

Financial Services

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The Changing Retail Payments Landscape

Response to Harry Leinonen's paper

Tony Hayes
Partner, Oliver Wyman

Summary of Leinonen's argument and my comments (US focus)

Efficiency theme	Leinonen argument	Response/comments
1 Cost	<ul style="list-style-type: none"> Payment systems will be redesigned using modern tools to achieve cost benefits 	<ul style="list-style-type: none"> N/A
2 Integration	<ul style="list-style-type: none"> Payments will integrate with core banking services Leather wallet will transition to the mobile wallet 	<ul style="list-style-type: none"> Yes, several examples in the marketplace today; more can be done Mobile payments have tremendous potential, but key barriers remain
3 Competition	<ul style="list-style-type: none"> Payment networks are inefficient and should be regulated Retail prices should be pre-payment costs, and allow for discounting or surcharging 	<ul style="list-style-type: none"> There is Intense competition across payment network providers; may be helpful to regulate against cross-subsidization Cost/benefit of price regulation is very complex
4 Development	<ul style="list-style-type: none"> New products cannibalize existing products, lower volume means lower margins; hence, banks are motivated to stick with legacy solutions 	<ul style="list-style-type: none"> The payments "pie" is not fixed; electronic payments have been growing on a per-capita basis Innovation is largely creating new "front-ends"; very difficult to build a new network <ul style="list-style-type: none"> Key challenge is how to make all participants better off
5 Security	<ul style="list-style-type: none"> Growing interest in a common, standardized authentication solution 	<ul style="list-style-type: none"> N/A
6 Regulation	<ul style="list-style-type: none"> Regulators can speed up and delay the rate of development 	<ul style="list-style-type: none"> Some very positive regulations, e.g., Check 21 and rules to expand card use Impact of CARD Act and Reg E changes unclear; interchange is a wild card

There are numerous examples of payments integrated with core banking services, demonstrating the value of a combined offering...



- “My spending report” tracks payments across credit, debit, checks and bill pay
- Budget Watch feature tracks deposits as well, and helps customers set spending goals



- Several banks allow customers to integrate their bank accounts with Quicken or other Personal Financial Management (PFM) tools, and use that to pay bills as well



- USAA iPhone application allows remote deposit capture using camera within phone



- Chase (and several other banks) provide alerts on all types of payments transactions

...but certain systemic changes could further enhance efficiency

- Customers have different account numbers for different products; there's no universal customer ID or account number
 - Giro transfers (or “credit push”), are well established in other markets and are an efficient vehicle for moving good funds
 - Requires the recipient to disclose their universal account number
 - Australia's BPAY provides users with a common “mailbox” that can be used for receiving and paying a wide-range of bills
- The increasing integration of payments and banking increases switching costs for customers
 - One of the primary components of the business case for electronic bill payment, for example, was a reduction on customer attrition
 - On the whole, banks have not developed effective “switching kits” to migrate both the banking and the payments relationships, e.g. direct deposit, bill pay
 - In some countries, banks are required to “port” this information over to the new bank
 - In the US, to promote competition, the FCC requires mobile network operators to support number portability – a customer can switch cell phone carriers while keeping their phone number and address book

Shifting the leather wallet to the mobile wallet is a compelling proposition...



Benefits

- Ubiquitous device; replacing old one-way card form factor with smart two-way handset
- Better security
- Broader adoption of tap-and-go payments may help further displace cash
- Support for loyalty programs and various mobile marketing campaigns

...but three critical issues need to be addressed for mobile payments to succeed

1. The chicken-and-egg problem of adoption

- Consumers will only use their phones for payments if they are accepted at merchants where they regularly shop
 - High traffic locations are key
- Merchants will only accept mobile payments if there is a sufficiently large base of customers who want to use this payment method
 - Need to justify the investment in NFC readers

2. Identifying a sustainable business model

- Merchants do not want pay more interchange than they do today for credit and debit cards
- Issuers do not want to receive less interchange than they do today
- Yet, with mobile payments, there are more “mouths” to feed
 - Carriers, who bring customers and NFC-enable handsets
 - Others (e.g. TSM)

