

The Changing Retail Payments Landscape: An Overview

Commentary

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I would like to respond to some of Harry's positions and arguments.

In Table 1, I've summarized as best as I could a number of the points that were made. The left-hand column lists the six major components of his paper—all under the heading of efficiency themes. The categories include 1) cost, 2) integration, 3) competition, 4) development, 5) security, and 6) regulation. I would like to take each one of these in turn and give you a few thoughts of my own.

The first comment is in terms of the cost theme—that is, Harry asserts that payments systems will achieve, or be redesigned using modern tools to achieve, cost benefits. Harry references some of the standards that have been employed using analogs in other industries. The evidence would suggest that certainly is the case. The cost per transaction in every country around the world is coming down, in terms of the actual processing costs. We are getting efficiencies. We are seeing new tools being used. We are seeing advances in the telecommunication methods at play. It seems indisputable.

Second, in terms of integration, I culled out two main subthemes here. Harry's first argument is that payments will become much more integrated within the core banking proposition. I certainly would agree, and I am going to comment on this and give a few examples of things we see here in the United States. A second was touched on by Dan Hesse over lunch and again in this paper around the potential for mobile payments—the prospect of essentially moving the leather wallet you have in your pocket into the mobile wallet and even the multiaccount mobile wallet, and the potential that mobile payments can offer. There is tremendous potential for what mobile could bring. We can almost point to the end state and see the vision. And the vision is very appealing, clearly what was referenced. What is tricky is the part from here to there, and we will touch on that.

Table 1
Summary of Leinonen's Argument and My Comments (U.S. Focus)

Efficiency theme	Leinonen argument	Response/comments
1	<p>Cost</p> <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	<p>Integration</p> <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	<p>Competition</p> <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	<p>Development</p> <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 • Key challenge is how to make all participants better off
5	<p>Security</p> <ul style="list-style-type: none"> • Growing interest in a common, standardized authentication solution 	<ul style="list-style-type: none"> • N/A
6	<p>Regulation</p> <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

Third, and one of the things that is going to be maybe the most controversial aspect of Harry's paper, is around competition. He asserts payment networks are monopolies. They are inefficient and ought to be regulated. Certainly, my belief is the opposite. The fact is competition between payment networks could not be any more intense. I see this on a daily basis as the networks compete against each other for share. It has only gotten more intense over the years. I'll just touch on this.

Then the other point that was made is around payment pricing not being transparent. It is embedded. It is passed on to retailers or other merchants and then embedded in the cost of goods and services. That is certainly true. But the question is, should it change and become more transparent? So, you have pricing of goods; should that be before the cost of payments? I only touch on it, as clearly it is a very complex topic. As far as I can tell, there may be benefits but also there could be clear downsides to trying to regulate this market. I would just urge caution here.

Fourth, in terms of development, another interesting question is, is the size of the payments pie fixed? Harry claims that payments are complementary goods. A consumer can make only so many payments. Therefore, if you grow in one area, you by definition are reducing elsewhere. If you reduce volume in a business that has largely fixed costs, then you are going to reduce its margins. Therefore, banks inherently will not be motivated to try to change in order to maintain the status quo and keep their legacy payments systems.

The data from the Federal Reserve's own studies on the payments market would suggest the size of the payments market is not fixed. The pie is growing. It could be that the payments that are growing are doing so at the expense of cash. But also I think we are seeing an increase in the velocity of payments. There is lots of innovation and development going in the payments space, albeit most of that is with what I characterize as payment front ends, that then subsequently utilize the ACH mechanism or the existing card networks for the underlying payment products.

I will touch on regulation later. For now, I would like to return to the topic of integration and the suggestion that payments will more closely integrate with core banking services. I think that will absolutely be the case. Just to pick four examples here, and there are many more examples we could use to illustrate some of the things that have occurred recently or over the last couple of years, where we are seeing banking services and payments services become much more intertwined.

