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Mastercard Incorporated Class A (MA-US) IT Services

- We reiterate our Strong Buy rating as MA will continue to benefit from the long-term secular shift to electronic payments and view the recent COVID-19 and marketdriven pullback as a major buying opportunity.
- Even with a small setback in near-term business trends, we expect 2020 to be another record year.
- The transition of leadership should not be disruptive, as CEO Ajay Banga has created a solid and enduring enterprise.
- MA is best positioned to dominate business transactions as well as consumer payment processing.
- MA continues to grow its market share and competitive advantage through its ongoing investment and innovation in financial technology.
- MA's strong balance sheet and cash flow continue to fund ongoing investments in new growth initiatives, strategic acquisitions, and to enhance shareholder returns through ongoing dividend increases and share repurchases.
- MA is on our Research Focus List and in our Focus Opportunity Portfolio.

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\$7.79

\$1.60

0.67%

63.57%

5.72%

\$7,927.6M

\$233,934.9M

\$152,217.4M

\$97,981.6M

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Company Note

Mastercard Incorporated Class A (MA-US) IT Services

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Research Action:

Reiterate rating

 Rating:
 Strong Buy

 Prior Rating:
 Strong Buy

 Price 03/17/2020:
 \$237.88

 52 Week High /
 \$347.25

 Low:
 \$227.41

Key Data: (TTM as of Dec-19)

Excess Cash per Share:

Annual Dividend:

Return on Capital:

Cost of Capital:

Economic Profit:

Market Value Added:

Future Growth Value:

Current Operations Value:

Dividend Yield:

Avg. Volume (30 Day): 8.5M **Shares Outstanding:** 1,005.1M Float: 881.9M Short Interest: 6.7M SI % / Float 0.76% **Equity MV:** \$239,095.3M Sales TTM: \$16,883.0M Beta: 1.03 **EBITDAR:** \$11,414.2M NOPAT: \$8,712.0M **Total Invested Capital:** \$16,264.1M

- We reiterate our Strong Buy rating as MA will continue to benefit from the long-term secular shift to electronic payments and view the recent COVID-19 and market-driven pullback as a major buying opportunity. Near-term weakness driven by expected reductions in Gross Payment Volumes (GPV) from the fallout of the COVID-19 coronavirus outbreak has caused a massive reduction in global travel and consumer spending. However, MA is benefiting from the increase in global electronic payments for the long-term as the US and other developed and developing economies around the world continue to drive increases in switched transactions, cross-border volume, and growing GPV. The secular shift to electronic payments growing GPV, as well as MA's ongoing introduction of new payment platforms combined with new client wins, continue to drive positive incremental growth. The transition of leadership should not be disruptive as CEO Ajay Banga has created a robust and enduring enterprise even though incoming Michael Miebach will have big shoes to fill. MA's substantial brand equity and market-leading position, together with its innovative ability and global opportunities, will continue to drive greater Return on Capital (ROC), gains in Economic Profit, and increases in shareholder value creation. MA further enhances shareholder value through ongoing dividend increases and share repurchases. We believe further upside in the shares exists from current levels and view the recent pullback as a significant long-term buying opportunity.
- Even with a small setback in near-term business trends, we expect 2020 to be another record year. For the 12 months ending December 2019, Net Sales Revenue increased 12.93% Y/Y from \$14.95 billion to \$16.88 billion. We forecast a further increase of 14.52% to \$19.34 billion over the NTM, as growing GPV, along with new payment platforms, continue to drive record levels of revenue. Economic Operating Cash Flow (EBITDAR) increased 20.09% Y/Y from \$9.50 billion to \$11.41 billion over the LTM. We forecast a further increase of 9.7% to \$12.52 billion over the NTM. Net Operating Profit After Tax (NOPAT) increased 19.66% Y/Y from \$7.28 billion to \$8.71 billion over the LTM. We forecast a further increase of 8.57% to \$9.46 billion over the NTM. Return on Capital (ROC) maintained its current level of 63.52% over the LTM. ROC will decline slightly to 56.88% over the NTM. Economic Profit (EP) increased 23.33% Y/Y from \$6.43 billion to \$7.93 billion over the LTM. We forecast a further increase of 13.89% to \$9.03 billion over the NTM. MA's exceptional Return on Capital will continue to drive significant increases in Economic Profit and greater shareholder value creation.



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Mastercard Incorporated Class A (MA-US)

