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Forecast Change

Reshaping Models in Covid-19 World

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Lowering near-term outlook and looking beyond crisis

As headwinds from COVID-19 have intensified, expanding beyond cross-border travel into domestic volumes globally offset by strong eComm growth, we are lowering our ests for V and MA. We now expect revs for V to decline -1.5% cc in FY20 (from prior +10.7% cc) with MA growing slightly faster at +0.7% for its FY20 (from prior +15.4% cc) due to a partial contribution from the Nets acquisition, V having a 1 qtr lag in service revs, and V's fiscal year-end being Sep (1 less qtr of lower recovering growth). Positively, however, we believe the economic shutdowns and stay-at-home orders are helping accelerate the shift to digital. In addition, stimulus packages deployed globally bode well for supporting consumers and business during the slowdown and we see potential for a recovery. In addition, client incentives act as a partial natural hedge to rev growth. We are modeling a rebound in rev growth for V in FY21/FY22 to +11.1%/+13.7% cc (from prior +12.6%/+11.4% cc) and for MA in its FY21/FY22 to +17.7%/+13.2% cc (from prior +15.5%/+13.3% cc) as MA should continue to benefit from the Nets acquisition in FY21 creating difficult comps in FY22. In addition, lower expenses help partially protect the bottom-line. We are lowering our FY20/FY21/FY22 EPS estimates for V from $6.09/$7.17/$8.23 to $5.31/$6.09/$7.24 and for MA in its FY20/FY21/FY22 from $9.00/$10.83/$12.95 to $7.69/$9.58/$11.31. We reiterate our Buy ratings on V and MA.

Cross-border headwinds offset by eComm strength

Cross-border volume strength through the Jan update, with V growing ~8% cc and MA ~15% cc, appears to have slightly accelerated into Feb as V's COVID-19 update shows estimated ~10% cc growth for the month (partially helped by leap year). However, growth for V moderated to -19% cc in March and we est. an exit growth rate of -28% cc with similar decelerating trends for MA. Although travel volume growth decelerated through March, dropping +80% in recent weeks, physical eComm has accelerated from +20% Y/Y in Jan/Feb to +34.4% Y/Y in March (see our 4/8 note, "Booming eComm Strength Sustainable"). In addition, we see new users and habitual changes accelerating the trend to online benefitting V and MA particularly as they roll out Click-to-Pay. We are assuming cross-border volume growth bottoms in the June-ended qtr at down ~30-40% Y/Y and rebounds thereafter over time. In addition, cross-border yields don't vary by card-present vs. not-present and travel vs. eComm but there is a data processing premium for cross-border. Further, disruptions could actually be positive for value-added services demand (e.g., risk products), which should hold up better in a downturn (more fixed

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in nature).

Domestic volumes soft but habitual digital changes positive

As per the V COVID-19 update, US payment volume growth accelerated from ~10% in Jan to an estimated ~14% in Feb before declining -4% in March with an estimated exit growth rate of -20% for the month. Strength has been driven partially by debit, which benefits from higher non-discretionary spend in categories like grocery. In addition, we est. processed transactions growth of ~13% cc in Jan for V accelerated to ~15% in Feb before moderating to -2% in March with an estimated exit growth rate of -17%. Tap-to-Pay transactions globally, which are starting to gain a foothold in the US, have gotten a boost from COVID-19 due to social distancing efforts, which we expect to accelerate the shift, increase share of digital small dollar transactions, and improve Network volumes over time. We are assuming total payment volumes and transaction growth potentially bottoms at down mid to high teens in the June-ended qtr before improving over time. In particular, we will be monitoring small business failures and the timing of stimulus relief programs (see our 4/5 note, "Dire Small Business Warning"). The Networks are also well positioned, through Visa Direct and MasterCard Send, to facilitate gov't disbursements and through fintech partnerships.

Natural client incentive hedge, expense control, and pricing push-out

Although volume headwinds will impact Network revenue growth, client incentives positively act as a partial natural hedge. Incentives are tied to payment volumes and are not typically specific to cross-border. As a result, gross revenue will fall more than the incentives offset. However, due to the structure of incentives, which tend to be based on life of the deal or multi-year, the Networks could further benefit from incentives accrued being released creating an incremental hedge in case of a sustained downturn. In addition to natural hedges to the bottom-line, such as travel spend, the Networks have taken incremental steps to lower costs. For example, V has updated expense growth guidance from mid-teens to high single digits in 2Q20 and we expect cost-cutting benefits to ramp further over time. However, due to COVID-19, V is operating under a freeze with normal releases (~2 annually) being on hold until further notice. As a result, pricing changes expected to go into effect in the back half of FY20 are currently being pushed out (impacting service and international transaction fees) and FY19 price increases will anniversary.

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Quantifying the Potential COVID-19 Headwinds

Networks pre-announce and pull full-year guidance

The networks both pre-announced results for the upcoming quarter at the end of March, lowering guidance due to increased concerns and uncertainty around COVID-19 headwinds, and withdrew their full-year outlooks. Initially, the impact from COVID-19 was limited to cross-border travel volumes primarily in Asia, in particular cross-border volumes from China, where the virus first developed. However, as the virus spread across the globe leading to economic shutdowns, cross-border travel headwinds have intensified and the impact of COVID-19 has spilled into domestic volumes globally. Although essential categories like grocery initially benefitted from stockpiling, growth has normalized and non-essential categories such as restaurants have been hit hard. In addition, due to the vulnerability of small businesses, there is concern that we could see significant failures, layoffs, and permanent damage to the economy. Positively, eCommerce shopping has gotten a boost from stay-at-home orders despite some initial supply chain issues coming out of China. In addition, governments around the world including in the US have deployed significant relief programs to help small businesses, large merchants, specific categories hit hard by the virus, and consumers through direct checks in the mail. As a result, we will continue to monitor for a potential recovery globally, which will depend on the spread of the virus, duration of the economic shutdowns, and speed at which stimulus can get into the hands of businesses and consumers.

Visa pre-announcement

Initially, on March 2nd after the close, V updated their guidance factoring in the potential cross-border impacts from COVID-19. The company expected the virus to create a net revenue headwind of ~2.5-3.5% to the previously guided low-double digit net revenue growth in constant dollars. However, the run-rate impact only took into account trends seen through Feb 28th and some continuing deterioration in early March, which did not fully reflect the virus spreading outside of Asia. Later into the month, as the Virus spread globally, V adjusted guidance again claiming that transaction volumes began seeing significant impacts due to COVID-19's effect on consumer spending and cross-border travel related spending. As a result, V (on a constant dollar basis and ex acquisitions) guided to 2Q20 revenue growth in the high end of mid single-digit with an a 150bps FX tailwind and a 50bps drag from acquisitions. Furthermore, V expects adjusted operating expenses in the low end of the high single-digit range and adjusted EPS in the high end of mid single-digits including an 150bps FX tailwind and a 1pt acquisition tailwind.

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Figure 1: Visa 2Q20 Guidance

	Q2 2020		
YoY Increase / (Decrease)	Net Revenue	Operating Expense	Diluted Class A Common Stock Earnings Per Share
GAAP Nominal-Dollar Basis	**Mid-single-digit**	**High single-digit**	**High end of low single-digit**
Non-GAAP Nominal-Dollar Basis[1]			**Low end of mid-single-digit**
Foreign Currency Impact	~1.5%	~1.5%	~1.5%
Acquisition Impact	(~0.5%)	(~3.5%)	~1.0%
Adjusted Constant-Dollar Basis[2]	**High end of mid-single-digit**	**Low end of high single-digit**	**High end of mid-single-digit**

Source : Visa

MasterCard pre-announcement

After the close on February 24th, MA originally quantified the expected 1Q20 impact from the Coronavirus at a 2-3pt drag to revenue growth vs previously guided expectations at the end of January (expecting ~9-10% cc rev growth ex-acquisitions for 1Q20). This adjustment mainly took into account the cross-border impacts from the virus, which were primarily only in Asia at the time. Subsequentially, due to the spread of the Virus across the globe, MA saw further deterioration in cross-border, switched volume and switched transaction metrics leading the company to readjust guidance again on March 24th. MA now expects 1Q20 (currency neutral and ex-acquisition) net revenue growth in the low-single-digit range with a 200bps FX drag and a 100bps tailwind from acquisitions and expects operating expenses to be in the low- to mid-single-digit range.

Figure 2: MasterCard 1Q20 guidance

	Net Revenue		Operating Expenses	
	Prior [1]	Revised	Prior [2]	Revised
Forecasted Growth - GAAP [3]	High-end of high- single-digits	Low-single-digits	Mid-teens	Low-double-digits
Litigation provisions	**	**	**	**
Non-GAAP Growth	High-end of high-single-digits	Low-single-digits	Mid-teens	Low-double-digits
Currency impact [4]	~ 1%	~ 2%	- %	1%
Acquisitions [5]	~ (1)%	~ (1)%	(7-9)%	(7-9)%
Non-GAAP Growth, currency neutral, excluding acquisitions	9-10%	Low-single-digits	High-end of high-single-digits	Low-to-mid-single-digits [6]

Source : MasterCard

Analyzing the run-rate volume impact

Visa has provided the below table to show the percentage change in key metrics quarter-to-date from January 1st through March 28th and month-to-date from March 1st through March 28th. Looking at the quarter-to-date data, we can see the impact to cross-border started much earlier and intensified into the back half of the month of March spilling into domestic volumes as seen by the month-to-date data.

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Figure 3: Key growth metrics

YoY Increase / (Decrease)	Month-to-Date	Quarter-to-Date
U.S. Payments Volume	(4%)	7%
Credit	(7%)	5%
Debit	(1%)	9%
Cross-Border Volume on a Constant-Dollar Basis	(19%)	0%
Excluding Transactions within Europe	(23%)	(3%)
Processed Transactions	(2%)	9%

Source : Visa

For example, US payment volumes for V grew ~7% in 1Q20 and through the Jan 28th update they grew ~10%. Assuming ~10% growth in Jan and -4% growth in March per the metrics below, this would imply ~14% growth in the month of Feb. In addition, assuming ~12% growth in 1H of March, this would imply US payment volumes declined ~20% in the back half of March. We have done a similar back-of-the-envelope analysis for Credit and Debit, which shows that debit is holding up better than credit as expected but both Credit and Debt growth was strong in Jan accelerating into Feb.

Figure 4: Visa US payment volumes analysis

	Jan	Feb	1H March	2H March	QTR Average
US Payment Volumes (DB Est.)	10.0%	14.0%	12%	-20.0%	6.7%
			-4.0%		
			Month Average		
US Credit (DB Est.)	9.0%	12.0%	10%	-24.0%	4.7%
			-7.0%		
			Month Average		
US Debit (DB Est.)	12.0%	16.0%	14%	-16.0%	9.0%
			-1.0%		
			Month Average		

Source : Company data, Deutsche Bank estimates

For the cross-border volumes, we know that the impact to travel started much earlier in the quarter and intensified into March as travel bans were implemented while eCommerce volumes likely accelerated into the back half of March as stay-at-home and shelter-in-place orders were implemented helping partially offset some of the headwinds. Using data from the Jan 28th update, which showed cross-border growing ~8% constant currency and ~7% normalized for Intra-Europe, as well as the data above from the COVID-19 update, which shows month-to-date growth in March of -19% constant currency and -23% normalized for Intra-Europe, we can see that cross-border growth actually accelerated in Feb despite headwinds in Asia travel starting. However, growth has dropped off significantly into the back half of March.

Figure 5: Visa cross-border volume analysis

	Jan	Feb	1H March	2H March	QTR Average
Cross-Border (CC)	8.0%	10.0%	-10%	-28.0%	-0.3%
			-19.0%		
			Month Average		
Cross-Border (CC excl. Intra Europe)	7.0%	8.0%	-13%	-33.0%	-2.7%
			-23.0%		
			Month Average		

Source : Company data, Deutsche Bank estimates

Similarly, using data from the Jan 28th update and the COVID-19 update, we have analyzed overall processed transactions and estimate that growth accelerated from ~13% in Jan to ~15% in Feb with strong growth in 1H of March and deteriorating growth to -17% exit rate in the back half of March.