Wells Fargo, one of the biggest and most-advanced retail banks, has a number of very neat tools to allow their customers and cardholders to track and analyze their payment activity, set budgets, and basically be more intelligent financial users. Similarly, you see other banks offering integration with other personal financial management tools to track spending and budgeting.

USAA, one of the pioneers in mobile banking, recently came out with an application for the iPhone, whereby their members can take a photograph of the front and back of a check and then e-mail that image to USAA for processing. We

are now combining the payment or deposit functionality in with the bank through a new device (the phone).

We will see integration between banking, payment, and mobile through what Chase and others are doing with mobile alerts. So while you're paying for a good or service with your Chase credit or debit card, the transaction is routed through Visa in real time, and you get a message on your phone confirming the payment while you are still at the register. It is a great reassurance for the customer. It is also a great fraud mitigation technique, and it has been quite effective indeed.

These things are happening. There certainly is a lot more discussion about other things to come. The trend we are seeing would suggest the integration is there, and there is potential for even more.

However, there may be some systemic things that could be done that are potentially worth the involvement of the regulatory authorities. First, as was referenced, there are not common account numbers or account numbering structures here in the United States, which makes it quite difficult to move funds, to have a common scheme for paying bills, or other core simple plumbing when it comes to the payments structure. When you compare this with what happens throughout Europe with GIRO payments or with the Australian BPAY system where you get a common universal inbox for all your payments, there is a lot more that could be done.

Similarly, a lot of banks use payments as a hook. If you get the customer hooked for direct deposit and bill payment and various other transactions, that customer is much less likely to change banks in the future. Banks have been quite ineffective at creating switch kits to get you unhooked from bank A and move you over to bank B, unlike in the cell phone business where you have number portability and you can very easily leave your current carrier and go to a new carrier and keep the same telephone number, move your address book and so forth. So, one of the things that could be worth exploring is, would a change along those lines be helpful for competition and vibrancy in banking?

The other theme within integration deals with mobile payments. If you go to any banking or payments conference today, you will see lots of vendors talking a big game about the potential for mobile banking or mobile payments. In mobile banking, I think the facts are clear. We see very strong and growing adoption numbers. We see dramatic adoption by financial institutions offering mobile banking and consumers using mobile banking.

In terms of mobile payments, though, it is an entirely different story. There are three fundamental issues that need to be resolved for it to take off. The first is the chicken-and-egg problem that all new payment mechanisms face. It evidences itself here whereby, as a consumer, I am only going to be interested in using my phone to make payments if lots of merchants are willing to take the phone as a payment method; and similarly merchants only want to roll out mobile-Near Field

Communications (NFC) accepting capabilities if lots of people want to use that as a payment method. So far, there has been little success in really moving the needle here in terms of getting one side or the other to move.

Second, and this was referenced over lunch, it is very difficult to create a business model that works for all parties. If you are a merchant, one of the points you make is how much you pay for payments today. There is little to no desire to pay more for a new payment method, which is really just changing the form factor from a card to a phone. On the other hand, if you are an issuer, you receive revenue today from card payments. You certainly are not going to receive any less in order to fund the mobile networks or the handset manufacturers, or the trusted security managers, or any of the other parties that need to be involved in mobile payments. So it is very tricky to find a pricing mechanism that works for all.

Third, even if we solved the first two issues, why switch to mobile payments? The cards in your wallet work pretty well already. For mobile payments to take off, there needs to be more than just a core application. It needs to offer something else of incremental value over and above what you can do today. There are lots of things it could be, but people are still struggling to find that really killer app.

