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The Complex Payment Ecosystem

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Change is good:

In the 1987 movie "Wall Street", Gordon Gekko (played by Michael Douglas) famously says, "greed is good". To paraphrase this movie, we believe "change is good". We believe that the ever-changing digital payments industry provides an opportunity for profit.

Change is sweeping through the payments business at a rapid pace. From chips in cards, to mobile payments to tokenization, the industry is undergoing massive advancements in technology. One can fight this change or one can adapt. We have examples of each to discuss.

Cards:

The founders of Diners Club invented the credit card in 1950 and The Bank of Delaware introduced the debit card in 1966. However, it was not until 1958, that BankAmericard (now Bank of America) and MasterCharge (now MasterCard) were able to successfully establish a revolving credit system issued by a third party bank. Once cards became widely distributed (by banks), merchants felt compelled to accept them. Today, there are twice as many cards issued outside the US and roughly two-thirds of all cards are debit cards.

Further advancements began to get introduced with physical point-of-sale (called PoS) devices. This allowed merchants to accept both debit and credit cards. Not only did cash and check use decline (as a percentage of total payments), but checkout lines decreased and available lines of credit and spending limits increased. Merchants saw a lift in traffic and sales because of this advancement. Some merchants embraced the change while others buried their proverbial head in the sand.

The Payment Process:

The digital payment industry is complex and there are various players involved in the processing of one purchase transaction. The "supply chain" is changing and various market participants are vying for their place in the process. There are acquirers, processors, issuers, gateways, banks, networks and hardware and software players involved in this complicated ecosystem.

The process of completing a purchase transaction may seem simple (occurring in a few seconds), but there are various players in this complicated ecosystem. It starts

with a merchant and a consumer. The average US credit card transaction is $88. On average, this transaction will generate $2.50 in fees split among 3 to 4 different players. The bulk of these fees (roughly 70% or $1.75) go to the card issuer for accepting credit risk. This is typically the bank that has issued the card to the consumer. This fee is commonly referred to as credit interchange. The bank is taking on the majority of the risk, so it justifiably receives the bulk of the revenue allocation. Banks are making credit decisions on individual clients, providing a monthly line of credit. If consumers pay their balance in full, the bank still earns interchange. The offset for this revenue typically funds rewards (ex: airline miles, etc). If consumers do not pay their balance in full, the bank earns interchange plus interest on the outstanding loan balance.

The remaining 30% or $0.75 per transaction goes to payment networks (ex: Visa, MasterCard, etc) and merchant acquirers / processors (ex: First Data, Global Payments, etc). The majority of this fee goes to the acquirers and processors for their established relationship with the merchant. The smallest percentage of the transaction goes to the payment networks. These payment entities provide the critical components of each purchase transaction. They authorize, switch, clear, settle and provide valuable tools like fraud and risk management. The behind-the-scenes payment processing occurs with these players, and their job is to quickly and securely handle all types of payment transactions. While the merchant settlement process is complex, these payment players handle billions of transactions and trillions of dollars.

ATMs:

Roughly 50 years ago, automated teller machines or ATMs were introduced. In 1969, Docutel developed and introduced the idea. By the 1980's, these machines were quite popular and handled many of the functions previously performed by bank tellers. Cash withdrawals, check deposits and money transfers were easily completed at these soon to be indispensible machines. With widespread adoption by consumers, the need to visit a physical bank branch declined. There are currently over 400,000 ATMs in the US or roughly 1 for every 300 people.

What is somewhat surprising however is that despite the advances in ATMs and Internet capabilities, the number of bank branches actually continued to increase. Only recently, after peaking at around 70,000 US locations, bank branches have finally started to decline—costs for rent and labor continued to climb and traffic eventually fell.

Banks still want to become more intertwined with their customers, but they need to understand the best way to accomplish this. Daily and recurring payments are one of these powerful hooks that banks are attempting to embrace.

Smartphones:

The modern smartphone is a remarkable invention. An all-encompassing device that fits in your pocket, it can seamlessly do all the tasks that once required separate technologies. It was only a matter of time before the payments industry began to think of ways to better utilize advancing technology and this wonderful device.

Despite the technological advancements and secular trends, some merchants remained on the sidelines. Card acceptance was still under-penetrated and many retailers felt excluded from the masses. Some felt that the merchant discount rate (or MDR) was too high and the integration costs were too much of a burden. Recently, with the introduction of mobile acceptance devices (often called "dongles"), new technology was introduced to benefit businesses. These devices allowed many small merchants to accept debit and credit cards wherever they conducted business. Card acceptance moved higher and change was being embraced.

Phones as wallets:

Technology is once again solving payment problems and one needs to recognize this change or fail to adapt. The next change may be the most radical or impactful of all new payment advances. Mobile wallets are attempting to eliminate the need to carry cash and plastic cards.

