

Description of discount rates and interbank fees in relation to bank card payments in Mexico

I. Introduction

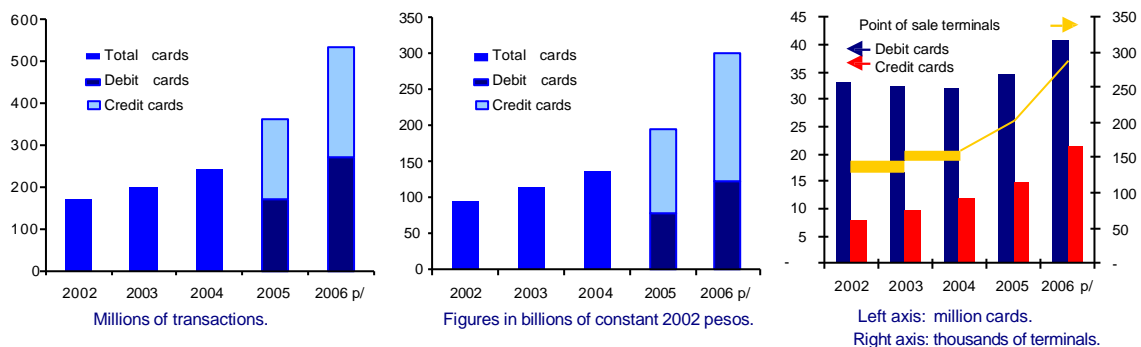
In recent years, credit and debit cards have been increasingly used in Mexico for retail and service payments (see Graphs 1a and 1b). During 2006, 530 million payments worth 299 billion in 2002 constant pesos were made at retail establishments using bank cards. In 2006, the value of these transactions accounted for 3.9% of GDP and 5.6% of private consumption.¹

Graph 1

a) Number of transactions using cards at retail establishments

b) Value of transactions using cards at retail establishments

c) Number of cards and establishments that accept them



Source: Banco de México.

p/: preliminary data.

Note: as of 2005, information on credit and debit card transactions is separated.

A relatively larger number of bank card payments is related to an increase in the amount of cards in circulation as well as to the number of establishments that accept them (Graph 1c). A more widespread use of bank cards for purchasing purposes improves payment system efficiency and brings down transaction costs, thus benefiting all those involved from cardholders and commerce to banks.

This document is intended to:

- (i) Explain in more detail how the bank card system in Mexico operates;

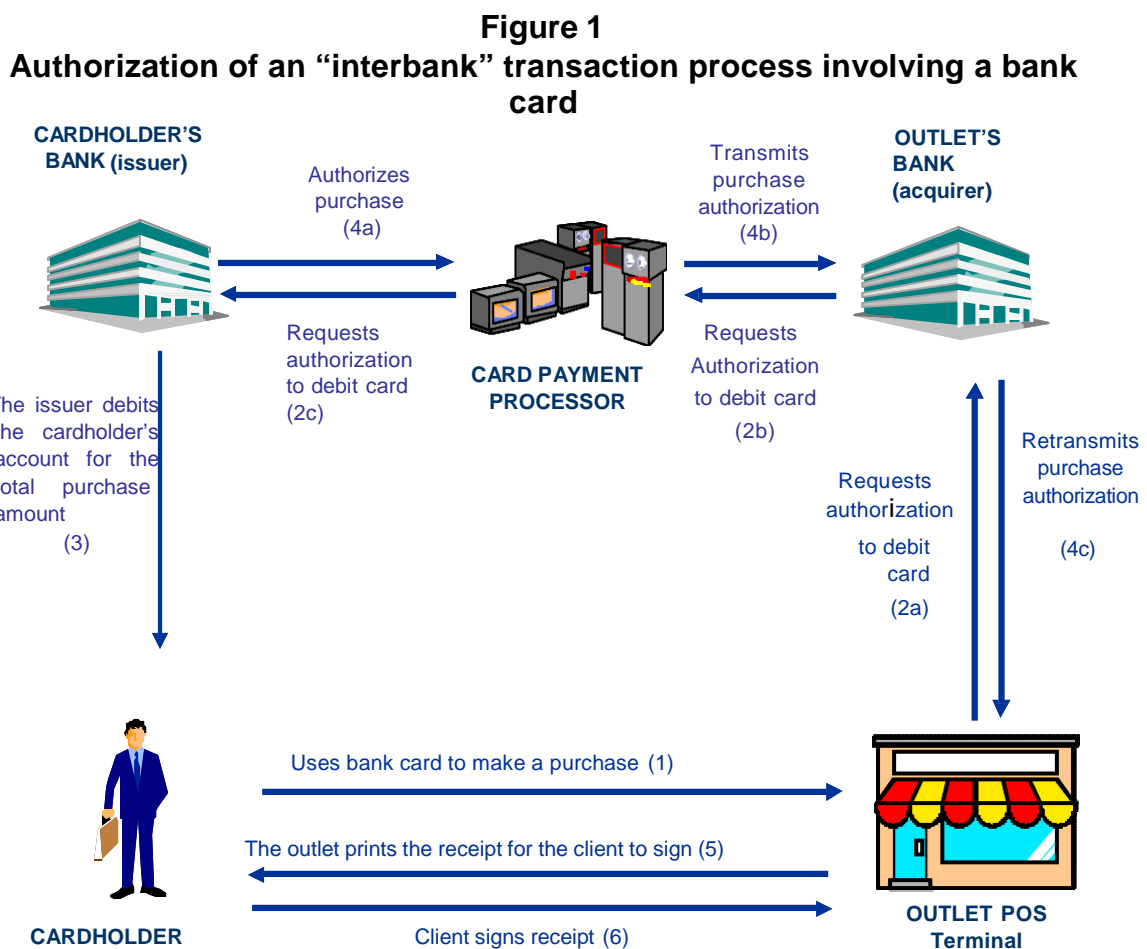
¹ Estimates based on private consumption and third quarter 2006 GDP.

