



## ***The State of Payments – U.S. Market 2012***

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It's hard to believe that the end of 2012 is in sight – and it's almost equally hard to believe that three years ago, some of us at Glenbrook were thinking, “gee – all the exciting stuff in payments has already happened”. We don't think we've ever seen so much action in the industry as we've watched this year so far – and we anticipate that 2013 will keep up the pace!

Here's my take on what's happening and what's important.

### **The Landscape**

#### ***Chaos***

Up until recently, we've enjoyed a pretty tidy payments industry. There were a discrete number of payments systems, and each had a value chain that could be described relatively easily, and which allowed players to be slotted into roles with equal ease. For consumers\*, the systems have been convenient, low cost, and easy to understand. For merchants, the systems have been easy to use, and have reached almost all consumers, albeit at rising costs. Banks, card networks, non-bank solution providers, processors and other supporting players have found the industry to be attractive in terms of both revenue and growth.

All of this is changing. When we look at the payments industry today, we see a rapidly fragmenting world, with multiple models, many using various decoupled or layered approaches, with many new solutions for both consumers and merchants. Choice and innovation, of course, may bring potential benefits, but will create equally obvious challenges – including a more confusing environment, for consumers and merchants alike. Regulators, too, will find this a more difficult environment to manage, as will investors, given that many of the new solutions do not have clear or established business models.

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\* “Consumers” and “Merchants” in this post are used to mean, more generally, “Payers” and “Payees”

## ***Mobile Commerce***

So – I’m not talking just about mobile payments here – but beyond payment. The question occupying a lot of minds these days is what mobile commerce will consist of. Clearly, it will include the mobile version of online shopping, using either merchant smart phone apps, Amazon-type portals, or a simple phone browser.

But it will also include mobile self-checkout (consumer with mobile device, buying in the aisle); mobile card acceptance (business owner or sales rep with mobile device, selling in the aisle); mobile online ordering (consumer with mobile device, ordering ahead of time (think food) and picking up at the store/restaurant); and a variety of mobile-enabled ticketing and digital content purchases.

Here are the questions no one knows the answer to: How big will each of these be? How quickly will they happen? Will different ratios of mobile devices (e.g. phones vs. tablets) be used for each? Will any of these uniquely require or favor one type of payment scheme vs. another? Will all of them support separate or common couponing or loyalty schemes?

Significantly, this past July the CEO’s of both J.C. Penney’s and Nordstrom’s made announcements about expecting “the end of cash registers” within three years. And anyone who’s been to an Apple retail store has seen those changes first hand!

## ***Payments as background noise?***

Speaking of business models, there are some indications that our industry may be headed into the infrastructure. Several years ago, I was working on a series of digital identity products, and there was much speculation that digital identity and security products for consumers would become a thriving marketplace; analogies to cards were commonly made. Instead, as one of my astute partners noted early on, “security became infrastructure” – an expected and necessary component of other products that consumers used, but not revenue-generating end user products. Could the same thing happen to payments?

One of the mobile start-ups, LevelUp, is promoting “zero interchange” payments (their business model being, apparently, based on a portion of incremental merchant sales). The much-rumored merchant mobile wallet, now with the name MCX, is reportedly being described by some participants as having a goal of “a five cent payment transaction”. And Square, the uber-visible mobile payment acceptance company, recently introduced a fixed monthly fee alternative for merchants.

## ***Remember – it’s a debit world***

I’m always amused when talking with payments system executives, who almost to the man (or woman!) use credit cards for their personal and professional spending. They

don't understand why anyone would use a debit card in preference to a credit card: this is probably the most frequent question I get when I teach one of our Payments Boot Camps.

But the data doesn't lie: most card-based purchases, by a significant margin, and the most card purchase dollars, are on debit cards. And debit card issuers, having had their revenue walloped over recent years by regulatory actions on overdraft and interchange, simply aren't making interesting money on debit transactions. Is this more fuel to the "payments as background noise" argument? From this lens, credit card payments become simply a niche offering (although a lucrative one) in an industry that is otherwise contributing very little in the way of attractive margins to consumer-side providers.

