

Analysts

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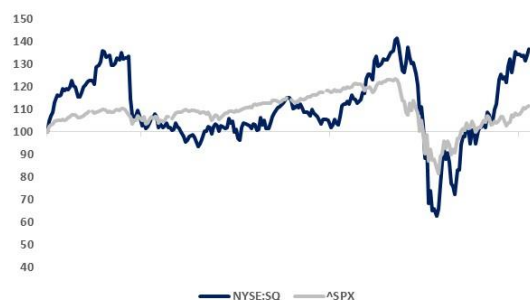
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Basic Information

Last Closed Price	US\$82.72
12M Target Price	US\$28.95
+/- Potential	(65.0%)
Bloomberg Ticker	SQ US
GICS Sector	Information Technology
GICS Sub-Industry	Software and Services

1Y Price v Relative Index



Company Description

Square is a card payment system provider with a full suite service ecosystem for mobile payment, Point of sale payment and financial services for businesses. It services small to medium vendors mainly in the United States and Canada.

Key Financials as of December 2019

Market Cap	US\$36.3b
Basic Shares O/S	438.8m
Free Float	81.0%
52-Wk High-Low	US\$85.70-US\$38.09
Fiscal Year End	31-Dec-2019

(US\$ m)	FY18A	FY19A	FY20E	FY21E
Revenue	3,298	4,713	5,069	6,063
Gr Rate (%)	49.0	42.9	7.6	19.6
Operating	(36.6)	23.5	(174)	(361)
Margin (%)	(1.1)	0.6	(3.4)	(6.0)
NI	(38)	305	(183)	(370)
Margin (%)	(1.2)	8.0	(3.6)	(6.1)
D/E (%)	80.3	54.7	50.4	48.3

Key Executives

Jack Dorsey **Chief Executive Officer**
 Mr. Dorsey is the co-founder of Square and the CEO of Twitter.

Amrita Ahuja **Chief Financial Officer**
 Ms. Ahuja has served as CFO since Jan 2019 and served as CFO of Blizzard Entertainment Inc.

We are initiating coverage of Square Inc. ("Square" or the "Company") with a SELL rating and a US\$28.95 12M price target.

1Q20 Earnings Highlights

- Net loss of US\$106m in 1Q20 from net loss of US\$38m in 1Q19.
- Adjusted EBITDA fell by 85.0% YoY from US\$62m in 1Q19 to US\$9m in 1Q20.
- Gross profit margin fell from 41.4% in 1Q19 to 39.0% in 1Q20. Operating loss margin worsened from (2.3)% in 1Q19 to (6.5)% in 1Q20. Net loss margin deteriorated from (4.0)% to (7.7)%.
- Seller GPV was down 46% YoY in the last week of March; card-present GPV decreased approximately 60.0% YoY, on average.
- Square refunded all March software subscription fees.

Investment Thesis

- COVID-19 highlights Square's over reliance on SMEs mainly operating through offline stores. Square's high exposure to the Retail and F&B industry further exacerbates the situation and will prove fatal to any form of top line growth expected by consensus
- With a market environment that is unable to translate sales & marketing to sales growth, user acquisition streams will dry up. As Square transitions from "growth" to "survival", valuations are expected to de-rate significantly
- Cash app's growth is largely driven by Bitcoin revenue with razor-thin margins, hence does not translate to the bottom line. Furthermore, intensifying competition in peer-to-peer (P2P) payment platforms is likely to limit user growth in the near future.
- Square's focuses on aiding businesses during this pandemic corrodes fundamental value of business

Catalysts

- Rise in default rates of loans facilitated by Square Capital, resulting in larger loan losses would severely impact the Company's bottom line and balance sheet. As a result, investor confidence would fall, causing a negative rerating of the Company's share price
- Significant slowdown in acquisition of sellers to Square's Seller ecosystem, particularly in acquiring sellers with larger GPVs
- Fall in number of sellers in Square's ecosystem as more small and medium sized vendors shut down amidst the drastic fall in demand caused by COVID-19
- Slowing growth and shrinking margins of Cash app due to rising big players such as Venmo and Zelle

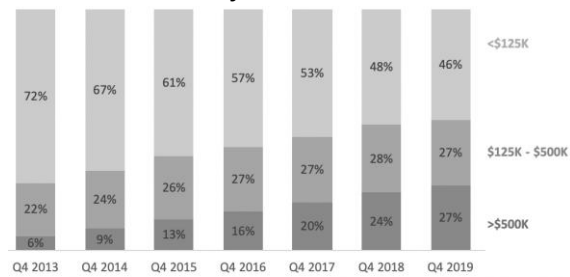
Valuations

Our 12M price target from the date of coverage is **US\$28.95**. The target price was established using the primary method of a Discounted Cash Flow analysis. Furthermore, company comparable analysis was utilised as a sanity check to our primary valuation method.

Investment Risks

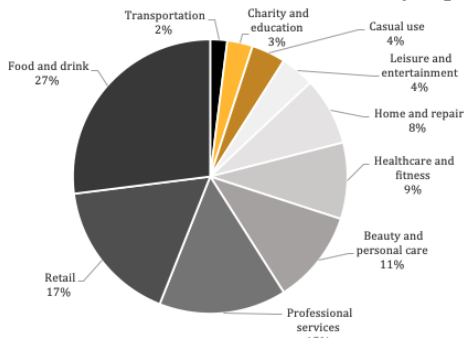
- **V-shaped recovery of the economy:** In the unlikely event that the economy can recover to pre-COVID levels of consumption by the end of the year, our short thesis will be undermined
- **Additional stimulus:** Stimulus such as the Payment Protection Program (PPP) from the US government directed to SMEs will keep them afloat with some time to weather the storm
- **Accelerated shift to tech:** Social distancing measures have accelerated reliance on online platforms. This may prove beneficial to Square should they be able to retain the Cash App users they have acquired during this period

Figure 1. Increasing number of relatively larger sized merchants by annualized GPV



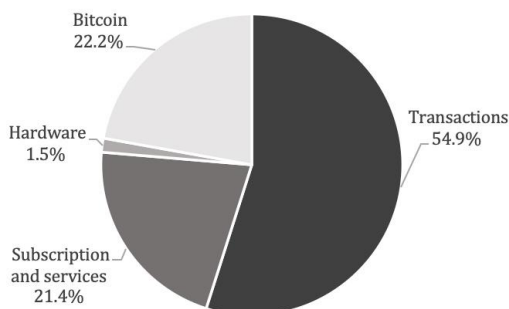
Source: Square SEC Filing

Figure 2. Food & drink, retail, and professional services are main industries served by Square



Source: Square SEC Filing

Figure 3. Revenue breakdown



Source: Square Website

Figure 4. Transaction-based revenue model

Revenue Model				
	Units	Historicals		
		2017A	2018A	2019A
TRANSACTION-BASED REVENUE				
Revenue	USD'000	1,920,174	2,471,451	3,081,074
Growth rate	%		29%	25%
Gross Payment Value (GPV)	USD'000	65,300,000	84,700,000	106,200,000
Growth rate	%		29.7%	25.4%
Transaction fee	%	2.94%	2.92%	2.90%

Source: NUS Investment Society Analysis

Figure 5. Bitcoin revenue model

Revenue Model				
	Units	Historicals		
		2017A	2018A	2019A
BITCOIN REVENUE				
Revenue	USD'000	-	166,517	516,465
Growth rate	%			210%
Number of Monthly Active Users (MAU)	# '000	7,000	15,000	24,000
Growth rate			114%	60%
Average Revenue Per User (ARPU)	USD			21.52

Source: NUS Investment Society Analysis

Company Overview

Square Inc ("Square") is a card payment service provider offering over 30 hardware and software products including Point-of-Sale (POS) systems, loan depository financial services, transaction services, and trading services. Its customers are mainly small to medium-sized merchants, with 45% of total Gross Payment Volume (GPV) from businesses below US\$125k GPV, 27% between US\$125k - 500k GPV, and 27% with over US\$500k GPV. At this juncture, it may be appropriate to note that such presentation of data deceptively underrepresents the company's high exposure to small to medium sized merchants.

Additionally, merchants span across 10 main industries (Figure 3), with Food and Beverages (F&B) at 26% of merchants, Retail at 17%, professional services at 15%, and beauty and personal care at 11%. It is worth noting that these industries have been severely impacted by the effects of COVID-19.

Two Ecosystems

Square can generally be understood to consist of two main ecosystems: Seller ecosystem and Cash App ecosystem. The Seller ecosystem emphasizes synergies between Square products, allowing merchants to establish a payment system and conduct business with less friction when using Square ecosystem products. The Cash App ecosystem provides a platform for merchants and individuals to manage their cash by storing, sending, receiving, or investing their money. Currently, there is little visibility with respect to the segmentation of financials such as revenue in the company's filings. However, the company has guided that they expect to start reporting two operating segments this year. As such, the currently reported figures lump both business segments together.

Revenue

Square has 4 reportable revenue segments (figure 3): transaction-based revenue (54.9%), subscription and services-based revenue (21.4%), hardware revenue (1.5%) and Bitcoin revenue (22.2%). In terms of geographical breakdown, Square generates almost all (94.89%) of its revenue in the United States.

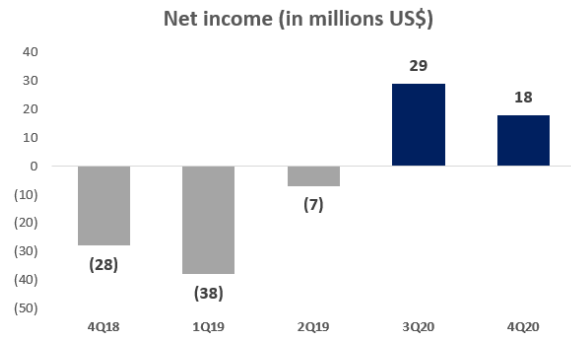
Transaction-based revenue

Transaction-based revenue makes up the majority of Square's revenue and is simply a function of GPV and a transaction fee (historical average of 2.92%). However, the fee is not entirely pocketed as processing the transaction incurs charges (historical average of 1.85%) which is reported under cost of revenue as transaction-based costs. Given that transaction fees are rather stable, the key determinant of transaction-based revenue is GPV. GPV is generated from the payments processed from the Seller ecosystem and the peer-to-peer payments sent by users of Cash App.

Subscription and services-based revenue

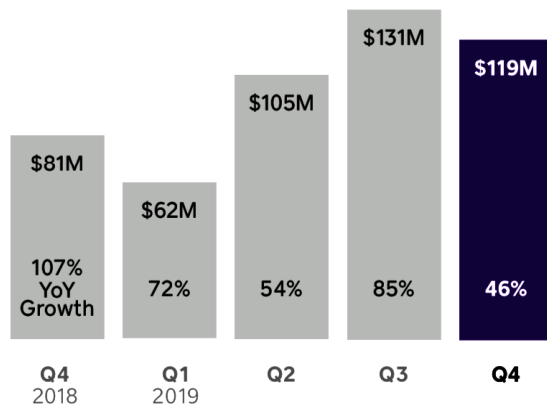
Within the Seller ecosystem, Square offers subscription plans for their proprietary software, loans through Square Capital and instant transfers for sellers. Square Capital allows Square to make loans to sellers as well as to certain customers of sellers. While the loans are generally originated by a partner bank, it ought to be noted that Square

Figure 6. Square turned profitable in 3Q19



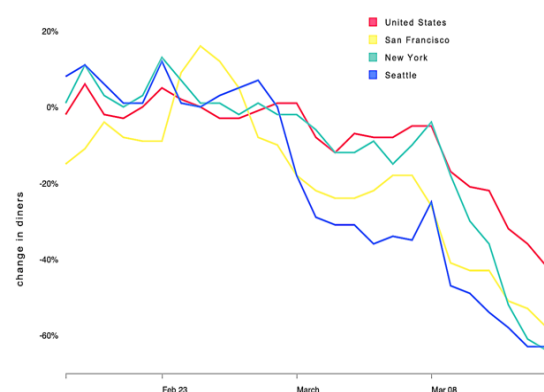
Source: Square 4Q19 Shareholder Letter

Figure 7. EBITDA growth tapers in 4Q19



Source: Square Annual Report

Figure 8. OpenTable reservations crash in March; at most 64% down from February



Source: OpenTable, Eater

Figure 9. US unemployment claims new high signals businesses struggling to navigate



Source: The Guardian, US Department of Labor

purchases the loan and thereafter keeps it on its balance sheet until a third-party investor buys it or the loan is repaid.

On the other hand, Cash App generates subscription and services-based revenue through charging transaction fees on Instant Deposits and Cash Card payments. Cash App functions as a quasi-bank, allowing users to receive deposits and thereafter make payments using these funds through Cash Card.

Hardware revenue

Square earns hardware revenue through selling point of sale (POS) systems to its Seller ecosystem. Its products include Square Stand, Square Register, Square Terminal and third-party peripherals.

Bitcoin revenue

Cash App users are able to purchase Bitcoin through the app. Square recognises revenue when customers purchase Bitcoin and recognises cost as the amount Square paid to purchase the Bitcoin. The profit is earned via the spread between the two prices. However, Square does not disclose the volume of Bitcoin transactions and therefore this revenue segment was modelled by pegging it to monthly active users (MAU) of Cash App. Average revenue per user (ARPU) was then adjusted downwards to take into account the fact that many new users are likely to use Square for deposits in light of the stimulus packages by the US government. As such, it is unlikely that the same proportion of users would be purchasing Bitcoin and generating revenue for Square under this segment.