analyzing, in particular, the recent behavior of *discount rates* and *interbank fees*.

(ii) Continue to disseminate and make transparent the commissions banks charge for these services, and make this information available to the general public.

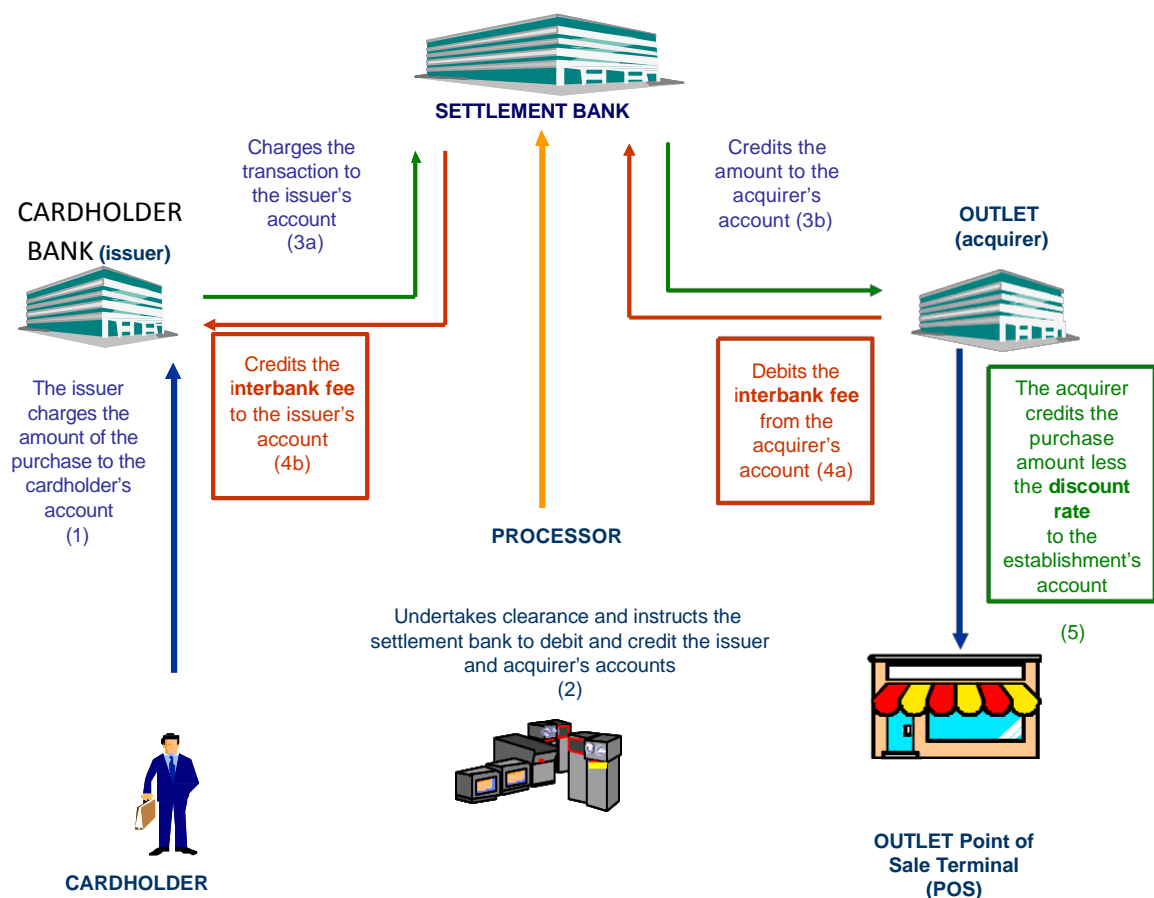
II. How card payment systems work

Payments made to commercial establishments or service providers using bank cards follow a process involving consumers, establishments and their respective banks. When during a transaction paid for using a credit or debit card the issuer bank and the bank providing the point of sale terminal to the establishment are different, the process involves an interbank transaction. Alternatively a *same bank* transaction is one in which the same bank that issues the card provides the retail establishment with the card acceptance service. A successful transaction must go through two processes: authorization and *clearance and settlement*. The figure below describes the steps involved in these processes.



In an interbank transaction, the **authorization process** involves the following steps (Figure 1): the consumer (cardholder) uses his or her bank card as a means of payment at an establishment (1); through its point of sale terminal (POS), the retail establishment asks its bank, known as the acquiring bank, to authorize a debit to the card (2a); the acquirer sends the authorization to the bank that provided the consumer with the card known as the issuer bank; the authorization request is then sent through a card payment processor (2b and c);² (3) the issuer checks the card's account balance, applies the debit corresponding to the purchase amount and sends the processor authorization (4a); the processor transmits authorization to the acquirer (4b), and the latter to the establishment (4c); the establishment prints off the receipt (promissory note) for the client to sign (5); and, the client signs it and receives the good or service (6).

