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NYSE:V

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Note: All dollar figures are $US unless stated otherwise.

Introduction

On November 17, 2021, Amazon UK announced that they will stop accepting Visa credit card purchases on Amazon UK as of January 19, 2022, due to high fees. Visa's stock sold off over 5% on the news.

We used the pullback to reevaluate our position in Visa (V), the competitive threats that it is facing from emerging financial technology (fintech) firms, Buy Now Pay Later (BNPL) plans and other challengers.[(1)]

To us, the crux of the investment decision in Visa is whether their business model is being disrupted by these challengers. We believe that many people misunderstand how Visa makes money and casually dismiss its long-term prospects due to headlines about high credit card fees. We concluded that Visa's powerful moat (a combination of brand, network effect, scale and switching costs) and growth algorithm remain intact and recently added to our position as we view the stock as being undervalued.

Amazon Dispute

Amazon recently announced that they will stop accepting Visa credit card purchases on Amazon UK as of January 19, 2022, due to high fees. We note that Visa debit will still be accepted as will Mastercard credit which charges a similar rate as Visa credit. Reuters also reported that Amazon is in talks with other card networks to replace Visa as its partner on its US co-branded credit card.

The UK announcement is the continuation of an ongoing spat between Amazon and Visa. Prior to the Amazon UK announcement, Amazon recently started surcharging Visa credit cards in Singapore and Australia where regulations permit such practices. Some historical perspective provides helpful context.

Major retailers boycott credit card networks such as Visa (V), Mastercard (MA) and American Express (AXP) from time to time as a negotiation tactic. These tactics usually end in minor concessions and the reinstatement of acceptance (e.g., Walmart Canada 2017, Kroger 2019). Attempts by retailers to fully abandon the major card networks by creating alternative payment platforms have typically ended in failure (e.g., MCX - Merchant Customer Exchange).

Retailers bear the brunt of interchange fees which fund the credit card payment ecosystem and therefore they use whatever leverage they possess to lower these fees. The reality is that the card networks typically have the upper hand given card ubiquity, entrenched consumer habit and the dominant market share of the major card networks. The tactic of refusing to accept a major credit card is sparingly invoked as it results in foregone revenue (consumers usually take their business elsewhere if major cards aren't accepted at a particular merchant).

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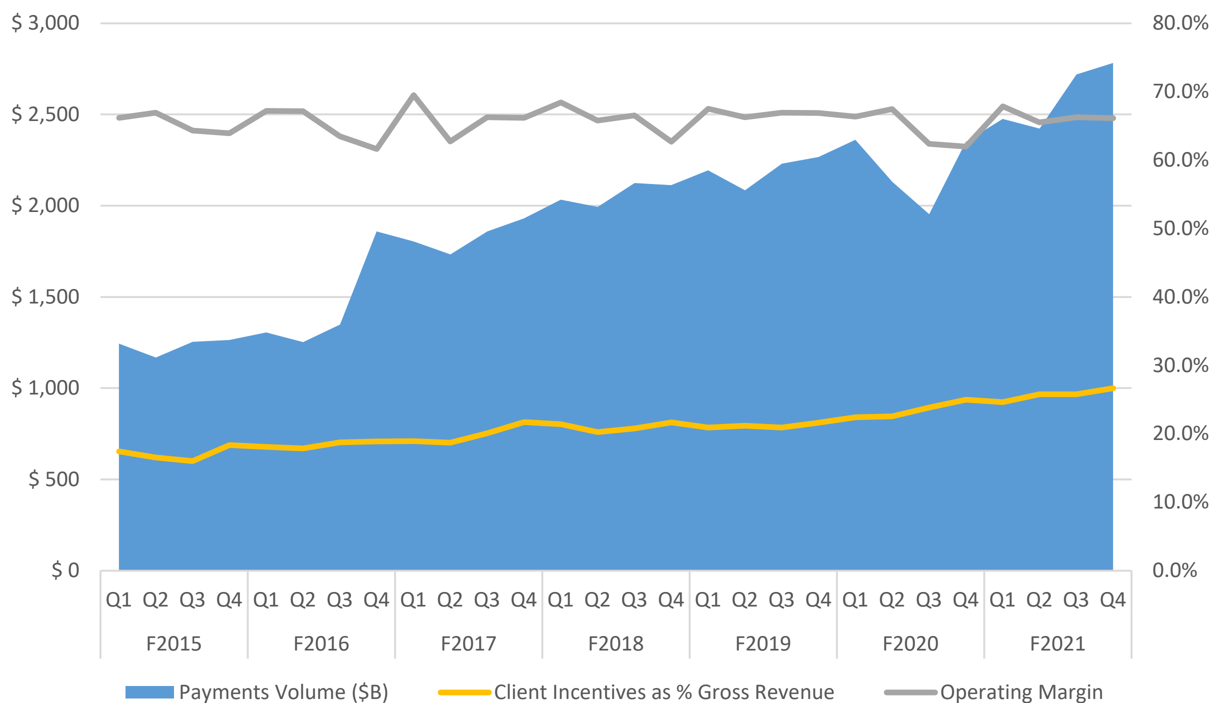
[(1)] We owe a special thanks to the VALUEx Klosters community, FinTwit posters @LibrarianCap, @Find_Me_Value, @JerryCap, @latecycle_nick and Tom Noyes of the Noyes Payments Blog for their insights which helped us to clarify our thinking on these issues.

Large retailers like Amazon that sponsor a co-branded card have the most negotiating leverage at the time of the renewal of their contracts as they can choose to move their business to an alternative network. These renewals are usually put up for competitive tender at the end of the typical three-to-five-year renewal cycle.

The renewal process has become more competitive in recent years as a result of concentration amongst the large credit card issuers. For example, Costco has switched card networks at renewal in various jurisdictions, the most noteworthy being when they dropped their 17-year exclusive partner American Express in the US in 2015 in favour of Visa/Citigroup

This trend can also be seen in Visa's client incentive rates which have been creeping higher. Visa's playbook is to incentivize renewals via larger rebates in exchange for increasing volumes. Given the operating leverage inherent in Visa's business model and the high margin nature of incremental volume, the result has been a stable 66% operating margin and double-digit revenue growth.



Source: Company Reports, GreensKeeper.