FY19 Earnings Review

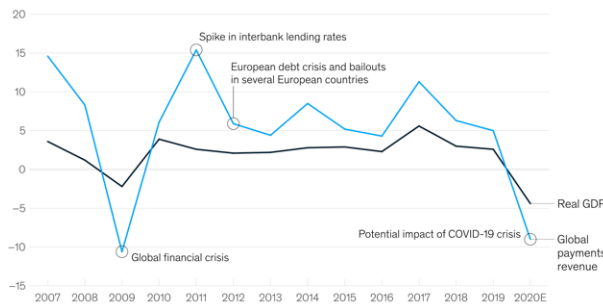
- Total revenue grew 43% YoY to US\$4.71b; Gross profit grew 46% YoY to US\$1.85b.
- EBIT grew to US\$26.56b from US\$(36.61)b in FY18; EBITDA grew to US\$102.16b from US\$23.35b in FY18
- Seller ecosystem generated US\$3.46b net revenue, or 73.46% of total net revenue, with growth of 27% YoY.
- Cash App generated US\$1.11b net revenue, or 23.56% of total net revenue, with growth of 157% YoY.
- Square turned profitable in 3Q19, with diluted EPS of US\$0.83 for 4Q19, compared with EPS of US\$(0.07) in 4Q18. Full year diluted EPS was US\$0.81.
- Operating income increased to US\$26.56b from US\$(36.61)b in FY18; Net income increased to US\$375.45b from US\$(38.45)b; Adjusting for the gain on sale of Caviar, adjusted net income in FY19 is US\$2.00b
- Gross margin was 40.09% in 2019, up from 39.53% in FY18. Operating margin was 1.18%, up from (0.65)% in FY18. Profit margin was 0.66% in FY19, up from (1.17)% in FY18.

Industry Outlook

Global payment industry not spared by COVID-19

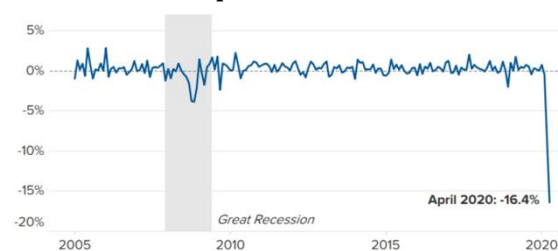
While payment systems have proved to be resilient and reliable, the volume of transactions processed is still ultimately a function of consumption levels. In fact, a 1.5% economic contraction has historically resulted in a disproportionate decline of 8% in global payment volumes. As at the time of writing, the figure for continuing claims for unemployment insurance stands at 21.5 million and is not expected to ameliorate soon. This stands in stark contrast to the

Figure 10. Global payment revenue expected to decrease near 10% Y/Y in 2020



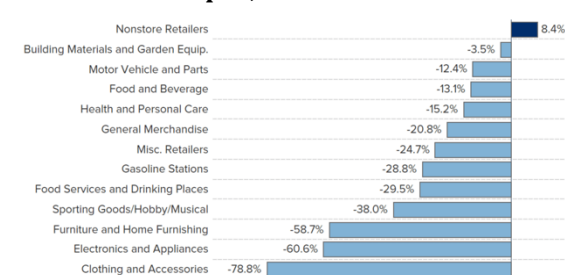
Source: McKinsey&Co.

Figure 11. US retail and food service sales down 16.4% in April from March



Source: FRED, CNBC

Figure 12. Retail percentage change in sales from March to April, non-retail rises 8.4%

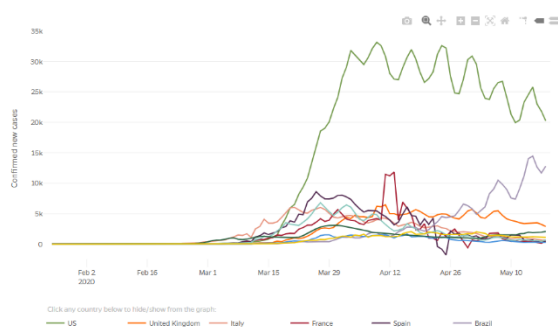


Source: US Census Bureau, CNBC

Figure 13. Confirmed COVID-19 cases by country implying US still has a few months runway before full recovery (21 May.)

Daily confirmed new cases (5-day moving average)

Outbreak evolution for the current 10 most affected countries



Source: John Hopkins University

current share price of Square given that it has already returned to pre-COVID levels. According to McKinsey's latest payment systems article, revenue growth in global payments is projected to turn negative with a decline of 8% compared to a growth of 6% as previously expected. Furthermore, between online and offline, offline payment providers are expected to hit disproportionately. Still, this estimate does not take into account the possibility of a recession worse than what has been seen during the Global Financial Crisis. While our team does not profess to have a definitive stand on the scale of the economic damage caused by COVID-19, we do not discount the possibility of a recession worse than the 2008 Global Financial Crisis given the all-time highs in jobless claims. As of May 2020, United States unemployment rate stands at 13.3% compared with 14.7% in April and a peak of 10% during the 2008 Global Financial Crisis. Unemployment rate in May was better than the expected 19%, suggesting a swift reversal of employment condition but the length of time for the economy to fully recover remains unknown.

SMEs struggling to survive through the pandemic

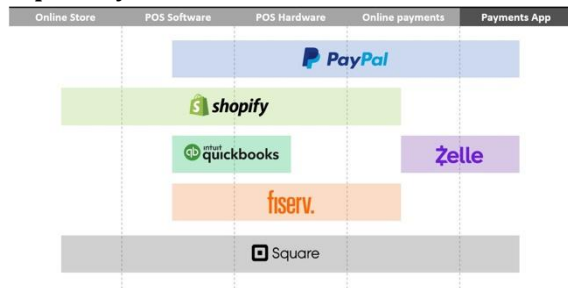
While McKinsey's published initial estimates for POS payment volumes to drop by 30-40% earlier in the year, the reality is likely to be much worse as Square reported 60% YoY decrease in GPV for in-person transactions. Furthermore, according to a Main Street America (MSA) online survey, 56.9% of small businesses saw revenue fall by more than 85%.

The impact of COVID-19 on the Online Retail industry, however, is not as dire as that which it had on its offline counterpart. With more customers staying at home amidst the current outbreak, 75% of US marketers predicted an increase in e-commerce usage according to errtv-consultancy. This will further increase as the US government has tightened regulations regarding self-isolation and the decreasing number of stores that are running offline. However, with strong incumbents such as Amazon and Alibaba, our team believes that we will see a consolidation of the Retail industry, with customers flocking towards the market leaders. With the lack of scale, cash and customer reach, it is unlikely that SMEs will be able to pivot fast enough to operate efficiently out of an online platform to capture this shift in demand. As such, retailers that are small and in brick-and-mortar forms will likely to be the most severely hurt.

Delivery takes off as dine-in is no longer an option

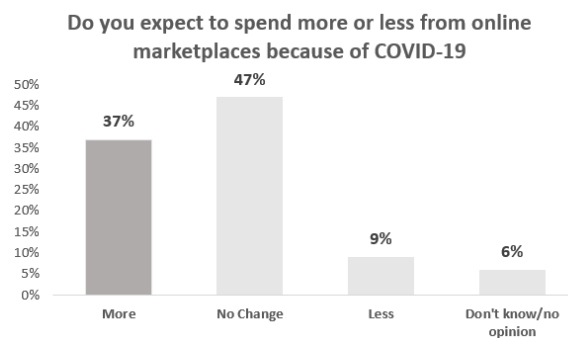
The restaurant industry is another victim of COVID-19. A study done by OpenTable revealed that the number of seated diners in the US was down 99.99% YoY on average from 20th March onwards. This is supported by a survey from Daily Mail stating that 40% of Americans will actively avoid going to public spaces unless 'absolutely necessary'. We believe that suppressed dine-in revenue will continue to sustain until COVID-19 subsides. However, despite easing lockdown measures when COVID-19 situation improves, the majority of customers may not turn to dine in options anytime soon as observed by China, the country first to experience the outbreak and the first to ease lockdown measures. Continued fear of being infected by COVID-19 coupled with the caution of a second wave of infections may suppress restaurants' dine-in revenue for an extended period of time while customers turn to food delivery. This will prove detrimental for Square's Seller ecosystem as 27% of sellers are in the food and beverage industry.

Figure 14. Fierce competition in all markets, especially POS software and hardware



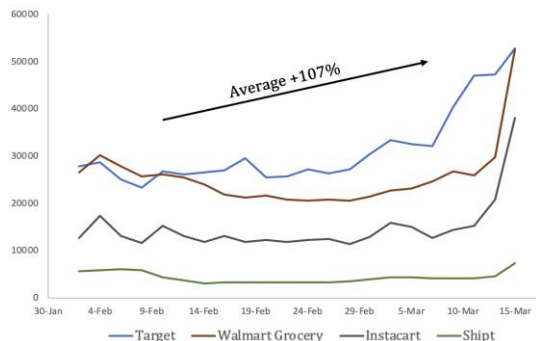
Source: Company Websites

Figure 15. Online Shopping in the US expected to spike in the next quarter



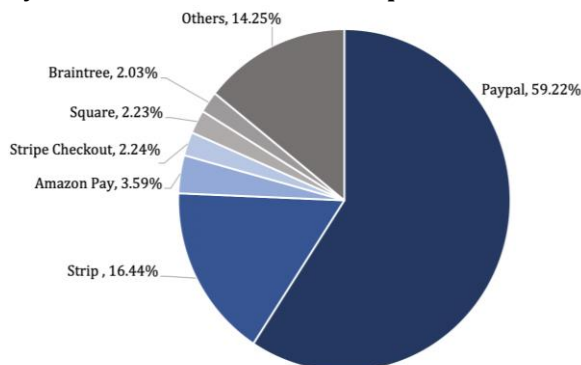
Source: Statista

Figure 16. Purchases moved online as online grocery app downloads spike



Source: Apptopia, Eater

Figure 17. Payment processing market share by domains reveal intense competition



Source: Datanyze

Market continues to be highly competitive

The payment processing market has been highly competitive and continues to be so with innovations from various parties. According to Datanyze, Paypal currently has 59.2% market share, Stripe with 16.4%, Amazon Pay at 3.6% and Square with 2.2%. The overall market is seeing payment processing providers merge both online and POS payment systems, shifting away from the dichotomy of merely online or offline pureplay. Overall, Square will be experiencing increased competition due to these trends.

In the Hardware POS Systems space, direct major competitors include Paypal Here, Fiserv's Clover payment system and Intuit's QuickBooks. These competitors are providing new value-added services either into the offline market or also providing online services in addition to POS terminals in order to lock customers in. Paypal is the largest payment processing provider, especially in the online space. Paypal now extends beyond online businesses to offer POS hardware and POS App or other POS software from its partners for brick-and-mortar businesses. Fiserv's Clover Payment is also targeted at small businesses' deployment of POS portals, but can also serve online-only businesses as a Clover payment platform. Intuit's Quickbook is also dedicated for small businesses, which started as an accounting software but now also provides POS terminals for merchants to fully integrate into its ecosystem. Above mentioned payment system providers are growing both merchant numbers and revenue at upper single digit to double digits growth, creating serious competition against Square.

In addition, Paypal's Venmo and Zelle are directly competing with Square's Cash App. Venmo is defined as a social payments service by Paypal whereby customers can share and like payments through a social feed. Users of Venmo can transfer money freely between their bank account and Venmo, as well as between Venmo accounts. Zelle is a P2P payments platform jointly created by well-established US banks, such as Bank of America and JP Morgan, to send money directly to any US bank accounts within minutes. In addition, Venmo, Zelle and Cash App can both be used by businesses as a mean of receiving payment from customers. Similarities of function between these P2P payment services creates serious competition in the peer to peer payment system market.

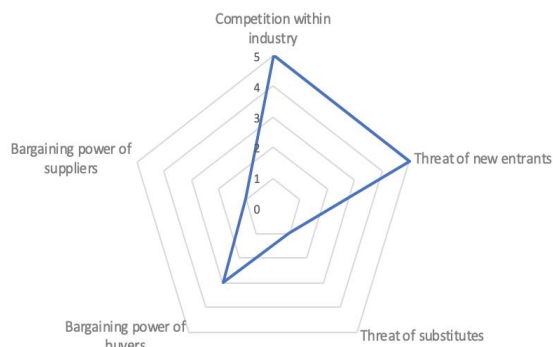
Porter's Five Forces

Putting the above points into a Porter's Five Forces diagram, we conclude the following: competition within the industry is high due to the lack of distinct differentiating factors among various product offerings; threat of new entrants is high due to low barriers to entry of the industry; threat of substitutes is low due to payment trend in card and mobile; bargaining power of buyer is medium since buyers are mainly small to medium businesses; bargaining power of suppliers is low due to suppliers' competitions.