Figure 2
Interbank transaction clearance and settlement process involving a bank card



² Mexico has two card payment processors e-Global and PROSA. These processes are known as switches.

Figure 2 shows the **clearance and settlement flow process** in an interbank transaction:

(1) The issuer bank charges the purchase amount to the cardholder's account (credit or debit).

(2) The card processor makes the clearance and instructs the **settlement bank**³ to undertake the following transactions:⁴

(3a) Debit the transaction amount from the issuer bank's account.

(3b) Credit the transaction amount to the bank's account.

(4a) Debit from the acquiring bank's account the **interbank fee** associated with the transaction; the acquirer then pays this fee to the issuer as compensation for using the card.

(4b) Credit to the issuer bank's account the interbank fee associated with the transaction.

(5) The acquiring bank deposits in the establishment's account the transaction amount less a service fee called **discount rate**.

Note that at the end of the "interbank transaction clearance and settlement" process, the net effect for each of the parties involved is as follows: the cardholder pays the purchase amount; the establishment receives the purchase amount less the discount rate; the issuing bank obtains the interbank fee; and, the acquiring bank receives the discount rate less the interbank fee. It should be pointed out that the issuing and acquiring banks pay a fee to the "card payments processor" for its services.

In the case of a **same bank** transaction, the process is as follows (see Figure 3):