## The Wars

### ***Mobile Payments: SE vs. cloud at the POS***

This is the big one. At issue is the question of where the consumer's card account data (the "mag stripe data") is stored: on a so-called "Secure Element" (SE) on the phone, or in the cloud ("cloud" includes, for the purposes of this discussion, encrypted, non-SE phone storage).

Three years ago, there seemed to be no question: the card networks and mobile carriers worldwide endorsed the SE approach, and its adoption seemed to be just a question of time. Today, it is not so clear. The tradeoff?

On the cloud side, you have consumer self-provisioning, and a super-simple set up process, but also a closed-loop model, where each end user has to be separately signed up for the scheme. On the SE side, you have much more complexity, but also ubiquity: the idea is that once everyone is on board, the whole thing would work with the same simple, global interoperability that exists with mag stripes today. There's also a big business model difference from the point of view of the wallet provider: the SE model is primarily based on issuer-side fees; the cloud model is merchant fee based.

Note that this isn't necessarily a debate about the technology known as NFC, although you will frequently hear the SE model described as "NFC Payments" – and the SE model does, indeed, use NFC for communications between the phone and the terminal. In my view, NFC as a technology (with or without SE-based payments) is going to be a home run for consumers – but basically as a replacement for the QR codes currently in use.

Who stands to win or lose? If the SE model wins, Isis, definitely (the carrier consortium which will be paid for, in part, by issuer fees), and card networks and

issuers, less clearly. For a cloud model win, PayPal, Google, definitely, and some of the dozens of mobile wallet start-ups. For Visa, MasterCard, American Express and Discover, it's less clear: they may win either way, or they may get "layered" by the PayPal's and Google's of the world.

### ***Debit vs. credit for transactors (and what about prepaid?)***

All those poor debit card issuing banks that lost a ton of revenue due to regulatory actions have a generic strategy to recover: get their debit card users (particularly high spenders) to start using a credit card for transactional spending, instead of a debit card. This strategy gets them higher interchange revenue. You can see this in Bank of America's TV commercials encouraging people to use their credit cards for "every day spend" on their credit cards. (This was strategy number two for BofA – strategy number one was their ill-fated attempt to impose \$5 monthly consumer debit card fee.)

Will it work? Time will tell – this is data we do get to see. Other banks are trying (or considering,) converting their low-balance checking account customers to GPR (general purpose reloadable) prepaid cards, which also offer higher interchange – but this is also problematic – see "GPR reload", below.

### ***Wallets vs. cards***

It's one thing to focus on who is going to win the "wallet wars" (either SE vs. cloud or within the cloud category). But there is a larger issue that applies to online and mobile remote purchasing. This is the question of how much of that commerce is going to be paid through the use of some kind of a wallet (PayPal, Visa V.me, MasterCard PayPass, Google Wallet) rather than simply a "naked" (e.g. not in a wallet) card.

Before you start explaining to me that no one is going to enter an 16 digit card number into a mobile phone, let me remind you that it is pretty easy to have form-filling software that does nothing else but fill forms. You could call those form fillers a wallet, but it isn't really a product – and there is no direct revenue for the wallet provider.

Another important consideration here is the "card on file" phenomenon – something you probably have in place with multiple online providers (airlines, hotels, etc.). If you end up with shopping apps from your most frequently visited physical world merchants, each of which is keeping a card on file for you (in the cloud), and you use this to buy stuff, I'd argue that's a "card", not a "wallet" win.

Some people argue that "cards win" whether in or outside of a wallet: after all, card interchange and card network assessments still apply. But cards risk be "pushed down" behind a wallet brand – and if you think the card networks aren't worried about this, ask why they are promoting their own wallets (V.me, PayPass). Again, time will tell.