Competition within industry - High

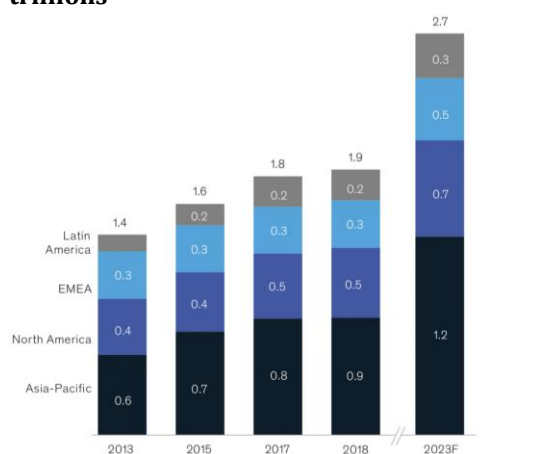
Competition within the payments service industry remains high as Square's products and services are extremely similar to other major players. Competition can mainly be split into online and brick and mortar stores. Major online payment competitors include Paypal, Skrill, Stripe, Google Wallet, and Shopify. Major physical payment

Figure 18. Porter's 5 Forces



Source: Analyst Estimates

Figure 19. North America payment system growth lags behind global by revenue in trillions



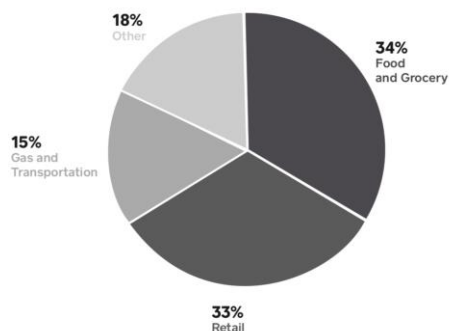
Source: McKinsey&Company

Figure 20. Breakdown of Seller ecosystem by average GPV

Seller Breakdown			
Average GPV	Contribution to total GPV	Estimate of number of sellers	% of total number of sellers
500,000	28,674,000,000	57,348	11%
312,500	28,674,000,000	91,757	17%
125,000	48,852,000,000	390,816	72%

Source: NUS Investment Society Analysis

Figure 21. Cash Card areas of spending by %



Source: Shareholder Letter

system competitors include Paypal, Intuit, Lightspeed, Clover, and Shopify. The product offerings available are very similar and this has resulted in high competition. However, with COVID-19, online payment providers will benefit from increasing transaction volume, which enables them to come out of this pandemic stronger while offline payment providers, such as Square, will instead suffer disproportionately.

Threat of new entrants - High

Barriers to entry are considered low as technology requirements and legal requirements are relatively low. New entrants can easily threaten existing players with lower transaction fees and other creative product offerings. Examples include Shopify offering online payment processing, or Paypal's venture into the brick-and-mortar payment sector new to its business model. Therefore, the threat of new entrants is considered high.

Threat of substitutes - Low

The trend of increasing online payment as well as card and mobile payments secure the importance of such POS systems. The likelihood of the public switching back to cash payments or other more pioneer payment methods is low, therefore the threat of substitutes is low.

Bargaining power of buyers - Medium

Buyers are considered as merchants using Square's system. The merchants using Square's system are generally small to medium businesses, thus have less power and influence over product and service offerings by Square.

Bargaining power of suppliers - Low

Suppliers of Square are mainly hardware manufacturers and banks cooperating with Square to process payments. Within the manufacturing and banking industry, competition is high, therefore Square has a large number of choices when it comes to suppliers, resulting in low bargaining power of suppliers.

Investment Thesis

1. Square's FY2020 revenue will likely be disproportionately affected by COVID-19 due to their high exposure to SMEs

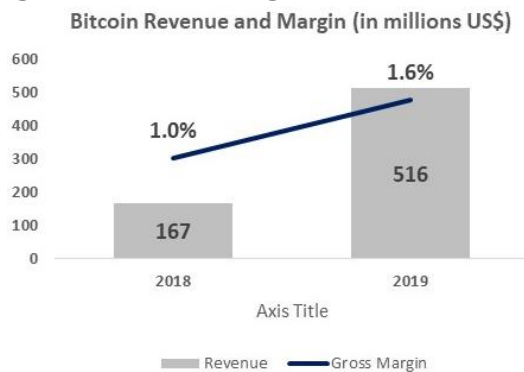
As of FY2019, Square's sellers with annualized GPV of <US\$125k contributed to 45% GPV of the Seller ecosystem, US\$125k-500k contributed 27%, and >US\$500k contributed 27% of total customer base. A simple back of the envelope calculation would allow us to observe Square's dependence on small to medium sized merchants as illustrated in Figure 20. The calculation is made by assuming that each seller contributes an average GPV as stated in the left column, and the total contribution to GPV is then divided by this number to estimate the number of sellers. From the table we can see that an estimated 72% of sellers have an average GPV of US\$125,000 while only 11% of sellers have an average GPV of US\$500,000. This is alarming as COVID-19 has served as an impetus for the consolidation of various industries which would definitely harm small to medium sized merchants. As a result, Square's Seller ecosystem will be severely impacted. Square's small to medium sized sellers typically operate brick and mortar stores which utilise Square's POS system. These stores generally rely on local consumers as the source of their revenue. Furthermore, sectors such as Food and Beverage (F&B) and Retail have been severely affected by

Figure 22. Long-term debt maturity

Type	Due	Principle (US\$m)
Convertible Senior Notes	2022	862.5
Convertible Senior Notes	2023	440.0

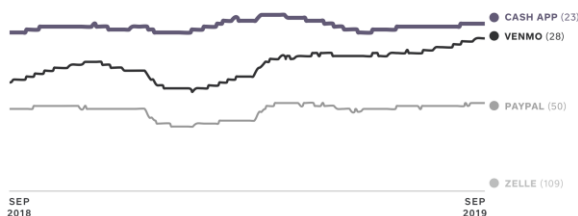
Source: SEC Filing

Figure 23. Bitcoin margin trend



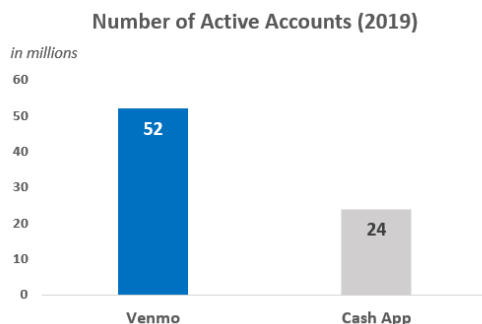
Source: Square Annual Report

Figure 24. Cash App app store ranking narrows



Source: Square Investor Presentation

Figure 25. Venmo number of users exceeded Cash app by more than 2x



Source: Square Annual Report, PayPal Annual Report

Figure 26. Bitcoin platforms ranking by transaction volume

1	Binance
2	Bitmex
3	Bybit
4	bitFlyer
5	FTX

Source: Nomics

the COVID-19 pandemic. Such businesses are also less equipped to navigate this unprecedented situation and this presents a large risk of many of these businesses going under.

In response to the outbreak of the virus, outdoor activities across the US have drastically decreased, with residences being ordered to stay at home. Given the heavy reliance of Square's sellers on physical transactions, we find that Square is currently grossly overvalued given that the stock price has returned to pre-COVID levels. It is simply unrealistic that the company would be able to meet consensus expectations of 163% revenue growth this fiscal year. Firstly, in-store POS transaction volume of Square's customers will drop drastically, directly impacting Square's top line. Furthermore, hardware sales would likely fall as well as brick and mortar stores are likely to be shutting their doors during this period. We also expect slower recovery post COVID-19 as high unemployment rates knock down consumer purchasing power while the fear of COVID-19 continues to linger.

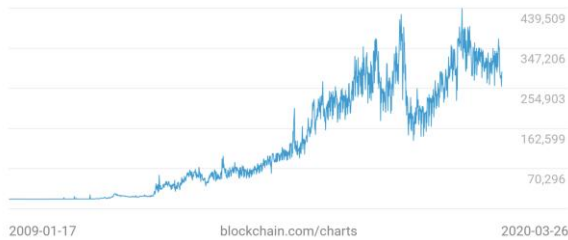
Lastly, we believe that with COVID-19 forcing people to turn to online shopping and food delivery, consumer behaviour would shift substantially to favour online purchases, reducing demand for Square's POS system. According to OpenTable, restaurant dine in for OpenTable network restaurants in the US has decreased 99.99% YoY in mid-March. This is the effect of government orders and fear of contracting COVID-19, which prompted customers to turn to food delivery or online shopping. This is devastating as Square's transaction volume will not only be suppressed but competitors' online payment transaction volume will be boosted by such a change in consumer behaviour. Limited dine-in and high levels of food delivery are expected to remain well beyond the easing of lockdown measures, as observed in China, the first country to enter and also ease lockdown. This will cause a huge dent on transaction revenue which takes up 54.9% of total Square's revenue.

As such, it is clear that Square's Seller ecosystem has been severely impacted by the economic effects of COVID-19. Hardware revenue will likely fall as merchants move towards online payments and as the industry shifts towards e-commerce. As the lockdown orders persists in the US, in-person payments will drop sharply and it appears that Square's acquisition of new sellers would also slow. The disproportionate impact on Square's customers translates into a direct impact on Square's revenue in comparison with other payment service providers who service larger businesses or have online presence since SMEs consist of essentially most of Square's customer base. Therefore, we expect Square's FY2020 revenue to decrease 3.3% more than what the market has currently priced in.

2. Customer base insufficient to support future revenue growth: FY2020 sales and marketing weaken, global growth restricted

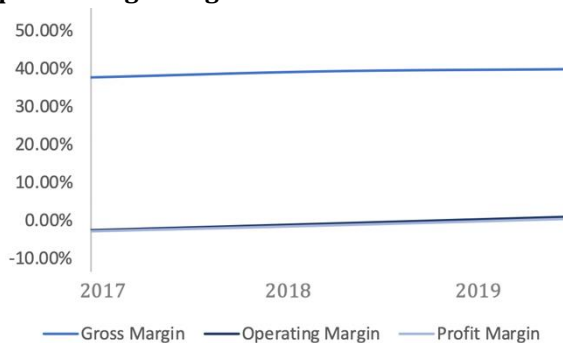
Due to COVID-19, sales and marketing obstacles for Square would be significant: Square cannot approach vendors and perform a complete sale to setup process, and vendors are unlikely to consider system transitions during a crisis. By purchasing Square's POS systems, vendors can request for a Square implementation expert to help with software and hardware setup as well as staff training. However, since wide areas in the US are under lockdown and people are advised to minimize outdoor activities, in-person services would hit major

Figure 27. Bitcoin daily transaction volume at 276,546 on 26 March, growth decelerates



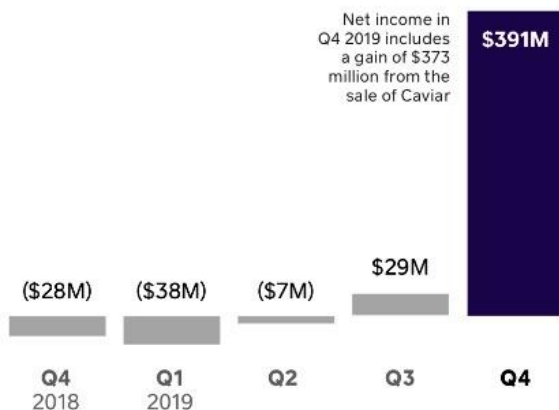
Source: Blockchain.com

Figure 28. Gross margin, operating margin, profit margin stagnant 2017-2019



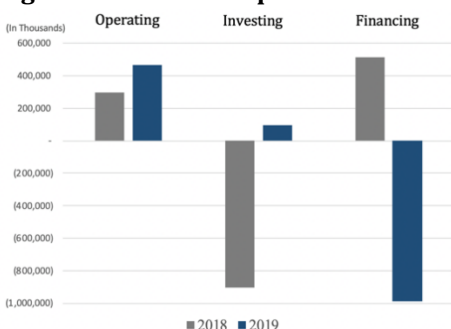
Source: Bloomberg

Figure 29. Sale of Caviar boosted net income by US\$373M in 2019



Source: Company presentation

Figure 30. Previous optimism on cash flows



Source: SEC Filings

obstacles, removing Square's chance to perform a full sale to setup service. In addition, it is unlikely that small to medium businesses, which are Square's main customers, will consider changing their systems in such a crisis that threatens businesses' continuity. As evident from the Paycheck Protection Program ("PPP") initiated by the US government, a great deal of SMEs do not even have the capacity to pay its own employees and are in survival mode. Therefore, it is very unlikely for SMEs to opt for capital expenditure when businesses face such an existential threat. As such, the lack of customer growth for Square in 2020 will negatively affect its earnings growth, if any, in the upcoming quarters.

Originally focusing on brick-and-mortar payment processing, Square is now trying to transition into the online payment market to expand its customer base. This may be a tactically beneficial strategy for Square as cross-selling is made available and customer stickiness may increase. However, established online payment system providers such as Paypal pose a great challenge for Square to break into the market. Meanwhile, popular SME e-commerce platforms such as Shopify provide its own payment systems, presenting certain barriers to entry for Square to penetrate the fast-growing SME e-commerce payment business. As such, Square's expansion online will be severely hindered even amongst its SME customer base not to mention the recent wave of transition to online retail that would likely to have strengthened positions of the more established online payment platforms. Therefore, it is plausible that Square will be devastated both due to the inability to acquire customer on the online payment market from strong competitors and existing customers' inability to expand because of economic conditions. Overall, Square will have a tough time growing its market share due to the intense competition within the global payments industry.

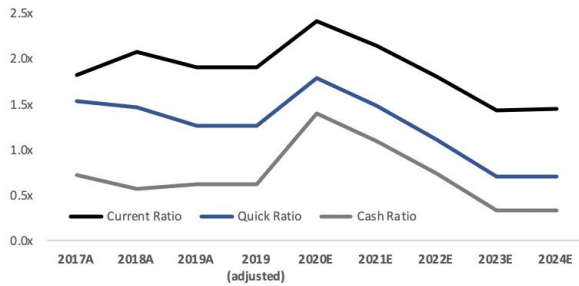
Since Square will be facing enormous difficulty in FY2020 to expand its domestic customer base and that international growth is not feasible in the foreseeable future, Square's revenue growth in the upcoming years will be negatively affected. Therefore, we consider the growth perspective expected by the market post COVID-19 of 23.8% CAGR as unrealistic.

