

**3M** Science.  
Applied to Life.™

**3M COMPANY**  
**NYSE: MMM**

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# Agenda



Company and Industry Overview



Capital Structure



Equity Analysis



Debt Analysis



Investment Thesis

Equity Recommendation

Debt Recommendation

# Company and Industry Overview

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# 3M Overview

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- Founded in 1902
- Current CEO: Mike Roman
- Multinational conglomerate – 4 Main Segments
  - Safety & Industrial
  - Transportation & Electronics
  - Health Care
  - Consumer
- Global presence through wholesalers and e-commerce
- Recent focus on personal protective equipment
- Major stakeholders:
  - The Vanguard Group, Inc. (7.50%)
  - State Street Global Advisors (7.25%)
  - BlackRock Fund Advisors (4.53%)



**Safety & Industrial**  
\$11.5 b  
2019 sales



**Transportation & Electronics**  
\$9.6 b  
2019 sales



**Health Care**  
\$7.4 b  
2019 sales

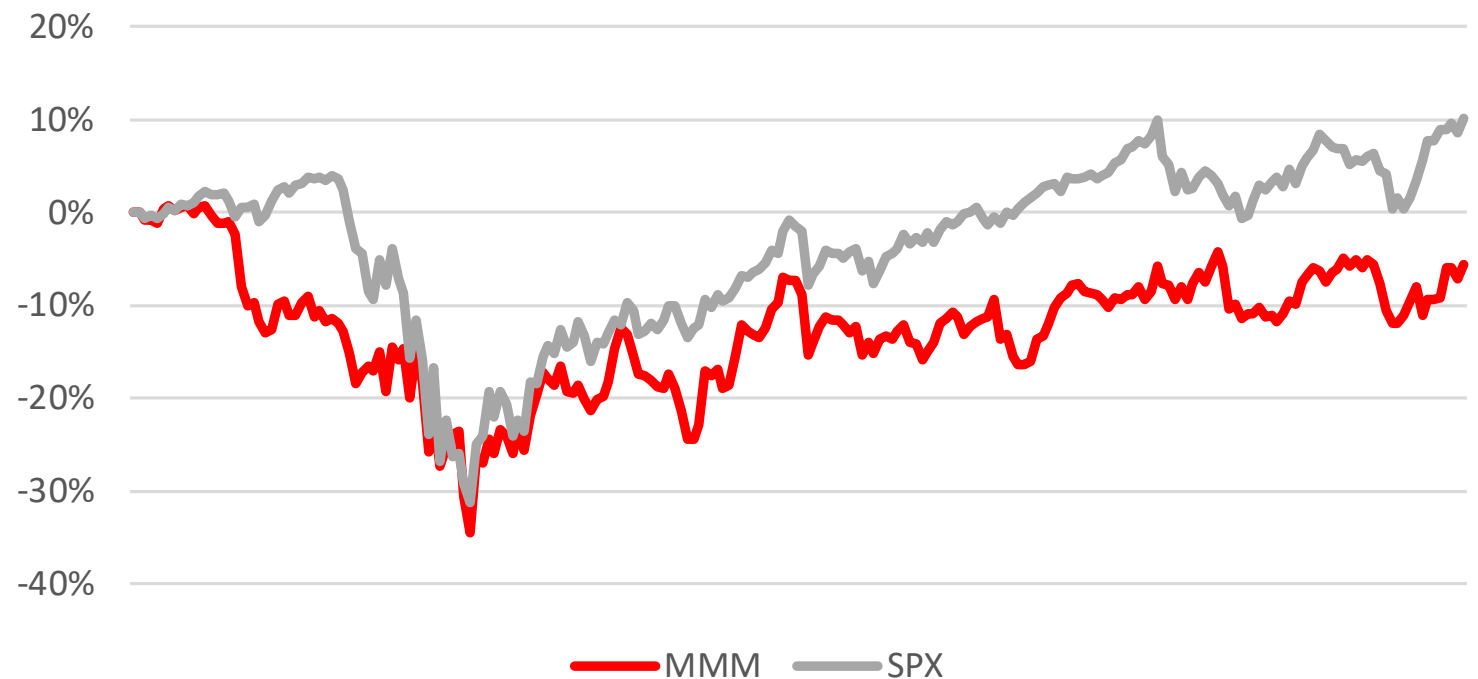


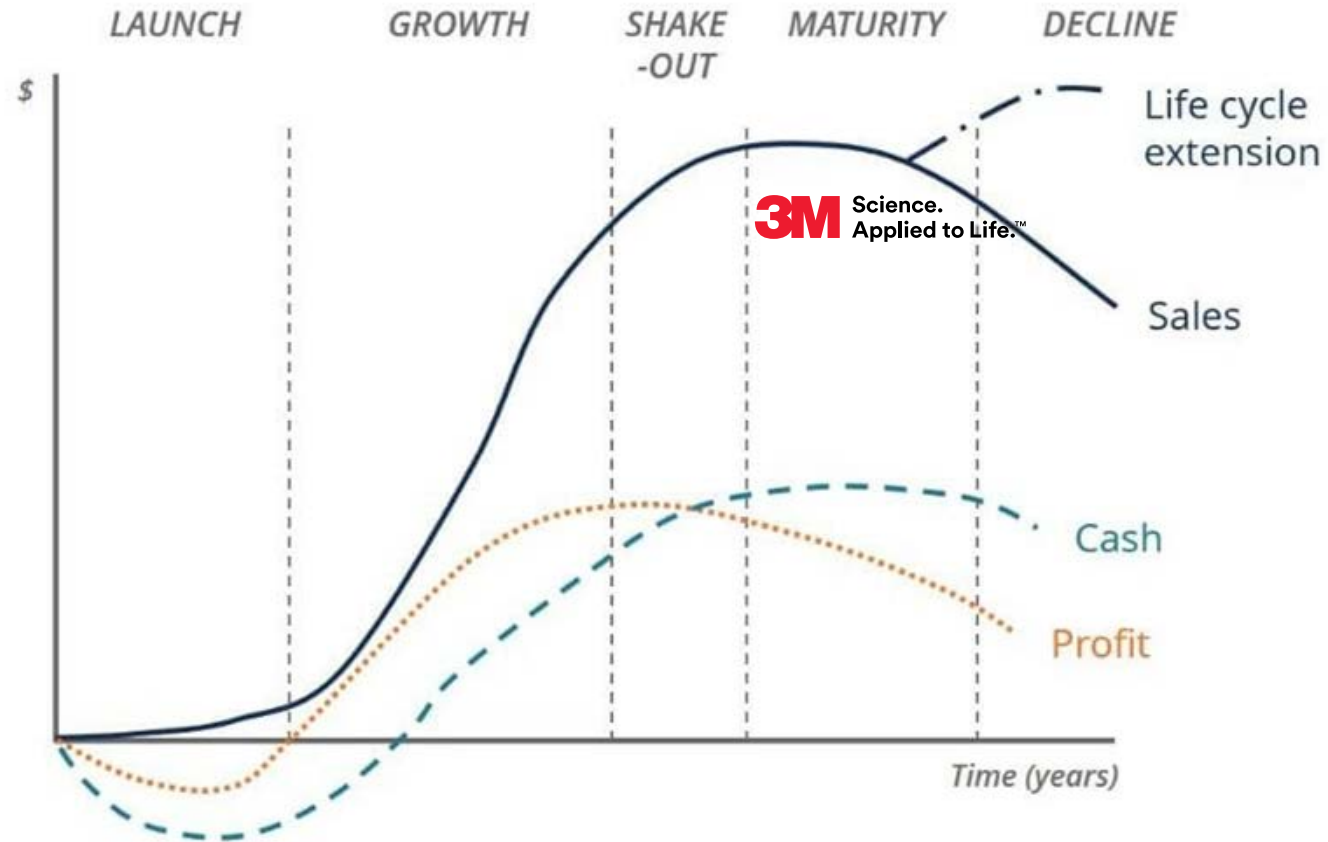
**Consumer**  
\$5.2 b  
2019 sales

# Trading Metrics

- **Price:** 173.64
- **Market Cap:** 100.16B
- **P / E:** 18.7x
- **EV / EBITDA:** 12.8x
- **52 Week Range:** 114.04 - 182.55

YTD Performance  
MMM vs. SPX





# Business Life Cycle

MATURITY STAGE



# Economic Moat

Executing their playbook has created a successful portfolio

- Diversified revenue
- Signs of strong growth
  - Steady growth of Free Cash Flow YoY
  - 3M has consistently increased their dividend for the past 61 years
- Meaningful economies of scale
  - Size and resources allow 3M to adapt production and scale quickly
  - In the first six months of 2020, 3M supplied 800 million respirators around the world
  - 3M is looking to increase global respirator production capacity to over 2 billion by the end of the year
- Demand for products is inelastic due to necessity



**Safety & Industrial**  
21.8%  
operating margin



**Transportation & Electronics**  
23.2%  
operating margin



**Health Care**  
25.0%  
operating margin



**Consumer**  
21.8%  
operating margin

# Industry Overview – Diversified Industrials

- Staple industry that will always have demand
- Small amount of revenue growth
- Key growth drivers:
  - Construction activity
  - Economic expansion in countries
- Trade disputes & economic slowdowns can hamper growth & profits

**Diversified industrials** covers a wide-range of sub-sectors, including (but not limited to): building materials & construction, business services, transport & logistics, consumer products, etc.

