

July 6, 2012

"This isn't just my wallet. It's an organizer, a memory and an old friend."

-SEINFELD'S GEORGE COSTANZA

The following piece, written by Evergreen Gavekal's CEO Tyler Hay, was published by *Seeking Alpha* earlier this week. *Seeking Alpha* reaches over 650,000 readers as "the premier website for actionable stock market opinion and analysis, and vibrant, intelligent finance discussion."

Read more: <http://seekingalpha.com/696121-the-mobile-payment-landscape-unfolds>

??

THE MOBILE PAYMENT LANDSCAPE UNFOLDS

The famous hit TV series *Seinfeld* has a memorable episode where one of the main characters (George Costanza) wallet becomes filled with cards, receipts, and other junk. In fact, it's so full that he develops a back condition from the strain of sitting with one half of his gluteus maximus so much higher than the other. To counteract the size of his wallet, he is forced to stuff huge wads of napkins under him to even out his sitting posture. What's funny is we all know someone like this; a hoarder of cards, receipts, coupons, and loyalty cards. It's ironic in a world that's gone so "digital" how little advancement has occurred in the way we pay for things. MasterCard estimates that 85% of the world's transactions are still conducted with cash. What's clear from technology trade shows is that a battle is being waged over how we as consumers will pay for things in the not-so-distant future. What's less clear is who the winners and losers in this struggle will be. One thing is for certain: the stakes are high. The industries that could feel serious implications include technology, retailers, and financial institutions.

Within the financial world, research reports and discussions are saturated with acronyms. Most people use them to sound smart or because they don't know the words that make up the acronym. The mobile payment space is no different. Terms like NFC (hint: not National Football Conference) referring to near field communications, POS (point of sale), and EMV (global technology standards for mobile payments) are thrown around like confetti at a party. Rather than get bogged down by these acronyms, let's explore the potential future of mobile payments using specific examples being proposed by the different players. Evergreen Gavekal will provide our thoughts on the advantages of each model and then ultimately select the path we think the industry is likely to follow.

Contactless Payments

Visa (PayWave) and MasterCard (PayPass) have stuck their proverbial toe in the water when it comes to the mobile payment evolution. Both have developed a credit card with an embedded chip. The chip turns the average credit card into a "smart" credit card that allows you to "wave" your credit card past a machine attached to a cash register or other payment-receiving device (think subway turnstile). Below is a picture for our visual learners.

The primary appeal of contactless payment is the elimination of a post-transaction signature or PIN entry for purchases under \$50. While this brings modest convenience, there are some pretty inconvenient implications of this approach for consumers and retailers. First, you still need to carry physical cards. Second, merchants need to make hardware upgrades to their equipment to process the signal (NFC for the "geekier" reader) emitted by the card.

These disadvantages (or lack of advantages) seem overwhelming. First, if you have multiple credit cards (i.e. American Express, Visa, and MasterCard), you will still need a card for each—meaning there has been no consolidation of the wallet's size. In addition, the stationary nature of the payment-receiving device doesn't enhance functionality. In plainer English, a waiter at a restaurant still needs to return to a central location to process your payment. Basically, contactless payments' sole advantage is realized at retail stores where buyers can wave the card instead of swiping the magnetic strip. This whole model is hardly an upgrade in our eyes.

1

Cloud Model

Many of you have used PayPal and are familiar with its mechanics, but for those of you who aren't familiar with it, here is a quick primer. On PayPal's website, you create a user name and password that you enter each time you visit Paypal.com.

Once logged in, you can store a vast array of payment types. For example, you can store your checking account and routing number for wiring money. You can store as many debit and credit cards as you wish. You can even create a PayLater account in which you borrow the money from PayPal at a handsome interest rate.

This is called the cloud model because the information is stored remotely. Users can conduct transactions anywhere they can access the Internet. Cloud-based transactions offer a couple major advantages. First, as we described, you can access multiple cards and payment options. So, if your wife (or husband) goes on a shopping spree and maxes out one credit card you could designate the purchase to be made on another. This sounds nice, right? You have a bevy of payment options stored by a company (in this case PayPal). You simply log in and select the payment type you prefer and off you go—a walking economic stimulus package. In addition, in some respects, this model also allows you to ditch your wallet, as the information is stored online.