More specific to the Amazon UK/Visa dispute, post-Brexit, EU regulations no longer cap fees on cross-border transactions.(2) Once cross-border fee caps were no longer applicable, unsurprisingly Visa and Mastercard raised these fees significantly to levels more common in unregulated jurisdictions. Visa increased online credit card charges between the UK and the EU from 0.3% to 1.5% and debit card charges from 0.2% to 1.15%.(3)

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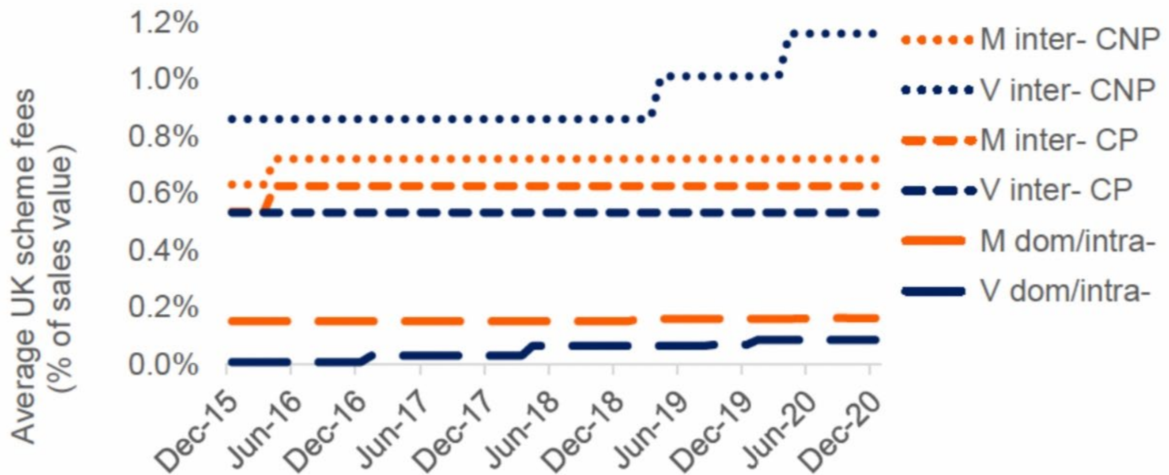
(2) In 2015, the EU adopted Interchange Fee Regulation (IFR) which capped interchange fees when the acquiror and issuer are in the European Economic Area (EEA). Post-Brexit, a cross-border transaction includes transactions where at least one of the issuer, acquirer or point of sale is located outside of the UK.

(3) https://www.americanbanker.com/payments/news/post-brexit-interchange-fee-plan-prompts-outcry-from-u-k-merchants. https://twitter.com/latecycle_nick/status/1461169865436413953

Figure 3: Very large differences between domestic/intra-regional and inter-regional scheme fees.



Source: BRC member data.

3.31 In particular, Figure 3 shows an almost ten-fold difference between domestic and inter-country scheme fees, with domestic scheme fees in the range 0.08% (Visa) and 0.16% (Mastercard), but inter-regional scheme fees from 0.53% (Visa CP) up to 1.16% (Visa CNP). The Figure shows rises in almost all scheme fee categories, especially inter-regional CNP.

3.32 Mastercard recently announced the reclassification of transactions between the UK and EU27 (i.e. EU tourists visiting the UK and vice versa, and cross-border e-commerce sales and bookings) from “intra-regional” to “inter-regional” rates. This will itself have a double impact on UK merchants, namely, of:

- large rise in interchange fees, from the former regulated rates of 0.2%-0.3%, to Mastercard’s inter-regional rates of 1.15%-1.50%; and
- corresponding rises in scheme fees, from around 0.2% to 0.6%-0.7%.

By banning only Visa credit while still accepting Visa debit, Amazon UK is effectively saying that a 1.15% cross-border fee is acceptable, but 1.5% is not. And the ban only takes effect on January 19, after the busy holiday shopping season. Amazon is smart enough to know that the incremental savings of the ban are not worth turning away significant holiday purchases. The bigger issue is the pending renewal of Amazon’s co-branded card deal with Visa/Chase in the US. Bloomberg reports that Amazon is in talks to switch from Visa to Mastercard. Amazon is bringing all its leverage to the negotiating table.

Like most of these disputes, we suspect that concessions will be given by Visa in private, and that Amazon UK will once again accept Visa credit cards. If not, the economic contribution of Amazon UK to Visa is financially immaterial. An outright loss of the Amazon US co-branded business would be more meaningful (<5% of revenue), but still manageable. The Amazon UK dispute provides a useful opportunity to dig into the underlying economics of a typical card transaction.

Card Economics 101

The card ecosystem is funded by the merchant discount rate (MDR), alternatively referred to as the merchant service charge (MSC). For every dollar spent at a merchant via credit or debit card, the merchant gives away a percentage of the sale to the other parties involved in the card transaction.

Absent regulatory intervention, the MDR on credit card transactions is typically 1% to 3% depending on the type of retailer, fraud rates, etc. When price isn't regulated, these rates are set by the card networks like Visa (but not actually paid to them). In the EU, the largest component of the MDR (interchange fees) has been regulated since 2015. Debit card (e.g., Visa Debit, V Pay, Maestro Card, Debit Mastercard) MDRs are lower due to both regulation (e.g., the Durbin amendment in the US) and the fact that no credit is being extended to the consumer.

While debit MDR is lower than credit, we believe that many investors misunderstand the financial impact to Visa. The company has stated publicly that they are indifferent to the type of Visa credential presented by the consumer as it isn't materially different. Debit may be slightly lower margin, but that is somewhat offset by higher use for small ticket purchases in lieu of cash. Visa's playbook is to drive transaction volume, in whatever form, through its network. With Visa's very high fixed cost structure, incremental volumes drive attractive high-margin revenue.

The bank issuing the card (**Issuers**) and extending credit to the consumer in the case of a credit card, takes the lion's share of the MDR economics. The merchant's bank (**Acquirors**) that facilitates the transaction on their behalf and collects the cash from Issuers keeps a small portion. Finally, the card network keeps a small portion in exchange for the use of its brand, the routing of the approval on its network or "rails" (e.g., VisaNet) and its value-added services. Visa's actual revenue is <20 bps of an average transaction and it currently earns about $0.075 per transaction on average, but it processes 7,000 transactions *per second* around the globe.

"Show me the incentives, and I will show you the outcome."
— Charlie Munger

As most of the MDR is earned by card-issuing Issuer banks, they are incentivized to encourage card issuance to and use by their customers. Somewhat perversely, higher interchange fees generate more revenue for Issuers which gives them the ability to increase rewards offered to the consumer. Hence the recent popularity of high-reward cards like Chase Sapphire and Amex Platinum.

Merchants dislike the higher MDR cards because they are the ones funding this consumer "kickback" system. But given Visa's network rules[4] and the purchasing power of millions of consumers that prefer them, merchants typically adjust by factoring these fees into their overall prices.