IT Services

The transition of leadership should not be disruptive, as CEO Ajay Banga has created a solid and enduring enterprise. On January 1, 2021, CEO Ajay Banga will become Executive Chairman of the Board, and MA's previous Chief Product Officer, Michael Miebach, will assume the role of Pres. and CEO. Ajay Banga became CEO with the goal of a ten-year run and has been one of corporate America's best-performing executives over that time. During his tenure, CEO Banga produced tremendous revenue growth and share price gains, and drove new payment product technology across all aspects of MA's business lines. Since becoming CEO in July 2010 to the end of 2019, MA's shares have returned an incredible 1.297.24%, which is more than six times the total return of 209.74% for the S&P 500 during the same period. MA has also outperformed its peer group, including its closest competitors Visa (V-US, Non-Rated), which was up 1,040.33%, and American Express (AXP-US, Neutral Rated), which was up 230.52%. Under Banga's guidance, MA even beat out renowned Berkshire Hathaway (BRK/A, Non-Rated) CEO Warren Buffett, whose stock was only up 182.74% during the same time frame. Banga was able to drive these incredible returns in a highly competitive and intricate financial services industry through tremendous vision, and a strong emphasis on new technology and innovation. Banga made it his mission to create an uplifting culture guided by his core concept called the Decency Quotient (DQ), which shapes the mission of MA and everything they do both inside and outside of the company. Banga's DQ also defines the company's purpose and mission, creating a genuinely uplifting culture of caring and inclusion by bringing everyone, including the company's partners, together in driving its success. Ajay Banga is highly well-liked and respected by all stakeholders and will be missed. Michael Miebach has worked alongside Banga for some time and is viewed as a logical successor; besides, anyone that Banga would pick is the right choice. Miebach was instrumental in both the Vocalink and pending Nets Corporate Services Business acquisitions. The mark of a good leader is that he has built a strong team that will continue the successful mission of the enterprise.



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Mastercard Incorporated Class A (MA-US)

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- MA is best positioned to dominate business transactions as well as consumer payment processing. MA recently announced the acquisition of the Corporate Services businesses of Nets, a leading European PayTech company, for \$3.2 billion, its largest acquisition so far. The acquisition will increase MA's real-time and bill payment technology and talent. The acquisition of Nets technology and staff further strengthens MA's existing account-to-account (A2A) capabilities. MA continues to make key strategic acquisitions that further its industryleading position and advanced technological infrastructure. Recently MA acquired bank payment facilitator Transfast, enabling MA to meet increasing customer payment needs, including the growing area of realtime account-to-account and cross-border payments. MA is also leveraging its innovative ability to create unique solutions for specific verticals, including the growing gig economy. MA was selected by Lyft (LYFT-US, Buy Rated) to partner in offering the Lyft Direct MasterCard debit card, providing Lyft drivers with instant access to their net earnings. Also, Apple (APPL-US, Strong Buy Rated) partnered with MA to launch its new innovative MasterCard Credit Card together with Goldman Sachs (GS-US, Non-Rated).
- MA continues to grow its market share and competitive advantage through its ongoing investment and innovation in financial **technology.** With the launch of Masterpass, MA became the first network to deliver a digital payment service across all devices and all channels. MA is also investing in tokenization technology with its MasterCard Digital Enablement Service (MDSE), which facilitates contactless payments and digital secure remote payments. MA continues to expand the rollout of its tokenization service and add new issuers in new markets. MA continues to develop and incorporate artificial intelligence (AI) throughout its global network to increase security, eliminate false turndowns, and improve customer service. Al can help MA monitor transaction patterns to eliminate fraud and detect money laundering. MA has also introduced the world's first authentication technology using iris scanning to authenticate online purchases via mobile phones. MA is also working with wearable device manufacturers to enable contactless payment capabilities. MA was an early partner with Garmin's (GRMN-US, Strong Buy Rated) Garmin Pay in which you can create an electronic wallet within your Garmin smartwatch to pay for a transaction with a NFC (Near Field Connectivity) terminal.



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Mastercard Incorporated Class A (MA-US)

IT Services

- MA's strong balance sheet and cash flow continue to fund ongoing investments in new growth initiatives, strategic acquisitions, and to enhance shareholder returns through ongoing dividend increases and share repurchases. As of December 2019, MA had \$7.85 billion, or \$7.79 per share, of excess cash, which together with our projected \$12.52 billion in Economic Operating Cash Flow over the NTM, continues to drive its ongoing investment in innovation, strategic acquisitions, and the return of significant amounts of cash to shareholders. MA continues to acquire complementary technology and service providers that facilitate its ability to provide the broadest array of secure payment service capabilities on both full acquisition and joint interest basis. In 2019, MA made over 20 acquisitions, including companies like loyalty data aggregator Session M, the Corporate Services Business from Nets A/S, AI analytics firm RiskRecon, and bill payment service provider Transactis. In September 2019, MA increased its quarterly dividend 21% from \$0.33 a share to \$0.40 a share. The 2019 increase followed an increase of 32% in 2018. MA continues to repurchase significant amounts of shares, and in December 2019, announced an additional open market purchase for \$8 billion worth of shares, which followed a \$6.5 billion open market purchase announcement in December 2018. In 2019, MA repurchased \$6.5 billion worth of stock, including \$994 million worth of stock of the most recent quarter, along with repurchasing \$4.93 billion in 2018.
- MA is on our Research Focus List and in our Focus Opportunity Portfolio. MA is one of the best ways to play the ongoing secular shift to electronic payments and the global growth of electronic payments. MA's leading industry position, innovative ability, strong brand equity, significant Return on Capital, and expanding growth opportunities continue to enhance its ability to generate increasing Economic Profit and greater shareholder value creation.



