



Applied Materials [NYSE: AMAT]

Binghamton Investment Fund | Materials Sector

Sector Head: Jonathan Ngo

Lead Analyst: Raymond Ng

Senior Analysts: Neel Patel, Brandon Ciaravino

Junior Analysts: Julie Gha, Teresa Spieler

BUY : AMAT

Price : \$148.06

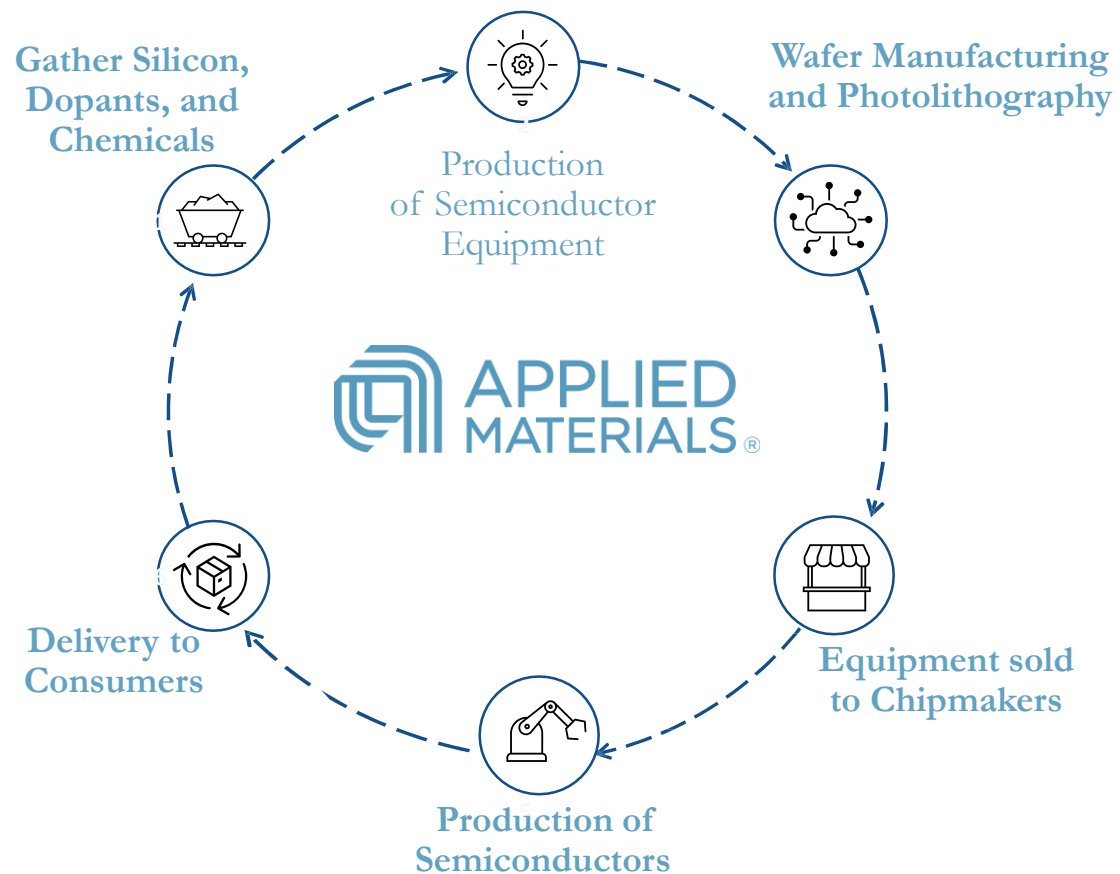
PT : \$170

Upside : 15%

Company Description

Applied Materials is an equipment, services, and software manufacturer for semiconductor industry that produces equipment that optimizes the manufacturing of semiconductors and is a global leader in nanomanufacturing technology solutions

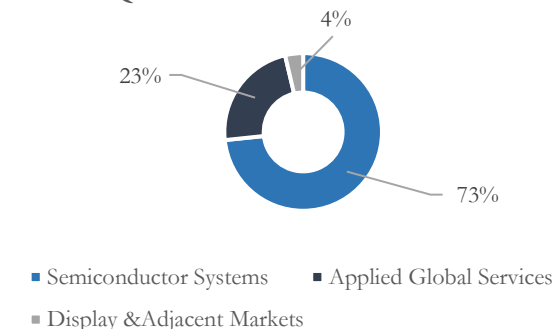
Overview of the semiconductor manufacturer process



Operating Segments Breakdown

- Semiconductor Systems**
Semiconductor fabrication
- Applied Global Services**
Manufactures equipment, services, and software
- Display and Adjacent Markets**
Produces OLED displays

Q3'23 Revenue Breakdown



Key Information

Current Share Price	\$149.36
52 Week Range	\$93.68 - \$157.76
Market Cap.	\$124.9 B
Enterprise Value	\$123.8 B
Founded	1967
IPO	October 1972

Semiconductor Industry

Industry Trends



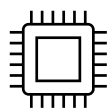
Manufacturing

Moore's law drives complexity of semiconductor chips is driving the adoption of 3D packaging and packing technology