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Figure 6: Processed transactions

	Jan	Feb	1H March	2H March	QTR Average
Processed Transaction	13.0%	15.0%	13%	-17.0%	8.7%
			-2.0%		
			Month Average		

Source : Company data, Deutsche Bank estimates

Updating estimates based on run-rate and potential recovery

Based on the current run-rate of payment volumes exiting the quarter, and assuming the most significant impact from COVID-19 occurs in the June-ended quarter with a gradual rebound month over month starting in May, we have updated our V and MA estimates. We are assuming debit transactions hold up better than credit due to non-discretionary spend with cross-border seeing the biggest drop in volumes due to exposure to travel offset partially by eCommerce. In addition, we are assuming the networks will be able to partially offset some of the headwinds through lower volume-based incentives.

One of the key differences with V over MA is that V will see less of a drag on revenue in the upcoming March quarter versus MA because of the lag in Service fee revenue, which will start to flow through in the following quarter. In addition, MA should recover in terms of its revenue growth rate faster in the back half of the year due to the acquisition of Nets, which we are assuming comes on starting in July impacting the model starting in the Sep-ended quarter. Furthermore, we are assuming that the impact to margins will be most pronounced in the June-ended quarter with margins gradually recovering on a year-over-year decline basis as expense controls kick in and volume growth returns.

We now expect revenues for V to decline -1.5% cc in FY20 (from prior +10.7% cc) with MA growing slightly faster at +0.7% for its FY20 (from prior +15.4% cc). MA will benefit from the Nets acquisition coming on in 2H of its FY20. However, V has a 1 qtr lag in service revenue and its fiscal year-end is September versus MA's being December, so it will have 1 less quarter of lower recovering growth in its FY20 numbers.

We are modeling a rebound in revenue growth for V in FY21/FY22 to +11.1%/+13.7% cc (from prior +12.6%/+11.4% cc) and for MA in its FY21/FY22 to +17.7%/+13.2% cc (from prior +15.5%/+13.3% cc). MA should continue to benefit from the Nets acquisition in FY21 for 1H of its fiscal year creating difficult comps in FY22. However, both V and MA will benefit from easier comparisons particularly in FY21 and in the June-ended quarter for that year.

In addition, lower expenses help partially protect the bottom-line. V and MA should benefit from lower expenses like travel and marketing as well as from incremental spending cuts. However, we expect margins for both companies to be impacted near-term and recover over time. We are lowering our FY20/FY21/FY22 EPS estimates for V from $6.09/$7.17/$8.23 to $5.31/$6.09/$7.24 and for MA in its FY20/FY21/FY22 from $9.00/$10.83/$12.95 to $7.69/$9.58/$11.31.

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Cross-Border Travel Headwinds Offset by Strong eComm Growth

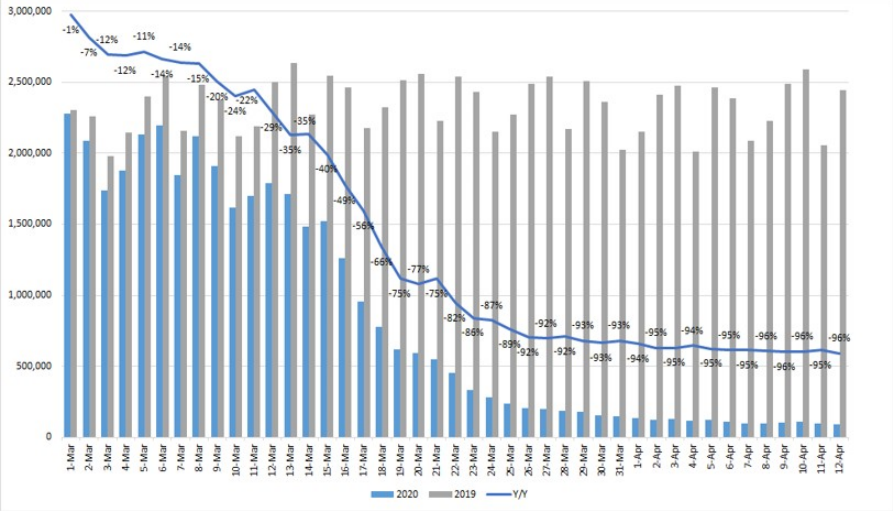
Cross-border payment volumes, which are more profitable than domestic transactions, are made up of both online eCommerce as well as international travel. With many airlines cutting flights and governments imposing international travel bans, we have seen cross-border travel related volumes suffer materially, which is expected to continue in the near term. Data from the US Transportation Security Administration shows that travelers checking in for flights in the US have significantly diminished since March 1st, and a Reuters report showed similar deteriorating travel trends across the globe with air traffic being significantly down across regions. As per the Signifyd COVID-19 Weekly Pulse Report for eCommerce, eCommerce sales have cumulatively grown ~19% in March compared with February levels. Although eComerce sales initially declined 2% in the first week of March compared with Feb exit levels, likely due to some of the supply chain issues, growth was flat in the second week of March and handily accelerated into the back half of the month. In addition, the first week of April saw the largest weekly % change since the end of Feb. (+17%) bringing the total cumulative growth to ~40%. Furthermore, Signifyd saw strong Y/Y eComm trends in March with eComm volumes tracking well ahead of pre-virus CAGR models and no signs of slowing down.

US travel volumes

According to data provided by the US Transportation Security Administration, TSA checkpoints beginning in the month of March have dramatically decreased Y/Y implying a slowdown in travel within the country. Though volumes were slightly down in the beginning of March, the decrease rapidly accelerated starting mid-March, progressively reaching the -90s territory towards the end of the month. Similarly, data from FlightAware shows that US international flights saw a drop of ~83% Y/Y as of March 30th and US domestic flights were down 51% Y/Y by month-end. Early April data from the US TSA also shows that travel remains down and will likely continue until the pandemic concerns pass.

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Figure 7: TSA checkpoint travel numbers

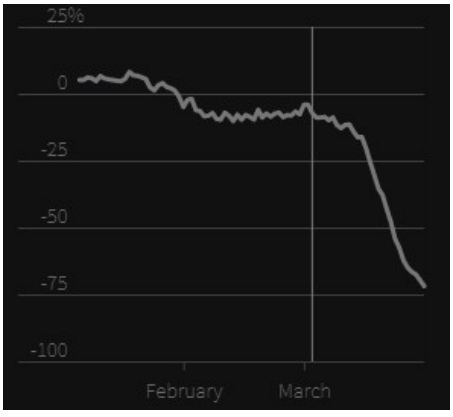


Source : Transportation Security Administration

Travel down across the globe

According to a Reuters report leveraging FrightAware data (tracks air traffic in real time), there has been an ongoing decline in flights across 4 major regions as governments implemented restrictions to contain virus outbreaks in the first quarter of 2020. The latest data shows that in the week of March 24th - 30th, the number of flights tracked by FlightAware across the globe were down ~44% with only 280k flights in comparison with 500k the same week in 2019. Overall, Global flight volume by the end of March showed a 72% decline Y/Y, with major deteriorations beginning on March 3rd as the virus spread into Europe and the Middle East.

Figure 8: Global flight volume

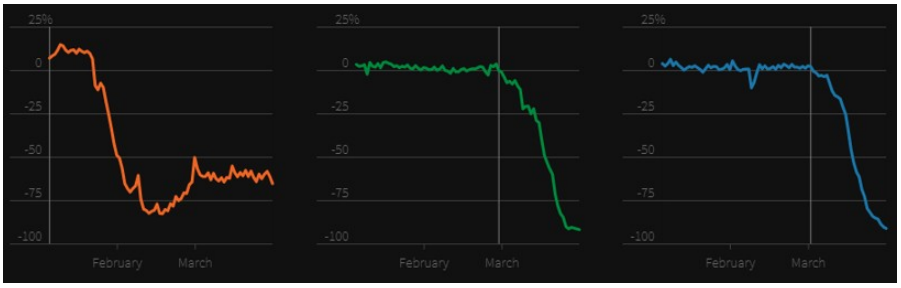


Source : Reuters

Before authorities closed travel into Wuhan, China was seeing air traffic that was up ~7% as of Janurary 7th, which then rapidly dropped +80% following the travel restrictions. Similarly, the Middle East was showing air traffic relatively in line with the previous year and then began falling rapidly as of Feb. 29th, which was two days before the US restricted travel from Iran. In addition, Europe was on a similar path up until March 2nd, when air traffic began free falling as well following the lockdown of towns in Italy by Italian officials.

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Figure 9: China (orange), Middle East (green) and European (blue) flight volumes

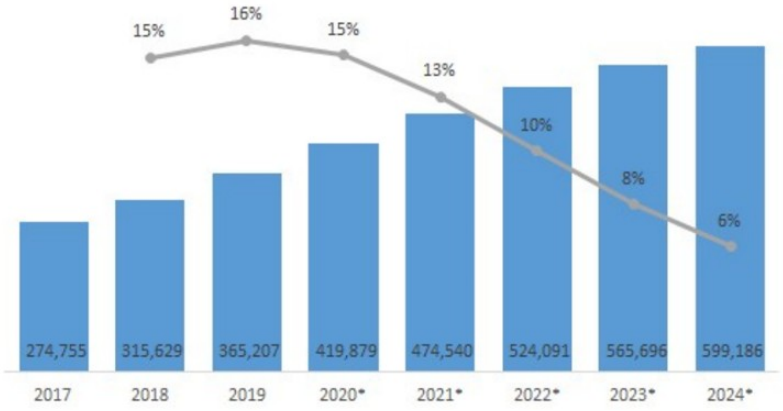


Source : Reuters

eComm Trending Higher

As the spread of the COVID-19 virus caused cities across the globe to implement stay-at-home protocols, consumers began to avoid going out into the public and many businesses closed. As a result, a shift in consumer behavior has been observed, where the decrease in in-person commerce has led to a lift in online purchases across all industries. According to Signifyd data, which excludes Travel and Amazon, COVID-19 has led the B2C eComm market CAGR projections to accelerate between 1-2 years ahead of schedule, with some verticals and geographies showing jumps as high as 4 years ahead of their initial projections. Within Signifyd's same storefront (online) Y/Y sales, the company observed growth of 34.4% Y/Y in March vs last year and they observed an 18-month acceleration on CAGR models. This compares with the 15% 2020 estimated growth by Statista prior to the crisis and ~20% growth seen by Signifyd in Jan and Feb. Furthermore, the most recent Signifyd data showed that although online spending has increased every week since the outbreak, the increase during the week ended April 6th has been the biggest increase to date, contributing to a nearly 40% increase in eComm sales since the end of Feb. For further details, see attached in the back of this report our note "Booming eCommerce Strength Sustainable" where we met with Signifyd's Vice President of Operations and Corporate Development J. Bennett.