Aggregate Statistics for Industry	
FCF/Net Income (Average)	1.23
Price/Earnings (Average)	23.97
EBITDA Margin (% Average)	17.67
Sales Growth YoY (% Average)	1.21
Industry Revenues (2019)	502.66B



**Honeywell**



**SIEMENS**

# Major Players in the Industry

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# SWOT Analysis

		HELPFUL	HARMFUL
INTERNAL	INTERNAL	<b>STRENGTHS</b> <ul style="list-style-type: none"> <li>• One of the top producers of PPE in America (N95 masks, etc.)</li> <li>• Generates a significant amount of net profit</li> <li>• Global reach with a diverse product offering</li> </ul>	<b>WEAKNESSES</b> <ul style="list-style-type: none"> <li>• Expansive company focusing on a lot of different segments, hard to get the entire company on the same page</li> <li>• May operate on a slower basis compared to other companies with specific purposes to solve solutions 3M is trying to solve (large firm bureaucracy)</li> <li>• Negative revenue growth over the past 2 years</li> </ul>
	EXTERNAL	<b>OPPORTUNITIES</b> <ul style="list-style-type: none"> <li>• With the large amount of free cash flow, can easily invest into other companies (M&amp;A) or new projects with little risk</li> <li>• Investment into the electric vehicle market (EV)</li> </ul>	<b>THREATS</b> <ul style="list-style-type: none"> <li>• Other companies are producing a lot of PPE as well (Ansell, Honeywell, etc.)</li> <li>• Producing in a crowded space, constant competition with multiple firms</li> </ul>

# Porter's 5 Forces

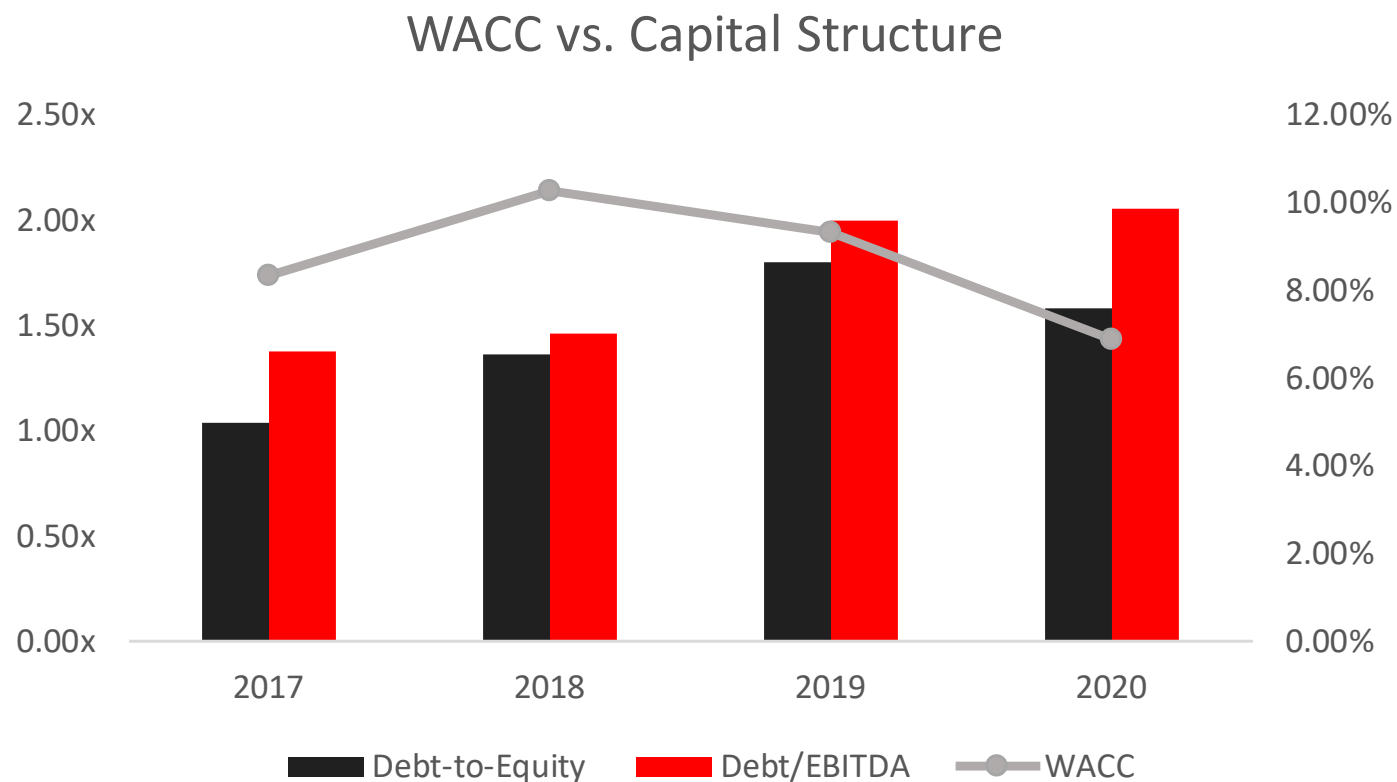
- Threat of New Entrants
  - Involved in a large amount of production, new entrants are a constant threat.
  - Well-funded startups and focused companies can heavily hurt 3M's bottom line.
- Threat of Substitutes
  - Many other companies also make PPE & other products that 3M makes
  - Honeywell, General Electric, and Emerson are 3M's top competitors. There is a serious threat of substitutes in many of 3M's product lines.
- Bargaining Power of Suppliers
  - A plethora of suppliers have contracts with 3M. Rare that they will be in a dominant position and be able to demand a higher price
- Bargaining Power of Customers
  - Other companies are producing a lot of PPE & similar products as well (Ansell, Honeywell, etc.)
  - Due to other companies also producing similar products, buyers have relatively high bargaining power
- Competitive Rivalry
  - Many competitors in the diversified industrials industry such as Honeywell & GE
  - 3M makes up only ~33 billion of the 503 billion annual industry revenue