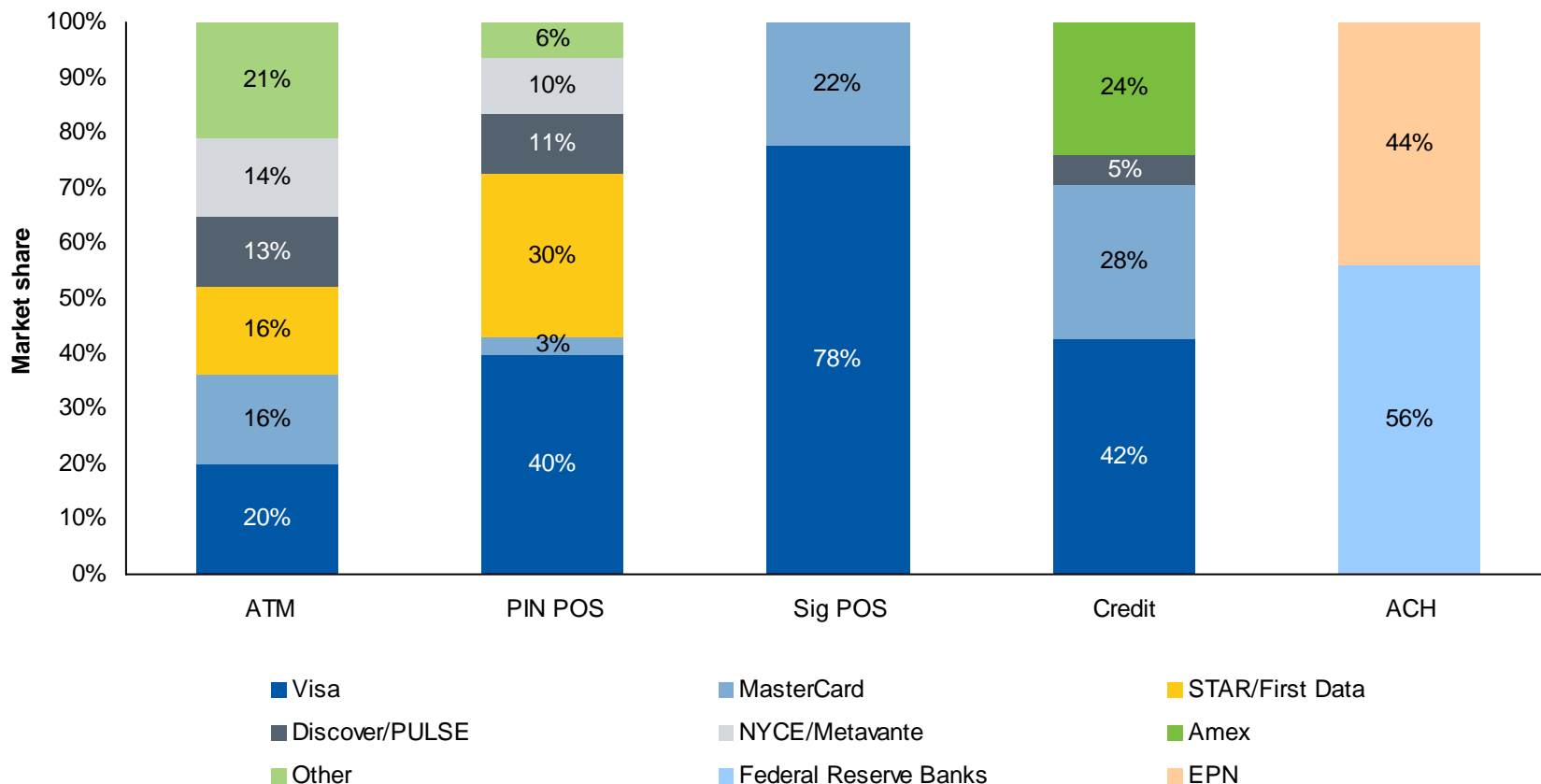
3. Creating a reason to use

- Existing magnetic stripe payment cards work fine for consumers
- For mobile payments to gain share, it needs to offer a **better-than** proposition
- Contactless cards are struggling to gain traction
 - Poor issuance/acceptance
 - Little difference between tapping and swiping

