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## **Mastercard Incorporated Class A (MA-US)**

### **IT Services**

- **We reiterate our Strong Buy rating as MA continues to benefit from a strong global macro environment and strong consumer spending trends along with the ongoing expansion of its technology platform and adoption of new electronic payment technologies.**
- **Increases in switched transactions, cross-border volume, and growing GPV continue to drive accelerating Business Performance trends.**
- **MA is best positioned to dominate business transactions.**
- **MA continues to announce significant new business wins, including new co-branded cards and growth in existing product offerings.**
- **MA continues to grow its market share and competitive advantage through its ongoing investment and innovation in financial technology.**
- **2019 will continue to be another record year as MA continues to benefit from positive global macro-economic trends.**
- **MA's strong balance sheet and cash flow continue to drive ongoing investments in new growth initiatives, fund strategic acquisitions and 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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**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 08/21/2019:** \$282.01

**52 Week High / Low:** \$283.33 / \$171.89

**Key Data: (TTM as of Jun-19)**
**Excess Cash per Share:** \$6.59

**Annual Dividend:** \$1.32

**Dividend Yield:** 0.47%

**Avg. Volume (30 Day):** 3.6M

**Shares Outstanding:** 1,014.6M

**Float:** 890.0M

**Short Interest:** 5.7M

**SI % / Float** 0.64%

**Equity MV:** \$286,115.8M

**Sales TTM:** \$15,707.0M

**Beta:** 1.19

**EBITDAR:** \$10,166.5M

**NOPAT:** \$7,824.1M

**Total Invested Capital:** \$13,899.8M

**Return on Capital:** 63.81%

**Cost of Capital:** 6.82%

**Economic Profit:** \$6,987.8M

**Market Value Added:** \$273,855.1M

**Current Operations Value:** \$114,706.8M

**Future Growth Value:** \$173,048.1M

- **We reiterate our Strong Buy rating as MA continues to benefit from a strong global macro environment and strong consumer spending trends along with the ongoing expansion of its technology platform and adoption of new electronic payment technologies.** MA is benefiting from the increase in global electronic payments as the U.S. and other developed and developing economies around the world continue to drive increases in switched transactions, cross-border volume, and growing GPV (Gross Payment Volume). Ongoing growth in MA's core products, as well as new client wins continue to drive positive incremental growth. Recent acquisitions including Nets' account-to-account payment platform and bank payment facilitator Transfast and new partnerships including P27 further enable MA to meet increasing customer payment needs, including the growing area of real-time account-to-account and cross-border payments. MA continues to leverage its innovative ability to create unique solutions for specific verticals, including the growing gig economy, as it was selected by Lyft (LYFT-US, Buy Rated) to partner in the offering of the Lyft Direct MasterCard debit card and also provides its payment network for the recently launched Apple (AAPL, Strong Buy Rated) credit card. MA is also a partner in Facebook's (FB-US, Strong Buy Rated) launch of its Libra cryptocurrency and Calibra digital wallet. MA's strong 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 continue to recommend purchase.
- **Increases in switched transactions, cross-border volume, and growing GPV continue to drive accelerating Business Performance trends.** For the 12 months ending June 2019, Net Sales Revenue increased 12.55% Y/Y from \$13.96 billion to \$15.71 billion. We forecast a further increase of 14% to \$17.91 billion over the NTM as GPV and increasing switching transactions continue to drive record levels of revenue. Economic Operating Cash Flow (EBITDAR) increased 15.31% Y/Y from \$8.82 billion to \$10.17 billion over the LTM. We forecast a further increase of 11.78% to \$11.36 billion over the NTM. Net Operating Profit After Tax (NOPAT) increased 41.17% Y/Y from \$5.54 billion to \$7.82 billion over the LTM. We forecast a further increase of 9.50% to \$8.57 billion over the NTM.

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Return on Capital (ROC) increased from 49.79% to 63.81% over the LTM. We forecast a slight decline to 59.49% over the NTM, but at that level, MA continues to be one of the strongest and most consistent Return on Capital generating companies in our research universe. Economic Profit (EP) increased 50.52% Y/Y from \$4.64 billion to \$6.99 billion over the LTM. We forecast a further increase of 13.43 to \$7.93 billion over the NTM. MA's exceptional Return on Capital will continue to drive significant increases in Economic Profit and greater shareholder value creation.

