

# The Regulation of Payment Cards: The Mexican Experience

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#### Abstract

In this paper we present a review of the regulation of general acceptance credit and debit cards, issued in four party systems in Mexico. We find that there are some distortions that may justify public intervention in the market. Among them, the market for payment cards is still underdeveloped, there is a problem in the acquiring side, in particular with POS deployment and with the limited usage of debit cards at POS. In terms of the interchange fee (IF), it is not only set in a non-transparent manner but its structure may hinder POS deployment at small stores and limit debit card usage. Public intervention in this market is not new; since the early nineties competition authorities have altered some of the markets' rules. However, the institutions that has wider legal powers to intervene is Banco de Mexico (BM). The lines of intervention followed by BM could be grouped as follows: the introduction of transparency in banks' charges, the removal of restrictions to participation and entry, and the coordination with market participants based on a credible regulatory threat (price regulation). BM has not yet issued a regulation for IF but the Association of Mexican Banks (ABM) has recently reduced both debit and credit IF schedules.

JEL: G21, K21, L11.

**Disclaimer: The opinions and concepts expressed in this paper are the exclusive responsibility of the author and do not necessarily reflect those of BM.**

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## **Introduction**

In this paper we present a review of the regulation of general acceptance payment cards in Mexico. In order to restrict its scope, this analysis is limited to payment cards issued by commercial banks that conform four party systems; thereby, we leave out both payment cards issued by proprietary networks and retail cards of limited acceptance issued by non-banks. We study credit and debit cards separately because, to a certain extent, they represent different services; finally, we constrain our analysis to transactions performed at points of sales (POS) with payment cards, excluding the transactions performed at ATMs, which requires a separate review.

In terms of the evolution of the infrastructure and usage of payment cards, we find that despite its recent dynamism, the market for payment cards in Mexico still does not have enough coverage. We identify a problem with the acquiring side of the market, in particular with POS deployment and with the usage of debit cards at POS.

Regarding the market structure and the organization of the payment card industry we find that there is high concentration in payment cards issuing, as there is in Mexican banking industry as a whole. We present evidence of market power in credit card issuing and of some barriers to entry and other restrictions to participation. In terms of the role of card associations in Mexico we find that small merchants that accepted debit cards were placed at a strong disadvantage with respect to larger merchants; we also describe that the brackets on the interchange fee (IF) schedules were based on merchants' volume of sales rather than line of business, that such schedules had remained constant for several years, and that the IF schedules were the same for both Visa and MasterCard.

Having found evidence of market distortions, it seems that public intervention may be justified in order to achieve a more efficient retail payment system. We find that the institutions that hold legal authority to intervene in the payments card market are the Federal Competition Commission (CFC) and Banco de México (BM)<sup>1</sup>. The former has the jurisdiction over the assessment of non competitive practices in all economic sectors; the latter has authority to regulate payment systems. In this context, BM has adopted several

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<sup>1</sup> There is also the Commission for the Protection of Financial Services Users (Condusef), which has no regulatory attributions. We describe its functions later.

regulatory measures in what could be seen as a more general reform of the retail payment systems. The measures adopted could be grouped under the following lines of action: the introduction of transparency in banks' charges, the removal of restrictions to participation and entry and the coordination with market participants, based on the credible regulatory threat of price regulation provided by the law.

In terms of transparency, the Mexican central bank regulated that issuers of cards should let their clients know all fees and commission that they are charging them<sup>2</sup>. Also, modifications to such charges have to be notified to the clients and to BM in advance. BM is making the fees charged by all banks available through Internet allowing clients to compare prices.

In terms of preventing restriction to participation, BM regulated that all banks must allow payments of credit card balances through electronic transfers, which permits pro-competitive credit card balance transfer arrangements. Also, it modified the *honor all cards rule* so that merchants decide whether to accept only credit or debit cards.

The most frequent regulatory target in payment cards around the world has been the IF<sup>3</sup>. In Mexico the IF is not set by MasterCard or Visa but by the Association of Mexican Banks (ABM). The Mexican central bank has not issued a regulation for IF in credit or debit card transactions<sup>4</sup>. However, the ABM, has reduced both debit and credit IF schedules and has introduced several categories of IF to discriminate by type of business which promotes entry of previously non covered segments of the market. Although this set of regulations is a first step in the direction of a more efficient retail payment system, it seems that many barriers to entry still remain.

This paper is structured as follows. In the first section we describe the evolution of payment cards in Mexico. In the second section we present evidence of problems and imbalances in the industry. In third section we analyze some elements of market failure and describe the role of card associations. In the fourth section we describe the regulatory measures that the Competition Commission and BM have been adopted so far. The fifth section briefly concludes.

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<sup>2</sup> This regulation also applies to other payment services like electronic transfers and ATM charges.

<sup>3</sup> See Weiner and Wright, 1995.

<sup>4</sup> Nevertheless, the interchange fee for electronic transfers was set at zero level by BM regulation.

## **1. Payment cards situation in México**

All chartered commercial banks in Mexico are allowed to issue general acceptance debit and credit cards. Traditionally, non-banks have not issued general acceptance cards, although there are many non-financial retail cards issuers which are not analyzed here<sup>5</sup>. The acquiring business is fully dominated by banks because they are the only institutions allowed to participate in the switches. All banks participating in four party (open) systems are interconnected and, for all practical purposes, there is only one payment cards' network since the terms and conditions for participating in the platforms are the same for all banks, regardless of the brand on the card. In terms of payment card networks, Visa or MasterCard are the only four party schemes. There is also a proprietary network, American Express.

Transactions with both credit and debit at points of sale (POS) are signature based and on-line. In fact all payment cards' transactions travel along the same infrastructure. There are two interconnected switches. One of them, e-Global, is owned and serves the two largest banks (Banamex and Bancomer); the other switch, Prosa, serves all the remaining banks and it belongs to a group of these banks.

### **1. 1 Payment card issuing: infrastructure and usage**

From 2002 to 2004 the number of *credit cards* in Mexico has grown at an average rate of 25% passing from 7.8 to 11.7 million cards. The number of credit card transactions and its corresponding value has increased at a yearly average rate of 8% and 19.5%, respectively over the same period (see Appendix, Table A1).

The number of *debit cards* in Mexico has increased at an annual average rate of 2% from 2002 and 2004, passing from 33 to 34.4 million cards in the period. The number and value of debit card transactions has grown at a yearly average rate of 8.3% and 9.7%, respectively over the same period (See Appendix, Table A2). Nevertheless, most debit card transactions in Mexico are performed at ATMs. These transactions should be treated differently than those performed at POS because they do not represent purchases. They are withdrawals of

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<sup>5</sup> Retail cards are only accepted at the issuing store. The information on this segment of the market is rather scarce. However, retail cards relevance in financing consumption has grown dramatically in the last 5 years.

cash which in turn are used to perform cash transactions. Even though access to ATMs is an important aspect of debit cards usage, it is not part of this analysis.

