

**Meeting Between Federal Reserve Board Staff  
and Representatives of Visa  
July 23, 2010**

**Participants:** William Sheedy, Elizabeth Buse, Stacey Pinkerd, Julie Rottenberg, Alex Miller (Visa); Oliver Ireland (Morrison & Foerster, LLP)

Louise Roseman, Jeffrey Marquardt, Jeffrey Yeganeh, Edith Collis, Geoffrey Gerdes, Joshua Hart, Robin Prager, Elizabeth Kiser, Mark Manuszak, Stephanie Martin, Chris Clubb, Dena Milligan, David Stein, and Ky Tran-Trong (Federal Reserve Board).

**Summary:** Staff of the Federal Reserve Board met with representatives of Visa to discuss the interchange fee provisions of the Dodd-Frank Wall Street Reform and Consumer Protection Act (“the Act”). Using prepared materials, representatives of Visa provided an overview of the debit card payment industry; transaction processing; interchange and network fees; risk and fraud management; and prepaid card products. A copy of the handout provided by Visa at the meeting is attached below.



# Presentation to the Federal Reserve on Debit Card Regulation

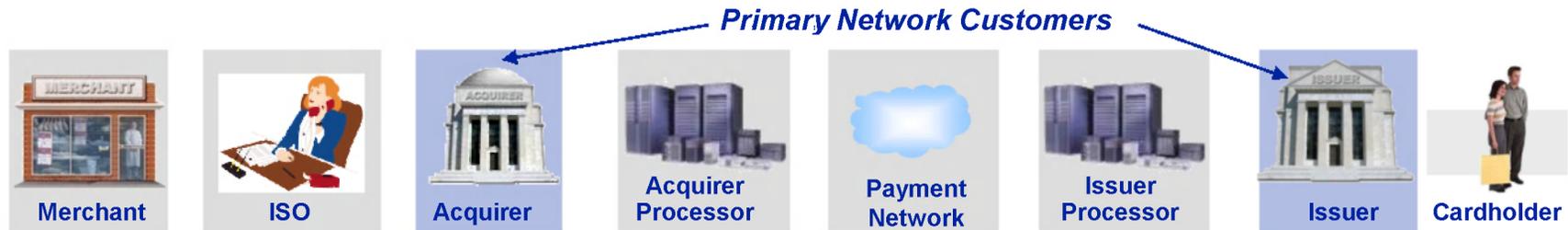
July 23, 2010



# Contents

- Payments Landscape
- Debit Products
- Interchange
- Transaction Processing
- Risk and Fraud Management
- Network Fees
- Government and Prepaid Products