- **MA is best positioned to dominate business transactions.** 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 industry-leading 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 real-time 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, \$62.46) to partner in the offering of the Lyft Direct MasterCard debit card, providing Lyft drivers with instant access to their net earnings. In addition, Apple partnered with MA to launch its new innovative MasterCard Credit Card together with Goldman Sachs (GS-US, Non-Rated). In addition to partnering with Facebook on its Libra cryptocurrency and Calibra digital wallet, MA is also rumored to be developing its own cryptocurrency initiative as it continues to evolve from a card issuer and payment processor to a leading financial technology company.
- **MA continues to announce significant new business wins, including new co-branded cards and growth in existing product offerings.** In addition to launching the LYFT MasterCard Debit Card, MA continues to announce a strong cadence of new co-branded and partnership wins. Recent highlights include announcing a new co-branded partnership with growing online home remodeling marketplace operator Houzz. MA announced a new 10-year exclusive co-brand credit card with leading Latin American online travel agency Despegar which will integrate MA's loyalty program into its card offering. MA also renewed its credit card relationship with Germany's second-largest retail bank, DZ Bank, representing hundreds of cooperative banks across the country, and will continue to issue MasterCard Credit Cards to their customers.

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In addition, MA signed a new agreement with Nationwide in the UK to provide their business debit card highlighting MA's strength in the small business space as Nationwide plans to launch a new business banking platform to over 5 million small businesses in the UK early next year. MA also won an exclusive debit card partnership with Scotiabank in Columbia and signed new long-term debit card agreements with two of the country's largest debit card issuers, Bancolumbia and Davivienda.

- **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 turn-downs, and improve customer service. AI can help MA to 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 with mobile phones. MA is also working with wearable device manufacturers to enable contactless payment capabilities.
- **2019 will continue to be another record year as MA continues to benefit from positive global macro-economic trends.** MA continues to benefit from the global growth of electronic payment adoption together with the ongoing secular shift to electronic payments as it gains from both card-based and other types of electronic transactions, including the significant growth of ACH (Automated Clearing House electronic network)-based transfers. MA also benefits from a record level of low unemployment and wage growth that is increasing consumers' spendable income. MA continues to experience revenue growth from other business lines outside of traditional credit card fees as well. MA earns revenue from ACH payment facilitation along with prepaid card program management, anti-fraud solutions, loyalty reward services, and its Masterpass digital wallet.

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- **MA's strong balance sheet and cash flow continue to drive ongoing investments in new growth initiatives, fund strategic acquisitions and enhance shareholder returns through ongoing dividend increases and share repurchases.** As of June 2019, MA has \$6.72 billion, \$6.59 per share, of excess cash, which together with our projected \$11.36 billion in Economic Operating Cash Flow over the NTM, continues to drive its ongoing investment in innovation along with making strategic acquisitions and returning significant amounts of cash to shareholders. In 2018, MA increased its quarterly dividend 32% from \$0.25 a share to \$0.33 a share and continues to repurchase a significant number of outstanding shares. In December 2018, MA announced an additional open market purchase of \$6.5 billion worth of shares which followed a \$4 billion open market purchase announcement in December 2017. In the most recent quarter, MasterCard repurchased \$1.9 billion in stock along with an additional \$493 million in July.
- **MA is on our Research Focus List and in our Focus Opportunity Portfolio.** MA's leading industry position, 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. MA is one of the best ways to play the ongoing secular shift to electronic payments and global growth of electronic payments.

#### **Investment Thesis**

MA continues to benefit from the ongoing transition to electronic-based payments driven by safety, convenience, loyalty programs, and purchase protections that electronic and card-based payments offer. MA is one of the most technologically advanced and innovative companies in the payment processing space and views MA as both a financial technology company and a card issuer and payment facilitator. MA's international revenue continues to grow as it increases its international 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.

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**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 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. Mastercard is a leader in ACH (Automated Clearing House) transactions. Mastercard also operates the Cirrus ATM network.