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Mastercard Incorporated Class A (MA-US)

IT Services

Investment Thesis

MA is benefiting from the ongoing secular transition to electronic-based payments driven by safety, convenience, loyalty programs, and purchase protections that electronic and card-based payments offer. In addition, MA's international revenue continues to grow as it increases its global market penetration and benefits from the ongoing adoption of electronic payments globally. MA's significant brand equity and innovative ability continue to create an opportunity to drive growth and gain greater market share in the global electronic payments market. MA continues to exhibit a very strong ability to generate increasing Returns on Capital and greater Economic Profit that continues to drive consistently increasing shareholder value creation. MA's substantial cash flow enables it to further enhance shareholder value through ongoing dividend increases and share repurchases.

Company Overview

Mastercard, Inc. (MA-US) is a leading financial technology company and the number-two global card network service provider, offering a range of services to financial institutions that support credit, debit, mobile, web-based and contactless payments along with other types of electronic payments and related services in more than 150 currencies in 210 countries. Mastercard's global transaction and electronic payment processing solutions include facilitating the authorization, clearing, and settlement process of electronic transactions, as well as processing cross-border and currency conversion transactions. Mastercard's payment card brands include Mastercard, Maestro, and Cirrus along with payment solution services including Mastercard Pay, Mastercard Send, Mastercard Track, and Mastercard Remote Payment and Presentment Service (RPPS). Mastercard is a leader in ACH (Automated Clearing House) transactions. Mastercard also operates the Cirrus ATM network. Mastercard generates revenue through transaction processing fees and a broad range of payment-related services.

Mastercard operates and reports revenue by five Business Segments: Transaction Processing: (26% of revenue); Rebates & Incentives: (24% of revenue); Domestic Assessments: (21% of revenue); Cross-Border Volume: (17% of revenue); and Other Revenues: (12% of revenue).

Mastercard reports revenue by two Geographic Segments: United States: (32% of revenue) and Other Countries (68% of revenue).



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Mastercard Incorporated Class A (MA-US)