There is intense competition between payment network providers by product

Payments network market share

% of total GDV payment type



Source: Federal Reserve, Nilson, 2009 EFT Handbook, Oliver Wyman analysis
 Note: ACH share is by volume of transactions, not GDV

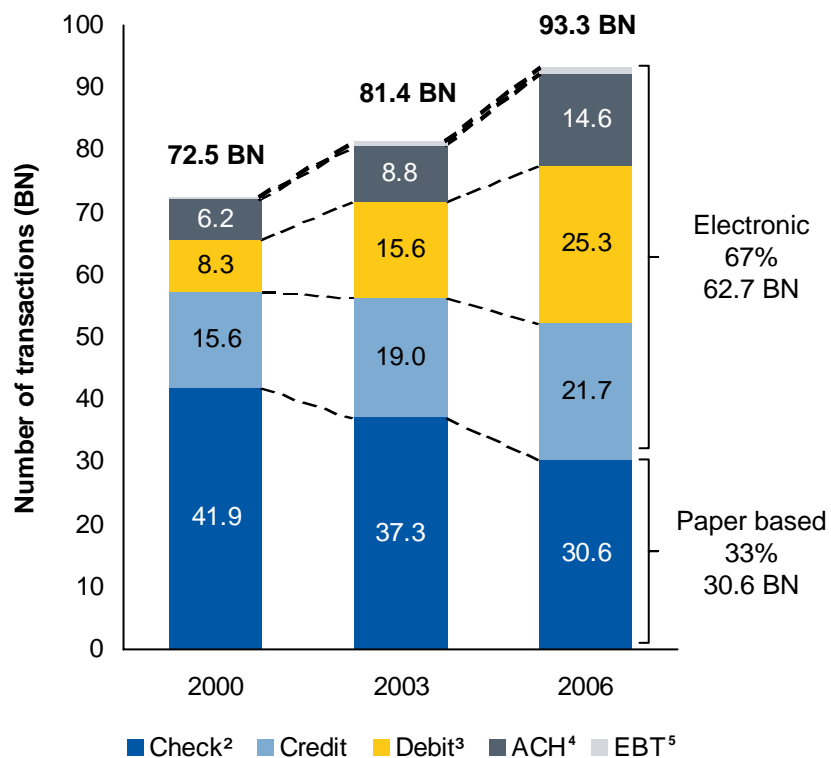
Cost/benefit of price regulation is very complex; based on limited evidence to date, the impact may not be positive

- Interchange is a hotly-debated topic
 - Should interchange be regulated (lowered)? Would lower costs to merchants translate into lower costs for consumers?
- The Australia regulator did intervene to limit interchange rates and the results are widely critiqued
 - Credit card rates were cut from 1% to 0.5% in 2003
 - A CRA study concluded that most retailers did not reduce their prices¹
 - The study also found that fees for cardholders went up by 22% on average, and as much as 77% for rewards cards
 - The Australian debate is now moving to debit, where scheme debit has a positive interchange and EFTPOS has a negative interchange
- In the US, there is intense competition, healthy innovation and ever-increasing system utilization (more cards, more merchants, more volume)
 - Risk that intervention would undermine the market's vitality
- The Government Accountability Office (GAO) is studying the efficacy of interchange and is due to report on next Thursday, November 19

1. Source: "Regulatory intervention in the payment card industry by the Reserve Bank of Australia", CRA International, 28 April 2008

The US electronic payments “pie” is not fixed; evidence from the Federal Reserve’s payment studies shows strong growth