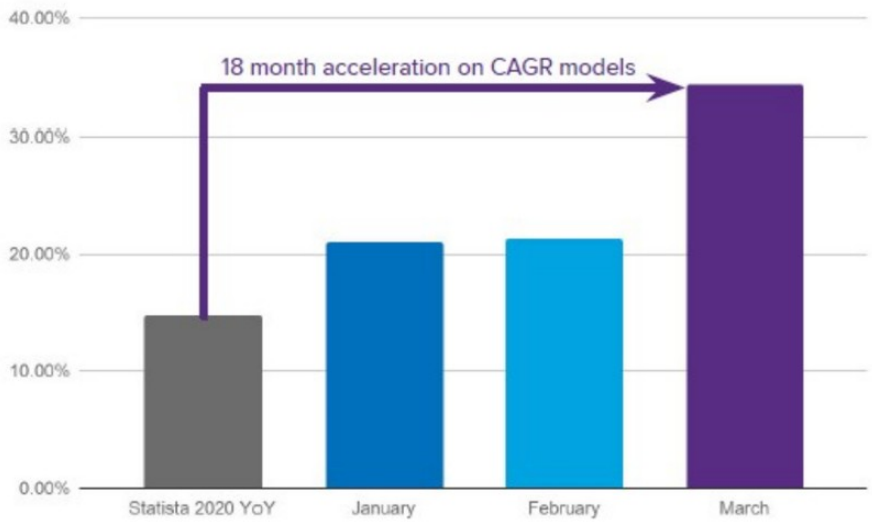
Figure 10: Pre-COVID-19 US eCommerce Market - Physical Goods Shipped ($m)



Source : Statista

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Figure 11: Signifyd - Physical Shipped Goods Growth Observed in March Post-COVID-19



Source : Signifyd

In addition, Signifyd has seen a surge in eCommerce transactions as well as new online shoppers. The surge in new user levels are comparable with those of Cyberweek and holiday seasons, and these cohorts are maturing into repeat customers showing no signs of a potential slowdown. Furthermore, Signifyd's data is showing trends of new users converting into repeat buyers at accelerated rates compared with previous periods. As cohorts mature, the data shows that they are much more likely to become repeat users implying that the share of wallet that is transitioning to online seems to also be holding up pretty well. Typically, ~50% of new user cohorts mature into repeat online shoppers within 30 days and Signifyd believes this relationship should hold. As a result, eCommerce growth should benefit longer term making prior CAGR projections too low. In particular, Signifyd has seen acceleration in online volumes across multiple regions impacted by COVID-19 (e.g., APAC, EMEA, LatAm, and the Americas) correlating to the wave of shelter-in-place and work-from-home orders. For example, the US is seeing a ~18 month acceleration in its CAGR and some markets are as much as ~4 years ahead of prior projections.

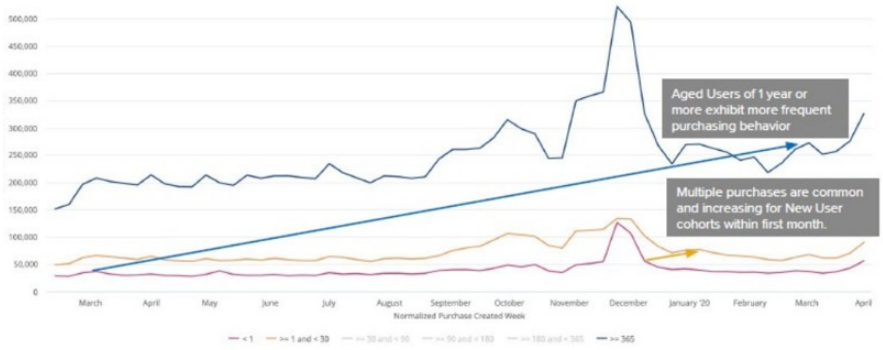
Figure 12: New Users



Source : Signifyd

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Figure 13: Repeat Users by Cohort Age



Source : Signifyd

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Monitoring Small Businesses and Domestic Volumes

Small businesses make up ~$10trn in GDP and ~55% of American jobs. Unlike previous financial crises, the massive effect of this economic slowdown began with small businesses shutting off due to lockdowns and stay-at-home measures because of the COVID-19 virus. As a result, there is no typical trickle-down effect on small businesses, and although the government is going well out of their way to help out with a large stimulus package, if they don't figure out how to quickly deliver capital to small business owners, many SMBs won't survive. According to Womply, the company is seeing tons of data (excluding large businesses and accounting for seasonality) showing the devastation to small businesses with a large amount of closures across all industries. Although most industry revenues are down considerably Y/Y, some industries such as Groceries and Retail/Services saw a spike in recent weeks as a result to panic buying. However, Womply expects these to fall over the coming weeks as most consumers' panic buying sprees come to an end. In addition, there is disproportionate harm to hourly workers, where the amount of hourly workers scheduled to work fell by ~70% in the last week of March.

Total domestic card volumes

In their pre-announcement press release, Visa showed that their US payment volumes quarter-to-date (January 1-March 28, 2020) showed 7% Y/Y growth and month-to-date (March 1-March 28, 2020) showed -4% Y/Y growth. In addition, processed transaction were up 9% QTD and down 2% MTD implying that for both US payment volumes and processed transaction, growth began deteriorating in the month of March and we believe MA is likely seeing similar trends.

Figure 14: Key Metrics Y/Y

YoY Increase / (Decrease)	Month-to-Date	Quarter-to-Date
U.S. Payments Volume	(4%)	7%
Credit	(7%)	5%
Debit	(1%)	9%
Cross-Border Volume on a Constant-Dollar Basis	(19%)	0%
Excluding Transactions within Europe	(23%)	(3%)
Processed Transactions	(2%)	9%

Source : Visa

Womply COVID-19 Data Dashboard

Among the top level industries namely Retail & Services, Restaurants, Grocery Stores and Travel and Tourism, there have been widely differing impacts thus far as a result of the virus. Womply data shows that up until March these industries were overlapping pretty closely; however, beginning in March, with a more pronounced impact in 2H, we see that Travel & Tourism as well as Restaurants plummeted. Retail & Services was slightly impacted but not as much, with sales growth dropping into negative territory in the 2H of March and bouncing back in more recent weeks. Furthermore, the data shows how Grocery Stores sales rose sharply mid-March, likely due to panic consumption; however, towards the end of March sales began

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to slow down significantly as consumers satisfied their hoarding needs.

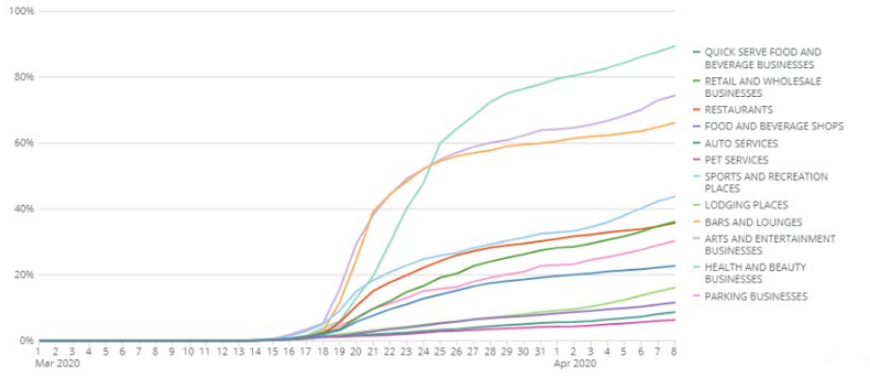
Figure 15: Top level industries - sales Y/Y



Source : Womply

Womply data also provides an outlook on the amount of local businesses across different categories that have stopped processing carded transactions since the start of the virus outbreak in comparison with those that were actively processing transaction since Jan 1st 2020. The numbers vary significantly by industry, with Health and Beauty businesses seeing the most closures at 89% followed by Arts/ Entertainment businesses at 74% and Bars and Lounges at 66% (as of April 8th). Positively, categories such as Pet Services, Auto Services, and Food and Beverage Shops have seen closure rates only in the single-digit to low double-digits range.

Figure 16: Business closure rate by category



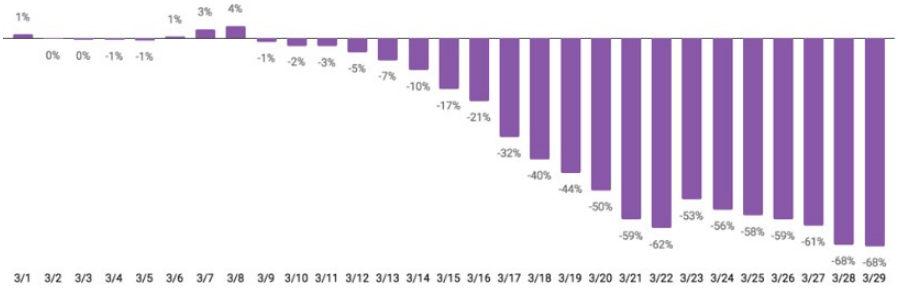
Source : Womply

SMB Hourly Workers

According to data from Homebase, an employee scheduling company for over 100k businesses, the number of SMB employees and amount of hours worked by each has seen a significant decline in March. The latest data shows that the numbers of employees going to work was down ~60% with the number of hours worked down closer to ~70%. Not only are the number of people working much less, but the hours of those that do get to go into work have been significantly cut.

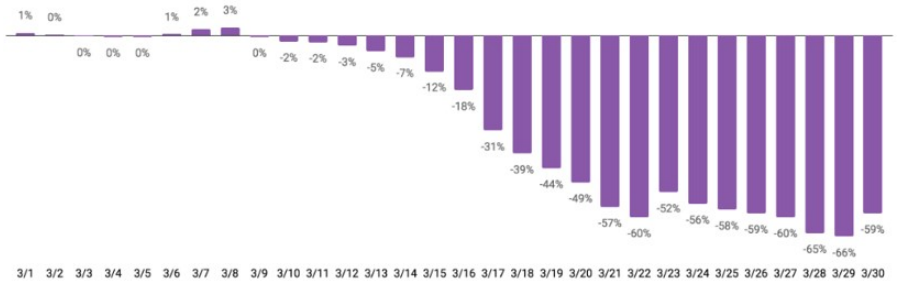
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Figure 17: Change in hours worked by SMB employees in US



Source : Homebase

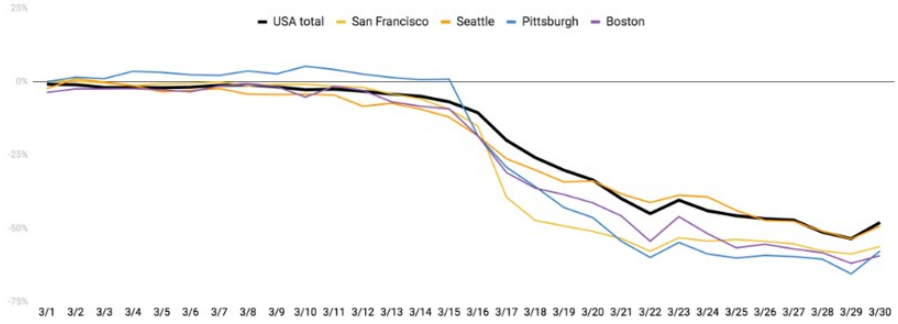
Figure 18: Change in number of hourly SMB employees going to work in the US



Source : Homebase

In addition, Homebase data, not surprisingly, shows that the number of businesses that remain open are significantly decreasing with time. There was a higher percentage of closed businesses among cities with lockdown implementations; however, the total US numbers are quickly following.