**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: (33% of revenue) and Other Countries (67% of revenue).

**Mastercard Incorporated Class A (MA-US)**
**IT Services**
**Financial Data**

Report Basis	LTM	LTM	LTM	LTM	LTM	LTM	NTM	5 Yr	3 Yr	Current
Reported Period Ending	06/30/2014	06/30/2015	06/30/2016	06/30/2017	06/30/2018	06/30/2019	06/30/2020	Average	Average	Trend
<b>Net Sales Revenue</b>	\$8,893.0	\$9,539.0	\$10,187.0	\$11,423.0	\$13,955.0	\$15,707.0	\$17,907.5	\$12,162.2	\$13,695.0	\$16,807.3
Sales Growth	13.74%	7.26%	6.79%	12.13%	22.17%	12.55%	14.01%	12.18%	15.62%	13.28%
Sales Growth Trend	12.13%	9.85%	6.98%	10.00%	18.15%	16.40%	13.43%	12.28%	14.85%	14.91%
<b>Economic Operating Cash Flow (EBITDAR)</b>	\$5,562.4	\$5,950.7	\$6,244.5	\$7,135.9	\$8,817.0	\$10,166.5	\$11,363.9	\$7,662.9	\$8,706.5	\$10,765.2
EBITDAR Margin	62.55%	62.38%	61.30%	62.47%	63.18%	64.73%	63.46%	62.81%	63.46%	64.09%
EBITDAR Growth	15.38%	6.98%	4.94%	14.27%	23.56%	15.31%	11.78%	13.01%	17.71%	13.54%
<b>Net Operating Profit Before Tax (NOPBT)</b>	\$5,235.4	\$5,539.7	\$5,800.5	\$6,666.9	\$8,272.0	\$9,565.5	\$10,657.3	\$7,168.9	\$8,168.1	\$10,111.4
NOPBT Margin	58.87%	58.07%	56.94%	58.36%	59.28%	60.90%	59.51%	58.71%	59.51%	60.21%
NOPBT Growth	15.26%	5.81%	4.71%	14.94%	24.08%	15.64%	11.41%	13.03%	18.22%	13.53%
<b>Cash Operating Income Tax</b>	\$1,647.0	\$1,382.2	\$1,450.4	\$1,845.8	\$2,729.8	\$1,741.4	\$2,089.9	\$1,829.9	\$2,105.7	\$1,915.7
Economic Tax Effective Rate	31.46%	24.95%	25.00%	27.69%	33.00%	18.21%	19.61%	25.77%	26.30%	18.91%
<b>Net Operating Profit After Tax (NOPAT)</b>	\$3,588.4	\$4,157.6	\$4,350.1	\$4,821.1	\$5,542.2	\$7,824.1	\$8,567.4	\$5,339.0	\$6,062.5	\$8,195.8
NOPAT Margin	40.35%	43.58%	42.70%	42.20%	39.72%	49.81%	47.84%	43.60%	43.91%	48.83%
NOPAT Growth	13.41%	15.86%	4.63%	10.83%	14.96%	41.17%	9.50%	17.49%	22.32%	25.34%
<b>Cash &amp; Equivalents</b>	\$6,254.0	\$5,618.0	\$6,989.0	\$7,503.0	\$8,294.0	\$7,510.0	\$8,518.4	\$7,182.8	\$7,769.0	\$8,014.2
<b>Total Assets</b>	\$14,375.0	\$15,272.0	\$16,282.0	\$19,839.0	\$22,471.0	\$24,731.0	\$28,051.8	\$19,719.0	\$22,347.0	\$26,391.4
<b>Non - Interest Bearing Liabilities (NIBLs)</b>	\$6,302.0	\$7,021.0	\$6,814.0	\$8,223.0	\$10,821.0	\$10,994.0	\$12,470.2	\$8,774.6	\$10,012.7	\$11,732.1
<b>Net Assets</b>	\$8,025.0	\$8,219.0	\$9,436.0	\$11,520.0	\$11,557.0	\$13,636.0	\$15,467.0	\$10,873.6	\$12,237.7	\$14,551.5
Economic Asset Adjustments	(\$107.6)	(\$54.0)	(\$13.2)	\$59.1	(\$89.3)	\$263.8	\$299.3	\$33.3	\$77.9	\$281.5
<b>Net Operating Assets</b>	\$7,917.4	\$8,165.0	\$9,422.8	\$11,579.1	\$11,467.7	\$13,899.8	\$15,766.3	\$10,906.9	\$12,315.6	\$14,833.0
<b>Debt &amp; Debt Equivalents</b>	\$1,607.4	\$1,648.0	\$3,509.8	\$5,552.1	\$6,041.7	\$8,819.8	\$10,004.1	\$5,114.3	\$6,804.6	\$9,412.0
<b>Equity &amp; Equivalents</b>	\$6,266.0	\$6,404.0	\$5,837.0	\$5,852.0	\$5,257.0	\$5,008.0	\$5,680.5	\$5,671.6	\$5,372.3	\$5,344.2
<b>Total Capital - Financing Sources</b>	\$7,873.4	\$8,052.0	\$9,346.8	\$11,404.1	\$11,298.7	\$13,827.8	\$15,684.6	\$10,785.9	\$12,176.9	\$14,756.2
Capital Adjustments	(\$221.0)	(\$207.0)	(\$217.0)	(\$167.0)	(\$273.0)	(\$332.0)	(\$376.6)	(\$339.2)	(\$257.3)	(\$354.3)
<b>Net Capital Financing Sources</b>	\$7,652.4	\$7,845.0	\$9,129.8	\$11,237.1	\$11,025.7	\$13,495.8	\$15,308.0	\$10,546.7	\$11,919.6	\$14,401.9