Anecdotal evidence indicates that in 2004, around 12% of the total number of debit transactions was carried out at POS<sup>6</sup>. Based on this information we estimated the usage of debit cards at POS from 2002 to 2004<sup>7</sup>. We find that the number and value of debit card transactions at POS has doubled from 2002 to 2004. However, the absolute usage of debit cards at POS is lower than that of credit cards, despite the fact that there are three times as many debit cards than credit cards (See Appendix, Table A3).

The counterpart of the number of payment cards issued is the number of merchants that accept cards. POS have increased at an average yearly rate of 11.6%, from 2002 to 2004. The number and value of transactions carried out at POS has increased at an average annual rate of 19% and 21%, respectively over the same period (See Appendix, Table A4).

## **1.2 Payment Cards as Two-Sided Markets**

The growing literature on payment card networks and two-sided markets indicates that merchants (POS) and card holders represent two demands (merchants and cardholders) that must be satisfied simultaneously (Hunt, 2003 and Chang and Evans, 2003). This literature shows that the size of network (measured by the number of transactions) will be as large as the minimum demand among the two sides. Therefore, it is relevant to obtain the relative evolution of cards number, card usage and POS in order to analyze the balance of the two sides of the market.

The *number of credit cards per POS* has increased at a yearly average rate of 10.6% from 2002 to 2004 (see Table 1); that is, there is an improving coverage of the number of credit cards relative to the existent POS infrastructure. Nevertheless, *the number and value of*

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<sup>6</sup> Euromonitor (2004) claims that in 2003, 25% of total debit transactions' value was carried out at POS. However, this information is not consistent with the generally accepted idea that most credit card transactions are carried out at POS.

<sup>7</sup> The National Association of Self-service and Department Stores (ANTAD) keeps record of the use through time of different payment means at their associated stores. We used the evolution of the value of debit sales at ANTAD stores to estimate the fraction of debit transactions at POS for the years that Euromonitor and ABM do not report. For this estimation, we assumed that the fraction of debit transactions carried out at POS was the same for the number and the value of transactions.

*transactions per credit card* has decreased at a yearly average rate of 11 and 10%, respectively<sup>8</sup>. This means that while more credit cards have been allocated by banks, the recipients of the new cards are not using them as much as the holders of previously issued credit cards used to. This may be due to different consumption patterns of the new card holders, maybe because they are people with lower income; alternative, it may be due to the fact that banks are assigning the new credit cards to people that already had other credit cards. Consequently, there would be some displacement of card usage<sup>9</sup>. Whatever the case, the increase in cards transactions is not proportional to the raise in the number of cards. Finally, the *volume and value of credit card transactions per POS* has decreased very slightly over the period of analysis; this may mean that the credit card market is in a *steady* path of growth.

**Table 1**  
**Credit Cards as Two-Sided Markets**

Year	Credit cards per POS	Volume of transactions per card	Value of transactions per card *	Volume of transactions per POS	Value of transactions per POS*
2002	60.0	27.3	1,579.1	1,637.3	94,766.2
2003	64.4	24.3	1,331.8	1,567.0	85,726.2
2004	72.7	21.3	1,264.1	1,549.7	91,876.7

\*In USD

Source: Banco de México

Regarding *debit cards per POS*, the ratio has decreased at a yearly rate of 5%, from 2002 to 2004 (see Table 2)<sup>10</sup>. There is an important increase in the usage of debit cards at POS. Hence, the *number and value of debit cards transactions per card and per POS* has basically doubled in the period under analysis. However, the level of these ratios is low compared to that of credit cards, considering that there are many more debit than credit cards. In particular, the limited number of debit card transactions at POS may point at the existence of an imbalance in the two sides of the market.

<sup>8</sup> This assumes that all credit card transactions are in POS. Some of them may be in ATMs.

<sup>9</sup> If this was the case and people that already had cards are receiving new cards, this increases the exposure of the system, since it is equivalent to an expansion of the credit limit.

<sup>10</sup> The debit card data in this table excludes transactions performed at ATMs.

**Table 2**  
**Debit Cards as Two Sided Markets, Excluding Transactions at ATMs**

Year	Debit cards per POS	Volume of transactions per card	Value of transactions per card*	Volume of transactions per POS	Value of transactions per POS*
2002	253.7	2.1	244.8	527.3	50,756.2
2003	219.8	3.3	200.1	727.0	64,236.3
2004	229.1	4.3	291.4	927.1	81,702.2

\*In USD

Source: Banco de México

### **1.3 Relevance of card payments within non-cash transaction in Mexico**

In order to put in context the importance of credit and debit cards in Mexico, we consider the number and value of transactions expressed as a proportion of the total non-cash retail payments<sup>11</sup>.

In 2004, the number of transactions carried out with debit and credit cards represented more than one third of the total number of non-cash payments. These transactions have grown at a yearly average rate of 12.5% over the period 2002-2004. However, the value of credit and debit transactions accounted only for 2% of the total non-cash transaction value, despite having grown at an annual average rate of 24%, from 2002 to 2004.

## **2. Some Evidence of Payment Cards Limitations**

### **2.1 Limited Access to the payment Cards Market in Mexico**

Despite the important growth in their number of cards, access to payment cards is still an issue in Mexico. The new Mexican Family Life Survey of 2004, that includes national data up to 2002, shows that only 5.6% of the individuals had a credit card<sup>12</sup>. It also indicates that 6.5% had a savings account, which we have associated to debit cards' access.

It is worth recognizing that the number of cards has grown rapidly in 2003 and 2004; hence, the access situation may be different today than it was in 2002. Nevertheless, it is likely that access is still very limited.

<sup>11</sup> In this estimation debit cards transactions performed at ATMs are excluded.

<sup>12</sup> This information is very similar to data from the survey ENIGH, 2004.

The above mentioned survey also indicates that 40% of the credit card holders are not card users, that is, they hold cards to insure agents from unexpected shocks to their income. Finally, the survey shows that of those who use their credit cards, 63% are convenience users<sup>13</sup>. These numbers reveal several peculiar things of the credit card business in Mexico; an important fraction of credit cardholders generate commissions' income to banks, but not transactions nor interests. Similarly, of those that generate transactions related income, the majority are beneficiaries of the free financing periods and do not pay interest. This means that issuing banks need for commissions (opening and yearly commissions), transactions (IFs) and interest income to remain high for the business to be profitable. However, this situation discourages people from getting and using credit cards and from carrying credit card debt.

