

Seeking Alpha^α

Visa Vs. Mastercard: Who Is Closer To The Bottom

Oct. 05, 2021 8:48 PM ET | **Mastercard Incorporated (MA), V** | 7 Comments | 10 Likes

Summary

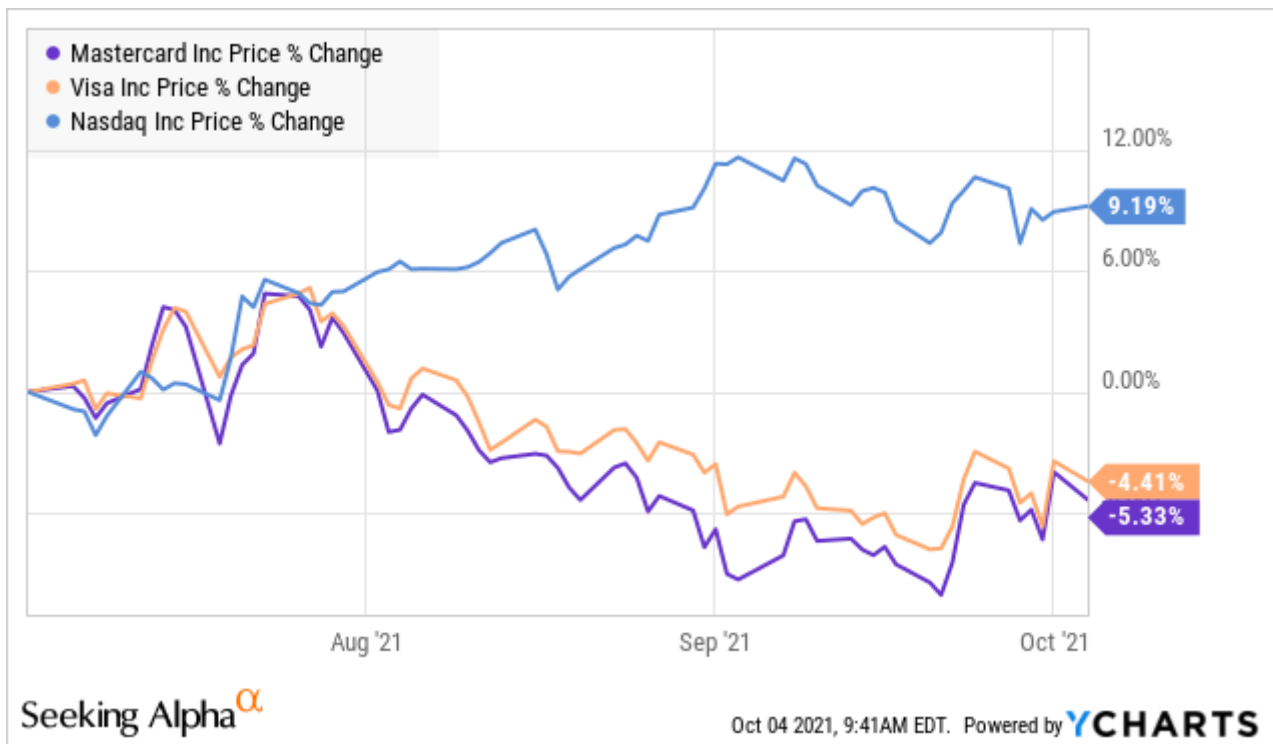
- Assuming that the stock market is now in a correction mode, it is interesting to note that Mastercard and Visa have been in this mode for the third month already.
- Visa and Mastercard are primarily growth companies. They are valued by the market in terms of cash flow. Dividends, in this case, are just an added bonus.
- In terms of DCF modeling, Visa is already undervalued. And at the same time, the fundamental value of Mastercard now coincides with the market price.
- If you focus on the dividend models, Visa is less overvalued than Mastercard.



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Intro

Assuming that the stock market is now in a correction mode, it is interesting to note that Mastercard ([MA](#)) and Visa ([V](#)) have been in this mode for the third month already. And now, I think, it's a good time to compare how close these companies are to their fundamental bottom.