<b>Net Working Capital</b>	(\$757.4)	(\$1,080.1)	(\$1,650.7)	(\$1,630.9)	(\$2,304.3)	(\$1,222.7)	(\$1,386.8)	(\$1,577.7)	(\$1,719.3)	(\$1,304.7)
Cost of Net Working Capital	(\$49.9)	(\$67.9)	(\$92.3)	(\$120.9)	(\$159.0)	(\$120.3)	(\$136.4)	(\$112.1)	(\$133.4)	(\$128.4)
% of Revenue	-0.56%	-0.71%	-0.91%	-1.06%	-1.14%	-0.77%	-0.76%	-0.92%	-0.99%	-0.76%
<b>Operational Capital</b>	(\$104.9)	(\$295.0)	(\$766.8)	(\$559.7)	(\$1,260.5)	\$721.2	\$818.0	(\$432.2)	(\$366.4)	\$769.6
Cost of Operational Capital	(\$3.4)	(\$14.8)	(\$35.9)	(\$48.9)	(\$73.6)	(\$18.4)	(\$20.9)	(\$38.3)	(\$46.9)	(\$19.6)
% of Revenue	-0.04%	-0.15%	-0.35%	-0.43%	-0.53%	-0.12%	-0.12%	-0.32%	-0.36%	-0.12%
<b>Productive Capital</b>	\$2,181.1	\$2,507.0	\$1,829.2	\$3,325.3	\$2,756.5	\$5,477.2	\$6,212.6	\$3,179.0	\$3,853.0	\$5,844.9
Cost of Productive Capital	\$148.4	\$173.2	\$146.6	\$189.9	\$245.8	\$280.8	\$318.5	\$207.3	\$238.8	\$299.7
% of Revenue	1.67%	1.82%	1.44%	1.66%	1.76%	1.79%	1.79%	1.69%	1.74%	1.78%
<b>Total Operating Capital</b>	\$2,108.1	\$3,024.0	\$2,943.2	\$4,647.3	\$3,871.5	\$7,175.2	\$8,138.6	\$4,332.2	\$5,231.3	\$7,656.9
Cost of Total Operating Capital	\$150.3	\$189.6	\$201.7	\$279.7	\$344.2	\$376.7	\$427.3	\$278.4	\$333.6	\$402.0
% of Revenue	1.69%	1.99%	1.98%	2.45%	2.47%	2.40%	2.26%	2.26%	2.44%	2.39%
<b>Non - Operating Capital</b>	\$5,809.4	\$5,141.1	\$6,479.7	\$6,931.9	\$7,596.3	\$6,724.7	\$7,627.6	\$6,574.7	\$7,084.3	\$7,176.1
Cost of Non - Operating Capital	\$430.0	\$404.6	\$392.9	\$494.2	\$587.1	\$488.4	\$554.0	\$473.4	\$523.2	\$521.2
% of Revenue	4.84%	4.24%	3.86%	4.33%	4.21%	3.11%	3.09%	3.95%	3.88%	3.10%
<b>Total Capital</b>	\$7,917.4	\$8,165.0	\$9,422.8	\$11,579.1	\$11,467.7	\$13,899.8	\$15,766.3	\$10,906.9	\$12,315.6	\$14,833.0
Cost of Total Capital	\$580.4	\$594.2	\$594.6	\$773.9	\$931.3	\$865.2	\$981.3	\$751.8	\$856.8	\$923.2
% of Revenue	6.53%	6.23%	5.84%	6.78%	6.67%	5.51%	5.48%	6.20%	6.32%	5.49%
<b>Cost of Capital (WACC)</b>	7.64%	7.39%	6.76%	7.37%	8.08%	6.82%	6.82%	7.28%	7.42%	6.82%
<b>Capital Structure</b>										
<b>Debt &amp; Debt Equivalents</b>	\$1,607.4	\$1,648.0	\$3,509.8	\$5,552.1	\$6,041.7	\$8,819.8	\$10,004.1	\$5,114.3	\$6,804.6	\$9,412.0
Debt & Debt Equivalents % of Market Value	1.91%	1.55%	3.56%	4.16%	2.90%	3.20%	3.20%	3.11%	3.30%	3.20%
<b>Preferred Equity</b>	\$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%
<b>Market Value of Common Equity</b>	\$82,558.2	\$104,334.3	\$94,956.4	\$127,998.8	\$202,453.9	\$267,138.7	\$303,009.3	\$159,376.4	\$199,197.2	\$285,074.0
Common Equity % of Market Value	98.09%	98.45%	96.44%	95.84%	97.10%	96.80%	96.80%	96.89%	96.70%	96.80%
<b>Total Economic Market Value (MV)</b>	\$84,165.6	\$105,982.3	\$98,466.2	\$133,551.0	\$208,495.6	\$275,958.6	\$313,013.4	\$164,490.7	\$206,001.7	\$294,486.0
Total %	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
<b>Excess Cash</b>	\$5,809.4	\$5,141.1	\$6,479.7	\$6,931.9	\$7,596.3	\$6,724.7	\$7,627.6	\$6,574.7	\$7,084.3	\$7,176.1
<b>Economic Enterprise Value</b>	\$78,356.3	\$100,841.2	\$91,986.6	\$126,619.1	\$200,899.4	\$269,233.9	\$305,385.8	\$157,916.0	\$198,917.5	\$287,309.9
<b>Average Capital</b>	\$7,342.7	\$7,748.7	\$8,487.4	\$10,183.5	\$11,131.4	\$12,260.8	\$14,401.9	\$9,962.4	\$11,191.9	\$13,331.3
Capital Δ	\$619.5	\$192.6	\$1,284.8	\$2,107.3	(\$211.4)	\$2,470.1	\$1,812.2	\$1,168.7	\$1,455.3	\$2,141.1