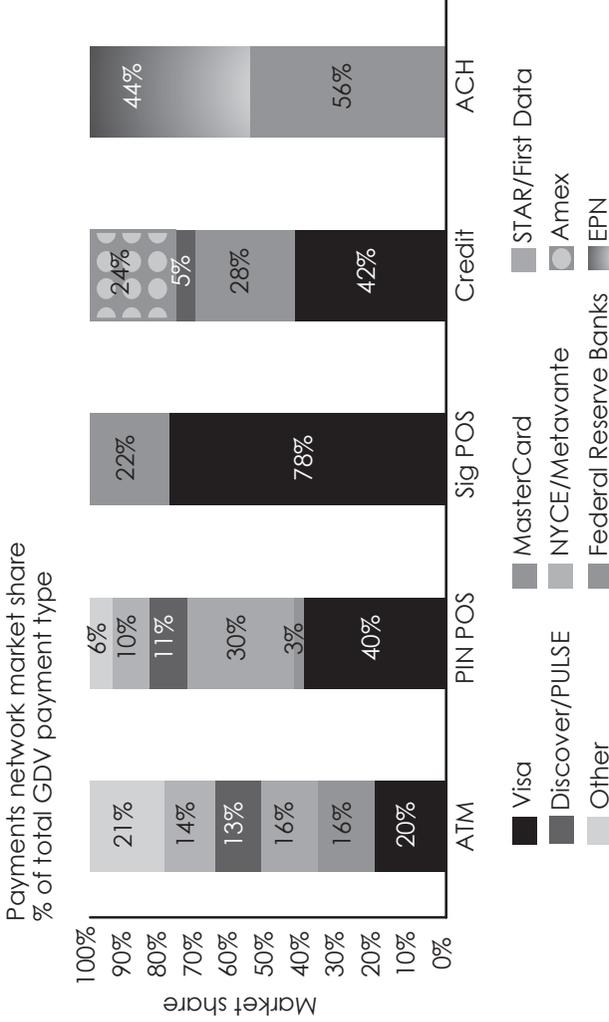
The next theme within Harry's comments that I want to talk about is competition and the assertion that payments networks themselves are not necessarily efficient and are barriers to innovation and competition.

Chart 1 estimates the market shares for the major payment networks by category in the United States including ATM networks, PIN point-of-sale networks, signature debit networks, credit card networks, and ACH networks. The chart shows in many of the categories, it is still a quite fragmented market. Across the board, these networks go head to head, toe to toe every day trying to win business. And, yes, the financial incentives being offered and the marketing support being offered only grow in every deal being struck. In addition to competing on the merits, there may be value in assuring that companies do not use their market power in one category to try to gain market or pricing power in another. This is the essence of the Wal-Mart and all other merchants' lawsuit, where market power is used in one category to try to get pricing power in another. The same remains true going forward here in the United States.

However, one can look at the competition and market structure and draw different conclusions. One conclusion is that the government, regulators or other bodies ought to intervene to ensure there is a level playing field, and maybe even regulate pricing.

Clearly, this is a very hotly debated topic. In Australia, there has been intervention. The interchange rates on credit cards were reduced and the outcome, as far as I've been able to ascertain, is not clear cut by any stretch of the imagination. It is unclear whether retail prices came down. But it does appear as though the cost for cardholders—explicit costs for using cards—went up. Now the debate is

Chart 1
Competition Between Payment Network Providers by Product



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

shifting away from credit cards toward debit cards, where in the Australian market, scheme debit has positive interchange to the issuer and Electronic Funds Transfer at Point of Sale (EFTPOS) has negative interchange to the issuer.

All of us in this room, I am sure, will be holding our breath next Thursday when the Government Accountability Office (GAO) comes out with its study on interchange and the efficacy of this pricing mechanism here in the United States.

Next, I would like to provide evidence that the U.S. electronic payments pie is not fixed. Chart 2 is taken from the payments study the Fed does every three years. It shows the number of noncash payments in the United States, by trying to use a census-type approach. In the year 2000, there were 72 billion transactions conducted, 81 billion in 2003, and then 93 billion in 2006. The chart shows checks are declining, while all other payment methods are growing.

What is most noteworthy about this chart is from 2003 to 2006, the number of checks declined by 6.7 billion transactions, but the number of other payments increased by 18 billion. Presumably the decline in checks moved to cards, but where did the other 12 billion transactions come from? Maybe it was cash that moved to cards or maybe it was simply greater transaction volume in the system.

