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*MasterCard
International*



Debit and Chip Products

Standard & Poor's

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Executive Vice President
Global Deposit Access
September 25, 1998

GOVERNMENT
DEPOSITION
EXHIBIT
1496



Debit Products

- Industry/Segment Outlook
- Statistics and Trends
- New Initiatives
- Risks/Opportunities
- View of the Future

Debit: A Different Business Model from Credit

For Member Financial Institutions

- Credit is a stand-alone product
- Debit is an enhancement to bank's core product, the deposit account
- Reduces brick and mortar costs
- 100% online processing reduces risk of fraud
- Unlike credit, can be offered to entire account base

Debit: A Different Business Model from Credit

For Consumers

- Provides anytime, anywhere access to their money (current account)
- Convenience, security

For Merchants

- Encourages incremental sales
- Reduces costs of handling cash and checks
- Generally lower cost than credit

Online Debit Does NOT Replace Credit

It Replaces Cash and Checks

- The Netherlands
 - Check use down from 350MM/year to 50MM/year over a seven-year period
- Canada
 - Debit usage increased from 9% to 22% over two-year period
 - Cash decreased from 58% to 50%
 - Checks decreased from 12% to 7%



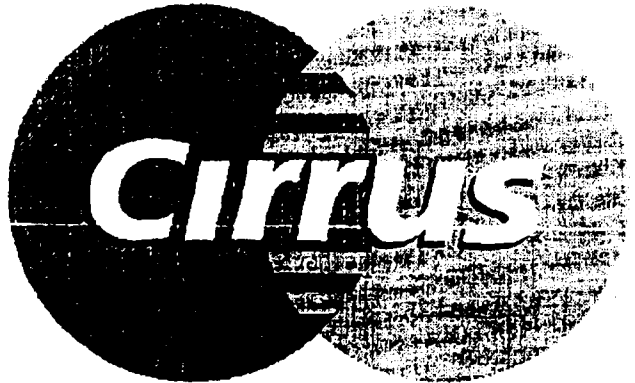
ATM: The Historical Catalyst

- First deployed in U.K. and U.S. in late 1960's
- Development of shared networks dramatically increased growth
- Paved the way for point-of-sale (POS) debit:
 - Consumer comfort with ATM convenience & technology
 - Demand for similar POS utility

Explosive Global Growth of POS Debit

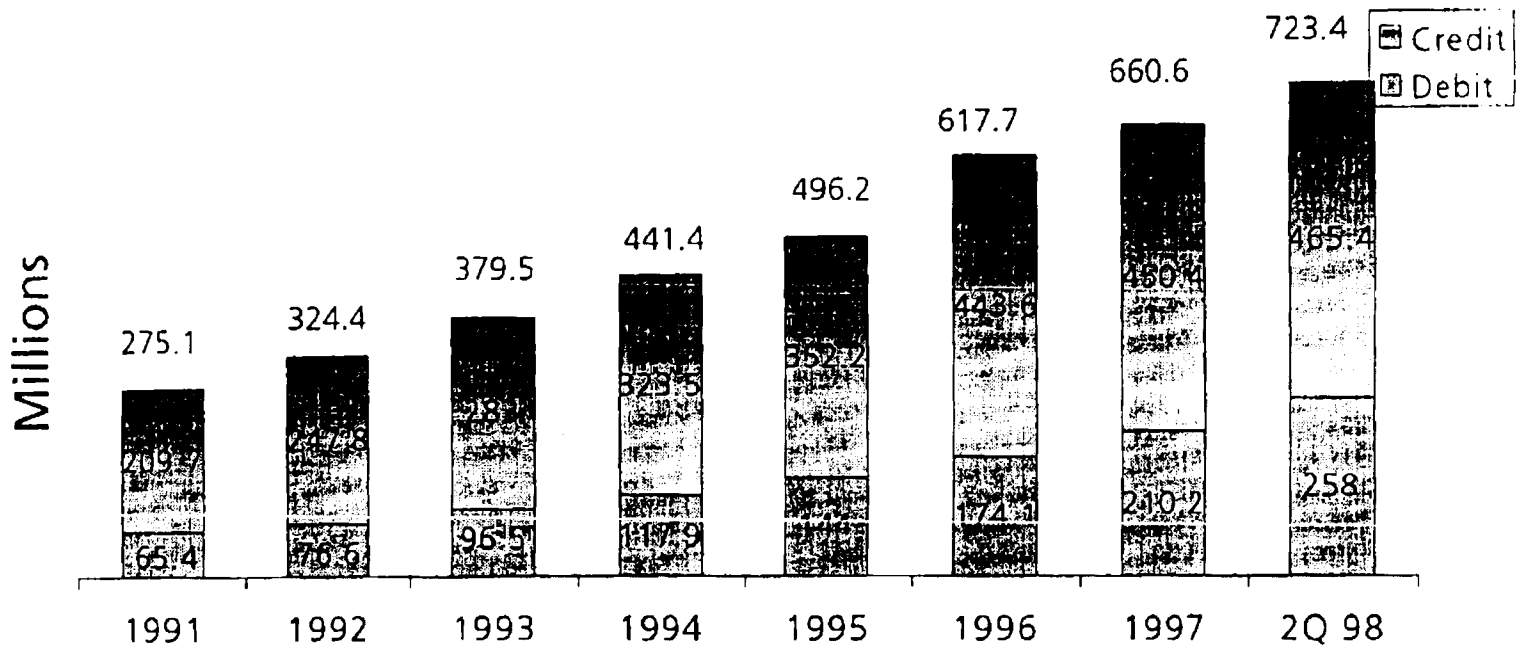
- United Kingdom
Number of debit transactions exceeded credit transactions in 1995
- United States
Debit transactions are projected to surpass credit by 2002
- Canada
From 3.3 million transactions in 1990 to over 1 billion in 1998
Projected to reach 1.8 billion transactions by 2000

