Benefits of Open Payment Systems and the Role of Interchange
At MasterCard Worldwide, we take great pride in the many ways we advance commerce. From the millions of consumers and businesses around the world who rely on our cards on a daily basis, to the retailers who accept them and institutions that issue them, it’s clear that the products and services we offer deliver extraordinary value.

With demand for fast, convenient and safe payment alternatives rapidly accelerating, commerce is increasingly driven by blips on a screen, numbers punched on a keyboard, cards swiped through electronic readers and chip-activated cell phones. In fact, our products and services are so ingrained in everyday life that the value we deliver is all too often taken for granted.

Perhaps the easiest way to grasp the true value of electronic payments is to envision a world without them. Clearly, if electronic payments came to a sudden halt, many facets of commerce—travel, trade and the Internet just to name a few—would face dire consequences. While cash and checks still have their place, they lack the speed, convenience and safety required by consumers, businesses and governments in today’s fast-paced, ever-shrinking world.

To be sure, the widespread use of electronic payments and the sophisticated networks that seamlessly link millions of consumers, merchants and financial institutions around the globe are at the heart of commerce. Their importance is clear not only in industrialized nations, but in emerging markets as well, where we are making inroads in building a bridge to the modern economy.

Of course, like any valuable service, electronic payment systems do have costs associated with them. One of those costs is interchange, a relatively small fee paid to card issuers by card acquirers. Interchange covers a portion of the many expenses issuers incur to create the benefits merchants enjoy when they accept payment cards. Interchange plays a vital role in balancing the needs of consumers and merchants, allowing for all parties to receive the highest value and benefits at the lowest costs. Indeed, the balance made possible by interchange fees drives down costs to consumers and enables merchants to obtain the benefits of card acceptance at costs far below those they would incur if they operated their own systems—all while achieving maximum card issuance, usage and acceptance in a fiercely competitive marketplace.

Yet, the benefits of our payment system and the important role of interchange often go unnoticed or are misunderstood. Few, if any, ever stop to consider the vast and complex systems that allow all transactions—whether local or across borders—to occur seamlessly and within seconds. Think about it. These systems allow cardholders from Des Moines, Iowa, to use their cards at restaurants, hotels and stores in Dubai, for example, with the same ease and convenience they experience at their local grocery store. It’s those very systems that allow people to travel with peace of mind, knowing they don’t have to carry around large sums of cash. Those same systems streamline the checkout process for consumers and merchants alike.

As both developed and emerging societies reap the benefits of electronic payments, MasterCard will continue to lead the payments revolution. We remain committed to delivering value to each of our constituents by offering payment alternatives that meet their unique and growing needs. At the same time, we will continue advancing commerce in markets around the world.

Robert W. Selander
President and Chief Executive Officer, MasterCard Worldwide
Since their establishment in the 1960s, open payment systems or, as they are often called, “four-party payment systems” have delivered immense benefits to all constituents in the payments chain. These constituents include consumers, merchants, and financial institutions. Increasingly, four-party payment systems are becoming four-party “plus” systems, as other organizations—including retailers with co-branded cards, universities, unions with affinity cards, and a range of specialist processors—participate in the value chain. These companies partner with our financial institution customers to deliver value to consumers and merchants. Yet, while providing more convenience and value than ever, open payment systems are under assault by some merchants and regulators decrying acceptance costs.

Critics focus on interchange fees payable between MasterCard Worldwide’s customers on the acceptance and issuance (or spend) sides of the network. MasterCard and other payment networks use interchange to balance the acceptance and spend sides of the network and ultimately maximize transactions. For purchases, interchange is a component of merchant acceptance fees. Consumers benefit when merchants pay their fair share of operating the system.

The interchange dispute is essentially about some merchants seeking to use the political arena to try to obtain lower fees than a competitive marketplace brings.

This brochure was produced to dispel some common misconceptions about open, general-purpose payment networks and the role of interchange.

### THE EVOLUTION OF ELECTRONIC PAYMENT SYSTEMS

While cash payment systems go back thousands of years and paper-check payments go back centuries, electronic payments are relatively new and rapidly evolving. The timeline below highlights their evolution.