### ***Merchants vs. payments industry incumbents***

The Durbin amendment, and the Federal Reserve Bank regulation II which implemented it, was a huge win for merchants, who are generally getting feistier as the year rolls on. Large merchants are keeping up the pressure against payments industry incumbents, most particularly card issuers and the card networks that set the interchange, assessment, and network routing rules that benefit issuers.

I mentioned the MCX concept/product above: the huge card network “win” on interchange in the proposed settlement of the merchant class-action suit (currently pending) is the ideal “straw to break the camel’s back” for merchants who may have been hesitating about supporting MCX.

The other class of incumbents, acquirers, who have never really made much money from large merchants, are getting hammered on the small merchant side by innovators like Square, who are bringing dramatically lower prices to the market.

At the same time, the mobile card acceptance providers are bringing a whole new category of smaller merchants “into the fold”; merchants who previously were unable to get, or afford, a card acceptance account.

On the other hand, merchants got handed a pretty big bill this year, when Visa led the charge for EMV rollout in the U.S. market. Merchants, generally speaking, are going to end up re-terminalizing to avoid the adverse rule changes on liability that would otherwise apply. That will cost money – but the terminals they will buy will support not just EMV but RFID as well - which will allow them to support a variety of interesting couponing and payments schemes. (This is a point not lost on the card networks, who want RFID terminalization to support NFC payments)

All in all, however, it’s a good time to be a merchant in the payments world – and we think that will continue to hold true in the years to come.

## **The Innovations**

### ***Self-opening apps and other OS and hardware enablers***

I just ordered my iPhone 5, and haven’t yet experienced iOS 6 with its new Passbook app. But when it was announced a few months ago, the “self-opening app” feature really caught my eye. This is the notion that I could opt-in to a service that would enable my phone to automatically open an app when I went into a relevant venue; at the gate for an airline, for example, or in a coffee shop or boutique. For those of us who believe that convenience trumps everything for most consumers, this is magical. Again, this isn’t a product – it is just part of the OS that Apple is making available to developers. Following the recent iPhone 5 launch event, Apple’s Senior VP of Marketing

commented: “It’s not clear that NFC is the solution to any current problem. Passbook does the kinds of things customers need today.”

There are other developments – roughly analogous in my mind – things that companies like Qualcomm and Intel are doing at the chip and OS level – that are going to enable significant changes in consumer experiences. (In fact, I might argue that by the time that someone like me can really explain the technology, the window for owning the innovation has probably past!) Some of these capabilities are going to increase the odds that payments just get embedded into other things (see “Background Noise”, above).

### ***Merchant enablers***

For online merchants, there is a new class of enablers that are making it easier for merchants to accept payments. It really struck me when Glenbrook did a course last spring on advanced payments topics – we had asked the group of experienced payments professionals which of 10 “Innovators to Watch” that we had talked about were on the top of their list. Overwhelmingly, the group voted for Stripe and Braintree – two representatives of this group.

Companies like this are moving aggressively to make the byzantine and mysterious world of card payment acquiring transparent, the pricing simple, and the setup fast. (I remember when I first tried to set up Glenbrook’s online card acceptance capability – back in 2005 – I went to our bank (a top five bank), and was told it would take “months” for approval – after I had filled out the application forms – which were printouts of green-screen pages which the sales rep had faxed to me!)

Since one of our beliefs is that online techniques are going to migrate to the physical point of sale – most obviously if mobile cloud wallets at the POS become commonplace – expect these kind of enablers to help merchants set up their non-POS POS (sorry about that - but you get my drift).

### ***Bill pay vaults***

Consumer bill payment has arguably been the duller piece of the payments industry for years. It’s still pretty slow moving, but there have been a raft of small innovators in the last couple of years that have made me take notice.