# Debit Card Payment Participants



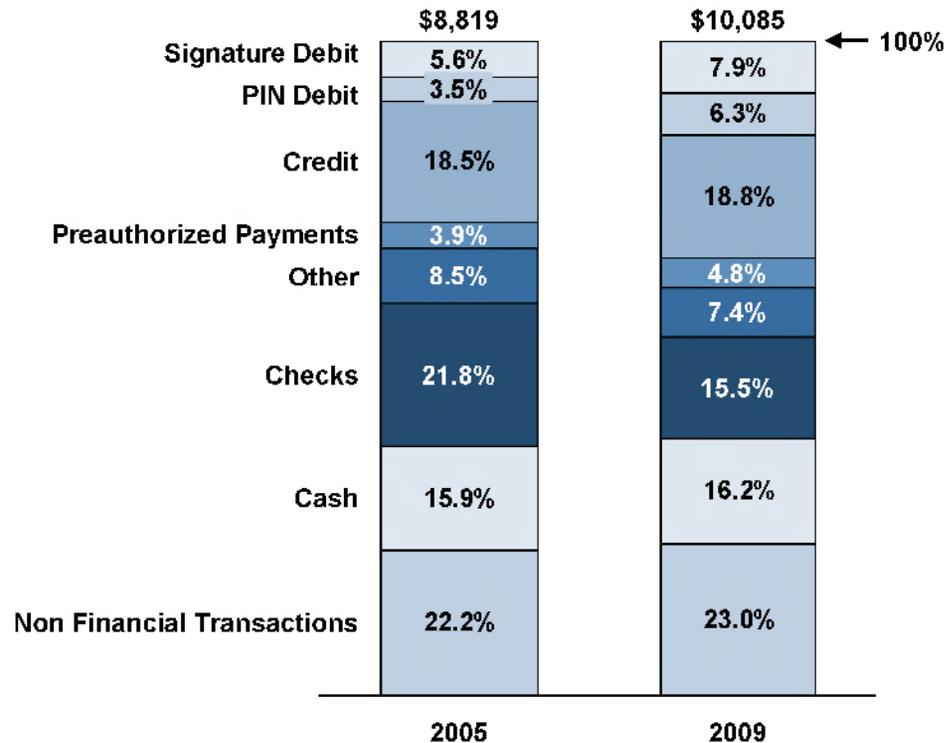
<b>Merchant Outlets</b>	<ul style="list-style-type: none"> <li>• Make payment acceptance decisions</li> <li>• Decide point-of-sale environment, including cardholder options and experience</li> </ul>	~8M
<b>ISO (Independent Sales Organization)</b>	<ul style="list-style-type: none"> <li>• Sign merchants up to accept payment cards on behalf of acquirer clients</li> <li>• In some cases, manage merchant relationships and acceptance infrastructure needs</li> </ul>	>1,000
<b>Acquirer (financial institution)</b>	<ul style="list-style-type: none"> <li>• Sign merchants up to accept Visa and manage merchant relationships</li> <li>• Underwrite merchant risk</li> <li>• Collect funds for card purchases on behalf of the merchant</li> </ul>	>250
<b>Acquirer Processor</b>	<ul style="list-style-type: none"> <li>• Merchant connectivity and transaction processing</li> <li>• Merchant technical support, exception item processing, back-office services</li> </ul>	<50
<b>Payment Network</b>	<ul style="list-style-type: none"> <li>• Switch transactions, including back up processing and in-flight risk/fraud monitoring</li> <li>• Manage payment standards, business requirements and compliance</li> <li>• Manage risk, fraud and settlement flow and risk</li> <li>• Facilitate chargeback and dispute processes, including liability shifts</li> <li>• Develop new products and services</li> </ul>	>15
<b>Issuer Processor</b>	<ul style="list-style-type: none"> <li>• Provide issuer connectivity and transaction processing</li> <li>• Provide issuer back-office services, including risk management and statementing</li> </ul>	<25
<b>Issuer (financial institution)</b>	<ul style="list-style-type: none"> <li>• Market and issue cards; manage cardholder pricing and relationships</li> <li>• Extend credit lines and offer Demand Deposit Accounts (DDAs)</li> <li>• Collect funds from cardholder</li> </ul>	>14K
<b>Cardholder</b>	<ul style="list-style-type: none"> <li>• Use cards at merchant point-of-sale</li> <li>• Maintain an account with the issuer</li> </ul>	>350M

Source: Nilson Report issue 938, Visa Analysis

# Payment Industry Overview

Electronic methods of payment, specifically debit, have increased in share of payments during the past 4 years

**U.S. PCE by Payment Method, CY2005<sup>1</sup> – CY2009 (\$B)**



<sup>1</sup>Signature debit includes all MasterCard debit volume; Preauthorized Payments includes ACH; Other includes GIROS, remote or preauthorized payments, money orders, travelers checks, food stamps and payments to WICs. Checks include POS, direct payment checks. Cash excludes GPC credit, offline debit, and online debit cash advances. Non financial transactions are exchanges of goods or services for which there was no financial payment. Excludes balance transfers, child support, alimony, and prepay. PCE penetration figures based on The Nilson Report (October 2007) and its underlying methodology  
 Source: Nilson Report Issue 942, Euromonitor International, Global Insight, Analysis by Visa .