1988: MasterCard Acquired Cirrus



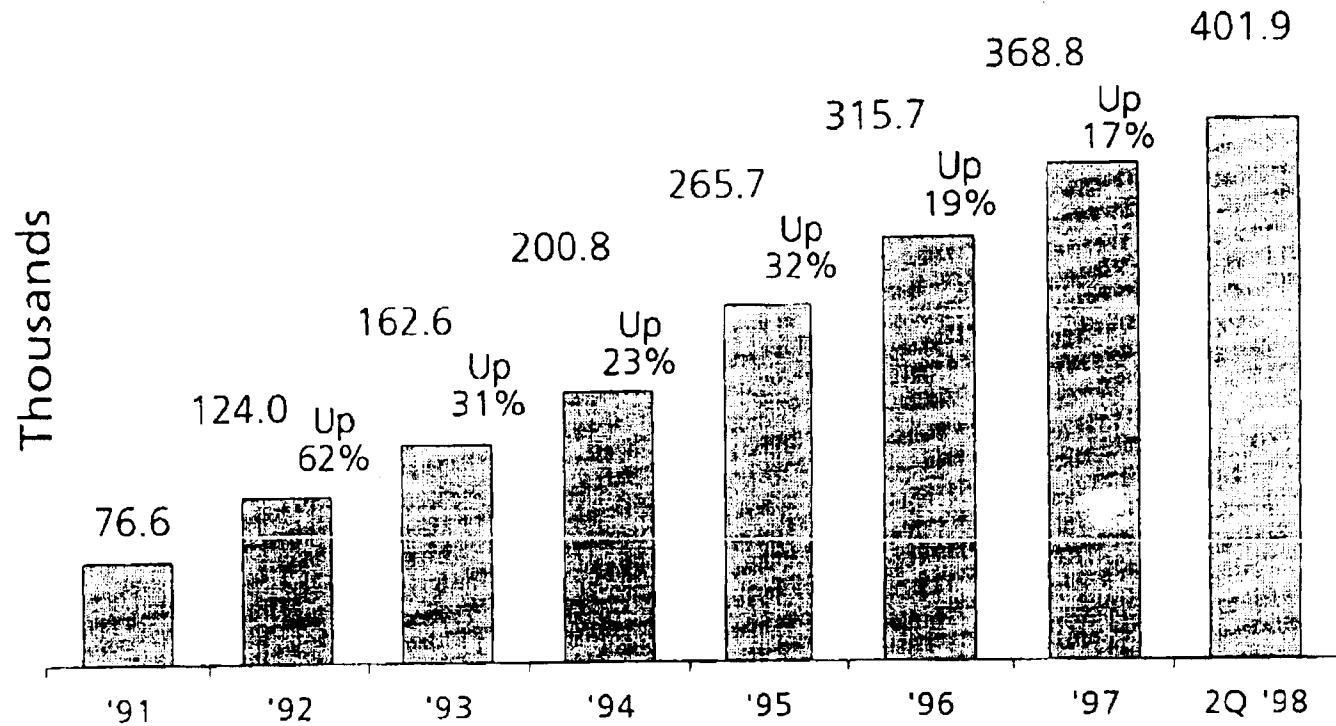
Cards With Access to Network

Over 723 Million Cards



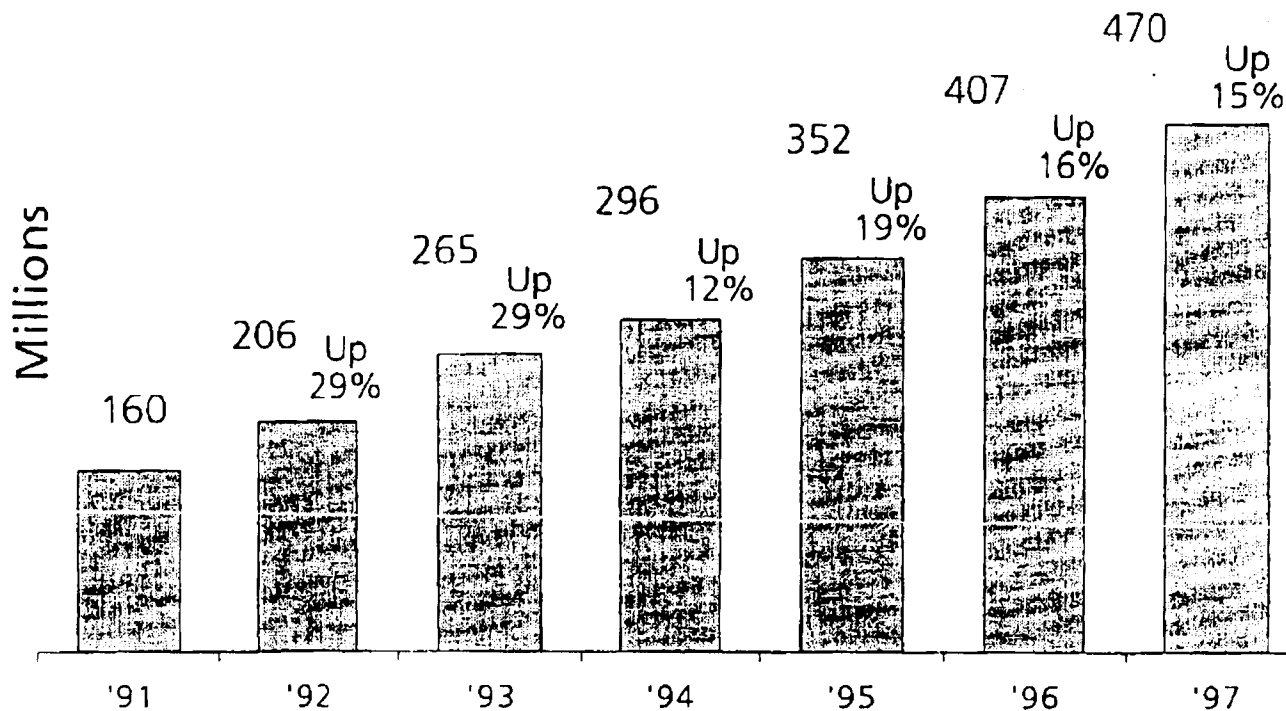
MasterCard/Cirrus ATM Growth

401,895 ATMs



ATM Transaction Growth