IT Services

Financial Data

Panort Rasis	LTM	LTM	LTM	LTM	LTM	LTM	NTA	5 Yr	3 Yr	Current
Report Basis Reported Period Ending	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019	NTM 12/31/2020	5 Yr Average	3 Yr Average	Trend
Net Sales Revenue	\$9,473.0	\$9,667.0	\$10,776.0	\$12,497.0	\$14,950.0	\$16,883.0	\$19,335.1	\$12,954.6	\$14,776.7	\$18,109.1
Sales Growth	13.56%	2.05%	11.47%	15.97%	19.63%	12.93%	14.52%	12.41%	16.18%	13.73%
Sales Growth Trend	13.24%	6.65%	7.70%	14.17%	18.17%	15.61%	13.89%	12.46%	15.98%	14.75%
Economic Operating Cash Flow (EBITDAR)	\$6,013.5	\$5,919.2	\$6,754.4	\$7,885.0	\$9,504.6	\$11,414.2	\$12,521.3	\$8,295.5	\$9,601.3	\$11,967.8
EBITDAR Margin	63.48%	61.23%	62.68%	63.10%	63.58%	67.61%	64.76%	63.64%	64.76%	66.18%
EBITDAR Growth	17.02%	-1.57%	14.11%	16.74%	20.54%	20.09%	9.70%	13.98%	19.12%	14.90%
Net Operating Profit Before Tax (NOPBT)	\$5,627.5	\$5,484.2	\$6,300.4	\$7,372.0	\$8,951.6	\$10,443.0	\$11,647.6	\$7,710.2	\$8,922.2	\$11,045.3
NOPBT Margin	59.41%	56.73%	58.47%	58.99%	59.88%	61.86%	60.24%	59.18%	60.24%	61.05%
NOPBT Growth	16.21%	-2.55%	14.88%	17.01%	21.43%	16.66%	11.54%	13.49%	18.37%	14.10%
Cash Operating Income Tax	\$1,619.9	\$1,272.0	\$1,770.9	\$2,432.8	\$1,671.3	\$1,731.0	\$2,188.6	\$1,775.6	\$1,945.0	\$1,959.8
Economic Tax Effective Rate	28.79%	23.19%	28.11%	33.00%	18.67%	16.58%	18.79%	23.91%	22.75%	17.68%
Net Operating Profit After Tax (NOPAT)	\$4,007.6	\$4,212.1	\$4,529.5	\$4,939.2	\$7,280.3	\$8,712.0	\$9,459.0	\$5,934.6	\$6,977.2	\$9,085.5
NOPAT Margin NOPAT Growth	42.31% 19.48%	43.57% 5.10%	42.03% 7.53%	39.52% 9.05%	48.70% 47.40%	51.60% 19.66%	48.92% 8.57%	45.09% 17.75%	46.61% 25.37%	50.26% 14.12%
Cash & Equivalents	\$6,845.0	\$7,279.0	\$8,878.0	\$8,328.0	\$8,931.0	\$8,695.0	\$9,902.4	\$8,422.2	\$8,651.3	\$9,298.7
Total Assets	\$15,329.0	\$16,269.0	\$18,675.0	\$0,320.0	\$24,860.0	\$29,236.0	\$9,902.4	\$0,422.2	\$25,141.7	\$9,296.7
Non - Interest Bearing Liabilities (NIBLs)	\$6,439.0	\$6,437.0	\$7,315.0	\$9,724.0	\$12,293.0	\$13,243.0	\$15,082.0	\$9,802.4	\$11,753.3	\$14,162.5
Net Assets	\$8,856.0	\$9,798.0	\$11,332.0	\$11,505.0	\$12,473.0	\$15,895.0	\$18,102.2	\$12,200.6	\$13,291.0	\$16,998.6
Economic Asset Adjustments	(\$101.1)	(\$49.8)	(\$12.5)	\$155.7	\$129.3	\$369.1	\$420.4	\$118.4	\$218.0	\$394.8
Net Operating Assets	\$8,754.9	\$9,748.2	\$11,319.5	\$11,660.7	\$12,602.3	\$16,264.1	\$18,522.6	\$12,319.0	\$13,509.0	\$17,393.4
Debt & Debt Equivalents	\$1,688.9	\$3,498.2	\$5,404.5	\$5,607.7	\$6,910.3	\$10,080.1	\$11,479.9	\$6,300.2	\$7,532.7	\$10,780.0
Equity & Equivalents	\$6,790.0	\$6,028.0	\$5,656.0	\$5,468.0	\$5,395.0	\$5,893.0	\$6,711.3	\$5,688.0	\$5,585.3	\$6,302.2
Total Capital - Financing Sources	\$8,478.9	\$9,526.2	\$11,060.5	\$11,075.7	\$12,305.3	\$15,973.1	\$18,191.2	\$11,988.2	\$13,118.0	\$17,082.2
Capital Adjustments	(\$255.0)	(\$251.0)	(\$237.0)	(\$28.0)	(\$447.0)	(\$422.0)	(\$480.6)	(\$277.0)	(\$299.0)	(\$451.3)
Net Capital Financing Sources	\$8,223.9	\$9,275.2	\$10,823.5	\$11,047.7	\$11,858.3	\$15,551.1	\$17,710.6	\$11,711.2	\$12,819.0	\$16,630.9
Net Working Capital	(\$1,042.4)	(\$1,611.7)	(\$1,821.2)	(\$2,086.2)	(\$2,361.5)	(\$1,598.9)	(\$1,820.9)	(\$1,895.9)	(\$2,015.5)	(\$1,709.9)
Cost of Net Working Capital	(\$73.2)	(\$83.2)	(\$117.9)	(\$140.3)	(\$165.5)	(\$113.3)	(\$129.1)	(\$124.1)	(\$139.7)	(\$121.2)