## **2.2 Limited Network Development and Usage with respect to other Countries**

In order to get a better idea of the development of the Mexican payments card market and of the balances between the two sides, it is relevant to compare the data previously presented with data from other countries. Such comparison is presented in this section.

Table 3 shows that the Mexican *credit card* market is the least developed of the countries included in the sample. Mexico has the lowest number of cards per person and per member of the labor force. It also has the lowest number of transactions per person and one of the lowest values of transactions to GDP. Despite its limited coverage, the number of credit cards per POS and the number of credit card transactions per POS seems to be in the lower end but comparable to the other countries. Consequently, there does not seem to be much of an imbalance in the credit card market, except for its limited depth.

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<sup>13</sup> Anecdotal evidence from individual banks show a more balanced distribution of convenience users, but it is not representative of the country as a whole.



**Table 3**  
**Credit Card Market Indicators: International Comparison (2003)**

	Canada*	Germany	Italy	United Kingdom	United States*	Mexico
<b>Cards per capita</b>	1.7	0.4	0.4	1.1	4.4	0.1
<b>Cards per labor force</b>	3.11	0.8	0.4	2.2	8.6	0.2
<b>Cards per POS</b>	105.1	65.5	31.3	77.6	359.1	64.4
<b>Transactions per capita</b>	47.5	7.1	6.4	30.7	61.9	2.2
<b>Transactions per card</b>	28.7	17.9	14.6	27.3	14.2	24.3
<b>Transactions per POS</b>	3,016.6	1,175.7	456.8	2,115.3	5,101.7	1,566.8
<b>Value of transactions/GDP (%)</b>	13.2	1.9	2.7	10.3	15.4	2.1

\*Data for 2002

Sources: Number of cards and transactions in Mexico, Banco de México. Population and mexican GDP, INEGI. Number of cards, transactions, population and GDP in other countries, BIS 2003. Labor Force, OECD

In the case of the *debit card* market, the indicators presented in Table 4<sup>14</sup> suggest that the Mexican market is less developed than other countries in terms of the number of cards per capita and transactions per capita. However, there are two important imbalances in the market, with respect to other countries. The first is the high number of debit cards per POS (conversely, the limited number of POS given that of debit cards). The second is the very reduced number of debit card transactions per POS.

**Table 4**  
**Debit Card Market Indicators: International Comparison (2003)**

	Canada*	Germany	Italy	United Kingdom	United States*	Mexico <sup>(1)</sup>
<b>Cards per capita (millions)</b>	1.2	1.1	0.5	1.0	0.9	0.3
<b>Cards per labor force</b>	2.2	2.3	1.1	2.0	0.6	1.3
<b>Cards per POS</b>	74.8	182.6	32.5	69.0	74.4	219.8
<b>Transactions per capita</b>	76.4	20.2	10.5	56.7	54.0	1.0
<b>Transactions per card</b>	65.0	18.5	23.0	56.6	59.8	3.3
<b>Transactions per POS</b>	4,857.3	3,369.0	746.3	3,905.5	4,452.5	727.0
<b>Value of transactions/GDP (%)</b>	9.1	5.1	4.5	11.8	6.7	1.6

\*Data for 2002

(1) ATM Transactions were estimated and excluded

Sources: Number of cards and transactions in Mexico, Banco de México. Population and mexican GDP, INEGI. Number of cards, transactions, population and GDP in other countries, BIS 2003. Labor Force, OECD

Summarizing the data from previous sections, it is clear that despite the recent dynamism of card payment markets, access to them is still limited and the market is still underdeveloped for international standards. However, credit and debit card markets are at very different stages of development. While the credit card market seems to have a problem of depth but

<sup>14</sup> In this table estimated debit card transactions at ATMs were excluded.

there is not much of an imbalance between the two sides, the debit market shows deep imbalances both in terms of the number of POS and of the usage of debit cards at POS.

**3. Factors Related to Payment Cards Market’s Lack of Development**

Given the limitations and imbalances described above, it is necessary to explore some of the factors that may be affecting payment cards market development. Among them, we present evidence of market concentration in card issuing, and for credit cards, we also study evidence of market power in the issuing side. Although it is known that market concentration does not necessarily mean lack of competition, it is more likely that a highly concentrated market will not be competitive. Finally, we analyze the role of card associations and IFs and examine how it may have affected market’s performance. We consider that these factors may be hampering payment cards market development and may justify financial authorities intervention.

**3.1 Industry Concentration Indicators**

Table 5 presents concentration measures in the *credit card* issuing market from 1997 to 2004, based on the number of contracts. The fraction of the market concentrated by the two (CR2) and the four (CR4) largest firms has never been less than 70% and has always been above 80%, respectively. The Herfindahl Hirschman Index (HHI) has always been above the limits accepted by the Federal Competition Commission<sup>15</sup>. From 2000 to 2002, the HHI had a positive trend reaching its maximum in 2002. From that year on, the HHI decreased, but its level remained high.

**Table 5  
Credit Card Concentration Indicators**

	2000	2001	2002	2003	2004
<b>Number of issuers</b>	11	8	9	12	11
<b>CR2 %</b>	67%	78%	73%	70%	72%
<b>CR4 %</b>	84%	90%	89%	88%	90%
<b>HHI</b>	3,253	3,587	3,641	3,217	2,924
<b>1/HHI</b>	3.1	2.8	2.7	3.1	3.4

\* Data until December

Source: Calculations were made using data from Comisión Nacional Bancaria y de Valores

<sup>15</sup> In order for the FCC to authorize a merger, the resulting HHI must be less than 2,000 points with a maximum increase of 75 points.

Table 6 includes information about concentration of the debit card market based on the number of demand deposits' accounts.<sup>16</sup> The total number of issuers has declined; the CR2 index is never less than 46% and the CR4 index is always greater than 70% of the market. The HHI is high with respect to the limits set by the Federal Commission of Competition to authorize mergers.

**Table 6**  
**Debit Card Concentration Indicators**

	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>
<b>Number of issuers</b>	29	25	25	24	25
<b>CR2 %</b>	45%	46%	60%	51%	46%
<b>CR4 %</b>	78%	78%	85%	72%	72%
<b>HHI</b>	1,737	1,790	2,433	1,833	1,683
<b>1/HHI</b>	5.8	5.6	4.1	5.5	5.9

Data until December

Source: Indices were calculated using data from the Comisión Nacional Bancaria y de Valores.

Concentration in the acquiring side of the market is also considerably high. In 2004, CR2 was 57%, while five banks concentrated 93% of the POS. The HHI for 2004, is above 2000 points. There is no participation of non-banks in the acquiring side and banks have agreed in a scheme by means of which a particular merchant can be acquired only by one bank<sup>17</sup>.