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# Debit Product Benefits

Debit products improve payment process efficiency

## Consumers

- Convenience of electronic access to DDA with reliability and protection of the network brand
- Visa's Zero Liability policy
- Chargeback rights and dispute resolution
- MOTO/Internet access
- Participation in promotions and rewards programs
- Avoid ATM fees

## Merchants

- More efficient than paper based payments
- Guaranteed receipt of funds
- Chargeback rights and dispute resolution
- Access to global, national and regional networks of consumers
- Incremental sales not limited to cash on hand

## Banks

- Alternative channel to provide customers access to deposit account
- Greater efficiency than paper forms
- Access to fraud/risk management systems
- Value add service to build stronger relationships

# Debit Network Options

Many issuers enable debit cards to access one signature network and multiple online PIN and ATM networks

## Debit Network Choice

	Payment Networks <sup>1</sup>
<b>Signature</b>	  
<b>PIN POS</b> <i>10+ national, super-regional and regional competitors</i>	          
<b>ATM</b> <i>20+ national, super-regional and regional competitors</i>	         

## Select Network Statistics (2007)

Network	Acceptance Locations (M)	Cards (M)	Payment Volume (\$B)
Visa	7	272	557
MasterCard	7	116	198
Interlink	2	123	168
STAR	2	158	119
Pulse	1	90	48
NYCE	1	76	41
ACCEL	1	17	16
Shazam	<1	6	6
Jeanie	<1	15	3

<sup>1</sup>Payment Network table is not exhaustive

Source: Nilson Report #879 and #902; ATM & Debit News 2008 EFT Data Book

Assumption: For PIN-Based POS Debit Network Payment Volume, Payment Volume = reported monthly transactions multiplied by 12 months multiplied by \$36 average ticket size

# Product Features

Visa Debit and Interlink are two separate brands with similar security features offering unique transaction processing and consumer benefits



Other PIN Networks

<b>Basic features and use</b>			
<b>Most frequent authentication method</b>	Signature	PIN	PIN
<b>Processing type</b>	Dual message <sup>1</sup>	Single message	Single message
<b>Transaction processing</b>	2 Transactions <sup>1</sup> -Authorization -Settlement	1 Transaction -Authorization & Settlement	1 Transaction -Authorization & Settlement
<b>Funds Settlement</b>	Average 1-2 <sup>2</sup> Days	1 Day	1 Day
<b>Security features</b>			
<b>Zero liability</b>	✓	✓	
<b>Merchant payment guarantee</b>	✓	✓	?
<b>Chargeback protection</b>	✓	✓	<b>Errors only</b>
<b>Consumer benefits</b>			
<b>Cash back functionality enabled by stakeholders</b>	No	✓	✓
<b>Accepted internationally</b>	✓	No	No <sup>3</sup>
<b>Debit rewards programs</b>	<i>Issuer Decision</i>		
<b>Accepted over the internet/phone</b>	✓	No	Limited

<sup>1</sup>Most frequent processing type; <sup>2</sup>57% settled in 1 day, 95% of transactions are settled within 2 days; <sup>3</sup>Maestro only

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# Payment System Dynamics

Interchange is designed to create balance across all stakeholders while enabling industry-wide efficiency, security, reliability, innovation and growth

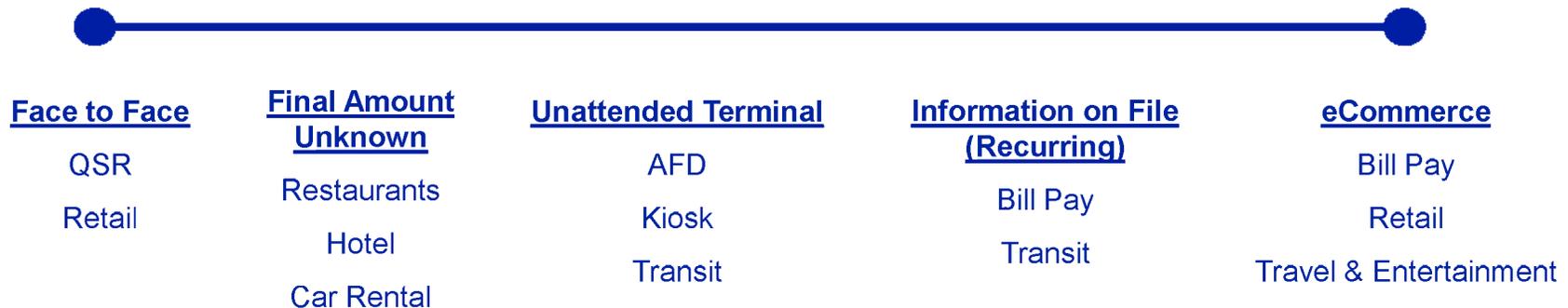


# Interchange Processing

Visa's systems act on a variety of characteristics to accurately assign an appropriate interchange rate to each transaction