Data by YCharts

What will I do

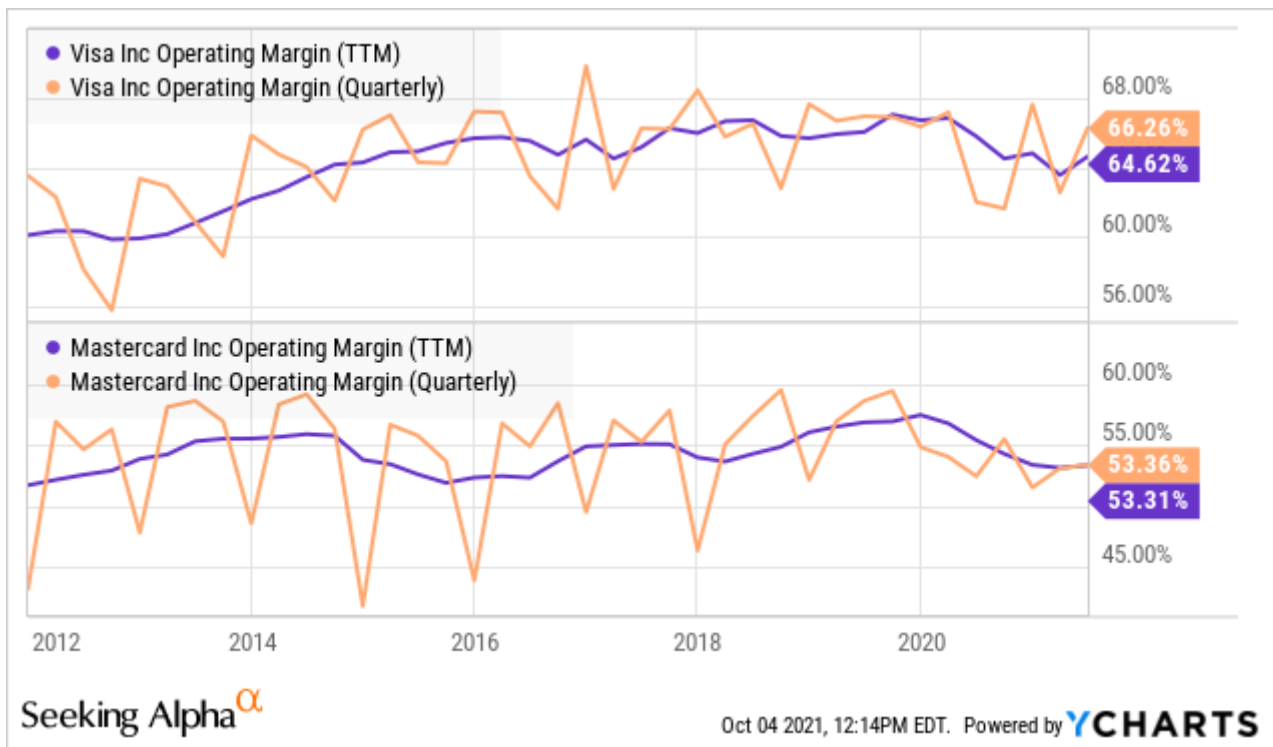
In my opinion, a fundamental value or rational price of a company is a function with three variables: (1) revenue, (2) margin, and (3) risk. In turn, the first two variables are united by one concept of free cash flow. Or, free cash flow can be replaced with dividends if the company pays them. By the way, this is our case.

Thus, to estimate the fundamental value of both companies, I will build Discounted Cash Flow Models and Dividend Discount Models. Yes, there will be many tables.

Basic parameters of models

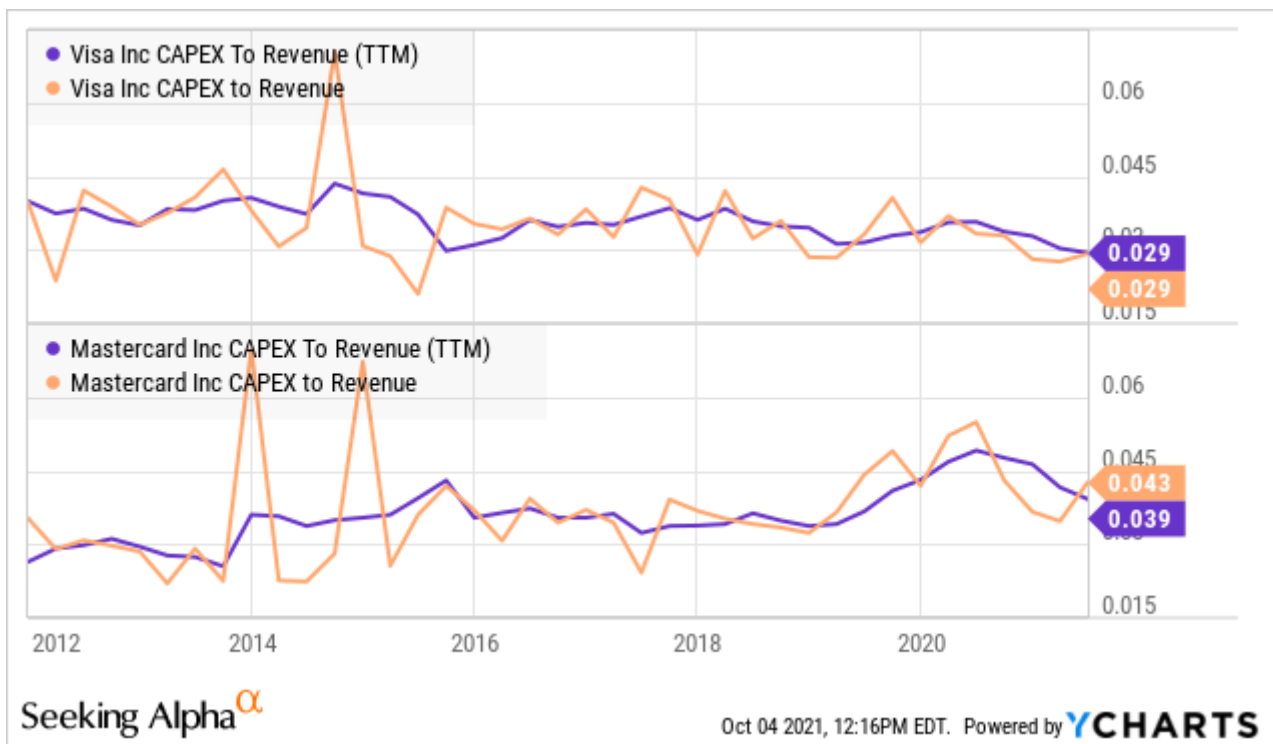
In order for the models to be less subjective, I will take as a basis the average expectations of analysts regarding the revenue and EPS of the companies in the next decade.

