

MasterCard International

**INDUSTRY
FACT
BOOK**



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VISA 20004563**

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INTRODUCTION

Welcome to the world of MasterCard®. You are part of a prestigious, dynamic organization that provides valuable products and services to members, merchants and cardholders worldwide.

This booklet is designed to give you an overview of MasterCard International Incorporated and the global bankcard industry. Terms that may be new to you have been highlighted and are described in the Glossary section.

MasterCard is a worldwide payment services franchise comprised of 29,000 member institutions. We do not issue cards, set card fees or determine **Annual Percentage Rates (APRs)**. We do not solicit merchants to accept the card or set their **discount rates**. These are the exclusive domains of our members.

Our role is threefold:

We are the managers of the MasterCard brand. Like a franchise, we create umbrella marketing programs to support the brand; we develop new products and services; and we set and enforce policy and rules surrounding use of the brand. The MasterCard brand is a promise of quality, and the mark associated with our brand — the interlocking circles — is the visual symbol of that promise. MasterCard is the most powerful financial services

brand in the United States and one of the top 100 brands worldwide, according to the 1990/Landor ImagePower™ Survey. Our mission is to make MasterCard the world's best consumer payment services franchise. We will do this by delivering more value to cardholders and merchants in partnership with our members.

Our second function is to establish standards and procedures under which acceptance and settlement of MasterCard transactions are conducted between MasterCard and its members on a global basis.

Our third function is to provide a communications network for our members, facilitating the electronic **authorization** of debit and credit card transactions, and the subsequent **clearing** and **settlement** that takes place between them. Member committees help to set the rules; MasterCard International provides the means. We also monitor compliance of members with the rules of **interchange**. In conjunction with local and federal authorities, we monitor and combat the fraudulent use of MasterCard products. In fact, we pride ourselves on being leaders in the areas of security and fraud prevention and control.

We hope you'll read this booklet carefully and then save it as a handy reference.



THE HISTORY OF MASTERCARD

To understand who we are, you need to know how we began. In the late 1940s, a number of U.S. banks started issuing their customers scrip that could be used like cash in local shops. The Franklin National Bank (New York) — now EAB (European American Bank) — formalized the practice by introducing the first modern credit card in 1951.

California-based Bank of America introduced the BankAmericard (now Visa) in 1960 and extended the idea throughout the United States by franchising a single bank in each major city as its local affiliate. The affiliates were responsible for signing contracts with merchants to accept cards as payment, as well as enrolling cardholders in their respective areas.

At this time, a group of enterprising U.S. bankers who were not "franchises" of BankAmericard decided to band together and create a network of their own, accepting one another's local credit cards. On August 16, 1966, the group formed an association — the **Interbank Card Association (ICA)** — to manage the interchange functions of authorization, clearing and settlement. To identify ICA members and accepting merchants, they created the "i" symbol, which was placed on all cards and at merchant locations.

Unlike BankAmericard, ICA was not dominated by a single bank, but rather was governed by a consensus of its member banks. Committees, backed up by staff, were established to govern and run the association. In addition to establishing the rules for authorization, clearing and settlement, ICA took on marketing, security and legal functions to protect the association brand mark.

ICA entered the international market in 1968, forming alliances first

in Mexico with Banco Nacional de México (Banamex) and soon after in continental Europe with Eurocard International. The first Japanese members also joined the association in 1968.

In 1969, ICA acquired the exclusive rights to the **Master Charge** name and the interlocking circles design for its members. Master Charge also signed its first Canadian member, The Bank of Montreal.

In 1973, computerization came to Master Charge with the development of **INAS**, designed as a central star like hub to connect electronically the **acquirer**, or **acquiring member**, to the **issuer**, or **issuing member**, by computer. This replaced the need for the acquirer and the issuer to communicate by telephone for authorizations. By 1974, the **magnetic stripe** was standardized internationally on cards. Also in that year, Access Ltd. became Master Charge's first member in the United Kingdom.

In 1975, Master Charge signed its first member on the African continent, Standard Chartered Bank of South Africa, and **INET** was implemented, providing the electronic exchange of clearing and settlement of interchange transactions among members. **INET** replaced the actual mailing of charge slips among members by automating the clearing and settlement of those slips.

In 1979, the name and trademark were changed from Master Charge to MasterCard to reflect the association's expansion beyond charge card services. The first Australian member also joined the association.

The 1980s continued MasterCard's drive to excel and expand through the development of new products and services. In 1981, **MasterCard Travelers Cheques** were intro-

duced, and in the United States we pioneered market segmentation with the introduction of the **Gold MasterCard Card** — aimed at more upscale consumers. Two years later, MasterCard was the first in the industry to introduce the laser **hologram** on its card as an anticounterfeiting feature. The **Emergency Card Replacement (ECR)** program was also instituted as an optional service that year.

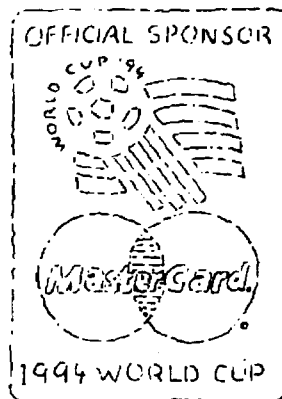
In 1984, MasterCard launched **Banknet**[®], our global **packet-switching network**, which enables 9.1 million card acceptance locations worldwide to authorize MasterCard transactions. At this time, INET was incorporated into the Banknet system and INAS was adapted on the system to transmit authorizations **peer-to-peer (PTP)**, or member to member. Also in 1984, **MAPP**[®] (**MasterCard Automated Point-of-Sale Program**) became fully operational in the United States, and, with plans for global expansion, it is now the industry's fastest growing authorization system in the United States.

New programs and services continued to expand. In 1985, following the success of affinity cards in Japan, the **Card Program Development Group** (formerly **D Plus**[®]) was created, and MasterCard again introduced a worldwide industry "first" with the **MasterCard BusinessCard**[®] Card. In that same year, MasterCard led the bankcard industry's anticounterfeiting and antifraud efforts by making the hologram mandatory on all MasterCard cards worldwide. In 1986, the **MasterAssist**[®] **Family of Services** was developed as optional enhancements on U.S.-issued Gold MasterCard cards, and the first MasterCard office in the Asia/Pacific region was opened in Hong Kong. In the following year,

MasterCard became the first payment card issued in the People's Republic of China, and international endpoints for Banknet were installed, offering members around the world the full range of Banknet services. Also in 1987, the Latin America regional office was opened in Miami.

In 1988, MasterCard acquired **CIRRUS**[®], the world's largest **automated teller machine (ATM)** network. **MasterCom**[®] was developed to electronically send images of sales slips between banks; and **MasterDebit**[®] — now **MasterCard Debit**[®] — was introduced in the United States. In addition, MasterCard purchased 15 percent of Eurocard International. The 20 millionth MasterCard card also was issued in the Asia/Pacific region, and the first MasterCard card was issued in the Soviet Union. Also in 1988, **MasterAssist** and **MasterPurchase** were introduced on all U.S.-issued Gold MasterCard cards, while the ECR program was mandated worldwide.

In the following year, the MasterCard ATM Network was launched, and MasterCard performed local settlement in Venezuela — the first time MasterCard handled the function outside of the United States. In



addition, the first regional board was created in Latin America; the Asia/Pacific Task Force was formed; and we began offering the MasterCard Card Processing Service (MCCPS) to members outside of the United States to help them start card issuing and acquiring programs quickly, at low cost, using a microcomputer.

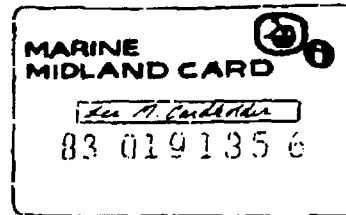
Our growth continued in 1990 as we launched our new red and yellow mark and served as the Official Card of the 1990 World Cup, capitalizing on the most watched sports event in the world to build brand awareness worldwide. In addition, CIRRUS combined with the MasterCard ATM Network to become the MasterCard/CIRRUS ATM Network, the largest ATM network in the world with cash access for MasterCard cardholders at over 50,000 locations around the world.

Also in 1990, MasterCom became a global service; an optional MasterAssist package was offered in the Asia/Pacific region for the first time; Master RoadAssist® was added to the U.S. MasterAssist Family of Services; and MasterPurchase was offered on all U.S.-issued MasterCard BusinessCard cards. In that same year, Banknet began handling local currency transactions in India and MasterCard announced plans to launch a global on-line debit program in 1991.

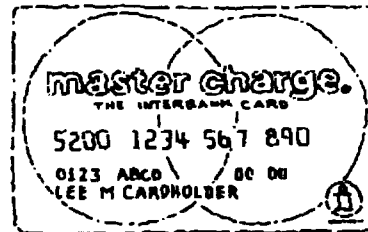
In March 1991, MasterCard launched Project Omni, a five-year, US\$65-million series of systems enhancements for Banknet, and announced its sponsorship of the 1994 World Cup, which includes sponsorship of 269 soccer matches between 1991 and 1994.

HOW THE CARD EVOLVED —

As the association has grown and expanded, the card's design has

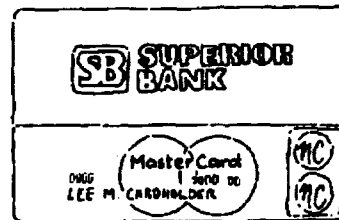


reflected those changes. Initially, members simply placed the "i" symbol on the cards that they issued. Their own logos were the most prominent symbols on the card. While this emphasized individual banks, it did not create the sense of a network.

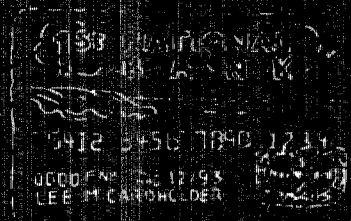


The introduction of Master Charge in 1969 brought with it a single image to identify the brand. Use of the Master Charge logo on the full face of the card became mandatory in 1970.

A decade of unprecedented growth followed, and Master Charge evolved into MasterCard in 1979, reflecting the growing spectrum of card-related services. With the brand mark well established, the association also decided that card issuers could use 25 percent of the card face for their own identification.



In 1984, card issuers were given 60 percent of the card face for their own identification. The 60/40 card reflected the members' decision that the brand mark was well-known enough to give more attention to individual issuers.



The 80/20 card, which gave members use of 80 percent of the card face and featured a hologram 2-1/2 times larger than its predecessor, was launched in 1987.



In February 1990, MasterCard introduced its current red and yellow mark and the 85/15 card, giving the brand improved consistency across all card products, as well as modernity and visual appeal. The new card design requires the global hologram to appear in the same place on every MasterCard card with the brand mark either directly above or below it. In addition, no other acceptance mark on the card can be larger than the MasterCard logo. Currently, for example, in a number of countries the MasterCard mark appears along with local acceptance marks, including: Union Credit, Diamond Credit, Kyodo Credit Service and Million Card in Japan, Credicard in Brazil, Argencard in Argentina, Access in the United Kingdom, CartaSi in Italy and Eurocard in continental

Europe, among others. Conversion of all 80/20 and 60/40 cards and merchant signage to the new mark will be completed worldwide by January 1, 1993.

As a membership association, MasterCard is structured to fulfill the marketing and operational functions of our members.