We have this notion that it is a fixed pie and there is only so much to go around. This does not seem to hold up when we look at the numbers that are being tracked by the Federal Reserve.

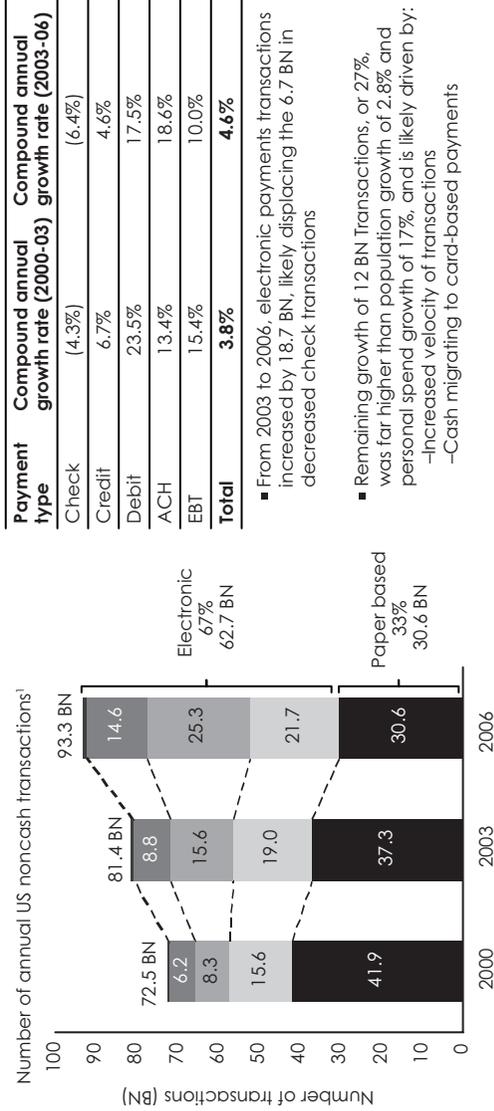
This leads to my next point: What kind of innovations are we seeing in the United States? There are a number of examples we can point to of companies out there trying to innovate. Most of them fail, which is the nature of start-ups, but some succeed. PayPal, a clear success story, has about 15 percent market share of online payments. It continues to grow, but it is really a front end to existing payment networks. Prepaid cards are a very fast-growing category, but also leveraged in existing payment networks.

Next is Secure Vault Payments which is a “failure” or maybe a “success to be.” Secure Vault Payments has clearly struggled to get much adoption so far in terms of building a two-sided network for both banks and merchants.

It has been much harder to build a new network. In fact, Green Dot Network has done this. They have built a reload network from scratch and have done very well. Many of the other companies out there—Pay-By-Touch, Revolution Money, or contactless payments in general—have all had a hard time building both sides of the market in parallel, at scale, to reach escape velocity.

I will conclude by discussing some regulation issues. Regulation can be very good. The Check 21 regulation is a clear success story. Regulations to change card acceptance have been very effective—getting rid of the signature requirement and getting rid of the receipt requirement. Both of these have been very positive developments. Some of the more recent changes—like the Credit CARD (Card

Chart 2 The U.S. Electronic Payments “Pie” is not Fixed; Evidence from the Federal Reserve’s Payment Studies Shows Strong Growth



- 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; U.S. federal and state governments use EBT to provide benefits via plastic debit card (in lieu of paper checks).

Accountability, Responsibility and Disclosure) Act—are still in their early days and it's too soon to see how that is all going to play out.

There is a lot of discussion right now around potential changes to Regulation E and restrictions on overdraft protections that banks can offer to their customers. We need to make sure that, though there is the first-order effect that could be quite helpful with a small minority of customers paying the vast majority of fees, there could well be second-order effects that could be less helpful if, in turn, many of these customers get forced out of the banking mainstream. So again, there are both pros and cons of potential intervention in any marketplace.