**3.2 Some pricing indicators**

One of the main characteristics of payment cards' markets is product differentiation. For instance, each bank offers a variety of credit cards with different features. Another characteristic is the diversity of services provided by payment cards, all of which may have a fee associated. Both, product differentiation and service bundling tend to mitigate the intensity of price competition. Even though price comparisons across banks' payment cards are complex given the diversity of product characteristics, it is interesting to analyze if the prices of the services related to a particular product have changed over time. The idea is that, through time, more competition should translate into lower prices and rates.

<sup>16</sup> The number of demand deposits' accounts was used as proxy of the total number of debit cards issued since in general demand deposits provide the client with a debit card.

<sup>17</sup> This constraint seems redundant because merchants are not interested in having more than one acquiring bank. Merchants do not want to duplicate some costs nor divide their transactions so they can achieve lower discount rates.

This comparison is carried out just for the “Classic” credit card issued by a number of Mexican banks for the years 2001 and 2004, and it is presented in Tables A5 and A6 in Appendix 1. As it can be seen in the tables, the terms and commissions of these cards have not changed significantly, except for the opening fee, which has fallen. This means that, at least for the Classic credit cards, competition does not seem to be affecting the terms and conditions in which cards are provided. It is worth underlining that competition in this market occurs basically through product differentiation; that may be related to the limited price competition. Finally, this comparison cannot be carried out for debit cards due to the lack of price information over time.

### **3.3 Price margin indicators for the credit card market.**<sup>18</sup>

An even clearer indicator of the limited price competition existing in the credit card market is provided by the margin of price over costs charged by credit card issuers, also known as markup. A Lerner Index (LI)<sup>19</sup> may be obtained for the most important card issuers and only for Classic credit cards, assuming that the marginal cost can be approximated by the respective cost of funds and that the ordinary interest rate is a good proxy for the credit card price.

The results presented in Table 7 show that all LI are relatively high in the period 1998-2003. The average LI is never less than 60% and the indicators for all banks present a positive trend during this period. It is also worth noting that the variance of the LIs is low and that it decreases over time. This result implies that all banks have tended to set a similar mark up, regardless of their marginal costs. It is also possible to calculate an LI for the market as a whole by weighting each banks LI by its relative participation in the credit card market. The results, presented in the last row of the table, show that LIs for the market increased around 28 percentage points from 1998 to 2003.

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<sup>18</sup> This section rests heavily on Negrin y O’Dogherty (2004).

<sup>19</sup>  $LI=(P-MC)/P$ , where P=price and MC=marginal cost.

**Table 7**  
**Lerner Indices by bank**

	1998	1999	2000	2001	2002	2003*
<b>Bank 1</b>	0.41	0.45	0.65	0.77	0.83	0.83
<b>Bank 2</b>	0.70	0.75	0.80	0.85	0.91	0.92
<b>Bank 3</b>	0.71	0.75	0.79	0.83	0.90	0.91
<b>Bank 4</b>	0.69	0.74	0.73	0.77	0.80	0.82
<b>Bank 5</b>	0.58	0.60	0.68	NA	NA	NA
<b>Bank 6</b>	0.71	0.74	0.82	0.88	0.92	0.93
<b>Bank 7</b>	0.56	0.65	0.74	0.77	NA	NA
<b>Bank 8</b>	0.54	0.59	0.71	0.79	0.86	0.89
<b>Bank 9</b>	0.58	0.63	0.68	0.73	0.82	0.87
<b>Bank 10</b>	0.58	0.61	0.73	0.80	0.88	0.91
<b>Average</b>	0.61	0.65	0.74	0.80	0.86	0.88
<b>Variance</b>	0.0099	0.0099	0.0038	0.0024	0.0020	0.0018
<b>Market**</b>	62.41	68.34	75.43	80.99	88.05	90.01

\* Data until october 2003

\*\*Weighted using bank's market share

NA Not Available

Source: Interest rate: Infosel. Cost of funds: Banco de México.

The existence of high mark ups in the credit card industry may be interpreted as evidence of market power.

### **3.4 Role of Card Associations and Interchange Fees (IF)**

Another factor that could be affecting market development is the role of card associations, in particular, that of IF. The latter has recently been the subject of much controversy both at the academic and regulatory level (Evans and Schmalensee, 2005 and Weiner and Wright, 2005). One of the problems with IF has been that its setting process is not known by the end users or financial authorities. Hence, it has been claimed that it may constitute illegal price fixing and that it may be used as rent extraction instrument by banks. If this were the case, they would represent another obstacle to the development of the payment cards market. In this section we study the role of card companies in Mexico and emphasize the level and structure of IF.

In Mexico banks themselves through the ABM are in charge of four party system's organization. Card associations (Visa and MasterCard) have a limited role since they do not perform switching functions in local transactions. Not just that, but as we will explain below, they do not set the IF. Card associations main role is the provision of the brand and

the switching service for international transactions. In fact, in the local market consumers do not identify their payment cards by the card companies brand, but by the brand of the issuing bank.

Typically, card associations impose a set of rules that all associated banks have to abide by<sup>20</sup>. Among them, the most analyzed rules are the *honor all cards rule* and the *no surcharge rule*. The former forces merchants to accept all cards that have the associations brand, regardless of the card issuer and of the card type. The latter, forbids merchants from charging to cards' payers higher prices than those charged to customers that pay with other means.

In Mexico, the ABM set up a similar set of rules. However, the no surcharge rule does not have its usual content due to regulatory intervention, as we describe later. In 1993 the Competition Commission reached an agreement with a number of banks, by means of which banks could not forbid in their acquiring contracts that merchants offer *discounts* for cash payments<sup>21</sup>. Hence, many small stores and even some large merchants provide discounts for cash payments. Additionally, the honor all cards rule has recently been modified by a regulatory measure imposed by BM.

The *duality* rule that prevents banks that issue an associations' particular brand of cards from issuing other associations' cards, is not applied in Mexico; in fact, the same bank issues both Visa and MasterCard payment cards. Additionally, card associations often set a rule in *less than mature* markets by means of which *only issuers can become acquirers*. This rule is still in place in Mexico and may contribute to the lack of development of the acquiring business.

Regarding the IF, as in most countries, in Mexico it flows from acquirer to issuer. Again, card associations do not set the IF; it is determined by the ABM in a neither public nor transparent process. Furthermore, the IF schedule itself is not known by the general public. All acquirer banks are subject to the same schedule of IFs but they are free to set

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<sup>20</sup> See Evans and Schmalensee (1999) for a general description of the rules. See Weiner and Wright (2005) for differences in usage of these rules in a set of countries.

<sup>21</sup> Nevertheless, analyzing the acquiring contract of several banks, we found out that they still contain a provision for the NSR.

merchant's discount rates. Also, issuers freely establish cardholders' benefits and commissions.