MasterCard is governed by a board of directors, elected annually by our member institutions around the world.

MasterCard is divided geographically into six regions: Asia/Pacific, Canada, Europe, Latin America, Middle East/Africa and the United States. Regional boards, which are responsible for creating the marketing and operations programs to meet their respective market needs within the framework of MasterCard's global standards, are currently in place in the Asia/Pacific, Canada, Latin America and Middle East/Africa regions. In addition, in 1990, the MasterCard Board of Directors approved the 1991 formation of the U.S. regional board, which is composed of the U.S. members of the MasterCard International Board of Directors. In Europe, licensing and marketing activities are handled by our partner, Eurocard International.

MasterCard also has an extensive network of marketing and operations committees comprising members from all regions. In addition, special advisory committees are formed on an as-needed basis to provide guidance on more specific issues such as fraud.

Membership is open to any national or international banking association, commercial bank or trust company, credit union, savings and loan

association, mutual savings bank or similar institution. Specific rules and limitations for membership are determined on a country-by-country basis, since banking structures vary around the world.

There are currently three categories of membership:

PRINCIPAL MEMBER

An institution that is a direct participant in the interchange system

ASSOCIATION MEMBER

A member that is controlled by, and formed to service, one or more financial institutions, and that processes credit card transactions on behalf of the group.

AFFILIATE MEMBER

A financial institution that participates indirectly in interchange via a principal or association member.

For a complete list of our principal members, consult the **Member Information Manual (MIM)**, which is circulated monthly to each MasterCard department and to the membership.

MASTERCARD ORGANIZATIONAL STRUCTURE —

Internally, MasterCard is segmented into a number of groups and departments that carry out the activities of the company:

The Office of the President oversees all staff activities, ensuring that the association follows the direction of its members. These activities include legal, planning, franchise management, electronic services and financial functions.

The Worldwide Planning and Development Group provides strategic planning, marketing and advertising support, and information services at a global level to all MasterCard regions.

Franchise Management is responsible for managing the MasterCard franchise in order to protect and build the value of the MasterCard trademark and brand worldwide, and to establish membership standards of performance. This includes the licensing of new members.

The Electronic Services Group handles the technical operations of MasterCard International. The group manages Banknet, INAS, INET, MasterCom, MAPP, **Remittance Processing Service (RPS)**, Project Omni, **Voice Authorization Service**, and other technical products and services. The group also includes Electronic Services Business Management (ESBM), which oversees the association's rules and policy, covering all interchange activities between members. ESBM also supervises the **Issuers Clearinghouse Service (ICS)**, risk management, security and fraud control, and the **Warning Bulletin (WB)** and **Restricted Card List (RCL)**, among other areas.

The Asia/Pacific region is headed by a regional president, who is based in Singapore. The regional headquarters, which was established in 1990, oversees the activities of four regional branch offices located in Tokyo, Hong Kong, Singapore and Sydney. Each branch office is handled by a general manager and provides member support services in the markets assigned. In addition, the region maintains a representative office in Beijing and retains a local consultant in New Delhi.

The Canada, Europe, Latin America and Middle East/Africa regions are headed up by the executive vice president of International and are supervised on a regional level by senior MasterCard staff. The MasterCard office in Miami oversees Latin America, while the Toronto office manages Canada.

The offices in the United Kingdom and Paris act as liaison offices with our European partner, Eurocard International. The Paris office also serves as the regional headquarters for the Middle East/Africa region.

The U.S. region is headed by a president who manages the regional headquarters in New York, as well as four regional offices in New York, San Francisco, Chicago and Atlanta. The region is in the process of integrating all U.S. activities, including: marketing, member relations, merchant relations, and product quality and development for all MasterCard card products in the United States. In addition, the region is responsible for a number of activities which it manages on behalf of other regions, including: the external and internal communications for the company; the development of enhancements to our products and services worldwide; and the supervision of brand identity and affinity and co-branded card programs worldwide.

The MasterCard Travelers Cheque division is responsible for global brand management and promotion of MasterCard Travelers Cheques. Under a 1991 accord, Thomas Cook administers travelers cheque refunds, processing and certain sales programs. The agreement between MasterCard and Thomas Cook integrates the travelers cheque activities of the two organizations. It also offers MasterCard cardholders travel assistance and emergency card services throughout Thomas Cook's 120-nation, 1,600-office network.

Debit Card Services provides a liaison with CIRRUS System, Inc., a wholly-owned subsidiary of MasterCard International. The group also administers the MasterCard/CIRRUS ATM

Network, and offers the MasterCard Debit programs to U.S. members.

Human Resources handles internal employee training and benefits, and oversees MasterCard University, an education/training program designed to help keep members and employees worldwide informed about MasterCard and the industry so they can operate effectively and efficiently.

REVENUE SOURCES —

As a not-for-profit association of members, MasterCard's resources directly support the success of its products and services. The most significant percentage of MasterCard's income is from assessments on members for use of the MasterCard mark. The assessments, which are reviewed and set annually, vary from region to region, and are based on each issuer's and acquirer's volume of MasterCard sales. Therefore, the more cardholders use their MasterCard cards, the more revenue there is to promote and protect MasterCard products and services.

Most of the remaining income is from operational service fees. These fees are charged on a per-transaction basis for services, including authorization, settlement and the listing of revoked cards in the *Warning Bulletin or Restricted Card List*.

THE PROCESS

The card itself offers a lot of information, along with many built-in security features.

The actual card is made of three distinct layers: a PVC core stock (white plastic) sandwiched between two clear laminate layers. Before the card is laminated, MasterCard allows issuers to print information on it. Embossed on the front is the **optical character recognition (OCR)** line, the valid-date line and the name line. The front also identifies the bank or affinity program of its issuer. The back features information such as customer service and lost/stolen directions for the cardholder, as well as the magnetic stripe and the signature panel.

In addition, MasterCard has its own requirements about what goes on the card, when and how the logo can be used, what colors are allowed, and so on. Each of the over 70 certified card manufacturers worldwide adheres to these specifications.

Account number line is where the cardholder's **account number** is embossed onto the card in an OCR 7B font. This number is imprinted onto the sales slip at the **point of sale (POS)**. The first two digits indicate which kind of card it is, e.g., MasterCard account numbers always start with a 51-55, while Visa's always begin with a 4. Actual **bank identification numbers (BINs)**, also known as **prefix ranges**, are assigned by the **International Organization for Standardization (IOS)**, headquartered in Switzerland.

Valid date line shows the expiration date of the card and often the starting date as well. In addition, it includes the issuer's **ICA number**. If the first digit is 1, 2 or 3, it is a MasterCard Standard Card or MasterCard BusinessCard card. When the first digit of the ICA number is 6, 7 or 8, the card is a Gold MasterCard card.

Third line can be used for the cardholder or a company name.

Fourth line is used for a cardholder name if the third line is used for a company name. A company name, a second cardholder name or any other identifying information, such as "member since," affinity or co-brand name, and so on, may also go here.

Magnetic stripe has two or three tracks that can be read by electronic devices. Tracks one and two can be read by a POS terminal that connects the merchant into a communications network such as Banknet, while track three is for ATM or **private POS network** use. In some countries—e.g., Japan and Korea—the magnetic stripe is found on both sides of the card.

Hologram is on the front of the card. Because the last several digits of a cardholder's account number are printed on the hologram, the card is very difficult to reproduce or alter. MasterCard was the first in the bankcard industry to use this as a security device.

Signature panel is specially printed as an added security feature to show any attempt to erase the information.

Optional security features

MasterCard has developed optional security features to help prevent cards from being fraudulently **altered** in the embossing and the magnetic stripe areas, including a uniquely embossed security character, two card validation codes and indent printing of the account number. Members who use all of these features together are offered additional insurance coverage against magnetic stripe fraud.

HOW BANKCARDS WORK —

The processes of authorization, clearing and settlement involve the cardholder and the merchant, as well as their respective issuers and acquirers. Thanks to Banknet, one of the world's largest and most sophisticated packet-switching systems handling electronic authorization and settlement, the authorization of international transactions takes only a few seconds. In addition, Banknet handles local currency settlement in India, Indonesia, Malaysia, the United States and Venezuela. There is a high level of reliability in the system, and, in fact, Banknet experiences virtually a 99.999 percent **uptime**.

THE PROCESS —

So how does it all work? A cardholder presents the card to a merchant at the point of sale. Upon presentation of the card, the merchant is required to ensure that the cardholder's account is in good standing. This is accomplished with an authorization or through the use of either the *Restricted Card List* or the published *Warning Bulletin*, which provides merchants with updated lists of cards that have been lost, stolen or abused.

Each category of merchant is assigned a specific **floor limit**, which is a transaction amount above which authorization by the issuer must be

obtained. Floor limits and merchant categories vary from country to country. If, at the time the card is presented, the purchase amount is under the floor limit, the merchant must check the expiration date on the card and the *Warning Bulletin* to confirm that the account is not listed. If it is not listed, the transaction is considered approved. If a transaction is over the floor limit and the merchant is **off-line** and doesn't have a **POS terminal**, the authorization can be made by phone to a voice center at the merchant bank connected to Banknet. If necessary, the authorization can be made by telex.

If the transaction is over the floor limit and the merchant is **on-line** to its merchant bank and utilizes a POS terminal (usually merchants with POS devices have a **zero floor limit**), the merchant swipes the card's magnetic stripe through the terminal and keys in the purchase amount. The merchant — or Banknet — will then contact the issuer for an authorization. The authorization transaction (including account number, expiration date and amount from the POS terminal) is routed to the acquiring member's computer system or directly into Banknet. The first few digits of the account number — the **BIN** — identify the issuer, and Banknet routes the **authorization request** to the issuer for approval. The issuing member checks the card number and amount with its records, verifies the available **credit or spending line**, performs some security checks to guard against possible fraud or illegal use of the card, and sends back a response (approval, denial, etc.) number to the merchant. The whole process takes about 2.5 seconds from the time the merchant connects into Banknet until the authorization response is received.

If, for some reason, the authorization request cannot reach the issuing member, the request will be sent to the **stand-in processor** at the MasterCard central site in St. Louis, which maintains **negative files**. These alternate facilities "stand in" for the member, approve or decline the authorization under preassigned issuer parameters, and then transmit a record of the transaction to the member when its processor is available. If the issuer and the acquirer are one and the same, the transaction is considered an **on-us transaction**. It is not necessary for these transactions to be routed to Banknet.

Once the transaction is authorized, the cardholder signs the sales slip (which represents a promise to pay at a later date) and takes the merchandise. This represents the end of the authorization process and marks the beginning of the clearing and settlement process.

CLEARING AND SETTLEMENT —

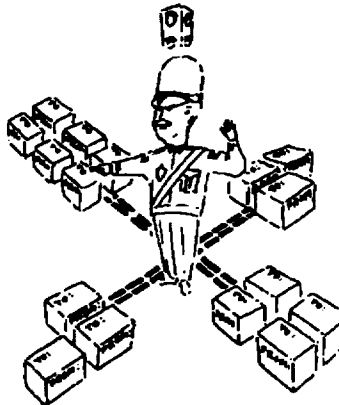
The second major function carried out over the Banknet telecommunications network is to clear and settle all international and local MasterCard transactions that are not on-us. Millions of transactions, involving hundreds of millions of dollars, are cleared and settled each day. In the clearing process, a merchant deposits its sales slips, either manually or electronically, with the acquiring member. INET sorts the batches of transactions by issuer, nets debits and credits, and advises the issuers and acquirers of their daily financial position.

