5.1\% | 6.58 |
| Colombia | 2.1 | 1.0\% | 3.9 | 0.9\% | 5.02 |
| Brazil | 1.4 | 0.6\% | 4.3 | 1.0\% | 10.44 |
| Peru | 1.1 | 0.5\% | 2.5 | 0.6\% | 4.53 |
| Argentina | 1.0 | 0.5\% | 0.7 | 0.2\% | n.a. |
| Chile | 0.6 | 0.3\% | 0.0 | 0.0\% | n.a. |
| Venezuela | 0.5 | 0.2\% | 0.1 | 0.0\% | n.a. |
| Total worldwide | 215.8 |  | 440 |  | 9.03 |

Source: BBVA Research with figures of the cost of remittances from the World Bank RPW (Remittance Prices Worldwide) through the first quarter of 2011 and migration data by Ratha and Shaw (2007) updated in the World Bank Migration and Remittances Factbook 2011.

* Cost is expressed as \% to send US\$200. The cost of sending remittances includes the commission

With respect to the cost of sending remittances, for the first quarter of 2011, Mexico paid a cost $19 \%$ lower than the rest of the EAGLE countries and 27\% lower than the cost worldwide. When compared with the countries of Latin America and the Caribbean, remittance cost to Mexico is slightly lower than that of the region (3.5\% lower than the average), despite its relative importance in the region.
In general, the size of the market is an important factor in determining remittance costs by taking advantage of economies of scale and of incentives due to competition, but this relationship is not seen among the EAGLE countries, since China, which has a large market, both in the size of its emigrant population as well as in the volume of remittances that it receives, has higher costs in this group, being nearly $40 \%$ higher than the average cost worldwide. This is due to the lack of competition in the remittance market in that country. Among the EAGLEs, Egypt is the country with the lowest cost ( $3.96 \%$ of the remittance), followed by Indonesia and Mexico.
Thus, neither the total emigrant population nor the volumes of remittances received seem to explain, in a determining manner, the cost of remittances among the EAGLEs or in Latin America and the Caribbean. These differences in remittance costs are due mainly to the level of competition and the particular market structures of the countries from which the remittances are sent and where they are received.

Figure 8
Remittance costs vs. emigrant population of the EAGLEs


Source: BBVA Research with figures on remittance costs from the World Bank RPW,(Remittance Prices Worldwide) and migration data form Ratha and Shaw (2007) updated in the World Bank Migration and Remittances Factbook 2011.
*The cost of the remittances includes the commission and the spread due to the exchange rate

Figure 9
Remittance costs* vs. total volume of remittances to the EAGLEs


Source: BBVA Research with figures on remittance costs from the World Bank RPW (Remittance Prices Worldwide) and remittance data from Ratha and Shaw (2007) updated in the World Bank
Migration and Remittances Factbook 2011.
*The cost of remittances includes the commission and the spread
due to the exchange rate

## Costs to Mexico

Mexico has been seen as an example where the costs to sending remittance have tended to decrease significantly in recent years (Ratha and Riedberg, 2005). Figures from Procuraduría Federal del Consumidor (PROFECO) provide evidence in this way.
The information compiled by the PROFECO comes from the cities with more Mexican population in the United States. It tracks the average cost to send US $\$ 300$. From the nine cities with available information, the most expensive to send remittances5 are Houston and Indianapolis with a cost of $3.6 \%$ (US $\$ 10.80$ ) and $3.3 \%$ (US $\$ 9.90$ ), respectively; while the lowest cost are in Miami, Sacramento and San Jose with $2.5 \%$ (US $\$ 7.50$ ) and Chicago with $2.3 \%$ (US $\$ 6.80$ ). If we compare the current costs to sending money from the United States to Mexico with those of 1999, it can be seen that in all U.S. cities have reduced the cost of remittances from 3.9 percentage points in Los Angeles to 10.7 percentage points in the case of Florida for this period.

[^3]Figure 10
Total average cost for sending US $\$ 300$ to Mexico by city of delivery, PROFECO
(\%)


In recent years, perhaps due to the recent financial instability, the cost of sending remittance to Mexico has tended to fluctuate, according to information from World Bank RPW. From 2008 to the first quarter of 2011, remittance costs for Mexico oscillated between $5.80 \%$ and $7.42 \%$, with a slight upward trend in this period, due to the rise in the cost during 2010. With data from the last quarter of 2011, which is presenting a reduction compared to the year before, indicates that, on average, the cost of sending US\$200 to Mexico is 6.58\% (US\$13.57).

Figure 11
Total average cost for sending US\$200 to México
RPW World Bank (\%)


Source: BBVA Research with figures from the Remittance Prices Worldwide (RPW)
database of the World Bank, 2011

## Conclusions

Since the nineteenth century the first mass migration began to being documented and it is presumed since that stage migrants began to send remittances to their homes. Over the years, remittances showed a trend similar to that exhibited by migratory flows. However, since the nineties and more remarkable from the decade that began in 2000, remittances have grown much more than migration worldwide.

Technological improvements in 1990s and 2000s have been positive, as they have encourage remittances to be sent more quickly, and that new companies have participated in the money transfer business, which has increased the supply of such services to consumers. Currently, and depending on remittance market features of each country, consumers have several options to sending money, such as bank transfers, the use of bank cards, Internet transfers, cell phone transfers, among others. In the case of Mexico, the use of electronic mechanisms has been relatively rapid in recent years, and it is expected that in the future with the adoption of the mobile phone and agent bank models, it could widespread and then increase use-intensity.

The advances achieved in sending remittances have been favorable for both consumers and financial systems in general. It is expected a wider range of services by providers, more companies will continue to participate, the costs of sending remittance will tend to decline, and that all these conditions will promote the continues upward trend in the amount of remittances being sent beyond the key factors that explain the phenomenon of immigration.
Worldwide, the cost to send money varies among the different regions. South Asia and Latin America and the Caribbean are the regions where the receiving families pay out the lower costs of receiving remittance. In Latin America and the Caribbean, the countries with the lowest costs tend to be those where the dollar can be used as a means of payment, and, therefore, the families do not have to pay the cost to exchange money to the domestic currency. Mexico has costs lower than the average in the Latin America region. It has shown a great descending trend in the receiving costs, and has been one of the countries that contributed in the reduction of remittance costs in the region.

The studies that have been made on the determinant factors of remittance costs have been relatively few. It is necessary that there be further research in this respect. In this space we will keep on looking after this topic.

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[^0]:    ${ }^{1}$ Estimation from the UN-FAO. http://www.fao.org

[^1]:    ${ }^{3}$ Transfers via mobile phones are not tied to bank accounts in all of these countries. A case in which such a link does exist is that of M-PESA in Kenya, which is discussed in Mexico Banking Outlook in July 2010. The great advantage of linking the transfers to bank accounts is that the latter have deposit insurance in countries where it exists.

[^2]:    ${ }^{4}$ The global total average cost is calculated as the average cost to sending US $\$ 200$ through the various suppliers of remittance services around the world, based on the information of the Remittance Prices Worldwide (RPW) database which the World Bank formulates and updates biannually. Excluded are those cases where the exchange rate is not transparent and where Russia is the sending country, because missing exchange rate spread data, given that the real cost could be higher if they had the complete data. Given that the World Bank does not have information on the market share of the companies that send money, it calculates a simple average based on the information available.

[^3]:    ${ }^{5}$ Due that there is no information on the market share of each company in each of the cities, only the average of the data reported was estimated.