% of Revenue	-0.77%	-0.86%	-1.09%	-1.12%	-1.11%	-0.67%	-0.67%	-0.97%	-0.97%	-0.67%
Operational Capital	(\$273.4)	(\$735.4)	(\$863.7)	(\$1,073.4)	(\$864.2)	\$1,020.3	\$1,162.0	(\$503.3)	(\$305.8)	\$1,091.1
Cost of Operational Capital	(\$28.0)	(\$31.6)	(\$54.9)	(\$69.5)	(\$72.1)	\$4.5	\$5.1	(\$44.8)	(\$45.7)	\$4.8
% of Revenue	-0.30%	-0.33%	-0.51%	-0.56%	-0.48%	0.03%	0.03%	-0.37%	-0.34%	0.03%
Productive Capital	\$1,962.6	\$1,958.6	\$1,614.3	\$3,081.6	\$3,030.8	\$6,458.3	\$7,355.1	\$3,228.7	\$4,190.2	\$6,906.7
Cost of Productive Capital	\$101.6	\$122.9	\$122.7	\$168.6	\$227.5	\$271.5	\$309.3	\$182.7	\$222.5	\$290.4
% of Revenue	1.07%	1.27%	1.14%	1.35%	1.52%	1.61%	1.60%	1.38%	1.49%	1.60%
Total Operating Capital	\$2,383.6	\$2,952.6	\$2,980.3	\$3,957.6	\$4,418.8	\$8,413.3	\$9,581.6	\$4,544.5	\$5,596.5	\$8,997.4
Cost of Total Operating Capital % of Revenue	\$117.7	\$167.3 1.73%	\$203.8 1.89%	\$249.0 1.99%	\$311.8 2.09%	\$367.2	\$418.2	\$259.8	\$309.3 2.08%	\$392.7
Non - Operating Capital	1.24% \$6,371.4	\$6,795.7	\$8,339.2	\$7,703.2	\$8,183.5	2.18% \$7,850.9	2.16% \$8,941.0	1.98% \$7,77 4.5	\$7,912.5	2.17% \$8,395.9
Cost of Non - Operating Capital	\$417.6	\$412.8	\$519.9	\$575.9	\$591.3	\$458.9	\$522.6	\$511.8	\$542.0	\$490.7
% of Revenue	4.41%	4.27%	4.82%	4.61%	3.96%	2.72%	2.70%	4.08%	3.76%	2.71%
Total Capital	\$8,754.9	\$9,748.2	\$11,319.5	\$11,660.7	\$12,602.3	\$16,264.1	\$18,522.6	\$12,319.0	\$13,509.0	\$17,393.4
Cost of Total Capital	\$535.3	\$580.1	\$723.7	\$824.9	\$903.1	\$826.1	\$940.8	\$771.6	\$851.4	\$883.4
% of Revenue	5.65%	6.00%	6.72%	6.60%	6.04%	4.89%	4.87%	6.05%	5.84%	4.88%
Cost of Capital (WACC)	6.43%	6.27%	6.87%	7.18%	7.44%	5.72%	5.72%	6.70%	6.78%	5.72%
Capital Structure										
Debt & Debt Equivalents	\$1,688.9	\$3,498.2	\$5,404.5	\$5,607.7	\$6,910.3	\$10,080.1	\$11,479.9	\$6,300.2	\$7,532.7	\$10,780.0
Debt & Debt Equivalents % of Market Value	1.73%	3.16%	4.67%	3.43%	3.47%	3.27%	3.27%	3.51%	3.37%	3.27%
Preferred Equity	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Preferred Equity % of Market Value	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Market Value of Common Equity	\$95,889.2	\$107,118.8	\$110,425.4	\$157,959.8	\$192,234.3	\$297,828.3	\$339,185.8	\$173,113.3	\$216,007.5	\$318,507.0
Common Equity % of Market Value	98.27%	96.84%	95.33%	96.57%	96.53%	96.73%	96.73%	96.49%	96.63%	96.73%
Total Economic Market Value (MV)	\$97,578.1	\$110,617.0	\$115,829.8	\$163,567.5	\$199,144.6	\$307,908.4	\$350,665.7	\$179,413.5	\$223,540.2	\$329,287.0
Total % Excess Cash	100.00% \$6,371.4	100.00% \$6,795.7	100.00% \$8,339.2	100.00% \$7,703.2	100.00% \$8,183.5	100.00% \$7,850.9	100.00% \$8,941.0	100.00% \$7,77 4.5	100.00% \$7,912.5	100.00% \$8,395.9
Economic Enterprise Value	\$91,206.8	\$103,821.4	\$107,490.6	\$155,864.3	\$190,961.1	\$300,057.6	\$341,724.6	\$1,774.5	\$7,912.5	\$320,891.1
Average Comited										
Average Capital Capital Δ	\$7,849.2 \$749.4	\$8,749.6 \$1,051.3	\$10,049.3 \$1,548.2	\$10,935.6 \$224.3	\$11,453.0 \$810.6	\$13,704.7 \$3,692.9	\$16,630.9 \$2,159.5	\$10,978.4 \$1,465.4	\$12,031.1 \$1,575.9	\$15,167.8 \$2,926.2
Source: Company Data, Financial statements and Tigress F		Ţ.,COG	Ţ., U.U.	·J	Ţ o	Ţ-,00 2. 0	, ,_,	,	Ţ., C. C.	,_,