The IF became an issue in 1995, when all banks first interconnected. Regarding transactions carried out at POS, in 2004 there were –and still are- 3 IF schedules, one for credit and 2 for debit<sup>22</sup>. We will talk separately about credit and debit card schemes.

Until June of 2004, the IF schedule for credit had a simple average proportional rate of around 2.73%, structured in 5 brackets. The only criteria to assign a merchant to a particular bracket in the IF schedule was the (expected) *volume* of yearly sales of the merchant.

Regarding transactions performed at points of sale with debit cards, there was one IF schedule for transactions performed at small merchants and another for transactions performed at the stores of members of a powerful association of retailers (ANTAD)<sup>23</sup>. The debit non-ANTAD was proportional and identical to that of credit cards (i.e., around 2.73% on average). The debit ANTAD schedule was – and still is- a set of fixed fees (not proportional to the amount of the transaction) only applied to the members of ANTAD. The specific bracket of debit-ANTAD IF for a particular merchant depended on the *number* of yearly transactions performed by that merchant; the simple average level of the ANTAD-debit IF was approximately 0.04 US dollars and the schedule had 10 brackets. There was also a special IF for transactions performed at gas stations.

This IF panorama implied several potential problems. In the first place, non-ANTAD merchants that accepted debit cards, which were relatively smaller, were placed at a strong disadvantage with respect to larger merchants (i.e., ANTAD members) strictly because they lacked ANTAD's bargaining power. Small merchants did not only face the discrimination

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<sup>22</sup> It is interesting to mention that in Mexico the IF is charged in many other payment services, not just in the credit and debit card markets. In fact, some of these markets may not even be two-sided in the way literature has defined them (see Rochet, Jean-Charles and Jean Tirole, 2004). For instance, there is an interchange fee paid to ATM operators by issuers, when the cardholder attends a foreign ATM. It seems that the ATM network may not even be a two-sided market since it does not satisfy simultaneously the demands of two different groups of consumers. In this market the IF may be just a payment for infrastructure usage rather than the balancing tool that it is in two-sided markets.

<sup>23</sup> Sales at the Association of Self Service and Department Stores (ANTAD) represents around 20% of the total national sales.

based on the quantity discounts incorporated in the IF structure of fees; they also had to pay the corresponding proportional discount rates while ANTAD members faced a fixed fee discount rate schedule. Consequently, small merchants that accepted debit cards ended up facing much higher discount rates than larger merchants. This situation surely discouraged some smaller merchants from joining the payment network.

It is convenient to underline that it is not appropriated that debit transactions faced the same IF schedule than credit operations, since the latter implies more risks and the issuer incurs in a free financing cost. This distortion may have meant that a higher cost mean of payment (credit card) was being promoted at the expense of a cheaper one (debit card).

Secondly, except for the debit fee for gas stations, the brackets on the schedules were based on merchants' volume (or number) of sales rather than line of business. Line of business discrimination is more efficient since it is a better proxy for elasticity of demand.

Thirdly, the IF schedule had remained constant for the last five years though several related costs, like funding and data processing, had gone down very significantly in that period<sup>24</sup>. This meant that cost considerations were –and still are- absent from IF setting. The fact that the IF has been so stable reveals that the IF is not set by any economic criteria of efficiency, like the maximization of network's value. Rather, the IF emerges from a bargaining process between banks; hence, is hard to modify it in order to reflect changing economic conditions.

Fourthly, the level of IFs for credit and non-ANTAD debit was perceived to be high for international standards<sup>25</sup>. On the other hand, the IF applied to ANTAD debit transactions seemed to be low relative to other countries. This may mean that transactions paid with debit carried out at small stores (non-ANTAD) subsidized those performed at ANTAD merchants.

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<sup>24</sup> It is worth pointing out that the credit card industry faced losses from the 1995 banking crisis. The IF schedule that was set at the time remained fairly constant from 1995 to 1999; the Association of Mexican Banks has pointed out that in that period issuers registered considerable losses because the IF was very low as compared to the reference interest rates. Hence, in the period 1999-2004 they were just recovering what they had lost earlier.

<sup>25</sup> International comparisons are to be taken with caution because they are not necessarily valid. Differences between prices may reflect different competition conditions, but they are also related to the organization of the industry, the uses of payment means, and the quality of the services offered in each country.



A final problem with the IF was –and still is- that it is set by a committee inside the ABM; hence, the schedule was the same for both Visa and MasterCard. Henceforth, there was no competition between platforms in terms of IFs. This may not be a major problem because international comparisons of IF between Visa and MasterCard reflect that their schedules are very similar.

### **3.5 Additional distortions: barriers to entry.**

There are different types of barriers to entry and participation constraints in the payments card market. In some cases, they are set by regulation, in others by bank practices. Among the barriers imposed by regulation, we find that only banks may participate in switches. This basically eliminates the chances of non-banks to participate in four party systems. Hence, non-banks can only issue general acceptance cards through chartered banks.

In terms of the barriers imposed by the banks themselves, as we have mentioned, Visa and MasterCard have set up a rule that says that only issuers can become acquirers. That restricts entry in the acquiring market. With respect to participation constraints, until recently banks refused to receive electronic transfers coming from other banks to liquidate their clients' credits; this practice forced consumers to always keep an account with the bank where they had their debt. Also, it made impossible balance transfers for credit cards. This practice has recently been eliminated by regulation.

Regulators need to identify all entry and participation constraints in order to achieve a competitive system. However, this is a long term process.

## **4. Public Institutions Intervention in the Payments Card Market**

The previous sections pointed out some of the problems and imbalances that affect the functioning of credit and debit card networks in Mexico. In addition to those limitations and at a more general level, there is the perception that banks' fees and commissions charged to end users are too high and that competition between banks is not intense.

This situation may call for public intervention. However, several questions arise at this point. In the first place, it is not clear who should intervene, the central bank or the

competition authorities<sup>26</sup>. The former is interested in the proper functioning of the payment systems, while the latter is in charge of the assessment and correction of non-competitive practices. It is interesting to notice that the objectives of these institutions may not even be compatible. Secondly, the instruments that the authority may use to achieve its goals have to be defined. On the one hand, authorities may use direct price regulation; on the other, they may rely in the elimination of noncompetitive practices. To a great extent the law determines such instruments. Finally, public intervention in retail payments is still under a lot of discussions. Both credit and debit cards are generally accepted to be two-sided markets. Regulatory experience in these markets is still scarce, so there is no clear path for regulators to follow.

As it has been mentioned before, besides the Competition Commission and BM, in Mexico there is a Commission for the Protection of Financial Services' Consumers (Condusef). However, this commission does not have regulatory powers whatsoever. Its main function is to protect consumers from banks abusive practices, by providing them with information, free legal advise and by mediating with the banks (Condusef Law Art. 5).