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[4] Selected Visa rules that all merchants accepting Visa must abide by include the "accept all Visa Cards Rule"; Surcharges prohibited unless local law mandates a merchant's ability to invoke them.

With its highly fixed-cost structure, Visa's incentive is to drive volume through its network as incremental transactions incur virtually no additional cost. Whether a transaction is debit or credit, what Visa really cares about is that the payment is made using a Visa credential and preferably routed over their proprietary network.

Built up over many decades, and with their powerful moats (combination of brand, network effect, scale, switching costs), the major credit card networks are very difficult to replicate. They provide convenience and security to millions of consumers, usually at no direct cost. We think that the habitual use of cards by consumers and broad acceptance by merchants will continue.

The one area where Visa may be vulnerable is in the routing of data for authentication, approval, and settlement. While use of Visa's proprietary network (VisaNet) brings leading-edge security and reliability, a secure and cheaper alternative could evolve. Merchants and Acquirers decide how to route transactions and VisaNet could be displaced by lower-cost alternatives in certain situations (e.g., ChaseNet and FedNow discussed below).

When unconstrained by regulation, interchange fees are set by card networks who must balance the competing interests of all ecosystem stakeholders. But the relative bargaining position of most merchants vis-à-vis the entrenched card network oligopoly and large card Issuers leads to the card networks' attractive economics. Provided that competition between the incumbent goliaths (V/MA/AXP) remains rational and their fees broadly comparable, we believe that the payment networks will likely continue to thrive.

Even when regulators intervene, Visa has been very adept at finding a way to mitigate any impact. In 2010, the Durbin Amendment capped debit card interchange fees in the US for large banks. In response, Visa implemented other fees and encouraged the routing of transactions over its proprietary network. As a result, Visa's economics were largely unaffected. In Australia, the government regulated interchange fees lower and it resulted in card rewards disappearing and many credit cards introducing annual fees. The effect of this government regulation was a wealth transfer from large bank Issuers to merchants with consumers no better off.[5]

The reality is that millions of consumers in developed markets like using their credit and debit cards and the rewards that come with them. They trust the Visa brand and paying via credit or debit is convenient and habitual. If there is a problem, consumers can use Visa's chargeback mechanism (unlike real-time payments that are irreversible). Issuer banks enjoy the interchange fees that they receive as well as the interest earned on revolving accounts. For all these reasons, consumers and Issuers have strong incentives to ensure that the existing system continues uninterrupted. So does Visa. Its small share of the transaction economics means that it is incentivized to drive volume while keeping Issuers and consumers happy.

> By reopening the rules surrounding debit card transactions, the Fed could put the convenience, safety, and security that Americans have come to expect when they use their debit card at risk. We will vigorously oppose any attempt to undermine the payments system at the expense of consumers." [6]
>
> American Bankers Association

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[5] Interview with Alex Rampell of Andreessen Horowitz on Business Breakdowns podcast. https://www.joincolossus.com/episodes/46164128/rampell-visa-the-original-protocol-business?tab=blocks.

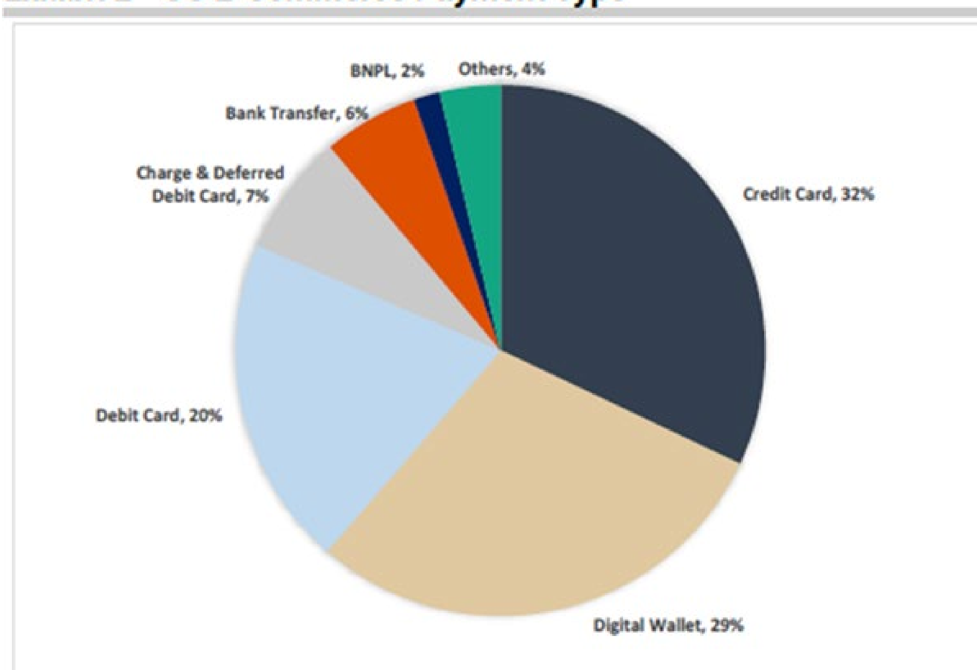
[6] https://www.aba.com/about-us/press-room/press-releases/joint-financial-trades-statement-on-federal-reserves-decision-to-revisit-reg-ii May 7, 2021.

Unsurprisingly, one stakeholder that dislikes the current arrangement are the merchants who are funding this ecosystem via the MDR. But any fintech disrupter that tries to lower the MDR does so at the expense of all the other stakeholders who will resist change. When you think about the incentives of each of the stakeholders in the current payments ecosystem and the power of the existing network effect that an upstart would need to replicate, you begin to understand why a major disruption of the status quo is so difficult.

For these reasons, we believe that the status quo will continue. While there may be some market share erosion around the margin and continued fee pressure on interchange rates due to innovative upstarts, an outright breach of Visa's powerful moat is unlikely. Below we examine a few of these challengers.

Buy Now Pay Later (BNPL)

Buy Now, Pay Later (BNPL) is a fast-growing consumer finance phenomenon. That said, it is still a very small percentage of total payments volume. Total BNPL annual payments are estimated at $100 to $150 billion. Visa's annual payments volume alone are currently running at about $10 trillion.



Whether BNPL will become a huge business in the future or turn out to be a passing fad, only time will tell. Millennials seem to prefer it over traditional credit and in Afterpay's home market of Australia, BNPL represents over 10% of e-commerce volume. But we struggle to understand the advantages that BNPL offer from the perspective of either the merchant or the consumer.