We are somewhat skeptical that this method will gain adoption in the retail space. Notice we didn't say the e-commerce space. Let's be specific. You are shopping online for new shoes from Nordstrom.com. It's time to check out, and instead of tracking down your wallet and entering your 16-digit credit card information for the umpteenth time, you are simply required to log in to PayPal. After entering your user name and password, you select to pay with your Alaska Airlines Visa because you need those frequent flier miles. Easy as pie. Your transaction will be charged to your Visa as if you walked into your nearest Nordstrom brick-and-mortar store, swiped your Alaska Airlines Visa, and walked out with a new pair of shoes. This works quite well when you're shopping online. But what happens when you are at a physical retail location? Is anyone going to whip out a keyboard and have you log in to PayPal every time? Odds are the person in front of you in line will be just like me. The owner of 29 different user name and password combinations he can't keep straight. This scenario would inevitably result in you endlessly waiting as he struggles to recall his login credentials? Is PayPal going to send you

some nifty little electronic device that emits your signal to the nearby cash register? Perhaps, but that's another thing to keep track of when the goal is supposed to be convenience. Further, are physical retailers going to invest resources for a payment model that currently only services the e-commerce community? While the cloud model has some clear advantages over contactless payment, we see too many headwinds preventing this from gaining widespread traction.

Near Field Communication

Near field communication is a fancy way of saying "your phone as your wallet." Likely unbeknownst to most cell phone users, manufacturers have begun to construct smartphones equipped with NFC chips. These chips allow your phone to wirelessly send (from close range) an encrypted message containing your payment information to a nearby register. The concept of storing multiple payment methods on your phone is appealing in our eyes. Phone-based payments also eliminate the need to carry physical credit and debit cards, an obvious convenience. Phone-based wallets will force some type of hardware upgrade for merchants that allows them to accept this form of payment. Clearly, as we mentioned earlier, retailers and merchants must believe that there is critical mass before investing in a new technology. The two biggest players backing phone-based wallets, Google and Apple, own operating systems currently dominating the smartphone landscape. Consequently, these tech juggernauts seem to satisfy the criteria of "critical mass." Said simply, if Google and Apple both commit to building the capability of digital wallets into their phones, retailers are going to be willing to make an economic investment in the equipment necessary to process these transactions.

For those who like to build a mental picture of what the next generation of the payment landscape is likely to look like, we've provided a quick example below. Let's imagine you walk into Nordstrom carrying your Android (Google operating system) or iPhone (Apple operating system). At the store, you become mesmerized by a stylish pair of sunglasses you want to buy for the handful of sunny days we have in Seattle. You approach the register and instead of reaching for your wallet, you pull out your phone. You select an "app" (software application for smartphones), which securely stores all your credit and debit card information. The retailer's software (via NFC signal) sends your phone a message asking which card you wish to use for the purchase, the total purchase amount of the sunglasses, and an offer to email you a receipt. You then enter a PIN or some verification (think voice authorization, finger signature, or someday maybe a fingerprint) confirming that you're the authorized individual making the purchase. The purchase is complete.

Let's look at the advantages of this approach over the traditional payment paradigm. You never used your physical wallet. You didn't have to sign that rushed scribble that never looks the same and has never been declined by a retailer (so much for authorization). Your receipts don't go into a file that you can never find but instead are easily stored electronically. Many modern improvements are either convenient but less secure (airplanes) or secure but not as convenient (alarm systems). The type of efficiency that drives innovative technology must be both secure and convenient.

Compare phone-based wallets to the other next-generation payment scenarios of contactless payment or cloud-based payment. The contactless structure has the obvious drawback of forcing consumers to continue to lug around physical cards to process transactions. In our view, this is a critical drawback likely to prevent widespread adoption of the payment type. The cloud-based model has potentially more advantages as it allows for the virtual storage of multiple payment

options on a database accessible via any Internet connection. However, we see two strong headwinds that we believe will stand in the way of this model going mainstream. First, it's unclear how consumers will access this cloud-based wallet. Will you log in at every retailer? Will you show each retailer a new type of credit card that can access your cloud-based wallet? It just seems far-fetched that consumers will replace one physical system for another. The second headwind is merchant adoption. The company most likely to back a cloud-based wallet is PayPal. In fact, as we've described, this technology is already in existence and has failed to gain material in-store adoption. Simply put, we find it hard to believe that brick-and-mortar merchants are willing to adopt a payment system that seems designed to service "e-tailers." Further, how much faith do retailers have in PayPal's ability to influence consumer behavior? Apple has been extremely successful in popularizing items that were already in existence. The iPod wasn't the world's first digital music player. The iPhone wasn't the world's first smartphone. The iPad wasn't the world's first tablet. Yet, Apple has driven mainstream consumer adoption with staggering success. The near-consensus rumor is that the iPhone 5 (slated for release late this fall) will have features that allow it to serve as an e-wallet.