# Recommendation

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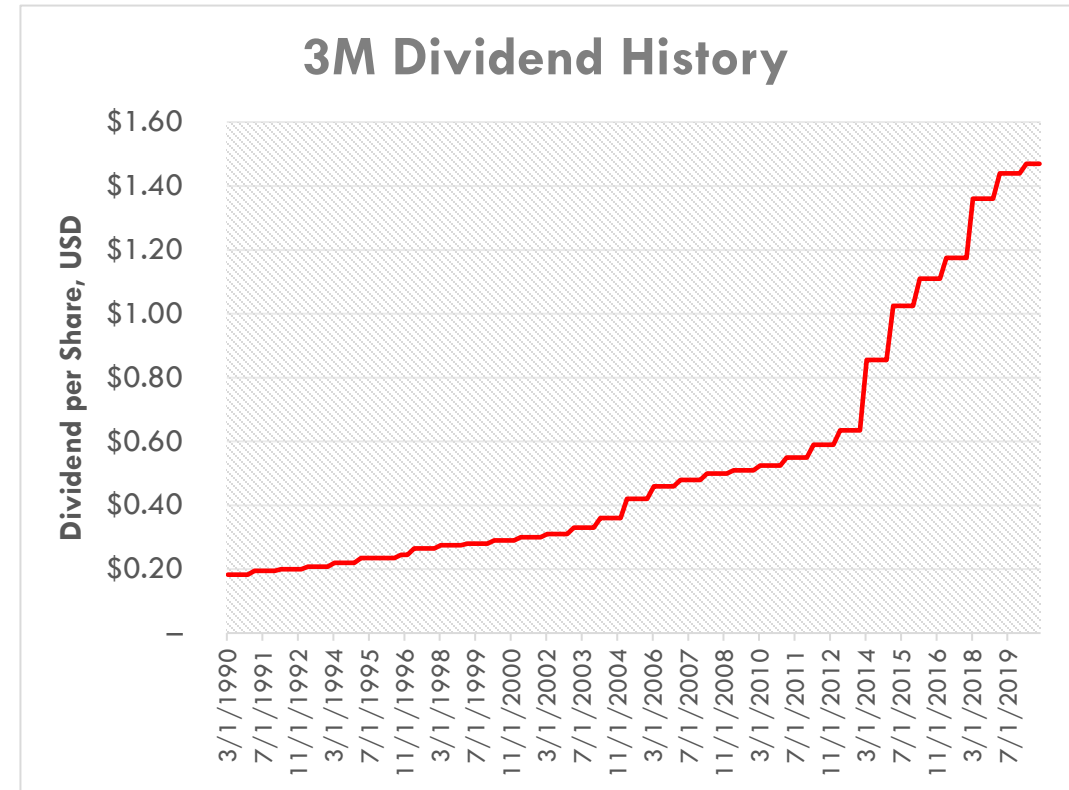
# Capital Structure

- Leverage has increased from 1.52 to 2.25 from FY18 to 1H20
  - Historically underlevered
  - Comps operate at 2.8x leverage
- Debt service is not a concern
  - EBITDA interest coverage of 18.02x
  - EBITDA less interest capex interest coverage of 14.23x
- WACC at all-time low
  - Leverage is now in-line with peers
  - Low borrowing costs – Fed Funds Rate at 0 to 25 bps; LIBOR at 22 BPS
- Likely at, or near, optimal capital structure
  - Effectively using leverage to create value for future growth – Post-acquisition ROIC of 14%