Geopolitical Tension

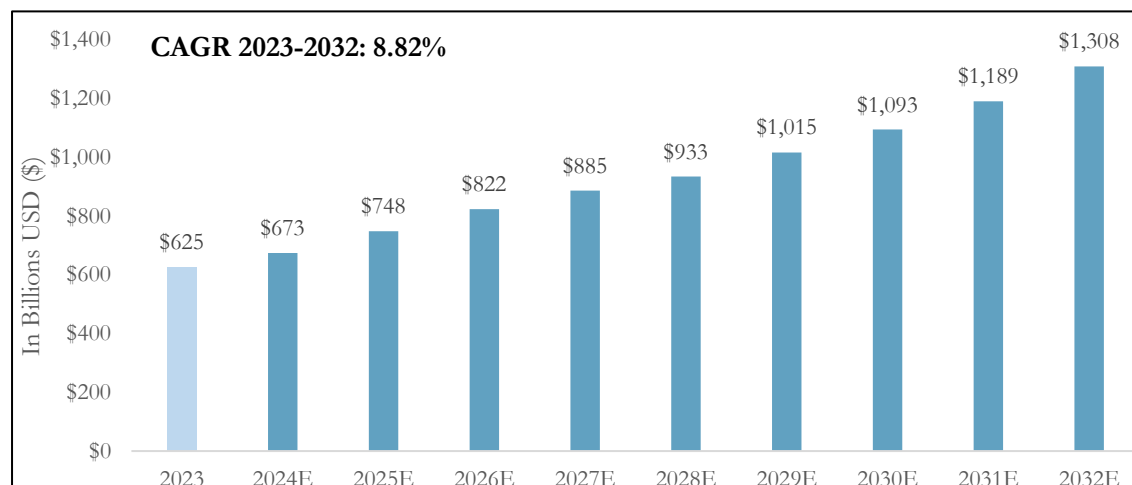
U.S. and China engaging in competition for dominance for semiconductor leads to sanction on China's semiconductor production



Semiconductor processes

Emphasis on Chiplet architecture, manufacturing automation, and advanced packaging technologies

Semiconductor Industry Outlook



U.S and China Semiconductor Cold War

Fueled by security concerns, the U.S.-China chip cold war escalated from export controls to broader sanctions

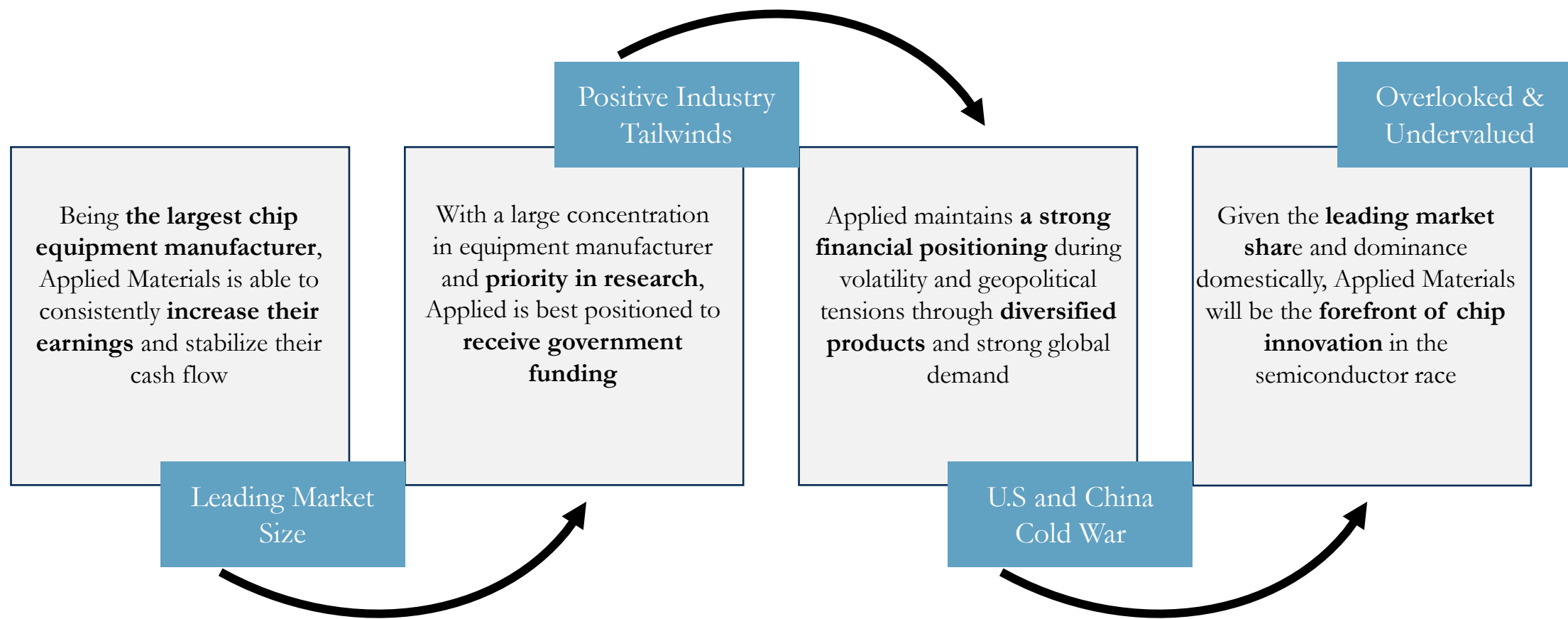
- **April 2021:** April: The U.S. Senate passes the Endless Frontier Act, which would provide \$52 billion in funding for semiconductor research and development in the U.S.
- **February 2022:** The U.S. government blacklisted seven Chinese entities, including Semiconductor Manufacturing International Corporation removing access to U.S. tech
- **October 2023:** The U.S. government extended export waivers for six months, allowing South Korean and Taiwanese chipmakers to supply China with American technology