- **Interchange rates and qualification criteria** are embedded in VisaNet and in globally published technical requirements, updated twice per year, which apply to issuers, acquirers and processors
  - Acquirers embed the rates to communicate efficiently with merchants
  - Issuers embed the rates to communicate efficiently with partners (e.g., co-brands)
- **VisaNet** looks at several message fields to determine appropriate interchange – including product type, merchant type, jurisdiction and additional data

## Merchant Environment Continuum



# Online vs. Brick and Mortar Retail

The processing environment differs within merchant segment by channel (e.g., bookstore vs. online bookstore)

Category	Merchant / Processor			Issuer	
	Number of Authorizations	Card / Cardholder Verification	Clearing and Data Requirements	Issuer Requirements	Other
Face to Face	1	<ul style="list-style-type: none"> <li>Physical Card</li> <li>Hologram</li> <li>Magnetic Stripe Data</li> <li>Signature</li> </ul>	<ul style="list-style-type: none"> <li>2 days</li> <li>Transaction amount = auth amount</li> <li>Merchant Name</li> <li>Merchant Location</li> </ul>	<ul style="list-style-type: none"> <li>Clear hold</li> </ul>	
eCommerce	1 Authorization and 1 Reversal Adjustment (for each partial shipment)	<ul style="list-style-type: none"> <li>Cardholder supplied account number</li> <li>VbV</li> <li>AVS</li> <li>CVV2</li> </ul>	<ul style="list-style-type: none"> <li>2 days</li> <li>Transaction and ship dates</li> <li>Merchant Name</li> <li>Merchant Location</li> <li>Merchant Order Number</li> <li>Merchant 800 number, URL or Email Address</li> </ul>	<ul style="list-style-type: none"> <li>Multiple authorizations</li> <li>Match and clear holds</li> <li>VbV maintenance</li> <li>AVS, CVV2</li> <li>Merchant data on cardholder statement</li> <li>Adjusted authorization policy for CNP</li> </ul>	<ul style="list-style-type: none"> <li>Additional authorization and clearing transactions for multiple shipment orders</li> <li>Increased customer service calls</li> </ul>

# Interchange Rate Structure

Interchange fees differ by transaction characteristics, due to the resulting exchange of value from the acquirer to issuer



Rate Category	Electronic Authorization	Clearing Days	Additional Clearing Requirements
Standard or Default rate	No	30 days	None
Electronic	Yes <sup>1</sup>	3 days	Passenger Transport must include itinerary data & ticket #
CPS Rates	Yes	2 days (except Passenger Transport)	<ul style="list-style-type: none"> <li>• Authorization amount</li> <li>• Authorization response</li> <li>• Transaction ID</li> <li>• Validation Code</li> <li>• Other</li> </ul>

<sup>1</sup>Authorizations that receive referral response must receive a positive response from Issuer or stand-in authorization response.

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# VisaNet

Visa's global network connects acquirers and issuers to facilitate transactions worldwide

## VisaNet Scope

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- One global image with real-time synchronization
- Transactions cleared in 173 currencies and settled in 17 currencies

## Network and Processing

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- 1.2 M miles of fiber
- More than 110 M transactions/day
- ~5,000 transactions per sec during 2009 peak day
- Transaction round trip = 1.4 sec

## Systems Applications

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- 60 M lines of code
- 50,000 systems changes/year