Figure 19: Percentage change in number of SMBs open



Source : Homebase

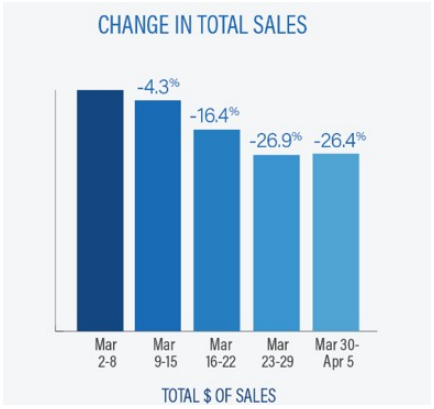
CardFlight Small Business Impact Report

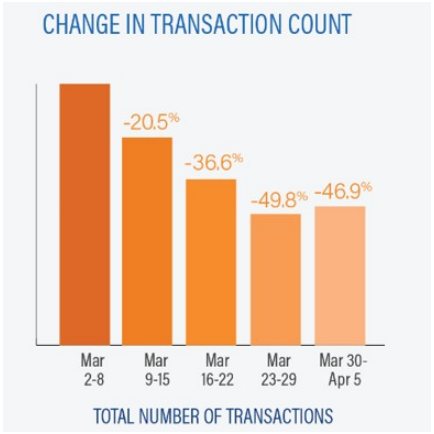
As per the CardFlight Small Business Impact Report, small business sales declined -4.3% week-over-week starting March 9th through the 15th accelerating to -16.4% week-over-week from the 16th through 22nd, further accelerating -26.9% week-

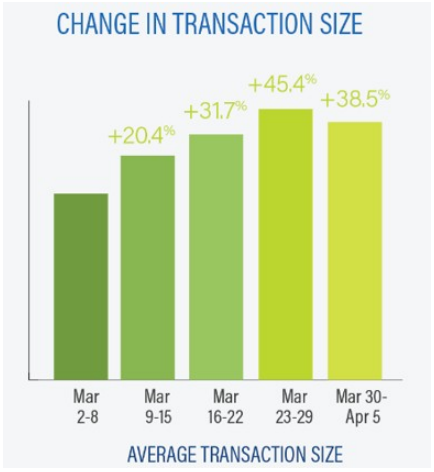
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over-week from the 23rd through the 29th and slightly moderating from the previous weekly decline to -26.4% week-over-week from the 30th through the April 5th. However, transactions declined even more significantly but were offset by higher ticket sizes as individuals stocked up on goods and limited their in-person shopping journeys.

Figure 20: Change in Transaction Volume and Sales





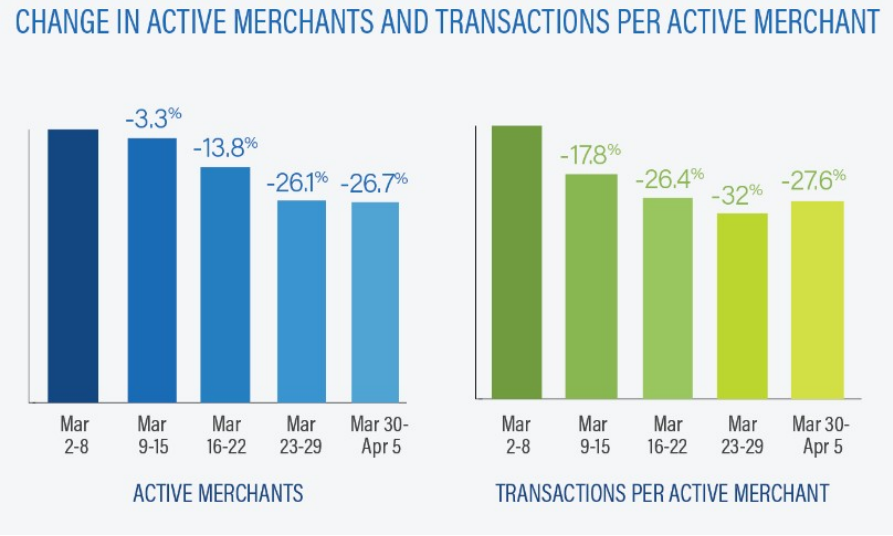


Source : CardFlight Small Business Impact Report, April 8, 2020

Overall, more than 26% of small businesses closed starting March 2nd and the remaining merchants have seen transactions decrease by ~30% since the beginning of March. Positively, the number of transactions per merchant in the first week of April saw a lift for the first time.

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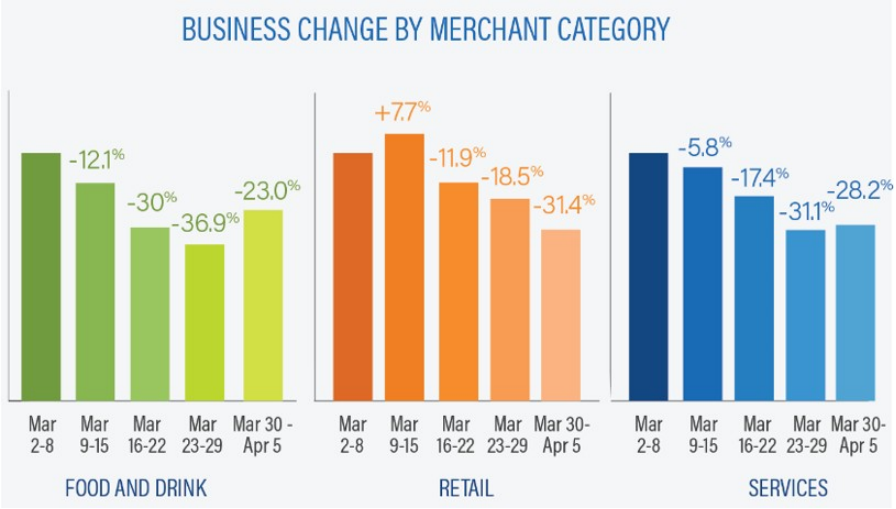
Figure 21: Change in Active Merchants and Transactions Per Active Merchant



Source : CardFlight Small Business Impact Report, April 8, 2020

As anticipated, the most impacted businesses were food and drink establishments, such as bars and restaurants, services providers and retail sales. Positively, Food and Drink as well as Services small businesses registered a week-over-week sales increase for the first time since the March 2-8 baseline. In addition, certain categories mainly across non-discretionary essential products and services like grocery have seen strong growth primarily helping debit card transactions.

Figure 22: Business Change by Merchant Category



Source : CardFlight Small Business Impact Report, April 8, 2020

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Tap-to-Pay Getting a Boost

Contactless payments leveraging near field communication (NFC), including both mobile and card-based transactions, continue to gain adoption globally including in the US market where card issuers are starting to support the rollout. In addition, due to the spread of COVID-19 on surfaces, there has been increased demand and attention around contactless payments. In a number of countries, MA and V have raised the limit for contactless payments to minimize the need to enter a PIN and shops are encouraging contactless over cash and other methods that require the customer to touch surfaces. In Turkey, the country recorded a sharp increase in the number of contactless transactions, showing an 170% jump in March 2020 vs March 2019. According to data from InterBank Card Center (BKM), ~2.5m contactless cards were used for the first time in March and 20% of all card transactions were contactless. Furthermore, according to CardFlight data, EMV payment volume fell 5.17% from March 9th through March 15th compared with mag-stripe at 13.07% and contactless payments at only 1.43%. We expect contactless payments globally to continue gaining traction over cash and chip/PIN partially helped by the COVID-19 spread.

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Economic Stimulus Could Lessen Damage

CARES Act

The Coronavirus Aid, Relief, and Economic Security Act ("CARES Act"), signed into law on March 27th, provides needed stimulus particularly for small businesses and individuals across the US to manage through the global health crisis. Small businesses will have access to EIDL grants, PPP loans, and SBA disaster loans. Larger businesses will also benefit across certain industries in distress such as the air carriers. In addition, individuals will receive direct payments to help manage through the crisis along with better unemployment insurance.

In particular, as it relates to small businesses, the CARES Act enables Economic Injury Disaster Loans (EIDL) of up to $10k as well as the Paycheck Protection Program (PPP) for companies below 500 employees to get up to $10m. Further, the loans could be forgiven if used primarily for payroll and less than 25% for things like the mortgage/rent and utilities.

Overall, the current stimulus package (also ongoing discussions of further potential stimulus) should help to stem some of the job losses and small business closures across the country. In addition, depending on the depth and breadth of the economic impact, it could help to spur a more robust recovery post the health crisis, which we will monitor. Furthermore, globally, there are multiple countries impacted by COVID-19 that have announced significant stimulus packages amounting to over $7trn.

Aiding with government disbursement

As the US government developed a stimulus package to spur economic growth, the world's largest payment and fintech companies began battling for their own share in aiding to distribute the relief money. The networks have reportedly been lobbying the Treasury Department to participate as an option in the disbursement of funds, where the Visa Direct and MasterCard Send tools would be an attractive option due to their capabilities to move money instantly and securely; however, neither company has specified any deal yet. With time being increasingly more important, as getting funds to small business owners as well as consumers sooner is crucial to the stability of the economy, fintech companies including the networks became prime prospects for the movement of funds. Some fintechs, namely PayPal, Square and Intuit already declared they will be working with the government to distribute part of the stimulus packages; however, their inclusion in the process revolves around them getting access to government support to help with small business loans as opposed to actually facilitating the movement of the handouts (a job better suited for V and MA). According to a person familiar with the matter though, V/MA are likely to join the other fintechs in the process and will be a part of the Treasury Department's rollout to distribute funds.

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Networks Tap Into Debt Markets

Visa

On March 31st, V announced an offering of $4bn in total senior notes to be used for general corporate purposes. The company received net proceeds of ~$3.96bn after underwriting fees and the notes with the following tranches were issued on April 2nd:

- $1.5bn of its 1.9% Senior Noted due in 2027
- $1.5bn of its 2.05% Senior Notes due in 2030
- $1bn of its 2.7% Senior Notes due in 2040

MasterCard

On March 26th, MA also completed an offering of $4bn in total of senior notes for general corporate purposes. The tranches of the offering are as followed:

- $1bn aggregate principal amount of its 3.300% Notes due 2027
- $1.5bn aggregate principal amount of its 3.350% Notes due 2030
- $1.5bn aggregate principal amount of its 3.850% Notes due 2050

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CFO Believes Model Will Rebound

Please visit, "CFO Believes Model Will Rebound" published on March 19, 2020 for the full detailed note.

Natural hedges and secular tailwinds

We met with V's CFO, Vasant Prabhu as well as EVP & Chief Product Officer, Jack Forestell and President of NA, Oliver Jenkyn during our virtual payments tour this year. Vasant Prabhu remains upbeat about the long-term secular growth drivers of the business including new payment flows and value-added services (nothing happening short term changes any of the bullish outlook shared at last month's analyst day). However, near-term headwinds from COVID-19 have clearly worsened since V lowered 1Q20 rev growth guidance on March 3rd by ~2.5-3ppts, which was largely related to Asia, as the virus has spread globally (last 2 weeks saw progressive gov't action). Positively, Vasant Prabhu did highlight some natural hedges that could partially soften the impact to volumes (increasing debit/ eComm) and lower volume based incentives could further protect revenue. In addition, V has the ability to better control expenses and investments to reduce the potential impact to the bottom-line. We remain Buy rated on V and would use the pullback in shares as a long-term buying opportunity.

Offsetting volume and revenue headwinds

Cross-border volumes, particularly travel related, will likely be impacted the most depending on the duration of COVID-19, which will primarily flow through International and partially Data Processing revs. In addition, domestic volumes will be impacted in the countries most affected by the virus. Positively, V has exposure to non-discretionary spending primarily in debit, which should partially offset domestic headwinds, as well as eComm where some physical spend is likely to shift (how much remains to be seen). The indication is that China has been opening back up with supply chain issues improving (~6-8 weeks post outbreak) but Vasant Prabhu highlighted concerns over other countries being able to receive the goods due to travel cuts, which we will monitor (FedEx taking up some slack from airlines). Volume-based incentives could also partially hedge the impact to revenue. Incentives are contract specific with some being linked to cross-border for companies with heavy cross-border businesses but the offset is not 1 for 1 as they are typically based on minimums over the fiscal year or longer. In addition, value-added services are mostly tied to the core with some being discretionary.

Potential to pull back on expenses and investments

Vasant highlighted multiple areas the company could potentially leverage to control costs and lower the impact to the bottom-line. Personnel should benefit from lower T&E spending as travel is cut and longer-term the company could slow hiring or even cut headcount including through attrition from restructuring if needed. In addition, although V will need to honor prior commitments, Marketing spend could be an area of significant savings. In particular, a large chunk of the marketing spend this year was planned for the Olympics, which could be pushed out depending on developments although some costs are likely sunk. V also has some flexibility, more so than personnel, on professional fees, contractors and outside services. Furthermore, there are nearly 2 dozen different investment work streams the company is involved with and some could be partially delayed or

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reduced without impacting the company's long-term competitive position and trajectory.