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<th>1920s</th>
<th>1949</th>
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<td>A group of merchants issue payment cards directly to retail customers, creating a simple two-party payment model to increase sales by offering credit and convenience at the point of purchase.</td>
<td>According to industry legend, the idea of payment cards that could be accepted by numerous merchants was inspired at a luncheon in New York when the host, Frank McNamara, found himself short on cash and unable to settle the bill.</td>
<td>Under a three-party system—which refers to consumers, merchants, and the entity that takes on the role of card issuers and acquirers—Diners Club issued the first “universal” payment card. American Express followed suit eight years later.</td>
<td>Two groups of banks formed so-called “four-party” payment card systems, thereby further expanding consumer choice in payment options. One ultimately became MasterCard; the other, Visa.</td>
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**TODAY**

Today, open, four-party systems enable global retail commerce on an unprecedented scale. These systems now enable any bank, anywhere in the world, to link its customers (cardholders or merchants) with those of any other bank to transact business via payment cards almost instantaneously. These systems also drive increased revenues for merchants.
What is an interchange fee?

An interchange fee is a small fee typically paid by an acquirer to an issuer for a card purchase transaction. This fee partially reimburses issuers for activities they perform, enabling transactions and delivering major benefits to merchants and consumers. The interchange fee is retained by the issuer, not the network. For example, in the MasterCard network, card issuers—not MasterCard—receive the interchange fees.

What’s the difference between two-, three-, and four-party payment systems?

IN A TWO-PARTY SYSTEM...
The merchant issues the cards and also manages and funds the systems and processing aspects of card acceptance.

IN A THREE-PARTY SYSTEM...
In three-party systems, such as the traditional models of American Express and Discover, a single firm issues payment cards, manages the network, and provides merchant card acceptance. Increasingly, three-party (or closed-loop) payment networks are adopting a more open model like that of MasterCard, Visa, and STAR.

The interchange fee is retained by the issuer, not the network. For example, in the MasterCard network, card issuers—not MasterCard—keep the interchange fees.
IN FOUR-PARTY SYSTEMS...

The MasterCard system is a four-party system. Under this system, MasterCard does not issue payment cards or contract with merchants to accept MasterCard cards; rather, our 25,000 financial institution customers perform those tasks. MasterCard owns a family of payment brands, and we license our customers (issuers and acquirers) to use them. We manage a highly sophisticated global payments and processing system, enabling thousands of our customers worldwide to deliver payment products and maximize payment transactions.

The merchant pays the merchant service charge to the acquirer, the financial institution that has contracted with the merchant to accept cards. However, a substantial portion of the benefits the merchant receives comes from the value of the network and services performed by a different bank—namely, the issuing bank. For example, the issuing bank extends credit to a consumer, which enables the sale, and the issuer assumes the risks of nonpayment. As a result, the merchant gets paid even if the issuer does not. To partially compensate the issuer for this imbalance, the acquirer pays the issuer the interchange fee, helping defray grace periods, processing costs, and fraud and credit losses. The interchange fee only covers a portion of the costs incurred by the issuer, a point frequently lost in the debate over interchange.

How are interchange fees established?

Each four-party system establishes a “default” interchange fee. A default fee is necessary because there are tens of thousands of issuing and acquiring financial institutions participating in the systems. Working out separate agreements among thousands of participants would be inefficient and woefully impractical. That said, issuers and acquirers are free to establish their own terms of exchange: their own bilateral interchange fee agreements.

In establishing interchange fees, a balance must be achieved between the needs of cardholders and those of merchants. If interchange fees are too high, merchants will not accept cards. If the fees are too low, there will be little in the way of benefits for consumers (such as grace periods and fraud protection) on the spend side of the network. By incenting issuance, spend and acceptance, the goal is to enhance system value for all constituents, thereby maximizing card-payment transactions.

Interchange fees are set in a highly competitive environment, in which cardholders and merchants are free to choose among a wide variety of payment cards and networks. No one forces merchants to accept any payment product. When they accept cards, they choose to do so because they benefit.

Fees vary as each payment system attempts to arrive at an optimum balance. Lower fees have been set for supermarkets, utilities, and convenience stores to encourage acceptance. In 2007, MasterCard capped interchange fees on petroleum sales, due to concerns that rising gas prices were disproportionately affecting the use of payment cards at gas stations.
How do consumers benefit?