I also want to note the following. The business models of both companies appear to be fairly stable. So, over the past five years, in the case of Visa, the average operating margin was about 65%, and in the case of Mastercard, about 55%. I proceed from the assumption that the average margin levels will persist.



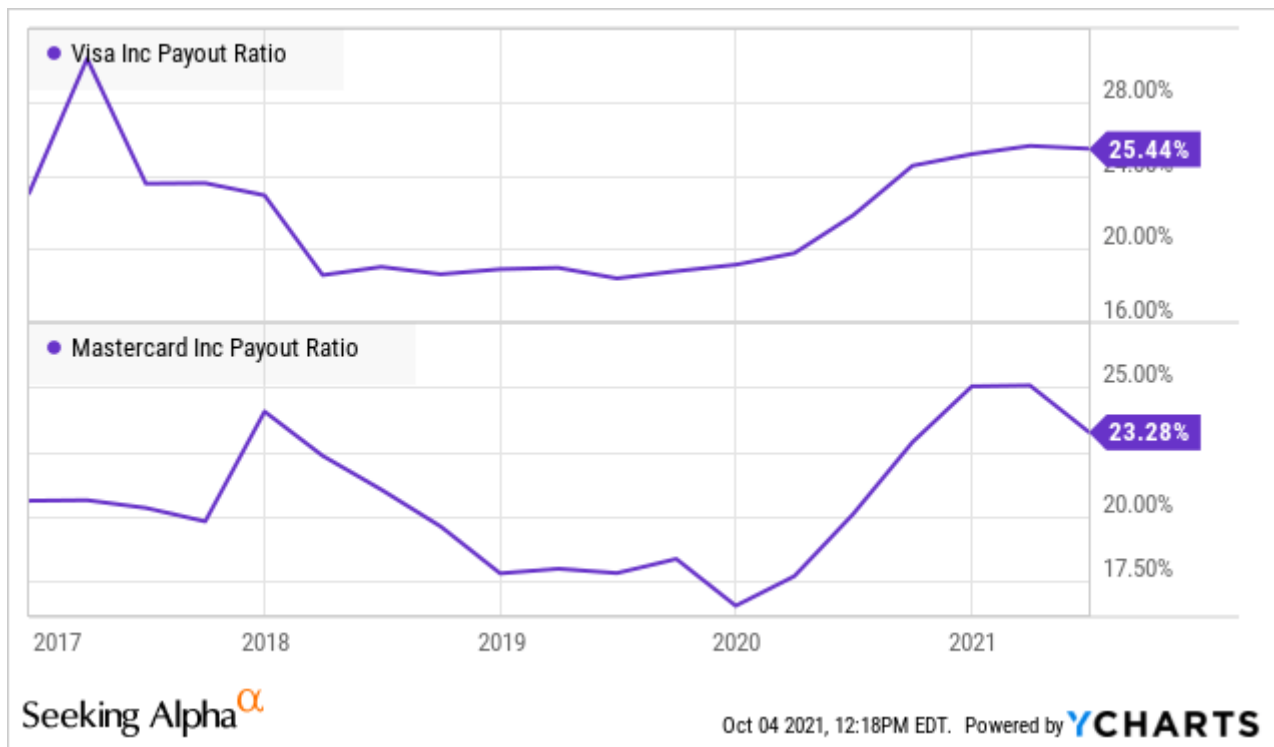
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The relative size of capital expenditures is also more or less stable in the long run:



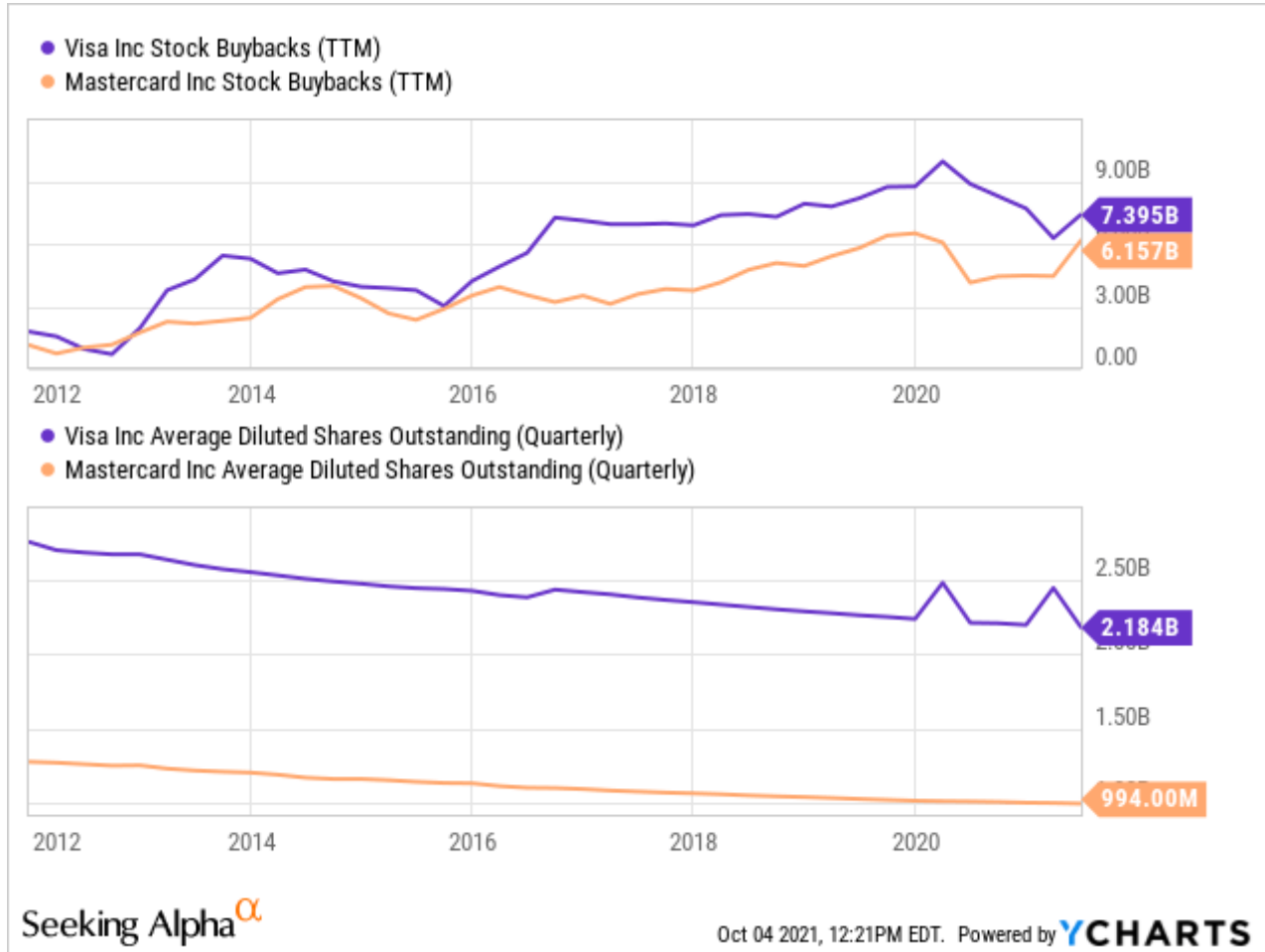
Data by YCharts

Both companies pay dividends. When predicting this parameter, I proceeded from the average expectations of analysts for the coming years and the assumption that the payout ratio will tend to the historical average. In the case of Visa, this ratio is 21.6%, and in the case of Mastercard, 20.8%. As you can see, almost equal values.



Data by YCharts

Finally, both companies continue to actively buy back. On average, the number of diluted shares in both companies is reduced by 2% per year. I assume that this dynamic will continue in the future.




Data by YCharts

In general, it is striking how similar the two companies are in the context of the dynamics of key financial indicators. But now let's move on to the models.

VISA

Here is the calculation of the Weighted Average Cost of Capital for Visa:

Visa (V)



Weighted Average Cost of Capital	
Risk-free Rate of Return*	1.46%
Equity Risk Premium**	4.72%
Expected Market Return	6.18%
3 year Beta	0.93
CAPM	5.83%
Market Value of Equity (bn)	\$503.32
Market Value of Debt (bn)	\$21.00
Total Market Value (bn)	\$524
Equity	96.00%
Debt	4.00%
Tax Rate***	25.76%
After Tax Cost of Debt	2.28%
Cost of Equity	5.60%
WACC	5.47%

* US 10-year Bond Yield
 ** According to <http://pages.stern.nyu.edu/~adamodar/>
 *** According to OECD.Stat (COMB_CIT_RATE)

Source: Author

Notes:

- In order to calculate the market rate of return, I used values of equity [risk](#) premium (4.72%) and the current yield of UST10 as a risk-free rate (1.46%).
- I used the current [value](#) of the three-year beta coefficient. For a terminal year, I used Beta equal to 1.
- To calculate the Cost of Debt, I used the interest expense for 2020 divided by the average debt in 2019 and 2018.
- The relative size of CAPEX is assumed to be 3.5%, which is the five-year average.