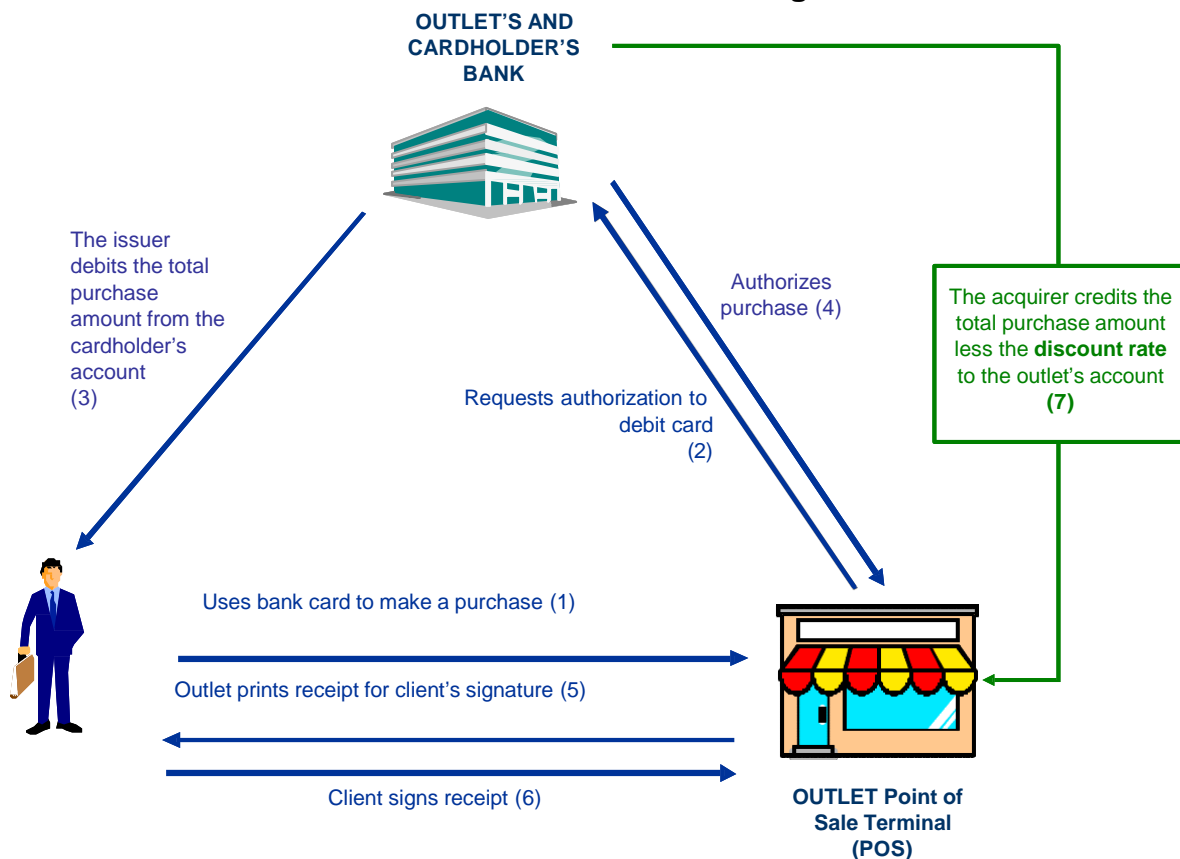
(1) The consumer (cardholder) uses his/her bank card at a commercial outlet.

³ The settlement bank is the entity designated by banks participating in the card payment scheme to affect the accounts that participants maintain with it according to the position of each bank previously indicated by the cards processor.

⁴ The cards processor clears all transactions between the different issuers and acquirers; therefore, debit and credit instructions given by the settler represent the net amounts that the different banks must pay each other.

- (2) The commercial establishment through its point of sale terminal (POS) asks the acquirer for authorization to debit the card.
- (3) As the acquirer is the issuer, the latter checks the balance and debits the account of the card for the total purchase amount and (4) also authorizes the purchase from the commercial establishment.
- (5) The commercial establishment prints the receipt for the client's signature.
- (6) The client signs the receipt and obtains the good or service.
- (7) The acquirer credits the purchase amount less the *discount rate* to the commercial establishment's account. Note that the cards processor and the settlement bank do not intervene.

Figure 3
Same bank transaction scheme involving bank cards



When the transaction involves the same bank, it keeps the discount rate and credits the total purchase amount less the discount rate to the commercial establishment's account. In Mexico around 67% of transactions are interbank and 33% are same bank.

III. Discount rates

As mentioned, the *discount rate* is a fee that the acquiring bank charges commercial establishments for installing the POS terminal and providing access to the system that makes the acceptance of card payments possible. The *discount rate* is charged on each transaction and is usually proportional to the value of the purchase and varies according to the type of business and card (credit or debit) used in the transaction. The fee is used to cover the *acquiring bank's* costs, such as access to the system, the guarantee that receipts will be settled and, in particular, the interbank fee that the bank card's issuer bank must be paid when the transaction is an interbank one. The discount rate is determined by each bank in direct negotiation with each commercial establishment.