Number of annual US non-cash transactions¹



Payment type	Compound annual growth rate (2000-03)	Compound annual growth rate (2003-06)
Check	(4.3%)	(6.4%)
Credit	6.7%	4.6%
Debit	23.5%	17.5%
ACH	13.4%	18.6%
EBT	15.4%	10.0%
Total	3.8%	4.6%

- From 2003 to 2006, electronic payments transactions increased by 18.7 BN, likely displacing the 6.7 BN in decreased check transactions
- Remaining growth of 12 BN transactions, or 27%, was far higher than population growth of 2.8% and personal spend growth of 17%, and is likely driven by
 - Increased velocity of transactions
 - Cash migrating to card-based payments

1. 2000, 2003 and 2006 data are presented as these are the most recent data available from the Federal Reserve, the definitive source of payments information
Studies are conducted every three years

2. Check transactions represent number of checks paid (the number of checks written declined less rapidly than the number paid)

3. Debit transactions include both Signature and PIN based debit

4. ACH stands for Automated Clearing House, an electronic network for financial transactions

5. EBT stands for Electronic Benefit Transfer; US Federal and State governments use EBT to provide benefits via plastic debit card (in lieu of paper checks)

Most successful payments innovations are new payment form factors; network innovations face the chicken-and-egg problem associated with adoption

Innovations in new payment forms

Successes

PayPal

- Accounts for ~15% of all online payments volume
- Based on traditional payment methods, e.g. ACH, credit, debit



- Prepaid is the fastest growing card-based payment
- Leverages existing payment networks

Failures



- ACH-based payment; authentication using online banking credentials

Network innovations

Successes



- Reload network for prepaid cards leverages retail distribution channels

Failures



- Biometric-ID based payment method



- New payments network with direct ties to customers and merchants; offers significantly lower interchange



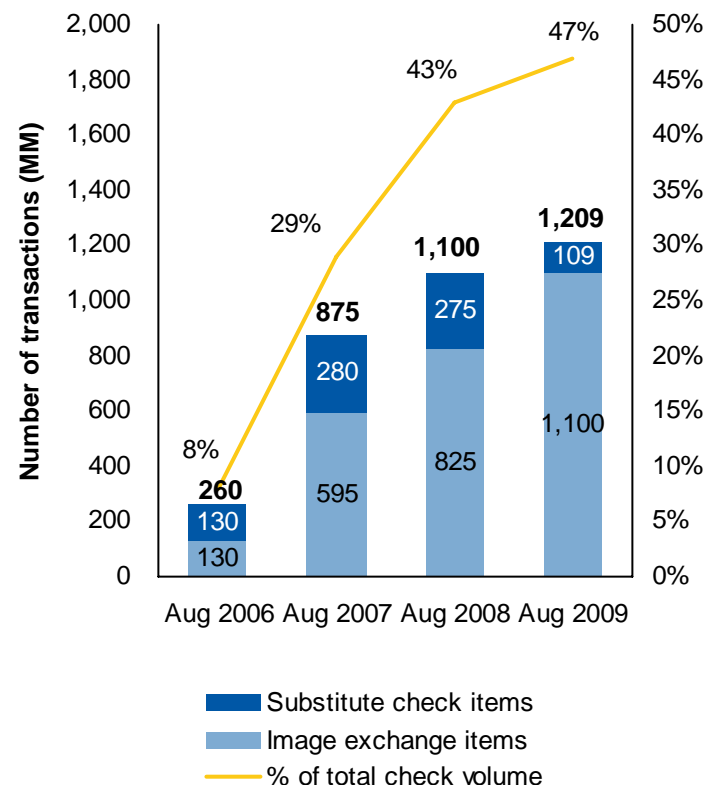
- Value proposition to date has not been compelling enough to drive merchant acceptance

To succeed, new products or networks need to benefit all participants – issuers, customers and merchants

Regulation can facilitate very positive developments within a market, as demonstrated by Check 21