## VisaNet Protects Stakeholders

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- Near real-time access to risk management and fraud prevention programs for card issuers, including in-flight scoring
- Every transaction on the Visa network is considered in fraud and risk detection
- Data security efforts prevent fraudulent activity on the network safeguarding consumer accounts while protecting merchants and issuers from financial exposure
- Enhanced Visa chargeback rights and efficient, electronic dispute resolution processes tie to Visa processing and downstream systems
- Back up processing for other networks to ensure transaction continuity

# Merchant Acceptance

Merchants enable multiple consumer payment options and often influence consumer choice among those options

## Options: Multiple forms, merchant-selected

- ACH
- Paper (cash, check)
- Merchant proprietary and private label (credit, debit, prepaid)
- Alternative networks (PayPal, Google Checkout, Tempo, Obopay, BillMeLater, etc.)
- Branded Credit, Charge, Debit, Prepaid, and Commercial; PIN-based Debit

## Acceptance and Steering

- Merchants may choose not to accept payment methods, including major branded networks (e.g., Costco, ARCO)
- With respect to Visa and MasterCard, in the United States merchants may choose to accept cards in either the debit or credit category, or both
- Merchants steer customers to merchants' preferred network through POS/terminal protocols

# Consumer Choice

## Consumer Expectations

- Consumers expect that merchants will honor their choice of processing method
- Consumers making a network choice expect to receive the benefits of that selection
  - Fraud and risk protections on transactions, such as zero liability
  - Robust chargeback and dispute rights
  - Avoidance of fees charged by issuers or surcharges by the merchant, for PIN network transactions
  - Rewards from issuers and promotions

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# Data Security and Fraud Management

Proactive data security matched with fraud prevention are critical in maintaining system integrity

**Bold** = Unique to Visa

**PREVENT**  
Minimize fraud in the  
payment system

- **Advanced Authorization**
  - **Visa Risk Manager**
  - EMV Chip Cards<sup>1</sup>
  - Authentication and Data Devaluation
  - **Verified by Visa/3-D Secure**
- 

**PROTECT**  
Protecting vulnerable  
account data

- Data Field Encryption
  - **Data Elimination initiative**
  - PCI Data Security Standards / Payment Application Data Security Standards
  - PIN Security / PIN Entry Device Standard (PED) / Triple Data Encryption Standard (TDES)
  - Card Manufacturer / Personalizer Security
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**RESPOND**  
Monitor and manage  
events that occur

- Rapid Compromise Response and Investigations
- Compromised Account Management System (CAMS)
- **Compromise Recovery – Account Data Compromise Recovery (ADCR), Data Compromise Recovery Solution (DCRS)**
- Merchant Fraud/Chargeback Monitoring Programs
- Transaction Alerts