Competitors



Investment Thesis

Due to the Chips race between China and the U.S., Applied Materials is well positioned to deliver semiconductor equipment to chip producers and capitalize on the Chips and Science Act as the leading U.S. semiconductor equipment manufacturer



Forward Looking Strategy

Key Drivers

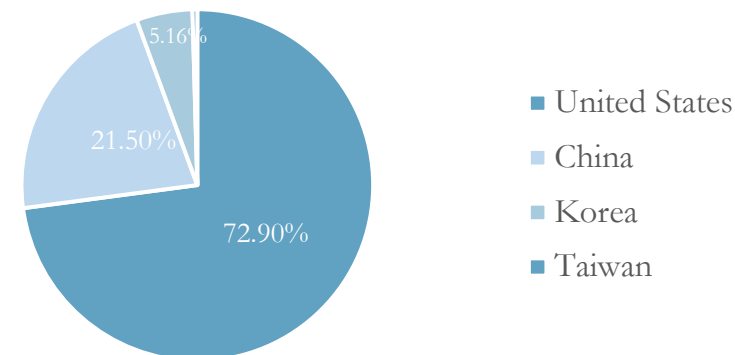
- 1 As a leader in semiconductor equipment, Applied is well positioned to serve China's goal of becoming self sufficient
- 2 Production of EUV Lithography in early 2024 allows Applied to compete more effectively with other EUV provides such as ASML
- 3 Rise of end market drivers, AI, IoT, 5G network, data centers, and electronics will keep strong demand for semiconductors production

Dual Customer Base

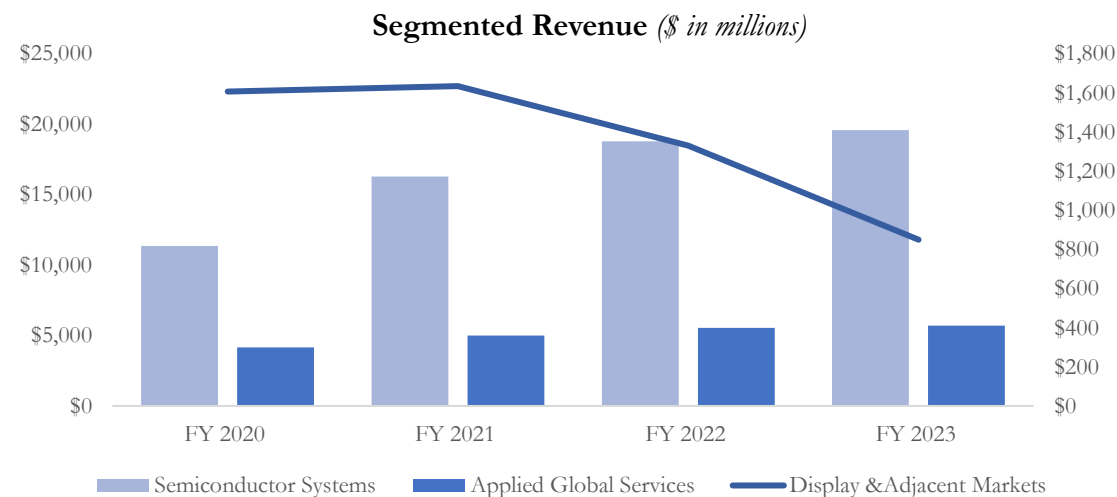


Being the forefront of Semiconductor Equipments, Applied Material is able to leverage dual customer base despite the U.S. Sanction on China importing Semiconductors

Applied Material Geographic Breakdown



U.S and China trade war slows Revenue Growth



Tailwinds Accelerating Semiconductor Production

U.S and China Trade War

Trade war will result in U.S. government support to increase innovation as U.S and Chinese companies race for tech developments

The CHIPS and Science Act of 2022

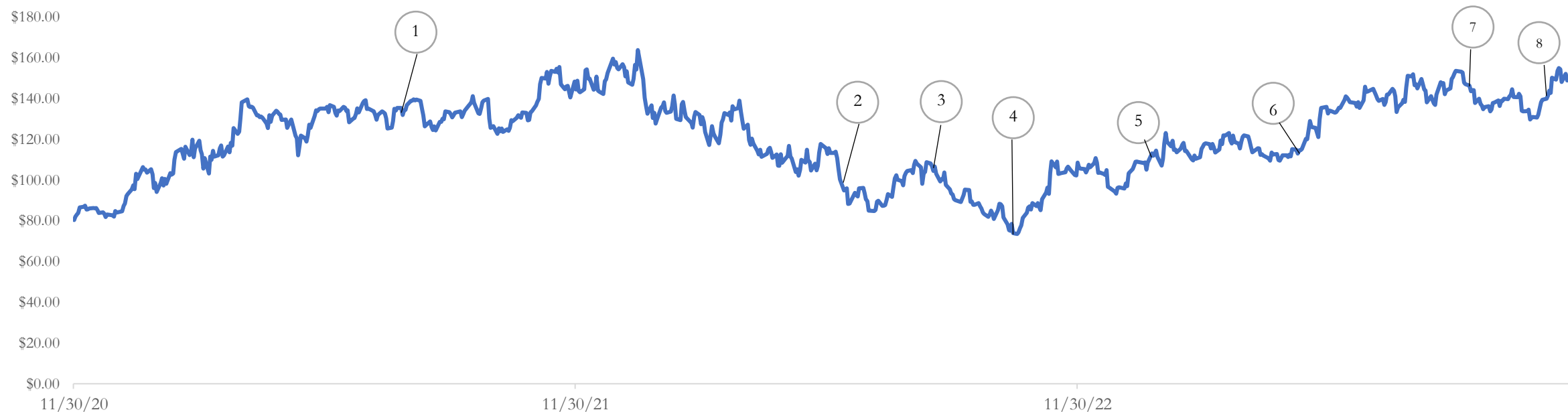
Congress provided \$53 B in funding for semiconductor manufacturing to boost domestic semiconductor manufacturing to compete against China