In the settlement process, MasterCard notifies its settlement bank to transfer funds to those members in a credit position and notifies members in a debit position to transfer funds into MasterCard's settlement account. MasterCard also sends an electronic record of

every transaction to the issuers through INET for cardholders' accounts. This system of credit authorization and funds settlement is carried out regardless of member and merchant location. Since every member does not have a direct connection to Banknet, some members mail tapes/diskettes directly to MasterCard or send them by PC file transfer. Other members use a **third-party processor** to interface with Banknet.

BANKNET —

When members communicate with each other over Banknet, the types of communication are usually authorization and clearing and settlement. Unlike other systems that require all data to pass through a central point, Banknet is like a superhighway system that offers several ways for information to arrive at any given destination. Data enters the highway through computers called **MasterCard Interface Processors (MIPs)** that can send and receive messages to and from the network 24 hours a day, seven days a week. A MIP, located at a MasterCard member institution or its agent, can be dedicated exclusively to one member or shared by several. MIPs are joined to Banknet through telecommunications centers called **nodes** or switching centers. There are currently 13 nodes around the world, and each node is like an intersec-



tion on a highway — with at least two alternate paths to other nodes. In addition, 28 European countries hook directly into Banknet through a special interface linking the MasterCard Debit Switch and European Payment Systems Services (EPSS).



Data on the Banknet network is automatically routed along the available highway with the least amount of traffic. If there is congestion on one route, there is an alternate — Banknet automatically finds the fastest connection. Banknet keeps traffic moving using a packet-switching delivery system, which organizes the data into individual packets with destination and return addresses — much like an envelope that you would mail through the postal system. Banknet reads the address on each packet and delivers it without having to know what's inside it — the information can be anything from an authorization or financial transaction to a MasterCom image or a simple message. Using this delivery system, member computers connected to the network via the MIP can process their transactions on a member-to-member level. This kind of processing is called **peer-to-peer distributed processing**, and it gives members the ability to control their daily decisions better. The net-

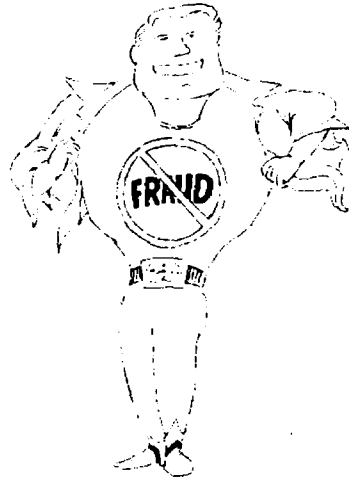
work's flexible structure makes it possible to add new services and increase volume to the system without incurring great expense. Theoretically, there is no limit to the capacity of Banknet, since nodes, MIPs and lines can be continually added.

The **Network Control Center (NCC)** at the MasterCard Operations Center in St. Louis monitors the status of the entire network. If members have problems, the control center can activate backup systems or provide stand-in processing.

Banknet's speed and flexibility have encouraged a dramatic increase in authorizations: today, more than 80 percent of all MasterCard authorizations are delivered directly to issuers' **host data bases**. This inexpensive delivery system is one reason why the percentage of approved items has doubled in the past few years. In addition, the number of problem **chargebacks** has been significantly reduced.

One product that capitalizes on Banknet's unique member-to-member processing capability is the MasterCom electronic imaging system. MasterCom enables members to transmit electronically images of sales slips for **retrieval requests** — eliminating the unwieldy exchange of paper between members, and significantly reducing the time and cost required to provide cardholders with requested photocopies of their transaction records.

Attention to security is an ongoing effort at MasterCard. For the past 20 years, our members have participated in a fraud reporting system. We work closely with law enforcement agencies at the federal, state



and local levels in countries around the world, furnishing assistance in major investigations. The Asia/Pacific Task Force, a committee of members, was formed to combat fraud originating in the Asia/Pacific region. The committee maintains strong liaisons with European members who are often the recipients of these fraudulent transactions. Our internal Counterfeit Reduction Task Force also helps to combat counterfeit fraud on a worldwide basis.

By having our members submit data on fraud, MasterCard security personnel are able to analyze the types of fraud that are predominant and then develop programs to combat them. Worldwide, **First Alert**, the **Merchant Audit Program** and the **Merchant Tracking Program** are three of these programs. On a weekly basis, First Alert provides an early warning to members by identifying transactions on accounts listed on the authorization file for credit or fraud reasons. The Merchant Audit Program assesses each merchant's fraud-to-sales ratio, while the Merchant Tracking Program prevents the migration of fraud from acquirer to acquirer. This program requires any additional or

new acquirers of a violator merchant to terminate the agreement or accept chargebacks for the remainder of the designated chargeback period, in addition to implementing a MasterCard-approved fraud control program.

Members in the U.S. region also participate in the **Issuers Clearinghouse Service (ICS)** and the **Address Verification Service (AVS)**. ICS runs all new card applications through a data base to detect possible fraudulent or high-risk applications. AVS is mandatory for U.S. members. It was developed to prevent mail- and telephone-order fraud, and allows merchants to confirm the address of a cardholder before the transaction is approved. These services are also supported by Banknet.

MERCHANT ACCEPTANCE —

Another fundamental part of MasterCard is merchant acceptance. As mentioned in the Introduction, MasterCard merchants are signed up by the members, who establish and maintain transaction processing relationships with merchants. In recent years, the acceptance business has seen the growth of third-party processors and **member service providers (MSPs)**, who maintain relationships with members. While the member maintains the deposit relationships and the responsibility for the proper conduct of its MasterCard programs, the MSPs may be assigned responsibility for such things as the signing of new merchants or the processing of merchant transactions.

With the introduction of its new mark, MasterCard embarked on an ambitious worldwide redealing program, ensuring that merchants around the world display the new red and yellow MasterCard mark.

In the United States, MasterCard interfaces and maintains relationships with our acquiring members through the U.S. Merchant Advisory Council. The council meets three times a year and is comprised of senior executives from MasterCard and 15 of its acquiring members. These meetings give MasterCard an opportunity to inform its members of its plans in the acceptance area, and allow the members to inform MasterCard of issues or problems in the marketplace.

Through the U.S. Acceptance Business Group, MasterCard also works closely with members and their merchants to improve, promote and expand the value of MasterCard acceptance at the point of sale. To accomplish this, the group is involved in a number of programs designed to enhance the value of the MasterCard brand for merchants, members and consumers.

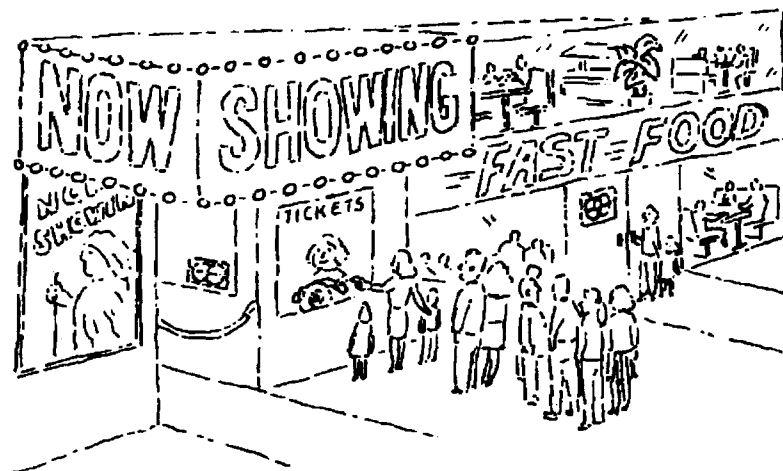
To influence the acceptance of MasterCard at a greater level and increase usage in the United States, MasterCard has targeted supermarkets and catalogs as areas with significant growth potential. Major joint marketing programs, aimed at generating increased sales made on MasterCard cards, have been imple-

mented to make MasterCard the card of choice for supermarket and catalog merchants and customers.

MasterCard's **Quick Payment Service (QPS)** helps members expand their merchant base while improving and expanding acceptance of MasterCard in new merchant outlets. The program is MasterCard's response to members' and consumers' desire to expand the utility of MasterCard products to traditionally cash-only businesses such as fast food restaurants, movie theaters and parking lots. The service facilitates the entrance of participating U.S. MasterCard members into small-ticket outlets, which normally handle a high volume of sales that previously were not suitable as bankcard purchases.

SERVICE QUALITY --

In all of its efforts, MasterCard focuses on providing service quality and value for members, merchants and cardholders. A special service quality initiative to reduce the number of **call-me transactions** at the point of sale is currently underway. New products and services are added to meet changing demands, and the ECR program has been expanded, making it even easier for cardholders to replace lost or stolen cards.



THE MARKET

In just over 30 years, the credit card industry has skyrocketed. At the end of 1990, there were more than 500 million general-purpose cards in circulation worldwide (including MasterCard, Visa, Discover, American Express and Diners Club). The total gross dollar volume on those cards in 1990 was US\$692 billion. The following section will give you a better perspective on MasterCard's competition in the world market.

The competition may vary region to region, but three competitive players remain constant: Visa, American Express and Diners Club. JCB, the Japanese Credit Bureau, is also emerging as a force to contend with, especially in the Far East, and Discover is building a foothold in the United States, the Caribbean and Puerto Rico.



Visa, formerly BankAmericard, was founded by Bank of America in 1960. Today, it has the largest card base worldwide with 257 million cards, and its 1990 gross dollar volume was US\$345 billion. Like MasterCard, Visa has no direct credit relationship with cardholders. Individual financial institutions manage all aspects of the relationship with the consumer. Visa has been positioning itself to upwardly mobile young adults as the card that is accepted "everywhere you want to be." By doing so, it has placed itself in direct competition with American Express worldwide.



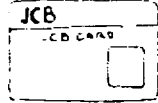
American Express (AmEx), which introduced its green card in 1958, is the world's largest issuer of travel and entertainment (T&E) cards,

with almost five times as many cards as Diners Club and twice as many as JCB. In 1990, American Express worldwide gross dollar volume was US\$111.5 billion, with 36.5 million cards in circulation. Unlike MasterCard and Visa, American Express cards do not come with a line of credit: cardholders must pay their total monthly bills upon receipt. However, the American Express gold card does have a minimum US\$2,000 line of credit, and the American Express platinum card comes with even higher lines of credit. Recently, with the introduction of its Optima card in the U.S., Canada and Europe regions, American Express has entered the credit card business.

Unlike MasterCard and Visa, American Express issues its own cards and maintains a direct relationship with its "card members." American Express's direct relationship with card members also provides the company with specific information about its customers—information used to full advantage for frequently targeted promotional programs. By segmenting its cardholder base, American Express is able to customize customer service programs as well.



The Diners Club card, the first T&E card, was introduced in 1950. In 1960, it became the first card in Japan. The brand is now owned by Citicorp, the world leader among bankcard issuers. In 1990, Diners Club had 6.9 million cardholders worldwide, generating US\$16 billion in charge volume. Not all Diners Club franchises, however, are owned by Citicorp. While Citicorp owns strong Diners Club franchises in the United States, the United Kingdom and Germany, Scandinavian Airlines System also holds a strong franchise in the Nordic countries.