I’m particularly interested in the bill vaults – companies like Doxo and Manila – that share a concept of offering a consumer a durable bill storage service, not connected to any single biller: this seems well suited to the mobile consumer of today, who will use dozens of financial services, utility, and online service providers over the years. These companies have a business model that collects revenue from billers, who share in the savings they experience from “PTO” (paper turn off) as consumers go electronic on bill

delivery. The payment piece seems like almost a no-brainer after that. So, a real consumer innovation – good luck to them!

### ***Faster money***

Those of you who have read some of my previous writings will know that I am very interested in a series of developments around the world that are aimed at improving the speed of core bank transfer systems. The ever-growing list includes “Faster Payments” in the U.K., SPEI in Mexico, and services available in the Netherlands and Singapore.

I was fascinated, during my recent visit to Australia, to learn more about the Reserve Bank of Australia’s paper on payments system innovation – in which it put Australian banks on notice to deliver “real time” payments by 2016 – or else! In the U.S., our tentative move in this direction – a proposal to establish a “same day batch” in our antiquated ACH system – was defeated recently, as incumbent banks moved (IMHO) to protect their wire transfer businesses and associated fees. Despite this, there are discussions underway – particularly at the Federal Reserve Banks – about what the United States might do if an “Immediate Funds Transfer” service were developed for retail uses.

Frankly, not too many people are paying attention to this. But I think it is potentially transformative: think about the current retail systems – almost all of which (checking, ACH, cards) are “pull” systems; the card systems requiring a second message (the real-time authorization) to provide the effect of a real-time payment – but which still requires back-end reconciliation of “real”, batch, settlement. The technology exists today to create a real time push payment: after all, that authorization transaction does occur in real time. Why couldn’t a consumer push a payment from their bank to a merchant’s bank – from the aisle in the store – using a communicating smart device?

## **Black holes, Failures, “Not Yets” or Failures-To-Thrive**

### ***Push payments that work***

Despite decades of trying, we still don’t have easy to use, universal P2P, bill payment, or B2B payment services in the U.S. market – services that make the payment quickly and easily, without the sender needing to know or store the private bank account information of their recipient. Emerging services like Fiserv’s Popmoney, the clearXchange network from BofA, JPMorgan Chase, and Wells Fargo, and the EBIDs initiative now run by The Clearing House/EPN, are, interesting – but at this point still still too small, too tentative, and too complex to really meet the needs of end users.

clearXchange will allow a transfer of money between two participating banks; the clearXchange network will sit in the middle, and hold the table which maps a recipient’s token (phone number, email) to that recipient’s bank: each receiving bank in turns owns the table which maps the same phone number to an account on their system. The

notifications are processed in real time, but the money settles over night, via ACH among the banks. It doesn't look right now like the money can be considered as good funds by the recipient at the time the notification is sent: the sending bank will have the right to cancel the transaction (i.e. not fund it) if they feel later in the course of the day that the transaction was fraudulent.

clearXchange is competing in the U.S. market with Fiserv's PopMoney service and with PayPal, both being offered to banks as an alternative. PopMoney and PayPal both work on a decoupled basis: the provider debits the sender's account in one transaction, and credits the receiver's account in another transaction. All of these systems today accommodate payments to out-of-network bank customers (who are directed to register with the service, and then have the payment sent to their account by ACH, or even by check.) There is some talk of interoperability among the networks.

EBIDs is a separate initiative aimed at the bill payment market. This scheme, endorsed by NACHA and now operated by The Clearing House, allows a biller, using a participating bank, to send a bill to a consumer whose bank is also using the scheme. The consumer can review the bill, and has the option to authorize a push payment via the ACH. They can also click on a link to be automatically logged into their account at the biller, to review the bill detail. An interesting scheme, but one that will be useful mostly when all banks participate – that doesn't seem to be too likely, given that the scheme competes with offerings by Fiserv, the core processor used by many banks. Like the P2P solutions above, however, EBIDs solves the problem of the payer needing to know the bank account data for the payee.