Moore's Law

Increased competition in producing more transistors onto a chip comes advances in semiconductor manufacturing technology, EUV lithography, and the usage of more sophisticated manufacturing processes and equipment

Impact of US and China Chips War

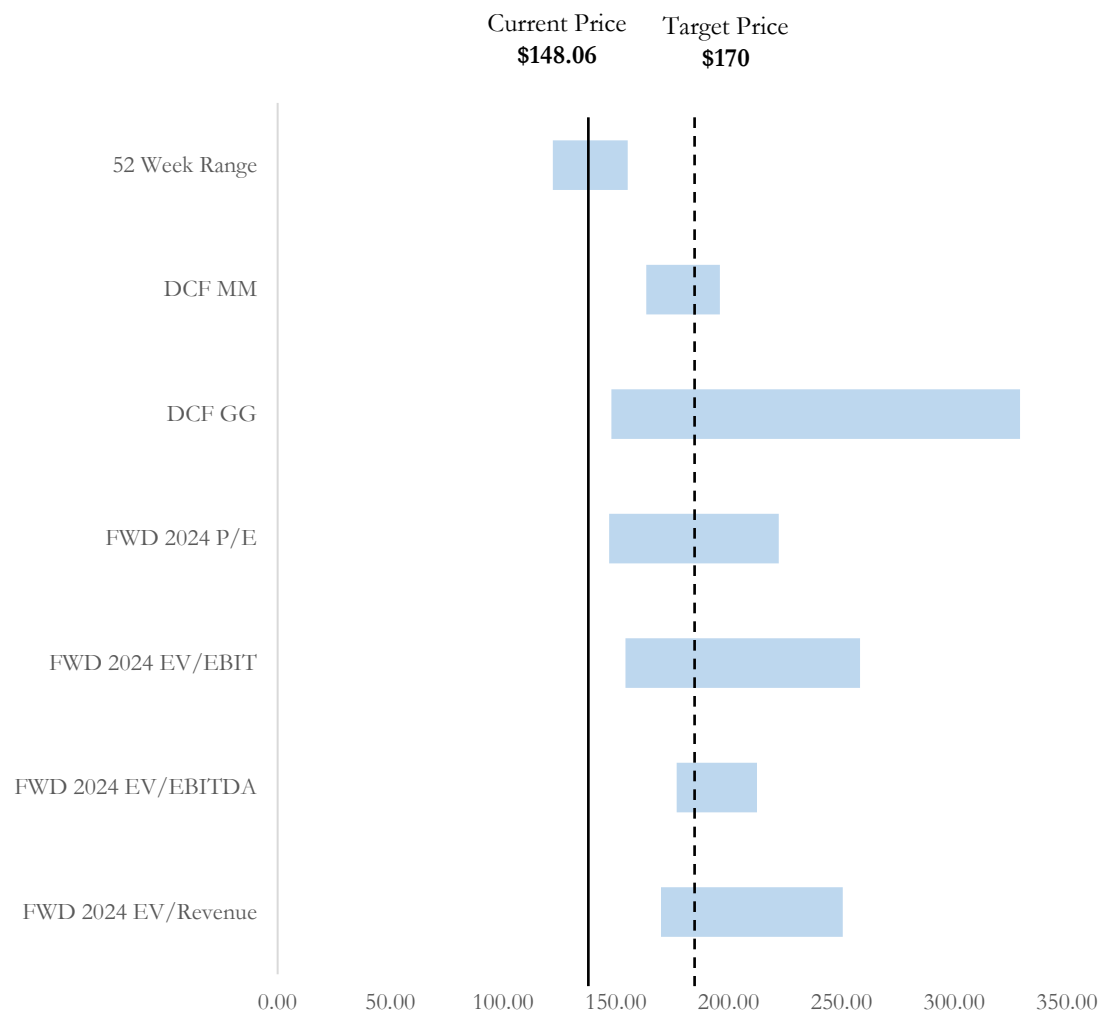
Applied Materials Annotated 2-Year Share Price Performance (\$)



- | | | | |
|--|--|--|---|
| <p>1 March 2021: Due to the Russia and Ukraine Conflict, Applied Materials suspended equipment shipments to Russia</p> | <p>2 June 8, 2022: China retaliates to the US export controls by announcing new tariffs on semiconductors</p> | <p>3 May 2022: The US announced new export restrictions on China, making it difficult for Applied Materials to sell its equipment</p> | <p>4 August 2022: Congress passed the CHIPS and Science Act to help jump-start production of advanced semiconductors</p> |
| <p>5 December 2022: The U.S. adds Chinese memory chip maker YMTC and dozens of other Chinese firms to its trade blacklist</p> | <p>6 March 2023: US President Joe Biden banned US companies from exporting semiconductor to China without a license</p> | <p>6 September 2023: Huawei succeeds in producing a 7nm processor, alarming the U.S. to cut off their hardware and software</p> | <p>8 October 2023: The US Department of Commerce announces new export controls on semiconductor equipment to China</p> |