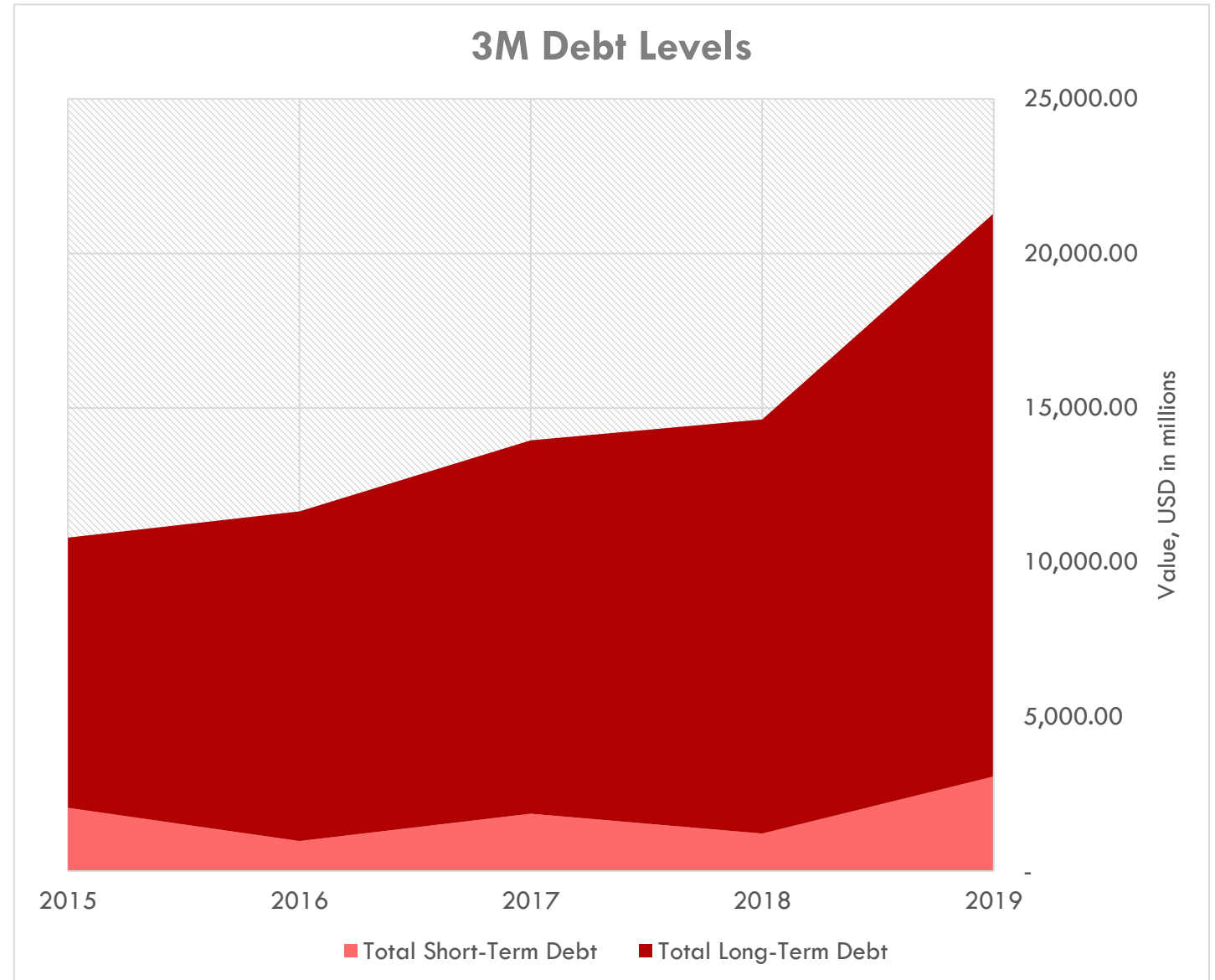
# Equity Analysis

- Dividend Policy
  - Dividend Aristocrat
  - Increased annual dividend for the last 61 consecutive years
  - Grown its dividend by 9% on average each year
  - 68.58% Dividend Payout Ratio
  - 3.38% Forward Annual Dividend Yield
  - 3.36% Trailing Annual Dividend Yield
- Beta: 0.846
- Safe, but will likely not see major price appreciation
- Buying for steady dividends



# Debt Overview

- \$19.85 billion of total debt on September 30, 2020
- A+ / A1 (investment-grade) rated by S&P and Moody's with negative outlook
- Debt used for business operations; special cases:
  - Covering environmental liabilities
  - Acquisitions — Notably, 3M increased leverage in 2018–2019 for acquisitions of Acelity, Inc. (\$6.7 billion TEV), and M\*Modal's technology business (\$1.0 billion TEV)
- Balance sheet has become slightly more stressed but maintains strong interest coverage ratio
- Large increase in debt (108%) but moderate increase in total debt to capital ratio (40%)