Over 470 Million Transactions

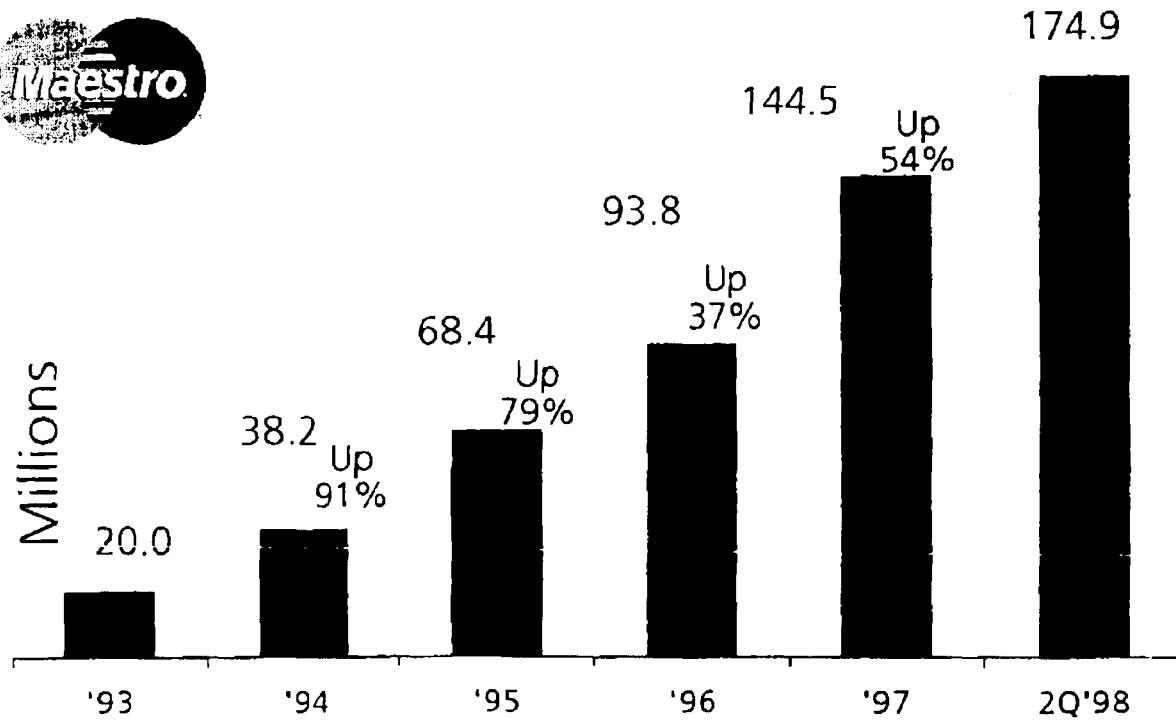


1992: Maestro International Founded



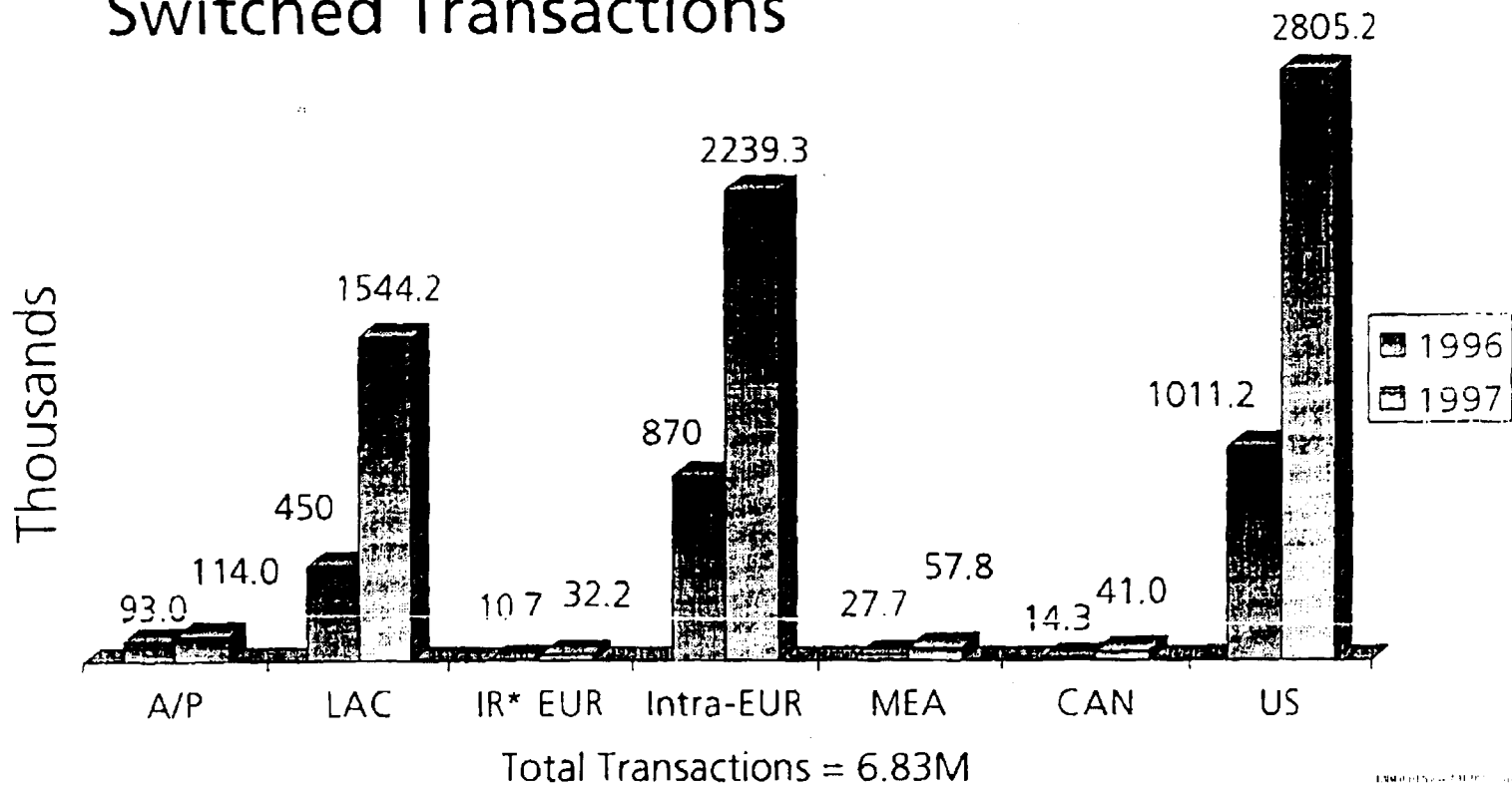
Maestro Card Growth


Over 174 Million Cards



POS Transaction Growth

Switched Transactions





MasterCard Revenue Opportunities

- Transaction processing fees
- Member, participation, and access fees
- Currency conversion fees
- Assessments

New Initiatives

- Enhanced ATM services
- Maestro to the ATM
- Pre-paid debit card platform
- Chip platform



