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Visa: Market Power, Stable Growth And High Profitability Doesn't Come Cheap

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by: Ashvin Moorjani

Summary

- Visa is a dominant, nearly impossible to replicate, capital-light business operating in an industry that is benefiting from long-term positive trends. The catch? It's not cheap.
- Visa's 2.9B cards outstanding (when Visa Europe is included) and 36M+ acceptance points gives it the most vast payments network in the world outside of China.
- China's UnionPay is the largest payment company in the world in terms of cards outstanding and its entrenched position will make it tough for Visa to penetrate the Chinese market.
- Visa Europe is currently a separate company, but if Visa were to acquire it and bring its prices in line with global averages, Visa Europe could be worth ~$40B.
- I believe Visa is worth $73.30/share and given its current price, the investor may either wait or buy a portion of his/her long-term allocation with the intent to average down.

I could say that I invested in Visa's (NYSE:V) 2008 IPO based on my deep understanding of its competitive advantages, revenue drivers, risks, business dynamics, etc, etc, but the truth is that my brother had a hunch that it would be a good buy, so we bought it, that was it. Fortunately, our periodic research led us to keep all our shares and Visa has become an incredibly successful investment, giving us a 340% return over a 7-year holding period.

Visa traces its history back to 1958, when Bank of America launched its blue, white and gold BankAmericard. In 1970, Bank of America transferred ownership of the BankAmericard program to the financial institutions that issued the card and in 1977, BankAmericard changed its name to Visa. Visa underwent a restructuring in 2007, which consolidated Visa's regional companies (except Visa Europe, which remains a separate company) into one entity, Visa Inc. In March 2008, Visa Inc. went public.

The table below shows some of Visa's key figures, which will be elaborated upon throughout this report:

Performance ($B Unless Otherwise Stated)

As of/TTM March 31	2013	2014	2015	CAGR	2016E	2017E
Revenues and Drivers						
Payments Volume	4017	4383	4761	9%	4999	5438
Service Revenue	5.15	5.56	6.03	8%	6.30	6.81
Routed Transactions (B)	54.70	61.80	68.23	12%	76.29	82.99
Data Processing Revenue	4.37	4.88	5.39	11%	6.00	6.49
Int'l Transaction Revenue	3.18	3.52	3.73	8%	4.13	4.44
Other Revenue	0.70	0.73	0.82	8%	0.84	0.85
Client Incentives	-2.30	-2.39	-2.80	10%	-3.10	-3.37
Total Net Revenues	11.10	12.29	13.18	9%	14.17	15.21
% of Net Revenue Ex-US	45%	46%	47%			
Profitability						
EBIT*	6.68	7.70	8.55	13%	9.10	9.90
EBIT Margin	60%	63%	65%	-	64%	65%
NOPAT*	5.21	5.39	5.84	6%	6.30	6.69
Sources of Capital						
Cash & Securities	5.7	6.6	7.4	14%		
Debt	0.1	0.1	0.1	0%		
Shares Outstanding (B)	2.6	2.5	2.4	-3%		
Enterprise Value	103.4	128.6	163.1			
Valuation						
EV/EBIT**	15.5	16.7	19.1	-	17.9	16.5

* EBIT, NOPAT and the EV/EBIT exclude litigation charges.

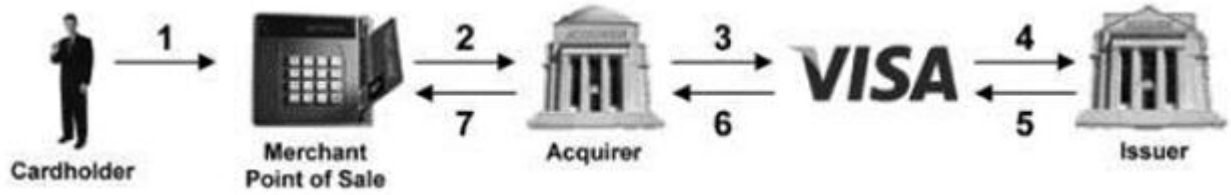
** EV/EBITs are based on the EBITs included in this table. The figures for March 31, 2013 and 2014 are based on historical EVs, while 2015, 2016 and 2017 are based on Visa's current EV.

Visa gives its financial institution clients the ability to a) give their customers widely accepted credit and debit cards and b) give their business customers the ability to accept Visa branded cards. To help better describe how visa earns revenue, we will first go over how a Visa transaction works. But, if you are already familiar with how a Visa transaction works and how Visa makes money, skip to the "Visa Inc. and Visa Europe" section.

How A Visa Transaction Works

Say you use a Visa credit card to buy a $2 chocolate bar from a local convenience store; how does money transfer from you to the merchant? What are the steps involved?

The first step is Authorization, which involves the following:



(Most of the information in this section was retrieved from pages 136 to 137 of Visa's 2008 Form 424B4.)

1. You swipe your card or stick its chip in the merchant's point of sale terminal, which reads the account number and other data encoded on the card.

2. The merchant terminal transmits the card information and transaction amount to the merchant's bank (the "acquirer" in credit card speak).

3. The acquirer or its third party processor (more on processors in later sections) combines the transaction information into an authorization request message and transmits it to Visa.

4. Visa routes the authorization request to your bank (the "issuer") for review.

5. The issuer or its third party processor returns an authorization response message, either approving or denying the transaction.

6. Visa routes the authorization response to the acquirer.

7. The acquirer transmits the result of the authorization request to the merchant terminal showing whether the transaction is approved or denied.

Authorization takes about a second and if you are denied, sorry no chocolate.

If you are approved, Clearing and Settlement are the next steps in the process and they involve the following:

Clearing may occur at the same time as authorization (a single-message transaction) or at a later time as part of a batch (a dual-message transaction) depending primarily on your region, your bank and how your account is set up. Here's how clearing works:

1. The merchant transmits the transaction information, including account numbers and transaction amounts, to the acquirer.

2. The acquiring bank or its third party processor formats this information into a clearing message, which it transmits to Visa.

3. Visa routes the clearing message to the card issuer and calculates the settlement obligation of the issuer and the amount due to the acquirer, net of certain applicable fees and charges.

Settlement typically occurs each day in the following manner:

4. The issuer sends funds to Visa's designated settlement bank in the amount of its settlement obligation.

5. The settlement bank, at Visa's direction, transfers funds due to the acquirer, who credits the merchant's account.

Then at a later date you receive a credit card bill saying that you owe your bank $2, this is because your bank made the payment to the merchant's bank on your behalf. In other words, your bank extended you credit, not Visa.

Visa encourages banks to issue cards by giving them something called an Interchange fee. Issuers receive interchange fees in the form of a reduction in their settlement obligation in step 3 of the clearing process above. So if you buy a $2 chocolate bar, the issuer (your bank) sends Visa $2 less an interchange fee, which your bank keeps, then Visa sends the remaining amount to the acquirer (the convenience store's bank) less applicable fees and charges, then the acquirer deposits the remaining amount in the merchant's account less a merchant discount fee, which the acquirer keeps to cover its costs and make a little money. Put simply, your bank, Visa and the merchant's bank get paid each time you use your Visa card at the expense of the merchant. By encouraging issuance, pressure is put on merchants to accept payment cards or risk losing sales, and this pressure grows the acceptance of Visa.