3. Cash app's growth and strength is overplayed through Bitcoin.

With fundamentals largely the same, Square's stock price rallied after 1Q20 results on the strong user growth of Square's Cash App. However, according to Square's management in their 1Q20 earnings report, most of these users are people who merely wished to bank in their stimulus package cheques. As such, it is unlikely that these users will remain active in the long run and such growth would thus be unsustainable. Furthermore, we believe that Cash App's growth potential as well as its ability to be a key revenue driver has been overplayed. Cash App possesses little competitive advantage over other similar apps such as Venmo.

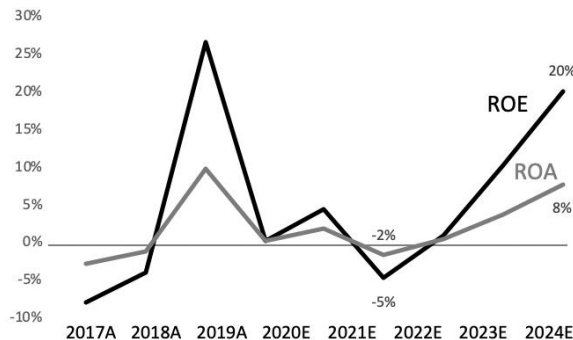
Firstly, Bitcoin contributed to US\$0.5b in revenue to Square in 2019, generating US\$8m of profits. However, most cryptocurrency exchanges have always operated under razor-thin margins. The profit margin for the Bitcoin segment is currently at 1.6% and will continue to stabilize at low single-digit profit margin given how leading exchanges like Coinbase are operating under 4.0% profit margin. Furthermore, the global transaction volume for Bitcoin has gone down

Figure 31. Slightly deteriorated liquidity position, no harm overall



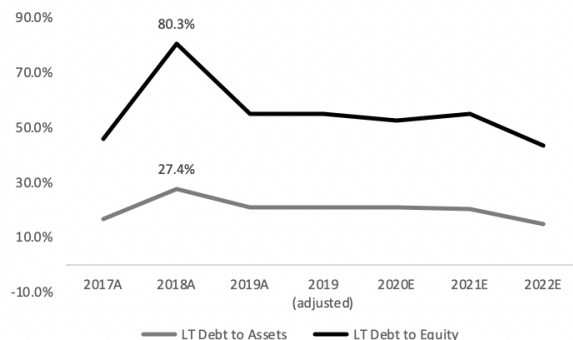
Source: NUS Investment Society Estimates

Figure 32. Battered return on assets and equity in upcoming years



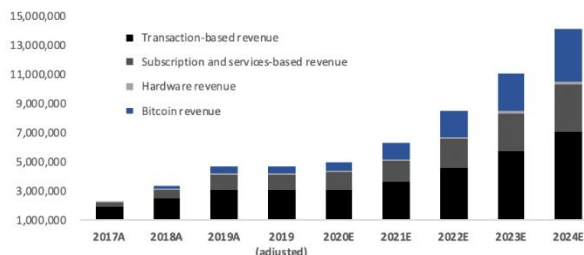
Source: NUS Investment Society Estimates

Figure 33. Solvency issues not of question despite poor economic outlook



Source: NUS Investment Society Estimates

Figure 34. Revenue by business segments, transaction-based revenue still majority



Source: NUS Investment Society Estimates

to 2016 levels, and has not shown signs of improvement since the drop in 2019. As such, there is a supply and demand mismatch in the market currently as more platforms are offering Bitcoin trading capabilities in the face of slowing demand for the service. This would prove to be a significant headwind for Cash app. The hype surrounding Cash App is largely overplayed since its main revenue driver is Bitcoin trading and that is likely an unsustainable source of revenue for the company.

Secondly, Cash app faces fierce competition. Paypal is currently the market leader with 52 million active accounts. Furthermore, traditional banks have recognised the importance of digital payments and created the platform Zelle, which is a joint effort between banks such as Bank of America, JPMorgan Chase, and Wells Fargo. Zelle was able to leverage on the existing user base of traditional banks and it is expected to reach more than 56 million users this year. Another company that could potentially threaten Cash app is SoFi, which offers P2P payments, savings account, Bitcoin and fractional shares of stock. In the P2P market a large user base is crucial. As such, Square would likely have to incur large R&D expenses as well as marketing expenses which it has announced it would do. These growing expenses is worrying given that revenue growth is simultaneously slowing.

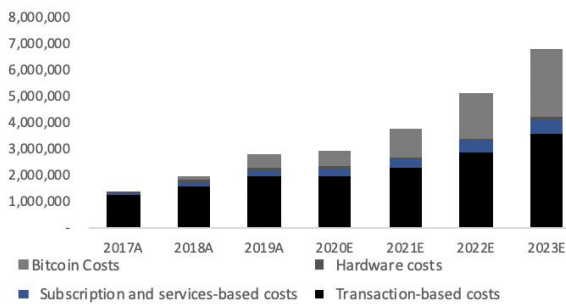
4. As Square focuses on aiding SMEs during this pandemic, the fundamental value of the business is corroding away

In response to the COVID-19 pandemic, Square decided to refund software subscription fees to sellers for months of March and April, which consists of up to 21% of Square's total revenue. This could temporarily prevent Square customers from unsubscribing from Square's services in the couple of months following the outbreak, but the deteriorating economy and continuous social distancing measures may push customers to the brink of unsubscribing to Square's services in the foreseeable future. Charge backs on the seller side related to non-delivery of goods has increased almost 2x 4Q19 levels and loss rate from Square Capital has increased about 2.5x in the short time span of 2 months. Measures taken to alleviate the suffering of SMEs through refund of subscription services and non-delivery charge back could retain Square's customers in the two to three months following the outbreak. However, this could be a mask of what is to come: loss of customers in addition to current loss of revenue as unhealthy economy and social distancing pushes SMEs to drop Square's services.

Square Capital has been an approved lender for PPP under the Coronavirus Aid, Relief and Economic Security Act ("CARES Act"). However, transaction and loan losses increased sharply regardless, with a 291% increase compared to 1Q19. Transaction and loan losses increased to 8% of total revenue in 1Q20 compared with 3% in 1Q19. With the WHO warning COVID-19 pandemic may take up to 5 years to come under control, we expect this to increase exponentially in the near future.

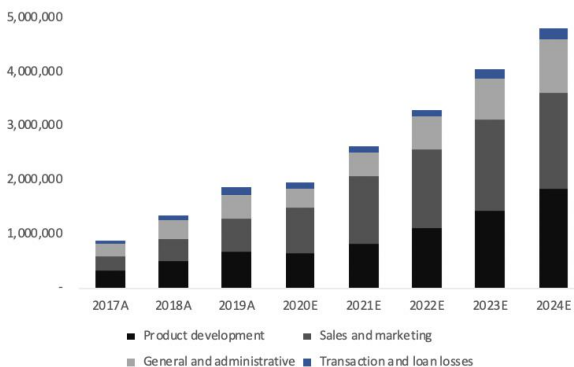
Square Capital has current outstanding extended loans of US\$548M as of 1Q20, or 12.48% of current assets. An increase of US\$15.7M loan losses for the three months ended March 31st was attributed to incremental losses due to the effects of COVID-19, keeping in mind that COVID-19 has only seriously impacted economic activity in the US from mid-March onwards. Initially, Square Capital users could repay through a percentage of daily credit card sales in addition to meeting minimum loan repayment. The minimum loan repayment is 1/18 of

Figure 35. Cost of revenue by segment, Bitcoin costs increase significantly



Source: NUS Investment Society Estimates

Figure 36. Operating expenses by function, steady increase excluding 2020E



Source: NUS Investment Society Estimates

Figure 37. WACC Build-up

WACC Calculation	
Total debt (thousand)	938,832
Market capitalisation (billion)	34.71
Equity as proportion of total capital structure	97%
Debt as proportion of total capital structure	3%
WACC	10%
Cost of Equity	
Risk free rate	0.71%
Equity risk premium	6.01%
Beta	1.58
Cost of Equity	10.19%
Cost of Debt	
Pre-tax cost of debt	2.29%
Tax rate	21.00%
After-tax cost of debt	1.81%

Sources: Bloomberg, Damodaran, NUS Investment Society

Figure 38. DCF Valuation, Exit Multiple and Gordon Growth Method

TERMINAL VALUE CALCULATION	
Exit Multiple	
Exit EV/EBITDA multiple	24.27x
Implied perpetual growth rate	
Terminal year EBITDA	1,990,438
Terminal Value (EV)	48,307,932
Present value of terminal value	18,681,850.13
Gordon Growth Method	
Perpetual growth rate	1.5%
Implied exit EV/EBITDA multiple	7.99x
Country GDP growth rate estimate	2%
Terminal year FCFF	1,326,006
Terminal value	15,896,988
Present value of Terminal Value	6,147,751.17

Source: NUS Investment Society Estimates

total loan amount due every 60 days. As mentioned, under the PPP, SMEs are eligible to request for funds covering up to 8 weeks, or 56 days, of payroll costs to keep employees employed and up to 25% of the loan can be used to pay for mortgages, rent, and utilities. As such, the current PPP reduces the current period's loan losses as it still potentially covers up to one term of loan repayments to Square Capital. However, as COVID-19 pandemic continues in the US well beyond 60 days, or mid-May, solvency issues of Square Capital borrowers will have to be reassessed, as businesses continue to operate in low gear.

Catalysts

- Default rate of customers on Square Capital loans increases signals weakness of Square's customer base to navigate Covid-19 impact
- New customer acquisition lower than street expectation, hinders future growth prospect
- Square loses customer due to small to medium sized vendors closing business amid COVID-19 economic pressure
- Slowing growth and shrinking margins of Cash app due to rising big players such as Venmo and Zelle

Financial Analysis

Key Financials		Historicals					
		2017A	2018A	2019A	2020E	2021E	2022E
FINANCIAL STATEMENT ANALYSIS							
Profitability							
Gross Profit Margin		37.90%	39.53%	40.09%	42.38%	43.15%	42.64%
Operating Profit Margin		-2.45%	-1.11%	0.56%	3.55%	1.51%	3.59%
Net Income Margin		-2.84%	-1.17%	7.97%	2.69%	1.10%	2.77%
Liquidity							
Current Ratio		1.83	2.07	1.90	2.32	2.14	1.91
Quick Ratio		1.53	1.46	1.26	1.69	1.45	1.19
Cash Ratio		0.72	0.57	0.62	1.30	1.08	0.82
Efficiency							
ROE		-7.99%	-4.03%	26.48%	8.35%	4.20%	12.96%
ROA		-2.87%	-1.41%	9.59%	3.24%	1.63%	4.97%
ROIC					18.65%	9.12%	25.46%
Du Pont Analysis							
Return on Equity		-7.99%	-4.03%	26.48%	8.35%	4.20%	12.96%
Net Income Margin		-2.84%	-1.17%	7.97%	2.69%	1.10%	2.77%
Asset Turnover		1.01	1.21	1.20	1.21	1.48	1.80
Equity Multiplier		2.78	2.87	2.76	2.58	2.57	2.61
Financial Leverage							
LT Debt to Assets		16.39%	27.42%	20.63%	20.02%	18.43%	13.04%
LT Debt to Equity		45.60%	80.29%	54.74%	50.35%	48.28%	33.81%
Interest Coverage		-5.39	-2.04	1.23	22.95	12.73	40.56

Overview:

The chart above reveals Square's financial condition prospects for the next 10 years, highlighting our assumptions. Most indicators yield neutral to negative trends and are supportive of the overall SELL recommendation.

Margins stagnant in effort to capture market share

Square's gross margin, operating margin, and profit margin was 40.09%, 0.56%, and 7.97% respectively in 2019. Despite margins rising by 0.56%, 1.67%, and 9.13% compared to 2018, it does not yet demonstrate the ability to increase margins significantly in the near future. For gross margins, transaction-based costs and Bitcoin costs represent 88.00% of cost of revenue, which are items that increase as transaction volume increases. In addition, previous improvements of gross margin were driven by improved margins on subscription-based services, which will also be greatly challenged by the worsening business environment. Therefore, Square's gross margins are unlikely to improve further.