Every day, consumers around the world benefit from four-party payment systems.

**Convenience:** Credit, debit, and prepaid payment products make it easier to access funds and pay for goods and services. As cards are accepted by more and more merchants, consumers can use them for buying virtually anything, from everyday items at convenience stores to emergency expenditures and services like medical care or car repairs. Consumers do not have to visit an ATM before making these purchases, and they can speed through checkout lines without the hassle of counting cash or writing checks. Payment cards give consumers the peace of mind of not having to worry about having enough cash to make critical and timely purchases.

**Safety:** Not only are cards more convenient than cash; they are more secure. A cardholder’s liability resulting from a lost or stolen card is limited. Indeed, many network brands, including MasterCard and Visa, generally offer “zero liability” protection for unauthorized use. Moreover, consumers may carry instant access to thousands of dollars in revolving credit, demand deposit accounts, and overdrafts in their wallets without worry—few would carry a comparable amount of cash.

**Access to Credit:** Credit cards enable qualifying consumers to obtain unsecured lines of credit with relative ease. Revolving credit lines can be used over and over for years to come, without consumers ever having to apply for credit again.

**Grace Periods:** Credit cards generally provide a grace period before payment is due. As such, the cardholder essentially gets an interest-free loan for some period of time, between the time the purchase is made and the time the cardholder actually has to make the payment to the card issuing bank.

**Online Functionality:** MasterCard payment products can be used for Internet purchases. With an increasing number of consumers pressed for time, payment products enable consumers to shop online—whenever and wherever they want.

**Better Record Keeping:** Cardholders receive convenient, detailed statements of payment activity. These statements allow cardholders to review transactions, manage their expenses, and retain transaction records.

**Participation in the Global Economy:** Because four-party payment systems link financial institutions and their customers worldwide, they enable consumers to shop and spend just about everywhere. A consumer with a card issued by a credit union in Baltimore, for example, can make an online purchase from a merchant in Hong Kong without ever leaving home—and he or she can use the same card to purchase an airline ticket, fly to Hong Kong, and make the purchase in person without any cash in his or her pocket. Payment cards have rendered cash and travelers checks unnecessary for millions of travelers.

**Consumer Choice:** Thousands of financial institutions worldwide issue cards through four-party payment systems, spurring intense issuer competition and innovation. Consumers consequently can choose from thousands of debit, credit, and prepaid payment products.

**Innovation:** Interchange helps fuel issuer innovation: healthcare payment cards, a bounty of credit and increasingly debit rewards, a host of co-branded retailer cards, and prepaid products bringing access to electronic payments to the un-banked. From “tap and go” cards such as PayPass™ to mobile phones and the Internet, product innovations are making payments faster, easier, and more secure, meeting the ever-changing needs of today’s “on the go” consumers.

**Rewards:** By using their cards to make purchases, many consumers receive additional value through rewards or incentives, such as “cash back,” college savings or frequent flier miles, offered by the card issuer. Affinity cards also allow consumers to make donations to a favorite charity, college or other cause.
How do merchants benefit?

The short answer is that merchants receive all the value of card acceptance at costs below those they would incur if they operated their own programs. In addition, payment cards drive greater revenues for merchants.

In the 1920s, merchants developed their own two-party payment card systems to drive profitability by offering customers a convenient form of payment at the point of sale. While the concept worked, the two-party paradigm, where merchants issued cards directly to their customers, proved to be inefficient because every merchant was forced to create, administer, and bear the costs and risks associated with their own program. Merchants also learned the challenges of trying to collect credit payments from the very same customers to whom they were selling goods and/or services. Merchant demand for the benefits of payment card acceptance, combined with the costs and challenges of operating their own systems, created entry opportunities for other providers. The two-party payment systems presented challenges on many levels and offered few advantages to consumers.

Clearly, one of the most important benefits to merchants is guaranteed payment the instant the transaction takes place. In four-party systems, merchants need not worry about billing or collection processes—all of that is handled by the card issuer. MasterCard’s open payment system enables merchants to focus on running their businesses and avoid the costs and risks of developing and operating their own payment systems.