In order to encourage competition between *acquiring banks*, in May, 2006 Banco de México published for the first time the ***maximum discount rates*** acquiring banks charge based on the type of card and business. This information was re-published in February 2007. These *discount rates* (see Tables 1, 2, 3 and 4 of Annex 1) show that:

- a) The maximum weighted average *discount rate for debit cards* was 2.08% in May 2006 and 2.02% in February 2007.⁵
- b) The maximum weighted average *discount rate for credit cards* was 2.83% and 2.77%, for the same dates, respectively.

Since the discount rates reported in those tables are maximums, it is possible that acquiring banks charge commercial establishments lower discount rates. In almost all cases, the discount rates are proportional to the transaction amount but in some cases a fixed amount in pesos is charged.

⁵ The maximum weighted average rate was obtained by multiplying: (i) the maximum discount rate established by each acquiring bank for a specific business (for May 2006 and February 2007) by (ii) the amount of transactions that the same business line and acquiring bank represent in the total value of transactions undertaken in September 2006 (last available number).

IV. Interbank fees

As explained above, the *interbank fee* is the payment that the acquiring bank makes to the issuer when a transaction takes place at a commercial establishment or with a service provider and when the card issuer is different to the acquiring bank. This fee usually covers some costs of the issuer bank, such as the risk of non-payment in the case of credit cards, the cost of financing and account management. The interbank fee is not paid directly by financial service users as it is a payment between banks; however, it is very relevant to the way the system works because it creates a *discount rate* floor. Commercial establishments pass it on to consumers in product and service prices.

Generally speaking, interbank fees are not determined by a market process but are a price agreed upon between competitors or in other countries by large payment systems operated by Visa and MasterCard. Furthermore, there is no internationally accepted mechanism for determining interbank fees. For both reasons, interbank fees have generated a lot of interest from financial authorities and international competition. In the specific case of Mexico, issuer and acquirer banks determine a multilateral interbank fee such that the same fee scale applies to all banks. Such an arrangement avoids bilateral and discriminatory negotiation costs as all banks receive equal treatment.

In an effort to promote bank card payments and make them more efficient, in 2005, Banco de México proposed that the National Banking Association (ABM) establish a mechanism for determining more *competitive interbank fees* more in line with international practices. Thus, in that year, banks established a new mechanism for determining these *fees* with the following features:

- a) They are based on the type of business whereas previously they were based exclusively on the sales volume of the business undertaking the

transaction. This scheme discriminated against small businesses and discouraged card acceptance.

- b) Current debit card interbank fees are below those corresponding to credit cards. Prior to these adjustments, the former were higher than the latter and thus did not reflect cost structures and generated a bias against debit card payments.

As a result of these measures, interbank fees decreased significantly. For credit card transactions, the weighted average interbank fee fell from 2.4% in 2004 to 1.84% in 2006. In the case of debit cards, in addition to a big overall reduction, banks established a maximum interbank fee of \$13.50. As a result, the weighted average fee for debit card transactions went from 2.60% in 2004 to 0.78% in 2006. For more information on interbank fees established by banks, see Table 5 of Annex 1.

In order to continue to promote the use of more efficient payment media, Banco de México periodically reviews the calculation mechanism and *interbank fee* level. The central bank has also requested banks to publish discount rates on their web pages. Banco de México also publishes *interbank fees and discount rates* on its web page:

<http://www.banxico.org.mx/sistemas-de-pago/servicios/tarifas-comisiones-maximas-en.html>

Annex 1

Table 1
Maximum discount rates for debit card transactions
(May 2006)