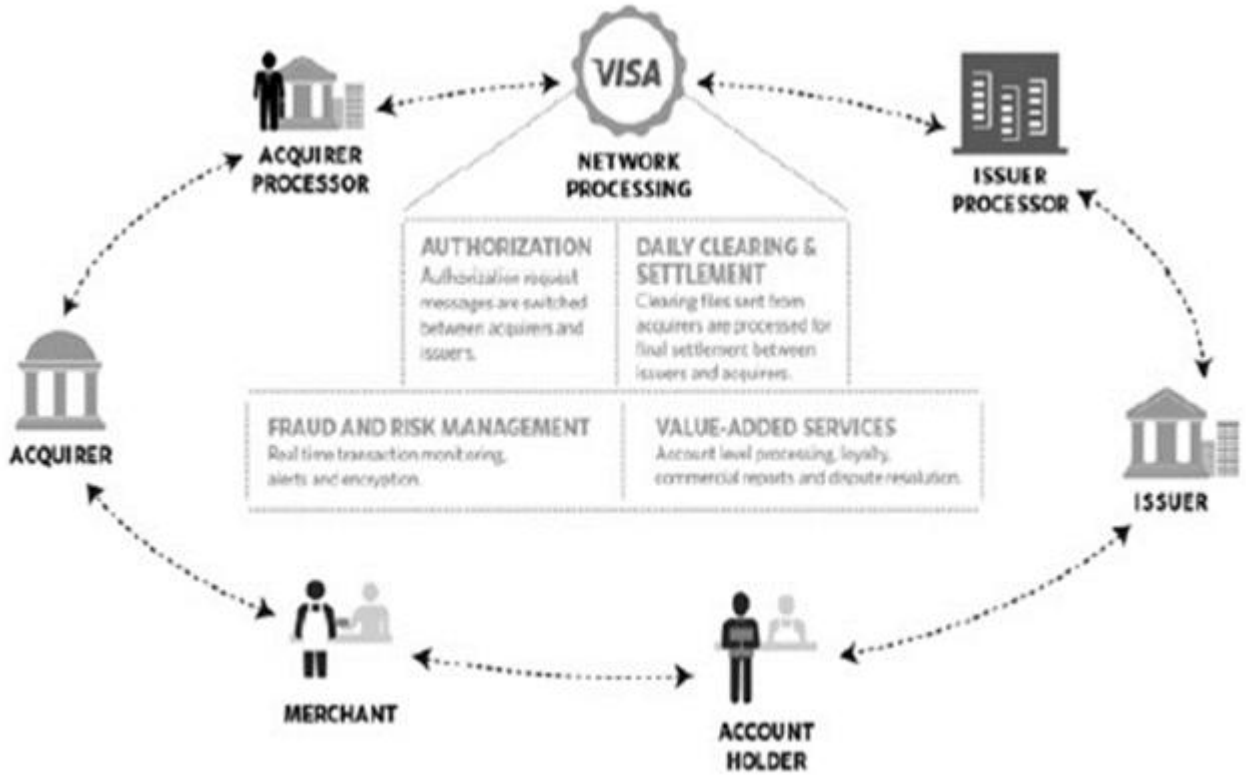
Because Visa's model involves customers, merchants, acquirers and issuers, it is called a "four-party" or "open-loop" model and MasterCard (NYSE:MA) operates in a similar manner. American Express (NYSE:AXP) and Discover (NYSE:DFS), on the other hand,

operate a "three-party" or "closed-loop" model, named so because they themselves act as the issuer and/or acquirer. This difference means that three-party players directly extend credit and own the customer/merchant relationships, while four-party players can gain tremendous scale via their financial institution clients.

How Visa Makes Money

Visa's largest source of revenue is from service revenue, which is driven by the value of payments, aka payments volume, for which Visa branded cards are used. Transactions that are conducted using Visa cards are recorded by Visa's financial institution clients on a document called the operating certificate. Operating certificates are submitted to Visa on a periodic basis; however, because the submission dates don't always align with the end of fiscal quarters, Visa bases service fees on the previous quarter's operating certificates. So the service revenues for the quarter ending March 31, 2015 were actually based on the payments volume for the quarter ending December 31, 2014. Service revenues made up 38% of TTM March 31, 2015 gross revenues.

Why does Visa require their clients to go through this seemingly archaic process of submitting operating certificates? Doesn't Visa already know the value of transactions when it routes payments between issuers and acquirers? Visa requires operating certificates because not all Visa card transactions involve Visa. This seems odd, but some transactions actually exclude Visa from the processes described in the previous section. To better illustrate this, take a look at this diagram from Visa's latest 10K showing the parties involved in a typical transaction:



The processors above are the middlemen between the banks and Visa, sometimes they are also owned by banks. Processors help the banks with issuing cards, organizing accounts and sending transaction details to payment card networks such as Visa and MasterCard (examples of processors include First Data and Total System Services).

So far so good, but now imagine the diagram above without Visa there at all: the acquirer processor and the issuer processor coordinate the authorization, clearing and settlement with each other directly, excluding Visa from routing the transaction and leaving Visa out of the information flow. This is called disintermediation (more on this risk later) and it is why Visa requires clients to disclose their payments volume via operating certificates. This also gives rise to a concern of dishonest operating certificates, after all, the clients themselves have to tell Visa how much they owe. However, past information submitted by other clients gives Visa an idea whether or not a client is giving them correct information and Visa can conduct an audit if there are any lingering doubts.

So Visa obtains service revenues when a Visa card is used for a payment regardless if Visa was involved in routing the transaction. When Visa is involved, it routes information through its payment network called VisaNet and charges data processing fees, which are based on the number of both payment transactions and cash withdrawals. Since no operating certificates are required, there is no lag between when the transaction occurred and when revenue is recorded. Visa also earns data processing revenue when its

Cybersource business is involved in a transaction. Cybersource is a payment gateway, which is like a point of sale interface for eCommerce that allows merchants to collect and send online payment information to their acquiring bank or the processor of their acquiring bank. In the TTM March 31, 2015, data processing revenues made up 34% of gross revenues.

Visa's third revenue stream, international transaction revenue, is based on the value of transactions where the issuer and the merchant are in different countries, known as cross-border transactions. Unlike most domestic transactions, Visa can demand that cross-border transactions be routed exclusively through VisaNet, meaning that Visa cannot be disintermediated. This difference is likely due to the multi-jurisdictional nature of cross-border transactions, which makes it hard for governments to prohibit routing exclusivity on the basis of it being anti-competitive. Because Visa routes all cross-border transactions, information is recorded immediately, allowing for international transaction revenues to be based on the value of cross-border transactions that occur in the same period.

International transaction revenue also consists of currency conversion charges and this extra revenue makes cross-border transactions ~10 times more profitable than domestic transactions. International transaction revenues made up 23% of Visa's gross revenues in the TTM March 31, 2015.

The remaining 5% of gross revenue is categorized as other revenue and it comprises primarily of licensing fees charged for the use of Visa's brand and fee income arising from Visa's agreement with Visa Europe. As mentioned earlier, Visa Europe did not become a part of Visa Inc. during the 2007 reorganization and because it remained independent, it pays Visa licensing fees. The fees that Visa Europe pays makes up about 30% of Visa's other revenues.

The final revenue component, client incentives, reduces gross revenues to arrive at Visa's operating revenues. Client incentives are contracts used by Visa to gain business by reducing the fees associated with using its services. These incentives are designed to encourage clients to increase card usage and routing through VisaNet. Incentives are also a critical tool when Visa is entering a new market as it supports clients for issuing cards and acquiring merchants, thereby helping Visa create a network effect where none existed before. Client incentives made up -17.5% of gross revenues in the TTM March 31, 2015.

To sum up, Visa generates the following revenue streams: 1) service revenues (38% of TTM March 31, 2015 gross revenues) based on the value of payments conducted using its cards; 2) data processing revenues (34% of gross revenues) based on the number of

transactions that are routed through Visa's network; 3) international transaction revenues (23% of gross revenues), which are earned from transactions where the issuing bank and the merchant are in different countries; and 4) other revenues (5% of gross revenues). Gross revenues are then reduced by client incentives (-17.5% of gross revenues) to get to Visa's operating revenues.

Visa Inc. and Visa Europe

Prior to Visa's 2007 restructuring, it operated as 5 entities: Visa U.S.A, owned by American financial institution members (members are banks that use Visa's services); Visa International, owned by members that operated in the Asia Pacific, Latin America and the Caribbean, and Central and Eastern Europe Middle East and Africa (CEMEA) regions; Visa Canada, owned by Canadian members; Visa Europe, owned by European members; and Inovant, which operated VisaNet. The restructuring made all these entities subsidiaries of Visa Inc., except for Visa Europe, which remained owned by its members.

Visa has an economic interest in Visa Europe in the following ways: 1) Visa Inc. receives a license fee ($143M annually in 2012, 2013 and 2014) from Visa Europe in exchange for granting it the use of its brand name and technology; 2) Visa Inc. is involved in cross-border transactions that are issued/acquired by Visa Europe's members; 3) the use of Visa Europe's issued cards outside of Europe serves to drive acceptance of the Visa brand in other regions; 4) Visa Inc. may be able to off-load some European related legal liabilities to Visa Europe (although Visa Europe isn't agreeing to all indemnities); and 5) Visa Inc. and Visa Europe entered into a perpetual put/call agreement, which could result in Visa Inc. being forced to buy Visa Europe or Visa Europe being forced to sell to Visa Inc.

Visa lists the Visa Europe put as a $145M liability and believes that there is a 40% chance that it will be exercised sometime in the future. But it could be exercised at any time and if it is, Visa estimates that it will have to shell out over $10B (new media reports say otherwise, more on this later) within 285 days. Visa currently has $7.4B in cash and investments and a $3B credit facility, indicating that it may opt to raise debt or issue shares to fulfill a portion of the obligation if required. Visa's call option on Visa Europe is not recorded on Visa's balance sheet because it would only become exercisable in a very negative scenario (a 25% or greater decline in the number of merchants that accept Visa in Visa Europe's region and a 45% or greater decline in ATMs in Europe that accept Visa cards).