Here is the Discounted Cash Flow Model:

Visa DCF model	Historical					Projected										Terminal Year
\$ mln	2016	2017	2018	2019	2020	1	2	3	4	5	6	7	8	9	10	
Revenue:	15,082	18,358	20,690	22,977	21,846	24,060	28,710	32,710	38,270	42,290	46,200	50,100	53,500	56,729	59,923	59,800
Revenue Growth Rate	8.7%	21.7%	12.7%	11.1%	-4.92%	10.13%	19.33%	13.93%	17.00%	10.50%	9.25%	8.44%	6.79%	6.04%	5.63%	1.46%
Operating Income:	9,760	12,144	12,954	15,401	14,092	15,639	18,662	21,262	24,876	27,489	30,031	32,566	34,776	36,875	38,951	38,871
Operating Margin:	64.7%	66.2%	62.6%	67.0%	64.5%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%
Tax Rate:	20.7%	41.1%	19.3%	18.2%	20.7%	25.8%	25.8%	25.8%	25.8%	25.8%	25.8%	25.8%	25.8%	25.8%	25.8%	25.8%
Tax:	(2,021)	(4,995)	(2,505)	(2,804)	(2,924)	(4,029)	(4,807)	(5,477)	(6,408)	(7,081)	(7,736)	(8,389)	(8,958)	(9,499)	(10,034)	(10,013)
Net Operating Profit After Tax (NOPAT):	7,739	7,149	10,449	12,597	11,168	11,611	13,855	15,785	18,468	20,408	22,295	24,177	25,818	27,376	28,917	28,858
Adj. for Non-Cash Charges:																
Client incentives:	3,409	4,565	5,491	6,173	6,664	6,322	7,544	8,595	10,056	11,112	12,139	13,164	14,058	14,906	15,745	15,713
% Revenue:	22.6%	24.9%	26.5%	26.9%	30.5%	26.3%	26.3%	26.3%	26.3%	26.3%	26.3%	26.3%	26.3%	26.3%	26.3%	26.3%
Share-based compensation:	221	235	327	407	416	385	459	523	612	677	739	802	856	908	959	957
% Revenue:	1.5%	1.3%	1.6%	1.8%	1.9%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%
Depreciation and amortization :	502	556	613	656	767	755	901	1,026	1,201	1,327	1,449	1,572	1,678	1,780	1,880	2,087
% Revenue:	3.3%	3.0%	3.0%	2.9%	3.5%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	
Deferred income taxes:	(764)	1,700	(1,277)	214	307	17	21	24	27	30	33	36	38	41	43	43
% Revenue:	-5.1%	9.3%	-6.2%	0.9%	1.4%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Other:	64	50	(74)	(271)	(145)	(72)	(86)	(98)	(115)	(127)	(139)	(151)	(161)	(171)	(180)	(180)
% Revenue:	0.4%	0.3%	-0.4%	-1.2%	-0.7%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%
Changes in Working Capital:																
Settlement receivable:	391	94	(223)	(1,533)	1,858											
Accounts receivable:	(65)	(54)	(70)	(333)	(43)											
Client incentive:	(3,508)	(4,628)	(4,682)	(6,430)	(8,081)											
Other assets:	(315)	(252)	(160)	(310)	(402)											
Accounts payable:	43	(30)	3	(24)	21											
Settlement payable:	(302)	(176)	262	1,931	(2,384)											
Accrued and other liabilities:	277	465	1,761	627	923											
Accrued litigation:	(47)	1	452	(231)	(290)											
Net Decrease / (Increase):	(3,526)	(4,580)	(2,657)	(6,303)	(8,398)	(6,113)	(7,295)	(8,311)	(9,724)	(10,745)	(11,739)	(12,730)	(13,594)	(14,414)	(15,225)	(15,194)
% Revenue:	-23.4%	-24.9%	-12.8%	-27.4%	-38.4%	-25.4%	-25.4%	-25.4%	-25.4%	-25.4%	-25.4%	-25.4%	-25.4%	-25.4%	-25.4%	-25.4%
CAPEX:	(523)	(707)	(718)	(756)	(736)	(840)	(1,002)	(1,141)	(1,336)	(1,476)	(1,612)	(1,748)	(1,867)	(1,980)	(2,091)	(2,087)
% Revenue:	-3.5%	-3.9%	-3.5%	-3.3%	-3.4%	-3.5%	-3.5%	-3.5%	-3.5%	-3.5%	-3.5%	-3.5%	-3.5%	-3.5%	-3.5%	-3.5%
Unlevered Free Cash Flow:						12,064	14,396	16,402	19,190	21,206	23,166	25,122	26,827	28,446	30,047	697,384
Discount Rate (WACC):						5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.79%
PV of FCF:						11,439	12,942	13,980	15,508	16,248	16,830	17,304	17,520	17,614	17,641	397,215
PV of CF:	554,241															
Debt:	(20,996)															
Cash and equivalents:	19,240															
Implied Equity Value:	552,485															
Outstanding Shares:	2,184															
Current Market Capitalization:	\$484,914															
Current price:	\$222															
Fair value per share:	\$253															
Potential:	14%															