Consumer 'Transactors' - A Transactor uses their credit card for day-to-day purchases and pays off their entire balance each month, thus avoiding interest payments. In the US, this group represents about 45% of credit card usage.(7) For Transactors and debit card users, BNPL defers cash outflows for a few months. But there are drawbacks to BNPL: foregone credit card rewards, small credit limits, transaction may not add to credit history, friction at the point of sale and less global acceptance at present. As they age and their incomes and household spending grows, Millennial Transactors may come to see the benefits of rewards and switch to the use of credit cards.(8) The standard pitch to consumers is that BNPL doesn't cost the consumer anything if they pay on time. The same can be said for many credit cards. Moreover, many credit cards pay users back via incentives which in many cases adds more value for Transactors.

Consumer 'Revolvers' – Revolvers carry a revolving balance on their credit cards, thus incurring high interest charges. For Revolvers, switching to BNPL may not provide relief. Borrowers that miss a BNPL installment end up paying *higher* interest rates than typical credit card programs according to Jefferies. Over the past two years, 43% of BNPL users made late payments according to Forbes.(9)

Merchants – Merchants want to get paid at the time of sale, increase consumer spending and conversion and all at the lowest cost. The largest scale BNPL player today is Afterpay and in FY2021 its average merchant discount rate (MDR) was 3.9%. This is *higher* than the typical MDR charged by the major card networks (typically 1% to 3%). BNPL does provide merchant with more data about the consumer, but this comes at the expense of consumer privacy. While BNPL is another option for merchants, it is unlikely to lead them to revoke card acceptance due to consumer preference.

We would also note that the BNPL business model has yet to be proven. Even leading players like Afterpay are not yet profitable although that may change as they further scale. Many BNPL providers have higher funding costs than large deposit-taking banks and less underwriting experience.

While some view BNPL as a direct threat, Visa is in fact partnering with many BNPL fintech providers. Rather than having to sign up merchants and consumers one by one (difficult to scale), BNPL providers are choosing to partner with Visa to leverage their existing merchant and consumer relationships around the globe. By offering BNPL using Visa credentials, Visa's Issuer banks can choose to offer BNPL to their customers with immediate and broad merchant acceptance.

The vast majority of BNPL installment payments today are made by consumers on debit cards. For instance, at PayPal, 80% of transfers from the consumer to the BNPL lender are done via debit. And instead of one transaction, the installment program creates four separate payment transactions which is good for Visa.

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(7) Source: American Bankers Association. https://www.aba.com/news-research/research-analysis/credit-card-market-monitor

(8) Visa's internal research shows that while the perception is that Millennials prefer debit over credit, as Millennials get older and start to form families, their behavior changes and they generally shift to credit much like their parents' generation.

(9) https://www.forbes.com/sites/ronshevlin/2021/09/07/buy-now-pay-later-the-new-payments-trend-generating-100-billion-in-sales/?sh=c2bd5a12ffe4

The bigger threat to the card ecosystem is if the BNPL phenomenon becomes very large and a meaningful alternative to revolving credit card balances. Interest charges on revolving balances currently go to the Issuer banks that extend the credit, not Visa. In our view, that is the more vulnerable profit pool that BNPL may ultimately challenge. That said, we are not convinced that BNPL offerings are more attractive than traditional credit cards for the parties involved for the reasons given above.

Selected BNPL Providers - Observations

Klarna	Largest BNPL player (privately held). Unprofitable for the past three years. For FY2020 provision for credit losses (PCL) was 4.3% of outstanding balances and impairment expenses equal to 23.4% of commission and interest income earned.
Afterpay	Second largest BNPL player. In the process of being acquired by Square. Accepts domestic Visa, Mastercard, and AMEX debit and credit cards. Issuer of Afterpay contactless Mastercard stored in the customer's digital wallet. 90% of all volume linked to debit cards. Afterpay merchant margin of 3.9% in FY 2021 – doesn't look cheaper than traditional MDR. Afterpay loses money and its losses are growing. 10% of Afterpay's income is from late fees. For FY2021 PCL was 6.4% of outstanding balances and impairment expenses equal to 23.7% of fees charged to merchants to offer the service.

Visa Management Commentary on BNPL

Harshita Rawat
Sanford C. Bernstein & Co., LLC., Research Division

My question is on the growth in buy now, pay later. In a very long-term time horizon, how do you see BNPL co-existing with credit and debit? And I know globally, it's very small right now, but the growth rates are very impressive. And given your partnerships with BNPL providers, your installment solutions, as it grows here, is there an opportunity from your perspective?

Alfred Francis Kelly
Chairman & CEO

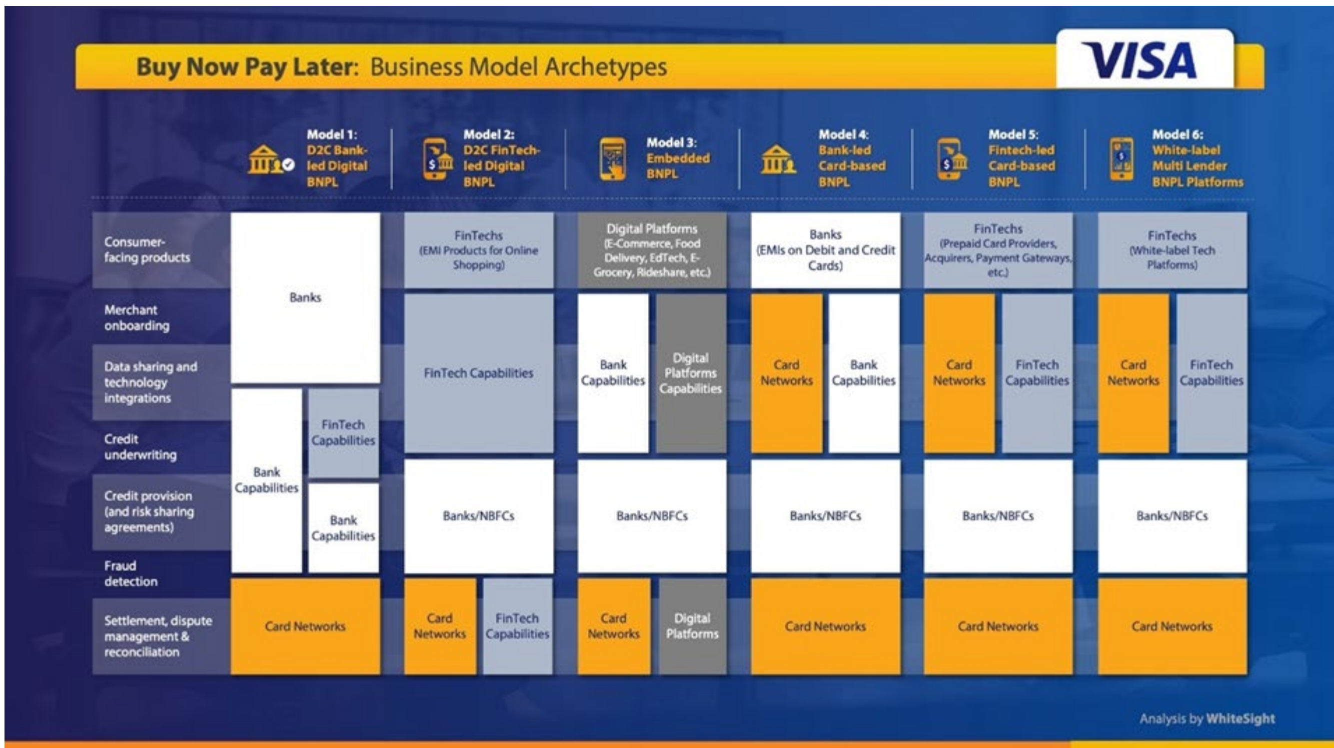
I don't know where installment is going to end up, but we are attacking that like we attack crypto and other things and assuming that it's going to be successful and that we want to lean in heavily and be in the middle of it and be a driver of what's going to potentially happen. As you alluded to, we have both a strategy of working with third-party providers as well as offering our own Visa proprietary platform that would allow issuers to offer their own buy now, pay later capability. And we see it as potentially having a very, very good effect for us.