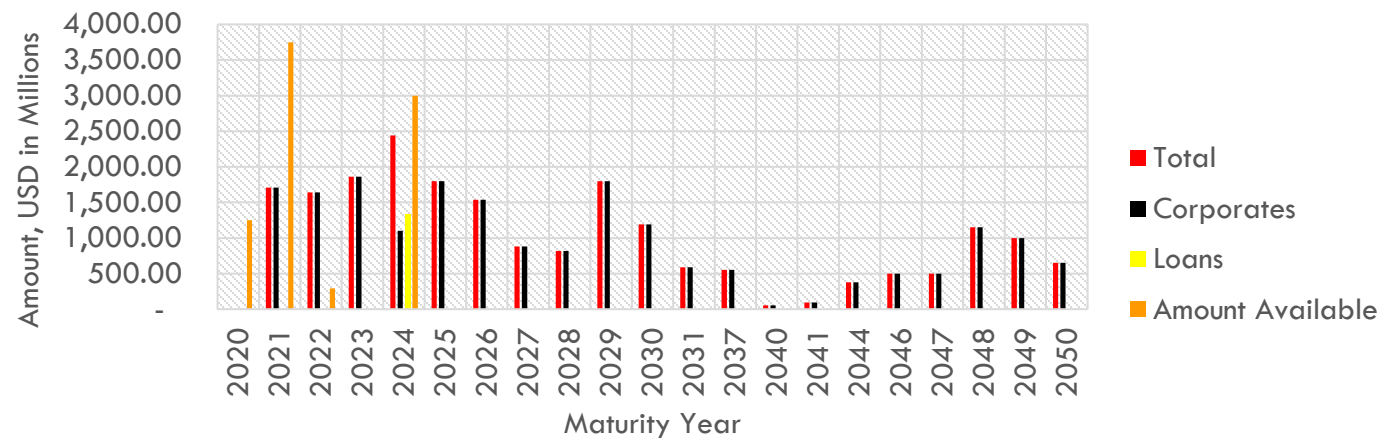




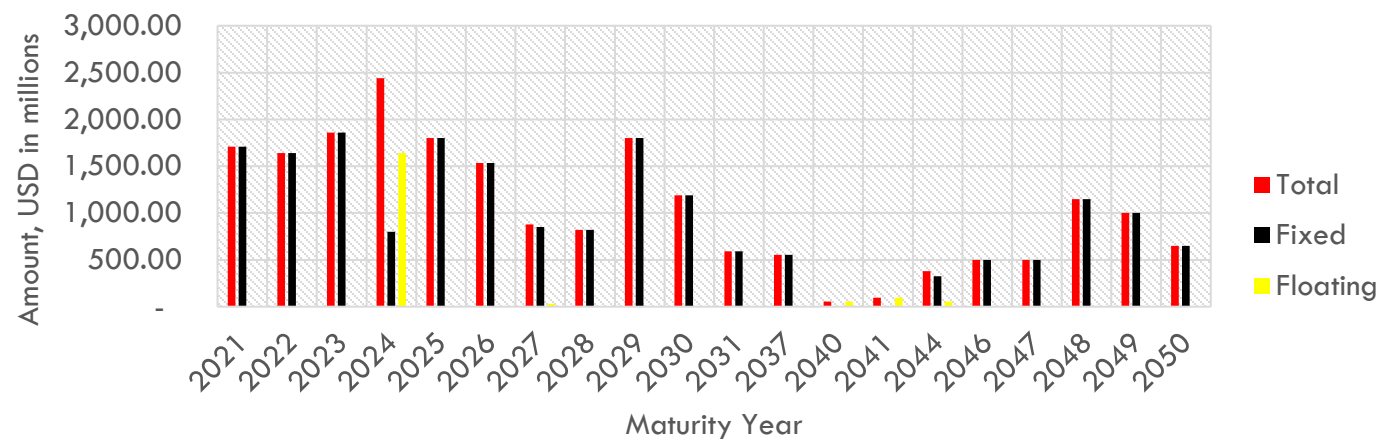
# Debt Distribution

- 35 corporate bonds and 3 loan issues
  - Senior unsecured bonds
  - 1st lien loans
  - A+ / A1 (investment-grade)
- Total \$19.2 billion outstanding (238% of 2019 EBITDA)
- 98.8% of the bonds are trading above par
- Bond Characteristics:
  - Weighted average maturity of March 2031
  - Weighted average coupon of 2.67%; mostly fixed coupons
  - 72.7% are callable bonds
- 3M reduces uncertainty through fixed coupons and reduces potential interest burden through issuing mostly callable bonds