If the Visa Europe put were to be exercised at $10B, the low end of Visa's cost estimate, it would result in Visa Europe being sold at a P/E of 41x (Visa Europe's annual report is available here), not a bad deal if you are a Visa Europe shareholder. However, Visa Europe is now solely run for the benefit of its clients, who are also its shareholders; therefore, if Visa Europe's shareholders were to sell, they would have to consider the risk of Visa increasing prices. What would this risk look like? If we were to apply Visa's 2014 take rates to Visa Europe's payment volume and processed transactions, revenues of Visa Europe for the TTM June 30, 2014 would have been 123% higher, resulting in an increase in cost to Visa Europe's current owners of €1.6B. From the perspective of a Visa Europe owner/client, the $10B doesn't look so great anymore, now does it?

Say the economics change and/or the terms are negotiated in a manner that makes it worthwhile for Visa Europe to exercise its put, would it be so bad for Visa shareholders? If the price is fair, perhaps at a valuation matching that of Visa's, then it may be a good thing as marketing efforts, data, technology and client relationships would be under one organizational roof, perhaps easing the implementation of new initiatives (there is a provision for synergies in the terms of the put; therefore, Visa Inc. may not capture all the cost cutting benefits).

A Visa/Visa Europe merger could also be negative if any of the following were to occur: a) Visa Europe's legal liabilities are proven to be greater than expected; b) Visa Europe's clients take part in creating a new competitor to Visa; c) European governments and banks decide that they don't want an American firm being in control of their payment routing and try to disintermediate Visa by backing a European processor (more on the strategic importance of routing is in the "UnionPay, Russia and Political Risk" section); or d) Visa Europe's clients turn to MasterCard or another competing card brand. While the chances of b) occurring will likely be reduced by a non-compete, an assessment of how Visa and Visa Europe agree upon mitigating other risks would have to be conducted if and when a merger takes place.

News as of May 8, 2015, has created additional speculation in regards to a Visa Inc./Visa Europe merger. If Visa Inc. were to acquire Visa Europe for $0 and immediately bring its pricing and costs in line with the rest of Visa Inc., a very rough estimate that I conducted indicates that Visa would gain ~$41B in value and Visa's stock would gain ~$17/share. Again, due to a lack of information, this is a rudimentary estimate that does not take into consideration the price of the acquisition, the structure of the acquisition, integration costs or any of the negative points mentioned in the previous paragraph. This merely serves to help put the $15-20B acquisition price touted by the media in some general context.

Visa's management has previously stated that if Visa Europe were to exercise its put, it would first move to a for-profit model to increase its earnings and raise the acquisition price, so this would be an event to watch out for. Until this event occurs and/or more information comes to light in regards to recent media reports, I am treating the $145 balance sheet value of the put as debt for valuation purposes.

Visa's Edge: Cardholders and Acceptance Points

Before we dig in: because of the sharing of the Visa brand along with certain economic interests as discussed in the previous section, Visa Europe's most recent June 30, 2014 figures are included with Visa's December 31, 2014 numbers when non-financial metrics such as card counts, volumes and transactions are being used for comparison purposes. Other figures used in this section are as of Dec 31, 2014, unless stated otherwise. Let's get to it.

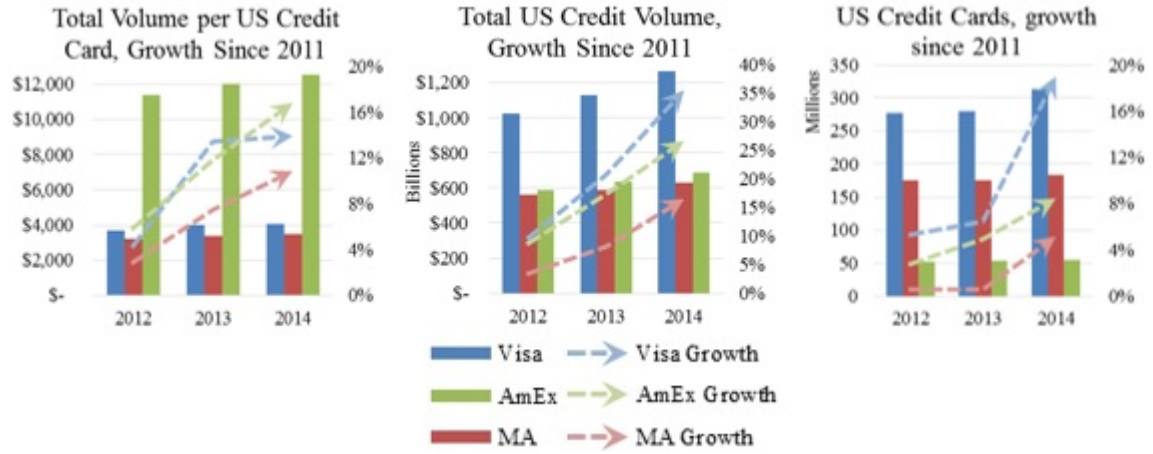
Other than allowing for easy credit extension, payment card companies add value to banks by giving them a way to earn interchange and merchant discount fees, which are both driven by card usage. Therefore, if we were to distill our assessment of Visa's competitiveness down to two questions, they would be the following: 1) Why should consumers pay with Visa cards over other cards? and 2) Why should merchants accept Visa cards vs. the alternatives?

Visa's value proposition lies in its powerful network. For cardholders, Visa cards are accepted in more than 36M merchant locations and for merchants, they will be able to accept payment from 2.9B issued cards. Having a large base of cards and merchants who accept them is critical in the payment card business, and Visa is well positioned in both these areas.

MasterCard has a strong position as well as it also has about 36M acceptance points, but Visa's advantage lies in its card count, which is 38% greater. This difference resulted Visa cards being used for 45% more total volume (the dollar value of payments and cash accessed) than MasterCard cards. American Express has also done well by targeting high-end consumers, but its 112M issued cards and ~16M acceptance points make it simply too small to significantly threaten Visa's global network effect.

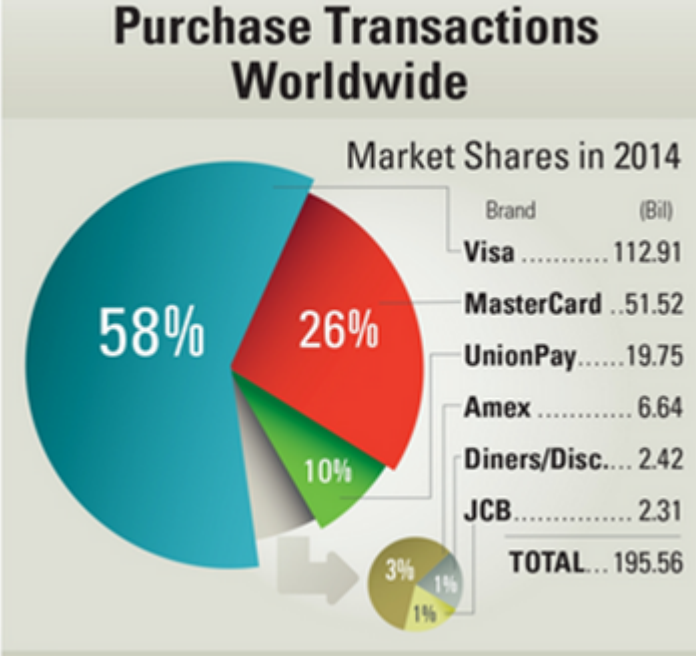
Competition in the US credit market is perhaps the most intense in the payment card industry because of its size and the players involved. It made up 13%, 10% and 67% of Visa's, MasterCard's and AmEx's total volume, respectively, and 15% of the total volume of these three players in aggregate. Discover is also involved in this market, but its share

is very small (Visa has 9x the US credit volume of Discover); therefore, we will focus on the other American players in this analysis. The charts below show how Visa and its competitors are faring in the US credit card market.

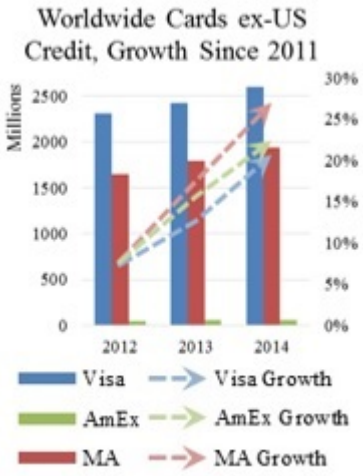


The first chart demonstrates that AmEx is using its closed-loop model to target the high spending, high credit quality segment of American consumers, shown by its $12,533 total volume per American credit card vs. $4,042 for Visa and $3,314 for MasterCard. AmEx's high volume per card has allowed it to transact more US credit volume than MasterCard ($688B vs. $633B) despite having a much smaller US credit card count (55M vs. 191M). The cost of AmEx's closed-loop is issuing scale, shown by Visa and MasterCard having 5.7x and 3.3x the number of American credit cards outstanding. From Visa's perspective, these charts indicate two things: 1) Visa issuers target a different and/or broader sub-set of the American population than AmEx; and 2) it is strengthening its already dominant share of the US credit card market in terms of cards outstanding and total volume.