Source: Author

The DCF-based target price for Visa's shares is about \$253 (+14%).

And here is the Dividend Discount Model:

Visa DDM valuation						Projected										Terminal Year
\$ min	2016	2017	2018	2019	2020	1	2	3	4	5	6	7	8	9	10	
Revenue	15,082	18,358	20,890	22,977	21,846	24,060	28,710	32,710	38,270	42,290	46,200	50,100	53,500	56,729	59,923	
EPS	2.47	2.80	4.41	5.32	4.88	5.83	7.25	8.60	10.46	12.20	13.90	15.30	16.80	18.00	19.00	
YoY	-3.89%	13.36%	57.50%	20.63%	-8.27%	19.47%	24.36%	18.62%	21.63%	16.63%	13.93%	10.07%	9.80%	7.14%	5.56%	
Average Diluted Shares	2,438	2,368	2,306	2,253	2,208	2,164	2,121	2,079	2,037	1,997	1,957	1,918	1,880	1,843	1,806	
YoY	-0.16%	-2.87%	-2.62%	-2.30%	-2.00%	-1.99%	-1.99%	-1.99%	-1.99%	-1.99%	-1.99%	-1.99%	-1.99%	-1.99%	-1.99%	
Net Income	5,991	6,699	10,301	12,080	10,866	12,617	15,377	17,878	21,312	24,362	27,205	29,349	31,585	33,168	34,314	
Profit Margin	39.72%	36.49%	49.79%	52.57%	49.74%	52.44%	53.56%	54.66%	55.69%	57.61%	58.88%	58.58%	59.04%	58.47%	57.26%	
Payout ratio	22.53%	23.57%	18.62%	18.78%	24.52%	21.6%	21.6%	21.6%	21.6%	21.6%	21.6%	21.6%	21.6%	21.6%	21.6%	
Unlevered Dividends	1,350	1,579	1,918	2,269	2,664	2,726	3,322	3,862	4,604	5,263	5,877	6,341	6,824	7,166	7,413	332,158
Dividend Growth Rate	14.70%	16.96%	21.47%	18.30%	17.41%	2.32%	21.88%	16.26%	19.21%	14.31%	11.67%	7.88%	7.62%	5.01%	3.46%	3.50%
Discount Rate (WACC)						5.48%	5.48%	5.48%	5.48%	5.48%	5.48%	5.48%	5.48%	5.48%	5.48%	5.81%
PV of Dividends						2,584	2,986	3,291	3,720	4,031	4,267	4,365	4,453	4,433	4,348	188,833
Total PV of Dividends	227,312															
Debt (20,996)																
Cash and Equivalents	19,240															
Implied Equity Value	225,556															
Outstanding Shares	2,184															
Market Cap	486,355															
Current price	222.7															
Fair value per share	103.3															
Potential	-54%															

Source: Author

The DDM-based target price for Visa's shares is \$103 (-54%).

Mastercard

Now let's take a look at Mastercard. Here is the calculation of the WACC:

Mastercard (MA)	
Weighted Average Cost of Capital	
Risk-free Rate of Return*	1.46%
Equity Risk Premium**	4.72%
Expected Market Return	6.18%
3 year Beta	1.06
CAPM	6.47%
Market Value of Equity (bn)	\$358.02
Market Value of Debt (bn)	\$13.25
Total Market Value (bn)	\$371
Equity	96.43%
Debt	3.57%
Tax Rate***	25.76%
After Tax Cost of Debt	3.69%
Cost of Equity	6.24%
WACC	6.15%

* US 10-year Bond Yield

** According to <http://pages.stern.nyu.edu/~adamodar/>

*** According to OECD.Stat (COMB_CIT_RATE)



Source: Author

And here is the Discounted Cash Flow Model:

Mastercard DCF valuation	Historical					Projected										Terminal
\$ mln	2016	2017	2018	2019	2020	1	2	3	4	5	6	7	8	9	10	Year
Revenue	10,776	12,497	14,950	16,883	15,301	18,860	22,530	25,980	30,120	33,080	35,810	38,651	41,830	44,375	46,090	46,777
Revenue Growth Rate	11.5%	16.0%	19.6%	12.9%	-9.4%	23.3%	19.5%	15.3%	15.9%	9.8%	8.25%	7.94%	8.22%	6.08%	3.87%	1.49%
Operating Income	5,912	6,743	8,374	9,676	8,163	10,392	12,414	14,315	16,596	18,227	19,731	21,297	23,048	24,450	25,395	25,774
Operating Margin	54.9%	54.0%	56.0%	57.3%	53.3%	55.1%	55.1%	55.1%	55.1%	55.1%	55.1%	55.1%	55.1%	55.1%	55.1%	55.1%
Tax Rate	26.6%	38.7%	16.1%	16.7%	16.5%	25.6%	25.8%	25.8%	25.8%	25.6%	25.6%	25.8%	25.8%	25.8%	25.8%	25.8%
Tax	(1,587)	(2,607)	(1,345)	(1,613)	(1,349)	(2,677)	(3,198)	(3,687)	(4,275)	(4,695)	(5,083)	(5,486)	(5,937)	(6,298)	(6,542)	(6,639)
Net Operating Profit After Tax	4,325	4,136	7,029	8,063	6,814	7,715	9,216	10,627	12,321	13,532	14,648	15,811	17,111	18,152	18,853	19,134
Adj. for Non-Cash Charges																
Amortization of customer	860	1,001	1,235	1,141	1,072	1,434	1,713	1,975	2,290	2,515	2,723	2,939	3,180	3,374	3,504	3,557
% Revenue	8.0%	8.0%	8.3%	6.8%	7.0%	7.6%	7.6%	7.6%	7.6%	7.6%	7.6%	7.6%	7.6%	7.6%	7.6%	7.6%
Depreciation & Amortization	373	437	459	522	580	638	762	879	1,019	1,119	1,211	1,307	1,415	1,501	1,559	1,800
% Revenue	3.5%	3.5%	3.1%	3.1%	3.8%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
Share-based compensation	149	176	196	250	254	273	326	376	436	479	519	560	606	643	668	678
% Revenue	1.38%	1.41%	1.31%	1.48%	1.66%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%
Deferred income taxes	(20)	86	(244)	(7)	(73)	(62)	(74)	(86)	(99)	(109)	(118)	(127)	(138)	(146)	(152)	(154)
% Revenue	-0.2%	0.7%	-1.6%	0.0%	-0.5%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%
Other	29	59	31	24	14	45	53	61	71	78	85	91	99	105	109	111
% Revenue	0.3%	0.5%	0.2%	0.1%	0.1%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Changes in Working Capital																
Accounts receivable	(338)	(445)	(317)	(246)	(86)											
Income taxes receivable	(1)	(8)	(120)	(202)	(2)											
Settlement due to customers	(10)	(281)	(1,078)	(444)	1,288											
Prepaid expenses	(1,073)	(1,402)	(1,769)	(1,661)	(1,552)											
Accrued litigation	17	(12)	869	(662)	(73)											
Restricted security deposits	96	94	(6)	290	326											
Accounts payable	101	290	101	(42)	26											
Settlement due to customers	66	394	849	477	(1,242)											
Accrued expenses	520	589	439	657	(114)											
Other assets and liabilities	(187)	27	(261)	133	316											
Net Decrease / (Increase)	(809)	(754)	(1,293)	(1,700)	(1,113)	(1,491)	(1,781)	(2,054)	(2,381)	(2,616)	(2,831)	(3,056)	(3,307)	(3,509)	(3,644)	(3,698)
% Revenue	-7.5%	-6.0%	-8.6%	-10.1%	-7.3%	-7.9%	-7.9%	-7.9%	-7.9%	-7.9%	-7.9%	-7.9%	-7.9%	-7.9%	-7.9%	-7.9%
CAPEX	(382)	(423)	(504)	(728)	(708)	(726)	(867)	(1,000)	(1,159)	(1,273)	(1,378)	(1,487)	(1,610)	(1,708)	(1,774)	(1,800)
% Revenue	-3.5%	-3.4%	-3.4%	-4.3%	-4.6%	-3.8%	-3.8%	-3.8%	-3.8%	-3.8%	-3.8%	-3.8%	-3.8%	-3.8%	-3.8%	-3.8%
Unlevered Free Cash Flow						7,825	9,348	10,780	12,497	13,725	14,858	16,037	17,356	18,412	19,124	447,071
Discount Rate (WACC)						6.15%	6.15%	6.15%	6.15%	6.15%	6.15%	6.15%	6.15%	6.15%	6.15%	5.88%
PV of FCF						7,372	8,296	9,012	9,843	10,184	10,386	10,561	10,767	10,760	10,529	252,486
PV of CF	350,195															
Debt	(13,250)															
Cash + Investments	6,760															
Implied Equity Value	343,705															
Outstanding Shares	994															
Current Market Capitalization	338,207															
Current price	343.2															
Fair value per share	\$346															
Potential	1%															

Source: Author

The DCF-based target price for Mastercard's shares is about \$346 (+1%).