Vasant M. Prabhu
Vice Chairman & CFO

If you take buy now, pay later, I mean there's always going to be new ways in which people pay for things. We enable them when credit came along. Buy now, pay later is a new way of doing this. We are enabling it. We see that as another way people want to buy things. Our job is to not pick winners and losers.

Will buy now, pay later be a big business? Time will tell. It is not today. There's a lot of hype around it. But when you really look at dollars, it's not a big business today yet. It could well be a big business. We're partnered with all of them. Early investors in people like Klarna and PAYD and so on. We've partnered with all the other major players. There's clear value in it for us. We could get transactions to buy now, pay later we could not otherwise get. Some transactions that have been -- that could have been single transactions now become multiple transactions.

We think that Visa is well positioned if BNPL does grow to become a meaningful portion of the payments industry.



Other Selected Challengers

PayPal has long been described as a disruptor of Visa's business. The reality is that the companies are now business partners. PayPal struck its initial deal with Visa in 2016 and then expanded its strategic partnership with Visa in 2021. These deals provide integration with PayPal and incentives for increased volume channeled through Visa's network. PayPal also agreed to (i) display Visa branding, (ii) provide Visa payment options as prominently as other options, (iii) make it easy for PayPal customers to choose Visa as their preferred payment method and (iv) not encourage Visa cardholders to link to a bank account via ACH.

> And my view is that for PayPal to be an everyday app, we need to move into off-line. There are a couple of different ways you can move into off-line. The simplest and easiest way, and we're doing that in a number of places already, is by linking a card right into your Venmo or PayPal account. And the debit card on Venmo has been a huge success for us. You tap your card or insert your card immediately -- for those of you who have it, you've seen this -- shows up right on your mobile app. Do you want to split that? Do you want to post that? So it's tied in, in a very seamless way right into your Venmo account. That's the easiest way, and we are now a huge issuer of cards into our base, and we're seeing an increasing amount start to use that off-line and engagement grow as a result of that.

Daniel Schulman, CEO PayPal, March 2020.

Square - Visa was an early strategic investor in the company (2011). Square aggregates smaller merchants and brings them into the digital payments ecosystem via their lower cost physical infrastructure. As a Square customer, merchants can quickly start to accept all major credit and debit cards. As companies grow, they may eventually open their own merchant account with Visa. Square's Risk Factors section of its 10K speaks to their relationship with Visa: "Our business depends on our ability to accept credit and debit cards, and this ability is provided by the payment card networks, including Visa, MasterCard, American Express, and Discover."

Digital Wallets/Strike/Crypto - The major digital wallet providers (Apple Pay, PayPal, Square Cash App, Google Pay) all allow consumers to connect their major credit and debit cards to their apps. Strike, a bitcoin banking service offers a Visa debit card in certain markets. We view these fintech disrupters as partners of the card networks by using some of their services and accelerating the shift away from cash to digital payments. By integrating their innovative offerings with the existing card networks, these fintech companies have accelerated their growth and added value to their users. But by doing so, they have also further strengthened the network effect of the incumbent card networks and bolstered their market position.

Blockchain payment rails - Blockchain is an interesting technology and perhaps it will prove to have some utility in the payments space in the future. But at present, it lacks the speed, security, reliability and trust that is needed to become a viable alternative to the card networks. Visa's investment in each of these attributes over many decades is the reason that it is one of the most valued brands in the world. That is neither easy nor quickly replicable.

Vasant M. Prabhu
Vice Chairman & CFO

Well, we've always thought of ourselves as the enabler of the disruptors. We are not -- we are the ones who are probably the ones that are most able to allow disruptors to scale, right? So when -- there's a lot of innovation going on in the moats of our network. And we are the ones who are enabling a lot of that innovation. And sometimes that's confused by people as to is the network being disrupted, or are -- is there innovation of the nodes that the network is enabling? And we believe, for many, many years, that our job is to enable innovation. Our job is to enable any which way people want to move money. And that is really where all the innovation is. And that is what we've been enabling.

So whether it's buy, now pay later, crypto, digital wallets, et cetera, those are all disruptions around moats. They're disrupting people who are at our moats.

Years ago, people used to think Square was, in some ways, a competitor. We always thought of Square as one of our best partners because they were bringing massive increases in acceptance, for example. I would say the same for Strike who are bringing -- making it so much easier for people to do business online.

Several years ago when digital wallets came around, people thought, "Well, the digital wallets are a disruptor." And we told people, "No, we see them as partners." And for a long time, digital wallets may have thought of themselves as competing with us. But over time, they realize that partnering with us created enormous value for them. And we now have partnerships with all the big wallet players around the world. What we do for them is by putting our credentials in every wallet, it opens up significant more -- significantly more value for them so that the wallet owners can now use their wallets at every point of acceptance, Visas, et cetera,. And they become, effectively, issuers of our credentials, so the wallets have a revenue stream. And by opening up their acceptance networks to Visa, they made their wallets more valuable to affluent Visa cardholders, because now, these merchants can get access to people who carry user credentials who they want access to.