Secular trends and new flows create long-term tailwinds

V also continues to benefit from penetration of new flows and strong growth in value-added services. Visa Direct is more at the beginning than even the middle of the life cycle and Earthport will significantly expand end-points while Plaid should help accelerate growth. V is investing in digital B2B capabilities, new verticals like the gig economy, virtual card space, and its bread and butter namely T&E/prepaid. In addition, V sees the most opportunity in real-time payments across application and services rather than the infrastructure where it can deploy the same level of quality, security, auth rates, and liability/guarantee as it does with Visa Direct to capture revs. In addition, V is not only focused on share shift, which is a small factor in growth, but more importantly wants the best partners, which are key to driving long-term success. Further, although V has always done well with fintechs, it has improved win rates recently from better sales efforts, FastTrack, and simply raising the intensity. V should also benefit from secular trends including things like tap-to-pay and click-to-pay.

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Dire Small Business Warning

Please visit, "Dire Small Business Warning" published on April 5, 2020 for the full detailed note.

Small Business needs help urgently

We hosted a conference call with Toby Scammel, Founder & CEO of Womply, to discuss the evolving negative impact from COVID-19 on US small business sales and the challenges with the US small business stimulus plan. Toby Scammel described the current small business situation pessimistically, with small business owners panicked, confused and running out of time. Through robust data insights, gathered across its +450k merchant commerce platform and payment partnerships, Womply has seen small business physical transaction revenue drop -25% Y/Y in recent days. Small businesses are critical to the US economy making up ~$10trn in GDP and ~55% of jobs but are also the most vulnerable and hardest entities for the gov't to reach. In addition, with the gov't using traditional SBA and bank rails to deliver stimulus (Friday was first day to start applying for loans), Toby Scammel was cautious on the current plan's ability to reach small businesses effectively and in time. Urgently, he believes pushing funds through fintechs such as SQ and PYPL as well as card processors like FIS, GPN, and FISV to small businesses faster could be one of the only viable solutions (gov't needs to embrace this method immediately). Please see body for detailed data on current trends, stimulus, and let us know if you are interested in a replay and slides for the call.

Significant small business headwinds could worsen

Some of the hardest hit sectors include transportation, arts/entertainment, lodging, restaurants/bars, health/beauty, and auto sales/services. Restaurant sales are down 50-70% with data from OpenTable showing table reservations falling to zero. Toast POS data shows restaurant revenue down ~73% nationwide. Further, travel and tourism sales are down +80%. Although retail and grocery initially saw a strong boost from panic buying and stocking up on essential goods, those trends have also recently moderated. In addition to overall physical small business sales being down significantly in recent weeks, data from Homebase (+1m employees in the US) shows 60% fewer hours worked from hourly employees (disproportionate impact on hourly workers, minority businesses, and poorer communities) with many local businesses being fully closed. According to Faire survey data, ~70% of independent retailers don't have enough cash, 64% have started reducing inventories, and retailers are expecting a temporary revenue reduction of 50% of more (potential for tens of millions of lost jobs). As lockdowns and shelter in place orders continue, Toby Scammel sees the potential for further weakness with many of the companies now looking for phase 2 of their job cuts. He sees the risk of substantial US business bankruptcies as real, with potential for an over 30% failure rate to be realized without significant small business assistance.

Stimulus leveraging traditional rails despite faster methods

Positively, the CARES Act, signed into law March 27th, provides stimulus for small businesses and individuals. However, the gov't is currently using traditional rails to deliver the funds like banks and the SBA with the timing being crucial. Although Toby Scammel was positive on the treasury and its hard work/talent, historically the SBA track record for delivering funds in a timely manner has been lackluster. For

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example, the SBA failed to deploy just ~$1bn in funds effectively during Hurricane Sandy with application processing taking 46 days on average, approval rates of 24%, and long delays for disbursement (current rules like 75% of loan going to payroll to be forgiven creating challenges). Additionally, the whole loan process is too convoluted with requirements and risk for small business, so Toby Scammel believes grants or revenue replacement instead of loans are what's required to save small businesses. Positively, players like Womply, SQ, PYPL, Intuit, and Plaid (acquired by V) are coming together and leveraging their unique data to support the gov't. In addition, other fintechs as well as payment processors like FIS and FISV are working to distribute funds faster. Fintechs like SQ Capital, Shopify Capital, and PYPL Working Capital underwrite on existing sales data so they are best suited to revenue replacement.

Womply platform and business model

Womply is a local commerce platform, with a suite of solutions such as CRM and marketing automation, partnering with ~55 of the largest processors, banks and other small business providers (e.g., FIS/WP, GPN/TSS, Elavon, and PaySafe). As a result, the company has robust and diversified data insights across US small businesses primarily into credit card transactions as well as sales data from bank accounts and other sources. The company operates through a SaaS model charging merchants for access to software and also generating revenue share from processing relationships (high 70% gross margins with large % of margin coming from revenue share). Womply has strong software capabilities and has also invested +$150m in the platform to drive data analytics. Merchants benefit from business management and increased sales and processors benefit from better retention.

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Booming eCommerce Strength Sustainable

Please visit, "Booming eCommerce Strength Sustainable" published on April 8, 2020 for the full detailed note.

Strong growth in eCommerce

Following our conference call last week with Womply on the negative impact to small business in-person sales from COVID-19, we hosted a conference call today with J. Bennett, Vice President of Operations and Corporate Development at online fraud leader Signifyd to discuss the positive offsetting trends in eCommerce. The global health crisis has shifted consumer transactions online and is driving a surge in first time eCommerce shoppers driving up penetration and transactions to an accelerated sustainable level. As a result, compared with prior projections for physical eCommerce growth of ~15% Y/Y in the US vs. actual Jan and Feb growth above 20%, growth has accelerated to +34.4% Y/Y in March and Signifyd believes the trend will continue (will not normalize or fade). In addition, online volume growth for small businesses is doing well despite small business shutdowns and potential failures, but J. Bennett is concerned these robust small business growth rates could begin to falter. With strong eComm volumes, PYPL, FIS, and FISV stand to potentially benefit the most in payments, in our view. Let us know if you would like the slides and replay details from the call.

Pushing up long-term CAGR projections

The recent surge in new eCommerce shoppers is at levels approaching Cyberweek, which J. Bennett described as getting an extra holiday season and there are currently no signs of slowing. Typically, ~50% of new user cohorts mature into repeat online shoppers within 30 days and J. Bennett believes this relationship should hold. As a result, eCommerce growth should benefit longer term making prior CAGR projections too low. In particular, Signifyd has seen acceleration in online volumes across multiple regions impacted by COVID-19 (e.g., APAC, EMEA, LatAm, and the Americas) correlating to the wave of shelter-in-place and work-from-home orders. For example, the US is seeing an ~18 month acceleration in its CAGR and some markets are as much as ~4 years ahead of prior projections. Mexico is ~3 years ahead and including Brazil and Argentina is expected to quickly take over Canada in terms of spend. LatAm is slightly behind other regions on the impact of COVID-19, which we will monitor but could also see strong eCommerce trends. In addition, Bennett sees strong opportunities in countries like India and positively described trends in China and APAC as already starting to recovery. Overall, J. Bennett believes the share of wallet from physical retail will shift more quickly than previously projected going forward.

Areas of strength offsetting vertical weakness

While COVID-19 is driving strong growth across many sectors, other sectors are suffering (multiple winners and losers emerging). For example, digital games and grocery are up 126% and 165% since early February (WMT Grocery now the #1 app) while furniture and home decor is up 62% over the same period. However, travel is down +80% and services are down 50% Y/Y except for deliveries. Areas like high fashion are hurting but the rest of apparel is doing fine (apparel is ~40% of eCommerce) as most sales come in 3Q and 4Q. eCommerce verticals that are providing distractions like media, toys, hobbies, and games have benefitted

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significantly. In addition, although sectors like beauty and cosmetics have not experienced growth overall, partially due to fulfillment concerns, many merchants are finding demand online by overcoming challenges. Although stockpile verticals have peaked, such as baby, consumer packaged goods, medical, and pet supplies, they experienced a strong influx of new users who are expected to return to the online channel (potential for more subscription models).

Small business volumes strong but monitoring future

Across the SMB space, online volumes are showing strength growing ~30-40% similar to overall eCommerce trends. However, J. Bennett predicts ~30-50% of these businesses could fail in the coming weeks (~45-60 days) due to COVID-19 disruptions. Positively, the remaining ~50-70% are currently growing fast enough to more than offset that loss but it's unclear if the strength will continue. As a result, J. Bennett was much more confident in calling the overall eCommerce strength continuing than predicting the path of future SMBs sales online. Although ~80% of the US eCommerce market is from the IR 100, SMBs represent the remaining 20% and are important to the overall economy. Our recent discussion with Womply highlighted concerns over small business failures in the US as well as the timing, distribution, and effectiveness of the coming stimulus. See our call note with Womply, "Dire Small Business Warning" for details on the state of small business physical transactions in the US market.

Signifyd partnering with payment players

Signifyd is a SaaS-based, enterprise-grade fraud technology company for eCommerce stores and is the largest provider of guaranteed chargeback protection. The company works with over 10k merchants, shipping products into 100+ countries, ranging from small businesses to some of the largest marketplaces. In addition, it has +250 risk experts with an experienced leadership team from PayPal, Google, FedEx and Wilson Sonsini Goodrich & Rosati. The company charges for its core product namely guaranteed fraud protection by taking a percentage of the volume similar to other payment models like PYPL. In addition, it partners with many of the key payment players across the industry such as the networks (e.g., V/AXP), acquirers and software players (e.g., Salesforce) layering its fraud solutions on top of the payments stack. As a result, Signifyd sees more data spanning beyond checkout (+97% of global transactions), leveraging email, IP, phone, address and device ID, helping to improve online friction and lower false transaction declines. Signifyd helps increase merchant revenue by ~3.2% and lower costs by ~0.7% on average.

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Figure 23: Visa Income Statement