Source: Company Data, Financial statements and Tigress Research

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Company Report – Research Update

Mastercard Incorporated Class A (MA-US)

IT Services

Financial Analysis

Report Basis	LTM	LTM	LTM	LTM	LTM	LTM	LTM	NTM	5 Yr	3 Yr	Current
Reported Period Ending	06/30/2014	06/30/2015	06/30/2016	06/30/2017	06/30/2018	06/30/2019	06/30/2019	06/30/2020	Average	Average	Trend
Return on Market Value (NOPAT / MV)	4.26%	3.92%	4.42%	3.61%	2.66%	2.84%		3.22%	3.49%	3.03%	3.03%
Return on Enterprise Value (NOPAT / EV)	4.58%	4.12%	4.73%	3.81%	2.76%	2.91%		3.30%	3.66%	3.16%	3.10%
Return on Capital (NOPAT / Average Capital)	48.87%	53.65%	51.25%	47.34%	49.79%	63.81%		59.49%	53.17%	53.65%	61.65%
Cost of Capital (WACC)	7.64%	7.39%	6.76%	7.37%	8.08%	6.82%		6.82%	7.28%	7.42%	6.82%
Economic Return Spread	41.23%	46.27%	44.49%	39.97%	41.71%	56.99%		64.65%	45.89%	46.22%	60.82%
Capital Charge	\$561.1	\$572.6	\$573.9	\$750.5	\$899.6	\$836.3		\$948.6	\$726.6	\$828.8	\$892.5
Economic Profit (EP)	\$3,027.4	\$3,585.0	\$3,776.2	\$4,070.5	\$4,642.6	\$6,987.8		\$7,926.1	\$4,612.4	\$5,233.7	\$7,457.0
Economic Profit Improvement (EPI)	\$397.9	\$557.6	\$191.2	\$294.3	\$572.1	\$2,345.2		\$938.3	\$792.1	\$1,070.5	\$1,641.8
EP Growth	15.13%	18.42%	5.33%	7.79%	14.05%	50.52%		13.43%	19.22%	24.12%	31.97%
Economic Profit Margin on Sales	34.04%	37.58%	37.07%	35.63%	33.27%	44.49%		44.26%	37.61%	37.80%	44.38%
Economic Profit Per Share	\$2.50	\$3.08	\$3.33	\$3.71	\$4.35	\$6.71		\$7.61	\$4.24	\$4.92	\$7.16
GAAP Earnings Per Share	\$2.78	\$3.28	\$3.41	\$4.04	\$4.48	\$6.53		\$8.23	\$4.35	\$5.01	\$7.38
Excess Cash Per Share	\$4.99	\$4.52	\$5.90	\$6.48	\$7.28	\$6.59		\$7.48	\$6.15	\$6.78	\$7.04
<b>Performance Drivers</b>											
Sales Growth	13.74%	7.26%	6.79%	12.13%	22.17%	12.55%		14.01%	12.18%	15.62%	13.28%
Sales Growth Trend (ROC Sales Growth)	12.13%	9.85%	6.98%	10.00%	18.15%	16.40%		13.43%	12.28%	14.85%	14.91%
EBITDAR Margin	62.55%	62.38%	61.30%	62.47%	63.18%	64.73%		63.46%	62.81%	63.46%	64.09%
EBITDAR Growth	15.38%	6.98%	4.94%	14.27%	23.56%	15.31%		11.78%	13.01%	17.71%	13.54%
NOPBT Margin	58.87%	58.07%	56.94%	58.36%	59.28%	60.90%		59.51%	58.71%	59.51%	60.21%
NOPBT Growth	15.26%	5.81%	4.71%	14.94%	24.08%	15.64%		11.41%	13.03%	18.22%	13.53%
NOPAT Margin	40.35%	43.58%	42.70%	42.20%	39.72%	49.81%		47.84%	43.60%	43.91%	48.83%
NOPAT Growth	13.41%	15.86%	4.63%	10.83%	14.96%	41.17%		9.50%	17.49%	22.32%	25.34%
Economic Profit Margin on Sales (EP / Sales)	34.04%	37.58%	37.07%	35.63%	33.27%	44.49%		44.26%	37.61%	37.80%	44.38%
