Meeting Between Federal Reserve Board Staff and Representatives of Visa

May 17, 2016

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Summary: Representatives of Visa met with Federal Reserve Board staff to discuss its observations of recent market developments related to the deployment of EMV (chip-based) credit and debit cards in the United States. Board staff and representatives of Visa discussed the certification process for EMV point-of-sale terminals; the liability shift for counterfeit card transactions; and methods a merchant could use to provide the debit cardholder with a choice regarding how the transaction is routed.

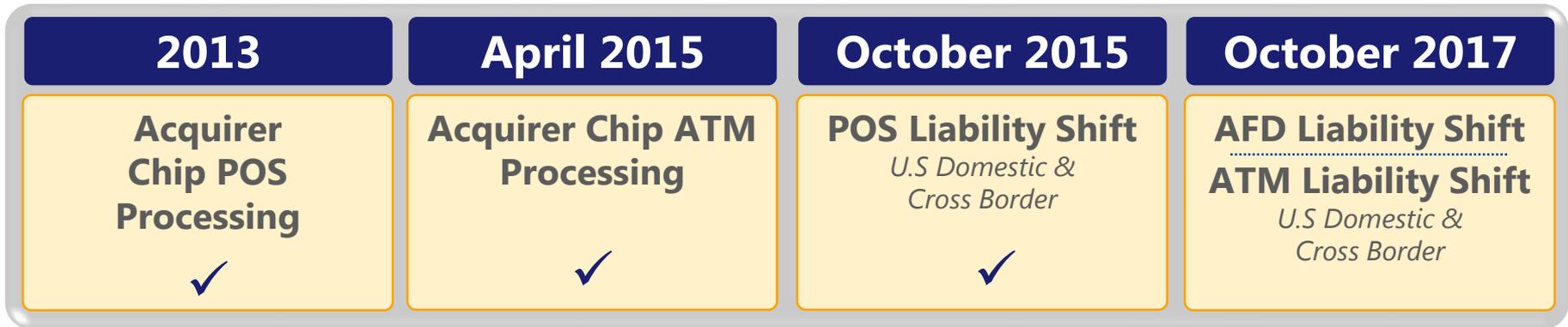Attachment

EMV &
Cardholder Choice Update

Discussion with the Federal Reserve

May 17, 2016

EMV Migration Momentum

2013	April 2015	October 2015	October 2017
Acquirer Chip POS Processing ✓	**Acquirer Chip ATM Processing** ✓	**POS Liability Shift** *U.S Domestic & Cross Border* ✓	**AFD Liability Shift** **ATM Liability Shift** *U.S Domestic & Cross Border*

Progress

- Visa EMV chip cards increased from 130M in July 2015 to 283M in April 2016
  - Debit cards account for 52% of all chip cards in market
  - The U.S. is now the largest EMV chip market in the world
- EMV chip enabled merchant locations grew from 295,000 in July 2015 to 1.1M in April 2016
  - Over 75% of chip-enabled merchants are small and medium sized businesses
- Last month Visa announced the availability of Quick Chip for EMV, to speed up transactions at the point of sale; Quick Chip requires software update only, no additional hardware upgrade or testing is needed

Challenges

- Increase in chargebacks associated with liability shift
- Some merchants have been slow to get certified
- Some merchants are limiting cardholder choice

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EMV Liability Shift & Chargebacks

Liability shifts have been very effective in helping to rapidly move markets around the world to EMV chip technology

- With a chip transaction (i.e., chip card at a chip terminal), counterfeit fraud is eliminated so there is no liability for the issuer or the merchant

- A liability shift provides an incentive for rapid market-wide adoption of the more secure technology

- Prior to October 1, 2015, when the U.S. EMV liability shift occurred, issuers held all counterfeit fraud liability. Following the shift either the acquirer/ merchant or issuer that has not enabled EMV is responsible for counterfeit fraud liability

- A liability shift is essential. It places the cost of the counterfeit fraud with the party that has not done the work to protect their part of the ecosystem

- Merchants that have deployed chip terminals are protected from 100% of in-store fraud, regardless of whether a PIN or signature is used

- For merchants that are not ready, even a modest amount of counterfeit fraud liability may seem excessive given that it is new to them

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EMV Testing and Certification

Networks do not test and certify terminals; however networks provide requirements to ensure a chip transaction works

	Who Builds	Who Certifies	Time To Certify
Terminal Hardware and Core Software	VeriFone Equinox Ingenico	**EMVCo** Validates interoperability	**Complete** Terminals available in the U.S. are EMVCo certified
Off the Shelf/ Plug and Play Payment Application including Visa, MA, Common Debit Message formatting Dry Cleaner Mom & Pop Store	VeriFone Equinox Ingenico TSYS Vantiv First Data	**Acquirer/Processor** Validates interoperability and transaction processing requirements based on network requirements	**Complete** U.S. acquirers offer 'off the shelf' terminals for retailers that have simple point of sale
Customized Customer interface ECR integration Routing logic Loyalty Inventory	VeriFone Equinox Ingenico TSYS Vantiv First Data NCR/Toshiba Micros Connected Payments *(hundreds of technology service providers)*	Network requirements are limited to message formatting and transaction processing	**Development** Takes 2 - 6+ months based on complexity & capabilities **Certification** Takes days - weeks based on solution readiness