So the wallets have realized how valuable it is for them to partner with us. And frankly, they then become acquirers and there's an acquiring revenue stream for them.

So I think, for example, the wallets today, I would say every one of them, and we have partnership with everyone from ATM to LINE Pay to Raku to you name it, Square Cash, et cetera. But we are very much an important partner that has helped them scale.

As it relates to crypto, we're very excited about it. We've been very pioneering in all the partnerships. We have 30 or 35 partnerships already with all the major players. We enable movement of money from fiat to crypto, crypto to fiat, as well as enabling crypto to be used at Visa merchants where they will accept crypto. We've done a lot to offer a set of APIs so that traditional players can develop crypto offerings for their clients.

There's just a lot we're doing on that front. And again, our goal is to enable any way people want to pay or be paid. And if crypto is the way they want to do it, we'll do it.

So I think what I would tell you is think of us as the enabler of the disruptors. Think of us as the ones who can help disrupt their scale. Think of us as the network that disruptors need to do what they're trying to do. And as long as we can do that, then they don't need anybody else.

Local Domestic Card Schemes

Several countries have created their own government-led domestic card networks and used a combination of regulation, nationalism and government policy to favour their domestic schemes at the expense of the card networks. Examples include India (RuPay and UPI), China (China UnionPay), Brazil (Pix) and Kazakhstan (Kaspi).

India

Visa was the market leader in India when demonetization happened in 2016. The Indian government has also introduced its domestic card scheme (RuPay) and Unified Payments Interface (UPI). The combination of these factors led to the explosion of payment infrastructure, consumer adoption and merchant acceptance.

The Indian government even favoured its RuPay card by abolishing the MDR on RuPay debit and UPI in 2020 whereas banks could still impose MDR on merchants for other debit cards. The predictable result: RuPay card issuance by banks has been trending lower. Incentives drive behavior.

Visa's strategy in India has been to partner with local banks and fintechs and as a result, their card issuance and volumes have grown. Even with competitive offerings (especially in debit), Visa will get its fair share of this growing pie. Despite the new market entrants, Visa is still the market leader India, but now in a much bigger market.[10]

China

The Chinese market has not been open to Visa as government regulations fostered its domestic bank card scheme (China UnionPay) and kept the global card networks out. Over time, China UnionPay grew and became accepted at China's larger retailers. But the card scheme was not accepted widely by smaller merchants. As a result, card usage never became habitual with Chinese consumers, and China UnionPay then missed the major shift to mobile.

The Chinese super apps (WeChat and Alibaba) saw their opening and were able to obtain banking licenses from Chinese regulators. Both companies leveraged the 900 million users on their platforms and the loose regulatory environment that existed to expand rapidly. The result is that paying with AliPay and WeChat Pay has become the trusted and habitual way to pay in China.

Chinese regulators have started to crack down on AliPay and WeChat Pay via new regulation and antitrust probes. We believe that the US Federal Reserve has watched the Chinese payments market transpire with interest, especially the impact that China's path has had on the state-regulated banks. We believe that the Fed will ensure that in the US, regulation of payments will take into account the impact on the Issuer banks that it heavily regulates.

Implications for Visa

In each of the markets cited above, payments infrastructure, merchant acceptance and consumer usage were all underdeveloped. Many consumers are unbanked. These markets responded by embracing cellphone solutions and QR codes along with friendly regulations from local governments. We believe that these conditions are unlikely to prevail in most markets where the card networks are established and compete on a level playing field.

[10] Source: Alfred Kelly, CEO – speaking at a MoffettNathanson investor conference May 10, 2021.

Further, none of these local schemes has yet been able to reproduce their success outside of their home markets. Most cardholders want ubiquity – the ability to travel abroad and use their preferred card wherever they go. Displacing the existing networks globally is not easy. As a result, outside of their home markets, the domestic schemes tend to partner with them instead.

Our takeaway is that replacing an established system with entrenched consumer habit and merchant adoption is very, very hard. If a market's payments system is underdeveloped, that is an entirely different story.

> "It is important to note that there is NO EXAMPLE of consumers moving away from V/MA in a geography where it is established. Other schemes have only matured based upon either low card penetration or strong domestic debit network, PRIOR TO V/MA traction. Defeating the network effect of V/MA is really hard. There are hundreds of parties that have invested billions of dollars to make this work." [(11)]
>
> **Tom Noyes, Payments Executive**

FedNow

The foregoing examples get us thinking about the US Federal Reserve's 2023 launch of its instant payment service – FedNow. Given America's free-market ethos, established payment infrastructure and heavy lobbying by vested interests, it will be more difficult for this new instant-payment service to disrupt the incumbent card networks than people think.

As mentioned earlier, the incentives of most of the existing stakeholders encourage them to resist change. And as a payments-industry veteran points out, major changes could create new risks by shifting payments from the highly-regulated domain of banking towards the loosely regulated tech world:

> "The irony in UPIs success is that the beautiful technical creation of UPI, by the central bank of India, has enabled 3 large US companies (Google, Amazon and Walmart are responsible for 85% of UPI transactions) to revolutionize payments in India. Can you imagine the reaction if our federal reserve enabled these 3 companies to end run our banks?" [(12)]

But difficult to disrupt doesn't mean impossible. Visa's rails need to be competitively priced but not necessarily the cheapest given their strengths (reliability, speed, authentication rates) and additional value-added services (dispute resolution, fraud prevention, settlement, etc.). As one of the worlds most valuable brands, Visa merely needs to be competitive. We will continue to monitor the FedNow initiative closely.

[(11)] Source: Noyes Payments Blog. https://blog.starpointllp.com/?p=5039#more-5039

[(12)] *Ibid*. https://blog.starpointllp.com/?p=4948#more-4948

Central Bank Digital Currencies

China's experimentation with a central bank digital currency (CBDC) is being closely watched and the Federal Reserve will issue its report on CBDC by year end. A CBDC could potentially prove to be a disrupter to the card networks in the US given its central bank imprimatur. But its adoption is far from certain, and it will be resisted by vested interests.

Several Fed governors have recently stated that they do not see a reason for the Fed to issue a CBDC given the safety and efficiency of the US payment system.[13] Once again, we are monitoring the situation as it evolves to see if a credible threat will emerge.

Open Banking

Open banking is a method of providing third-party financial service providers with open access to consumer banking, transaction, and other financial data from banks and non-bank financial institutions. Open banking is still in its early days, but momentum is building, especially in Europe due to regulations promoting it.