Figure 39. Blended Implied Share Price Calculation

Model Output			
Terminal value calculation method		Exit Multiple	Gordon Growth
Present value of cumulative FCFF	3,355,743	3,355,743	
Present value of terminal value	16,345,771	5,617,588	
Implied enterprise value	19,701,514	8,973,331	
Terminal value as % of implied enterprise value	83%	63%	
Less: Debt	(938,832)	(938,832)	
Plus: Cash	1,047,118	1,047,118	
Less: Minority interest	-	-	
Less: Preferred shares	-	-	
Implied equity value	19,809,800	9,081,617	
Implied share price	\$ 45.54	\$ 20.88	
% downside	-43%	-74%	
Weightage of each method	50%	50%	
Blended implied share price	\$	33.21	
% downside		-58%	

Sources: NUS Investment Society Estimates

Figure 40. Probability weighted implied share price based on COVID-19 speed of recovery

Target Price Calculation			
Scenario	Probability	Implied share price	
Bear case	25%	\$ 12.69	
Base case	50%	\$ 33.21	
Bull case	25%	\$ 36.70	
Probability weighted implied share price		\$ 28.95	
% downside		-63%	

Sources: NUS Investment Society Estimates

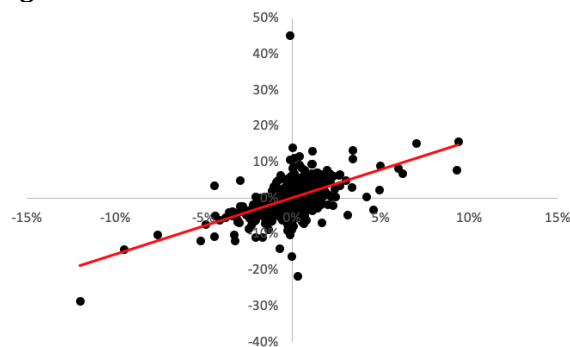
Figure 41. Sensitivity Analysis

		Implied Share Price				
		Exit EV/EBITDA multiple				
		22.27x	23.27x	24.27x	25.27x	26.27x
WACC	8%	50.32	52.18	54.03	55.88	57.74
	9%	46.13	47.82	49.51	51.20	52.89
	10%	42.32	43.86	45.41	46.95	48.50
	11%	38.87	40.28	41.69	43.10	44.51
	12%	35.73	37.02	38.31	39.60	40.89

		Implied Share Price				
		Perpetual growth rate				
		1.1%	1.3%	1.5%	1.7%	1.9%
WACC	8%	27.93	28.53	29.17	29.85	30.58
	9%	23.52	23.94	24.39	24.86	25.35
	10%	20.15	20.45	20.77	21.11	21.46
	11%	17.49	17.71	17.95	18.20	18.45
	12%	15.35	15.52	15.70	15.88	16.08

Sources: NUS Investment Society Estimates

Figure 42. Calculation of Beta



Sources: NUS Investment Society Estimates

Its operating expenses mainly consist of product development, sales and marketing, and G&A expenses, representing 93.50% of operating costs. Square's operating margins have not increased significantly and do not expect to be so since the POS system market is very competitive, in which Square would have to inject significant resources in product development as well as sales and marketing. Improvements in operating margin have been driven by a lesser increase in operating expenses, or specifically in G&A expenses. However, the faster growing expenses such as marketing or transaction and loan losses is expected to hinder the improvement of its operating margin.

Profit margin increase was mainly due to significantly enhanced "Other expense (income)" which was primarily driven by revaluation of equity investment in Eventbrite. Square's investment in Eventbrite was terminated in 4Q19. Since this is a one-time event that drove Square's improvement in profit margin, we expect profit margin growth to stagnate in the future. Therefore, the effort to capture market share is likely to stagnate margins in the foreseeable future.

Major debt obligations due in 2022, 2023

As of 2019, Square's current ratio is 1.9x, while our projections suggest a deteriorating current ratio as major debt obligations come due in 2022 and 2023 with a total of US\$1.07b principal outstanding. In March 2020, Square raised an addition US\$1b in convertible senior notes due 2025 at an interest rate of 0.125%. With additional funds and a revolving credit facility obtained, Square now has US\$1.96b in cash and cash equivalents, sufficient in covering debt obligations. However, despite the healthy liquidity, we expect major debt obligation due in 2022 and 2023 to negatively affect Square's cash flow and balance sheet strength if the US economy continues to suffer from the COVID-19 pandemic. Furthermore, the 2022 senior convertible note and 2023 senior convertible note have conversion prices of \$22.95 and \$77.85 respectively. At the time of writing, this means that both senior notes are in-the-money and can be converted into shares, resulting in significant dilution for other shareholders and a resulting fall in EPS.

Notable increase in positive operating cash flow

Square turned profitable in FY2019, contributing significantly to its operating cash flow, which grew 57.08% compared with FY2018 to US\$465.7m. Despite strong growth in operating cash flow in FY2019, we expect the growth to taper down in the next 12 months(refer to Appendix).

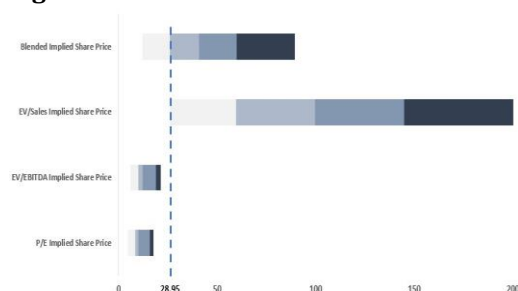
Valuation

Valuation Price Target: **US\$28.95**

DCF Model

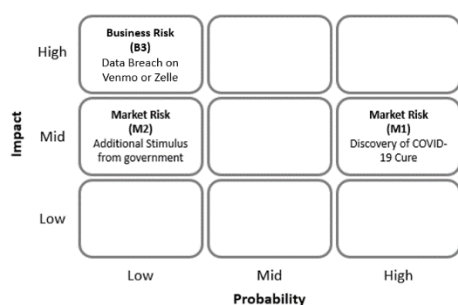
Our team utilised a Discounted Cash Flow model as the primary valuation method. We adopted a forecast period of 10 years up to 2029 and modelled 3 broad scenarios: Bull case, Base case and Bear case. Our Bull case is based on a V-shaped recovery of the economy. Fundamentally, we believe that the economy has suffered lasting impacts be it in the short-term or the long-term. Yet, Square's stock price and forward P/E multiple have both returned to pre-COVID levels. As a note, Square has not provided guidance for FY20 and we do not think that consensus expectations will be met as it fails to take

Figure 43. Football field for valuation



Source: NUS Investment Society Estimates

Figure 44. Investment risk matrix



Source: NUS Investment Society Estimates

into account the effects of COVID-19. The Bull case represents the best-case scenario in which consumption levels and thus GPV will be able to recover to pre-COVID levels. The Base case represents our team's expectations of how Square's business will be impacted by the virus and the overall global macro environment. Lastly, the Bear case represents a substantial worsening of economic conditions beyond current expectations. The implied share price under each scenario is then attached to our team's estimate of the probability of each scenario to arrive at a final probability-weighted implied share price taking into account each scenario.

Discount Rate

Our team implemented the CAPM model in deriving Weighted Average Cost of Capital (WACC), which we used as the discount rate to calculate present value of the future cash flows. To calculate Beta, a linear regression of Square's stock price was run against the S&P 500 index on a daily basis and then averaged and adjusted (Figure 42). CAPM was used to estimate Cost of Equity, while the current debt outstanding was used for the calculation of Cost of Debt in a weighted average manner. A corporate tax rate of 21% was used in computing the interest tax shield. With the aforementioned figures, we arrive at a WACC of 10% for Square.

Terminal Growth

We used both the Gordon Growth and Exit Multiple methods, assuming equal weight to arrive at the terminal value. For the Gordon Growth Method, we used a long-term growth rate of 1.5%, in line with that of the US economy. For the Exit Multiple Method, we used 7.40x, which is in line with the average Exit Multiple of the industry Square is in.

Relative Valuation

To supplement our overall valuation efforts, we also implemented relative valuation as a sanity check to our primary valuation method. In doing so, we utilised forward looking data from consensus estimates. The following multiples were adopted: (1) NTM P/E (2) NTM EV/EBITDA (3) NTM EV/Sales and the following companies were selected as comparable companies: Global Payments Inc., The Western Union Company, Paypal Holdings, Inc., Fidelity National Information Services, Inc., Mastercard Incorporated, Fiserv, Inc., Visa Inc., FLEETCOR Technologies, Inc., Automatic Data Processing, Inc., WEX Inc. Compared to its peers, we believe that Square is overvalued.

The implied share price of US\$28.95 represents a 63% downside. We remain confident that this valuation reaffirms our SELL recommendation.

Investment Risks

Market Risk (M1)

Discovery of COVID-19 cure and vaccine: Square's growth is dependent on the recovery of the economy, which is in turn dependent on the discovery of a cure or vaccine for COVID-19. While there will likely be a lead time between discovery and widespread administering of the cure/vaccine despite efforts of vaccine production even before they were proven effective, there will be cause for optimism and investor sentiment will likely be buoyed.

Market Risk (M2)

Additional stimulus by government: Trump's signature of the US\$2t stimulus and the intervention of the Federal Reserve has reinvigorated the US stock market in the short-term. If additional stimulus were given, specifically towards SMEs, investors' sentiment towards SMEs' future prospects as well as Square's fundamentals will ameliorate and share price will increase.

Business Risk (B3)

Accelerated shift to tech: With the sudden implementation of lockdown and social distancing measures, individuals and companies alike have been forced to use online platforms to meet their daily needs. This may prove beneficial to Square should they be able to retain and further monetize the Cash App users they have acquired during this period.

Business Risk (B4)

Cash app hype drags on: Amidst what may be another growing tech bubble, Square's share price movement has largely diverged from fundamentals and seems to be trading more on investors' hopes for the success of Cash app. As such, mere increases in MAU may cause Square's share price to trudge higher.

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Appendix:

Balance Sheet

Key Financials													
	Historicals			Projected									
	2017A	2018A	2019A	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
BALANCE SHEET													
ASSETS													
CURRENT ASSETS													
Cash and cash equivalents	696,474	583,173	1,047,118	2,149,009	2,049,907	1,857,151	1,280,743	1,729,027	2,555,695	3,527,257	4,615,090	5,781,337	6,975,749
Investments in short-term debt securities	169,576	540,991	492,456	-	-	-	-	-	-	-	-	-	-
Restricted cash	28,805	33,838	-	-	-	-	-	-	-	-	-	-	-
Settlements receivable	620,523	364,946	588,692	538,349	592,184	740,230	906,782	1,088,138	1,251,359	1,376,495	1,472,849	1,546,492	1,577,421
Customer funds	103,042	334,017	676,292	639,590	735,273	944,456	1,173,794	1,413,882	1,628,163	1,807,139	1,948,429	2,045,476	2,086,386
Loands held for sale	73,420	89,974	164,834	-	-	-	-	-	-	-	-	-	-
Other current assets	86,454	164,966	250,409	228,425	262,597	337,306	419,212	504,958	581,487	645,407	695,867	730,527	745,138
Total current assets	1,778,294	2,111,905	3,219,801	3,555,373	3,639,961	3,879,143	3,780,531	4,736,006	6,016,703	7,356,297	8,732,235	10,103,833	11,384,695
Property and equipment, net													
Goodwill	58,327	261,705	266,345	266,345	266,345	266,345	266,345	266,345	266,345	266,345	266,345	266,345	266,345
Acquired intrangible assets, net	14,334	77,102	69,079	61,056	53,033	45,010	36,987	28,964	20,941	12,918	4,895	-	-
Investments in long-term debt securities	203,667	464,680	537,303	-	-	-	-	-	-	-	-	-	-
Restricted cash	9,802	15,836											
Build-to-suit lease asset	-	149,000											
Operating lease right-of-use assets	-	-	113,148	113,148	113,148	113,148	113,148	113,148	113,148	113,148	113,148	113,148	113,148
Other non-current assets	31,350	58,393	196,388	196,388	196,388	196,388	196,388	196,388	196,388	196,388	196,388	196,388	196,388
Total non-current assets	408,976	1,169,118	1,331,457	782,372	773,720	779,264	806,895	838,352	870,150	899,106	925,217	947,273	972,352
Total assets	2,187,270	3,281,023	4,551,258	4,337,745	4,413,680	4,658,407	4,587,427	5,574,357	6,886,853	8,255,403	9,657,452	11,051,106	12,357,046
LIABILITIES AND STOCKHOLDERS' EQUITY													
CURRENT LIABILITIES													
Customers payable	733,736	749,215	1,273,135	1,048,364	1,153,200	1,441,500	1,765,838	2,119,006	2,436,856	2,680,542	2,868,180	3,011,589	3,071,821
Settlements payable	114,788	54,137	95,834	56,668	62,335	77,919	95,451	114,541	131,722	144,894	155,037	162,789	166,044
Accrued expenses and other current liabilities	124,303	215,189	297,841	274,110	315,117	404,767	503,055	605,950	697,784	774,488	835,041	876,633	894,165
Operating lease liabilities, current	-	-	27,275	27,275	27,275	27,275	27,275	27,275	27,275	27,275	27,275	27,275	27,275
Total current liabilities	972,827	1,018,541	1,694,085	1,406,417	1,557,927	1,951,461	2,391,618	2,866,771	3,293,638	3,627,199	3,885,533	4,078,285	4,159,306
Long-term debt													
Build-to-suit lease liability	358,572	899,695	938,832	938,832	938,832	748,564	-	-	-	-	-	-	-
Operating lease liabilities, non-current	-	149,000	-	-	-	-	-	-	-	-	-	-	-
Other non-current liabilities	69,538	93,286	94,461	94,461	94,461	94,461	94,461	94,461	94,461	94,461	94,461	94,461	94,461
Total non-current liabilities	428,110	1,141,981	1,142,123	1,142,123	1,142,123	951,855	203,291	203,291	203,291	203,291	203,291	203,291	203,291
Total liabilities	1,400,937	2,160,522	2,836,208	2,548,540	2,700,050	2,903,316	2,594,909	3,070,062	3,496,929	3,830,490	4,088,824	4,281,576	4,362,597
STOCKHOLDERS' EQUITY													
Additional paid-in capital	1,630,386	2,012,328	2,223,749	2,223,749	2,223,749	2,223,749	2,223,749	2,223,749	2,223,749	2,223,749	2,223,749	2,223,749	2,223,749
Accumulated other comprehensive income	(1,318)	(6,053)	1,629	75,784	209	41,669	279,096	790,875	1,676,504	2,711,492	3,855,207	5,056,109	6,281,029
Accumulated deficit	(842,735)	(885,774)	(510,328)	(510,328)	(510,328)	(510,328)	(510,328)	(510,328)	(510,328)	(510,328)	(510,328)	(510,328)	(510,328)
Total stockholders' equity	786,333	1,120,501	1,715,050	1,789,205	1,713,630	1,755,090	1,992,517	2,504,296	3,389,925	4,424,913	5,568,628	6,769,530	7,994,450
Total liabilities and stockholders' equity	2,187,270	3,281,023	4,551,258	4,337,745	4,413,680	4,658,407	4,587,427	5,574,357	6,886,853	8,255,403	9,657,452	11,051,106	12,357,046