Valuation

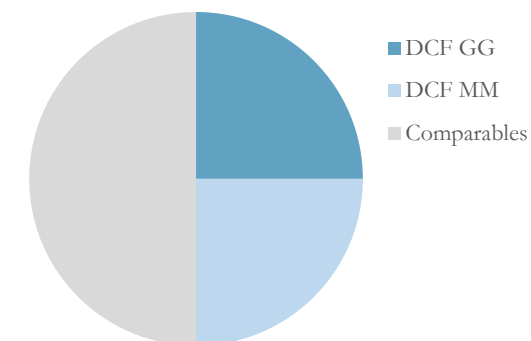
Football Field



Valuation Weight

Method	Weight
DCF GG	25%
DCF MM	25%
Comparable	50%

Target: \$170



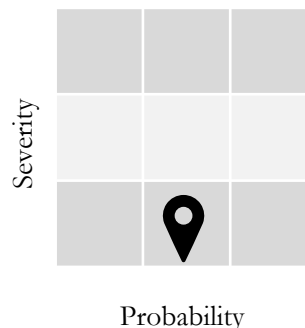
Sensitivity Analysis

WACC	Perpetuity Growth Rate					
	\$147.60	1.00%	1.50%	2.00%	2.50%	3.00%
5.30%	189.1451193	210.3483226	237.9767391	275.4724471	329.2706369	
6.30%	153.2841867	166.3976333	182.5607185	202.9772473	229.5806029	
7.30%	128.8250632	137.6193289	148.0728901	160.7042764	176.2731945	
8.30%	111.0812787	117.3189347	124.5466947	133.0206203	143.0933997	
9.30%	97.62494547	102.2350808	107.4767415	113.4892346	120.4560917	

WACC	Multiples Method				
	\$163.37	14.04	15.05	16.05	17.05
5.30%	160.2091374	169.2464735	178.1943311	187.1421886	196.0900462
6.30%	153.500726	162.1208987	170.6557232	179.1905477	187.7253722
7.30%	147.1494106	155.3753154	163.5197757	171.6642359	179.8086961
8.30%	141.1328812	148.9859609	156.7612874	164.5366139	172.3119404
9.30%	135.4304162	142.9307654	150.3568536	157.7829419	165.2090302

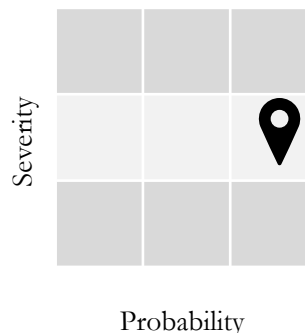
Risks and Mitigations

The US-China trade war could lead to a decrease in reliance for AMAT's lithography and chip designer due to sanctions



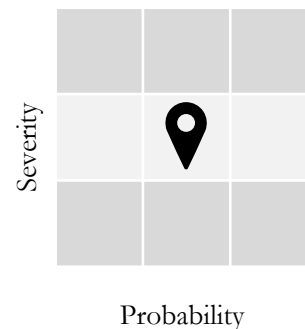
CHIPS Act provides financial incentives to build fabs in U.S. and outside of China to offset potential lost revenue from China

Huawei and SMIC development of 7nm semiconductor and usage of legacy chips may result in China becoming self-reliant



China's inability to access EUV lithography equipment and proper equipment prevents them to develop 7nm at scale

AMAT's dominance in fab equipment could be eroded through increase competition from Chinese manufactures



Applied Materials will be investing in research and development to maintain its technological leadership through government backing

Thank You!

Questions?

Appendix A: Model Cover

Applied Materials
NYSE: AMAT
11/29/2023

Inputs:	
10 Year Treasury	4.86%
Current Share Price	\$148.06
Shares Outstanding	844
Market Capitalization	\$124,963
Outstanding Debt	5,457.00
Upside	15.14%