When we think about open banking and apps that enable consumers to pay merchants directly from their bank accounts, we find ourselves thinking about many issues. Why would someone want to give an upstart fintech their bank account login information? When these third-parties are inevitably hacked, highly-sensitive consumer banking information is at risk. Are there any fraud controls like the ones that exist on my debit and credit cards?

Consumers know what they are getting when they use their Visa cards and if there is ever a problem, Visa will fix it. Consumers trust them. The current system works well in developed markets, so why would a consumer change? What's in it for them versus the security that comes with using a branded card?

As usual, Visa acknowledges reality and is leveraging its brand and the trust that it brings to the table by getting directly involved. It is currently developing its own APIs (Application Programming Interfaces). After Visa's proposed acquisition of Plaid was blocked by regulators, Visa is now in the process of acquiring smaller Swedish competitor Tink. We suspect that under Visa's ownership, Tink will thrive if open banking takes off with consumers and Visa will find a way to monetize its €1.8 billion investment.

Valuation

Visa and Mastercard have the same growth algorithm and Mastercard recently did a good job of concisely laying out the underlying drivers of its business:

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[13] Source: https://news.bitcoin.com/federal-reserve-governors-dont-see-reason-to-issue-central-bank-digital-currency

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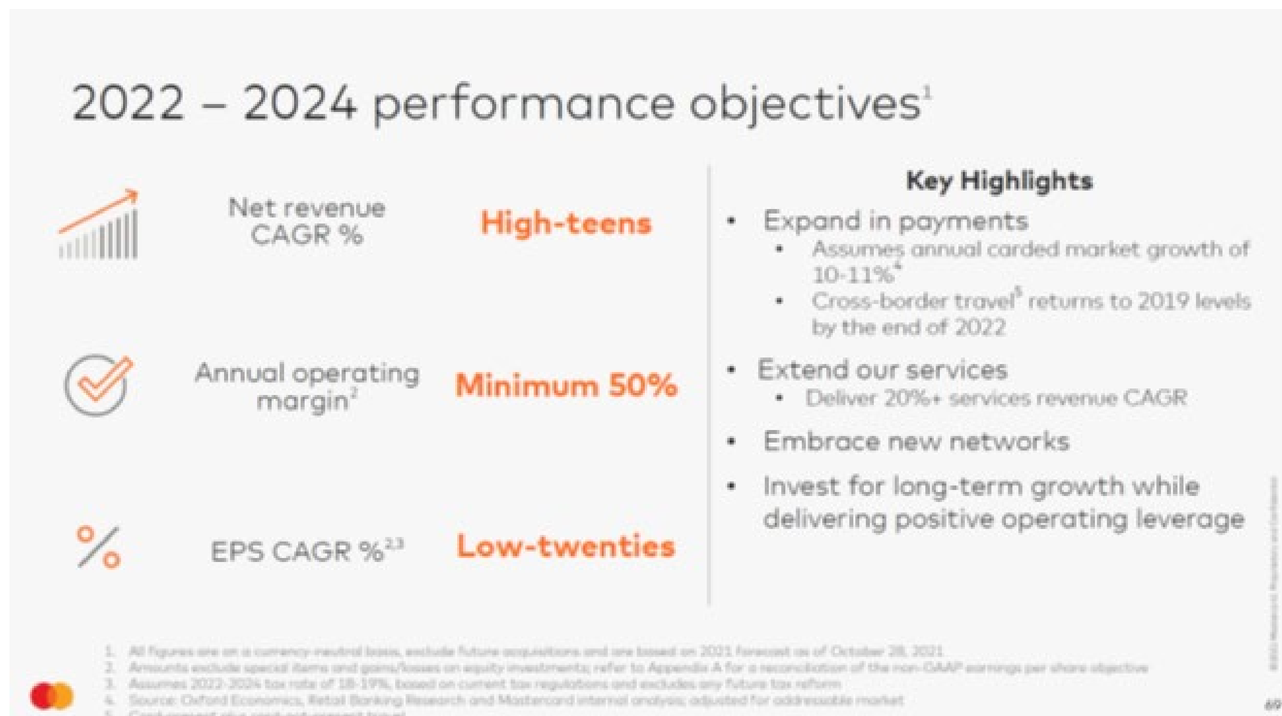

Personal consumption expenditure (PCE) grows faster than GDP (in the past three years, aggregate Visa and Mastercard purchase volume has grown at a 6-point average premium to PCE growth). The shift to digital and online purchases further accelerates growth for card networks. Pre-pandemic, Visa grew its core payment volumes at low double-digits. COVID has accelerated cash digitization and e-commerce growth. Once spending normalizes, Visa management believes that its growth rate will be *higher* than its historical rate. Operating leverage combined with share repurchases leads to EPS growing faster than revenue.

Higher inflation is often a positive for payment volumes (albeit potentially a headwind for revolving credit balances). Higher payment volume translates into higher fees for Visa and given its a capital-light infrastructure, it is one of the few special businesses that actually benefits from inflation.

Visa's earnings are currently depressed due to COVID as travel-related expenditures remain below pre-COVID levels (cross-border payments are Visa's highest margin business). Using reasonable revenue growth rates and assuming that travel returns to normal in the next few years, we see Visa earning at least $11.00 in F2025. Consensus is currently $11.48 (Source: Capital IQ).

Using a conservative 10% discount rate and a 25x terminal multiple, we derive an intrinsic value of $216 for Visa or $225 using consensus estimates (IRR of 9.0% and 10.2% respectively using the $200 share price on offer).

As net income approximates free cash flow, a 25x terminal multiple implies perpetual FCF growth at 6% which seems reasonable based on historical performance provided that the business model remains intact. As a check, Visa' average annual P/E ratio since 2016 has always been higher than 25x (source: Value Line) and its trailing normalized EPS multiple during that period no lower than 28.3x (Source: Capital IQ). These are not heroic assumptions underpinning our valuation. This is a wonderful business currently on offer at a fair price.

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The critical valuation input is the terminal multiple and coming to a view of Visa's long-term prospects. Given our opinion that Visa's moat and future growth are intact, we are comfortable underwriting the stock at current levels.