The one device most of us carry all the time is our smartphone. The growing importance of the smartphone as the go-to computing device for every digital activity is the goal. Why not incorporate mobile payments and wallet technology into this powerful (always present) device?

There are many powerful entities attempting to garner space on your phone. Phone manufacturers are rolling out products with Apple Pay, Samsung Pay, Google Pay and Android Pay. Payment networks have products like Visa's Check Out, MasterCard's MasterPass and PayPal. Banks are getting involved, with the recently launched Chase Pay. Lastly, retailers are also trying to get involved and we just saw the introduction of Wal-Mart Pay.

Merchants:
Merchants, which once bypassed card acceptance for their high fees, are slowly realizing the benefit of card acceptance. Mobile point-of-sale (called mPOS) providers are pioneering a whole new payment niche. Small and medium-sized businesses are rapidly beginning to accept payments via tablets and their smartphones. Acquirers are contracting with merchants to revolutionize their business. Software allows for the seamless integration of inventory into accounting platforms. Merchants now can receive quick availability of their funds, sometimes the next morning. Lastly, merchants can begin to accept cards and also lower their fraud liability. Years ago, small businesses would never have been able to track inventory, do complex marketing programs, build loyalty programs and process payroll online. Now, through new technologies, they can compete with larger players.

Fraud:
Fraud remains an important aspect for all merchants. Liability varies online versus at a physical merchant. Liability shifts depending on chips in cards and whether or not a signature is received.

According to one payment industry expert (The Aite Group), US credit card fraud doubled from 2007 to 2014. While 10 basis points or 0.001% of fraud losses does not sound like a sizeable amount, it was occurring over trillions of dollars of transactions. One of the largest components of US fraud was counterfeit cards, which were 37% of total losses. High profile data breaches at Target, Home Depot, and other retailers were beginning to cause widespread concern that card transactions were not safe or reliable. The industry needed to respond.

Liability:
To protect against counterfeit fraud, standards were put into place late last year. These EMV (or Europay, Mastercard, Visa) standards are an attempt to lower the physical point-of-sale fraud in the US. While EMV standards were announced over 3 years ago, they were not being enforced until October of 2015. The US was the last remaining developed country to employ these security features and it essentially results in a computer chip getting embedded into your credit and debit cards.

Once EMV standards were introduced in the UK, counterfeit fraud more than halved. Similarly, while only in force for a few months here in the US, chip cards are already

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dramatically deterring counterfeit card fraud. Estimates state counterfeit fraud is down nearly 40% versus last year. Fraud will always target the weakest link and the US market was surprisingly behind 80 other countries in embracing this security feature.

Visa states that 58% of its credit cards and 37% of debit cards have a chip today. Based on surveys of US banks, it is expected that 75% of credit and 55% of debit cards (representing the majority of volume) will be on a chip card by the end of this year. On its recent earnings call, Visa mentioned that its partners have more than 326 million chip cards issued, which makes the US the largest chip card market in the world. Since November of last year, Visa's chip transactions have more than tripled.

More than 1.3 million merchants now have chip-enabled terminals, but this only represents roughly 28% of all locations. This is important because there is a huge difference in fraud liability depending on which entity is the "weak link". The standards dictate that fraudulent liability shifts to the lower of the technology used. For example, the card issuer is liable for fraud if it has not put a chip in its issued credit or debit card. On the flip side, the merchant is liable for fraud if they do not have a certified terminal that accepts chip cards. The ultimate goal is to remove fraud from the marketplace, but these types of changes do not occur quickly.

Despite the differences in liability, many merchants have been hesitant to update their point-of-sale terminals for contact EMV. EMV certification requires merchants undergo a series of time-consuming tests to insure their software and terminals are capable of processing chip card transactions. You might have already completed a contact EMV purchase transaction (if you inserted your chip card in a terminal), but this is a lengthy market process.

Complexity:

This daunting complexity at the PoS is forcing merchants to change. Smart merchants can adapt or hire experts to bring them up to code. By outsourcing this transition to payment experts, merchants can focus on the customer experience and their core business. Business is tough enough— merchants simply do not want to worry about the complexity of handling various payment formats and dealing with potential security breach issues.

When physical merchants become more secure, fraudulent activity will migrate

elsewhere. As seen in other markets that put EMV standards in place, fraud moves online. Criminals adjust to heightened security at merchant locations by increasing their attacks online. Ecommerce fraud now dwarfs fraud occurring in the physical marketplace. Criminals can purchase stolen card information online and purchase goods before unsuspecting consumers or merchants can react. Online payment transactions are often referred to as CNP (card not present) and this represents roughly half of all US fraud losses.

eCommerce:

The migration towards eCommerce is well underway and the growth seems exponential. More and more products and services are available for purchase online. eCommerce trends continue to gain market share from physical stores. As consumers move more purchasing online, gateway vendors act as a payment processor for these businesses. Merchants are struggling to adhere to the myriad set of rules for online transactions, which are complex and challenging to follow.