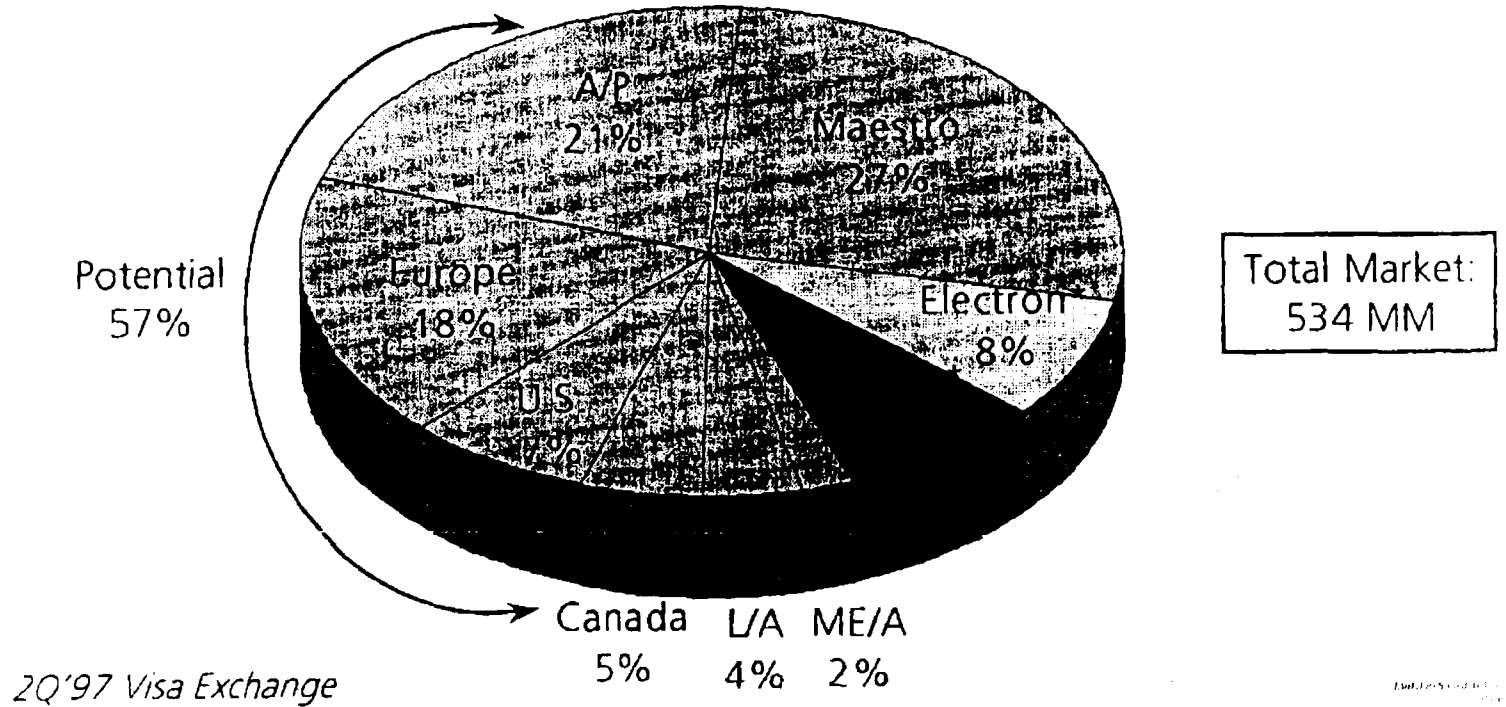


Risks/Opportunities

- U.S. Market
- Visa Electron
- Extending Cirrus brand to private label and other general purpose cards
- Tremendous potential for Maestro

Maestro Issuance Potential

60% of ATM Cards Do Not Have a Global Brand





View of the Future

- Maestro will dominate global debit
 - 600 million cards project by 2002
 - With US\$50 million net revenue
- Debit card usage will continue to replace cash and checks in day-to-day expenditures
- Extension of Cirrus and pre-paid debit will capture additional share for our brands
- Debit will be a bridge to the chip platform



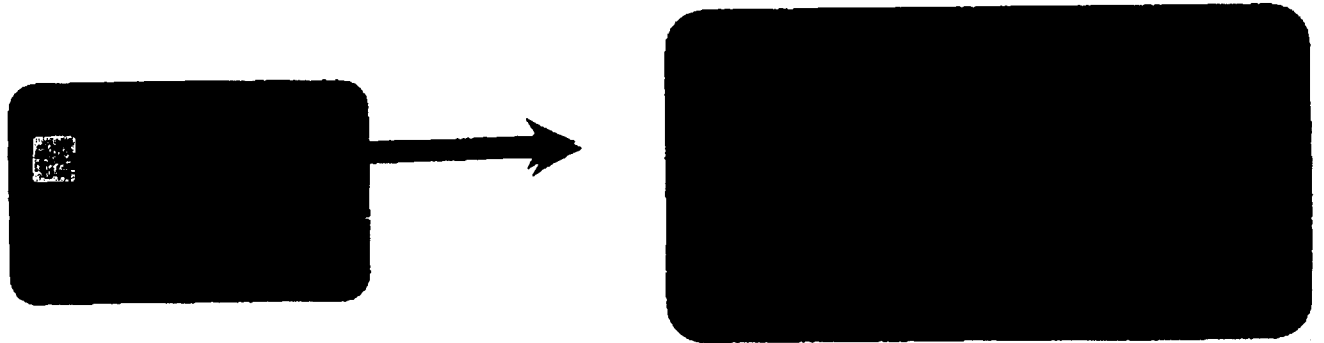
Chip Products

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- Statistics and Trends
- New Initiatives
- Risks/Opportunities
- View of the Future