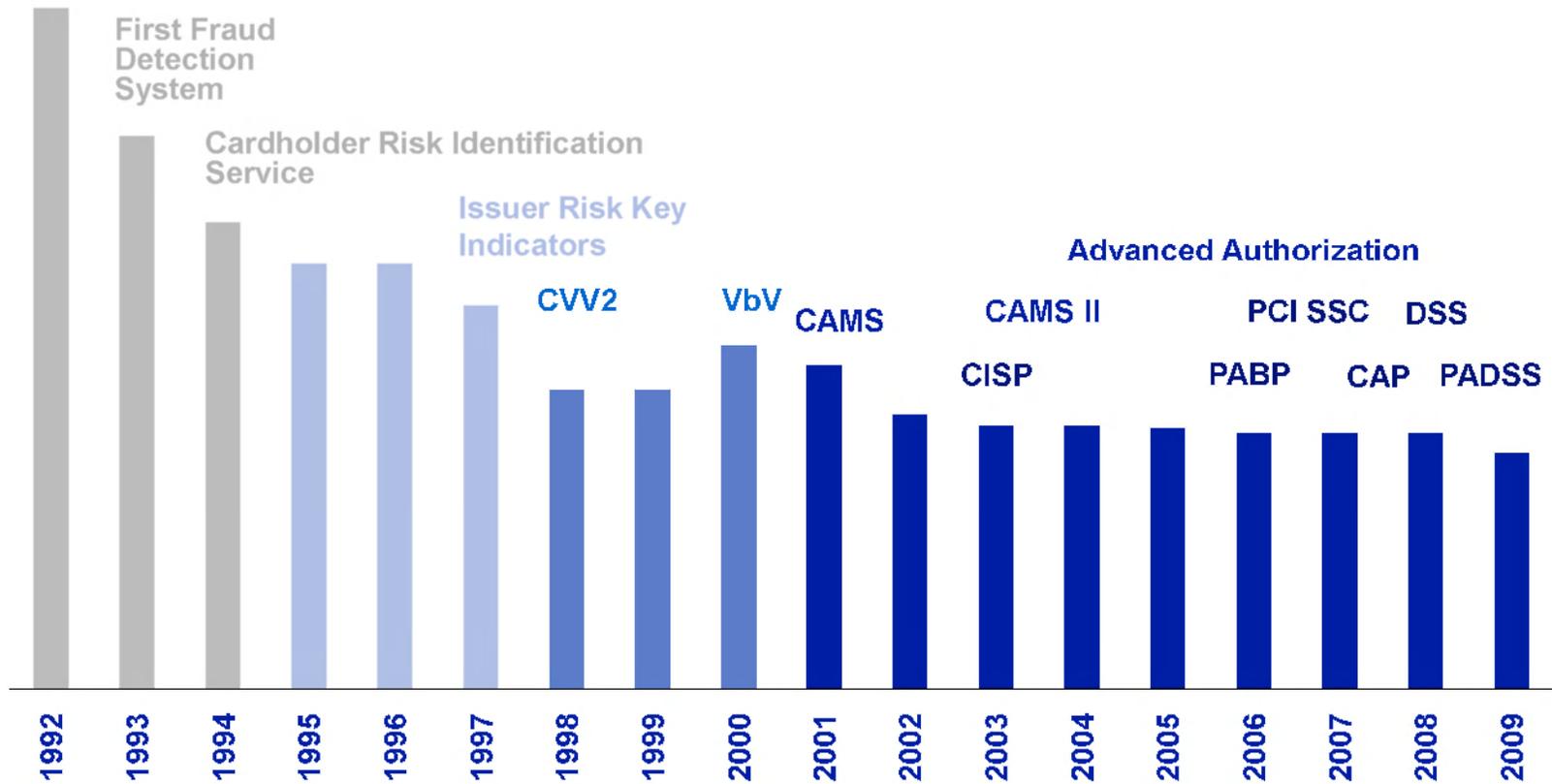
<sup>1</sup>Applicable to contactless standards within USA

# Controlling Fraud Through Innovation

Industry wide innovation has effectively managed fraud

Terminal Placement and CVV

## Global Visa Fraud to Sales Ratio

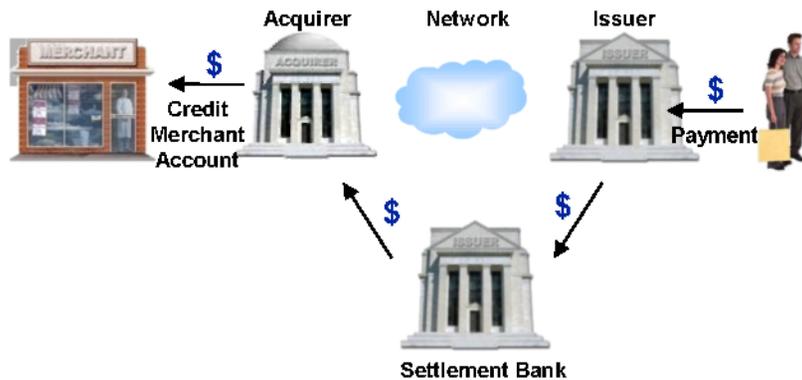


Source: Visa Fraud Reporting (as of March 2010)

# Network Settlement Process Overview

Networks manage settlement risk across all system participants

## Settlement Process



- Issuers pay network for cardholder transactions submitted through network
- Acquirers pay network for exception items, including chargebacks and credits
- Payments are facilitated through net settlement