Appendix B: Income Statement

Applied Materials										
Income Statement										
Fiscal Year Ended	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 E	FY 2024 E	FY 2025 E	FY 2026 E	FY 2027 E	FY 2028 E
Revenues										
Semiconductor Systems	9,027	11,367	16,286	18,797	19580	21049	22522	23873	25186	26571
Applied Global Services	3,854	4,155	5,013	5,543	5698	6382	7084	7792	8493	9173
Display & Adjacent Markets	1651	1607	1634	1331	850	884	917	949	980	1010
Corporate and Other	76	73	130	114	198	232	264	296	325	351
Net Revenues	14,608	17,202	23,063	25,785	26,326	28,546	30,787	32,910	34,985	37,105
% growth		17.76%	34.07%	11.80%	2.10%	8.43%	7.85%	6.90%	6.30%	6.06%
Cost of Goods Sold	8222	9,510	12,149	13,792	14330	15539	16758	17914	19044	20198
	56.28%	55.28%	52.68%	53.49%	54.43%	54.43%	54.43%	54.43%	54.43%	54.43%
Gross Margin	6386	7692	10914	11993	11,996	13,007	14,028	14,996	15,941	16,908
Expenses										
R&D	2,054	2,234	2,485	2,771	3197	3466	3738	3996	4248	4505
As a % of Sales	14.06%	12.99%	10.77%	10.75%	12.14%	12.14%	12.14%	12.14%	12.14%	12.14%
SG&A	982	1093	1229	1438	1578	1711	1846	1973	2098	2225
As a % of Sales	6.72%	6.35%	5.33%	5.58%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
DDA	19	20	13	13	22	21	21	25	25	27
As a % of Sales	0.11%	0.11%	0.09%	0.05%	0.08%	0.07%	0.07%	0.07%	0.07%	0.07%
Deal termination fee			154		176	190.6114417	0	219.7544637	233.6083009	247.7653003
As a % of Sales			0.67%		0.67%	0.67%	0.00%	0.67%	0.67%	0.67%
Other Operating Expenses			157	-4	\$88	\$95	\$102	\$109	\$116	\$123
As a % of Sales			0.68%	-0.02%	0.33%	0.33%	0.33%	0.33%	0.33%	0.33%
Total Operating Expenses	3,036	3,346	4,045	4,218	5,060	5,484	5,708	6,323	6,721	7,128
	20.78%	19.45%	17.54%	16.36%	18.53%	18.53%	18.53%	18.53%	18.53%	18.53%
Total Operating Income (EBIT)	3,350	4,346	6,869	7,775	6936	7523	8321	8673	9221	9780
As a % of Sales	22.93%	25.26%	29.78%	30.15%	26.35%	26.36%	27.03%	26.35%	26.36%	26.36%
Interest Expense	237	240	236	228	324	351	379	405	431	457
As a % of Sales	1.62%	1.40%	1.02%	0.88%	1.23%	1.23%	1.23%	1.23%	1.23%	1.23%
Interest and other Income	156	41	118	39	130	141	152	162	172	183
As a % of Sales	1.07%	0.24%	0.51%	0.15%	0.49%	0.49%	0.49%	0.49%	0.49%	0.49%
Pretax Income	2,957	4,065	6,515	7,508	6,482	7,031	7,790	8,106	8,618	9,140
Income Tax	563	547	883	1,074	989	1,066	1,192	1,277	1,333	1,419
As a % of Sales	3.85%	3.18%	3.83%	4.17%	3.76%	3.73%	3.87%	3.88%	3.81%	3.82%
Net Income	2,394	3,518	5,632	6,434	5493	6152	6635	7093	7540	7997
As a % of Sales	16.39%	20.46%	24.42%	24.95%	21.55%	21.55%	21.55%	21.55%	21.55%	21.55%
Per Data Share										
Basic Weighted Shares Outstanding	937	916	910	871	871	871	871	871	871	871
Diluted Weighted Shares Outstanding	937	923	919	877	877	877	877	877	877	877
Basic EPS	\$2.89	\$3.95	\$6.47	\$7.49	\$6.31	\$7.06	\$7.62	\$8.14	\$8.66	\$9.18
Growth		36.68%	63.80%	15.77%	-15.80%	12.00%	7.85%	6.90%	6.30%	6.06%
Diluted EPS	\$2.86	\$3.92	\$6.40	\$7.44	\$6.26	\$7.02	\$7.57	\$8.09	\$8.60	\$9.12

Assumptions	
Effective Tax Rate	14.10%
Net Interest Expense	228
Interest Coverage Ratio	34.10015972
EBITDA	8,219
FWD EBITDA	\$ 7,502

Appendix C: Balance Sheet

Applied Materials				
Balance Sheet				
Fiscal Year Ended	FY 2019	FY 2020	FY 2021	FY 2022
Assets				
Current Assets				
Cash and Cash Equivalents	3,129.00	5,351.00	4,995.00	1,995.00
Short Term Investments	489.00	387.00	464.00	586.00
Cash and Short Term Investments	3,618.00	5,738.00	5,459.00	2,581.00
Accounts receivable, net	2,533	2,963	4,953	6,068
Total Inventory	3,474.00	3,904.00	4,309.00	5,932.00
Other Current Assets	581	764	1,386	1,344
Total Current Assets	10,206.00	13,369.00	16,107.00	15,925.00
Long Term Investments	1,703.00	1,538.00	2,055.00	1,980.00
Net PPE	1,529.00	1,856.00	2,228.00	2,696.00
Goodwill	3,399.00	3,466.00	3,479.00	3,700.00
Other Intangibles Net	156.00	153.00	104.00	339.00
Note Receivable - Long Term	265.00	260.00	229.00	691.00
Non-Current Deferred Assets	1,766.00	1,711.00	1,623.00	1,395.00
Total Assets	19,024.00	22,353.00	25,825.00	26,726.00
Liabilities and Equity				
Current Liabilities				
Accounts Payable	958	1124	1472	1755
Accrued Expenses	1005	1390	1606	1657
Current Port. of LT Debt/Capital Leases	600	0		
Other Current liabilities, Total	1884	1945	3266	3967
Total Current Liabilities	4,447.00	4,459.00	6,344.00	7,379.00
Total Long Term Debt	4,713.00	5,448.00	5,452.00	5,457.00
Other Non-Current Liabilities, Net	1,650.00	1,868.00	1,782.00	1,696.00
Total Liabilities	10,810.00	11,775.00	13,578.00	14,532.00
Equity				
Common Stock	9	9	9	8
Preferred Stock	-	-		
Additional paid-in capital	7,595.00	7,904.00	8,247	8,593
Retained earnings	24,386.00	27,209.00	32,246	37,892
Treasury stock	(23,596.00)	(24,245.00)	-27,995	-34,097
Accumulated other comprehensive loss	(180.00)	(299.00)	-260	-202
Total Equity	8,214.00	10,578.00	12,247.00	12,194.00
Total Liabilities & Shareholders' Equity	19,024.00	22,353.00	25,825.00	26,726.00