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Misperceptions of EMV Operational Challenges

Assertion	Fact
Merchants are now bearing all fraud because of liability shift	In the quarter following liability shift, card-present fraud was split between Merchants and Issuers, with issuers taking nearly three-quarters
Liability shift chargebacks are growing	While EMV-related chargebacks have increased from zero following the liability shift in October, the volume of EMV-related chargebacks has been fairly consistent over the past quarter and falling month over month
Issuers are routinely submitting invalid chargebacks	Invalid chargebacks have remained low in the single-digit percentages, declining between CY1Q16 and the first months of CY2Q16 Acquirers re-presented almost a quarter of total chargebacks (including non-fraud related chargebacks) in CY1Q16
Chip issuers are approving all transactions regardless of risk	Approval rates have been the same regardless of whether a chip card is used at a chip or magstripe terminal
Visa is holding up certification for mandated terminal configuration	Visa doesn't certify terminals, and has not mandated a specific configuration for certification; many options are available for merchants and acquirers to customize and implement based on their business needs
Merchants didn't have enough time to certify ahead of Liability Shift	Visa's roadmap for EMV migration was announced in 2011; specifications and tools, including Common Debit, have been available well in advance of the October 2015 liability shift date; in fact, 75% of chip-enabled merchants are small to mid size
Payment networks are slow to get merchant terminals certified	The certification process is performed by merchant acquirers and service providers, not payment networks; a large number of simple/streamlined solutions have been quickly certified and are available for merchants to implement; some merchants have opted for more complex solutions which take longer to develop and certify

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Visa Core Rules Do Not Restrict Merchant Steering

Long-standing Visa Rules require the merchant to honor a cardholder's request for a Visa transaction, but does nothing to prevent the merchant from steering the cardholder to another payment type

Selection of Payment System - U.S. Region

In the U.S. Region, if a Cardholder presents a Visa Card that is in the Merchant's category of acceptance and that bears a Mark representing another payment service:

- The Merchant must honor the Cardholder's request if the Cardholder indicates that the transaction is to be processed as a Visa Transaction

- The Merchant may process the transaction as something other than a Visa Transaction despite an initial indication by the Cardholder that the transaction is to be processed as a Visa Transaction, but only if the Cardholder agrees that the transaction may be processed as something other than a Visa Transaction. The Merchant may not mislead the Cardholder concerning what payment service or system will be used. If the Merchant provides any information regarding the customer's rights related to various transaction choices, that information must be accurate.

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Cardholder Choice

Nearly 9 in 10 Visa cardholders[1] believe they should have a choice of authentication, and the merchant should not dictate how they pay

- Cardholders want to have control over their financial transactions

- Ensuring that consumers know they can use their Visa Debit card at a merchant that accepts Visa Debit to complete a Visa transaction is the foundation of Visa's brand promise

- Merchants that choose to accept Visa benefit from displaying the Visa brand, attracting customers, and being able to receive guaranteed payment from over 2.4B Visa cards worldwide

- Maintaining cardholder choice fosters competition among networks, merchants and between issuing banks, driving all stakeholders to deepen investments in improved security, innovation, and unique sponsorships and promotions

1 - *Survey of Visa Debit Cardholders and Users* (May 2016), percentages reported are of those Visa cardholders surveyed

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Durbin Amendment Does Not Eliminate Cardholder Choice

Some merchant EMV implementations are preventing cardholders from using their debit card, or selecting their preferred network

- Durbin provides merchants with the ability to route debit transactions among any network enabled on the card. Merchants can steer cardholders to their preferred cardholder verification method or network, but are not entitled to deny cardholder choice altogether

- In some limited cases, consumers are being forced to enter a PIN to make a purchase with their debit card. Consumers that don't know their PIN or don't want to use their PIN for security reasons are being asked for another payment method, and cannot use their Visa Debit card

- Some merchants are implementing chip terminals with confusing options, making it difficult or impossible for consumers to select their preferred network. These merchants are often eliminating options on chip terminals that they offer, or previously offered, to cardholders with magnetic stripe cards

- Chip terminals have greater sophistication and software flexibility, giving merchants the ability to offer clear options for cardholders to select their preferred network, while still allowing merchants to steer or encourage cardholders to use alternative debit routing options

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Cardholder Experience

Maintaining choice improves the cardholder experience by providing transparency and enabling cardholders to realize the full benefits associated with their debit cards