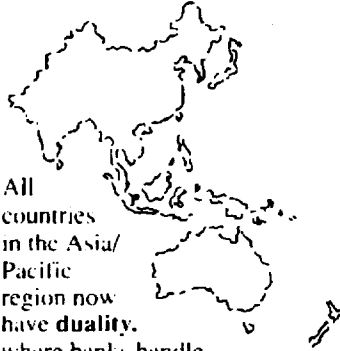
JCB —

The Japan-based JCB card, a bankcard targeted at the T&E market, competes directly with the American Express card. In 1990, JCB had 17 million cards in circulation and US\$16.5 billion in worldwide volume. Although JCB is still far behind American Express, it is growing much more rapidly. Established in 1961 by Sanwa Bank, JCB began developing an international merchant base in 1981. Today, the JCB card is accepted in more than 400,000 outlets in 109 countries outside of Japan.

Merchant outlets are usually located in areas frequented by Japanese people traveling for business or pleasure. In addition, JCB has service centers providing business and travel services to cardholders in a growing number of locations in the Far East, Europe and the United States.

JCB is expanding its cardholder base outside of Japan as well. In January 1991, JCB announced plans to issue consumer credit cards in the United States. The company already has 20,000 corporate credit cards in the United States and plans to expand in Europe. In 1990, JCB announced plans to increase its non-Japanese cardholders from 50,000 to 500,000 and the number of acceptance locations outside of Japan from 400,000 to one million.

THE REGIONS — ASIA/PACIFIC:



All countries in the Asia/Pacific region now have **duality**, where banks handle both MasterCard and Visa, and competition in the region is fierce. In most of the region, MasterCard is positioned as an upscale product. MasterCard and Visa are in a close race for the top spot in the region. JCB, while smaller, is growing the fastest of the bankcards. The T&E cards, American Express and Diners Club, are also well-established and growing.

Diversity is great within the region. Both Japan and Australia have well-developed card markets, while at the other end, the potential in Taiwan and India has just begun to be tapped. Export-oriented countries, including Korea, Hong Kong and Singapore, are showing tremendous card and volume growth. The potential in China has yet to be developed, although ties have been made.

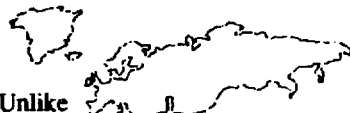
CANADA:



Canada is one of the world's most developed card markets. Bucking the world trend, the country shows no sign of accepting duality. Consumers tend to be very loyal to their banks and each bank, thus far, has remained loyal to only one of the bankcard associations.

Visa surpasses MasterCard in this market, thanks in part to a five-year head start. MasterCard, however, has been making significant progress in the market and is starting to erode Visa's lead. T&E cards are also quite strong in Canada. American Express has a significant presence in the country, although the company is facing strong competition for its corporate and travel business from Air Canada's enRoute card. Diners Club also has one of its strongest franchises in Canada.

EUROPE:



Unlike consumers in most other regions, Europeans, with the exception of the United Kingdom and Spain, generally regard payment cards as convenience items rather than credit sources. Most European payment cards are debit cards, or charge or delayed debit cards tied to checking accounts, since, where available at all, credit cards tend to have high APRs. In addition, many Europeans have access to overdraft lines of credit directly from their banks at much more favorable rates.

Since the banks needed an international payments vehicle, they developed the eurocheque, a check guarantee system accepted by all merchants. Whether used locally or in Europe or North Africa, the eurocheque functions like an ordinary check. It can be written for any amount in the local currency and, when used, the currency conversion and service fee takes place at the consumer's own bank. Today, in five of the six eurocheque core countries — Austria, Belgium, Germany, Luxembourg and Switzerland — the eurocheque remains the leading non-cash method of payment. In the

Netherlands, it is second only to the Postbank cheque guarantee card.

The banks, which have been reluctant to extend consumer credit through a card because of their vested interest in the eurocheque system, recognized that, in the growing electronic payments arena, upscale consumer and business clients demanded an international payments card. As a result, many banks issue Eurocard. MasterCard's link to Eurocard offers a strong entrance and strategic alliance into the European market. In Europe, Eurocard/ MasterCard is considered an upscale product, putting it in direct competition with American Express. American Express, while far behind Eurocard/MasterCard in size, is recognized by a large percentage of Europeans, although its merchant network is much smaller. Diners Club lags far behind, but has a good card base and acceptance in the Nordic countries. JCB is making its presence felt in a small way on the acceptance side of the business, and has expressed interest in issuing cards in Europe as well.

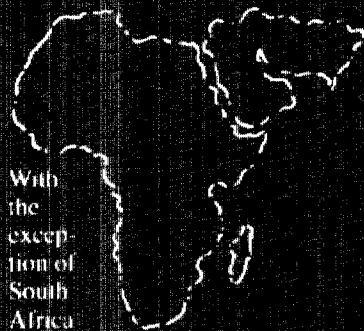
LATIN AMERICA:



The Latin America region, which has remained MasterCard's fastest growing region, encompasses countries ranging from highly commercial and industrial to those that are basically agricultural. Throughout the region, however, MasterCard is the number one card. Specifically, MasterCard holds the top spot in the countries of Argentina, Brazil, Chile, Mexico and throughout Central America.

Although trailing MasterCard in both cards and volume, Visa has an equally strong merchant network and has aggressively added to its ATM network in the region. And, while MasterCard leads in the everyday consumer market, American Express dominates the upscale and tourist markets. MasterCard and American Express have equally strong recognition in the region. Diners Club, once a major force, has been quite weak in the Latin America region in the past decade as the bankcards, along with American Express, have quickly expanded.

Affinity card programs have been extremely successful in this region. MasterCard has been the leader in opening new markets through careful market segmentation and targeted affinity programs, including: the ITHNA-Banamex MasterCard affinity card for transportation, hotel and travel agency executives in Mexico; the Banco del Lavoro MasterCard Card for tennis fans in Argentina; the Credicard Corporate MasterCard Card for executives in Brazil; and the Privilegio MasterCard Card for women in Puerto Rico.

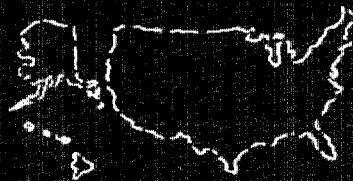


With the exception of South Africa and some

Middle Eastern countries, this region is basically undeveloped by any of the bankcard associations in the card issuing area. In the region's major market, South Africa, MasterCard and Visa are roughly at parity. Both MasterCard

and Visa issuers offer local-currency-only cards in a number of countries due to exchange controls (primarily in northern Africa).

The merchant side of the business is more developed, since the region is viewed as a strong tourist destination, especially for the European market. MasterCard, Visa and American Express have all built strong merchant networks in the region. Diners Club is well established in South Africa. JCB is very weak on the acceptance side in the region and does not issue cards there at all.



In the United States, we target the mass market, people who need a card that will meet all their needs every day. We've increased our investment in the MasterCard brand image with substantial advertising support, designed to make MasterCard the card of preference among consumers. Positioning MasterCard as "the card with more value for the way we really live," the campaign demonstrates the value of the card in real-life situations, enabling cardholders to Master The Moment[®]. This positioning is also reinforced by usage promotions such as MasterValues[™], a program designed to bring real value to consumers at the point of sale by offering discounts at participating merchants.

MasterCard provides the best value to its cardholders through its unmatched merchant acceptance, and is dedicated to increasing the value of the card by continuing to improve service quality.

Unlike MasterCard, Visa has been targeting the upscale market, competing directly with American Express. At the same time, American Express is now trying to broaden its base while still holding on to its prestige positioning. The company is starting to expand its new revolving credit entry, Optima. Introduced in 1987, Optima was initially marketed only to current American Express cardholders; it is now being offered as a stand-alone product.

Scars entered the U.S. credit card market in 1986 with the Discover card. Discover charges no annual fee and rebates up to 1 percent on cardholder purchases. Its advertising campaign — "It pays to Discover" — is positioned toward cost-conscious consumers. Discover is accepted at only half as many locations as MasterCard in the United States. Discover does not have any international acceptance locations, and has only one-eighth the cash access locations of MasterCard.

JCB, the leading card in Japan, has expanded its merchant acceptance locations in the United States to 250,000 to serve Japanese tourists. In addition, JCB issues a corporate card, which is targeted toward Japanese expatriates in the United States.

MASTERCARD PRODUCTS AND SERVICES²¹

Sometimes the terminology used to describe payment cards can be confusing. **Bankcards**, such as MasterCard and Visa, are issued by banks or other financial institutions. T&E cards, such as American Express and Diners Club, are **charge cards**. Cards issued by stores and oil/petrol companies, among others, are also charge cards. Generally, these companies bill cardholders once each month, with the full balance due.

Bankcard use is handled differently from country to country, depending on local banking regulations and market conditions. Credit use especially tends to be conservative in many countries because of high credit costs and rapid inflation, as well as local government regulations and restrictions.

Credit cards and **debit cards** are not the same. Credit cards offer consumers installments and/or a revolving line of credit with the limit set by the issuer. Generally, if a consumer pays the entire bill at the end of the month, no interest is charged. If, however, a balance is outstanding, interest is charged at a predetermined APR. The APR is set by the issuing member, and rates can vary greatly.

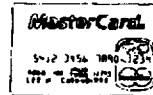
A debit card is tied directly to a consumer's current account or checking account. In effect, it functions as a paperless checking account. Purchases are deducted from the account as they are processed by the card issuer.

In many countries, "credit cards" are actually **delayed debit cards**. Transactions are debited against the cardholder's checking account at the end of the "delay" period, which in many countries is once each month.

In addition to the methods and timetables of payment, banking regulations in some countries only allow consumers to acquire **local-use-only** cards. These cards can be used only in the country in which they are issued. When people travel abroad they can often get special cards for overseas use. These cards usually carry spending limits that are determined by the country's regulations regarding taking money outside of local borders.

MasterCard offers credit cards, debit cards and delayed debit cards, as well as local-use-only cards to its members. Since each country has its own banking regulations, products differ significantly from country to country. For example, MasterCard Standard Card cardholders in Australia can use their cards as either a debit card or a credit card. It's the cardholder's choice at the point of sale; however, in the United States, the same cardholder could use it only as a credit card.

MasterCard offers a wide range of products and services, which are described below.



The MasterCard Standard Card is the bankcard that 142 million people around the world rely on every day. It is the MasterCard core product, and it serves as the cornerstone for the entire MasterCard family of products. The card is accepted at more than 9 million locations worldwide, nearly three times as many places as its American Express counterpart; and it provides customers with easy access to cash at more than 191,000 bank branches and 55,000 ATMs throughout the world.

Affinity cards and co-branded cards (cards issued in conjunction with an organization) issued as MasterCard Standard Card cards and Gold MasterCard cards under the Card Program Development Group continue to grow unabated. Growth is especially strong in the United States, Japan, Canada and Latin America. In 1989, major affinity programs were also introduced in the United Kingdom and continental Europe; and, in 1990 alone, members in 12 additional countries launched affinity or co-branded card programs. By the end of 1990, there were 2,600 programs — representing over 20 million cards — offered by 343 member institutions in 32 countries.