Appendix D: Cash Flow Statement

Applied Materials (NYSE: AMAT)				
Cash Flow Statement				
Fiscal Year Ended	FY 2019	FY 2020	FY 2021	FY 2022
OPERATING ACTIVITIES				
Net Income	2706	3619	5888	6525
Net Income Growth		33.74%	62.70%	10.82%
Depreciation and amortization	363	376	394	444
Severance and related charges		0	148	-4
Deferred income taxes	49	80	80	-223
Other	-19	60	-70	36
Share-based compensation	263	307	346	413
Changes in operating assets and liabilities				
Accounts receivable	-207	-427	-1,989	-1,109
Inventories	248	-421	-405	-1,590
Other current and non-current assets	-86	-161	-602	-16
Accounts payable and accrued expenses	-247	327	465	390
Contract liabilities	135	-16	755	1,039
Income taxes payable	44	-10	396	-541
Other liabilities	-2	70	36	35
Net Operating Cash Flow	3,247	3,804	5,442	5,399
INVESTING ACTIVITIES				
Capital expenditures	-441	-422	-668	-787
% of sales acquired	-28	-107	-12	-441
investments	1,940	1,754	1,471	1,363
Purchases of investments	-1,914	-1,355	-2,007	-1,492
Net Investing Cash Flow	-443	-130	-1,216	-1,357
FINANCING ACTIVITIES				
Debt borrowings, net of issuance costs	0	2,979	0	0
Debt repayments	0	-2,882	0	0
Proceeds from common stock issuances	145	174	175	199
Common stock repurchases	-2,403	-649	-3,750	-6,103
equity awards	-86	-172	-178	-266
Payments of dividends to stockholders	-771	-787	-838	-873
Net Financing Cash Flow	-3,115	-1,337	-4,591	-7,043
equivalents and restricted cash equivalents	-311	2,337	-365	-3,001
cash equivalents	3,129	5,466	5,101	2,100
equivalents — beginning of period	3,440	3,129	5,466	5,101
equivalents — end of period	3,129	5,466	5,101	2,100
FCF				

Appendix E: Revenue Build

Applied Materials														
Revenue Build														
Fiscal Year Ended	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 Q1	FY 2023 Q2	FY 2023 Q3	FY 2023 Q4	FY 2023 E	FY 2024 E	FY 2025 E	FY 2026 E	FY 2027 E	FY 2028 E
Segments														
Semiconductor Systems	9,027	11,367	16,286	18,797	5,162	4,977	4,676	4,765	19580	21049	22522	23873	25186	26571
% Growth		25.9%	43.3%	15.4%					4.17%	7.50%	7.00%	6.00%	5.50%	5.50%
% of Total Revenue	61.8%	66.1%	70.6%	72.9%					74.4%	74.3%	73.8%	73.2%	72.7%	72.3%
Applied Global Services	3,854	4,155	5,013	5,543	1,369	1,428	1,464	1,437	5698	6382	7084	7792	8493	9173
% Growth		7.8%	20.6%	10.6%					2.8%	12%	11%	10%	9%	8%
% of Total Revenue	26.4%	24.2%	21.7%	21.5%					21.6%	22.5%	23.2%	23.9%	24.5%	25.0%
Display & Adjacent Markets	1651	1607	1634	1331	167	168	235	280	850	884	917	949	980	1010
% Growth		-2.7%	1.7%	-18.5%					-36.1%	4%	3.75%	3.50%	3.25%	3%
% of Total Revenue	11.3%	9.3%	7.1%	5.2%					3.2%	3.1%	3.0%	2.9%	2.8%	2.7%
Corporate and Other	76	73.00	130.00	114.00	41.00	57.00	50.00	50.00	198	232	264	296	325	351
% Growth		-4%	78%	-12%					73.7%	17.0%	14.0%	12.0%	10.0%	8.0%
% of Total Revenue	0.5%	0.4%	0.6%	0.4%					0.8%	0.8%	0.9%	0.9%	0.9%	1.0%
Net Revenue	14,608	17,202	23,063	25,785	6,739.00	6,630.00	6,425.00	6,532.00	26326	28314	30523	32615	34660	36754
% Growth		17.8%	34.1%	11.8%					2.1%	7.6%	7.8%	6.9%	6.3%	6.0%
Geography														
United States	9,027	11,367	16,286	18,797					17861	19211	20709	22128	23516	24937
% Growth		25.9%	43.3%	15.4%					-4.98%	7.55%	7.80%	6.85%	6.27%	6.04%
% of Total Revenue	61.8%	66.1%	70.6%	72.9%					67.8%	67.8%	67.8%	67.8%	67.8%	67.8%
China	3,854	4,155	5,013	5,543					6171	6638	7155	7646	8125	8616
% Growth		7.8%	20.6%	10.6%					11.3%	7.6%	7.8%	6.9%	6.3%	6.0%
% of Total Revenue	26.4%	24.2%	21.7%	21.5%					23.4%	23.4%	23.4%	23.4%	23.4%	23.4%
Korea	1651	1607	1634	1331					2165	2328	2510	2682	2850	3022
% Growth		-2.7%	1.7%	-18.5%					62.6%	7.6%	7.8%	6.9%	6.3%	6.0%
% of Total Revenue	11.3%	9.3%	7.1%	5.2%					8.2%	8.2%	8.2%	8.2%	8.2%	8.2%
Taiwan	76	73.00	130.00	114.00					128	138	149	159	169	179
% Growth		-4%	78%	-12%					13%	8%	8%	7%	6%	6%
% of Total Revenue	0.5%	0.4%	0.6%	0.4%					0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Net Revenue	14,608	17,202	23,063	25,785					26,326	28,314	30,523	32,615	34,660	36,754
% Growth		17.8%	34.1%	11.8%					2.1%	7.6%	7.8%	6.9%	6.3%	6.0%