Additional Investment Considerations

At Evergreen, every industry analysis has investment implications. Different conclusions we draw change the context of how we evaluate industries and specific companies. We are severely restricted from a compliance standpoint with regard to making specific company recommendations. While none of our readers would ever do this, some authors fear that investors will cherry-pick investment ideas and never hire the investment manager.

That said, readers like to see how the winners and losers of specific investment-related outcomes are determined. Since we are prohibited from specific recommendations, we will talk broadly about which industries we see as beneficiaries (and which could struggle) given our thesis that phone-based payments are likely the future of mobile transactions.

Credit card companies seem safe to us. Their function is to provide money to purchasers who don't want to use cash or debit cards. It's illogical to think that because you pay with your phone you will eliminate the use of credit cards. To that point, those who viewed credit cards primarily as a cash alternative were utterly disproved when debit cards failed to put Visa and Mastercard out of business.

In some ways, we see credit card companies as the biggest beneficiaries. We believe that anything that simplifies consumers' ability to pay makes them more likely to purchase using that method. Plainly, if it's more convenient to use a phone than the current physical credit card, one would conclude that consumers will gravitate toward more phone-based purchases.

Chipmakers who supply the NFC hardware are also likely to benefit. More and more phones will need to be outfitted with the new-generation chips equipped to send secure, encrypted packets to merchants. Some companies we follow are strongly positioned as a result of their expertise and pre-existing relationships with smartphone makers.

Merchants are likely to face up-front costs associated with accepting payments from a phone-based wallet. This presents a really difficult evaluation because two persuasive arguments can be made. On one hand, one could argue that if retailers replace bulky registers that require proprietary software to process payments and instead manage inventory with iPhones or iPads, their costs could go down. Said simply, if anyone who owns an iPhone could download an "app"

that allows the phone to become a register, we see a downward pressure on costs. If merchants have to supplement their existing registers with technology to accept phone-based payments, their costs are likely to increase. One thing all merchants are likely to enjoy is the ability to profile client purchases and offer awards programs without the hassle of requiring consumers to carry even more physical cards. We view established merchants (think Nordstrom) as largely unaffected. On the other hand, we think that iPhones that can become registers lower the barriers to entry in the retail space. This is good for small businesses and likely to keep prices down for consumers.

Smartphone Makers

We think the situation is a slight positive for phone makers. Some consumers who don't have smartphones could theoretically upgrade for the added convenience of a phone-based wallet. In less developed markets, this is likely to help accelerate the adoption of smartphones, but in our minds it isn't a game changer. Where we see the real advantage and area for growth is in smartphones replacing physical merchant terminals as payment-accepting devices. Nordstrom and Apple have already started to equip sales representatives with phones instead of using the traditional stationary register checkout process. Allowing mobile salespeople to process checkout transactions from various locations in a store provides obvious efficiencies for retailers.

Point-of-Sale Providers

We think there is moderate risk to those who make registers and software and perform checkout-related activities. It's likely that those who make software will evolve to write software (also provide the hardware) and remain in place. Those companies that simply provide hardware (terminals) to merchants are in a very scary position. These POS providers face additional increasing threats from companies such as Square, which allow for select smartphones and tablets to act as a register, accepting credit card payments. The vendor simply pays a small percentage on each transaction. This eliminates the hefty startup and continuing maintenance costs for vendors that come along with classic POS providers.

Conclusion

Sitting still and being complacent is extremely dangerous in the investment world. We constantly challenge ourselves to look ahead of the curve as we construct our clients' portfolios. It's hard to say anything with certainty except that times are changing and there will be winners and losers. As readers can see, a ton of research and thought go into our evaluations. In context, mobile payments are a sliver of the total technology landscape, and it takes massive amounts of reading and discussion to stay ahead of the curve in an ever-changing world.

IMPORTANT DISCLOSURES

This report is for informational purposes only and does not constitute a solicitation or an offer to buy or sell any securities mentioned herein. This material has been prepared or is distributed solely for informational purposes only and is not a solicitation or an offer to buy any security or instrument or to participate in any trading strategy. All of the recommendations and assumptions included in this presentation are based upon current market conditions as of the date of this presentation and are subject to change. Past performance is no guarantee of future results. All

investments involve risk including the loss of principal. All material presented is compiled from sources believed to be reliable, but accuracy cannot be guaranteed. Information contained in this report has been obtained from sources believed to be reliable, Evergreen Capital Management LLC makes no representation as to its accuracy or completeness, except with respect to the Disclosure Section of the report. Any opinions expressed herein reflect our judgment as of the date of the materials and are subject to change without notice. The securities discussed in this report may not be suitable for all investors and are not intended as recommendations of particular securities, financial instruments or strategies to particular clients. Investors must make their own investment decisions based on their financial situations and investment objectives.