With the introduction of the Gold MasterCard Card in 1981, MasterCard was the first to bring market segmentation to the bankcard industry. At 15 million cards and growing, Gold MasterCard firmly establishes MasterCard in a more upscale market segment. Today, more than 4,800 of our members issue the card.

While Gold MasterCard services vary from region to region, the card comes with higher credit lines than the MasterCard Standard Card. The mandatory minimum credit line on a Gold MasterCard card is US\$5,000. In some parts of the world, the credit lines attached to the card are significantly higher. Its superior combination of services allows us to call it the best gold card in the United States.

Introduced in 1985 to meet the business needs of companies, the MasterCard BusinessCard program helps members strengthen existing

corporate relationships and attract new corporate clients. Worldwide, as of year-end 1990, more than 1.5 million MasterCard BusinessCard cards were in circulation, and 1,650 members were licensed to offer the card. The MasterCard BusinessCard program also helps companies to manage and control their expenses better with many attractive features. With the program, businesses can set individual spending limits for employees, and employers are furnished with management information reports — monthly, quarterly and/or annually detailing and summarizing charges by each employee, by merchant category, by department or by division to help monitor expenses.

Members around the world have found the addition of the card to their portfolios to be profitable, since annual spending per card is considerably higher than spending on standard consumer cards.

While cardholder services and benefits vary from region to region, Emergency Card Replacement (ECR) and Emergency Cash Advance (ECA) services are mandatory on every MasterCard Card, except MasterCard Debit cards. At the close of 1990, the MasterCard Board of Directors approved an array of enhancements to the Emergency Card

Replacement program, which are designed to improve and expedite card delivery. In addition, starting in late 1991, cardholders will have access to emergency card and cash services at Thomas Cook's 1,600 offices. In early 1991, the Board also approved ECA program improvements.

REGIONAL SERVICES —

ASIA / PACIFIC:

In the Asia/Pacific region, in 1990, a special MasterAssist package of services was offered to issuers for their cardholders as an optional service. Members in the region can choose to offer the following services to holders of MasterCard Standard Card, Gold MasterCard and MasterCard BusinessCard cards:

MasterAssist Medical Protection™ provides traveling cardholders with doctor/hospital referrals; medical monitoring; an emergency message service; and medical transfer, evacuation and repatriation arrangements when needed.

MasterTrip™ offers traveling cardholders pre-trip information, document forwarding, lost luggage assistance and emergency cash transfers of up to US\$5,000.

MasterLegal™ furnishes cardholders with legal referrals and cash transfers of up to US\$5,000 for emergency legal situations.

CANADA:

In Canada, the **MasterAssist Circle of Protection** is a mandated feature on all Gold MasterCard cards, giving upscale cardholders a package of emergency assistance and insurance benefits that protects them during domestic and foreign travel.

The MasterAssist Circle of Protection includes:

MasterRental™, the best car rental insurance and assistance plan available on any card, provides collision/loss damage insurance up to the full value of the car; personal accident insurance; and personal effects coverage. Cardholders must rent their cars with a Canadian-issued Gold MasterCard card and decline the insurance coverages offered by the car rental company.

MasterTrip provides Canadian-issued Gold MasterCard cardholders with pre-trip information on international medical entry requirements and necessary travel documents; assistance in replacing lost airline tickets, passports and visas; assistance in arrangements for replacement items to be shipped to a cardholder if a carrier is unable to

locate lost luggage; and emergency cash transfers of up to US\$5,000 for cardholders and family or business associates.

MasterAssist Medical Protection for Canadian-issued Gold MasterCard cardholders provides out-of-province emergency medical assistance, referrals to local doctors, dentists and hospitals; and, if

necessary, transportation home or to an appropriate facility, as well as secondary medical expense coverage for accidental injury or illness while traveling.

MasterLegal can help Canadian-issued Gold MasterCard cardholders to find an English- or French-speaking legal advisor, or a legal advisor and interpreter, as well as aid in transferring up to US\$5,000 in cash to cover bail and legal fees, if a cardholder has a legal emergency while traveling.

Canadian-issued Gold MasterCard cardholders also benefit from the MasterPurchase package of services, the best retail protection available on a card. MasterPurchase is available at no additional cost to covered cardholders or their issuing banks. Thanks to MasterPurchase, on most items purchased with an appropriate MasterCard card, the manufacturer's original warranty is doubled for up to one additional year. The program also covers most purchases, including gifts, made with a covered card anywhere in the world for a full 90 days from the date of purchase, by providing coverage for the total amount charged to the card up to US\$50,000 per cardholder for loss, theft, fire, or accidental damage or breakage on covered items.

In the Europe region, our partner, Eurocard International, does, in some cases, offer cardholders special enhancement packages.

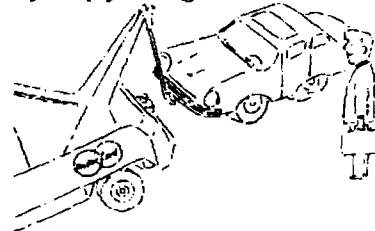
Additional cardholder services are also offered in each region. In 1990, MasterCard also established a Customer Service Center in Miami. The center assists cardholders from the Latin America region

with travel, business and card assistance services.

The MasterAssist Family of Services and MasterPurchase are mandated features on all U.S.-issued Gold MasterCard and MasterCard BusinessCard cards, and all services can be accessed in the United States simply by calling 1-800-MC ASSIST. Outside of the United States, holders of U.S.-issued Gold MasterCard and MasterCard BusinessCard cards can call collect: 202-296-4650.

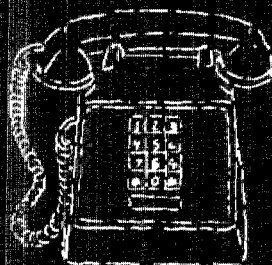
The U.S. region's MasterPurchase and MasterAssist Family of Services include all services previously described in Canada's MasterAssist Circle of Protection, as well as:

Master RoadAssist, an emergency roadside assistance program that delivers service at home or away. By simply calling



1-800-MC ASSIST, a cardholder can get roadside assistance anywhere in the United States, including towing, jump-starts and fuel delivery. Introduced in April 1990, this first-of-its-kind service is supported by a nationwide network of over 5,000 towing operators with prices that are generally below current market rates. Assistance or towing charges are conveniently billed to the cardholder's card. Some restrictions may apply.

In the United States, MasterPhone™, a service provided by MasterCard and MCI Telecommunications Corporation,

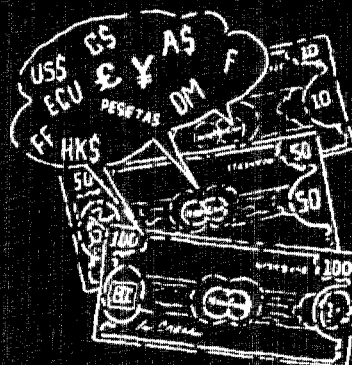


is now being offered to cardholders as an optional service that allows cardholders to bill telephone calls directly to their MasterCard Standard Card, Gold MasterCard and MasterCard BusinessCard cards. The service was introduced in 1990, and to other regions as well.

MasterCard Travelers Cheques have captured close to 20 percent of the world market since they were introduced in 1981. In 1990, worldwide sales reached US\$9.8 billion, a 17 percent increase over 1989 levels. In March 1991, MasterCard and the Thomas Cook Group, MasterCard's largest cheque issuer, announced a joint agreement, which introduces emergency card replacement and cash advance services for MasterCard cardholders throughout the Thomas Cook 120-country network of 1,600 offices. The accord also integrates the two organizations' travelers cheque businesses more closely.

Under the agreement, MasterCard and Thomas Cook have blended their travelers cheque marketing programs, with MasterCard focusing on global brand management and promotion and Thomas Cook assuming responsibility for travelers cheque refunds, processing and certain sales programs. MasterCard's refund and processing functions have also been integrated into Thomas Cook's operations center in Princeton, New Jersey.

MasterCard Travelers Cheque members can sell cheques that feature their own names in conjunction with MasterCard. This reinforces their relationship with the customer and ties into other MasterCard branded services offered by the issuer. Unlike American Express, MasterCard lets its member issuers keep the entire **commission** and **float**. However, a number of mem-

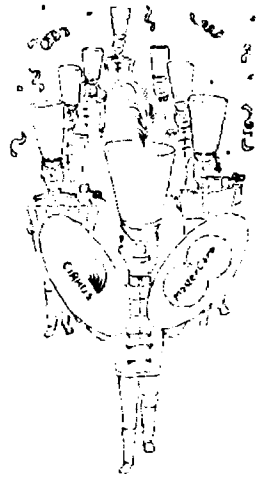


bers still sell American Express travelers cheques.

MasterCard Travelers Cheques, available in 11 currencies, are the preferred cheque of many European banks, and the most popular cheque in the Middle East and Africa. They feature state-of-the-art security printing, and, if lost or stolen, MasterCard Travelers Cheques are refundable at more than 200,000 locations worldwide.

Some of the largest and most respected banks in the world sell MasterCard Travelers Cheques, including Dai-ichi Kangyo, Ltd.; Mitsubishi Bank; Bank of Montreal; Banamex; and Banco Popular de Puerto Rico.

The MasterCard/CIRRUS ATM Network gives cardholders access to cash at ATMs that display the MasterCard and CIRRUS logos.

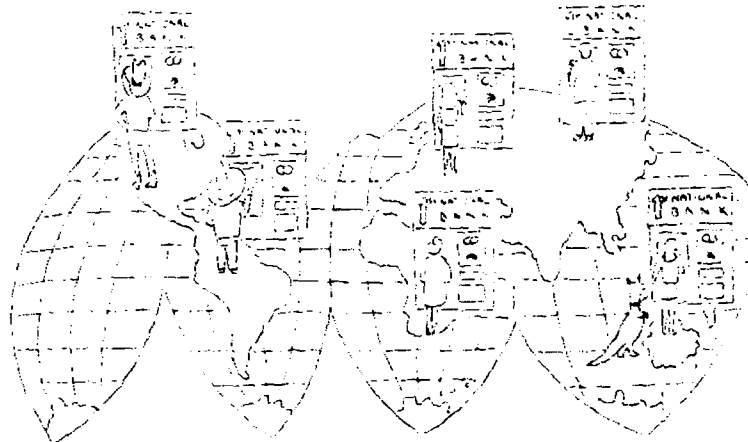


At the end of 1990, the network included 50,000 ATMs in 20 countries. This includes the pan-European ATM network developed by Eurocard International, providing coverage in Belgium, England, France, Italy, Portugal, Spain, the Netherlands, Denmark, Ireland, Northern Ireland, Israel, Scotland and Wales. The network's international reach also extends to Chile, Japan, Malaysia, Mexico, Thailand and Venezuela.

During 1990, cardholders throughout the world turned to these machines for cash 100 million times, and the number of network

transactions is expected to reach 150 million in 1991 as the number of ATMs in the network grows to 70,000. In the United States, the number of ATMs available to cardholders nearly doubled in 1990 as a result of duality, allowing members of the Plus System to join CIRRUS and acquire transactions for MasterCard/CIRRUS ATM cardholders.