Chip and the Industry

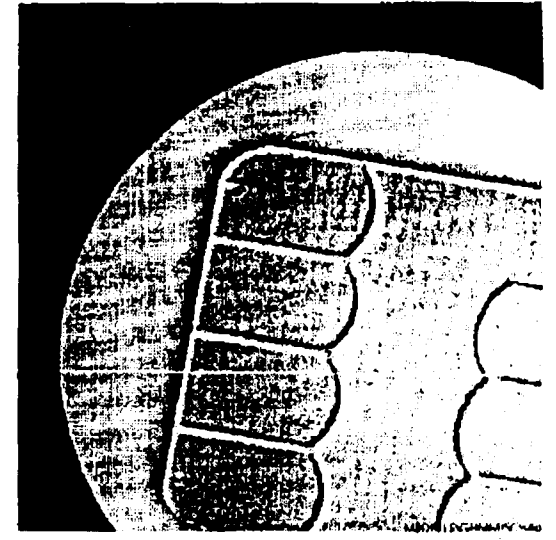
What the Chip Does...

- Puts a "PC" on a card
- Enables transactions from card to card as the chip contains the software
- Contains 80 times more memory than magnetic stripe



Benefits for MasterCard Member Banks

- Ability to deliver personalized products/services
- Enables banks to capitalize on latest technology advances
- Enhanced revenue streams
- Reduced fraud
- Better credit risk management



Industry/Segment Outlook

External Forces Impacting the Banking Industry

- New technologies are opening up new opportunities for reaching consumers in new ways
- Blurring of lines separating telecoms, computing, information technology and entertainment
- By providing information path into consumers' homes and businesses, these industries offer enormous new opportunities to banks

Industry/Segment Overview

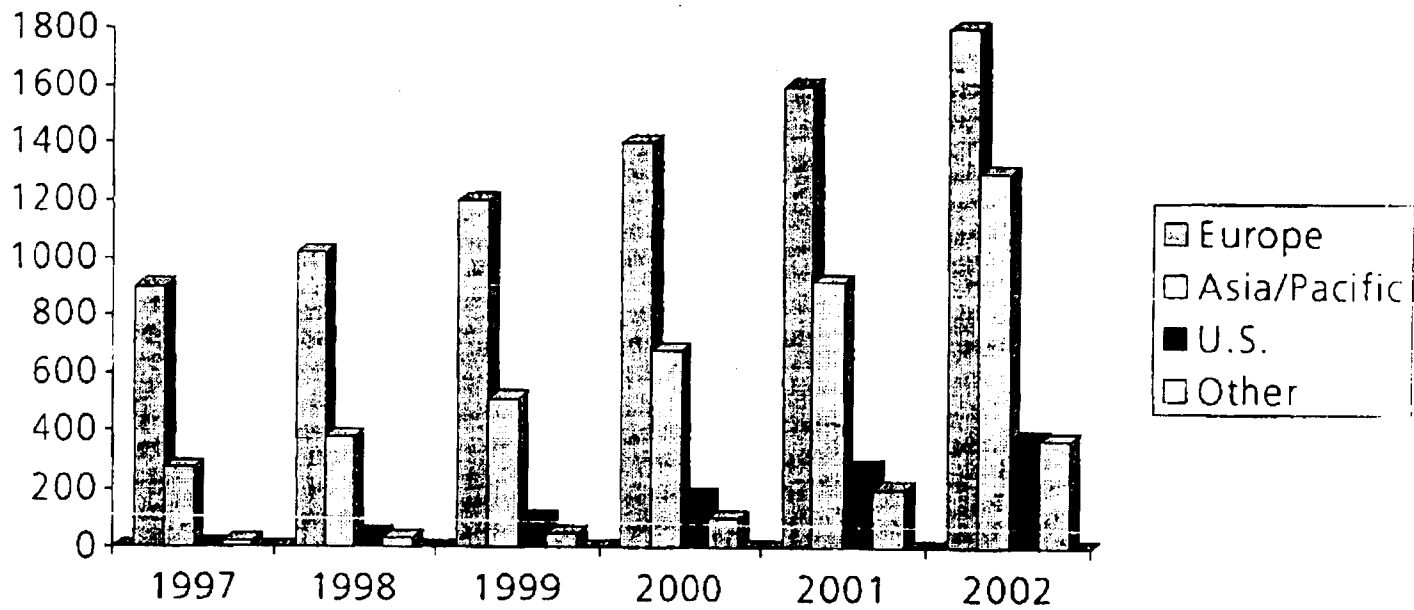
Electronic Commerce

- Evolutionary extension of banks' traditional business
- Their best customers want digital services now
- An opportunity for MC to create a new transactional platform for our Members
- Electronic commerce will increase due to portability of digital certificates
- Internet-based smart card applications are a hook to widespread usage/acceptance