Economic Profit Growth	15.13%	18.42%	5.33%	7.79%	14.05%	50.52%		13.43%	19.22%	24.12%	31.97%
Economic Return Spread (ROC-WACC)	41.23%	46.27%	44.49%	39.97%	41.71%	56.99%		52.67%	45.89%	46.22%	54.83%
Economic Return Ratio (ROC / WACC)	639.58%	726.15%	758.05%	642.35%	616.06%	935.56%		872.13%	735.63%	731.32%	903.85%
Economic Profit Momentum (ΔEP/Capital)	5.20%	7.11%	2.09%	2.62%	5.19%	17.38%		6.13%	6.88%	8.40%	11.75%
Economic Profit Momentum Margin (ΔEP/Sales)	4.47%	5.85%	1.88%	2.58%	4.10%	14.93%		5.24%	5.87%	7.20%	10.09%
Capital Growth	8.81%	2.52%	16.38%	23.08%	-1.88%	22.40%		13.43%	12.50%	14.53%	17.92%
Capital Turns	1.16X	1.22X	1.12X	1.02X	1.27X	1.16X		1.17X	1.16X	1.15X	1.17X
EVC Acceleration Margin	5.09%	6.27%	2.00%	2.89%	5.01%	16.81%		5.97%	4.42%	8.80%	11.99%
EVC Acceleration Spread	6.10%	7.59%	2.47%	3.47%	5.62%	21.07%		7.65%	5.50%	10.75%	14.67%
<b>Risk Factors</b>											
Free Cash Flow (NOPAT - Δ Capital)	\$2,969.0	\$3,965.0	\$3,065.3	\$2,713.7	\$5,753.7	\$5,354.0		\$6,755.2	\$4,170.3	\$4,607.1	\$6,054.6
Free Cash Flow Rate (FCF / Capital)	38.80%	50.54%	33.57%	24.15%	52.18%	39.67%		44.13%	40.02%	38.67%	41.90%
Free Cash Flow Yield (FCF / MV)	3.53%	3.74%	3.11%	2.03%	2.76%	1.94%		2.16%	2.72%	2.24%	2.05%
Total Debt / Total Capital	21.01%	21.01%	38.44%	49.41%	54.80%	65.35%		65.35%	45.80%	56.52%	65.35%
Total Debt / EBITDAR	28.90%	27.69%	56.21%	77.81%	68.52%	86.75%		88.03%	63.40%	77.69%	87.39%
Excess Cash	\$5,809.4	\$5,141.1	\$6,479.7	\$6,931.9	\$7,596.3	\$6,724.7		\$0.0	\$6,574.7	\$7,084.3	\$3,362.3
Financial Leverage ((Total Debt - Excess Cash) / Pension Leverage (Net Pension Liability / MV))	-4.99%	-3.30%	-3.02%	-1.03%	-0.75%	0.76%		3.20%	-1.47%	-0.34%	1.98%
Equity Risk Index (S&P 500 = 1.00)	1.18	1.19	1.18	1.19	1.19	1.19		1.19	1.19	1.19	1.19
Stock Price Volatility	2.61	2.76	2.80	2.38	2.10	2.91		2.91	2.59	2.47	2.91
Sales Index (NL Sales)	9.09	9.16	9.23	9.34	9.54	9.66		9.79	9.39	9.52	9.73
Market Value Index (NL Market Value)	11.34	11.57	11.50	11.80	12.25	12.53		12.65	11.93	12.19	12.59
Size Index (NL Sales: MV)	10.22	10.37	10.36	10.57	10.90	11.09		11.22	10.66	10.85	11.16
Beta	1.28	1.28	1.28	1.28	1.28	1.28		1.28	1.28	1.28	1.28
TFP Adjusted Beta	1.18	1.19	1.18	1.19	1.19	1.19		1.19	1.19	1.19	1.19
Stock Price Volatility	2.61	2.76	2.80	2.38	2.10	2.91		2.91	2.59	2.47	2.91
<b>Valuation Measures</b>											
Total Economic Market Value (MV)	\$84,165.6	\$105,982.3	\$98,466.2	\$133,551.0	\$208,495.6	\$275,958.6		\$313,013.4	\$164,490.7	\$206,001.7	\$294,486.0