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Mastercard Incorporated Class A (MA-US)

IT Services

Financial Analysis

Report Basis	LTM	LTM	LTM	LTM	LTM	LTM	NTM	5 Yr	3 Yr	Current
Reported Period Ending Return on Market Value (NOPAT / MV)	12/31/2014 4.11%	12/31/2015 3,81%	12/31/2016 3.91%	12/31/2017 3.02%	12/31/2018 3.66%	12/31/2019 2.83%	12/31/2020 3.22%	Average 3,44%	Average 3,17%	Trend_ 3.03%
Return on Enterprise Value (NOPAT / EV) Return on Capital (NOPAT / Average Capital)	4.39% 51.06%	4.06% 48.14%	4.21% 45.07%	3.17% 45.17%	3.81% 63.57%	2.90% 63.57%	3.31% 56.88%	3.63% 53.10%	3.29% 57.43%	3.11% 60.22%
Cost of Capital (WACC)	6.43%	6.27%	6.87%	7.18%	7.44%	5.72%	5.72%	6.70%	6.78%	5.72%
Economic Return Spread	44.62%	41.87%	38.20%	37.99%	56.12%	57.85%	65.88%	46.41%	50.65%	61.86%
Capital Charge	\$504.9	\$548.6	\$690.5	\$785.1	\$852.6	\$784.4	\$893.3	\$732.2	\$807.4	\$838.8
Economic Profit (EP)	\$3,502.7	\$3,663.5	\$3,839.0	\$4,154.1	\$6,427.7	\$7,927.6	\$9,028.5	\$5,202.4	\$6,169.8	\$8,478.0
Economic Profit Improvement (EPI)	\$657.9	\$160.8	\$175.5	\$315.1	\$2,273.6	\$1,499.9	\$1,100.9	\$885.0	\$1,362.9	\$1,300.4
EP Growth	23.13%	4.59%	4.79%	8.21%	54.73%	23.33%	13.89%	19.13%	28.76%	18.61%
Economic Profit Margin on Sales	36.98%	37.90%	35.63%	33.24%	42.99%	46.96%	46.69%	39.34%	41.06%	46.83%
Economic Profit Per Share	\$3.01	\$3.23	\$3.50	\$3.89	\$6.17	\$7.80	\$8.88	\$4.92	\$5.95	\$8.34
GAAP Earnings Per Share	\$3.11	\$3.35	\$3.70	\$3.66	\$5.63	\$7.99	\$8.88	\$4.86	\$5.76	\$8.43
Excess Cash Per Share	\$5.53	\$6.06	\$7.67	\$7.29	\$7.93	\$7.79	\$8.87	\$7.35	\$7.67	\$8.33
Performance Drivers										
Sales Growth	13.56%	2.05%	11.47%	15.97%	19.63%	12.93%	14.52%	12.41%	16.18%	13.73%
Sales Growth Trend (ROC Sales Growth)	13.24%	6.65%	7.70%	14.17%	18.17%	15.61%	13.89%	12.41%	15.98%	14.75%
EBITDAR Margin	63.48%	61.23%	62.68%	63.10%	63.58%	67.61%	64.76%	63.64%	64.76%	66.18%
EBITDAR Growth	17.02%	-1.57%	14.11%	16.74%	20.54%	20.09%	9.70%	13.98%	19.12%	14.90%
NOPBT Margin	59.41%	56.73%	58.47%	58.99%	59.88%	61.86%	60.24%	59.18%	60.24%	61.05%
NOPBT Growth	16.21%	-2.55%	14.88%	17.01%	21.43%	16.66%	11.54%	13.49%	18.37%	14.10%
NOPAT Margin	42.31%	43.57%	42.03%	39.52%	48.70%	51.60%	48.92%	45.09%	46.61%	50.26%
NOPAT Growth	19.48%	5.10%	7.53%	9.05%	47.40%	19.66%	8.57%	17.75%	25.37%	14.12%
Economic Profit Margin on Sales (EP / Sales)	36.98%	37.90%	35.63%	33.24%	42.99%	46.96%	46.69%	39.34%	41.06%	46.83%
Economic Profit Growth	23.13%	4.59%	4.79%	8.21%	54.73%	23.33%	13.89%	19.13%	28.76%	18.61%
Economic Return Spread (ROC-WACC)	44.62%	41.87%	38.20%	37.99%	56.12%	57.85%	51.15%	46.41%	50.65%	54.50%
Economic Return Ratio (ROC / WACC)	793.71%	767.76%	656.01%	629.13%	853.90%	1110.69%	993.75%	803.50%	864.57%	1052.22%
Economic Profit Momentum (ΔΕΡ/Capital)	8.00%	1.73%	1.62%	2.85%	19.17%	9.64%	6.22%	7.01%	10.56%	7.93%
Economic Profit Momentum Margin (ΔΕΡ/Sales)	6.95%	1.66%	1.63%	2.52%	15.21%	8.88%	5.69%	5.98%	8.87%	7.29%
Capital Growth Capital Turns	10.03%	12.78%	16.69%	2.07%	7.34%	31.14% 1.09X	13.89% 1.09X	14.01%	13.52%	22.51% 1.09X
EVC Acceleration Margin	1.15X 7.89%	1.04X 1.70%	1.00X 1.82%	1.13X 2.92%	1.26X 18.19%	10.03%	6.52%	1.10X 4.58%	1.16X 10.52%	8.80%
EVC Acceleration Spread	9.11%	2.05%	2.01%	3.14%	20.79%	13.10%	8.03%	5.32%	12.41%	10.81%
Risk Factors										
Free Cash Flow (NOPAT - A Capital)	\$3,258.2	\$3,160.8	\$2,981.2	\$4,715.0	\$6,469.8	\$5,019.1	\$7,299.5	\$4,469.2	\$5,401.3	\$6,159.3
Free Cash Flow Rate (FCF / Capital)	39.62%	34.08%	27.54%	42.68%	54.56%	32.27%	41.22%	38.23%	43.17%	36.75%
Free Cash Flow Yield (FCF / MV)	3.34%	2.86%	2.57%	2.88%	3.25%	1.63%	2.08%	2.64%	2.59%	1.86%
Total Debt / Total Capital	20.54%	37.72%	49.93%	50.76%	58.27%	64.82%	64.82%	52.30%	57.95%	64.82%
Total Debt / EBITDAR	28.09%	59.10%	80.01%	71.12%	72.70%	88.31%	91.68%	74.25%	77.38%	90.00%