The costs and risks merchants avoid by not managing their own systems include:

**Funding Costs:** When a merchant accepts a MasterCard-branded card for payment, the transaction is electronically sent to the merchant’s acquirer, which transmits the transaction through MasterCard to the card issuer that has a relationship with the cardholder. The issuer then pays the acquirer through the MasterCard settlement process.

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**GOVERNMENT STUDIES CITE BENEFITS OF PAYMENT SYSTEMS**

Two government studies help illustrate the cost savings that can be derived by switching from cash to card payments.

Several years ago, the Government Accountability Office (GAO) cited a study commissioned by the U.S. Postal Service (USPS) and performed by Coopers and Lybrand, which indicated that, at full implementation, the USPS’s costs to process payment card transactions would be half the cost of processing cash or checks. At the time, the USPS spent $1 billion annually to handle cash. Therefore, card acceptance would have saved the USPS $500 million a year over cash acceptance alone (not counting reduced costs compared to check acceptance).  

More recently, the GAO surveyed federal agencies regarding the benefits of card acceptance. Federal agencies reported to the GAO that “accepting cards reduced the amount spent on processing other forms of payment,” and that by accepting payment cards, they “incurred less expense in transporting cash, lower losses from theft of cash, and had fewer bad check expenses.” The GAO also stated that “many [federal] officials cited that card acceptance improved internal operations at their entities.”
In a four-party system, card issuers bear the credit risk. The merchant gets paid regardless of whether the issuer ever gets paid by the cardholder. If merchants ran their own programs, they would have to bear these costs themselves.

**Credit Losses:** These are always significant costs of operating credit card programs. Indeed, according to the Federal Reserve, as of second quarter 2008, credit card charge-offs are approximately 6.06% of outstanding balances. If merchants ran their own card programs, this would be a cost they would have to bear on their own. In a four-party system, card issuers bear the credit risk. The merchant that properly processes transactions gets paid regardless of whether the card issuer ever gets paid by the cardholder.

**Billing/Collection:** The billing/collection process involves significant costs, including systems to manage receivables, Demand Deposit Accounts and prepaid balances; receive and post payments; assess fees; track cardholder activity, and generate and deliver statements each month. Also, collection and recovery systems are needed for cardholders who pay late or default on their payments.

**Customer Service:** At the very least, issuers need representatives available at branches and by phone, as well as electronic and Interactive Voice Response access to handle inquiries about statements, payments, collections, card usage, and lost/stolen cards. In today’s environment, cardholders demand access 24/7.

**Fraud Prevention and Losses:** Credit card issuance involves certain fraud risk. Losses can arise from several things, including merchant data breaches, lost/stolen payment cards, or sophisticated criminal enterprises. Although fraud within the major four-party systems is relatively low as a percentage of volume, the cost of fraud as well as the increasingly sophisticated fraud detection and prevention tools is significant.

**Data Processing:** Card issuers must possess or arrange for data processing services to handle payment authorization, clearing and settlement, maintenance of cardholder account histories, billings, payments, and a myriad of other functions. Many large card issuers and processors have some of the most sophisticated commercial processing capabilities in the world. Designing, operating, and upgrading these capabilities (or hiring a third party to provide them) are costly.

**Compliance:** The business of operating a payment card program—whether credit, debit, or prepaid—is highly regulated. And the business of lending money is highly regulated. Issuers are governed by a substantial body of laws around the world at local and national levels that impose significant compliance costs. Merchants reap the benefits of card acceptance but avoid having to adopt and operate the extensive compliance programs necessary to comply with these regulations.

**Account Acquisition:** Successful card programs need origination systems to acquire new cardholders. These include multiple-channel direct marketing systems enabling direct mail; affinity and retailer partners; branch, Internet, and phone campaigns; credit underwriting; regulatory compliance; and card production, personalization, and mailing. All of these entail costs. The more successful card issuers are in attracting, retaining and encouraging utilization by cardholders, the greater the revenue potential for merchants who accept cards.
Payment cards also drive revenues for merchants: Electronic payments are being increasingly used and can augment sales (and shorten lines) at convenience stores, grocery stores, and quick-pay environments. Consumers can make purchases even when they don’t have sufficient cash on hand. This is particularly useful in emergency situations when large-ticket items, like appliances and electronics, need to be replaced, as well as for unplanned purchases arising from store sales or other incentives.