## **Directories**

An obvious solution to the problem of the sender of funds needing to know the recipient's bank account information is to have a robust, utility-style directory that allows bank account data to be mapped to a non-confidential token such as a phone number. Numerous small directories exist, but most are limited to proprietary initiatives to win payments volume, and therefore stumble from what we at Glenbrook think of as the "network fantasies" problem.

To work, a directory probably needs to be a quasi-utility structure – something like the Internet's Domain Name System springs to mind. Banks as a group could solve this problem, but haven't yet stepped up to the plate. They've tried in the past – The UPIC initiative of The Clearing House was a step in this direction – but banks refused to support it, worrying that it would make account switching (while keeping the same "dummy number") too easy.

In Australia, admirably, the banks fostered the development of "BPAY" bill payment system, which uses a biller directory concept, but have, so far, not maximized the potential further use of this system. (By the way, a good directory would also be a

critical element in resolving the handling of remittance data between B2B payers and payees – by managing a link to a shared reference number.)

### ***Reloadable GPRs***

General Purpose Reloadable prepaid cards (GPRs) seem to many to be the perfect answer to the U.S. unbanked problem. The “bank on a card” could be offered by a provider who does not have the crippling cost infrastructure of a retail bank; could provide the bank issuer with non-Durbin regulated debit interchange; and could allow non-banked households access to mainstream payments systems. But the business models of the GPR issuers depend on reload, and far too many consumers simply load, spend, and then throw away their card. What’s the solution here?

## **The Opportunities**

There are other areas in payments that we see as under-served, and ripe for innovation in either product capability or delivery strategy.

### ***Small business payments***

Small businesses still don’t have good solutions for making and receiving electronic payments, particularly to/from other businesses. Banks use either dressed-up versions of their consumer systems, or dumbed-down versions of their corporate systems, to meet SME needs, but generally miss the mark. Non-bank providers have some good solutions (Intuit, Bill.com, Pay Simple, PayPal), many of which use “dual ACH” or other decoupled models similar to those used by the P2P networks. But these providers struggle with their market delivery strategies, as small businesses, in particular, have shown reluctance to use non-bank payments services.

### ***Cross-border payments***

Glenbrook did some research last year showing the extreme frustration expressed by large and small enterprises in making cross-border payments to suppliers, employees, or partners. The current wire transfer/SWIFT/correspondent banking model is murky, expensive, and unsatisfactory to many end-users. Interesting solutions exist but again struggle with market delivery.

### ***Merchant mobile management***

People talk about consumer “offer fatigue” and “coupon fatigue” when it comes to the many mobile and online marketing schemes in use today. But I worry about merchant “offer fatigue”.

How is a merchant going to cope with all of the many different marketing schemes that their customers may want to participate in? Furthermore, if the “Chaos” scenario we discuss above, for mobile payments in particular, continues, merchants are going to have

a much harder time coping with all of the different payments schemes than they do today with mag stripe acceptance.

We think a new category of mobile services management will need to evolve to help merchants – sort of like a gateway, I guess. Incumbent acquirers might be logical parties to offer such services – or they may be cut off by innovative newcomers.

So that's my recap of the State of Payments in the U.S. market. Let me know what you think!

## About Glenbrook

Glenbrook Partners is a payments consulting firm with unique skills based upon years of partner experience in hands-on operating roles in electronic payments. Glenbrook assists our financial services, enterprise, and merchant clients with strategies, market and product/service development for both the delivery and acceptance of electronic payments.

Through consulting, the firm focuses on strategy definition, product development, and the application of technology to solve leading edge problems in the financial services industry. Our consultants combine a unique range of skills and deep operating experience with razor-sharp business focus, driving clients to leadership positions within their industries.

Through research, the firm offers value-added opinion, analysis, and insight into the pressing issues of the financial services industry. Our analysts provide decision makers with straightforward explanations of pressing industry issues, coupled with insightful, concise recommendations for action. We offer a broad industry perspective that reflects opportunity, urgency, competitive pressures, and the likelihood of success.

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