	2019					2020					2021					2022				
	1Q: Dec	2Q: Mar	3Q: Jun	4Q: Sept	2019	1Q: Dec	2QE: Mar	3QE: Jun	4QE: Sept	2020E	1QE: Dec	2QE: Mar	3QE: Jun	4QE: Sept	2021E	1QE: Dec	2QE: Mar	3QE: Jun	4QE: Sept	2022E
Service revenues	2342.0	2417.0	2405.0	2536.0	9700.0	2555.0	2631.4	2498.2	2096.6	9781.2	2394.2	2672.4	2692.6	2538.4	10297.5	2799.5	3069.0	3013.2	2786.6	11668.2
Data processing revenues	2470.0	2432.0	2662.0	2769.0	10333.0	2864.0	2602.5	2244.2	2700.6	10411.2	2980.4	2870.0	2900.0	3237.7	11988.1	3613.8	3413.8	3267.8	3644.4	13939.8
International transaction revenues	1851.0	1796.0	1977.0	2180.0	7804.0	2018.0	1828.3	1338.4	1901.0	7085.7	1973.6	2014.8	1598.1	2159.5	7746.0	2198.6	2214.3	1727.5	2332.2	8472.7
Other revenues	299.0	327.0	342.0	345.0	1313.0	365.0	400.6	405.3	415.4	1586.2	443.5	502.7	503.3	506.8	1956.3	541.9	618.9	606.5	608.6	2375.9
Gross operations fees	**6962.0**	**6972.0**	**7386.0**	**7830.0**	**29150.0**	**7802.0**	**7462.8**	**6486.0**	**7113.5**	**28864.3**	**7791.7**	**8059.9**	**7693.9**	**8442.3**	**31987.9**	**9153.8**	**9315.9**	**8615.0**	**9371.8**	**36456.6**
Client incentives	(1,456.0)	(1,478.0)	(1,546.0)	(1,693.0)	(6,173.0)	(1,748.0)	(1,709.0)	(1,433.4)	(1,593.4)	(6,483.8)	(1,722.0)	(1,837.7)	(1,661.9)	(1,916.4)	(7,137.9)	(2,050.5)	(2,114.7)	(1,929.8)	(2,099.3)	(8,194.2)
Operating revenues	**$ 5,506.0**	**$ 5,494.0**	**$ 5,840.0**	**$ 6,137.0**	**$ 22,977.0**	**$ 6,054.0**	**$ 5,753.8**	**$ 5,052.6**	**$ 5,520.1**	**$ 22,380.5**	**$ 6,069.7**	**$ 6,222.3**	**$ 6,032.1**	**$ 6,525.9**	**$ 24,850.0**	**$ 7,103.4**	**$ 7,201.2**	**$ 6,685.2**	**$ 7,272.5**	**$ 28,262.3**
Personnel	807.0	894.0	872.0	871.0	3,444.0	982.0	932.1	778.1	839.1	3,531.3	928.7	995.6	904.8	959.3	3,788.3	1,065.5	1,152.2	976.0	1,032.7	4,226.4
Network, EDP, and communications	173.0	171.0	184.0	193.0	721.0	181.0	184.1	166.7	165.6	697.5	200.3	199.1	193.0	202.3	794.7	213.1	208.8	193.9	218.2	834.0
Advertising, marketing, and promotion	276.0	241.0	282.0	306.0	1,105.0	274.0	310.7	237.5	253.9	1,076.1	297.4	323.6	289.5	287.1	1,197.7	333.9	338.5	300.8	298.2	1,271.3
Professional and consulting fees	91.0	101.0	113.0	149.0	454.0	106.0	109.3	96.0	127.0	438.3	115.3	118.2	108.6	137.0	479.2	120.8	129.6	113.6	152.7	516.8
Administrative and other	276.0	264.0	315.0	341.0	1,196.0	313.0	281.9	277.9	303.6	1,176.4	333.8	292.4	313.7	345.9	1,285.8	369.4	324.1	347.6	349.1	1,390.1
Litigation provision	7.0	22.0	1.0		30.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other																				
EBITDA	**3,876.0**	**3,801.0**	**4,073.0**	**4,277.0**	**16,027.0**	**4,198.0**	**3,935.6**	**3,496.4**	**3,830.9**	**15,461.0**	**4,194.2**	**4,293.4**	**4,222.4**	**4,594.2**	**17,304.2**	**5,000.8**	**5,048.0**	**4,753.2**	**5,221.7**	**20,023.7**
Depreciation and amortization	159.0	160.0	165.0	172.0	656.0	182.0	182.0	182.0	182.0	728.0	182.5	182.5	182.5	182.5	730.0	183.0	183.0	183.0	183.0	732.0
EBIT	3,717.0	3,641.0	3,908.0	4,105.0	15,371.0	4,016.0	3,753.6	3,314.4	3,648.9	14,733.0	4,011.7	4,110.9	4,039.9	4,411.7	16,574.2	4,817.8	4,865.0	4,570.2	5,038.7	19,291.7
Other income (expense), net	(87.0)	36.0	(42.0)	(24.0)	(117.0)	(42.0)	(67.0)	(65.0)	(63.0)	(237.0)	(62.0)	(64.0)	(61.0)	(58.0)	(245.0)	(57.0)	(60.0)	(56.0)	(54.0)	(227.0)
Income before income taxes	3,630.0	3,677.0	3,866.0	4,081.0	15,254.0	3,974.0	3,686.6	3,249.4	3,585.9	14,496.0	3,949.7	4,046.9	3,978.9	4,353.7	16,329.2	4,760.8	4,805.0	4,514.2	4,984.7	19,064.7
Income tax expense	653.0	700.0	765.0	769.0	2,887.0	702.0	700.5	617.4	681.3	2,701.2	750.4	768.9	756.0	827.2	3,102.6	904.5	913.0	857.7	947.1	3,622.3
Minority interest	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net income	**$ 2,977.0**	**$ 2,977.0**	**$ 3,101.0**	**$ 3,312.0**	**$ 12,367.0**	**$ 3,272.0**	**$ 2,986.1**	**$ 2,632.0**	**$ 2,904.6**	**$ 11,794.8**	**$ 3,199.2**	**$ 3,278.0**	**$ 3,222.9**	**$ 3,526.5**	**$ 13,226.7**	**$ 3,856.2**	**$ 3,892.1**	**$ 3,656.5**	**$ 4,037.6**	**$ 15,442.4**
Diluted EPS from continuing operations	**$ 1.30**	**$ 1.31**	**$ 1.37**	**$ 1.47**	**$ 5.44**	**$ 1.46**	**$ 1.34**	**$ 1.19**	**$ 1.32**	**$ 5.31**	**$ 1.46**	**$ 1.51**	**$ 1.49**	**$ 1.64**	**$ 6.09**	**$ 1.80**	**$ 1.82**	**$ 1.72**	**$ 1.90**	**$ 7.24**
Diluted shares outstanding	2,291	2,279	2,265	2,253	2,272	2,240	2,225	2,213	2,201	2,220	2,189	2,177	2,165	2,153	2,171	2,145	2,137	2,129	2,121	2,133
Change (Q/Q)	(15)	(12)	(14)	(12)	(57)	(13)	(15)	(12)	(12)	(52)	(12)	(12)	(12)	(12)	(49)	(8)	(8)	(8)	(8)	(38)
	2019					2020					2021					2022				
	1Q: Dec	2Q: Mar	3Q: Jun	4Q: Sept	2019	1Q: Dec	2QE: Mar	3QE: Jun	4QE: Sept	2020E	1QE: Dec	2QE: Mar	3QE: Jun	4QE: Sept	2021E	1QE: Dec	2QE: Mar	3QE: Jun	4QE: Sept	2022E
% of Revenues																				
Personnel	14.7%	16.3%	14.9%	14.2%	15.0%	16.2%	16.2%	15.4%	15.2%	15.8%	15.3%	16.0%	15.0%	14.7%	15.2%	15.0%	16.0%	14.6%	14.2%	15.0%
Network, EDP, and communications	3.1%	3.1%	3.2%	3.1%	3.1%	3.0%	3.2%	3.3%	3.0%	3.1%	3.3%	3.2%	3.2%	3.1%	3.2%	3.0%	2.9%	2.9%	3.0%	3.0%
Advertising, marketing and promotion	5.0%	4.4%	4.8%	5.0%	4.8%	4.5%	5.4%	4.7%	4.6%	4.8%	4.9%	5.2%	4.8%	4.4%	4.8%	4.7%	4.7%	4.5%	4.1%	4.5%
Professional and consulting fees	1.7%	1.8%	1.9%	2.4%	2.0%	1.8%	1.9%	1.9%	2.3%	2.0%	1.9%	1.9%	1.8%	2.1%	1.9%	1.7%	1.8%	1.7%	2.1%	1.8%
Administrative and other	5.0%	4.8%	5.4%	5.6%	5.2%	5.2%	4.9%	5.5%	5.5%	5.3%	5.5%	4.7%	5.2%	5.3%	5.2%	5.2%	4.5%	5.2%	4.8%	4.9%
EBITDA Margins	70.4%	69.2%	69.7%	69.7%	69.8%	69.3%	68.4%	69.2%	69.4%	69.1%	69.1%	69.0%	70.0%	70.4%	69.6%	70.4%	70.1%	71.1%	71.8%	70.8%
Depreciation and amortization	2.9%	2.9%	2.8%	2.8%	2.9%	3.0%	3.2%	3.6%	3.3%	3.3%	3.0%	2.9%	3.0%	2.8%	2.9%	2.6%	2.5%	2.7%	2.5%	2.6%
Operating Margins	**67.5%**	**66.3%**	**66.9%**	**66.9%**	**66.9%**	**66.3%**	**65.2%**	**65.6%**	**66.1%**	**65.8%**	**66.1%**	**66.1%**	**67.0%**	**67.6%**	**66.7%**	**67.8%**	**67.6%**	**68.4%**	**69.3%**	**68.3%**
Interest expense	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Investment income, net	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other income (expense), net	(1.6%)	0.7%	(0.7%)	(0.4%)	(0.5%)	(0.7%)	(1.2%)	(1.3%)	(1.1%)	(1.1%)	(1.0%)	(1.0%)	(1.0%)	(0.9%)	(1.0%)	(0.8%)	(0.8%)	(0.8%)	(0.7%)	(0.8%)
Income before income taxes	65.9%	66.9%	66.2%	66.5%	66.4%	65.6%	64.1%	64.3%	65.0%	64.8%	65.1%	65.0%	66.0%	66.7%	65.7%	67.0%	66.7%	67.5%	68.5%	67.5%
Income taxes (as % of pretax)	18.0%	19.0%	19.8%	18.8%	18.9%	17.7%	19.0%	19.0%	19.0%	19%	19.0%	19.0%	19.0%	19.0%	19%	19.0%	19.0%	19.0%	19.0%	19%
Net income	54.1%	54.2%	53.1%	54.0%	53.8%	54.0%	51.9%	52.1%	52.6%	52.7%	52.7%	52.7%	53.4%	54.0%	53.2%	54.3%	54.0%	54.7%	55.5%	54.6%
							(1.0%)	(1.3%)	(0.8%)		(0.2%)	0.8%	1.4%	1.5%		1.7%	1.5%	1.4%	1.7%	
% Growth	1Q: Dec	2Q: Mar	3Q: Jun	4Q: Sept	2019	1Q: Dec	2QE: Mar	3QE: Jun	4QE: Sept	2020E	1QE: Dec	2QE: Mar	3QE: Jun	4QE: Sept	2021E	1QE: Dec	2QE: Mar	3QE: Jun	4QE: Sept	2022E
Service fees	9.1%	7.3%	9.5%	9.2%	8.8%	9.1%	8.9%	3.9%	(17.3%)	0.8%	(6.3%)	1.6%	7.8%	21.1%	5.3%	16.9%	14.8%	11.9%	9.8%	13.3%
Data processing fees	15.0%	14.3%	12.8%	15.7%	14.5%	16.0%	7.0%	(15.7%)	(2.5%)	0.8%	4.1%	10.3%	29.2%	19.9%	15.1%	21.2%	18.9%	12.7%	12.6%	16.3%
International transaction fees	11.1%	2.5%	8.0%	11.1%	8.2%	9.0%	1.8%	(32.3%)	(12.8%)	(9.2%)	(2.2%)	10.2%	19.4%	13.6%	9.3%	11.4%	9.9%	8.1%	8.0%	9.4%
Other revenues	30.6%	42.2%	49.3%	34.8%	39.1%	22.1%	22.5%	18.5%	20.4%	20.8%	21.5%	25.5%	24.2%	22.0%	23.3%	22.2%	23.1%	20.5%	20.1%	21.4%
Gross operations fees	12.5%	9.6%	11.7%	12.9%	11.7%	12.1%	7.0%	(12.2%)	(9.2%)	(1.0%)	(0.1%)	8.0%	18.6%	18.7%	10.8%	17.5%	15.6%	12.0%	11.0%	14.0%
Volume and support incentives	9.8%	14.7%	12.5%	12.7%	12.4%	20.1%	15.6%	(7.3%)	(5.9%)	5.0%	(1.5%)	7.5%	15.9%	20.3%	10.1%	19.1%	15.1%	16.1%	9.5%	14.8%
Revenues	**13.2%**	**8.3%**	**11.5%**	**12.9%**	**11.5%**	**10.0%**	**4.7%**	**(13.5%)**	**(10.1%)**	**(2.6%)**	**0.3%**	**8.1%**	**19.4%**	**18.2%**	**11.0%**	**17.0%**	**15.7%**	**10.8%**	**11.4%**	**13.7%**
Expenses																				
Personnel	18.9%	8.5%	2.3%	6.9%	8.6%	21.7%	4.3%	(10.8%)	(3.7%)	2.5%	(5.4%)	6.8%	16.3%	14.3%	7.3%	14.7%	15.7%	7.9%	7.7%	11.6%
Network, EDP and communications	8.1%	1.2%	8.9%	2.7%	5.1%	4.6%	7.7%	(9.4%)	(14.2%)	(3.3%)	10.7%	8.1%	15.8%	22.2%	13.9%	6.4%	4.9%	0.4%	7.8%	4.9%
Advertising, marketing and promotion	23.8%	(7.7%)	17.5%	15.9%	11.8%	(0.7%)	28.9%	(15.8%)	(17.0%)	(2.6%)	8.5%	4.1%	21.9%	13.1%	11.3%	12.3%	4.6%	3.9%	3.8%	6.2%
Professional and consulting fees	(1.1%)	(6.5%)	0.9%	11.2%	1.8%	16.5%	8.2%	(15.0%)	(14.8%)	(3.5%)	8.8%	8.1%	13.1%	7.9%	9.3%	4.7%	9.6%	4.7%	11.4%	7.8%
Administrative and other	16.9%	18.9%	37.0%	30.2%	25.9%	13.4%	6.8%	(11.8%)	(11.0%)	(1.6%)	6.7%	3.7%	12.9%	13.9%	9.3%	10.6%	10.8%	10.8%	0.9%	8.1%
Total Expenses	17.3%	6.9%	10.2%	11.4%	11.3%	13.9%	7.4%	(11.9%)	(9.2%)	(0.4%)	1.1%	6.1%	16.3%	14.4%	9.0%	12.1%	11.6%	6.8%	6.2%	9.2%
Income																				
EBITDA	11.6%	8.9%	12.0%	13.6%	11.6%	8.3%	3.5%	(14.2%)	(10.4%)	(3.5%)	(0.1%)	9.1%	20.8%	19.9%	11.9%	19.2%	17.6%	12.6%	13.7%	15.7%
EBIT	11.7%	9.1%	12.1%	14.0%	11.8%	8.0%	3.1%	(15.2%)	(11.1%)	(4.2%)	(0.1%)	9.5%	21.9%	20.9%	12.5%	20.1%	18.3%	13.1%	14.2%	16.4%
Net income	17.4%	14.3%	11.1%	18.5%	15.3%	9.9%	0.3%	(15.1%)	(12.3%)	(4.6%)	(2.2%)	9.8%	22.5%	21.4%	12.1%	20.5%	18.7%	13.5%	14.5%	16.8%
Diluted EPS	20.6%	17.2%	13.8%	21.2%	18.2%	12.4%	2.7%	(13.1%)	(10.2%)	(2.4%)	0.1%	12.2%	25.2%	24.1%	14.7%	23.0%	21.0%	15.4%	16.2%	18.8%