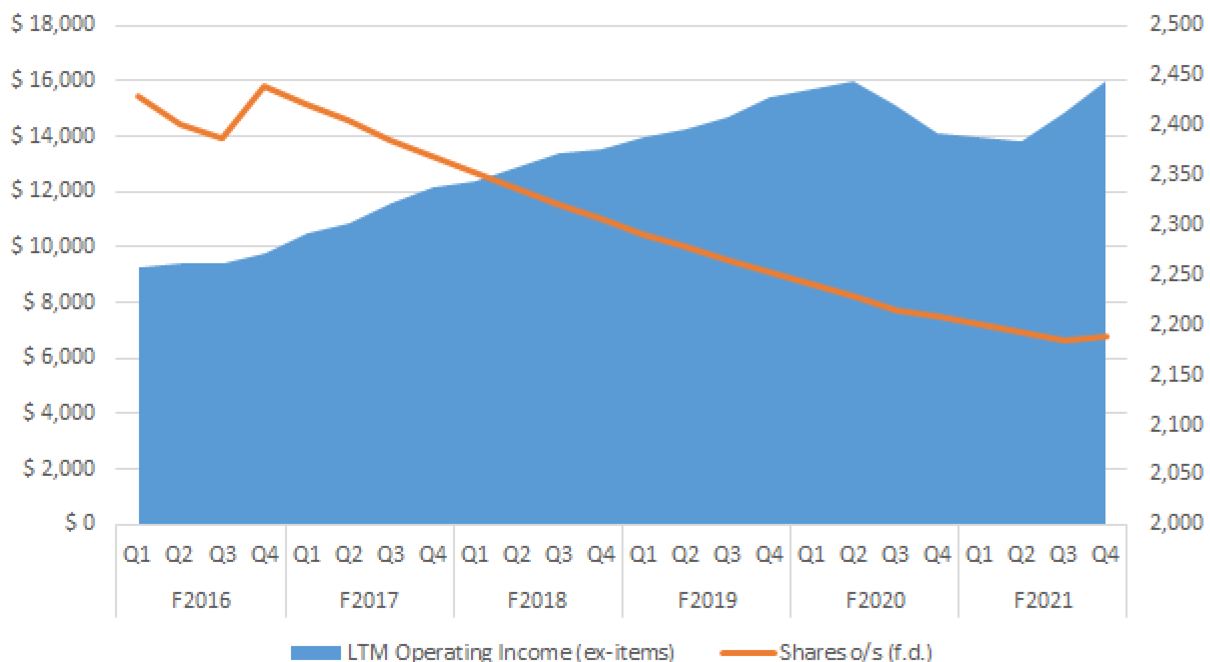
Risks

We believe that one of the biggest risks to owning Visa is regulatory. This can include the enactment of new rules that constrain Visa's market power or fines if Visa abuses its market dominance by crossing over the line and engaging in monopolistic behavior. For example, the US Department of Justice is currently investigating Visa's relationship with fintech companies and recently blocked Visa's attempt to acquire upstart Plaid. Another major risk to Visa is potential fintech disruption as discussed throughout this report.

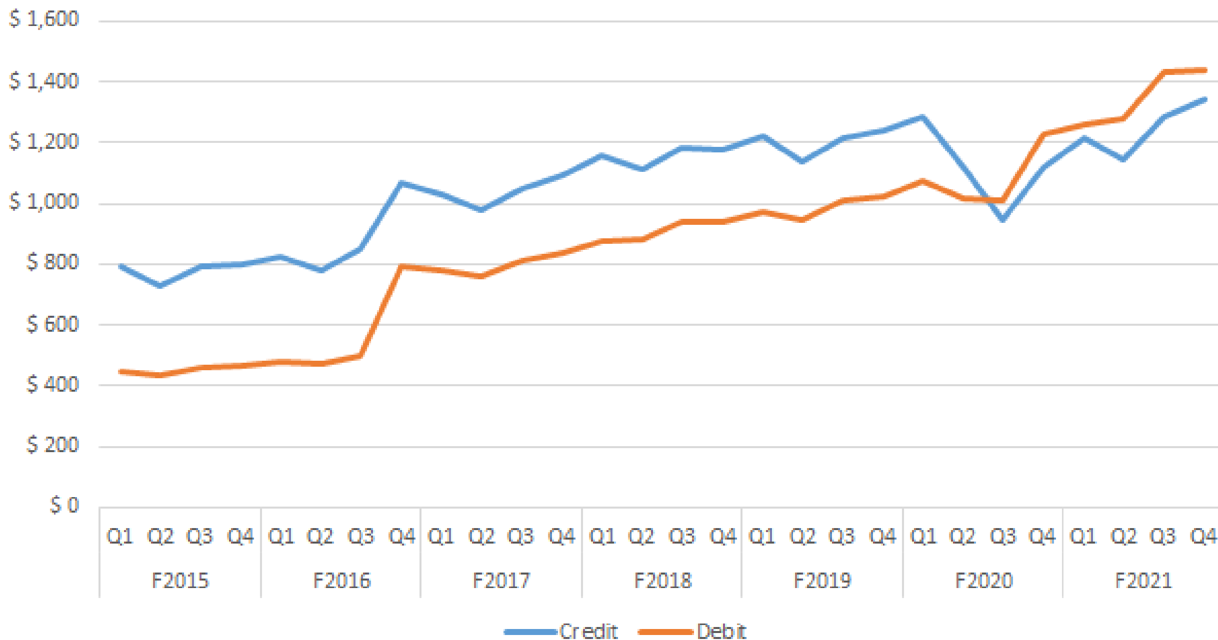
In addition to these risks, Visa is subject to a wide variety of risks including changing regulation, litigation, cybersecurity, economic and geopolitical factors. Please review the company's latest 10K and other public filings for additional risk factors. Conduct your own research before making any investment decisions.

Conclusion

We viewed the recent pullback of the stock on the back of the Amazon UK announcement as an opportunity to add to our position in Visa. If Visa is being disrupted, we certainly don't yet see it in the numbers but acknowledge that the real risk is that this will change going forward.



Source: Company Reports, GreensKeeper.



Source: Company Reports, GreensKeeper.

We don't dispute the view that interchange rates and MDRs are likely to come down over time via market forces and/or regulation. But the primary impact will be borne by card Issuers who will likely respond by reducing cardholder rewards as happened in Australia. The major card networks should be able to navigate change given their small take rate, growing volumes and operating leverage. This is precisely what happened in the US for debit cards post the Durbin Amendment.

> "Looking at the longer-term horizon of firms such as Amex is tough, because if you think you know what's going to happen to payments systems ten years out, you are probably under some state of delusion." [14]
>
> **Charlie Munger**

Given all the moving pieces, the only guarantee in the payments world is that things will continue to change. Admittedly, we don't know exactly how things will play out. That said, we believe that it is very probable that Visa will continue to successfully adapt, grow its volumes and remain a major player in payments given the value that it delivers to the parties involved.

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[14] Source: https://www.livemint.com/Politics/fxLffgUiCfDV3KqOul6YZM/Charles-Munger-critiques-China-India-tells-Trump-haters-r.html

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