Benefits of Cardholder Choice

Issuer Rewards	• Some issuers offer debit rewards (cashback, points, or miles) that may be dependent on use of a specific network
Card Usage Fees	• Some issuers may have usage fees on certain transactions and cardholders can choose a network to avoid fees
Network Dispute Benefits	• Networks may offer different protections on debit transactions – Visa offers additional protections including: – Expanded set of dispute rights – Zero liability – full protection from unauthorized Visa charges vs. up to $500 liability under federal law – Accelerated provisional credits on disputed transactions – 5 vs. 10 business days under federal law
Network Based Security Benefits	• Consumers receive added security benefits for transactions routed over Visa including: – Brand qualities that instill trust (e.g., real time fraud detection, network safety & soundness) – Branded products and services that deliver differentiating value (e.g., transaction alerts, geo-location services, transaction controls)
Network Based Marketing & Offers	• Unique promotions and offers are available on Visa transactions that cardholders can only receive if the transaction is routed over Visa

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Cardholders Voicing Their Concerns

Cardholders want choice and are concerned about using their PIN to make purchases

88%
of Visa cardholders[1] say they should decide whether to enter a PIN or SIGN

47%
of Visa cardholders[1] have some concern about using their PIN to make purchases

30%
of Visa cardholders[1] prefer to SIGN

USA TODAY MONEY

"I disagree with the comment 'PIN is the only truly secure form of cardholder verification' simply because **anyone in line can see me entering my PIN number**. Touch ID that is part of Apple Pay is the only truly secure form of cardholder verification."

"@[Merchant] why are you forcing customers to use a PIN with chip cards? This **should be consumer choice** at checkout"

"Slow down @[Merchant] – US just made it to chip & sign & you want to go straight to chip & PIN? **Don't even know if I HAVE a PIN**"

"@[Merchant] I can use my chip card at many merchants who give me the choice of PIN or not. **You take that choice away, I go elsewhere. Simple**."

"@[Merchant] the fact that you MAKE the customers put in their PIN number if they have a chip, is absolutely RIDICULOUS!!! **Give us a choice!!!**"

"@[Merchant] just lost my business and now shopping at HEB. The CC chip machines **risk my PIN and potential fraud**."

"And the new card machines at @[Merchant] don't let me use my card as a credit with the chip and I can't swipe it. **Grrr I don't want to use my PIN**"

1 – *Survey of Visa Debit Cardholders and Users* (May 2016), percentages reported are of those Visa cardholders surveyed

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Visa is Flexible in How Merchants Implement Choice

Debit cardholders have long had a choice at the point of sale using "credit/debit" and "cancel" buttons; as terminals become more sophisticated there are more ways for merchants to enable choice

Less Sophisticated Point of Sale → **More Sophisticated Point of Sale**

← **Pre Card Entry** → ← **Post Card Entry** →

Credit / Debit Selection	Payment Brand Selection *Pre Card Entry*	PIN Entry / Cancel	Application Selection *Post Card Entry*	Payment Brand Selection

Credit / Debit Selection

☐ Credit

☐ Debit

Payment Brand Selection — *Pre Card Entry*

☑ Debit card transactions may be processed using the STAR, Pulse, NYCE, or ACCEL networks. Uncheck this box if you DO NOT want your transactions processed through these networks.

Unchecking will route your transaction through the Visa or MasterCard network, as appropriate.

PIN Entry / Cancel

Please Enter Your PIN:

```
1 2 3
4 5 6
7 8 9
* 0 #
```

OK   Cancel

Application Selection — *Post Card Entry*

☐ Visa Debit
☐ US Debit

Payment Brand Selection

Please select the network through which your debit transaction will be processed:
○ VISA   ○ STAR

Please select the network through which your debit transaction will be processed:
○ VISA   ○ pulse

Please select the network through which your debit transaction will be processed:
○ VISA   ○ STAR
○ pulse

Implemented in CNP Today
Implemented in CP Today

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Certified Implementations in Market

Visa's priority is to support the industry with migrating to EMV as quickly as possible; over time, as terminals become more interactive, our expectation is that consumers will be presented with clearer options

Less Sophisticated Point of Sale → **More Sophisticated Point of Sale**

← **Pre Card Entry** → ← **Post Card Entry** →

Credit / Debit Selection	PIN Opt Out / Cancel	Application Selection

Wegmans

CVS

Lbrands

The Home Depot

Lowe's

SuperValu

Nordstrom

Kohl's

Trader Joe's

Petco

All brand names are the property of their respective owners, are used for identification purposes only, and do not imply product endorsement or affiliation with Visa

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Summary

- Given the size and complexity of the US market, the EMV migration has been very successful to date, with over 280M cards and 1.1M terminals chip-enabled

- Continuing the quick migration progress is in everyone's best interest to reduce the risk from massive retailer breaches that have occurred over the past few years

- The liability shift is having the desired impact, allocating liability for fraud chargebacks to the party – issuer or acquirer/merchant – that has not upgraded to EMV. Both issuers and merchants are holding counterfeit fraud liability as a result of the shift, creating an incentive for those that have not to quickly adopt chip

- Visa is actively engaged with stakeholders on EMV-related operational issues, looking for ways to streamline the certification process and ensure proper use of chargebacks

- Cardholders want choice and some are concerned about using their PIN for purchases

- The vast majority of merchant chip implementations support cardholder choice. Some merchants are inappropriately using the chip migration to restrict cardholder options. These actions are impacting cardholders, networks, and regulated and unregulated issuers. We continue to work with select merchants to address consumer choice

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