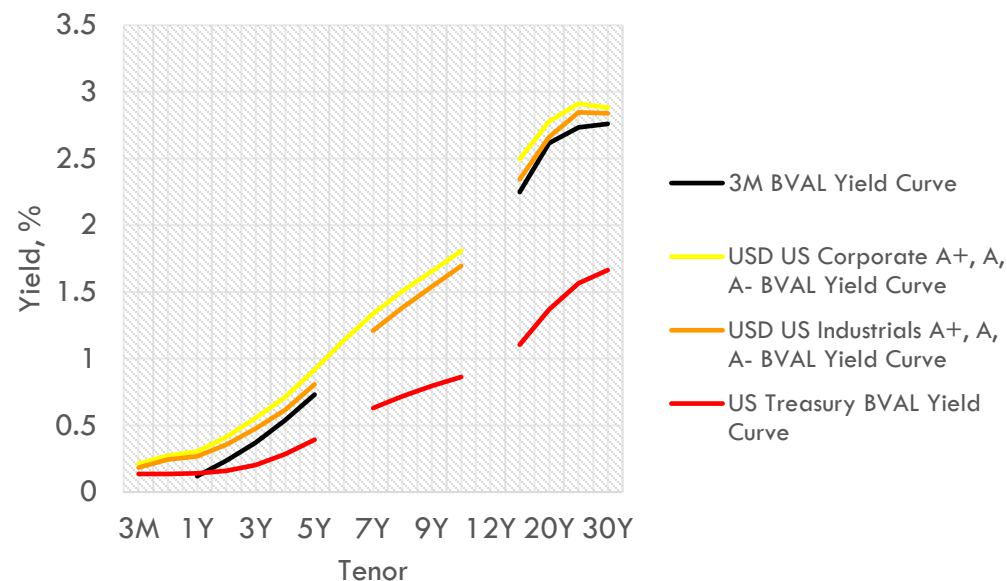
3M Debt Distribution – Type of Debt  
Yearly, Principal Only (As of 10/2020)



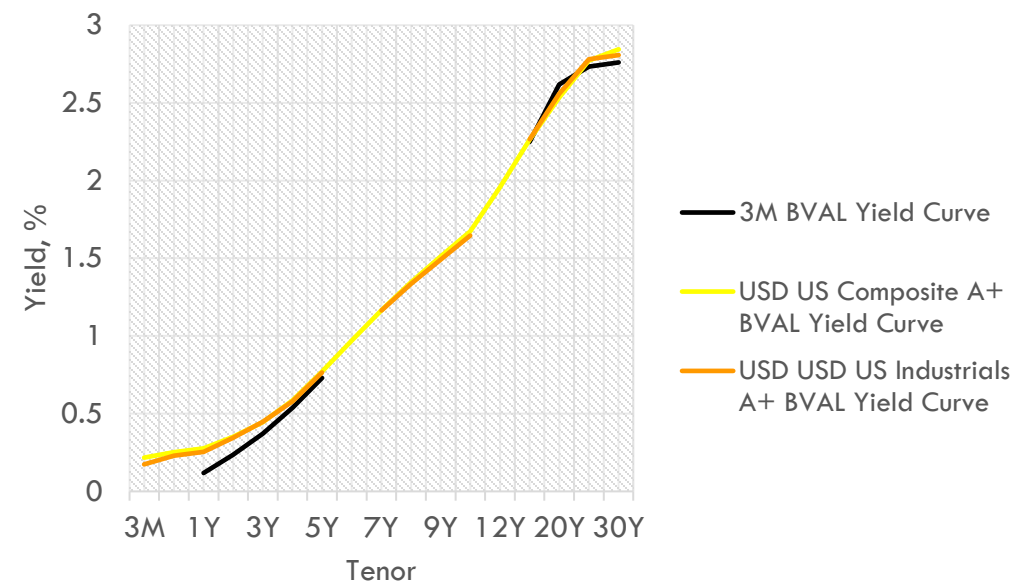
3M Debt Distribution – Type of Coupon  
Yearly, Principal Only (As of 10/2020)