In the following paragraphs we present regulatory intervention in card payments by both the Competition Commission and the Central Bank.

#### **4.1 The Role of Competition Authorities in Payment Cards' Regulation**

Competition authorities are in charge of assessing and punishing non-competitive behavior in the economy as a whole, including the provision of retail payment services (Competition Law, Art. 2). In general, the Commission has legal powers to impose competition policy through the suspension of what may be considered a non competitive practice or excessive concentration (Competition Law, Art. 35). However, their role is to assess practices that have already taken place; it does not have the powers nor the intention to design an industry trying to achieve higher standards of efficiency. At any rate, the Commission has been involved in several cases related to payment cards.

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<sup>26</sup> For instance, in the case of Australia, the Reserve Bank has been in charge (RBA, 2000); in the case of the UK and Spain (OFT, 2004, and Secretaría de Estado de Comercio y Turismo, 1999) the competition authorities have been in charged of analyzing these issues.

In 1993, the Commission opened an investigation on credit cards fees. The Commission observed that charges to merchants were the same for all credit cards and that the interest rates charged to cardholders were very similar for all credit cards issued by large banks. Additionally, the profitability of the credit card business was much higher than that of other business in Mexico and that of the same business in other countries. As a consequence of this investigation, the Commission and several major banks signed an agreement in 1994. The agreement committed the banks to eliminate information exchanges that could facilitate price fixing both in the acquiring and issuing markets. Also, the agreement modified the no surcharge rule, since it forbade banks to disallow *discounts* for cash purchases in their contracts with merchants. However, banks were allowed to forbade *surcharges* for credit card payments.

In 1997 the Commission opened an investigation when some merchants refused to accept debit cards; the problem was solved by an agreement between banks and ANTAD members<sup>27</sup> with the set up of the special debit IF schedule for ANTAD merchants' transactions, that has already been mentioned. This investigation was closed in 1999 and did not reach a formal conclusion regarding the anti-competitiveness of multilateral IF.

#### **4.1 The Role of the Central Bank in Payment Cards' Regulation**

In this section we present the powers that BM holds to regulate debit and credit card markets, and we identify the instruments that it may use in order to achieve its goals.

BM's Law states that among other objectives, it has the purpose of "promoting the sound development of the financial system and fostering the proper functioning of payment systems" (Art. 1; see also Art. 24). This law also provides BM with "powers to impose sanctions in order to achieve the fulfillment of its objectives" (Art. 24). This Law gives BM the authority to conduct the industry in a certain direction in order to promote the usage of more efficient payment systems. This is a forward looking obligation, as opposed to the backwards looking approach assigned to the Competition Commission.

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<sup>27</sup> See note 23.

In terms of the instruments that BM counts with to intervene, the Law of Credit Institutions (LIC) states, that it is “entitled to regulate interest rates, commissions, premiums, discounts, and other similar concepts, terms and conditions of credit, deposit and other service operations carried out by credit institutions” (Art. 48). This article also indicates that BM might just “establish the mechanisms to set commissions and tariffs, as well as adjustment procedures and the period in which this mechanisms would be in effect”; hence, it does not have to set the level of commissions directly.

In addition to the LIC, recently the Mexican Congress approved the Law for the Transparency and Financial Services Restructuring (LTOSF); this Law states that BM is “entitled to regulate commissions and IFs charged by financial entities in order to promote the proper functioning of the payment systems” (Art. 4). With this law the Mexican Congress reacted to the continuous complains of consumers about the high level of banks’ commissions.

Although the LTOSF does not explicitly indicate that BM should authorize modifications to commissions and fees, it signals that “financial entities must inform in advance to Banco de México of any modification or new commission” that they intent to charge to the public (Art. 7). This may be interpreted as an implicit fee authorization process.

In terms of BM’s legal attributions to foster competition, the LIC states that “The Commission for the Protection of Financial Services’ Consumers (Condusef), any credit institution and other non-bank financial intermediaries may request BM to assess if there are reasonable competition conditions regarding commissions and tariffs charged by the intermediaries” ... “Banco de México may also act on its own behalf requesting the Federal Competition Commission to determine the existence of effective competition in the relevant markets” (Art. 49).<sup>28</sup>

Additionally, the LTOSF defines that Financial Entities incur in “discriminatory practices” when: (i) Take any action that prevents costumers from of Financial Entities from doing transactions; (ii) Charge different commissions depending on the issuer (of payment means,

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<sup>28</sup> A possible interpretation of this Article is that while the FCC may set fines, BM is the only one entitled to set regulations in the financial sector.

like credit and debit cards, checks and fund transfers); (iii) Take any action to prevent or inhibit its own costumers from using other Financial Entities' infrastructure (Art. 8). This definition of discrimination is closely related to that of non-competitive practices.

It is fairly clear that BM has powers to identify and eliminate non-competitive practices in the retail payment system<sup>29</sup>. However, the law seems to emphasize price setting as BM's main regulatory tool. This bias of the law comes from the perception that banks services are too expensive and thoir prices ought to be limited. Nevertheless, the mandate of BM is so wide that competition policy measures are surely covered by it<sup>30</sup>.

Although BM's mandate is to seek the proper functioning of all payment systems its concern has always been the regulation and surveillance of large value payments because they represent a systemic risk. Retail payments were mostly left to be driven by the market. The LTOSF explicitly opened an opportunity for the Central Bank to intervene in retail payment systems.

As it has been mentioned, the main instrument provided by the law is price regulation. However, regulating banks' commissions and fees is not a simple matter. Besides the typical distortions that price regulations might bring about in any industry (Kahn, 1988), adopting these measures in banking is far more complex.

In the first place, banks provide a wide variety of services which tend to be bundled together. Cross subsidization and indirect pricing are a common practice in this industry. This means that any restriction in the setting of a particular service's price is easily compensated by charging more in another. Hence, the impact that regulating one price could have on the price of other related services is uncertain. Also, the variety of concepts for which banks can charge, makes unfeasible the regulation of all prices.

In the second place, price regulation may not even be justified in Mexico, since the banking industry is by no means a traditional monopoly. There are 29 banks that could provide

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<sup>29</sup> In fact, article 19 of the LTOSF indicates that "Banco de México may impose sanctions to Financial Entities that do not comply with the LTOSF or the regulation".

<sup>30</sup> In the case of some services, the Law does explicitly provide more powers than price regulation. For instance the LTOSF indicates that BM is entitled to regulate the operations and functioning of clearing houses (Art. 15).

payment card services; in fact, many of them do so and charge a variety of prices for their respective services.