Touching briefly on Visa displacing AmEx as Costco's card of choice: If the business generated from Costco for American Express were to transfer over dollar for dollar to Visa, it would result in Visa's global total volume increasing (and AmEx's decreasing) by $92B or 2% excluding Visa Europe (9% decrease for AmEx).



Now, let's take a look at the rest of the world. As shown by the figure above (sourced from The Nilson Report, a firm that specializes in payment industry research), the payment card industry in terms of transactions is dominated by Visa and MasterCard, who make up 58% and 26% of the market, respectively. The tough part when comparing these two giants is getting an apples to apples comparison on their market shares because their data points do not align, with the most significant problem arising out of MasterCard not reporting the transaction and volume figures of its Maestro branded debit cards, despite there being more Maestro debit cards outstanding (701M) than MasterCard branded debit cards (665M). A rough estimate indicates that MasterCard's overall transaction count could be ~50% more than what is shown in the figure above, increasing MasterCard's market share to 35% and decreasing Visa's to 51%.



The Visa and MasterCard data points that are the least susceptible to speculation in regards to their comparability are those related to US credit and total cards outstanding. The charts shown earlier demonstrate that Visa is going strong in US credit, with a faster

growing and larger market share of both total volume and cards issued compared to MasterCard. When excluding US Credit, Visa and Visa Europe still have 34% more cards outstanding, but MasterCard has been issuing cards at a CAGR of 8.3% since 2011, compared to 6.5% for Visa. This indicates that MasterCard could be doing any of the following or a combination thereof: a) focusing on gaining clients at a faster pace outside of the US; b) more effectively incentivizing their international clients to issue cards (over the last 3 years ending Dec 31, MasterCard's client incentives were 26% of gross revenues vs. 17% for Visa); and/or c) simply piggy-backing off of Visa's market penetration, but this may be unlikely as MasterCard claims to be in over 210 countries and territories, about the same as Visa, which claims to be in over 200. MasterCard seems to be gaining strength in faster card issuing areas and it also recently beat out Visa for contracts with two major issuers: Citi and Brazil's Itau.

Last month, MasterCard announced that it won a 10-year contract with Citi, the largest card issuer by accounts, to handle their Citi-branded consumer credit and debit cards. This win pushes out Visa, who previously shared this business with MasterCard. But this isn't a total loss for Visa as Citi's co-branded cards, like Costco's new cards, will still be open to competition. MasterCard's second win was that of a 20-year contract with Itau, who's issued credit cards accounted for 38% of Brazil's countrywide payment volume in 2014. Neither Visa's nor MasterCard's management have given details in regards to how and when they expect these contracts to impact their financials, but they have indicated that Citi's conversion of Visa's accounts to MasterCard will be drawn out over a number of years. Based on the number of Visa, MasterCard, Itau and Citi accounts, I estimate that if both Citi's and Itau's conversions were to be fully completed within 12 months, the impact on Visa's revenues for the TTM March 31, 2017 would be -2.2%, and these assumptions are built into my valuation.

Could MasterCard engage in intense, perhaps destructive, price competition to win contracts over Visa at a more aggressive pace? It is not in the interest of MasterCard to battle it out with Visa because of two reasons: 1) it enjoys no profitability advantage over Visa as the average difference between the two companies' operating margins over the last 3 years has been 8 percentage points in Visa's favor, indicating that price reductions would hurt MasterCard more than Visa; and 2) MasterCard has higher customer concentration risk with 24% of its 2014 revenue coming from its 5 largest customers, leaving it more vulnerable to intense competition. In further support of the first point, last month, MasterCard's CFO expressed that her team is committed to maintaining at least a 50% operating margin going forward (it was 54.3% vs. 64.9% for Visa in the TTM 31/03/2015). At the moment, it seems to be in MasterCard's interest to keep the status

quo and reap the benefits of the oligopolistic structure of the payment card industry. Overall, MasterCard may have higher growth prospects due to the faster growth in the number of its cards, but Visa has 37% more cards outstanding and a less concentrated customer base. Visa can withstand more missteps than MasterCard.

The established network effect of Visa and MasterCard would make it hard for a new, low cost player to compete. If the top 3 credit card issuers by credit card loans outstanding, JP Morgan Chase, Bank of America and Citi (American Express is larger than Citi in terms of credit card loans outstanding, but it was omitted as it already has its own card brand), were to jointly develop a new payment card system, their combined number of customer accounts would amount to only 14% of Visa's (excluding Visa Europe). This indicates that if the top 3 issuers were to issue a new card brand to their customers, the number of cardholders holding the new brand may not be sufficient enough to push other banks to act as acquirers, which would make it difficult for the new brand to establish a competitive network effect.

A new player arising out of a group of financial institutions would also have to consider the following: 1) creating a new routing network by developing technology and/or coordinating an agreement with processors to piggyback off of their infrastructure; 2) developing relationships with other financial institutions and incentivizing them to start issuing/acquiring the new card (Visa has 14,300 global financial institutions that it does business with); 3) marketing successfully to their customers to compete for their wallet space (that wallet can only get so fat); and 4) keep Visa and MasterCard happy while this is all going on, as their customers will still need widely accepted credit and debit cards during the transition period.

In February 2013, Visa signed a 10-year deal with JP Morgan, to help them build out a payment processing platform that uses Visa's infrastructure. The platform, ChaseNet, is in its early days and it gives JP Morgan the capability to operate more as a closed-loop system. With ChaseNet, JP Morgan is able to offer better pricing for merchants and a wider array of awards programs for cardholders. In exchange, JP Morgan issues more Visa cards and is less likely to branch out on its own. The structure of this agreement also gives Visa a tool to neutralize, in a mutually beneficial way, the risk of a competitor arising out of financial institutions. The risk still exists, after all Visa and MasterCard started in a similar way (although in a much different competitive landscape), but it is unlikely to pose a serious threat until the banking industry becomes more consolidated.

The points discussed in this section show that Visa's strong network of merchants, cardholders and financial institutions, along with the structure of the industry it operates in and its diversified client base give it a sustainable competitive advantage.