Here is the Dividend Discount Model:

Mastercard DDM						Projected										Terminal
\$ min	2016	2017	2018	2019	2020	1	2	3	4	5	6	7	8	9	10	Year
Revenue	10,776	12,497	14,950	16,883	15,301	18,860	22,530	25,980	30,120	33,080	35,810	38,651	41,830	44,375	46,090	
EPS	3.69	3.65	5.60	7.94	6.38	8.14	10.61	13.01	15.82	18.64	20.10	22.10	24.00	25.30	26.00	
YoY	10.15%	-1.08%	53.42%	41.79%	-19.65%	27.59%	30.34%	22.62%	21.60%	17.83%	7.83%	9.95%	8.60%	5.42%	2.77%	
Average Diluted Shares	1,092	1,063	1,038	1,013	1,001	981	962	943	924	906	888	870	853	836	819	
YoY	-3.45%	-2.66%	-2.35%	-2.41%	-1.18%	-1.98%	-1.98%	-1.98%	-1.98%	-1.98%	-1.98%	-1.98%	-1.98%	-1.98%	-1.98%	
Net Income	4,059	3,915	5,859	8,118	6,411	7,987	10,204	12,264	14,617	16,882	17,843	19,230	20,469	21,151	21,305	
Profit Margin	37.67%	31.33%	39.19%	48.08%	41.90%	42.35%	45.29%	47.21%	48.53%	51.03%	49.83%	49.75%	48.94%	47.66%	46.22%	
Payout ratio	20.62%	24.06%	17.82%	16.57%	25.04%	20.8%	20.8%	20.8%	20.8%	20.8%	20.8%	20.8%	20.8%	20.8%	20.8%	
Unlevered Dividends	837	942	1,044	1,345	1,605	1,663	2,125	2,553	3,043	3,515	3,715	4,004	4,262	4,404	4,436	192,905
Dividend Growth Rate	15.13%	12.54%	10.83%	28.83%	19.33%	3.61%	27.76%	20.19%	19.19%	15.49%	5.70%	7.77%	6.45%	3.33%	0.73%	3.50%
Discount Rate (WACC)						6.15%	6.15%	6.15%	6.15%	6.15%	6.15%	6.15%	6.15%	6.15%	6.15%	5.88%
PV of Dividends						1,567	1,885	2,135	2,397	2,608	2,597	2,637	2,644	2,574	2,442	108,944
Total PV of Dividends	132,429															
Debt (13,250)																
Cash and Equivalents	6,760															
Implied Equity Value	125,939															
Outstanding Shares	994															
Market Cap	341,260															
Current price	343.3															
Fair value per share	126.7															
Potential	-63%															

Source: Author

The DDM-based target price for Mastercard's shares is \$123 (-63%).

Now to summarize the key results:

	DCF	DDM	WACC
Visa	+14%	-54%	5.48%
Mastercard	+1%	-63%	6.15%

Putting it all together

1. The first thing to highlight is how strongly both companies are overvalued in terms of potential dividends. This indicates that from the point of view of investors, Visa and Mastercard are primarily growth companies. They are valued by the market in terms of cash flow. Dividends, in this case, are just an added bonus.
2. In terms of DCF modeling, Visa is already undervalued. And at the same time, the fundamental value of the Mastercard now coincides with the market price.
3. If you focus on the dividend models, Visa is less overvalued than Mastercard.
4. Thus, I believe that Visa is potentially a better investment than Mastercard.

This article was written by



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Disclosure: I/we have no stock, option or similar derivative position in any of the companies mentioned, and no plans to initiate any such positions within the next 72 hours. I wrote this article myself, and it expresses my own opinions. I am not receiving compensation for it (other than from Seeking Alpha). I have no business relationship with any company whose stock is mentioned in this article.

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user1416

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Covid was never a tailwind for V or MA and neither is the Delta variant. I may add to Paypal and V if this rout goes deeper, but not here.

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schmiddlearth

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Visa is in a choppy pattern lately and I have been trading it, but it may be time to buy and hold. Thanks for your thoughts.

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moseharper

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The fluff may well be gone with this market pullback. Let's see what the quarterlies look like.

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**sa78216dmreit**

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good article. However I am reading on the internet about competitors who use block-chain to eliminate swipe fees. I don't know how realistic the threat that these competitors will pose. I do know that the retailers will go with the lower cost option if it gains enough traction among users.

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[@sa78216dmreit](#) it's about the banks and extension of credit. Banks are notoriously risk averse and will not be willing to get near anything related to blockchain for the foreseeable future. *(edited)*

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The one that rallies soonest from here 📈

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The margin info you provided was useful. I own V rather than MA because a few years ago JP Morgan Chase forced us to change our Chase credit cards from MA to V cards. We had no choice. This evinces stronger market penetration and thus incremental value for V.

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