Source : Company data, Deutsche Bank estimates

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Figure 24: MasterCard Income Statement

	2019 Estimates					2020 Estimates					2021 Estimates					2022 Estimates				
	1Q	2Q	3Q	4Q	2019E	1QE	2QE	3QE	4QE	2020E	1QE	2QE	3QE	4QE	2021E	1QE	2QE	3QE	4QE	2022E
Domestic assessments	$ 1,605.0	$ 1,680.0	$ 1,722.0	$ 1,774.0	$ 6,781.0	$ 1,697.6	$ 1,430.5	$ 1,635.7	$ 1,849.0	$ 6,612.8	$ 1,870.0	$ 1,787.9	$ 1,925.2	$ 2,119.4	$ 7,702.4	$ 2,126.3	$ 1,970.2	$ 2,142.0	$ 2,373.4	$ 8,611.9
Cross-border volume fees	$ 1,263.0	$ 1,374.0	$ 1,517.0	$ 1,452.0	$ 5,606.0	$ 1,281.9	$ 998.9	$ 1,328.9	$ 1,424.4	$ 5,034.1	$ 1,352.5	$ 1,164.7	$ 1,503.0	$ 1,601.0	$ 5,621.2	$ 1,522.9	$ 1,297.5	$ 1,693.9	$ 1,806.0	$ 6,320.2
Transaction processing fees	$ 1,922.0	$ 2,053.0	$ 2,231.0	$ 2,263.0	$ 8,469.0	$ 2,016.3	$ 1,745.1	$ 2,082.8	$ 2,395.9	$ 8,240.2	$ 2,392.8	$ 2,211.6	$ 2,548.6	$ 2,791.9	$ 9,944.9	$ 2,737.7	$ 2,438.0	$ 2,870.7	$ 3,167.8	$ 11,214.2
Other revenues	$ 842.0	$ 962.0	$ 1,087.0	$ 1,233.0	$ 4,124.0	$ 1,005.3	$ 1,095.7	$ 1,340.3	$ 1,547.4	$ 4,988.8	$ 1,272.8	$ 1,385.0	$ 1,691.4	$ 1,937.4	$ 6,286.5	$ 1,523.5	$ 1,653.7	$ 2,016.2	$ 2,307.4	$ 7,500.8
Gross revenues	$ 5,632.0	$ 6,069.0	$ 6,557.0	$ 6,722.0	$ 24,980.0	$ 6,001.2	$ 5,270.3	$ 6,387.6	$ 7,216.7	$ 24,875.9	$ 6,888.0	$ 6,549.2	$ 7,668.1	$ 8,449.7	$ 29,555.0	$ 7,910.3	$ 7,359.5	$ 8,722.7	$ 9,654.6	$ 33,647.1
Rebates and incentives	(1,743.0)	(1,956.0)	(2,090.0)	(2,308.0)	(8,097.0)	(1,974.4)	(1,697.0)	(2,018.5)	(2,410.4)	(8,100.3)	(2,273.0)	(2,154.7)	(2,476.8)	(2,906.7)	(9,811.2)	(2,642.0)	(2,450.7)	(2,852.3)	(3,350.2)	(11,295.2)
Revenues	**$ 3,889.0**	**$ 4,113.0**	**$ 4,467.0**	**$ 4,414.0**	**$ 16,883.0**	**$ 4,026.8**	**$ 3,573.2**	**$ 4,369.1**	**$ 4,806.3**	**$ 16,775.5**	**$ 4,615.0**	**$ 4,394.5**	**$ 5,191.3**	**$ 5,543.0**	**$ 19,743.8**	**$ 5,268.3**	**$ 4,908.8**	**$ 5,870.4**	**$ 6,304.5**	**$ 22,351.9**
General and administrative expenses	1,367.0	1,369.0	1,448.0	1,579.0	5,763.0	1,413.4	1,193.5	1,489.9	1,768.7	5,865.5	1,624.5	1,450.2	1,650.8	1,945.6	6,671.1	1,796.5	1,570.8	1,837.4	2,149.8	7,354.5
Advertising and market development	192.0	225.0	227.0	290.0	934.0	193.3	193.0	249.0	350.9	986.1	216.9	228.5	254.4	360.3	1,060.1	237.1	245.4	270.0	397.2	1,149.7
Merchant lawsuit / legal settlements / etc	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EBITDA	**2,330.0**	**2,519.0**	**2,792.0**	**2,545.0**	**10,186.0**	**2,420.1**	**2,186.8**	**2,630.2**	**2,686.7**	**9,923.9**	**2,773.6**	**2,715.8**	**3,286.1**	**3,237.1**	**12,012.6**	**3,234.7**	**3,092.5**	**3,762.9**	**3,757.5**	**13,847.6**
Depreciation & Amortization	117.0	122.0	137.0	146.0	522.0	147.0	148.0	149.0	150.0	594.0	151.0	152.0	153.0	154.0	610.0	155.0	156.0	157.0	158.0	626.0
EBIT	2,213.0	2,397.0	2,655.0	2,399.0	9,664.0	2,273.1	2,038.8	2,481.2	2,536.7	9,329.9	2,622.6	2,563.8	3,133.1	3,083.1	11,402.6	3,079.7	2,936.5	3,605.9	3,599.5	13,221.6
Investment income, net	32.0	24.0	26.0	20.0	102.0	22.0	25.0	26.0	27.0	100.0	23.0	22.0	21.0	22.0	88.0	21.0	20.0	21.0	22.0	84.0
Interest expense	(46.0)	(51.0)	(63.0)	(64.0)	(224.0)	(61.0)	(57.0)	(56.0)	(55.0)	(229.0)	(53.5)	(52.0)	(50.5)	(49.0)	(205.0)	(47.5)	(46.0)	(44.5)	(43.0)	(181.0)
Minority interest in losses (earnings) of subs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other income (expense), net	4	6.0	16.0	1.0	27.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Income before income taxes	**2,203.0**	**2,376.0**	**2,634.0**	**2,356.0**	**9,569.0**	**2,234.1**	**2,006.8**	**2,451.2**	**2,508.7**	**9,200.9**	**2,592.1**	**2,533.8**	**3,103.6**	**3,056.1**	**11,285.6**	**3,053.2**	**2,910.5**	**3,582.4**	**3,578.5**	**13,124.6**
Income tax expense	370.1	439.0	442.5	375.0	1,626.6	391.0	351.2	429.0	439.0	1,610.2	466.6	456.1	558.7	550.1	2,031.4	549.6	523.9	644.8	644.1	2,362.4
Net income	**$ 1,832.9**	**$ 1,937.0**	**$ 2,191.5**	**$ 1,981.0**	**$ 7,942.4**	**$ 1,843.1**	**$ 1,655.6**	**$ 2,022.3**	**$ 2,069.7**	**$ 7,590.8**	**$ 2,125.5**	**$ 2,077.7**	**$ 2,545.0**	**$ 2,506.0**	**$ 9,254.2**	**$ 2,503.6**	**$ 2,386.6**	**$ 2,937.6**	**$ 2,934.3**	**$ 10,762.2**
Diluted EPS from continuing operations	**$ 1.78**	**$ 1.89**	**$ 2.15**	**$ 1.96**	**$ 7.77**	**$ 1.84**	**$ 1.67**	**$ 2.06**	**$ 2.12**	**$ 7.69**	**$ 2.19**	**$ 2.15**	**$ 2.64**	**$ 2.61**	**$ 9.58**	**$ 2.62**	**$ 2.50**	**$ 3.09**	**$ 3.10**	**$ 11.31**
Diluted shares	1,032	1,025	1,019	1,013	1,022	1,002	992	982	976	988	972	968	964	960	966	956	953	950	947	952
	1Q	2Q	3Q	4Q	2019E	1Q	2Q	3Q	4Q	2020E	1Q	2Q	3Q	4Q	2021E	1Q	2Q	3Q	4Q	2022E
% of Revenues																				
G&A	35.2%	33.3%	32.4%	35.8%	34.1%	35.1%	33.4%	34.1%	36.8%	35.0%	35.2%	33.0%	31.8%	35.1%	33.8%	34.1%	32.0%	31.3%	34.1%	32.9%
A&M	4.9%	5.5%	5.1%	6.6%	5.5%	4.8%	5.4%	5.7%	7.3%	5.9%	4.7%	5.2%	4.9%	6.5%	5.4%	4.5%	5.0%	4.6%	6.3%	5.1%
EBITDA	59.9%	61.2%	62.5%	57.7%	60.3%	60.1%	61.2%	60.2%	55.9%	59.2%	60.1%	61.8%	63.3%	58.4%	60.8%	61.4%	63.0%	64.1%	59.6%	62.0%
Depreciation	3.0%	3.0%	3.1%	3.3%	3.1%	3.7%	4.1%	3.4%	3.1%	3.5%	3.3%	3.5%	2.9%	2.8%	3.1%	2.9%	3.2%	2.7%	2.5%	2.8%
Amortization	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Operating Margin	**56.9%**	**58.3%**	**59.4%**	**54.4%**	**57.2%**	**56.4%**	**57.1%**	**56.8%**	**52.8%**	**55.6%**	**56.8%**	**58.3%**	**60.4%**	**55.6%**	**57.8%**	**58.5%**	**59.8%**	**61.4%**	**57.1%**	**59.2%**
Income taxes (as % of pretax)	**16.8%**	**18.5%**	**16.8%**	**15.9%**	**17.0%**	**17.5%**	**17.5%**	**17.5%**	**17.5%**	**17.5%**	**18.0%**	**18.0%**	**18.0%**	**18.0%**	**18.0%**	**18.0%**	**18.0%**	**18.0%**	**18.0%**	**18.0%**
Net income	47.1%	47.1%	49.1%	44.9%	47.0%	45.8%	46.3%	46.3%	43.1%	45.2%	46.1%	47.3%	49.0%	45.2%	46.9%	47.5%	48.6%	50.0%	46.5%	48.1%
						(0.5%)	(1.2%)	(2.6%)	(1.6%)		0.4%	1.3%	3.6%	2.8%		1.6%	1.5%	1.1%	1.5%	
	1Q	2Q	3Q	4Q	2019E	1Q	2Q	3Q	4Q	2020E	1Q	2Q	3Q	4Q	2021E	1Q	2Q	3Q	4Q	2022E
% Growth																				
Domestic assessments	10.1%	9.3%	10.1%	12.3%	10.5%	5.8%	(14.9%)	(5.0%)	4.2%	(2.5%)	10.2%	25.0%	17.7%	14.6%	16.5%	13.7%	10.2%	11.3%	12.0%	11.8%
Cross-border volume fees	9.2%	14.7%	13.4%	15.1%	13.2%	1.5%	(27.3%)	(12.4%)	(1.9%)	(10.2%)	5.5%	16.6%	13.1%	12.4%	11.7%	12.6%	11.4%	12.7%	12.8%	12.4%
Transaction processing fees	12.6%	12.2%	16.7%	16.5%	14.6%	4.9%	(15.0%)	(6.6%)	5.9%	(2.7%)	18.7%	26.7%	22.4%	16.5%	20.7%	14.4%	10.2%	12.6%	13.5%	12.8%
Other revenues	12.6%	22.5%	32.7%	23.8%	23.2%	19.4%	13.9%	23.3%	25.5%	21.0%	26.6%	26.4%	26.2%	25.2%	26.0%	19.7%	19.4%	19.2%	19.1%	19.3%
Gross revenues	11.1%	13.4%	16.4%	16.3%	14.4%	6.6%	(13.2%)	(2.6%)	7.4%	(0.4%)	14.8%	24.3%	20.0%	17.1%	18.8%	14.8%	12.4%	13.8%	14.3%	13.8%
Rebates and incentives	17.0%	16.1%	20.5%	17.1%	17.7%	13.3%	(13.2%)	(3.4%)	4.4%	0.0%	15.1%	27.0%	22.7%	20.6%	21.1%	16.2%	13.7%	15.2%	15.3%	15.1%
Revenues	**8.6%**	**12.2%**	**14.6%**	**15.9%**	**12.9%**	**3.5%**	**(13.1%)**	**(2.2%)**	**8.9%**	**(0.6%)**	**14.6%**	**23.0%**	**18.8%**	**15.3%**	**17.7%**	**14.2%**	**11.7%**	**13.1%**	**13.7%**	**13.2%**
Expenses																				
G&A	5.6%	18.6%	17.2%	12.7%	13.3%	3.4%	(12.8%)	2.9%	12.0%	1.8%	14.9%	21.5%	10.8%	10.0%	13.7%	10.6%	8.3%	11.3%	10.5%	10.2%
A&M	(14.3%)	(4.3%)	(3.4%)	(4.0%)	(6.2%)	0.7%	(14.2%)	9.7%	21.0%	5.6%	12.2%	18.4%	2.1%	2.7%	7.5%	9.3%	7.4%	6.2%	10.2%	8.5%
Operating expenses	2.3%	14.1%	14.5%	11.0%	10.4%	4.6%	(10.6%)	4.2%	12.6%	3.1%	13.6%	19.3%	9.0%	8.4%	12.0%	9.8%	7.7%	10.0%	10.0%	9.5%
Net Income																				
EBITDA	13.0%	10.7%	15.0%	21.0%	14.8%	3.9%	(13.2%)	(5.8%)	5.6%	(2.6%)	14.6%	24.2%	24.9%	20.5%	21.0%	16.6%	13.9%	14.5%	16.1%	15.3%
EBIT	14.0%	10.9%	14.6%	20.5%	14.9%	2.7%	(14.9%)	(6.5%)	5.7%	(3.5%)	15.4%	25.7%	26.3%	21.5%	22.2%	17.4%	14.5%	15.1%	16.7%	16.0%
Net income	15.9%	11.1%	18.1%	23.0%	16.9%	0.6%	(14.5%)	(7.7%)	4.5%	(4.4%)	15.3%	25.5%	25.8%	21.1%	21.9%	17.8%	14.9%	15.4%	17.1%	16.3%
EPS	18.7%	13.7%	20.9%	26.0%	19.8%	3.6%	(11.7%)	(4.2%)	8.4%	(1.1%)	18.9%	28.6%	28.2%	23.1%	24.6%	19.8%	16.7%	17.1%	18.7%	18.1%