In the third place, the usual reference mechanisms for price regulation do not seem appropriated in banking services. Consider first to set prices based on costs. The problems that arise with cost regulation in terms of information reporting, and cost minimization incentives for market participants, are well known (Laffont and Tirole, 1993). Not only that, but in particular with respect to the IF, several authors have shown that in two sided markets the IF should not be regulated based only on costs (Evans and Schmalensee, 2005 and Rochet and Tirole, 2004)<sup>31</sup>.

An alternative to cost regulation is to set prices based on an international benchmark. The problem there is that direct comparisons of the commissions charged in different countries is not appropriated since it reflects not just different service qualities but the peculiar organization of each country's industry.

Summarizing, the situation of payment cards in Mexico seems to call for public intervention. The institution that has legal powers to intervene is BM. The explicit regulatory instrument that the law provides is price regulation. This instrument is rather blunt and subject to errors. Nevertheless, price regulation may constitute a regulatory threat.

#### **4.1.2 Banco de Mexico's Regulatory Approach**

In June of 2004 BM launched a reform process of the retail payment systems in order to encourage the use of the most efficient payment systems and to foster banking competition (Ortiz, 2005). If these goals were to be achieved, they would naturally translate into lower consumers' commissions. The measurements that BM has adopted may be grouped as follows: the introduction of transparency in banks' charges, the removal of restrictions to participation and entry, and coordination with market participants having price regulation as a legal alternative. Regarding credit and debit cards, the challenge seems to be the

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<sup>31</sup> Gans and King (2003) analyze a number of alternative approaches to regulate IF.

development of the market, in particular of the acquiring side and the promotion of the usage of debit cards at POS.

With respect to the IF, as everywhere else, the limited information about its setting process has raised concerns in Mexico. In this case, the IF scale for debit and for non-ANTAD debit transactions seems to be high for international standards, while the opposite seems to be the case for the IF applied to ANTAD debit transactions. Furthermore, it is clearly inappropriate that the IF scale for non-ANTAD debit was the same as the scale for credit. In terms of the IF schedule, discrimination based only on sales volume, does not seem to be efficient. The IF level and structure do not provide incentives to small merchants to participate, which again hinders the development of the acquiring side of the market.

#### **4.1.3 The Measures Adopted**

Regarding credit and debit cards, the specific measurements that BM enacted after June of 2004, are the following:

- In terms of transparency measures:
  - Banks must let their clients know all fees and commission that they are charging them (BM, 2004).
  - In particular, for credit cards, the contract must specify commissions and charges and modifications to such charges have to be notified to the clients in advance (BM, 2004).
  - Banks must report to BM the amount and changes on their commissions and fees (BM is making the fees charged by all banks available through Internet allowing clients to compare prices) (BM, 2004).
- In terms of preventing restriction to participation:
  - Regarding credit cards, BM has determined that all banks must allow payments of their clients' credits through electronic transfers; this permits credit card balance transfer arrangements which are pro-competitive (BM, 2005).

- The honor all cards rule has been modified. Now merchants may decide to accept only credit or debit cards. However, if they accept one type of card, they have to take all issuers cards of that type. This makes debit card acceptance more attractive for merchants (BM, 2005).
- BM has not issued a regulation for IF in credit or debit card transactions. However, the ABM of its own accord has adopted the following measures:
  - Regarding credit cards, the ABM reduced the IF in February of 2005 in 43 basis points on average (Ortiz, 2005). Additionally, the ABM has eliminated the highest bracket for IF with credit cards.
  - In terms of the IF applied to non-ANTAD debit transactions, the IF has fallen twice between August 2004 and June 2005. The reduction has been, on average, 134 basis points (Ortiz, 2005). The highest IF bracket has also been eliminated. These changes have made the IF for debit card transactions lower on average than those for credit card transactions. The IF for ANTAD debit transactions has remained the same.
  - The ABM has introduced several categories of IF to discriminate by type of business, both for credit and non-ANTAD debit. Hence, restaurants, hospitals, travel agencies, etc., are facing lower rates. This promotes efficiency and entry of previously non covered segments of the market.
  - Since the end of 2003, the ABM had tried to promote card acceptance by means of allowing merchants to add up debit and credit transactions volume in order to achieve a lower IF bracket. This should reduce the difference in discount rates charged to small and large merchants.
  - Finally, and perhaps more importantly, the ABM has committed to perform a thorough analysis in order to find a more efficient way to set the IF (ABM, 2005).

It is relevant to mention that the impact of IF reduction over merchants discount rate and over card holders' benefits in Mexico is still unclear. In the Australian experience IF reductions had not translated entirely into discount rates, although there had not been



enough time for the process to be over; also, consumers' commissions seemed to have gone up as a result of a lower IF (RBA, 2004 and Lopez-Gallo and Negrin, 2005).

It is still too early to know the impact of IF changes in the case of Mexico. However, regarding annual or opening commissions, the effect has been nil not just because banks may not want to loose clients, but because changes in commissions have to be reported to BM before they put them in place. Even though the regulation does not establish a formal fee authorization process, having to give notice of fee changes may discourage banks from increasing commissions.

The reduction in IF may create a problem for small issuing banks that issue a relatively limited number of cards. The IF is a fundamental income source for small issuers, so its reduction may drive them out of the market. This opens up the question of the desirability of small issuers participation. It may be the case that small card issuers do not reach the appropriate scale to be productive, but it could also be the case that the costs that a card issuer faces disfavor small issuers disproportionately, in particular, that of the switches<sup>32</sup>. Considering that small banks may generate social benefits if they produce competitive pressures, financial authorities must decide if this is something that should be addressed by regulation.

It is important to mention that the Mexican Ministry of the Treasury is supporting POS deployment through a program to install terminals at POS (*terminalization* program) funded with tax money. Given that in Mexico banks pay for POS deployment, the program may provide significant subsidy. The goal of the program is to install up to 300 thousand readers in the next couple of years. The terminalization program, plus the other measures that promote the acquiring business should bring up a more balanced two-sided market and a wider use of debit cards at POS.

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<sup>32</sup> As it has been mentioned before, the switch that carries out small banks transactions is owned by several mid size banks. This switch (Prosa) has a pricing scheme that provides quantity discounts. Small banks have complained that the difference in the fees that corresponds to small and larger issuers is too wide. BM is looking into the switches pricing schemes.

## **5. Final Comments and Some Policy Issues**

The Mexican payment card industry presents serious problems and imbalances. Among them, the market is far from being deep despite its recent growth, the deployment of POS is limited for the number of cards and the usage of debit cards at POS is low. In terms of the organization of the payments card industry, both issuing and acquiring markets are concentrated and there is evidence of market power in credit cards. Following with the payments card organization, the IF is not only set in a non transparent manner, but its structure seems to hinder POS deployment and debit card usage; consequently, it does not promote the usage of the most efficient payment means.