3M vs US Corporate, Industrials, and Treasuries,  
BVAL Yield Curves



3M vs US Composite A+ and Industrials A+,  
BVAL Yield Curves



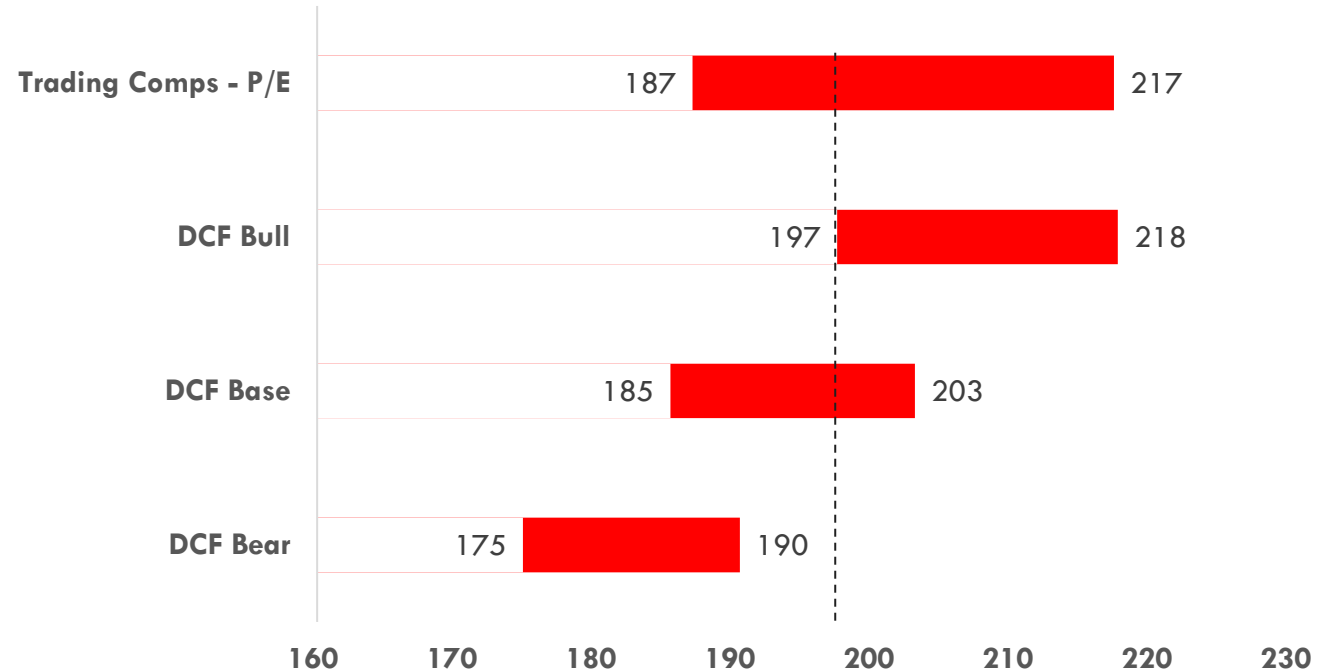
# Relative Yield Comparisons

3M'S YIELDS ARE DISAPPOINTING WHEN COMPARED TO THE OVERALL US MARKET AND ITS INDUSTRY

# Equity Valuation

## Scenario Analysis

Blue Sky (USD)	\$ 217.00 25%
Target Price	\$ 198.00 14%
Grey Sky	175.00 1%
Current Price	\$ 173.64
WACC	6.50%



# Investment Thesis

## Equity Thesis – BUY

- Buy for safe and growing dividend income
- Don't buy for short-term capital gains

## Bond Thesis – DON'T BUY

- Disappointing yields relative to its similarly rated (A+ / A1) industry and US corporates
- Concern for increasing leverage and a slightly stressed balance sheet

# Catalysts / Risks

## Catalysts

- Diversified revenue stream ensures steady cash flow
- Demand for products is fairly inelastic, cementing 3M's pricing power
- Future regulatory pressures will likely have less impacts

## Risks

- Recent acquisitions (Acelity, M\*Modal) cause concern about R&D and innovation at 3M
- Decreasing revenue growth may reduce profitability and increase concern about a slightly stressed balance sheet

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# Appendix

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# DCF Output

The 3M Company DCF						
<i>USD (\$) in millions</i>	4Q'20E	2021E	2022E	2023E	2024E	2025E
Sales	7,928	32,346	32,993	33,653	34,326	35,013
EBITDA	2,145	8,699	8,873	9,051	9,232	9,416
D&A	392	1,552	1,583	1,614	1,647	1,680
EBIT	1,753	7,147	7,290	7,436	7,585	7,737
Taxes	351	1,429	1,458	1,487	1,517	1,547
Changes in working capital	(160)	(651)	(661)	(671)	(681)	(691)
Capex	440	1,796	1,832	1,869	1,906	1,945
Add back: D&A	392	1,552	1,583	1,614	1,647	1,680
Undiscounted annual FCF	1,515	6,124	6,243	6,365	6,489	6,615
Terminal value						141,708
Total undiscounted FCF	1,515	6,124	6,243	6,365	6,489	148,323
Discount factor	0.98	0.92	0.87	0.81	0.77	0.72
Discounted Free Cash Flow	1,491	5,661	5,419	5,187	4,965	106,567
Enterprise Value						129,290

# Sensitivity Analysis – Terminal Growth

WACC		Terminal Growth				
	\$196.00	1.25%	1.50%	1.75%	2.00%	2.25%
5.50%	\$227.00	\$240.00	\$255.00	\$273.00	\$293.00	
6.00%	\$200.00	\$210.00	\$222.00	\$235.00	\$250.00	
6.50%	\$178.00	\$186.00	\$196.00	\$206.00	\$217.00	
7.00%	\$160.00	\$167.00	\$174.00	\$182.00	\$191.00	
7.50%	\$145.00	\$150.00	\$157.00	\$163.00	\$170.00	

# Sensitivity Analysis – Exit Multiple

WACC		Exit Multiple - P/FCF				
	\$193.00	19.1x	20.1x	21.1x	22.1x	23.1x
5.50%		\$186.00	\$194.00	\$203.00	\$212.00	\$220.00
6.00%		\$181.00	\$189.00	\$198.00	\$206.00	\$215.00
6.50%		\$176.00	\$185.00	\$193.00	\$201.00	\$209.00
7.00%		\$172.00	\$180.00	\$188.00	\$196.00	\$204.00
7.50%		\$168.00	\$175.00	\$183.00	\$191.00	\$199.00