CIRRUS and MasterCard issuers gain much from participating in this combined international ATM network. By giving their cardholders access to cash at ATMs around the globe, the network adds value to members' debit and credit cards. This expanded access encourages customers to use their cards more often. Thus, in addition to customer service, network participation can generate income in the form of transaction fees, monthly service charges or **annual fees**. For credit card issuers, this ATM service also offers even greater revenue opportunities because cash advances begin earning interest from the date of the transaction. The MasterCard/CIRRUS ATM Network also enables members to offset operating costs and generate new income from their ATM programs by moving more transactions through existing terminals.



MASTERCARD DEBIT —

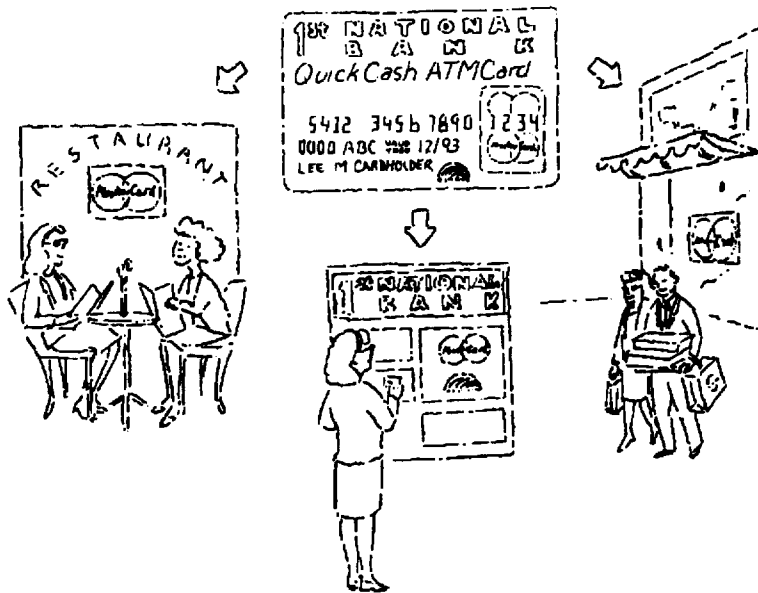
In the United States, MasterCard Debit continues the trend toward electronic banking and increased access to consumers' checking accounts.

With MasterCard Debit, member banks add a MasterCard logo, hologram and number to their own ATM cards and market the program under their own name.

A MasterCard Debit card combines the best aspects of an ATM card, a credit card and a check. Like an ATM card, it can be used to obtain cash at ATM locations, so customers don't need to carry large sums of cash. Like a credit card, it is accepted for payment by 9.1 million merchants where MasterCard is accepted. And, like a check, the

funds for such payments are drawn directly from a customer's checking account.

Easier to use than a check, a MasterCard Debit ATM card is widely accepted, eliminating the need to carry checks. To the merchant, it is accepted just like other MasterCard cards. Like checks and ATM transactions, purchases made with a MasterCard Debit card are described on the monthly checking account statement for easy record-keeping. At the beginning of 1991, there were 400 financial institutions issuing 1.5 million ATM cards with MasterCard Debit, an increase of 20 percent from the previous year. The MasterAssist Family of Services is also offered to U.S.-issued MasterCard Debit cardholders.



MAPP —

Available only in the U.S. region, MAPP (the MasterCard Automated Point-of-Sale Program) is the electronic **POS transaction processing program** developed by MasterCard to enable its members to offer their merchants cost-efficient and reliable authorization processing and electronic draft capture (EDC) services. Every other card company, many member banks and several independent processors offer similar products in what is a very competitive industry.

MAPP supports all access methods (dial terminal, ECR, PC, radio wave and leased line) and authorizes capture transactions for all major credit, T&E and private-label cards in the United States. Additionally, MAPP offers access to several major check guarantee services. Authorizations come directly from the issuer on all major cards, assuring the highest possible protection against unnecessary chargebacks and potential fraud. MAPP's standard EDC product is a host-based capture system, and the program is the fourth-largest in the industry.

Because MAPP's products and services are delivered through Banknet, MAPP transactions are significantly faster and generally less expensive than other POS systems. MAPP has also developed industry-specialized products, such as **MAPP Tips**, for the restaurant industry, and **MAPP PC-Plus**, a PC-based product for the mail- and telephone-order industry. In 1990, MAPP introduced **MAPP EDC**, a terminal-based EDC product, and **MAPP-QPS**, a POS service developed in support of the MasterCard **Quick Payment Service** and

designed to enable MAPP members to join in bankcard acceptance in cash/check-dominated industries such as fast food restaurants, movie theaters and convenience stores.

MORE INFORMATION —

For more information about MasterCard services and programs, contact the Public Relations Department for copies of the MasterCard annual report; *Member News*, our quarterly member newsletter that is mailed to members; *Spectrum*, our monthly employee newspaper; and the *Resource Directory*, which includes a list of all MasterCard collateral materials. If you would like samples of product literature describing MasterCard products and services, contact the MasterCard Creative Services Department in New York.

Account number

A unique sequence of numbers assigned to a cardholder account, which identifies the issuer and type of financial transaction card.

Acquirer or acquiring member

A bank, financial institution or other MasterCard member that maintains the merchant relationship and receives all credit card transactions. In some cases, referred to as the *acquiring bank*.

Address Verification Service (AVS)

A service provided by MasterCard in the U.S. region, which verifies the billing address of the cardholder in order to prevent the fraudulent use of an account in non-face-to-face transactions.

Affinity card

A credit card issued by a member in conjunction with an organization or collective group, for example, profession, alumni, retired persons association. The card issuer often pays the organization a royalty.

Agent member

A member that, by agreement, participates in another member's card program, usually by turning over its applicants for bankcards to the member administering the bankcard program and by acting as a depository for merchants.

Altered card

A card on which the original account number has been changed to allow fraudulent use.

American Bankers Association (ABA)

The trade association of U.S. bankers. It is also a body nominated by international agreement as the registration authority for issuer identification numbers.

Annual fee

A fee paid by a cardholder to the issuing member for the privilege of holding a financial transaction card and using it to buy goods and services.

Annual Percentage Rate (APR)

The yearly interest charge applicable to outstanding credit card balances for one year.

Assessments

Fees paid by members to MasterCard on a quarterly basis to support advertising and operating activities.

Authorization

The approval or guarantee given by the card issuer (or its agent) to permit a credit card transaction for a merchant or another affiliate member.

Authorization call

A telephone call made from the point of sale to obtain authorization for a transaction.

Authorization message

Within a payment system, any message between a card acceptor and a card issuer serving to establish whether the issuer approves for a transaction to proceed.

Authorization request

A request for approval by the merchant to validate a cardholder sales transaction.

Authorization terminal

A terminal permitting authorization of a transaction but not necessarily capturing the transaction data into a payment system.

Automated Clearing House (ACH)

One of the group of U.S. processing institutions that have networked together to exchange (clear and settle) electronic debit transactions.

Automated teller machine (ATM)

An unmanned electronic device that performs basic teller functions such as accepting deposits, cash withdrawals, account transfers, loan payments and account balance inquiries.

Bad debt

Debt that has been written off and sent to a collection agency for payment.

Bank Identification Number (BIN)

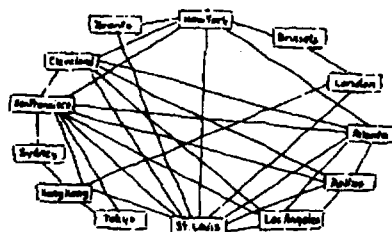
A unique and individual series of numbers assigned by MasterCard to a principal member institution for use as the first three to six digits of a standard cardholder account number on its cards.

Bankcard

A financial transaction card issued by a bank or other financial institution; for example, a MasterCard card.

Banknet

The MasterCard proprietary packet-switching X.25 communications network. It is used as the primary data transport communications facility that links all MasterCard customers and MasterCard data processing centers into a single on-line financial net-



work. Banknet separates communications processing from financial applications processing, allowing an unlimited variety of financial applications to transmit messages over a single communications network.

Banknet switch

The MasterCard worldwide EFT network, which employs a distributed processing architecture with multiple-region EFT authorization and settlement processing centers linked to MasterCard customers via the Banknet communications network.

Batch processing

A type of data processing and data communications transmission in which related transactions are grouped together and transmitted for processing, usually by the same computer and under the same application; generally regarded as a non-real-time data traffic comprising large files; a type of data traffic where network response time is not critical.

BATS

Batch Authorization Transaction System, designed to allow certain merchants — for example, mail-order merchants — to batch process authorizations on their own time schedules.

Call-me transaction

A response to an acquirer's authorization request generated by an issuer (or through stand-in processing), requiring the acquirer to contact the issuer directly.

Capture date

The date on which a transaction is processed by an acquirer.

Card acceptor

A party accepting a card and presenting transaction data to an acquirer.

Card base

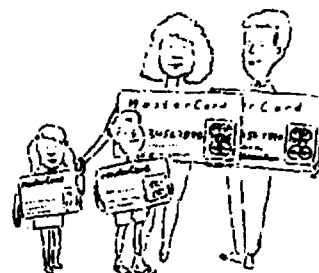
A population of cardholders, especially in the context of a single-card family.

Card encoding

The original recording of information on a card by the card issuer.

Card enhancements

See "Enhancement services."



Card family

A group of related financial transaction cards, often bearing the same logo, facilitating transactions through a common payment system.

Card payment system

A payment system supporting payments made by financial transaction cards.

Card Program Development Group

Program that allows issuers to customize MasterCard cards for special interest groups; formerly known as the MasterCard ID Plus™ Program.

Cardholder

Generally, the person to whom a financial transaction card is issued. It is usually the customer associated with the primary account number recorded on the card.

Cash advance

A transaction in which a cardholder obtains cash in person at a branch of a member financial institution or ATM, and which is posted against the cardholder's bankcard account.

Cash dispenser

The simplest form of ATM, which permits only cash withdrawal.

Central processing unit (CPU)

Refers to the processor and the main memory of a computer.

A financial transaction card, generally issued by a private company, with its set amount monthly charges, but which generally must be paid in full at the end of each month. American Express green cards are charge cards.

A dispute procedure initiated by the cardholder after receipt of the initial presentation from the acquirer. The issuer may determine that, for a given reason, the transaction was presented in violation of the Rules or Procedures and is therefore eligible to be returned to the acquirer for possible remedy.

A service that guarantees payment up to a defined limit, provided that the merchant follows proper steps in accepting the check.

CIRRUS System, Inc., a wholly owned subsidiary of MasterCard International Incorporated, operates the international ATM sharing network known as the MasterCard/CIRRUS ATM Network. MasterCard customers may elect to participate in the MasterCard/CIRRUS ATM Network as issuers or acquirers by connecting through Banknet or by developing a separate interface to the CIRRUS switch.

The process of exchanging financial transaction details between an acquirer and an issuer to facilitate posting of a cardholder's account and reconciliation of a customer's settlement position.

A MasterCard card issued by a member bearing the logo of another company that has a commercial purpose.

A list of invalid MasterCard and Visa cards, which is distributed to merchants in the United States.

A fee or percentage paid to a member for services such as issuing travelers cheques.

A cardholder who pays the balance in full on each payment due date.

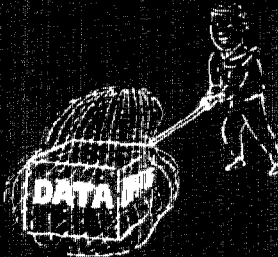
A charge card or bankcard issued to companies for use by company employees. The liability for abuse of the card typically rests with the company and not with the employee.