This situation points at the need of public intervention. Further, the law provides BM with powers to regulate prices and other aspects of the payment cards industry. In this context, BM has adopted several measures that affect the payment cards market. These measures are the introduction of transparency, the removal of barriers to participation and the coordination with industry participants to achieve a more efficient payment system. Direct price regulation has not been used. This approach has resulted in a more transparent system and in lower IF; in particular, the IF for debit card transactions at small merchants is now lower than that for credit cards, as it should be.

The recent intervention in the payment card market has made evident several points. Among them, the organization of the payments cards industry is complex and dynamic, making intervention –in particular price regulation- difficult and with a high likelihood of committing mistakes. Furthermore, even if price regulation were to be justifiable because of the existence of market failure, such regulation would be infeasible in an industry that offers so many bundled services.

It is interesting to notice that in the countries where there has been public intervention, the IF has gone down, as it has happened in Mexico (see Weiner and Wright, 2005) even though no regulator knows the optimal IF level. Such reductions have been validated by the lack of transparency of the IF determination process. However, reducing the IF is appropriated only if there is evidence of potential social gains and efficiency improvements from such reduction. Further, the regulation must have a mechanism to make sure that

reductions in IF are translated to discount rates, in particular in noncompetitive acquiring markets.

In the case of Mexico the IF reduction seemed to be necessary due to the imbalances described above. Further, it was not directly determined by regulation, but decided by the ABM –under certain regulatory pressure from BM. In other words, the ABM may have been aware of the problems that the IF schedule had; however, on the one hand, some banks may have been receiving short term benefits out of that situation. On the other, the bargaining process to set a new IF is rather costly for the banks. Consequently, the IF remained static for a long period.

In the case of Mexico, besides the level of the IF, the structure is very relevant. Even though quantity discounts are based on efficient pricing, the difference between small and large merchants' fares cannot be too wide. This could hinder potential competition.

Two additional issues need to be considered. In the first place, it is necessary to study if IF reductions are favoring three party networks. Secondly, BM has to develop mechanisms to measure the impact of the regulation.

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## Appendix

### Table A1 Credit Cards Evolution

Credit Cards				Growth Rates		
Year	Number of credit cards*	Volume of transactions*	Value of transactions **	Number of credit cards	Volume of transactions	Value of transactions
2002	7.8	212.8	12.3			
2003	9.4	228.8	12.5	21%	8%	2%
2004	11.7	248.4	14.7	24%	9%	18%

\*millions

\*\*In billions of USD

Source: Banco de México

### Table A2 Debit Card Evolution

Debit Cards				Growth Rates		
Year	Number of debit cards*	Volume of transactions*	Value of transactions **	Number of debit cards	Volume of transactions	Value of transactions
2002	33.0	1,061.3	76.9			
2003	32.1	1,141.1	78.2	-3%	8%	2%
2004	34.4	1,238.4	91.9	7%	9%	18%

\*millions

\*\*In billions of USD

Source: Banco de México

### Table A3 Debit Card Evolution Excluding Transactions carried out at ATM's

Debit Cards				Growth Rates		
Year	Number of debit cards*	Volume of transactions*	Value of transactions **	Number of debit cards	Volume of transactions	Value of transactions
2002	33.0	68.5	6.6			
2003	32.1	106.2	9.4	-3%	55%	42%
2004	34.4	148.6	13.1	7%	40%	40%

\*millions

\*\*In billions of USD

Source: Banco de México

### Table A4 POS Evolution

POS				Growth Rates		
Year	Number of POS	Volume of transactions *	Value of transactions **	Number of POS	Volume of transactions	Value of transactions
2002	129,971	281.3	18.9			
2003	146,029	335.0	21.9	12%	19%	16%
2004	160,289	397.0	27.8	10%	19%	27%

\*millions

\*\*In billions of USD

Source: Banco de México

**Table A5**  
**Classic credit cards price indicators (2001)**

October, 2001*							
Issuer bank	Monthly Interest rate %	Annual interest rate %	Minimum payment %	Opening fee (\$) <sup>(1)</sup>	Annual fee (\$) <sup>(1)</sup>	Cash Disposal Commission %	Grace period (days)
Bank 1	3.2	38.5	8.0	NC	29.2	10	10
Bank 2	3.4	40.7	10.0	10.8	21.6	5	20
Bank 3	3.2	38.9	8.0	13.0	34.6	0**	20
Bank 4	3.0	36.0	7.0	19.5	19.5	8	23
Bank 5	3.0	36.0	7.0	19.5	19.5	8	23
Bank 6	2.1	25.0	6.0	NC	16.2	4	20
Bank 7	2.8	34.0	6.0	10.8	29.2	10	20
Bank 8	3.3	39.6	5.5	NC	59.5	10	20
Bank 9	3.1	37.2	5.0	NC	27.1	10	20
Bank 10	2.5	30.5	10.0	NC	21.6	4	20
Bank 11	2.7	32.6	5.5	NC	21.6	10	20
Bank 12	3.2	38.8	4.5	NC	39.0	5	20

NC: The bank does not charge this commission

<sup>(1)</sup> In USD

\*This information corresponds to MasterCard and VISA Classic Credit Card

\*\* This bank does not charge a cash disposal commission, but levies an interest rate determined by the institution and based on conditions and client's lateness.

Source: INFOSEL

**Table A6**  
**Classic credit cards price indicators (2004)**

October, 2004*							
Issuer bank	Monthly Interest rate %	Annual interest rate %	Minimum payment %	Opening fee (\$) <sup>(1)</sup>	Annual fee (\$) <sup>(1)</sup>	Cash Disposal Commission %	Grace period (days)
Bank 1	3.2	37.9	8.0	NC	34.7	20	10
Bank 2	3.2	38.0	5.0	8.7	34.7	5	20
Bank 3	3.2	38.0	6.5	13.0	30.4	0**	20
Bank 4	2.9	35.0	4.5	15.6	15.6	4	23
Bank 5	2.9	35.0	10.0	10.4	10.4	6	20
Bank 6	2.1	25.0	6.0	NC	39.1	4	20
Bank 7	2.9	34.9	5.8	8.7	23.5	10	20
Bank 8	3.3	39.6	5.5	NC	47.8	10	20
Bank 9	3.2	38.0	5.0	NC	21.7	10	20
Bank 10	2.2	26.3	10.0	NC	27.8	3	20
Bank 11	2.9	35.0	5.5	NC	17.4	10	20
Bank 12	3.1	37.5	4.5	NC	33.9	5	20

NC: The bank does not charge this commission

<sup>(1)</sup> In USD

\*This information corresponds to MasterCard Classic Credit Card

\* This bank does not charge a cash disposal commission, but levies an interest rate determined by the institution and based on conditions and client's lateness.

Source:INFOSEL