Source : Company data, Deutsche Bank estimates

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Appendix 1

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Disclosure checklist

Company	Ticker	Recent price*	Disclosure
MasterCard	MA.N	270.72 (USD) 14 Apr 2020	1, 7, 8, 14, 15
Visa Inc.	V.N	174.62 (USD) 14 Apr 2020	1, 7, 8, 14, 15

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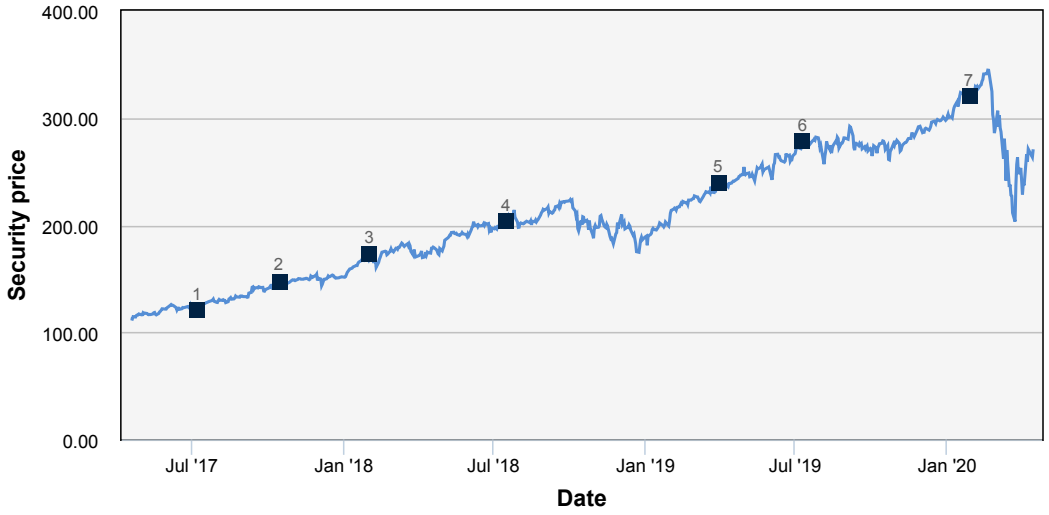
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Historical recommendations and target price: MasterCard (MA.N)

(as of 04/14/2020)



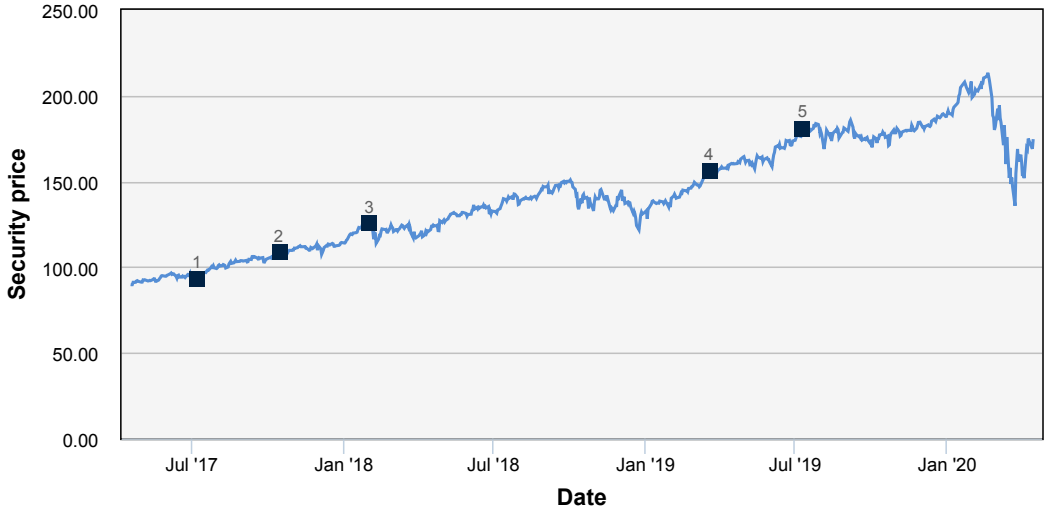
Current Recommendations
Buy
Hold
Sell
Not Rated
Suspended Rating

** Analyst is no longer at Deutsche Bank

1.	07/09/2017	Buy, Target Price Change USD 150.00 Bryan Keane
2.	10/16/2017	Buy, Target Price Change USD 185.00 Bryan Keane
3.	02/02/2018	Buy, Target Price Change USD 208.00 Bryan Keane
4.	07/17/2018	Buy, Target Price Change USD 221.00 Bryan Keane
5.	04/01/2019	Buy, Target Price Change USD 267.00 Bryan Keane
6.	07/11/2019	Buy, Target Price Change USD 320.00 Bryan Keane
7.	01/29/2020	Buy, Target Price Change USD 380.00 Bryan Keane

Historical recommendations and target price: Visa Inc. (V.N)

(as of 04/14/2020)



Current Recommendations
Buy
Hold
Sell
Not Rated
Suspended Rating

** Analyst is no longer at Deutsche Bank

1.	07/09/2017	Buy, Target Price Change USD 122.00 Bryan Keane
2.	10/16/2017	Buy, Target Price Change USD 139.00 Bryan Keane
3.	02/02/2018	Buy, Target Price Change USD 160.00 Bryan Keane
4.	03/21/2019	Buy, Target Price Change USD 177.00 Bryan Keane
5.	07/11/2019	Buy, Target Price Change USD 225.00 Bryan Keane

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Equity Rating Key

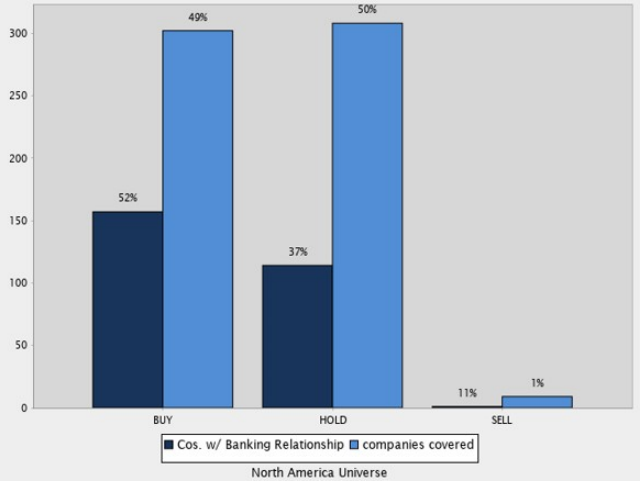
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Sell: Based on a current 12-month view of total share-holder return, we recommend that investors sell the stock.

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Equity rating dispersion and banking relationships



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