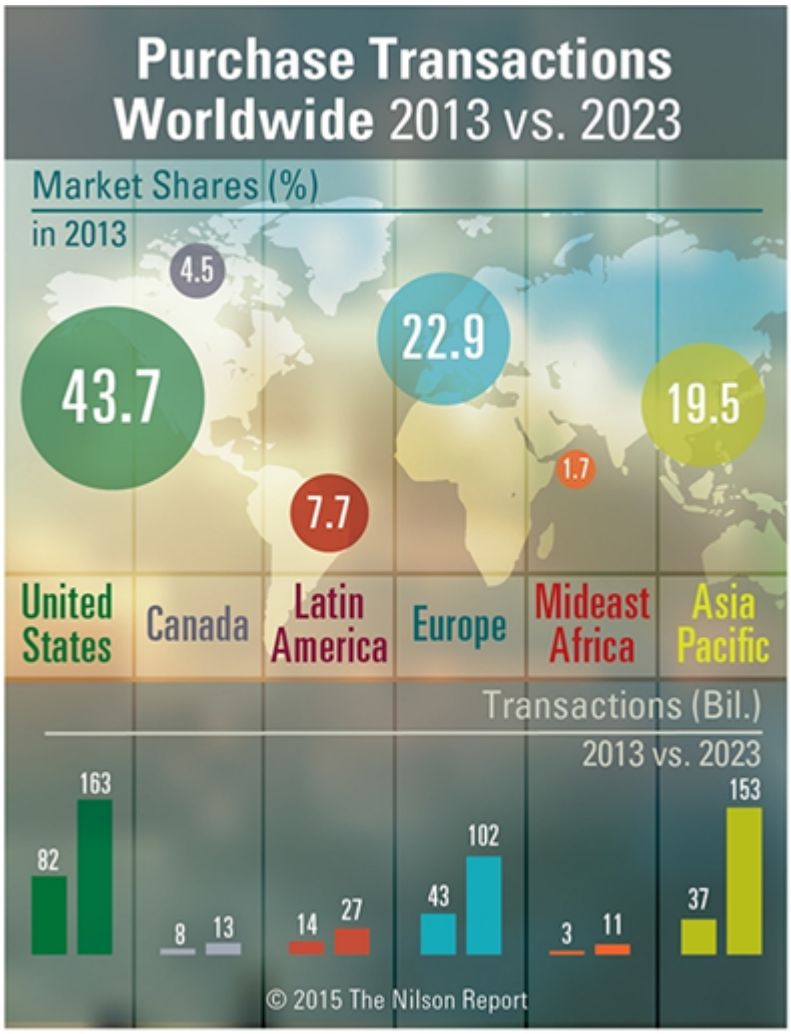
UnionPay, Russia and Political Risk

UnionPay, the only processor of domestic transactions and the only firm allowed to be used as a domestic payment brand in China, can grow to be a major competitor in the future (Visa and MasterCard cards can be issued in China, but not for domestic use). UnionPay is a private company, making it difficult to get reliable numbers, but, according to their website and other affiliated websites, UnionPay's cards are accepted in over 150 countries and according to a 2010 press release, it had 2.3B cards outstanding, the same number as Visa branded cards at that time when Visa Europe is included. According to the Nilson Report, UnionPay greatly surpassed Visa in 2012 in terms of cards carrying their brands, with 3.5B cards vs. 2.5B for Visa. If the numbers are correct, UnionPay's annualized card growth from 2010 to 2012 of 23% also exceeded the 8% growth that Visa achieved in the Asia Pacific region over the same period. UnionPay's card numbers may be realistic as they would equate to 2.6 cards per person (assuming all cards are in China) compared to 3.6 cards per American when Visa, MasterCard, American Express and Discover's American card count is taken into consideration.

China recently announced that it will be opening up its domestic market to foreign firms and this will give American companies a great opportunity for growth. But, because the payment card business is a network effect business, new entrants into the Chinese market will still have a tough time convincing banks, merchants and consumers to wean off of UnionPay. To gain a Chinese foothold, Visa may have to bear considerable risk in the form of costly client incentive advances to entice Chinese financial institutions to issue Visa cards and acquire merchants. The difficulty of taking on a behemoth like UnionPay should not be underestimated and my model doesn't take into consideration any China related growth until the Chinese government gives more clarity in regards to the extent of what it is allowing and Visa reveals more detail in regards to its expansion strategy.

UnionPay is also gaining use abroad because of several reasons: a) foreign merchants want to accept payments from Chinese tourists, who spent $128B abroad in 2013, more than tourists hailing from any other country ; b) Foreign companies want to do business in China (in March of this year, Turkey's largest bank became the first issuer of commercial UnionPay cards in the Middle East); and c) countries wary of the US may prefer to do business with a Chinese company (an example is provided in the paragraph after next).

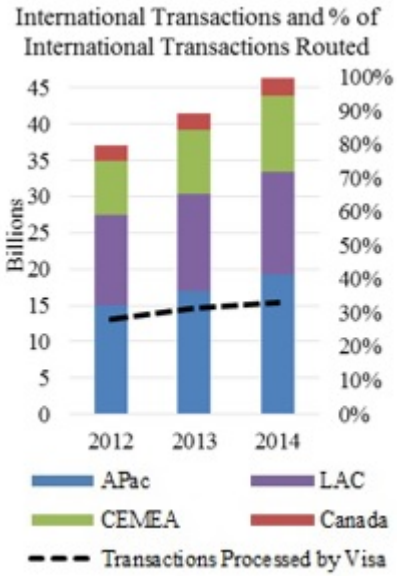
Despite its growing acceptance, UnionPay may still have trouble taking meaningful market share away from Visa in other parts of Asia. In early 2013, the country with the most UnionPay cards issued outside of China was South Korea with 5M cards (this number was obtained from here). Compare this to Visa, which had an estimated average number of cards per country in the Asia Pacific region of 45M (this number is speculative as it was obtained by dividing Visa's cards in the Asia Pacific region by 15, which seems to be the number of major Asian markets Visa operates in according to Visa's Asia Pacific website). This indicates that Visa's market position is stronger than UnionPay in the Asia Pacific region ex-China, which, along with China, will be a critical battleground for the payment card industry as it is projected to catch up to the US in 2023 (shown by the figure below). While Visa may have trouble taking significant market share from UnionPay anytime soon, the same may be true the other way around.



As touched upon briefly in a previous paragraph, UnionPay does, however, have one other interesting advantage: it provides countries with a counterweight to America's dominance in the payment card industry. The Russia-Ukraine Crisis in early 2014 led to sanctions that forced Visa and MasterCard to halt routing transactions for some of their

Russian clients. This incident demonstrated the power that American firms have over Russia's payment infrastructure and in late 2014, banks started issuing UnionPay cards as a way to mitigate their dependency on Visa and MasterCard. In addition, Russia enacted a law to create a national processor to further protect itself against any foreign power having control over its consumer spending. Visa continues to do business in Russia, but once the national processor is up and running, Visa's management expects it to result in $70M in annual lost data processing revenues (~1% of total data processing revenues). The real danger is that other countries catch wind of this and also seek to disintermediate Visa or limit the spread of its brand in favor of domestic brands.

Foreign governments seem to be already thinking this way because in 2014, Visa routed only ~33% of the transactions conducted by non-US issued Visa cards, compared to ~99% for US issued cards. In addition, the 33% figure includes cross-border transactions, meaning that the actual transactions that Visa routes for foreign countries in their domestic markets is even lower.



The chart to above shows how Visa's non-US issued card transactions are spread out by region of issuance and the percentage of these transactions that are routed through VisaNet. From 2012 to 2014, transactions of cards issued in Asia Pacific, Canada, Central Europe Middle East and Africa (CEMEA) and Latin and South America (OTC:LAC) grew at an annual rate of 13.4%, 9.8%, 18.5% and 6.3%, respectively. The percent of transactions using non-US Visa cards being routed through VisaNet has increased slightly from 28% in 2012 to 33% in 2014. Non-US issued card transactions made up 47% of Visa's total transactions and 23% of its total routed transactions. These data points indicate that Visa's non-US business is stable and even if it takes a turn for the worse, Visa's data processing revenues, which are based on routed transactions, are still

predominantly tied to the US. If, for arguments sake, foreign processors disintermediate Visa an additional 50% so Visa only routes ~16.5% of the transactions conducted using non-US issued cards, my intrinsic value per share would drop ~6% to $69.

The power that Visa possesses over the countries it operates in may drive governments to push for more competition in their markets, perhaps enabling UnionPay and/or new players to nibble away market share down the road. While this risk should be monitored as the payments industry evolves, recent history indicates that non-US markets will continue to be a source of transaction growth for Visa as it further establishes its powerful network effect internationally.

Litigation Risk is Mitigated By Visa's Unique Structure

Visa's IPO in 2008 served to transfer Visa related legal liabilities from Visa's financial institution members, who were also Visa's pre-IPO owners, to Visa Inc. When Visa reorganized before its IPO, financial institutions were given class B and C shares in exchange for their prior stake in their regional Visa organization (for example: Canadian banks owned stakes in Visa Canada and after the restructuring their stakes were exchanged for Visa Inc. class B shares). $16B out of Visa's $19B IPO was used to redeem some of the class B and C shares and the remaining $3B was used to fund an escrow account dedicated to settling covered litigation, which consists of lawsuits pertaining to interchange fees and lawsuits that may arise pertaining to Visa's actions before or during its IPO. Each time Visa's litigation escrow account is funded, the class B shares that didn't get redeemed during the IPO get diluted in a manner that has the same economic effect as a repurchase of class A shares (the publicly traded class that you and me can buy). This dilutive structure of class B shares is the price that Visa's pre-IPO financial institution owners paid for transferring the litigation liabilities away from their organizations.