Excess Cash	\$6,371.4	\$6,795.7	\$8,339.2	\$7,703.2	\$8,183.5	\$7,850.9	\$0.0	\$7,774.5	\$7,912.5	\$3,925.4
Financial Leverage ((Total Debt - Excess Cash) /	-4.80%	-2.98%	-2.53%	-1.28%	-0.64%	0.72%	3.27%	-1.34%	-0.40%	2.00%
Pension Leverage (Net Pension Liability / MV)	-0.03%	0.01%	0.01%	0.02%	0.01%	0.00%	0.00%	0.01%	0.01%	0.00%
Equity Risk Index (S&P 500 = 1.00)	0.98	0.98	0.99	0.99	1.10	1.10	1.10	1.03	1.06	1.10
Stock Price Volatility Sales Index (NL Sales)	2.93 9.16	2.99 9.18	2.38 9.29	2.00 9.43	2.85 9.61	3.30 9.73	3.30 9.87	2.70 9.45	2.72 9.59	3.30 9.80
Market Value Index (NL Market Value)	11.49	11.61	11.66	12.00	12.20	12.64	12.77	12.02	12.28	12.70
Size Index (NL Sales: MV)	10.32	10.40	10.47	10.72	10.91	11.19	11.32	10.74	10.94	11.25
Beta	0.97	0.97	0.99	0.98	1.15	1.15	1.15	1.05	1.10	1.15
TFP Adjusted Beta	0.98	0.98	0.99	0.99	1.10	1.10	1.10	1.03	1.06	1.10
Stock Price Volatility	2.93	2.99	2.38	2.00	2.85	3.30	3.30	2.70	2.72	3.30
Valuation Measures										
Total Economic Market Value (MV)	\$97,578.1	\$110,617.0	\$115,829.8	\$163,567.5	\$199,144.6	\$307,908.4	\$350,665.7	\$179,413.5	\$223,540.2	\$329,287.0
	\$97,578.1 \$91,206.8	\$110,617.0 \$103,821.4			\$199,144.6 \$190,961.1			\$179,413.5 \$171,639.0	\$223,540.2 \$215,627.7	\$329,287.0 \$320,891.1
Economic Enterprise Value Equity Market Value	\$95,889.2	\$103,821.4	\$107,490.6 \$110,425.4	\$155,864.3 \$157,959.8	\$190,961.1	\$300,057.6 \$297,828.3	\$341,724.6 \$339,185.8	\$171,639.0	\$215,627.7	\$320,891.1
Total Capital	\$8,754.9	\$9,748.2	\$11,319.5	\$11,660.7	\$12,602.3	\$16,264.1	\$18,522.6	\$12,319.0	\$13,509.0	\$17,393.4
Market Value Created MVC (MV - Capital)	\$88.823.2	\$100,868.8	\$104,510.4	\$151,906.8	\$186,542.3	\$291,644.3	\$332,143.0	\$167,094.5	\$210,031.1	\$311,893.7
MVC Margin (MVC / Sales)	937.65%	1043.43%	969.84%	1215.55%	1247.77%	1727.44%	1717.82%	1289.85%	1421.37%	1722.31%
MVC Spread (MVC / Capital)	1014.55%	1034.74%	923.28%	1302.72%	1480.23%	1793.17%	1793.17%	1356.40%	1554.74%	1793.17%
Current EVC Value (EP / WACC)	\$54,450.8	\$58,426.1	\$55,875.4	\$57,863.0	\$86,344.1	\$138,512.7	\$157,747.1	\$77,675.7	\$90,969.2	\$148,129.9
Current Operations Value COV	\$62,300.0	\$67,175.7	\$65,924.7	\$68,798.6	\$97,797.1	\$152,217.4	\$174,377.9	\$88,654.1	\$103,000.3	\$163,297.7
Current Operations Value Per Share	\$53.48	\$59.24	\$60.04	\$64.48	\$93.95	\$149.67	\$162.76	\$82.75	\$98.88	\$156.39
Future Growth Value (MVC - EVA Value)	\$35,278.1	\$43,441.4	\$49,905.1	\$94,768.9	\$101,347.6	\$155,691.0	\$176,287.7	\$90,759.3	\$120,539.8	\$165,989.4
Future Growth Value Reliance (FGV / MV)	36.15%	39.27%	43.08%	57.94%	50.89%	50.56%	50.27%	50.59%	53.92%	50.41%
Share Price	\$86.16	\$97.36	\$103.25	\$151.36	\$188.65	\$298.59	\$298.59	\$167.84	\$212.87	\$298.59
Dividend Yield	0.57%	0.69%	0.77%	0.60%	0.57%	0.47%		10 75	00.05	40.07
Total Shareholder Return (TTM)	3.70%	13.69%	6.81%	47.20%	25.21%	58.74%	0.00%	-43.79%	26.83%	40.27%
MV to IC Ratio	11.15X	11.35X	10.23X	14.03X	15.80X	18.93X	18.93X	14.56X	16.55X	18.93X
EV / EBITDAR Multiple	15.17X	17.54X	15.91X	19.77X 21.14X	20.09X	26.29X	27.29X	20.69X 22.26X	22.46X	26.81X 29.05X
EV / NOPBIT Multiple EV / NOPAT Multiple	16.21X	18.93X	17.06X 23.73X	21.14X 31.56X	21.33X 26.23X	28.73X 34.44X	29.34X	22.26X 28.92X	24.17X	29.05X 35.32X
EV / NOPAT Multiple EV / EP Multiple	22.76X 26.04X	24.65X 28.34X	28.00X	31.56X 37.52X	26.23X 29.71X	34.44X 37.85X	36.13X 37.85X	28.92X 32.99X	30.90X 34.95X	35.32X 37.85X
Future Growth Value (% of MV)	36.15%	39.27%	43.08%	57.94%	50.89%	50.56%	50.27%	50.59%	53.92%	50.41%
Current Operations Value (% of MV)	63.85%	60.73%	56.92%	42.06%	49.11%	49.44%	49.73%	49.41%	46.08%	49.59%
Market Value (COV + FGV %)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Basic Shares Outstanding	1,165.0	1,134.0	1,098.0	1,067.0	1,041.0	1,017.0	1,071.4	1,071.4	1,041.7	1,044.2
Source: Company Data Financial statements and Tigress Re		,	,	,	,	,	,	,	,	,