A plastic card used to purchase goods and services and to obtain cash advances on credit, for which the cardholder is subsequently billed by the issuing institution for repayment of the credit extended. MasterCard Standard Card, Visa Classic Card and American Express Optima Card cards are credit cards.

An available credit limit applied to a specific account maintained for a cardholder at the card-issuing institution.

The amount lost (charged off) as a result of failure of the cardholder to repay the amount owed on the account.

A method for predicting the creditworthiness of applicants for credit.



A data processing term for the collecting, formatting and storing of data in computer memory according to pre-defined fields, for example, customer name, account number and dollar amount of purchase. When a terminal reads this information from a plastic card or from entries at a terminal, the information is stored in computer memory for later output as a hard copy printout or as soft copy on a cathode ray tube (CRT) display.

A plastic card used to initiate a debit transaction. In general, these transactions are primarily used to purchase goods and services and to obtain cash, for which the cardholder's asset account is debited by the card-issuing institution.

A debit card that has transactions debited against a demand deposit account on a delayed basis, often once each month.

A checking account.

Dial-up terminal

A merchant authorization device that, like a telephone, dials the authorization center for validation of transactions.

Discount rate

The fee an acquiring member charges the merchant for giving deposit credit and handling merchant sales drafts or electronic sales transactions; for example, the fee a merchant pays the acquiring member to process a purchase charged to MasterCard.

Distributed processing

The processing of functions such as program execution, storage control and input/output, which are performed at two or more nodes or endpoints on a network.

Down-line loading

Loading of data from an acquirer's computer system to a card acceptor's terminal via an intermediate network facility; for example, transmission of hot-card files.

Duality

The handling of both MasterCard and Visa transactions (cardholder or merchant, or both) or both CIRRUS and Card Program Development Group by a single institution.

80 20 card

MasterCard card that features issuer identification on 80 percent of the card face.

85 15 card

MasterCard card that features issuer identification on 85 percent of the card face.

Electronic banking

Banking operations conducted by electronic means, especially EFT.

Electronic cash register (ECR)

Cash register that can process authorizations and debit transactions as they are rung up.

Electronic draft capture (EDC)

A system in which each transaction is captured (stored) on MasterCard host computers. The captured data may be reviewed on the same day the transactions occurred and up to seven days following a batch close date. The stored transactions are used to create settlement files and transaction reports.

Electronic funds transfer (EFT)

A paperless transfer initiated from a terminal, computer, telephone instrument or magnetic tape.

Electronic funds transfer at point of sale

The technology and practice of making payments for goods and services by means of electronic funds transfer initiated at the point where the goods or services are purchased.

Electronic funds transfer system (EFTS)

An electronically based system that eliminates the need for paper (such as a check) in the movement of funds; for example, an ATM withdrawal.

Electronic imaging

The production of digitized images by optoelectronic means not involving intermediate photographic recording.

Electronic point of sale

A point-of-sale merchant with electronic equipment for pricing and recording transactions, but not necessarily incorporating functions for EFT.

Emergency Card Replacement (ECR)

MasterCard service that replaces cardholders' lost and stolen cards.

Emergency Cash Advance (ECA)

MasterCard service that provides cardholders with cash advances in emergency situations.

Encryption

The technique of modifying a known bit stream on a transmission line so that it appears to be a random sequence of bits to an unauthorized observer; often is done automatically in the terminal or computer before data is transmitted. The authorized recipient possesses the key and recovers the original text by the reverse process: decryption.

Enhancement services

Offered to cardholders of financial transaction cards in addition to the basic function of providing a payment instrument, for example, MasterAssist and MasterPurchase.

EPSS (European Payment System Service)

The leading European payment system service. MasterCard owns 15 percent of EPSS. EPSS is a telecommunications and data processing company that serves the needs of European banks for processing international retail banking operations. All of Banknet in Europe is EPSS.

eu rocheque

A check guarantee system created by a group of European banks, which is accepted by merchants in Europe and North Africa.

Exception report

Summary detailing questionable charges and chargebacks.

Financial institution

Generally, any organization in the business of moving, investing or lending money, dealing in financial instruments or providing financial services.

Financial transaction card

A card, identifying both the card issuer and the cardholder, used to facilitate, and sometimes provide data for, transactions.

First Alert

A special MasterCard antifraud program that provides early warning for possible fraud situations.

Float

A sum of money representing total funds, checks, travelers cheques or transactions that are outstanding prior to final settlement.

Floor limit

A maximum monetary amount above which a particular transaction requires an authorization.

Gold MasterCard Card

MasterCard's credit card geared toward more affluent customers, which carries a higher credit line and may carry additional service features; for example, MasterAssist and MasterPurchase.

Hologram

A laser-created photograph that creates a three-dimensional image; used as an anti-counterfeiting measure on bankcards.

ICA number

Interbank Card Association number. A 4-digit identification number assigned by MasterCard to a financial institution, third-party processor or other type of member for the purpose of uniquely identifying that member.

Identification card

A card identifying its bearer and issuer; may also carry other data to facilitate financial transactions, in which case it is also a financial transaction card.

Imprinter

A device supplied to the merchant to produce an image of the embossed characters of the bankcard on all copies of sales drafts and credit slips.

INAS (Interbank Authorization System)

Original MasterCard authorization system developed in the early 1970s when MasterCard's company name was Interbank and the credit card was called Master Charge.

Independent Sales Organization (ISO)

See "Member service provider."

INET (Interbank Network for Electronic Transfer)

The MasterCard settlement system, a centralized clearing facility owned and operated by MasterCard for the daily processing and routing of worldwide financial transactions between MasterCard and its members.

Interbank Card Association (ICA)

The founding member organization of MasterCard.

Interchange

The exchange of transaction data between acquiring and issuing institutions.

Interchange rate

The amount paid by the acquirer to the cardholder institution (issuer) on each sales transaction.

Intermediate network facility (INF)

Any message processing entity positioned between an acquirer (or issuer) and the Banknet switch. INF processors may act as Acquirer Processing Systems (APSs) or Issuer Processing Systems (IPSs), or both.

International Organization for Standardization (IOS)

The central body for the formation and dissemination of industry standards for all national standards bodies; located in Switzerland.

Issuer or issuing member

The institution (or its agent) that issues the card to the cardholder; in some cases, referred to as the *issuing bank*.

Issuer identification number

A number identifying a card issuer within its industry.

Issuers Clearinghouse Service (ICS)
A system, jointly managed by MasterCard, designed to detect fraudulent and high-risk credit card applications. The service features a central facility for storing, validating and tracking Social Security numbers, addresses and telephone numbers used in credit applications and reports of fraudulent activity.

Issuer's host data base
An issuer's computer and programs, which are connected to a MIP for access to Banknet and which store information used for authorization of bankcard transactions.

Limit 1
Allows issuers to truncate authorizations for their card transactions at the acquirers' MIPs by setting dollar authorization limits for various categories of transactions; for example, mail/telephone order, cash advance, retail and T&E.

Local acceptance mark
A financial service brand that is found in a single country or region—e.g., Eurocard. MasterCard has formed alliances with a number of local acceptance marks.

Local-use-only card
A payment card that can be used only in the country in which it was issued.

Magnetic stripe
A stripe of magnetically encoded information affixed to the back or front of a plastic card. The magnetic stripe contains essential customer and account information. The physical and magnetic characteristics of the magnetic stripe are specified in ISO Standard 3354.

Magnetic stripe reader
A device that reads information recorded on the magnetic tracks of a card.

Master Assist Circle of Protection
A family of services designed to enhance cardholder services for traveling Canadian cardholders.

Master Assist Family of Services
A family of services designed to enhance cardholder services for traveling U.S. and Canadian cardholders.

Master Assist Medical Protection
A Master Assist service that provides emergency medical assistance to traveling cardholders from some regions.

MasterCard Association of Canada (MAC)
The association of MasterCard principal members in Canada.

MasterCard Automated Point-of-Sale Program (MAPP)
A terminal networking product that provides low-cost POS terminal access to MasterCard's credit card authorization network.

MasterCard BusinessCard Card
An integrated business T&E card that members issue to their corporate clients. Designated employees of the member's corporate clients use the BusinessCard card for reimbursable business expenses. The member and the corporation can establish individual spending limits for each employee.

MasterCard Card Processing System (MICPS)
A microcomputer-based software package that allows non-U.S. members to start card processing programs quickly and with relatively low up-front investment.

MasterCard CIRRUS ATM Network
The world's largest ATM network.

MasterCard Debit
Formerly, MasterDebit. The MasterCard Debit program is available only in the U.S.; enhances members' proprietary ATM cards by guaranteeing acceptance at all retail and cash-access locations that accept MasterCard cards. Instead of using a line of credit, MasterCard Debit transactions debit a deposit account much like conventional checks.

MasterCard Debit Switch
MasterCard's Tandem-based EFT network processing system operated by National Bank of Detroit under contract to MasterCard International. This system provides Debit Card processing support for several MasterCard products, including, CIRRUS, MasterCard Debit and the MasterCard ATM Network Program.

MasterCard Interlace Processor (MIP)
An IBM Series 1 processor placed on-site at a MasterCard customer's facility for the purpose of providing access to the Banknet communications network. Through a single MIP, all MasterCard customers have access to all MasterCard EFT products, and to a wide variety of other financial services.

MasterCard Standard Card
Known as the MasterCard Card, the core product of the MasterCard family of products and services and accepted at 9.1 million locations worldwide.

MasterCard Travelers Cheque

A payment product used like cash at the point of sale; can be refunded if lost or stolen.

MasterCard Travelers Cheque Agent Program

Allows financial institutions to act as a sales agent of MasterCard Travelers Cheques with MasterCard acting as the issuer; sales agents receive a commission and an incentive based on sales volume.

Master Charge

Former name of MasterCard International Incorporated; former brand name of MasterCard.

Master Coverage

MasterCard BusinessCard liability protection program in the U.S., which covers mid- to large-size companies, with 10 or more cards, against employee misuse of the cards, up to \$15,000 per card, with no limit on total coverage per company.

MasterCom

An electronic image processing product that uses Banknet to route high-resolution document images between members; designed to be used for retrieval processing and to help reduce the amount of paper it takes to resolve chargebacks. MasterCom will expand to include chargeback documentation, general mail between members and lost/stolen reports.

MasterDebit

Former name of MasterCard Debit.

MasterLegal

Part of MasterAssist; provides emergency legal assistance to cardholders while traveling.

MasterPhone

An optional service offered by MasterCard and MCI Telecommunications Corporation, which provides U.S. cardholders with the optional ability to charge telephone calls to their MasterCard cards.

MasterPurchase

A retail purchase protection program available to U.S.- and Canadian-issued Gold MasterCard and MasterCard BusinessCard cardholders, U.S. MasterCard Debit cardholders, and Canadian-issued Gold MasterCard cardholders, which offers enhanced warranty and replacement coverage and a gift protection service.

MasterRental

A service included in the U.S. and Canadian MasterAssist programs, that provides rental car insurance and assistance to cardholders.

Master Road Assist

A service, part of MasterAssist, that offers emergency roadside assistance to cardholders.

Master Trip

A program, part of the U.S. MasterAssist program, which offers assistance to traveling cardholders, such as pre-trip information and document forwarding.