## Settlement Risk Management

- Visa guarantees payment to issuers and acquirers
  - Liquidity risk is the short-term risk of non-payment on a daily basis
  - Credit risk is the longer-term risk of non-payment due to their financial condition
- Visa global aggregate pipeline settlement exposure is ~\$44 billion<sup>1</sup>, managed with formal credit standards and rigorous oversight processes
  - Formal client exposure calculations, credit evaluations and ratings standards
  - Required collateral from higher risk / non-investment grade clients
  - Credit facility

<sup>1</sup>Based on average daily volumes multiplied by average elapsed clearing days by country plus a 2 days safety margin

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# Stakeholder Economics

Visa fees are divided into four major categories with hundreds of sub-category price points primarily assessed on volume and transactions

	Interchange	Network Fees
Objective	Economic alignment between Issuers and Acquirers	Compensation for use of brand, transaction processing, and other services
Average Level	~125 bps	Issuer: ~12 bps <sup>1</sup> Acquirer: ~12 bps <sup>1</sup>
Payer	Acquirer	Issuer Acquirer
Payee	Issuer	Network
Types	<ul style="list-style-type: none"> <li>Rates by merchant segment</li> <li>Rates by processing technology</li> <li>Rates by Product type (credit, debit, commercial, prepaid)</li> </ul>	<ul style="list-style-type: none"> <li>Card Service Fees</li> <li>Processing Fees</li> <li>International Fees</li> <li>Other Fees</li> </ul>
Client Customization	Customized individual merchant rates	Discounts and Incentives

Note 1: Calculated as Visa Inc. net revenue divided by payment volume, FY 2009 basis. Source: Visa Inc. Finance

# Volume and Support Incentives

Incentives secure long term client commitments and foster business growth

Incentives	Incentive Types	Examples
<ul style="list-style-type: none"><li>• Customized price discounts used to<ul style="list-style-type: none"><li>• Secure multi-year contracts</li><li>• Promote volume growth</li></ul></li><li>• Classified as contra revenue, with various accounting treatments</li></ul>	Basis points (bps) on payment volume	<ul style="list-style-type: none"><li>• bps on all payment volume</li></ul>
	Pay for growth	<ul style="list-style-type: none"><li>• bps on year-over-year growth</li></ul>
	Conversion	<ul style="list-style-type: none"><li>• amount per card converted; and/or milestone payments</li></ul>
	Fixed	<ul style="list-style-type: none"><li>• signing bonus</li></ul>
	Fixed with hurdle	<ul style="list-style-type: none"><li>• amount when payment volume exceeds threshold</li></ul>

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# Government Programs

Governments are increasingly turning to prepaid for funds disbursement

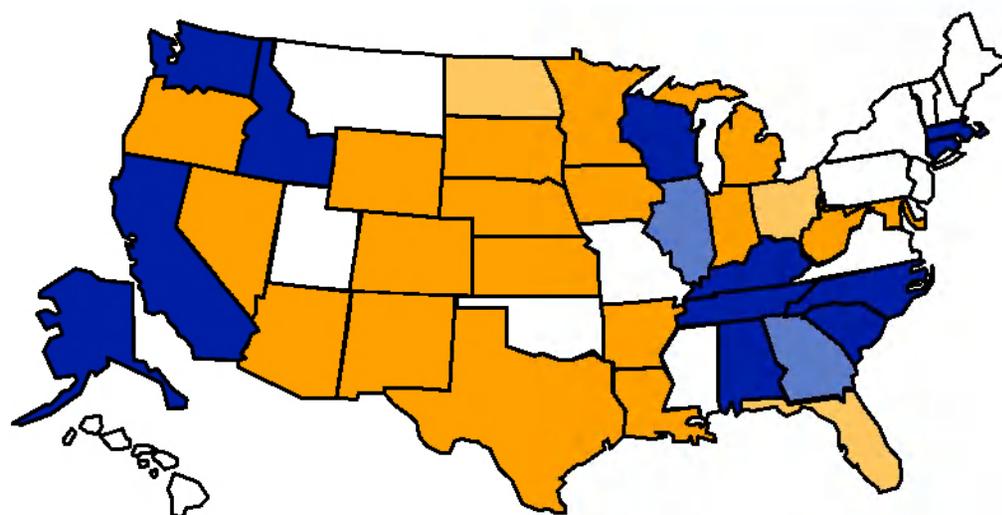
Governments are increasingly turning to prepaid