Innovations, such as PayPass™, speed up checkout lines, especially useful during peak shopping periods—and particularly important for merchant segments where speed is critical, such as quick-service restaurants, concession stands, and transit.

Importantly, four-party systems enable merchants to participate in global commerce as never before. Internet retailers can now do business with billions of cardholders worldwide. Open payment systems such as MasterCard enable, and are the primary means of, payments online worldwide. Similarly, MasterCard and competing payment systems are the principal means of payment—and many times the only means—for mail and telephone order businesses.

Merchants who accept MasterCard payment products also benefit by reducing costs associated with handling other forms of payment, including bounced checks, check verification and guarantee services, and check processing. This is also true for cash handling: collecting, counting, transporting, and theft. These costs can be quite significant when compared to the costs and benefits of accepting cards.

The open, global network of thousands of issuing and acquiring financial institutions and their suppliers and partners creates enormous value for merchants. Merchants obtain all the benefits they seek from card acceptance without the burden of operating a card program. Of course, it is only appropriate for merchants to bear some costs for these benefits.

As electronic payments evolve, it is important to continue incentivizing innovation of payment card products on the issuing side of the business.

How does society benefit from four-party payment systems?

There are numerous advantages of four-party payment systems:

Financial inclusion: Prepaid or debit cards, such as payroll cards, are often the first access/entry of new consumers to the “formal” financial system.

Democratization of credit: Open general-purpose payment systems make expanded revolving credit available to virtually any creditworthy individual or business. Gone are the days when only the wealthy could obtain a card.

Better accounting: Improved record keeping benefits consumers and merchants, and helps with tax compliance and government efforts to control money laundering.

Government efficiency: The United States Federal Government has started distributing Social Security benefits using prepaid cards, targeting the nearly four million Social Security recipients who don’t have a bank account. This saves taxpayers millions of dollars over the current use of checks for these payments. In addition, the cards have value-add features and functionalities that checks can’t possibly have: recipients can make purchases and withdraw money from an ATM just as they would using a debit card; money on the card is FDIC-insured as a bank account would be; the card is replaced if lost or stolen; and the card comes with conveniences such as free email, text message or telephone deposit notifications, low-balance notifications and the ability to check your balance. At the same time, the Government Accountability Office has detailed the many benefits of enabling federal agencies of all kinds to accept payment cards.

Benefits of Open Payment Systems and the Role of Interchange - U.S. Version
Are interchange fees fair?

The card payment industry is vigorously competitive and becoming ever more so. In the United States—the world’s largest payments market—four commercial networks, namely American Express, Discover, MasterCard, and Visa, as well as national debit systems such as STAR and NYCE, PayPal, and others, compete. And network competition is increasing, with new entrants offering new and innovative services.

Interchange fees are the most transparent, efficient and fair way in which to reimburse issuers for the costs of fueling the payment system. Merchants worldwide choose to accept MasterCard and Visa for one simple reason—they obtain all the benefits of card acceptance, but at a cost far lower than if they operated their own systems. As a practical matter, for all but the largest merchants, operating their own payment systems would not be economically viable, much less desirable.

As an illustration, compare the average interchange rate in the major four-party systems to just one cost issuers bear: credit losses. In 2007, the average interchange rate in the MasterCard system in the U.S. was 1.82%. According to the Nilson Report, average credit losses for MasterCard credit card issuers, as a percentage of transaction volume, were 2.41%. This means that, on average, credit card issuers lose more on credit losses than they receive in interchange. As economic climates toughen, credit losses are appreciably higher. Yet some continue to attack interchange, contending it is a “hidden tax.”

This argument falls flat. Interchange fees are neither hidden nor a tax. They are updated, published and readily available to all merchants—from retail giants to local “mom and pop”-type shops. They are no more of a “tax” than any other cost of doing business, whether it be labor, rent, insurance, heat, electricity, or costs associated with bad checks or theft of cash.

To single out one cost of doing business and label it a “hidden tax” is misleading and inaccurate.

While many studies have sought to quantify the social costs and benefits of competing payment mechanisms, a recent study shows that payment cards have the lowest net societal cost, based on an “average” grocery store transaction of $54.24 and factoring in processing time, queue time, central bank processing activities, etc.