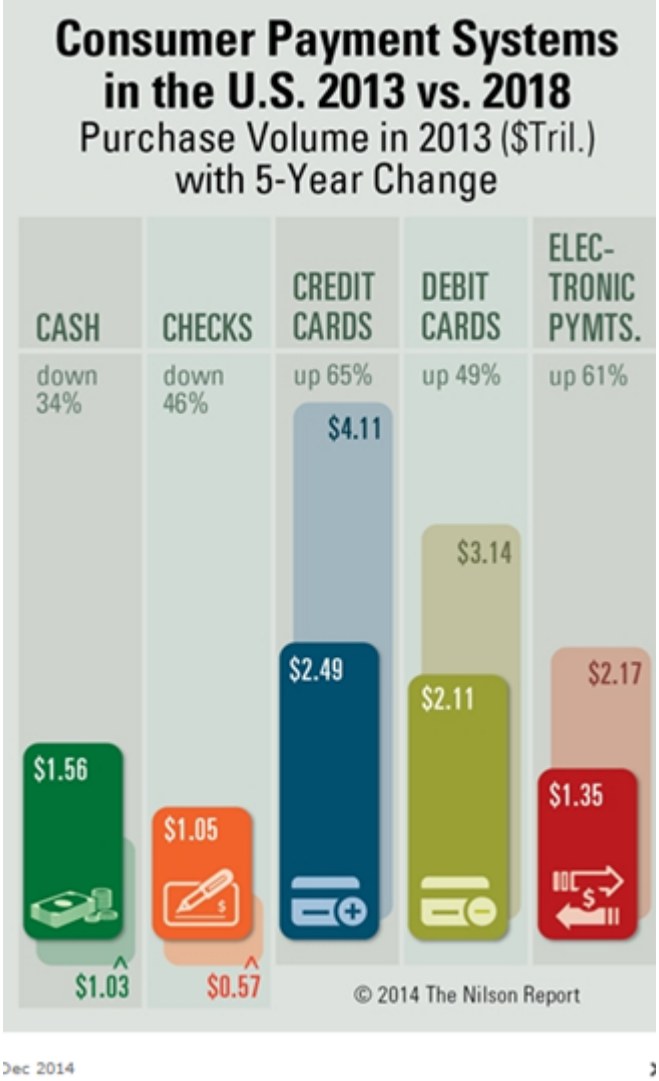
Since 2008, Visa has paid out $8.86B in settlements; however, $7.52B of this fell under covered litigation and was therefore absorbed by class B shareholders. Given the current share price, class B shareholders can bear the brunt of $28B more of covered litigation and even after this amount is surpassed, class B shareholders have indemnified Visa for excess losses, thereby protecting class A shareholders even more. In addition to this, out of Visa's $1.14B of accrued litigation as of March 31, 2015, $1.13B falls under covered litigation and the escrow account had assets of $1.18B. All this points to class A shareholders largely being protected from financial loss that would arise from lawsuits.

A greater risk than immediate financial loss arising from settlements is the risk that rulings force Visa to change the way it operates. Visa was forced to change its no-surcharge rules when it settled a large lawsuit in 2012, which resulted in merchants being permitted to charge customers extra for using Visa cards.

However, 9 states in the US (Colorado, Connecticut, Florida, Kansas, Maine, Massachusetts, New York, Oklahoma and Texas) prohibit merchants from surcharging and merchants countrywide are limited in their surcharging abilities. Other than a recent ruling by California in support of surcharging, Visa's performance after 2012 reflects these rule changes and management's guidance does as well. If, however, regulations become less and less favourable to Visa, they will also likely impact other payment card companies, thereby not affecting Visa's market position. These industry wide rules are more likely to benefit other forms of payment, namely cash. While cash may win some regulatory battles, it is, as shown by the next section, losing the greater payments war.

The Digital Payments Battlefront

With global retail eCommerce growing at ~17% in 2013 compared to 6% for total global retail (the eCommerce figure is from here and the global retail sales figure is from here), cashless transactions are becoming more prevalent. The chart to below demonstrates that cash is projected to be used less and less in the US, with payment cards and digital payment players picking up the slack.



Some new payment technologies benefit from collaborating with the current payments ecosystem, which in turn benefits Visa. For example, Visa is helping Apple Pay gain acceptance and Apple Pay allows users to pay with Visa cards through its app, thus benefiting both parties. On the other hand, PayPal (NASDAQ:EBAY), which is involved in 1 in 6 online transactions globally, has a different business model that allows users to bypass Visa entirely if they so desire. PayPal's focus on online transactions has allowed it to grow its payment volume at a 24% CAGR from 2011 to 2014 vs. 8% for Visa, but PayPal's figures include transactions where Visa is used as a payment method. To clarify, merchants that use PayPal have the ability to accept payment cards as well as PayPal payments, this means that some of PayPal's growth is due to buyers using Visa. Visa estimated that 50% of PayPal's 2012 activity was generated from payment cards, which may have helped Visa conduct 47% of eCommerce transactions in the US (these figures were obtained from Visa's June 6, 2013 Investor Day presentation). When taking into consideration online and offline payments, Visa's payment volume is 21x larger than PayPal's and Visa has 13x more accounts. Visa's offline success seems to be helping it in the online arena as its cardholders make the transition to eCommerce.

To venture further in the in-person payment space, PayPal (more on PayPal and its business model is available in another article I wrote here) has recently purchased Paydiant, which created the CurrentC digital wallet for the Merchant Customer eXchange ("MCX"). CurrentC is in its pilot stage and it is designed to reduce merchants' card processing fees by having users pay from their checking accounts and/or certain co-branded debit and credit cards, excluding generic Visa/MasterCard/AmEx/Discover cards. Here's how it works: users of CurrentC first store their payment information on the CurrentC mobile app and then use QR codes generated by the app to make purchases at participating merchants. To encourage its use, merchants within the MCX network will give customers that use CurrentC rewards points, which MCX hopes will overcome any loss of convenience and/or rewards that users experience from not using their usual payment card.

Once it is rolled out in the US later this year, CurrentC will have 110,000 locations that support it, including large brands like Walmart, Sears, CVS and Target to name a few. According to a MCX press release available on its website, the companies in its network process more than $1 trillion in payments annually. It is too early to accurately estimate the risk it poses, but if we were to conduct a blunt and pessimistic estimate of the CurrentC impact by assuming that on September 30, 2015 (the end of Visa's fiscal year) the US payment card industry takes an immediate hit worth $500B in annual payments, Visa's per share intrinsic value would drop 4% to $70.40. The estimate of CurrentC's impact in this bearish scenario demonstrates again, that if Visa makes mistakes, which we hope it doesn't, it can recover.

Management: Digital Push and Capital Allocation

Visa is led by its CEO Charles Scharf (an informative article on Mr. Scharf is available here), who has a great understanding of Visa's clients as he was CEO of retail financial services at JP Morgan Chase & Co from 2004-2011. This experience in retail banking may have also given him more insights into the needs of Visa's end users, giving him a valuable perspective in regards to Visa's value-add throughout the whole payment card chain. Mr. Scharf's viewpoint, along with his assessment of the changing landscape, is perhaps what led Visa to launch Visa Digital Solutions in mid-2014.

Visa Digital Solutions provides financial institutions, developers and merchants with tools that they can use to drive mobile and online payments. Specifically, Visa's new online payment tool, Visa Checkout, is designed to be easier to use and simpler to integrate than Visa's previous digital wallet, V.me. And, Visa's new Software Development Kits (SDKs) give developers the ability to create applications that accept mobile and online payments

via Visa Checkout. As of March 31, 2014, Visa Checkout has over 4M registered users and while it is still much smaller than PayPal, which has 165M users, it gives Visa a way to expand its footprint in the digital and online space.

What does Visa get out of this? The easier it is for customers to pay, the more likely they are to purchase and the more money Visa makes. Ease of payment in the online and mobile space will allow Visa to further profit from the movement towards card-not-present payments, which have been growing 3x faster than card-present payments in terms of volume, according to Visa's Q3 2014 conference call.

Visa's management has also been disciplined in regards to its free cash flow usage by not accumulating unnecessary amounts of cash and/or making large, expensive acquisitions. This is especially important in Visa's case because of its capital-light structure.

Over the last 3 fiscal years, Visa has generated an average of $912M/year by effectively managing its working capital and spent only $467M/year on CAPEX and $51M/year on acquisitions (Visa's average free cash flow per year over this period was $4612M). More so, Visa's total net fixed asset base is only $1843M as of March 31, 2015, meaning that it could have doubled its property, equipment and technology with a year's worth of operating cash flow and still have had $3236M left over. These numbers indicate that Visa doesn't need to retain cash to fund its day-to-day operations or to maintain itself in the long run. Consistent with Visa's low capital requirement, Visa's management has distributed total dividends of $2465M and repurchased $10,193M worth of shares over the last fiscal three years out of its total free cash flow of $13,836M over that same period.

Share repurchases can be a good or a bad thing depending on the price at which they are conducted and as of late, it has been easy for Visa's management to look smart because of rising share prices. But, Visa's former CFO, Byron Pollitt, did spend $2B on buybacks in Fiscal 2011 ($1.7B of which was spent during Visa's troublesome 6 months ending March 31), which was more than what was spent in 2010 ($1B) and 2012 ($0.7B), indicating that he did ramp up buyback activity when prices dipped. Since its 2008 IPO, Visa's buybacks have reduced its share count from 774M to 618M at the end of fiscal 2014. The test going forward will be if Visa's new CFO, Vasant Prabhu, will aggressively repurchase during the next market downturn, or cut repurchases if Visa's stock price rises above a reasonable valuation.