Income Statement

Key Financials													
	Historicals			Projected									
	2017A	2018A	2019A	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
INCOME STATEMENT													
Revenue													
Transaction-based revenue	1,920,174	2,471,451	3,081,074	2,833,416	3,116,758	3,895,947	4,772,535	5,727,042	6,586,098	7,244,708	7,751,838	8,139,430	8,302,218
Subscription and services-based revenue	252,664	591,706	1,031,456	1,083,029	1,191,332	1,548,731	1,935,914	2,371,495	2,845,794	3,272,663	3,599,929	3,779,925	3,855,524
Hardware revenue	41,415	68,503	84,505	76,055	79,857	91,836	103,315	113,647	122,170	128,279	133,410	137,412	140,161
Bitcoin revenue	-	166,517	516,465	576,000	864,000	1,209,600	1,572,480	1,886,976	2,075,674	2,262,484	2,432,171	2,553,779	2,604,855
Total net revenue	2,214,253	3,298,177	4,713,500	4,568,499	5,251,947	6,746,114	8,384,244	10,099,160	11,629,736	12,908,134	13,917,347	14,610,546	14,902,757
Cost of revenue													
Transaction-based costs	(1,230,290)	(1,558,562)	(1,937,971)	(1,778,213)	(1,956,034)	(2,445,043)	(2,995,177)	(3,594,213)	(4,133,345)	(4,546,679)	(4,864,946)	(5,108,194)	(5,210,358)
Subscription and services-based costs	(75,720)	(169,884)	(234,270)	(249,097)	(262,093)	(325,234)	(387,183)	(474,299)	(569,159)	(654,533)	(719,986)	(755,985)	(771,105)
Hardware costs	(62,393)	(94,114)	(136,385)	(98,871)	(79,857)	(82,652)	(82,652)	(79,553)	(85,519)	(89,795)	(93,387)	(96,189)	(98,112)
Bitcoin costs	-	(164,827)	(508,239)	(564,480)	(846,720)	(1,185,408)	(1,541,030)	(1,849,236)	(2,034,160)	(2,217,235)	(2,383,527)	(2,502,703)	(2,552,758)
Amortization of acquired technology	(6,544)	(7,090)	(6,950)	-	-	-	-	-	-	-	-	-	-
Total cost of revenue	(1,374,947)	(1,994,477)	(2,823,815)	(2,690,660)	(3,144,704)	(4,038,336)	(5,006,043)	(5,997,301)	(6,822,183)	(7,508,241)	(8,061,846)	(8,463,071)	(8,632,332)
Gross profit	839,306	1,303,700	1,889,685	1,877,839	2,107,242	2,707,778	3,378,202	4,101,859	4,807,553	5,399,893	5,855,501	6,147,475	6,270,425
Operating expenses													
Product development	(321,888)	(497,479)	(670,606)	(593,905)	(682,753)	(876,995)	(1,089,952)	(1,312,891)	(1,511,866)	(1,678,057)	(1,809,255)	(1,899,371)	(1,937,358)
Sales and marketing	(253,170)	(411,151)	(624,832)	(776,645)	(1,050,389)	(1,180,570)	(1,257,637)	(1,262,395)	(1,162,974)	(1,290,813)	(1,391,735)	(1,461,055)	(1,490,276)
General and administrative	(250,553)	(339,245)	(436,250)	(319,795)	(367,636)	(472,228)	(586,897)	(706,941)	(814,082)	(903,569)	(974,214)	(1,022,738)	(1,043,193)
Transaction and loan losses	(67,018)	(88,077)	(126,959)	(85,002)	(93,503)	(116,878)	(143,176)	(171,811)	(197,583)	(217,341)	(232,555)	(244,183)	(249,067)
Amortization of acquired customer assets	(883)	(4,362)	(4,481)	-	-	-	-	-	-	-	-	-	-
Total operating expenses	(893,512)	(1,340,314)	(1,863,128)	(1,775,347)	(2,194,281)	(2,646,671)	(3,077,662)	(3,454,038)	(3,686,504)	(4,089,781)	(4,407,759)	(4,627,347)	(4,719,894)
Operating income (loss)	(54,206)	(36,614)	26,557	102,492	(87,039)	61,106	300,540	647,821	1,121,050	1,310,111	1,447,742	1,520,129	1,550,531
Gain on sale of asset group													
Interest expense, net	(10,053)	(17,982)	(21,516)	(8,625)	(8,625)	(8,625)	-	-	-	-	-	-	-
Other expense (income), net	1,595	18,469	(273)	-	-	-	-	-	-	-	-	-	-
Income (loss) before income tax	(62,664)	(36,127)	378,213	93,867	(95,664)	52,481	300,540	647,821	1,121,050	1,310,111	1,447,742	1,520,129	1,550,531
Provision for income taxes													
Net income (loss)	(62,813)	(38,453)	375,446	74,155	(75,575)	41,460	237,427	511,778	885,629	1,034,988	1,143,716	1,200,902	1,224,920
Net income (loss) per share													
Basic	(0.17)	(0.09)	0.88	0.17	(0.18)	0.10	0.56	1.20	2.08	2.44	2.69	2.83	2.88
Diluted	(0.17)	(0.09)	0.81	0.16	(0.16)	0.09	0.51	1.10	1.90	2.22	2.45	2.58	2.63
Weighted-average shares used to compute													
Basic	379,344	405,731	424,999	424,999	424,999	424,999	424,999	424,999	424,999	424,999	424,999	424,999	424,999
Diluted	379,344	405,731	466,076	466,076	466,076	466,076	466,076	466,076	466,076	466,076	466,076	466,076	466,076

Cash Flow Statement

Key Financials

	Historicals			Projected									
	2017A	2018A	2019A	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
CASH FLOW STATEMENT													
Cash flows from operating activities													
Net income (loss)	(62,813)	(38,453)	375,446	74,155	(75,575)	41,460	237,427	511,778	885,629	1,034,988	1,143,716	1,200,902	1,224,920
Adjustments													
Depreciation and amortisation	37,279	60,961	75,598	78,025	84,805	92,275	93,940	114,981	136,833	158,212	175,690	189,796	191,012
Non-cash interest and other expense	14,421	31,257	34,547	-	-	-	-	-	-	-	-	-	-
Loss on extinguishment of long-term debt	-	5,047	-	-	-	-	-	-	-	-	-	-	-
Non-cash lease expense	-	-	29,696	-	-	-	-	-	-	-	-	-	-
Share-based compensation	155,836	216,881	297,863	-	-	-	-	-	-	-	-	-	-
Replacement stock awards issued in connection with acquisition	-	899	-	-	-	-	-	-	-	-	-	-	-
Gain on sale of asset group	-	-	(373,445)	-	-	-	-	-	-	-	-	-	-
Loss (gain) on revaluation of equity investment	-	(20,342)	12,326	-	-	-	-	-	-	-	-	-	-
Recovery of common stock in connection with indemnification settlement agreement	-	(2,745)	(1,069)	-	-	-	-	-	-	-	-	-	-
Transaction and loan losses	67,018	88,077	126,959	-	-	-	-	-	-	-	-	-	-
Change in deferred income taxes	(1,385)	(646)	(1,376)	-	-	-	-	-	-	-	-	-	-
Changes in operating assets and liabilities													
Settlements receivables	(305,831)	245,795	(248,271)	50,343	(53,835)	(148,046)	(166,552)	(181,356)	(163,221)	(125,136)	(96,355)	(73,642)	(30,930)
Customer funds	(59,468)	(131,004)	(204,208)	36,702	(95,683)	(209,183)	(229,338)	(240,088)	(214,281)	(178,976)	(141,290)	(97,048)	(40,910)
Purchase of loans held for sale	(1,184,630)	(1,609,611)	(2,266,738)	-	-	-	-	-	-	-	-	-	-
Sales and principal payments of loans held for sale	1,145,314	1,579,834	2,168,682	164,834	-	-	-	-	-	-	-	-	-
Customers payable	301,778	15,597	523,795	(224,771)	104,836	288,300	324,338	353,168	317,851	243,686	187,638	143,409	60,232
Settlements payable	63,637	(60,651)	41,697	(39,166)	5,667	15,584	17,532	19,090	17,181	13,172	10,143	7,752	3,256
Charge-offs to accrued transaction losses	(46,148)	(58,192)	(78,325)	-	-	-	-	-	-	-	-	-	-
Other assets and liabilities	2,703	(27,624)	(47,478)	(1,747)	6,834	14,942	16,381	17,149	15,306	12,784	10,092	6,932	2,922
Net cash provided by operating activities	127,711	295,080	465,699	138,376	(22,949)	95,331	293,727	594,722	995,299	1,158,730	1,289,634	1,378,100	1,410,502
Cash flows from investing activities													
Purchase of marketable debt securities	(544,910)	(1,000,346)	(992,583)	-	-	-	-	-	-	-	-	-	-
Proceeds from maturities of marketable debt securities	168,224	197,454	430,888	-	-	-	-	-	-	-	-	-	-
Proceeds from sale of marketable debt securities	89,087	171,992	548,619	1,029,759	-	-	-	-	-	-	-	-	-
Purchase of marketable debt securities from customer funds	-	(148,096)	(311,499)	-	-	-	-	-	-	-	-	-	-
Proceeds from maturities of marketable debt securities from customer funds	-	-	158,055	-	-	-	-	-	-	-	-	-	-
Proceeds from sale of marketable debt securities from customer funds	-	48,334	17,493	-	-	-	-	-	-	-	-	-	-
Purchase of property and equipment	(26,097)	(61,203)	(62,498)	(66,243)	(76,153)	(97,819)	(121,572)	(146,438)	(168,631)	(187,168)	(201,802)	(211,853)	(216,090)
Purchase of other investments	(25,000)	-	(15,250)	-	-	-	-	-	-	-	-	-	-
Proceeds from sale of equity investment	-	-	33,016	-	-	-	-	-	-	-	-	-	-
Purchase of intangible assets	-	(1,584)	-	-	-	-	-	-	-	-	-	-	-
Proceeds from sale of asset group	-	-	309,324	-	-	-	-	-	-	-	-	-	-
Business combinations, net of cash acquired	(1,915)	(112,399)	(20,372)	-	-	-	-	-	-	-	-	-	-
Net cash provided by (used in) investing activities	(340,611)	(905,848)	95,193	963,516	(76,153)	(97,819)	(121,572)	(146,438)	(168,631)	(187,168)	(201,802)	(211,853)	(216,090)
Cash flow from financing activities													
Proceeds from issuance of convertible senior notes, net	428,250	855,663	-	-	-	-	-	-	-	-	-	-	-
Purchase of convertible senior note hedges	(92,136)	(172,586)	-	-	-	-	-	-	-	-	-	-	-
Proceeds from issuance of warrants	57,244	112,125	-	-	-	-	-	-	-	-	-	-	-
Principal payment on a conversion of senior notes	-	(219,384)	-	-	-	-	-	-	-	-	-	-	-
Payment for termination of Starbucks warrant	(54,808)	-	-	-	-	-	-	-	-	-	-	-	-
Repayment of principal payment of senior notes	-	-	-	-	-	(190,268)	(748,564)	-	-	-	-	-	-
Proceeds from the exercise of stock options and purchases under the employee stock purchase plan, net	162,504	133,850	118,514	-	-	-	-	-	-	-	-	-	-
Payments for tax withholding related to vesting of restricted stock units	(44,682)	(189,124)	(212,264)	-	-	-	-	-	-	-	-	-	-
Other financing activities	(1,439)	(4,789)	(5,124)	-	-	-	-	-	-	-	-	-	-
Net cash provided by (used in) financing activities	454,933	515,755	(98,874)	-	-	(190,268)	(748,564)	-	-	-	-	-	-
Effect of foreign exchange rate of cash and cash equivalents	4,303	(7,221)	3,841	-	-	-	-	-	-	-	-	-	-
Net increase (decrease) in cash, cash equivalents and restricted cash	246,336	(102,234)	465,859	1,101,891	(99,102)	(192,756)	(576,408)	448,284	826,668	971,562	1,087,833	1,166,248	1,194,412
Cash, cash equivalents and restricted cash, beginning of the year	488,745	735,081	632,847	1,098,706	2,200,597	2,101,495	1,908,739	1,332,331	1,780,615	2,607,283	3,578,845	4,666,678	5,832,925
Cash, cash equivalents and restricted cash, end of the year	735,081	632,847	1,098,706	2,200,597	2,101,495	1,908,739	1,332,331	1,780,615	2,607,283	3,578,845	4,666,678	5,832,925	7,027,337