Member Information Manual (MIM)

A book produced monthly by MasterCard, which lists all MasterCard principal members, their corresponding ICA numbers, and relevant contacts, mailing addresses and phone numbers.

Member service provider (MSP)

An outside company contracted by members to administer merchant and/or cardholder servicing; also called an ISO.

Merchant acquirer

A member that has entered into an agreement with a merchant to accept deposits generated by bankcard transactions; also called the *acquirer* or *acquiring bank*.

Merchant agreement

A written agreement between a merchant and an acquirer containing their respective rights, duties and warranties with respect to acceptance of a bankcard and matters related to the bankcard activity.

Merchant Audit Program

A MasterCard antifraud program that audits 100 percent of MasterCard's worldwide merchant base to assess the fraud-to-sales ratio of each merchant and to identify potential problems.

Merchant authorization

The means of receiving sales validation for the merchant, by telephone or authorization terminal, to guarantee payment to the merchant.

Merchant fraud

Fraud perpetrated against other parties in a payment system by a card acceptor.

Merchant service charge

The discount rate or other fees assessed by the acquirer.

Merchant Tracking Program

A MasterCard antifraud program that prevents the migration of fraud from one acquirer to another.

National association

Licensing and regulatory agencies for bankcard activities; for example, MasterCard or Visa.

Negative authorization
Authorization given after checking the *Warning Bulletin* or *Restricted Card List* to be sure a card is not listed.

Negative file
A file used for stand-in purposes, which identifies those cardholders and accounts for which charge privileges have been revoked by the card issuer. This file contains accounts to be picked up that may not be listed in the *Warning Bulletin* or *Restricted Card List*.

Network
A set of entities connected by links. In the context of computers, a set of computing systems connected by data communication links via which they communicate and cooperate.

Network Control Center (NCC)
The major control point of a network; collects performance data and issues control commands. The MasterCard Network Control Center continuously monitors network performance, offering 24-hour-a-day operation, detailed logging of transactions, continuous monitoring of network status and sophisticated statistical analysis of data.

Node
An entity connected to other entities by one or more links in a network.

Non-bank
In a payment system, a financial institution not offering retail banking services.

Off-line
An operating mode in which terminals or ATMs are not connected to a central computer source. Responses are governed by the parameters, or guidelines, set within the terminal or supporting device as defined by the card issuer.

Off-line authorization
Authorization of a transaction carried out under an off-line operation.

Omni Project
See "Project Omni."

On-line
An operating mode in which terminals or ATMs are connected to a central computer system and have access to the data base for authorization, inquiry and file changes. Live files are being accessed for each transaction.

On-line authorization
Authorization of a transaction carried out under an on-line operation.

On-us transaction
Any electronic banking transaction in which the acquiring member and the issuing member are the same institution or are within the same intermediate network facility.

Open to buy
The amount of a credit line that has not been drawn.

Optical character recognition (OCR)
Electronic reading and digital conversion of numeric or alphabetic characters from printed documents.

Packet
A sequence of data, with associated control information, that is switched and transmitted as a whole.

Packet-switching network
Intelligent, distributed telecommunications system that sends packets of information regarding credit and debit transactions and authorizations between members via Banknet.

Payment system
System that accomplishes the transfer of money.

Peer-to-peer (PTP)
Transmission from one endpoint on the MasterCard Banknet Network to another, bypassing the need to bring the transmitted data into a central node prior to retransmitting outward; for example, transmission directly from a MIP in London to a MIP in Jakarta without staging through MasterCard's central site in St. Louis.

Periodic rate
An amount of finance charge, expressed as a percentage, that is to be applied to an appropriate balance for a specified period, usually monthly, providing there is a balance that is subject to a finance charge that is determined by member institutions.

Personal identification number (PIN)
The confidential individual number or code used by cardholders to authenticate card ownership for ATM transactions or terminals at the point of sale.

PIN generation
The generation of PINs for allocation to cardholders. This must be done under strict security to prevent fraud.

Point of sale (POS)
Location at a merchant where a customer makes a purchase.

Point-of-sale system

An electronic system that accepts financial data at or near a retail selling location and transmits that data to a computer or authorization network for reporting activity, authorization and transaction logging.

Point-of-sale terminal

A device placed in a merchant location that is connected to the bank's system or authorization service provider via telephone lines and is designed to authorize, record and forward data by electronic means for each sale.

Positive authorization

An authorization procedure whereby every account on file in the computer system can be accessed to determine its status before an authorization is granted or declined.

Positive file

A file containing, at minimum, the current balance for each active cardholder account; a positive file may also include PIN and other cardholder information.

Prefix

The initial sequence of numbers from a bankcard's primary account number used to identify the card-issuing entity uniquely.

Principal member

A financial institution or corporation that participates or proposes to participate directly in the card activities of MasterCard.

Private point-of-sale network

A point-of-sale system for use by proprietary credit or debit cards.

Project Omni

A \$65-million series of systems enhancements for Banknet, updating the entire system over a five-year period.

Proprietary card

A plastic card issued by financial institutions and other organizations to their customers for the purpose of accessing credit for deposit accounts via ATM or POS terminals. These cards are considered "proprietary" if they are issued under the logo or emblem of the issuing organization instead of a national service mark or logo such as MasterCard or Visa.

PVC

Polyvinyl chloride, the type of plastic used to make payment cards.

Quick Payment Service (QPS)

MasterCard's pilot program in the United States designed to facilitate new penetration of card acceptance by targeting cash- and convenience-oriented merchant segments, for example, fast food restaurants, movie theaters, convenience stores and parking lots.

Remittance Processing Service (RPS)

An electronic routing and settlement service that accepts previously captured and authorized payment transactions from members for delivery to other financial institutions.

Restricted Card List (RCL)

Formally, *Warning Notice Restricted Card List*; magnetic tape or printed notices containing a list of restricted account numbers to advise merchants not to honor a transaction.

Retrieval request

The request for either an original slip or legible reproduction of the slip as identified in the electronic record.

Revolving line of credit

An account the customer can repeatedly use and pay back without having to reapply every time credit is used.

Risk Management

An area in the Electronic Services Group dedicated to helping members manage their businesses more effectively and reduce their risk of credit and fraud losses.

Rollover

The carrying forward of a portion of an outstanding balance on a cardholder's account from month to month.

Sales voucher

A docket recording a transaction made with a financial transaction card.

Scrip

A U.S. term for the preprinted sales voucher for a transaction for which pre-authorization has been obtained.

Security printing

Printing that incorporates anticounterfeiting measures such as fine-line security patterns, in-fill printing, lenticular patterns, rainbow printing, serial numbering, etc. Security printing is carried out under tightly controlled conditions to prevent fraud.

Settlement

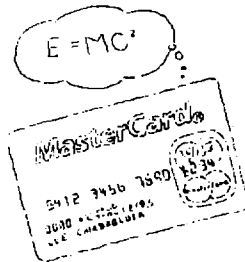
The process by which acquirers and issuers exchange financial data and value resulting from sales transactions, cash advances, merchandise credits, etc.

Settlement date

Within a payment system, the date of settlement between an acquirer and an issuer; for the cardholder, the date when the account with the issuer must be settled.

60/40 card

MasterCard card that features issuer identification on 60 percent of the card face.

**Smart card**

Sometimes called a chip card, this is a credit or debit card that carries an embedded computer chip with memory and interactive capabilities for identification and storage.

Stand-in processing

System developed to interface with Banknet for the purpose of providing credit card authorization when the card issuing member is unavailable; an alternate authorization capability that the Banknet switch provides. Stand-in authorization processing is automatically invoked for MIPs that are temporarily out of service or that respond "late" — i.e., outside the time limits that the switch specifies.

Store card

A financial transaction card associated with a particular retailer or group of retail stores, which can be used only for purchases from that retailer or at the stores concerned. See also "Proprietary card."

Switch

An electronic mechanism that routes transaction data from a POS terminal to the authorizing data processor for approval of the card-issuing institution; also can serve as an authorization center for financial institutions whose account files are maintained on another computer in the network.

Telemarketing

Selling goods or services over the phone, by getting cardholders to quote the identification number of a financial transaction card to ensure payment.

Third-party processing

Processing of transactions by parties acting under contract to card issuers or acquirers.

Trademark

A device used to signify the exclusive use of a name, product, etc., by the owner.

Transaction (cardholder)

A financial service requested by, or on behalf of, a cardholder, including authorization, purchase, withdrawal, cash advance, debit adjustment, check verification, check guarantee, purchase with cash back, scrip, purchase return, credit adjustment, deposit, check deposit, check deposit guarantee, balance inquiry, accounts transfer.

Travel and entertainment (T&E) card

Charge card issued by a private company for travel and entertainment expenses.

Unsecured card

Credit extended without recourse to attach specific assets of the borrower in the event of default.

Uptime

The period when network or computer resources are accessible and available to a user; the length of time between failures or periods of non-availability.

Voice Authorization Service

Provides merchant authorizations for MasterCard and other major bankcards and T&E cards.

Zero floor limit

A floor limit that requires all cardholder transactions to be sent to the issuer for authorization.

ABA American Bankers Association	ICA Interbank Card Association
ACH Automated Clearing House	ICS Issuers Clearinghouse Service
ACPT Acceptance	INAS Interbank Authorization System
APR Annual Percentage Rate	INET Interbank Network for Electronic Transfer
APS Acquiring Processing System	INF Intermediate Network Facility
ARC Airline Reporting Corporation	IOC International Operations Committee
ATM Automated Teller Machine	IOS International Organization for Standardization
AVS Address Verification Service	IPS Issuer Processing System
BATS Batch Authorization Transaction System	ISO Independent Sales Organization
BFE Banknet PC File Express	MAC MasterCard Association of Canada
BIN Bank Identification Number	MALA Latin America Regional Association
CIC Call-in Code	MAPP MasterCard Automated Point-of-Sale Program
CICS Customer Information Control System	MCCPS MasterCard Card Processing Service
CIS Customer Interface Specification	MDS MasterCard Debit Switch
CPU Central Processing Unit	MIC Member Implementation/Certification
CRT Cathode Ray Tube	MIM Member Information Manual
CWB Combined Warning Bulletin	MIP MasterCard Interface Processor
DTMS Data Transfer Management System	MO/TO Mail Order/Telephone Order
ECA Emergency Cash Advance	MSP Member Service Provider
ECR Electronic Cash Register or Emergency Card Replacement	MVS Message Verification Service
EDC Electronic Draft Capture	NCC Network Control Center
EFT Electronic Funds Transfer	OCR Optical Character Recognition
EFTS Electronic Funds Transfer System	OPS Operations Support
EPSS European Payment System Services	PCI Personal Computer Interface
FIM Financial Institution Master File	

COMMON ABBREVIATIONS

PIN
Personal Identification Number

POS
Point of Sale

PSN
Packet Switch Nodes

PTP
Peer-to-Peer

PVC
Polyvinyl Chloride

QA
Quality Assurance, sometimes used in referring to QC

QC
Quality Control, a MasterCard internal department

QPS
Quick Payment Service

RCL
Restricted Card List

RPS
Remittance Processing Service

SYSM
System Mail, the electronic mail system used by MasterCard

TAC
Technical Advisory Committee

TIC
Terminal Identification Codes

VSC
Voice Service Center

WB
Warning Bulletin



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