Economic Enterprise Value	\$78,356.3	\$100,841.2	\$91,986.6	\$126,619.1	\$200,899.4	\$269,233.9		\$305,385.8	\$157,916.0	\$198,917.5	\$287,309.9
Equity Market Value	\$82,558.2	\$104,334.3	\$94,956.4	\$127,998.8	\$202,453.9	\$267,138.7		\$303,009.3	\$159,376.4	\$199,197.2	\$285,074.0
Total Capital	\$7,917.4	\$8,165.0	\$9,422.8	\$11,579.1	\$11,467.7	\$13,899.8		\$15,766.3	\$10,906.9	\$12,315.6	\$14,833.0
Market Value Created MVC (MV - Capital)	\$76,248.2	\$97,817.3	\$89,043.4	\$121,971.8	\$197,027.9	\$262,058.7		\$297,247.2	\$153,583.8	\$193,686.2	\$279,653.0
MVC Margin (MVC / Sales)	857.40%	1025.45%	874.09%	1067.77%	1411.88%	1668.42%		1659.90%	1262.80%	1414.28%	1663.88%
MVC Spread (MVC / Capital)	963.04%	1198.01%	944.98%	1053.38%	1718.11%	1885.34%		1885.34%	1408.14%	1572.69%	1885.34%
Current EVC Value (EP / WACC)	\$39,619.9	\$48,518.3	\$55,851.2	\$55,230.2	\$57,444.5	\$102,446.0		\$116,202.1	\$63,317.3	\$70,493.2	\$109,324.1
Current Operations Value COV	\$46,962.6	\$56,267.0	\$64,338.6	\$65,413.6	\$68,576.0	\$114,706.8		\$130,604.1	\$73,279.7	\$81,685.1	\$122,655.4
Current Operations Value Per Share	\$38.78	\$48.30	\$56.74	\$59.58	\$64.27	\$110.19		\$118.62	\$66.56	\$76.44	\$114.52
Future Growth Value (MVC - EVA Value)	\$37,203.0	\$49,715.3	\$34,127.6	\$68,137.3	\$139,919.7	\$161,251.8		\$182,409.4	\$91,211.1	\$124,316.6	\$171,830.6
Future Growth Value Reliance (FGV / MV)	44.20%	46.91%	34.66%	51.02%	67.11%	58.43%		58.28%	55.45%	60.35%	58.35%
Share Price	\$73.47	\$93.48	\$88.06	\$121.45	\$196.52	\$264.53		\$264.53	\$152.81	\$194.17	\$264.53
Dividend Yield	0.53%	0.63%	0.83%	0.70%	0.49%	0.47%					
Total Shareholder Return (TTM)	28.42%	27.87%	-4.97%	38.62%	62.31%	35.08%		0.00%	-42.23%	27.07%	36.24%
MV to IC Ratio	10.63X	12.98X	10.45X	11.53X	18.18X	19.85X		19.85X	15.08X	16.73X	19.85X
EV / EBITDAR Multiple	14.09X	16.95X	14.73X	17.74X	22.79X	26.48X		26.87X	20.61X	22.85X	26.69X
EV / NOPBT Multiple	14.97X	18.20X	15.86X	18.99X	24.29X	28.15X		28.66X	22.03X	24.35X	28.41X
EV / NOPAT Multiple	21.84X	24.25X	21.15X	26.26X	36.25X	34.41X		35.65X	29.58X	32.81X	35.06X
EV / EP Multiple	25.88X	28.13X	24.36X	31.11X	43.27X	38.53X		38.53X	34.24X	38.01X	38.53X
Future Growth Value (% of MV)	44.20%	46.91%	34.66%	51.02%	67.11%	58.43%		58.28%	55.45%	60.35%	58.35%
Current Operations Value (% of MV)	55.80%	53.09%	65.34%	48.98%	32.89%	41.57%		41.72%	44.55%	39.65%	41.65%
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	1,211.0	1,165.0	1,134.0	1,098.0	1,067.0	1,041.0		1,101.0	1,101.0	1,068.7	1,071.0