Revenue Projections

Revenue Model

	Units	Historicals			Projected									
		2017A	2018A	2019A	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
TRANSACTION-BASED REVENUE														
Revenue	USD'000	1,920,174	2,471,451	3,081,074	2,833,416	3,116,758	3,895,947	4,772,535	5,727,042	6,586,098	7,244,708	7,751,838	8,139,430	8,302,218
Growth rate	%		29%	25%	-8%	10%	25%	23%	20%	15%	10%	7%	5%	2%
Gross Payment Value (GPV)	USD'000	65,300,000	84,700,000	106,200,000	97,704,000	107,474,400	134,343,000	164,570,175	197,484,210	227,106,842	249,817,526	267,304,752	280,669,990	286,283,390
Growth rate	%		29.7%	25.4%	-8%	10%	25%	23%	20%	15%	10%	7%	5%	2%
Transaction fee	%	2.94%	2.92%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%
SUBSCRIPTION AND SERVICES-BASED REVENUE														
Revenue	USD'000	252,664	591,706	1,031,456	1,083,029	1,191,332	1,548,731	1,935,914	2,371,495	2,845,794	3,272,663	3,599,929	3,779,925	3,855,524
Growth rate	%		134%	74%	5%	10%	30%	25%	23%	20%	15%	10%	5%	2%
HARDWARE REVENUE														
Revenue	USD'000	41,415	68,503	84,505	76,055	79,857	91,836	103,315	113,647	122,170	128,279	133,410	137,412	140,161
Growth rate	%		65%	23%	-10%	5%	15%	13%	10%	8%	5%	4%	3%	2%
BITCOIN REVENUE														
Revenue	USD'000	-	166,517	516,465	576,000	864,000	1,209,600	1,572,480	1,886,976	2,075,674	2,262,484	2,432,171	2,553,779	2,604,855
Growth rate	%			210%	12%	50%	40%	30%	20%	10%	9%	8%	5%	2%
Number of Monthly Active Users (MAU)	#'000	7,000	15,000	24,000	38,400	57,600	80,640	104,832	125,798	138,378	150,832	162,145	170,252	173,657
Growth rate	%		114%	60%	60%	50%	40%	30%	20%	10%	9%	8%	5%	2%
Average Revenue Per User (ARPU)	USD		21.52		15	15	15	15	15	15	15	15	15	15

Sensitivity Analysis

Scenario Analysis

FYE 2 Feb

MAIN SWITCH

Toggle

Base case

REVENUE

GPV growth rate

Bear case

Base case

Bull case

Subscription and services-based revenue growth rate

Bear case

Base case

Bull case

Hardware revenue growth rate

Bear case

Base case

Bull case

Cash App MAU

Bear case

Base case

Bull case

Projected									
2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
-8%	10%	25%	23%	20%	15%	10%	7%	5%	2%
-12.0%	5.0%	15.0%	20.0%	17.5%	15.0%	10.0%	7.0%	5.0%	2.0%
-8.0%	10.0%	25.0%	22.5%	20.0%	15.0%	10.0%	7.0%	5.0%	2.0%
10.0%	17.0%	27.0%	30.0%	25.0%	20.0%	15.0%	10.0%	7.0%	5.0%
5%	10%	30%	25%	23%	20%	15%	10%	5%	2%
-10.0%	5.0%	15.0%	7.5%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
5.0%	10.0%	30.0%	25.0%	22.5%	20.0%	15.0%	10.0%	5.0%	2.0%
40.0%	45.0%	35.0%	30.0%	25.0%	22.5%	20.0%	15.0%	10.0%	5.0%
-10%	5%	15%	13%	10%	8%	5%	4%	3%	2%
-20.0%	0.0%	5.0%	7.0%	10.0%	7.5%	5.0%	3.0%	2.0%	1.0%
-10.0%	5.0%	15.0%	12.5%	10.0%	7.5%	5.0%	4.0%	3.0%	2.0%
5.0%	10.0%	25.0%	22.5%	20.0%	15.0%	10.0%	7.0%	5.0%	3.0%
60%	50%	40%	30%	20%	10%	9%	8%	5%	2%
40.0%	35.0%	30.0%	25.0%	20.0%	10.0%	8.0%	6.0%	4.0%	1.0%
60.0%	50.0%	40.0%	30.0%	20.0%	10.0%	9.0%	7.5%	5.0%	2.0%
80.0%	70.0%	60.0%	50.0%	40.0%	30.0%	20.0%	10.0%	7.5%	5.0%

Expenses

Projections

	Units	Historicals			Projected									
		2017A	2018A	2019A	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
OPERATING ASSUMPTIONS FOR PROJECTED INCOME STATEMENT														
Transaction-based costs as % of GPV	%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Subscription and services-based costs as % of revenue	%	30%	29%	23%	23%	22%	21%	20%	20%	20%	20%	20%	20%	20%
Hardware costs as % of revenue	%	151%	137%	161%	130%	100%	90%	80%	70%	70%	70%	70%	70%	70%
Bitcoin costs as % of revenue	%		99%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%
Product development expense as % of revenue	%	15%	15%	14%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%
Sales and marketing expense as % of revenue	%	11%	12%	13%	17%	20%	18%	15%	13%	10%	10%	10%	10%	10%
General and administrative expense as % of revenue	%	11%	10%	9%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
Transaction and loan losses as % of transaction revenue	%	3%	4%	4%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%

NWC

Projections

	Units	Historicals			Projected									
		2017A	2018A	2019A	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
NET WORKING CAPITAL ASSUMPTIONS														
ASSETS														
Settlements receivable	USD '000	620,523	364,946	588,692	538,349	592,184	740,230	906,782	1,088,138	1,251,359	1,376,495	1,472,849	1,546,492	1,577,421
as % of transaction revenue	%	32%	15%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%
Customer funds	USD '000	103,042	334,017	676,292	639,590	735,273	944,456	1,173,794	1,413,882	1,628,163	1,807,139	1,948,429	2,045,476	2,086,386
as % of revenue	%	5%	10%	14%	14%	14%	14%	14%	14%	14%	14%	14%	14%	14%
Other current assets	USD '000	86,454	164,966	250,409	228,425	262,597	337,306	419,212	504,958	581,487	645,407	695,867	730,527	745,138
as % of revenue	%	4%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
LIABILITIES														
Customers payable	USD '000	733,736	749,215	1,273,135	1,048,364	1,153,200	1,441,500	1,765,838	2,119,006	2,436,856	2,680,542	2,868,180	3,011,589	3,071,821
as % of transaction revenue	%	38%	30%	41%	37%	37%	37%	37%	37%	37%	37%	37%	37%	37%
Settlements payable	USD '000	114,788	54,137	95,834	56,668	62,335	77,919	95,451	114,541	131,722	144,894	155,037	162,789	166,044
as % of transaction revenue	%	6%	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Accrued expenses and other current liabilities	USD '000	124,303	215,189	297,841	274,110	315,117	404,767	503,055	605,950	697,784	774,488	835,041	876,633	894,165
as % of revenue	%	6%	7%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
CHANGES														
Change in settlements receivable	USD '000	(255,577)	223,746	(50,343)	53,835	148,046	166,552	181,356	163,221	125,136	96,355	73,642	30,930	
Change in customer funds	USD '000	230,975	342,275	(36,702)	95,683	209,183	229,338	240,088	214,281	178,976	141,290	97,048	40,910	
Change in other current assets	USD '000	78,512	85,443	(21,984)	34,172	74,708	81,907	85,746	76,529	63,920	50,461	34,660	14,611	
Change in customers payable	USD '000	15,479	523,920	(224,771)	104,836	288,300	324,338	353,168	317,851	243,686	187,638	143,409	60,232	
Change in settlements payable	USD '000	(60,651)	41,697	(39,166)	5,667	15,584	17,532	19,090	17,181	13,172	10,143	7,752	3,256	
Change in accrued expenses and other current liabilities	USD '000	90,886	82,652	(23,731)	41,007	89,650	98,288	102,895	91,835	76,704	60,553	41,592	17,533	

Assets for Sale

Projections

	Units	Historicals			Projected									
		2017A	2018A	2019A	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
ASSETS FOR SALE														
Investments in short-term debt securities	USD '000	169,576	540,991	492,456	-	-	-	-	-	-	-	-	-	-
Sale	USD '000				492,456	-	-	-	-	-	-	-	-	-
Loands held for sale	USD '000	73,420	89,974	164,834	-	-	-	-	-	-	-	-	-	-
Sale	USD '000				164,834	-	-	-	-	-	-	-	-	-
Investments in long-term debt securities	USD '000	203,667	464,680	537,303	-	-	-	-	-	-	-	-	-	-
Sale	USD '000				537,303	-	-	-	-	-	-	-	-	-

PPE Schedule

PPE and Intangibles Schedule		Units	Historicals			Projected									
			2017A	2018A	2019A	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
OVERALL PPE															
Revenue	USD '000		2,214,253	3,298,177	4,713,500	4,568,499	5,251,947	6,746,114	8,384,244	10,099,160	11,629,736	12,908,134	13,917,347	14,610,546	14,902,757
Property and equipment	USD '000		192,812	267,311	327,723	393,966	470,119	567,938	689,510	835,947	1,004,579	1,191,747	1,393,548	1,605,401	1,821,491
Accumulated depreciation and amortisation	USD '000		101,316	124,909	178,529	248,531	325,314	409,565	495,482	602,441	731,251	881,440	1,049,107	1,234,009	1,425,020
Property and equipment, net	USD '000		91,496	142,402	149,194	145,435	144,806	158,373	194,027	233,507	273,328	310,307	344,441	371,392	396,471
Purchase of property and equipment	USD '000		26,097	61,203	62,498	66,243	76,153	97,819	121,572	146,438	168,631	187,168	201,802	211,853	216,090
as a % of revenue	%		1%	2%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Depreciation and amortisation	USD '000		37,279	60,961	75,598	78,025	84,805	92,275	93,940	114,981	136,833	158,212	175,690	189,796	191,012
Depreciation and amortisation on PPE	USD '000		29,700	46,800	60,600	70,002	76,782	84,252	85,917	106,958	128,810	150,189	167,667	184,901	191,012
Amortisation of acquired intangible assets	USD '000				8,023	8,023	8,023	8,023	8,023	8,023	8,023	8,023	8,023	4,895	
CAPITALISED SOFTWARE															
Capitalised Software balance	USD '000		35,063	58,908	81,984	98,556	117,606	142,077	172,489	209,123	251,308	298,130	348,613	401,611	455,669
as a % of property and equipment	%		18%	22%	25%										
accumulated depreciation and amortisation	USD '000				44,661	80,591	111,256	133,920	162,352	196,912	237,246	282,523	331,786	383,945	437,650
Capital software balance, net	USD '000				37,323	17,965	6,350	8,157	10,138	12,211	14,062	15,607	16,828	17,666	18,019
Purchase of property and equipment	USD '000					16,572	19,051	24,471	30,413	36,633	42,185	46,822	50,483	52,998	54,058
as a % of total purchase	%					25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
LEASEHOLD IMPROVEMENTS															
Leasehold improvements balance	USD '000		77,073	107,611	111,942	134,569	160,581	193,993	235,519	285,539	343,139	407,071	476,001	548,365	622,176
as a % of property and equipment	%		40%	40%	34%										
accumulated depreciation and amortisation	USD '000				60,981	69,157	80,224	95,003	114,396	139,347	170,698	209,153	255,266	309,420	363,598
Leasehold improvements balance, net	USD '000				50,961	65,412	80,357	98,990	121,123	146,191	172,441	197,918	220,735	238,945	258,578
Purchase of property and equipment	USD '000					22,627	26,012	33,412	41,526	50,020	57,600	63,932	68,930	72,364	73,811
as a % of total purchase	%					34%	34%	34%	34%	34%	34%	34%	34%	34%	34%
COMPUTER EQUIPMENT															
Computer equipment balance	USD '000		66,186	80,093	106,469	127,990	152,730	184,509	224,004	271,578	326,362	387,169	452,729	521,555	591,757
as a % of property and equipment	%		34%	30%	32%										
accumulated depreciation and amortisation	USD '000				58,000	81,330	112,906	155,076	187,081	226,697	273,982	328,370	388,753	453,817	522,013
Leasehold improvements balance, net	USD '000				48,469	46,660	39,824	29,433	36,923	44,881	52,381	58,799	63,976	67,737	69,743
Purchase of property and equipment	USD '000					21,521	24,740	31,779	39,496	47,574	54,784	60,806	65,560	68,826	70,202
as a % of total purchase	%					32%	32%	32%	32%	32%	32%	32%	32%	32%	32%
OFFICE FURNITURE AND EQUIPMENT															
Office furniture and equipment balance	USD '000		14,490	58,908	27,328	32,852	39,202	47,359	57,496	69,708	83,769	99,377	116,204	133,870	151,890
as a % of property and equipment	%		8%	22%	8%										
accumulated depreciation and amortisation	USD '000				14,887	17,453	20,927	25,566	31,653	39,484	49,325	61,395	73,302	86,826	101,759
Office furniture and equipment balance, net	USD '000				12,441	15,398	18,275	21,793	25,844	30,223	34,445	37,982	42,902	47,044	50,130
Purchase of property and equipment	USD '000					5,524	6,350	8,157	10,138	12,211	14,062	15,607	16,828	17,666	18,019
as a % of total purchase	%					8%	8%	8%	8%	8%	8%	8%	8%	8%	8%