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Mastercard Incorporated Class A (MA-US)

IT Services

Ratings History

months.

Masterca	ard Incorporate	d Class A (MA-US)			\$400 — Mastercard Incorporated Class A
Item #	Date	Research Action	Rating	Price	
#16	12/20/2019	Reiterate Rating	Strong Buy	\$298.57	- \$350 -
#15	08/22/2019	Reiterate Rating	Strong Buy	\$280.77	6200
#14	02/08/2019	Reiterate Rating	Strong Buy	\$216.58	\$300 -
#13	08/15/2018	Reiterate Rating	Strong Buy	\$200.24	\$250
#12	05/11/2018	Reiterate Rating	Strong Buy	\$193.35	
#11	02/08/2018	Reiterate Rating	Strong Buy	\$160.62	\$200 - #3 #5 #8 #15
#10	11/13/2017	Reiterate Rating	Strong Buy	\$149.69	
#9	07/28/2017	Reiterate Rating	Strong Buy	\$127.91	\$150 #3 #4 #6 #16
#8	05/04/2017	Reiterate Rating	Strong Buy	\$117.92	1 #1
#7	02/21/2017	Reiterate Rating	Strong Buy	\$110.16	\$100 - 7
#6	05/13/2016	Reiterate Rating	Strong Buy	\$95.36	1./ 🖫 📜 🕶
#5	07/15/2015	Reiterate Rating	Strong Buy	\$98.41	\$50 #7 #9 #11 #13
#4	03/10/2015	Reiterate Rating	Strong Buy	\$88.84	\$0
#3	06/10/2014	Reiterate Rating	Strong Buy	\$77.36	01/2013 01/2014 01/2015 01/2016 01/2017 01/2018 01/2019
#2	03/25/2013	Reiterate Rating	Strong Buy	\$52.00	01/2013 01/2014 01/2013 01/2010 01/2017 01/2016 01/2019
#1	10/25/2012	Initiation of Coverage	Strong Buy	\$44.94	

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Tigress Research employs a five-tier rating system for evaluating the investment opportunity and potential return associated with owning the common equity of rated firms within our research universe. The potential return is measured on a relative basis to the general market which is represented by the S&P 500 and to the subject company's industry peer group as indicated.

or its employees within the past twelve months or expects to do so within the next three

Rating Distribution (03/17/2020)

Relationship

company's industry peer group as indicated.				Under Coverage		
Rating:	Meaning:		#	%	#	%
Strong Buy:	Expect significant price gains in the price of the stock relative to its industry peer group and general market over the next 12 months.		17	14%	1	15%
Buy:	Expect out-performance for the price of the stock relative to its industry peer group and general market over the next 12 months.		56	46%	5	70%
Neutral:	Expect little or no outperformance opportunity over the next 12 months.		44	36%	1	15%
Underperform:	Expect underperformance for the price of the stock relative to its industry peer group and general market over the next 12 months.		5	4%	0	0%
Sell:	Expect price decline or significant relative market and industry underperformance over the next 12 months.		0	0%	0	0%
Not Rated	No Current Research Rating		NA	NA	65	NA
Financial Partner	mpanies under research coverage are companies in which Tigress s LLC or one of its affiliates has received compensation for investment estimated entities and /	Total	122	100%	72	100%



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We employ proprietary quantitative valuation models combined with dynamic fundamental analysis based on the principles of Economic Profit to formulate timely and insightful investment ratings, analysis, strategies, and recommendations.

We make key adjustments to reported financial data eliminating GAAP-based accounting distortions and measuring all companies on a cash operating basis

Our proprietary research framework is a multi-factor model that scores and ranks companies based on their risk-adjusted ability to create Economic Profit relative to their current market value focusing on three key components:

Business Performance: Measuring economic profitability, growth, and operating efficiency.

Risk: Measuring business sustainability, volatility, strength, and consistency.

Valuation: Linking business performance to market value. Measuring value created relative to capital employed and enterprise multiples of economic profit and cash flow.

We score and rank 24 key measurements of performance, risk, and value into relative market and industry investment recommendations.

Glossary of Key Terms and Measures

Excess Cash per Share: Excess Cash per Share is the amount of excess cash divided by basic shares outstanding. Excess Cash consists of all

cash and short-term securities less operating cash needed to run the business. Operating Cash is 5% of TTM net sales

revenue.

EBITDAR: Earnings Before Interest, Taxes, Depreciation, Amortization, and Restructuring, and Rent Costs. This is especially

important when comparing companies that use a significant amount of leased assets like restaurants and retailers.

NOPAT: Net Operating Profit After Tax represents a company's after-tax cash operating profit excluding financing costs.

Total Invested Capital: Total Invested Capital the total cash investment that shareholders and debt holders have made during the life of the

company.

Return on Capital: Return on Capital equals NOPAT divided by Total Invested Capital. It is a key measure of operating efficiency. ROC

quantifies how well a company generates cash flow relative to the capital invested in its business.

Cost of Capital: Is the proportionately weighted cost of each category of capital – common equity, preferred equity, and debt.

Economic Profit: Economic Profit is the net operating income after tax less the opportunity cost of the total capital invested. It is the most

important driver of shareholder value.

Current Operations Value: Current Operations Value is the portion of market value based on the discounted present value of the current earnings

stream, assuming it remains constant forever.

Future Growth Value: Future Growth Value is the portion of market value based on un-earned Economic Profit



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Disclosure: Company: Mastercard Incorporated Class A (MA-US) 14

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