Mr. Prabhu isn't a seasoned payment industry CFO like Pollitt, but he is unusually tech savvy for someone in his position. He was formerly the CFO of NBC universal (although for less than a year before taking Visa's offer), and before NBC, he was the CFO of

Starwood Hotels (market cap of $14B), where he worked for 10 years. In both of his previous positions he was also in charge of IT functions and it is perhaps this understanding of technology that helped him land his current role.

Visa has a history of shareholder friendly capital allocation and its management seems to understand the importance of making payments easier in the mobile and online realms. Success can be a terrible motivator and it is good to see Visa's management continue to push into new frontiers of competition.

Valuation and Assumptions

We covered Visa's revenues streams earlier, but what about its expenses? The important thing to keep in mind when assessing Visa's cost structure is that Visa operates a highly scalable business model as it primarily collects revenue for allowing others to use its brand, for transaction routing and for currency conversion. And because of this, it lacks directly attributable cost of sales and does not report a gross margin figure. If, however, we were to treat client incentives as an expense item rather than contra revenue, the "gross margin" would be 83.1% as of fiscal 2014 (TTM September 30) and it has been decreasing since fiscal 2008, when it was 84.4%. The valuation used assumes that post fiscal 2015, "gross margin" continues to decrease at the historical rate of ~22 basis points per annum.

Visa's scalability has more than compensated for the decrease in "gross margin", shown by Visa's operating revenue (remember, operating revenue is net of client incentives) growing at a 12.5% CAGR from 30/09/2008 to 30/09/2014 vs. a 4.2% CAGR for operating expenses ex-litigation. The difference in revenue and expense growth has led to consistent operating margin expansion from 43% in 2008 to 64% in 2014. In the valuation model, Visa's favorable operating leverage (growth of EBIT/growth of revenue) is taken into account by using the operating leverage of 1.2 implied by fiscal 2015's guidance until March 31, 2020, after which the H-model decline kicks in.

When looking at comps, the closest by far is MasterCard; AmEx and Discover's business models include a large lending aspect to them, therefore they are not as relevant for comparative purposes. MasterCard is trading at an EV/EBIT of 19.78x vs. 19.08x for Visa, so no large valuation discrepancy seems to exist. However, comparisons based on EV/EBITs can be misleading because of differing growth rates and risk, and we can isolate for these factors by running Visa and MasterCard through reverse DCFs (discounted NOPATs in our case). After modeling out MasterCard's growth, its implied discount rate is 10.93% compared to 10.34% for Visa, indicating that the market may be assigning more

risk/a higher cost of capital to MasterCard. If we were to use a discount rate of 10%, the implied perpetual NOPAT growth of MA is 6.58% compared to Visa's implied growth rate of 6.39%. Overall, this tells us that the market is assigning either higher risk, higher growth or a combination of the two to MasterCard's equity, which I believe is appropriate given the discussion in the "Visa's Edge: Cardholders and Acceptance Points" section of this report. Overall, no unreasonable valuation gap seems to exist between Visa and MasterCard.

NOPAT (Net Operating Profit After Tax) adjusted for litigation expense was used as a primary valuation metric. Free Cash Flow was not used as it doesn't account for non-cash compensation and is susceptible to short term fluctuations in working capital and CAPEX. Over the last 3 fiscal years, free cash flow was about 2% higher than NOPAT when litigation expenses and related cash flows were excluded.

In determining Visa's intrinsic value, a 10% discount rate was used because of Visa's market position and the low risk of its business becoming obsolete. I would have used a higher discount rate if either of these two factors were unfavourable, and I personally would not feel comfortable using a lower discount rate for an equity investment, even though Visa's wacc may lean in this direction given the current low interest rate environment. Another important valuation assumption is the time it takes to decline from short-term to long-term growth, and in Visa's case a 15-year period was used to model a decline from 2020's projected growth of 12.2% to long-term growth of 3%. 15 years was used because Visa is well positioned to benefit from secular changes in the payments industry arising from the growth of eCommerce and digital payments, as discussed in earlier sections, which will likely provide a tailwind to Visa's growth regardless of macroeconomic changes that arise.

Investment Strategy

Two concepts to keep in mind when developing a strategy around Visa are a) its intrinsic value of $73.30 will rise close to 10% per annum (the discount rate used) if the modeled assumptions play out and b) $73.30 is only 5.4% above the current market price, which doesn't give a wide margin of safety in case the modeled assumptions don't play out, which for better or worse, will definitely be the case. So, this leaves us with a dilemma. If you don't buy, you will forgo an incredibly strong business with a sustainable competitive advantage, operating in an essential industry with great growth prospects and trading at a reasonable price. But, if you buy, you are left with minimal protection against short-term fluctuations, macro uncertainty and/or any fundamental changes that may arise. What's the best move?

If you have any doubts, don't make a move, sit patient and wait.

But, if you are still intrigued, a mixed approach may be best, which could be one of the following: a) write puts with an exercise price that would allow for a greater margin of safety if they were exercised; b) buy a fraction, say ½, of your intended long-term allocation to Visa and keep the rest in cash so you can average down when appropriate; or c) buy a fraction of your intended position and write puts on the other fraction.

Let's get into details: If one were to pursue option a), January 2016 $63.75 puts payout a $3 premium, giving the investor an effective price of $60.75/share, which would allow for a ~20% upside relative to intrinsic value if exercise is forced prior to expiry. If the option expires out of the money, a 7% annualized (4.7% non-annualized) return on the cash required for exercise would be earned. Option c) involves puts as well and to obtain an average cost that also offers a 20% upside relative to intrinsic value would mean writing January 2016 $53.75 puts, which would payout a $0.84 premium for a 2.3% annualized (1.6% non-annualized) return on the cash required for exercise. I personally would have liked to see higher premiums and prefer b) as it combines the flexibility of liquid, uncommitted cash, which can be used to average down at any price, with some of the upside potential that arises from a simple long position.

So, I believe the best way to go about getting exposure to Visa is by the following: 1) determine how many shares you would buy today if you could purchase it at $61/share, which would allow for a 20% upside; 2) buy ½ of that share amount at the current price of $69.57; and 3) keep the remaining cash with the intent of averaging down if the shares reach $52.50, adjusted for time value accretion, or below. A major point to emphasize here is to make sure that no fundamental change in Visa's business caused the reduction in price if and when the opportunity arises to average down.

Disclosure

I, Ashvin Moorjani, am long Visa.

Model Assumptions

	Assumption	Rationale
Service Revenues		
Asia Pacific growth before fx lapping	5.2%	Most recent quarter norminal growth
Asia Pacific growth after fx lapping	12.0%	Most recent quarter fx-netural growth, as fx effect will lap
Canada growth before fx lapping	-5.6%	Most recent quarter norminal growth
Canada growth after fx lapping	6.5%	Most recent quarter fx-netural growth, as fx effect will lap
CEMEA growth before fx lapping	-8.0%	Most recent quarter norminal growth
CEMEA growth after fx lapping	20.1%	Most recent quarter fx-netural growth, as fx effect will lap
LAC growth before fx lapping	-1.5%	Most recent quarter norminal growth
LAC growth after fx lapping	15.6%	Most recent quarter fx-netural growth, as fx effect will lap
US credit growth	12%	Q2 con call: US debit grew 6% from March 31 through April 28th 2015
US debit growth	6%	Q2 con call: US credit grew 12% from March 31 through April 28th 2015
US credit conversion effect before lapping	-1.0%	Q2 con call: declining positive impact due to account conversion
US credit benefit from gasoline lapping	2%	Q2 con call: lower gasoline prices reduced credit growth by 2ppt
US debit benefit from gasoline lapping	3%	Q2 con call: lower gasoline prices reduced debit growth by ~3ppt
Change service revenue take rate	-0.00075%	Historical change from TTM 31/03/2013 to TTM 31/03/2015
Data Processing Revenues		
Asia Pacific growth	14%	Most recent quarter growth
Canada growth	8%	Most recent quarter growth
CEMEA growth	17%	Most recent quarter growth
LAC growth	7%	Most recent quarter growth
US credit growth	15%	Most recent quarter growth
US debit growth	6.5%	Most recent quarter growth
Change in % of transactions routed	0.838%	Historical change from TTM 31/03/2013 to TTM 31/03/2015
Change in take rate per transaction	-$ 0.0004	Historical change from TTM 31/03/2013 to TTM 31/03/2015
International Transaction Revenues		
Cross-border growth until lapping	10.7%	Most recent quarter growth, volatility remains the same until lapping
Cross-border growth after lapping	9%	Q2 con call: through April 28th, cross-border volume grew 9% fx-neutral
Other Revenues		
Other Revenue growth	3.42%	Used TTM 30/03/2014 growth due to recent FIFA benefit
Client Incentives		
Client Incentives in Q3 2015	-18.5%	Brings FY 2015 in line with guidance of 17.5 to 18.5%
Client Incentives in Q4 2015	-19.0%	Brings FY 2015 in line with guidance of 17.5 to 18.5%
Change as a % of gross post 2015	-0.22%	Long term change in as a % of gross (negative means an increase in CI)
Operating Income and Tax		
Operating margin in Q3, Q4 2015	63.50%	Brings FY 2015 in line with mid 60s guidance
Operating leverage	1.20	Operating leverage that results from guidance
Tax rate increase in Q3 2015	2%	Q2 con call: Q3 tax rate is expected to be ~2ppt higher than Q2
Tax rate in Q4 2015	24%	Q2 con call: Q4 tax benefits could result in low 20s tax rate
Tax rate post fiscal 2015	32.50%	Q2 con call: Fiscal 2015 will be in low 30s, historical tax ~30%
Loss of business, effective TTM 30/03/2017		
Itau impact on LAC volume and transactions	11%	Based on estimate of accounts previously serviced by Visa
Citi impact on net revenues	1.45%	Based on estimate of accounts previously serviced by Visa
Valuation		
Years projected using assumptions above	5	To account for past performance of drivers and margin changes
H-Model Short term growth	12.21%	The TTM March 31, 2020 growth that resulted from assumptions
H-model long-term growth	3.00%	Estimate of long-term nominal global GDP growth
H-Model decline in years	15	Secular industry changes may result in above GDP growth for a long time
Discount Rate	10%	Strong market position, Low risk of becoming obsolete