Depreciation Schedule

Capitalised Software

Cost	Useful Life	No. of Years	1	2	3	4	5	6	7	8	9	10
37,323	1.5	Depreciation	24,882	12,441	-	-	-	-	-	-	-	-
Year	Capex											
2020	16,572		11,048	5,524	-	-	-	-	-	-	-	-
2021	19,051		-	12,700	6,350	-	-	-	-	-	-	-
2022	24,471		-	-	16,314	8,157	-	-	-	-	-	-
2023	30,413		-	-	-	20,275	10,138	-	-	-	-	-
2024	36,633		-	-	-	-	24,422	12,211	-	-	-	-
2025	42,185		-	-	-	-	-	28,123	14,062	-	-	-
2026	46,822		-	-	-	-	-	-	31,215	15,607	-	-
2027	50,483		-	-	-	-	-	-	-	33,655	16,828	-
2028	52,998		-	-	-	-	-	-	-	-	35,332	17,666
2029	54,058		-	-	-	-	-	-	-	-	-	36,038
		Yearly Depreciation	35,930	30,065	22,664	28,432	34,560	40,335	45,277	49,293	52,159	53,704

Leasehold improvements

Cost	Useful Life	No. of Years	1	2	3	4	5	6	7	8	9	10
50,961	9	Depreciation	5,662	5,662	5,662	5,662	5,662	5,662	5,662	5,662	5,662	-
Year	Capex											
2020	22,627		2,514	2,514	2,514	2,514	2,514	2,514	2,514	2,514	2,514	-
2021	26,012		-	2,890	2,890	2,890	2,890	2,890	2,890	2,890	2,890	2,890
2022	33,412		-	-	3,712	3,712	3,712	3,712	3,712	3,712	3,712	3,712
2023	41,526		-	-	-	4,614	4,614	4,614	4,614	4,614	4,614	4,614
2024	50,020		-	-	-	-	5,558	5,558	5,558	5,558	5,558	5,558
2025	57,600		-	-	-	-	-	6,400	6,400	6,400	6,400	6,400
2026	63,932		-	-	-	-	-	-	7,104	7,104	7,104	7,104
2027	68,930		-	-	-	-	-	-	-	7,659	7,659	7,659
2028	72,364		-	-	-	-	-	-	-	-	8,040	8,040
2029	73,811		-	-	-	-	-	-	-	-	-	8,201
		Yearly Depreciation	8,176	11,067	14,779	19,393	24,951	31,351	38,454	46,113	54,154	54,179

Computer equipment

Cost	Useful Life	No. of Years	1	2	3	4	5	6	7	8	9	10
48,489	3	Depreciation	16,156	16,156	16,156	-	-	-	-	-	-	-
Year	Capex											
2020	21,521		7,174	7,174	7,174	-	-	-	-	-	-	-
2021	24,740		-	8,247	8,247	-	-	-	-	-	-	-
2022	31,779		-	-	10,593	10,593	-	-	-	-	-	-
2023	39,496		-	-	-	13,165	13,165	-	-	-	-	-
2024	47,574		-	-	-	-	15,858	15,858	-	-	-	-
2025	54,784		-	-	-	-	-	18,261	18,261	-	-	-
2026	60,806		-	-	-	-	-	-	20,269	20,269	-	-
2027	65,590		-	-	-	-	-	-	-	21,853	21,853	21,853
2028	68,826		-	-	-	-	-	-	-	-	22,942	22,942
2029	70,202		-	-	-	-	-	-	-	-	-	23,401
		Yearly Depreciation	23,330	31,577	42,170	32,005	39,616	47,285	54,388	60,383	65,064	68,196

Office furniture and equipment

Cost	Useful Life	No. of Years	1	2	3	4	5	6	7	8	9	10
12,441	7	Depreciation	1,777	1,777	1,777	1,777	1,777	1,777	1,777	-	-	-
Year	Capex											
2020	5,524		789	789	789	789	789	789	789	-	-	-
2021	6,350		-	907	907	907	907	907	907	-	-	-
2022	8,157		-	-	1,165	1,165	1,165	1,165	1,165	1,165	-	-
2023	10,138		-	-	-	1,448	1,448	1,448	1,448	1,448	1,448	-
2024	12,211		-	-	-	-	1,744	1,744	1,744	1,744	1,744	1,744
2025	14,062		-	-	-	-	-	2,008.82	2,008.82	2,008.82	2,008.82	2,008.82
2026	15,607		-	-	-	-	-	-	2,229.64	2,229.64	2,229.64	2,229.64
2027	16,828		-	-	-	-	-	-	-	2,403.96	2,403.96	2,403.96
2028	17,666		-	-	-	-	-	-	-	-	2,523.70	2,523.70
2029	18,019		-	-	-	-	-	-	-	-	-	2,574.17
		Yearly Depreciation	2,566	3,474	4,639	6,087	7,831	9,840	12,070	11,908	13,524	14,933

Debt Schedule

Debt Schedule														
	Units	Historicals			Projected									
		2017A	2018A	2019A	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
DEBT SUMMARY														
Long-term debt balance	USD'000	358,572	899,695	938,832	938,832	938,832	748,564	-	-	-	-	-	-	-
Repayment of principal payment of senior notes	USD'000				-	-	190,268	748,564	-	-	-	-	-	-
Interest expense	USD'000				8,625	8,625	8,625	-	-	-	-	-	-	-
CONVERTIBLE SENIOR NOTES DUE IN 2023														
Principal outstanding	USD'000			862,500	862,500	862,500	862,500	-	-	-	-	-	-	-
Unamortized debt discount	USD'000			(110,518)	(110,518)	(110,518)	(110,518)	-	-	-	-	-	-	-
Unamortized debt issuance costs	USD'000			(3,418)	(3,418)	(3,418)	(3,418)	-	-	-	-	-	-	-
Net Carrying value	USD'000			748,564	748,564	748,564	748,564	-	-	-	-	-	-	-
Equity component, net	USD'000			154,019										
Opening balance	USD'000			748,564	748,564	748,564	748,564	748,564	-	-	-	-	-	-
Repayments	USD'000			-	-	-	-	748,564	-	-	-	-	-	-
Additions	USD'000			-	-	-	-	-	-	-	-	-	-	-
Interest expense	USD'000				8,625	8,625	8,625	-	-	-	-	-	-	-
Closing balance	USD'000			748,564	748,564	748,564	748,564	-	-	-	-	-	-	-
CONVERTIBLE SENIOR NOTES DUE IN 2022														
Principal outstanding	USD'000			190,268	190,268	190,268	-	-	-	-	-	-	-	-
Net Carrying value	USD'000			190,268	190,268	190,268	-	-	-	-	-	-	-	-
Repayment					-	-	190,268	-	-	-	-	-	-	-

Discounted Cash Flow Model

Discounted Cash Flow Analysis														
OVERVIEW														
Assumptions					Target Price Calculation									
Valuation Date		6-Jun-20			Scenario				Probability		Implied share price			
Tax Rate		21%			Bear case				35%		\$ 7.55			
WACC		10%			Base case				45%		\$ 20.15			
Current share price (USD)		89.93			Bull case				20%		\$ 40.17			
Diluted shares outstanding (million)		435			Probability weighted implied share price						\$ 19.74			
					% downside						-78%			
Model Output														
Terminal value calculation method		Exit Multiple			Gordon Growth									
Present value of cumulative FCFF		3,355,743			3,355,743									
Present value of terminal value		4,983,877			5,617,588									
Implied enterprise value		8,339,620			8,973,331									
Terminal value as % of implied enterprise value		60%			63%									
Less: Debt		(938,832)			(938,832)									
Plus: Cash		1,047,118			1,047,118									
Less: Minority interest		-			-									
Less: Preferred shares		-			-									
Implied equity value		8,447,906			9,081,617									
Implied share price		\$ 19.42			\$ 20.88									
% downside		-78%			-77%									
Weightage of each method		50%			50%									
Blended implied share price		\$ 20.15												
% downside					-78%									

FCFF CALCULATION													
	Historicals			Projected									
	2017A	2018A	2019A	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
Revenue	1,920,174	2,471,451	3,081,074	4,568,499	5,251,947	6,746,114	8,384,244	10,099,160	11,629,736	12,908,134	13,917,347	14,610,546	14,902,757
% growth		29%	25%	48%	15%	28%	24%	20%	15%	11%	8%	5%	2%
EBIT	(54,206)	(36,614)	26,557	102,492	(87,039)	61,106	300,540	647,821	1,121,050	1,310,111	1,447,742	1,520,129	1,550,531
% growth		-32%	-173%	286%	-185%	-170%	392%	116%	73%	17%	11%	5%	2%
Margin %	-3%	-1%	1%	2%	-2%	1%	4%	6%	10%	10%	10%	10%	10%
Tax on EBIT	(149)	(2,326)	(2,767)	(2,767)	(19,712)	20,089	(11,021)	(63,113)	(136,042)	(235,420)	(275,123)	(304,026)	(319,227)
Tax rate %	0%	-6%	10%	3%	-23%	-33%	4%	10%	12%	18%	19%	20%	21%
Tax adjusted EBIT	(54,355)	(38,940)	23,790	99,725	(106,751)	81,196	289,519	584,707	985,007	1,074,691	1,172,618	1,216,103	1,231,304
Plus: Depreciation and amortisation	37,279	60,961	75,598	78,025	84,805	92,275	93,940	114,981	136,833	158,212	175,690	189,796	191,012
% of revenue	2%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%
Less: CAPEX	(26,097)	(61,203)	(62,498)	(66,243)	(76,153)	(97,819)	(121,572)	(146,438)	(168,631)	(187,168)	(201,802)	(211,853)	(216,090)
% of revenue	1%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Less: Change in operating assets and liabilities	82,645	45,856	110,846	13,805	32,180	38,404	37,639	32,038	27,164	34,470	29,772	12,598	5,430
% of revenue	4%	2%	4%	0%	1%	1%	0%	0%	0%	0%	0%	0%	0%
Unlevered FCFF	39,472	6,674	147,736	125,312	(65,919)	114,056	299,527	585,288	980,373	1,080,205	1,176,279	1,206,644	1,211,656
% growth		-83%	2114%	-15%	-153%	-273%	163%	95%	68%	10%	9%	3%	0%
Discount factor				1	2	3	4	5	6	7	8	9	10
Present value of unlevered FCF				113,955	(54,512)	85,771	204,831	363,974	554,411	555,504	550,087	513,145	468,577

TERMINAL VALUE CALCULATION

Exit Multiple

Exit EV/EBITDA multiple	7.40x
Implied perpetual growth rate	
Terminal year EBITDA	1,741,543
Terminal Value (EV)	12,887,418
Present value of terminal value	4,983,877.47

Gordon Growth Method

Perpetual growth rate	1.5%
Implied exit EV/EBITDA multiple	8.34x
Country GDP growth rate estimate	2%
Terminal year FCFF	1,211,656
Terminal value	14,526,081
Present value of Terminal Value	5,617,588.10

Relative Valuation

Company Comparables Analysis

Trading Comparables

Company name	Ticker	Mkt Cap (USD Mn)	EV (USD Mn)	P/E	EV/EBITDA	EV/Sales
Global Payments Inc.	NYSE:GPN	53,812.10	62,383.20	27.40x	20.05x	9.36x
The Western Union Company	NYSE:WU	7,708.60	9,935.40	11.34x	8.56x	2.11x
PayPal Holdings, Inc.	NasdaqGS:PYPL	170,685.20	169,240.20	40.40x	28.73x	8.08x
Fidelity National Information Services, Inc.	NYSE:FIS	83,679.40	102,873.40	23.92x	19.19x	8.24x
Mastercard Incorporated	NYSE:MA	291,817.40	293,699.40	43.09x	32.45x	18.36x
Fiserv, Inc.	NasdaqGS:FISV	68,608.70	91,383.70	22.19x	15.77x	5.99x
Visa Inc.	NYSE:V	403,151.00	414,941.00	37.58x	28.36x	18.79x
FLEETCOR Technologies, Inc.	NYSE:FLT	19,599.70	23,785.30	21.54x	17.73x	9.71x
Automatic Data Processing, Inc.	NasdaqGS:ADP	57,203.00	57,958.80	24.61x	17.08x	4.04x
WEX Inc.	NYSE:WEX	5,773.00	7,950.90	18.12x	12.26x	5.13x

Target Company						
Square, Inc.	NYSE:SQ	34818.6	34483.6	192.78x	120.97x	6.44x

Summary Statistics

Min.	11.34x	8.56x	2.11x
Median	24.27x	18.46x	8.16x
Max.	43.09x	32.45x	18.79x
Mean	27.02x	20.02x	8.98x
25th Percentile	20.69x	14.89x	4.86x
75th Percentile	38.29x	28.45x	11.87x

Target Company

Company name	Ticker	Mkt Cap (USD Mn)	EV (USD Mn)	Shares Outstanding	Net Debt	NTM EPS	NTM EBITDA	NTM Revenue
Square, Inc.	NYSE:SQ	34818.6	34483.6	439.4	(335.0)	0.41	285.1	5352.9

Valuation

	Percentile				
	0	25	50	75	100
EV/EBITDA Implied EV	2,440.11	4,245.26	5,262.21	8,110.67	9,250.20
EV/Sales Implied EV	11,294.70	26,001.91	43,679.99	63,552.78	100,581.74
P/E Implied Share Price	4.65	8.48	9.95	15.70	17.67
EV/EBITDA Implied Share Price	5.80	9.91	12.22	18.70	21.30
EV/Sales Implied Share Price	25.95	59.42	99.65	144.88	229.15
Blended Implied Share Price	12.13	25.94	40.61	59.76	89.37