The payment industry was somewhat prepared for this trend, but it really was the only option. Consumers could not purchase items online with cash, so cards became the mechanism for payment. PayPal was an early adopter and gained significant market share. It provided an easy and simple way to transact. The established payment networks required 16 digit card numbers, security codes and expiration dates. It became a burden to transact and many consumers failed to complete orders (ex: cart abandonment).

Security:

With new technology, there are new threats as well. The ability to incorporate encryption or security is quickly getting rolled out by payment providers. Encryption of data protects sensitive card information while it is in transit. Tokenization protects this by replacing the actual data with a random reference number. By the end of next year, it is estimated that nearly two-thirds of US merchants will employ multi-channel tokenization and over 90% expect to have point-to-point encryption technology in place.

Contactless:

Once mobile wallets become more prevalent, we will see contactless payments explode. Contactless technology will allow consumers to simply wave or tap their

device at the point-of-sale. Some people will feel this is less secure than traditional methods of payments. However, one could argue that requiring a fingerprint scanner to unlock the phone represents more security than historical signature- based payments. When was the last time a clerk checked the back of a plastic card for matching signatures? Some countries are moving their subway, bus and train systems from cards (ex: Metrocard in NY) to contactless payments. One can experience this trend in a daily car commute with the widespread adoption of Easy Pass (in New York) or Sun Pass (in Florida).

Most PoS devices incorporate near field communication (called NFC) technology. Merchants need to activate this capability latent in their terminals, if they wish to allow for mobile payments, but this complexity and change can be difficult to implement. Why are many merchants choosing to wait to turn on mobile payments? Cost is a factor, if terminals need to be upgraded. Some are waiting to determine which technology will ultimately win. Others are struggling with the vast array of certifications required to accept contactless payments. Yet, however difficult to enact, there are multiple benefits to activating contactless payments, with one of the biggest advantages being marketing.

Marketing:

With contactless payment capability, merchants could materially improve traffic and sales. Retailers could reach customers on their ever-present devices in real-time. Think of the functionality of sending a consumer an afternoon coupon for Starbucks as they walk or drive by a location. Think of the benefits to a consumer of keeping coupons or promotional offers automatically on your smartphone. Loyalty programs would be dramatically improved, as information about prior transactions and benefits would safely be stored online and on one's phone.

The rapid adoption of NFC and contactless payments has been hampered by the scarcity of locations where people can use the technology. This is the classic chicken or egg dilemma. The positive for industry is that there are several entities pushing for change. Some are simply trying to protect their moat or franchise. Some are attempting to capture market share in a new and growing industry.

Person-to-Person (P-2-P) Payments:

We are still a few years away from mass adoption, but the millennial generation is

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rapidly embracing mobile peer-to-peer payments. PayPal purchased Venmo in 2013 and it is quickly becoming a "must have" app for younger generations. Why go to an ATM to get cash? Why write a check to the babysitter or housekeeper? Why scramble for cash to split a lunch bill with a friend? Venmo and other P-2-P payment apps allow smartphone payments by sending a simple text. Estimates are calling for the US person-to-person market to grow from $5.6B in 2014 to $175B by 2019. Consumers continue to love convenience and embrace the vast capabilities of their increasingly powerful smartphones.

Our preference:

At Manole Capital, we prefer the predictability and sustainability of recurring revenue business models. We attempt to avoid the cyclical nature of credit sensitivity and avoid the card issuers. Instead, we prefer transaction-based models that earn small fees on each payment transaction. Our philosophy attempts to capture the secular growth of the digital payments industry without the credit sensitivity.

The California gold rush of the mid-1800's is a great analogy. Would you rather be a 49er and stake your claim on potentially finding gold? Or would you rather be the merchant, earning steady profits, by supplying these 49ers with shovels and tools? Similarly, would you rather be the company that builds a bridge or would you rather be the toll-keeper taking payments for every vehicle passing over it? Our philosophy fits well with the acquirers, processors and network businesses.

Conclusion:

The payment industry is undergoing massive change. Some will attempt to fight this change and stick with models that have worked for years. Some will adapt and embrace this change. Understanding the various players in the vast payment ecosystem can be a challenge. Having studied and analyzed this industry for over 20 years, we believe we understand which players will benefit from the secular growth of the digital payments industry. The trend away from cash and checks is undeniable. So too is the consumer adoption of convenient and secure ways to transact. Substituting an app or mobile wallet for plastic cards will take time, but for those that are successful at adapting to change, the rewards will be sizeable.

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