- Reduces physical check processing, printing and distribution costs
- Eliminates lost or stolen check costs

Prepaid is a convenient solution for program enrollees

- Provides immediate access to funds
- Eliminates need to visit check casher or bank
- Protects funds through Visa Zero Liability protection

## Current government prepaid programs by state



■ Child support

■ Unemployment only

■ Child support and unemployment

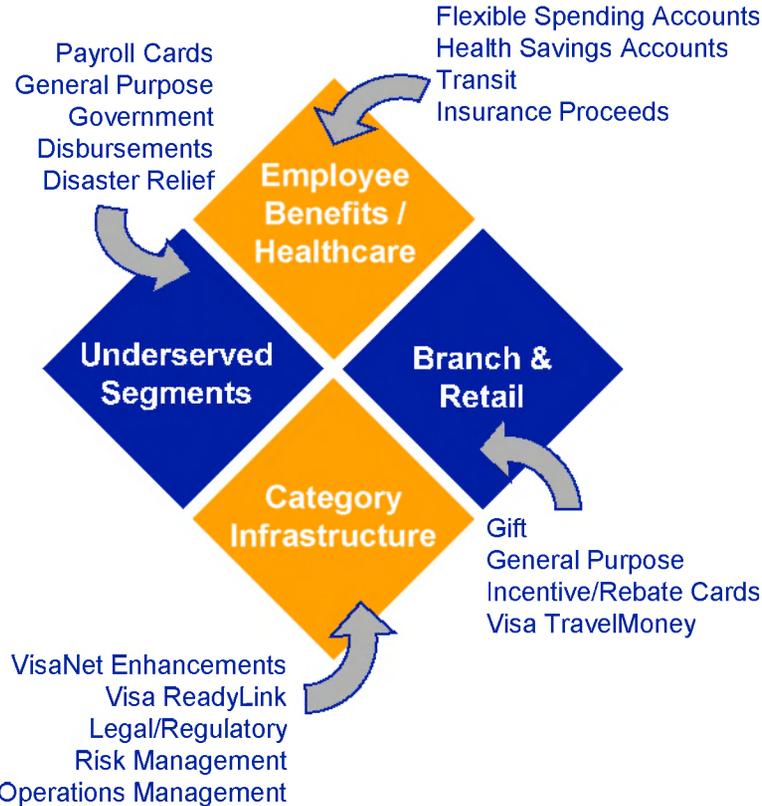
■ Multiple other services

Offering can be expanded to other programs, such as wages, tax refunds, social security, temporary assistance and worker compensation

Source: Various state agency websites

# Prepaid at the Point of Sale

Visa prepaid solutions also address unique POS requirements

Prepaid Products	Challenge	VisaNet Solution
<p><i>Examples</i></p> 	<p><b>Unknown Card Balance</b></p>	<p><b>Visa balance inquiry</b></p> <ul style="list-style-type: none"> <li>Provides cardholder and merchants with balance information at POS</li> <li>Mandatory for all gift card issuers and acquirers</li> </ul>
	<p><b>Insufficient Funds</b></p>	<p><b>Partial authorization with balance return</b></p> <ul style="list-style-type: none"> <li>Merchant is able to complete sale with multiple payment mechanisms</li> <li>Mandatory for all gift card issuers and acquirers</li> </ul>
	<p><b>Transaction Qualification</b></p>	<p><b>Auto-Substantiation</b> </p> <ul style="list-style-type: none"> <li>Purchases are substantiated against IRS-approved list at POS</li> <li>Supports IRS guidelines</li> </ul>
	<p><b>Reloading Card Funds</b></p>	<p><b>Visa ReadyLink</b> </p> <ul style="list-style-type: none"> <li>Uses merchant POS equipment to load additional value to card</li> <li>Currently load transactions accepted at over 10 major retailers (e.g. 7-11, Safeway)</li> </ul>