Business type	Afirme	Bajío	Banamex	Bancomer	Banorte	HSBC	Inbursa	Santander	Scotiabank
Charities	1.40%	0.00%	0.00%	0.00%	\$2.50	0.60%	0.00%	0.00%	1.51%
Gas stations	1.10%	2.50%	0.80%	0.80%	0.85%	0.95%	0.90%	1.50%	1.96%
Colleges and universities	2.00%	4.80%	1.30%	1.35%	1.95%	1.30%	1.35%	2.00%	2.80%
Government									2.61%
Department stores	\$4.00	\$0.90	\$3.50	\$4.90	\$4.00	Doesn't participate	\$4.00	\$4.00	Doesn't participate
Fast food	2.50%	5.00%	1.45%	1.35%	2.45%	2.50%	2.00%	2.50%	2.25%
Pharmacies	2.95%	4.80%	1.60%	1.60%	2.20%				2.97%
Toll roads	2.80%				2.70%				2.57%
Parking lots						2.50%			2.98%
Supermarkets	2.75%	5.03%	1.80%	1.70%	2.30%	2.25%	2.00%	2.50%	3.01%
Passenger land transport			1.60%		3.00%				
Car rental			1.50%		Doesn't participate				
Travel agencies			1.60%		2.96%				
Lodging					3.01%				
Entertainment	2.00%	0.75%	1.05%	1.35%	1.90%			2.05%	2.61%
Air transport	2.60%	5.50%	1.65%	1.75%	2.35%	2.80%	2.00%	2.50%	2.99%
Telecommunications	2.05%		3.11%						
Insurance companies	2.70%		1.90%		2.91%				
Hospitals	2.00%		2.86%						
Restaurants	2.95%		2.15%		2.65%				3.50%
Retail sales									
Other									

Table 2
Maximum discount rates for credit card transactions
(May 2006)

Business type	Afirme	Bajío	Banamex	Bancomer	Banorte	HSBC	Inbursa	Santander	Scotiabank
Charities	1.40%	0.00%	0.00%	0.00%	\$2.50	1.00%	0.00%	0.00%	1.51%
Gas stations	1.50%	2.50%	1.25%	1.25%	1.25%	1.40%	1.30%	2.10%	1.96%
Colleges and universities	2.65%	4.80%	1.80%	1.85%	2.25%	1.95%	1.80%	2.50%	3.17%
Government									2.70%
Department stores	2.80%	1.75%	2.05%	2.35%	2.75%	3.50%	2.50%	3.25%	Doesn't participate
Fast food	2.85%	5.00%	2.20%		3.25%				2.97%
Pharmacies		4.80%	2.30%		2.75%				Doesn't participate
Toll roads	3.50%				2.30%				
Parking lots		3.00%	5.03%	2.50%		2.40%	3.00%	3.10%	2.50%
Supermarkets	2.40%			Doesn't participate					
Passenger land transport	2.30%				3.01%				
Car rental				2.30%	Doesn't participate				
Travel agencies	2.30%						2.96%		
Hotels				1.80%	2.25%		3.04%		
Entertainment	1.80%						2.25%		
Air transport				1.80%	2.25%				
Telecommunications	3.50%	5.50%	2.00%			2.55%	2.95%	3.80%	3.30%
Insurance companies			2.85%	3.11%					
Hospitals			2.50%	2.91%					
Restaurants			2.95%	2.95%	3.25%		2.86%		
Retail sales					2.95%		2.95%		
Other			2.95%	2.95%					

Table 3
Maximum discount rates for debit cards
(February 2007)

Business type	Maximum discount rates											
	Afirme	Azteca	Bajío	Banamex	Bancomer	Banjercito	Banorte	HSBC	Inbursa	Santander	Scotiabank	
Charities	1.40%	0%	2.00%	0%	0%	Doesn't participate	\$2.50*	0.60%	0%	0%	1.51%	
Gas stations	1.10%	1.50%	2.70%	0.80%	0.80%		0.85%	0.95%	0.90%	0.95%	1.96%	
Colleges and universities	2.00%	1.80%	4.80%	1.30%	1.30%		1.95%	1.45%	1.35%	1.45%	2.80%	
Government			3.25%			1.50%				2.61%		
Department stores	\$4.00*	Doesn't participate	Doesn't participate	\$3.50*	\$4.00*	Doesn't participate	\$4.00*	\$1.40*	\$4.00*	Doesn't participate	Doesn't participate	
Fast food	2.50%	2.50%	4.80%	1.45%	1.40%	4.00%	2.45%	2.00%	2.00%	2.25%	2.51%	
Pharmacies	2.95%			1.60%	1.60%		2.20%	2.15%		1.95%	2.97%	
Toll roads	2.80%		Doesn't participate	1.80%	1.70%	Doesn't participate	2.70%	2.50%		Doesn't participate	2.57%	
Parking lots		2.15%								2.98%		
Supermarkets	2.75%	2.70%	Doesn't participate	1.60%	1.70%	3.50%	2.50%	2.15%		2.20%	3.01%	
Passenger land transport										2.10%		
Car rental										3.48%	Doesn't participate	3.00%
Travel agencies										4.80%	2.30%	2.25%
Lodging	2.00%	2.80%	Doesn't participate	1.50%	1.60%	4.95%	2.30%	2.25%		2.10%	2.96%	
Entertainment				1.60%	1.70%	6.00%				3.01%		
Air transport				2.00%	1.05%	1.10%			4.80%	1.90%	1.00%	1.40%
Telecommunications	2.60%	2.80%	4.80%	1.65%	1.75%	Doesn't participate	2.35%	1.60%	2.20%	2.99%		
Insurance companies	2.70%			2.05%			2.25%		2.00%	3.11%		
Hospitals				1.90%	5.08%	2.20%	2.91%					
Restaurants	2.00%			5.84%	2.25%	2.86%						
Retail sales	2.95%	Doesn't participate	2.15%	1.75%	6.20%	2.65%	2.80%	2.40%	3.50%			
Other								6.00%				