Disclosure: The author is long V, EBAY.

The author wrote this article themselves, and it expresses their own opinions. The author is not receiving compensation for it. The author has no business relationship with any company whose stock is mentioned in this article.

Comments **(23)**

Rootarmo

"the investor may either wait or buy a portion of his/her long-term allocation with the intent to average down." - I wish I had $1 for every time I have read this phrase on SA in an article associated with Visa.

I have advised people when the stock was at $90 (pre- split). when it was $120, when it was $150 etc... just buy it and go worry about something else. But no..people insist on trying to find an entry point.

18 May 2015, 05:14 PM

Ashvin Moorjani, Contributor
Author's reply » The past price performance of a stock doesn't dictate my opinion of its future prospects.

18 May 2015, 08:15 PM

ChuckXX
Ashvin; WOW, probably the most detailed article I have ever read on Visa. Iam very long Visa and have been since the IPO in 2008 and have also added to my position about 7 or 8 times since then. Yes, I have "averaged up". Something I normally don't do. Your article almost wore me out reading thru it. Very lengthy but also very interesting too. I don't think for one minute that Visa Europe is worth 40 Billion. I read from another writer that Visa Europe last year had net earnings of 354 million euros. If that is correct then Visa Europe would not even be worth 15 Billion atleast in my humble opinion. I guess we'll just have to "wait and see" what they come up with. But seriously I hope they don't "overpay" because that could set them back light years. Thank You for the nice article. Iam also very long Mastercard.

18 May 2015, 05:23 PM

joanpete
I myself prefer to average UP.

18 May 2015, 06:37 PM

Ashvin Moorjani, Contributor
Author's reply » Thanks ChuckXX, congrats on making great moves with Visa. Averaging up in not a bad thing as long as intrinsic value is rising at an equal or greater rate.

Thanks for reading through it. It is a long write-up, but reading is part of the investing game.

On Visa Europe: it is now run for the benefit of its financial institution owners that use its services, this means that Visa Europe charges very low rates on payment volume and transactions. The $41B value is based on Visa Europe's revenues and costs being put in line with Visa's.

Thanks for your comments.

18 May 2015, 08:11 PM

Glenn Abrett, Contributor
Detailed, super well-researched but ignores the obvious pitfall. Apple doesn't need the kind of network visa has. Apple's network is the phones. Every phone a node. If apple turns apple pay into apple card, they don't need plastic.

They replace Visa's service with simple phone->bank verification. They use (much) superior fraud protection which banks will simply love. They can undercut on fee's and basically lock Visa out. Will it happen? Who knows. But the day (if it comes) that apple announces iCard, Visa market cap will be halved or worse.

18 May 2015, 05:48 PM

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cashawash

Your premise implies that: Apple will be stretched across myriad businesses and will be tasked to achieve excellence in all of: Apple TV, Apple automobiles, credit card payment processing, along with its core manufacturing bread and butter businesses.

I am so exhausted writing it all down that, I am finding it hard to breathe!

I think Apple's Waterloo, would be an -- ill fated attempt -- at a titanic battle -- mano-a-mano -- with the likes of V & MA.

Apple is a GREAT business concern, Glenn; however, it would be best advised, to stay in its own lane, and continue its collaborative relations with the credit processing agencies -- like IBM, FB, and every other tech concern is doing, and has done over the years.

18 May 2015, 08:24 PM

Swift Movers

In a world where everyone use apple products that might be the case. Fortunately not evrryone lives in iworld.

18 May 2015, 09:34 PM

Ashvin Moorjani, Contributor

Author’s reply » Thanks for checking out my article Glenn. Apple Pay currently uses payment card information to make payments, this helps Visa. Visa also has 2900M cards currently in use, whereas Apple has sold a total of 700M iPhones since the first one was released in 2007, meaning that there is likely less in use. Visa's network of users is larger and it has deeper ties with financial institutions.

If Apple Pay were to disallow Visa as a payment option, they would have a tough time because of the following: a) they would have to get their user base more comparable in size to Visa's to get a competitive network effect going; b) they would have to slowly get Apple Pay users to wean off of Visa in favor of their own system as simply disallowing Visa payments would likely lead to a loss of users; c) they would have to compete with the rewards that Visa offers, which means they would have to charge merchant discount fees; and d) merchants would have to sign up for the new platform. I believe it is in Apple’s interest to work with Visa for the foreseeable future.

Hope this helps.

18 May 2015, 10:52 PM

Hardog

swift

I agree there will always be room for the CCs.

20 May 2015, 08:45 AM

Glenn Abrett, Contributor
I understand that apple pay helps visa. In fact it is a mutually beneficial relationship. I'm not talking about apple pay. I'm talking about apple card, a system that would compete with visa. It would: a] be much simpler -- the network would be the phones and would cost apple nothing. b] provide superior fraud protection, c] provide one more powerful service in the apple eco-system.

They could get pretty much every merchant that has a near-field payment option to sign up by offering reduced fees. The banks would love it because apple might take the fraud risk as they believe their system is virtually unhackable. Don't underestimate the possibility of this happening. Visa provides no real value to anyone. They simply tax transactions. In some sense they have become grit in the wheels of commerce.

They are entrenched. But the new technology of phone swipe payment threatens to eventually provide a much more efficient system with a much smaller tax. And apple could easily justify a no transaction cost system as a value added service to their main business of selling those phones.

20 May 2015, 09:59 PM

Darrellt
Very comprehensive article, thank you.

18 May 2015, 06:01 PM

Ashvin Moorjani, Contributor
Author’s reply » Thanks Darrellt, I appreciate it.

18 May 2015, 11:50 PM

Gold Finder, Contributor
Where is the editors pick?

18 May 2015, 06:20 PM

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cashawash
Ashvin, thanks for this excellent presentation that places you in the "master class" of SA contributors.
You covered all the bases, leaving no stone unturned, and filled in all the gaps.
After reading your presentation, I now understand why Wall St. seem to favor the potential V-EU deal, and also why Buffett is a major V investor.

18 May 2015, 08:58 PM

Ashvin Moorjani, Contributor

Author's reply » Thank you so much cashawash, I really appreciate your kind words. I'm happy that I was able to help.

18 May 2015, 11:52 PM

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ca7711
Agreed with the posters above. Did a quick skim of the article and am looking forward to looking it over some time in the near future.

18 May 2015, 09:57 PM

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montuna
Great! I read through it and understand V more than ever. This is my first comment and thank you for putting in the work for us.

18 May 2015, 11:19 PM

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potside
This is a fantastic analysis. Very comprehensive and written in such a way that a novice can understand. Bravo !!

19 May 2015, 01:03 AM

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vaul
Apple will need Visa and MasterCard. There is no point of creating something new when it is already a win win solution.

19 May 2015, 09:13 AM

Christopher Speetzen, Contributor
Fantastic and well researched article. Definitely one of the best I have read on SA. Thanks.

19 May 2015, 12:01 PM

Gene Jaquet
Awesome article. Many thanks.

19 May 2015, 06:50 PM

Saint Mark
Nice book. Long V.

20 May 2015, 09:20 PM