- Congress passed the Check Clearing for the 21st Century Act in Oct 03 and it went into effect in Oct 04
- Allows for any physical paper check to be imaged
 - Banks can convert images into Image Replacement Documents (IRDs), or Substitute Checks, which have the legal equivalence of the original paper item
- As banks developed capabilities to accept images, IRD volumes declined and image exchange volumes increased dramatically, leading to significant reduction in check processing costs
 - IRD volumes have declined even as penetration of electronic checks has increased
- In addition, total check volume has been declining as well, from 42 BN in 2000 to 31 BN in 2006, further reducing processing costs
 - The Federal Reserve banks operated 45 check processing centers in 2003, and will be down to one in a few months
- Check 21 facilitated the introduction of consumer-friendly applications such as remote deposit capture and imaging ATMs

Electronic check volumes



Source: Digital Transactions Oct 2009, Check Image Central, Oliver Wyman analysis

Changes to card regulations have also been positive

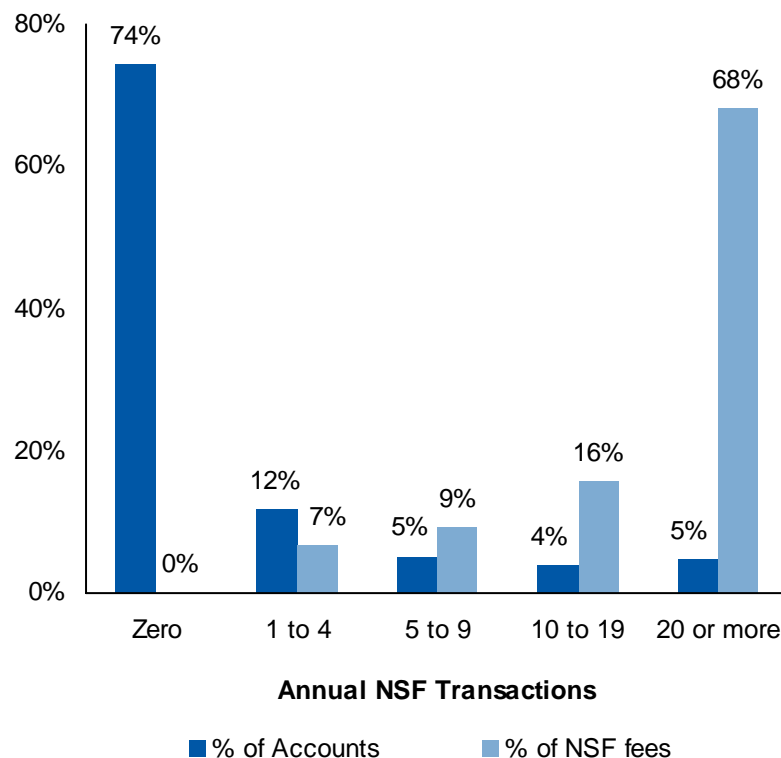
- In June 2007, the Federal Reserve Board modified the receipt requirement of Regulation E so that merchants are no longer required to make a receipt available for debit card purchases of \$15 or less
 - Makes acceptance of electronic payments easier at vending machines, parking lots and unattended locations
- Payment networks no longer require a signature for qualifying transactions under \$25 across several merchant categories
 - Encourages acceptance by increasing speed of checkout lanes

Source: Payment News

However, the benefit of potential changes to Reg E to govern debit card initiated overdrafts is unclear

- 47% of overdrafts are caused by debit cards, and proposed changes may make these programs opt-in or opt-out
- A small minority of customers pay the vast majority of fees
- Many large banks have begun self-regulating their overdraft practices
- Without these fees, most low balance customers will be unprofitable to the bank
- Will banks introduce minimum balances or monthly service fees?
 - If so, will these customers buy in or will they simply opt out of the banking system?

Percent of accounts and NSF fees by NSF transaction frequency



Source: FDIC Study of Bank Overdraft Programs, November 2008

Tony Hayes

Partner

Oliver Wyman

617-424-3283

tony.hayes@oliverwyman.com