Statistics and Trends

Number of Smart Cards (in millions) 1997-2002



Source: Datamonitor

The Complete Chip Solution™

MasterCard's Chip Strategy

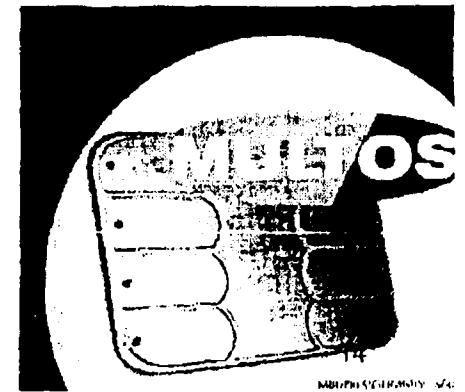
- Interoperability
- Business flexibility
- Technical flexibility
- Infrastructure and implementation
- Communication and training



MULTOS

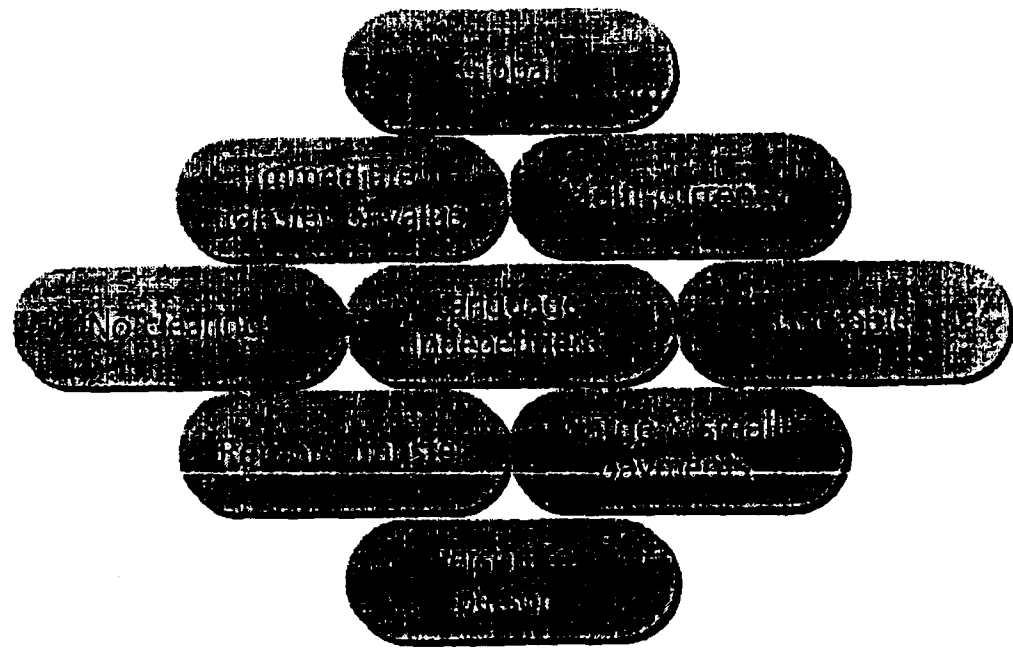
Overview

- A high-security, multi-application operating system
- A non-proprietary, open industry standard
- Wider than payments industry
- The MULTOS specifications are driven by MAOSCO



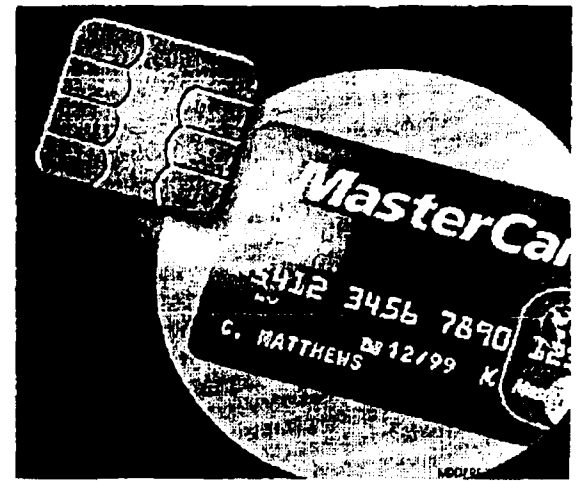
Mondex Electronic Cash


Only Known Purse Initiative Combining
The Following Features:



Introducing MCPA™

- A single chip-based credit/debit application
- Can support MasterCard, Maestro and Cirrus transactions on a smart card
- Key to chip migration
- Available now