* The discount rate fee is a fixed per transaction amount in pesos.

Table 4
Maximum discount rates for credit card transactions
(February 2007)

Business type	Maximum discount rates										
	Afirme	Azteca	Bajo	Banamex	Bancomer	Banjercito	Banorte	HSBC	Inbursa	Santander	Scotiabank
Charities	1.40%	0%	2.00%	0%	0%	Doesn't participate	\$2.50*	1.00%	0%	0%	1.51%
Gas stations	1.50%	1.50%	2.70%	1.25%	1.25%		1.25%	1.40%	1.30%	1.80%	1.96%
Colleges and universities	2.65%	1.80%	4.80%	1.80%	1.80%		2.25%	1.95%	1.80%	1.95%	2.80%
Government		1.80%	3.25%	1.80%	1.80%	1.75%	1.80%	2.00%	2.61%		
Department stores	2.80%	Doesn't participate	Doesn't participate	2.05%	2.35%	Doesn't participate	2.75%	2.50%	2.50%	Doesn't participate	Doesn't participate
Fast food	2.85%	2.50%	4.80%	2.20%		2.35%	3.25%	3.00%		3.25%	2.51%
Pharmacies	3.50%		Doesn't participate	2.30%	2.50%	4.00%	2.75%	2.95%		2.95%	2.97%
Toll roads						Doesn't participate	3.25%	3.50%		Doesn't participate	2.57%
Parking lots	3.00%	2.70%	3.48%	2.40%	2.40%	Doesn't participate	2.80%	3.10%		2.95%	2.98%
Supermarkets										2.50%	2.40%
Passenger land transport	3.00%	2.70%	4.80%	2.30%	2.40%	Doesn't participate	2.80%	3.10%		2.70%	3.00%
Car rental										2.90%	3.00%
Travel agencies										2.95%	Doesn't participate
Lodging	3.00%	2.70%	4.80%	2.30%	2.30%	4.95%	6.00%	3.10%		3.00%	3.01%
Entertainment									2.40%	2.61%	
Air transport	3.50%	2.80%	Doesn't participate	2.25%	2.25%	4.80%	2.40%	2.25%	2.40%	2.61%	
Telecommunication				2.00%	2.00%	Doesn't participate	2.95%	2.95%	2.99%		
Insurance companies	3.50%	2.80%	4.80%	2.50%	2.50%	Doesn't participate	2.85%	2.55%	2.50%	2.90%	3.11%
Hospitals										3.10%	2.91%
Restaurants										3.15%	2.86%
Retail sales	3.50%	Doesn't participate	2.95%	2.80%	2.80%	6.20%	3.25%	3.80%	2.50%	3.20%	3.50%
Other										6.00%	

* The discount rate fee is a fixed per transaction amount in pesos.

Table 5
Current interbank fees
(February 2007)

Business type	Debit card	Credit card
Charities	0%	0%
Gas stations	0.50%	1.10%
Colleges and universities	0.75%	1.25%
Government		
Department stores	\$0.90	1.75%
Fast food	0.75%	
Pharmacies	1.00%	
Toll roads		
Parking lots		
Supermarkets	1.10%	1.80%
Passenger land transport		
Car rental		
Travel agencies		
Lodging		
Entertainment		
Air transport	0.75%	
Telecommunications	1.15%	1.95%
Insurance companies		
Hospitals		
Restaurants		
Retail sales		
Other		