Why are interchange fees the source of legal and political debate with merchants?

Merchants would like to lower their costs. Interchange fees have become an issue because some merchants have decided to seek—through lawsuits and regulation—lower card-acceptance fees than they can obtain in the market.

The cost of accepting electronic payments is a cost of doing business for merchants—no different from labor, rent, insurance, heat or electricity costs.

Furthermore, the pivotal role interchange plays in balancing all network participants’ interests and maximizing value for consumers is often misunderstood. Consumers take the enormous benefits of credit, debit, and prepaid payment products for granted. Why wouldn’t they? Completely unaware of how interchange benefits them, they see no need to weigh into the public debate. Some merchants also take the systems’ benefits for granted—as such, they seek to reduce their acceptance costs by lobbying for interchange regulation and for the treatment of payment networks as public utilities. If the interchange system and management of the dynamic network balance are disrupted by government intervention, the benefits of payment convenience, safety, speed, and efficiency would be jeopardized for merchants and consumers.

**CASE IN POINT: AUSTRALIA**

A few years ago, the Reserve Bank of Australia (RBA) decided to reduce interchange by approximately 50% for the MasterCard and Visa systems in Australia. A recent study commissioned by MasterCard on the effects of the RBA’s intervention documented some troubling results. Merchants benefited from reduced costs of accepting cards while consumers paid the price. Cardholders in Australia now pay higher fees and rates for their cards and receive fewer benefits.

For example, Australian consumers are now paying 22% more in annual fees for standard credit cards, and as much as 77% more for rewards cards. There is no evidence that merchants passed their windfall on to consumers in the form of lower retail prices. In fact, the RBA itself has stated that there is no concrete evidence that merchants passed their cost savings to consumers.

**INDUSTRY MODELS**

Historically, all major general-purpose card payment networks except for American Express and Discover were bank-owned associations. However, over the years the industry has undergone tremendous change. Discover acquired Diners Club and the PIN-debit network Pulse, and MasterCard and Visa completed initial public offerings. In addition, U.S. PIN-debit networks such as STAR and NYCE are no longer bank associations but run as for-profit organizations. The industry is now occupied by commercial enterprises; as a result, innovation and competition continue to increase.
Competitive landscape

In most markets, merchant acquiring is fiercely competitive. Acquirers, merchant processors, and independent sales organizations are finding ways to profitably bring payment card acceptance to ever smaller, nontraditional merchants. This means merchants have ample choice.

The payments industry has never been more competitive, as the competitive landscape includes: MasterCard, Visa, American Express, Discover, PayPal, STAR, NYCE, Accel, China UnionPay, JCB, NETS, the Euro Alliance of Payment Schemes, Revolution Money, Tempo, and Amazon and Google’s e-wallets. Merchants are free to choose which payment products they want to accept, can encourage customers to use particular brands, and can offer discounts as an incentive for buyers to use other forms of payment, such as cash, checks or different payment cards or brands.

Interchange is meant to accomplish one goal: maximize the value received by merchants and consumers who choose to participate in the system. That means putting more cards in consumers’ hands and simultaneously incenting use and acceptance. Merchant actions testify loudly to the value they receive. In the last four decades, MasterCard acceptance has increased dramatically. Today, more than 25 million merchants accept MasterCard as a form of payment.

What would a world without interchange be like?

Credit, debit, and prepaid cardholders would pay higher fees; rewards and benefits would be trimmed or eliminated; issuer innovation would be curbed; and open card payment networks would be less competitive with other payment systems.

In conclusion

Open, four-party payment systems were developed because consumers, merchants and financial institutions around the world wanted greater access to payment card opportunities. Today, they enable large global banks and small financial institutions (credit unions and community banks) to offer their customers (consumers and merchants) the ability to transact with one another almost instantaneously, anywhere in the world. Interchange plays a vital role in balancing participation on both sides of the network, helping to partially reimburse issuers for services that enable acquirers to provide benefits to their merchant customers.

Setting interchange fees in a way that will maximize demand by both cardholders and merchants requires a delicate balance. If the balance is artificially disrupted through government intervention, the benefits of four-party systems—such as convenience, safety, speed and efficiency, just to name a few—would be jeopardized for everyone.
Endnotes


3 Ibid.