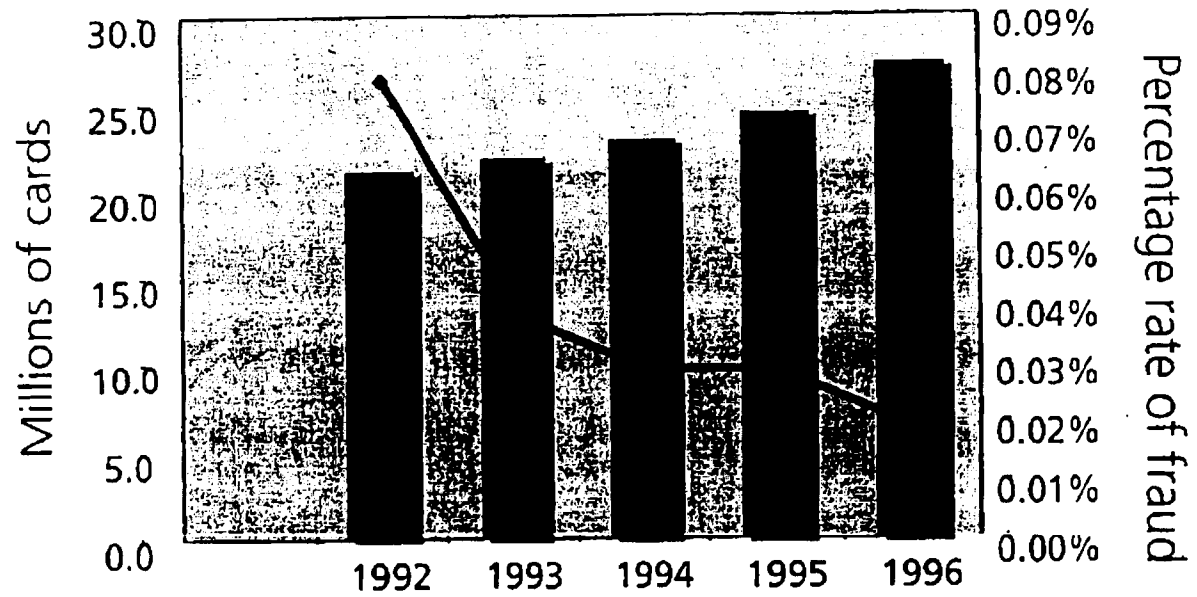
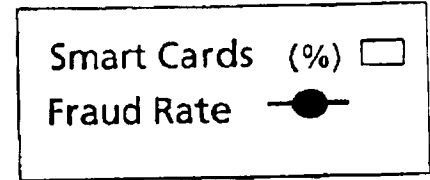


Chip Enhances Credit


- Adds value and profit to credit card portfolios
- Improves risk management
- Brings a new level of security
- Accommodates secure, cost-effective, off-line transactions
- Enables issuers to control authorization

Statistics and Trends

French Fraud Plummetts with Smart Cards



Source: Datamonitor, Groupement des Cartes Bancaires



Chip Enhances Debit

- Chip opens up new debit acceptance possibilities
- Chip enables debit to be added to existing payment programs on a single card
- More opportunity to capture transactions currently conducted with checks and cash
- Chip's off-line capabilities will fuel growth of debit



Creating the Infrastructure

	Target Date	Completed
CA Operational	Q3 '97	√
MCPA™ Specifications	Q3 '97	√
Type Approval operational	Q4 '97	√
Op. Regs. Revised and published	Q4 '97	√
Banknet/MDS 98.1	Q1 '98	√
EMV specs updated and published	Q2 '98	√
MCPA™ Application	Q2 '98	√
EMV/SET integration commenced	Q3 '98	



1999 Initiatives

- Continue to build the infrastructure
- Help banks see and seize the chip opportunity
- Strengthen existing products
- Implement chip solutions to today's business challenges



Risks/Opportunities

What is Blocking the Move to Chip?

- New/emerging technology creates uncertainty
- The effort required for chip migration is substantial
 - Infrastructure transformation
- Financial services applications still in embryonic stage
- Uncertainty about the business case



Risks/Opportunities

New Sources of Revenues

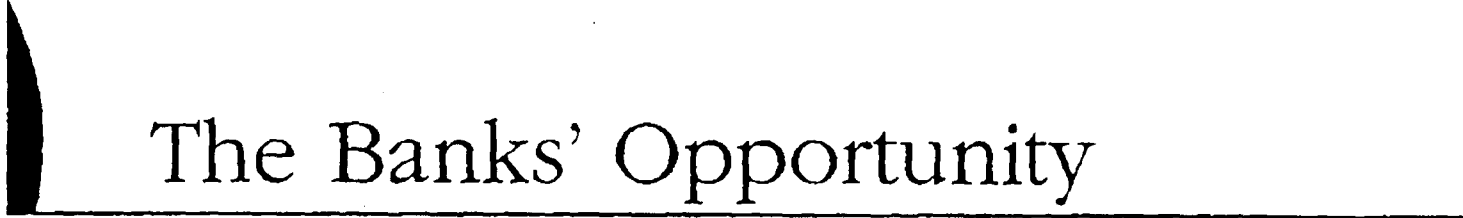
- Mondex franchise sales and future assessment income
- Distribution of MULTOS application load certificates
- Application license fees for MCPA



View of the Future

Conclusion

- More cost-effective than magnetic stripe in long run
- Chip promises to deepen customer loyalty
- Enhanced card activation/usage rates
- Smart cards will widen banks' customer franchise



The Banks' Opportunity

- Capitalize on chip technology
- Enhance the customer franchise
- Build partnerships
- Occupy the market

The MasterCard Complete Chip Solution™
provides the foundation for leadership in the
financial services sector