Source: Company Data, Financial statements and Tigress Research

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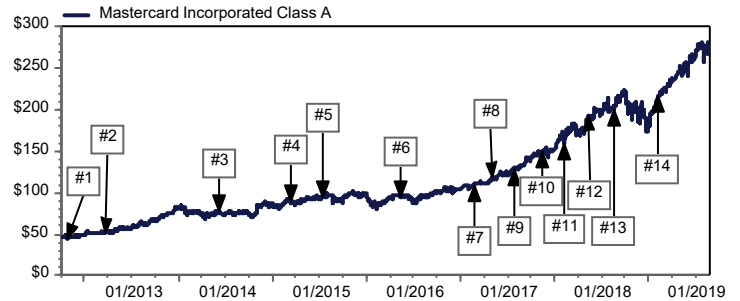
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**Mastercard Incorporated Class A (MA-US)**
**IT Services**
**Ratings History**

Mastercard Incorporated Class A (MA-US)				
Item #	Date	Research Action	Rating	Price
#14	02/08/2019	Reiterate Rating	Strong Buy	\$216.58
#13	08/15/2018	Reiterate Rating	Strong Buy	\$200.24
#12	05/11/2018	Reiterate Rating	Strong Buy	\$193.35
#11	02/08/2018	Reiterate Rating	Strong Buy	\$160.62
#10	11/13/2017	Reiterate Rating	Strong Buy	\$149.69
#9	07/28/2017	Reiterate Rating	Strong Buy	\$127.91
#8	05/04/2017	Reiterate Rating	Strong Buy	\$117.92
#7	02/21/2017	Reiterate Rating	Strong Buy	\$110.16
#6	05/13/2016	Reiterate Rating	Strong Buy	\$95.36
#5	07/15/2015	Reiterate Rating	Strong Buy	\$98.41
#4	03/10/2015	Reiterate Rating	Strong Buy	\$88.84
#3	06/10/2014	Reiterate Rating	Strong Buy	\$77.36
#2	03/25/2013	Reiterate Rating	Strong Buy	\$52.00
#1	10/25/2012	Initiation of Coverage	Strong Buy	\$44.94


**Tigress Research Methodology Overview**

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**

<b>Excess Cash per Share:</b>	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.
<b>EBITDAR:</b>	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.
<b>NOPAT:</b>	Net Operating Profit after Tax represents a company's after-tax cash operating profit excluding financing costs.
<b>Total Invested Capital:</b>	Total Invested Capital the total cash investment that shareholders and debt holders have made during the life of the company.
<b>Return on Capital:</b>	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.
<b>Cost of Capital:</b>	Is the proportionately weighted cost of each category of capital – common equity, preferred equity and debt.
<b>Economic Profit:</b>	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.
<b>Current Operations Value:</b>	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.
<b>Future Growth Value:</b>	Future Growth Value is the portion of market value based on un-earned Economic Profit.

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Rating:	Meaning:	Rating Distribution (08/21/2019)				
		Companies Under Coverage		Relationship Companies Under Coverage*		
		#	%	#	%	
<b>Strong Buy:</b>	Expect significant price gains in the price of the stock relative to its industry peer group and general market over the next 12 months.	16	13%	1	15%	
<b>Buy:</b>	Expect out-performance for the price of the stock relative to its industry peer group and general market over the next 12 months.	55	46%	5	70%	
<b>Neutral:</b>	Expect little or no outperformance opportunity over the next 12 months.	44	37%	1	15%	
<b>Underperform:</b>	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%	
<b>Sell:</b>	Expect price decline or significant relative market and industry underperformance over the next 12 months.	0	0%	0	0%	
<b>Not Rated</b>	No Current Research Rating	NA	NA	65	NA	
		<b>Total</b>	<b>120</b>	<b>100%</b>	<b>72</b>	<b>100%</b>

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<b>Company:</b>	<b>Disclosure:</b>
Mastercard Incorporated Class A (MA-US)	14

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