Appendix G: WACC

Applied Materials	
Wacc Calculation	
Cost of Equity	
Beta	1.62
Risk Free Rate	4.38%
Expected Market Return	9%
Risk Premium	4.62%
Cost of Equity	7.49%
Cost of Debt	
Credit Spread	1.00%
Pre Tax Cost of Debt	4.18%
Tax Rate	19.0%
Cost of Debt after Taxes	3.4%
Shares Outstanding	844.00
Share Price	\$148.06
Market Capitlization	\$124,962.64
Debt Outstanding	\$5,457.00
Total Capitlization	\$130,419.64
Weight of Equity	95.8%
Weight of Debt	4.2%
WACC	7.3%

Appendix H: DCF (Part 1)

Applied Materials (NYSE: AMAT) Discounted Cash Flow										
Figures in Millions	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	
Revenue	14,608	17,202	23,063	25,785	26,326	28,314	30,523	32,615	34,660	
% Growth		18%	34%	12%	2%	8%	8%	7%	6%	
EBITDA	3,713	4,722	7,263	8,219	7,475	7,994	8,810	9,196	9,777	
EBITDA Margin	25%	27%	31%	32%	28%	28%	29%	28%	28%	
NOPAT	3,189	4,056	6,239	7,060	6,421	6,867	7,568	7,900	8,398	
Tax Rate (as stated in 10-K)	14%	14%	14%	14%	14%	14%	14%	14%	14%	
Plus: D&A	363	376	394	444	539	471	490	523	556	
Less: CapEx	-441	-422	-668	-787	-752	-785	-816	-872	-927	
Less: Δ NWC	148	492	2453	2362	-721	896	904	857	837	
FCFF	2,963	3,518	3,512	4,355	6,929	5,657	6,337	6,694	7,190	
Discount Factor					1	2	3	4	5	
Terminal Value (growth)									137,936	
Terminal Value (multiple)									156,885	
Cash Flows (growth)					6,929	5,657	6,337	6,694	145,127	
Cash Flows (multiple)					6,929	5,657	6,337	6,694	164,075	
PV of CF (growth)					6,457	4,912	5,127	5,047	101,954	
PV of CF (multiple)					6,457	4,912	5,127	5,047	115,266	

Appendix J: DCF (Part 2)

Gordon Growth	
Enterprise Value	123,497
Less: Debt	5,457
Plus: Cash	6,535
Equity Value	124,575
Diluted Shares Outstanding	844
Price Per Share	\$147.60

Terminal Multiple	
Enterprise Value	136,809
Less: Debt	5,457
Plus Cash:	6,535
Equity Value	137,887
Diluted Shares Outstanding	844
Price Per Share	\$163.37

Terminal Growth Rate	2.00%
Terminal Multiple (EV/EBITDA)	16.05x
WACC	7.32%

Weighted Share Price			
Method	Share Price	Weight	Weighted Value
GG	\$147.60	25.0%	\$36.90
MM	\$163.37	25.0%	\$40.84
Comps	\$185.46	50.0%	\$92.73
Share Price			\$170.47
% Upside			15.14%

WACC	Perpetuity Growth Rate					
	\$147.60	1.00%	1.50%	2.00%	2.50%	3.00%
5.30%	189.1451193	210.3483226	237.9767391	275.4724471	329.2706369	
6.30%	153.2841867	166.3976333	182.5607185	202.9772473	229.5806029	
7.30%	128.8250632	137.6193289	148.0728901	160.7042764	176.2731945	
8.30%	111.0812787	117.3189347	124.5466947	133.0206203	143.0933997	
9.30%	97.62494547	102.2350808	107.4767415	113.4892346	120.4560917	

Min	97.62495
Q1	118.8875
Med	148.0729
Q3	196.0612
Max	329.2706

WACC	Multiples Method					
	\$163.37	14.04	15.05	16.05	17.05	18.05
5.30%	160.2091374	169.2464735	178.1943311	187.1421886	196.0900462	
6.30%	153.500726	162.1208987	170.6557232	179.1905477	187.7253722	
7.30%	147.1494106	155.3753154	163.5197757	171.6642359	179.8086961	
8.30%	141.1328812	148.9859609	156.7612874	164.5366139	172.3119404	
9.30%	135.4304162	142.9307654	150.3568536	157.7829419	165.2090302	

Min	135.4304
Q1	151.9288
Med	163.5198
Q3	175.2531
Max	196.09

Appendix K: Working Capital

NWC Projections										
Fiscal Year Ended	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 E	FY 2024 E	FY 2025 E	FY 2026 E	FY 2027 E	FY 2028 E
Current Assets										
Sales	14608	17202	23063	25785	26,326	28,546	30,787	32,910	34,985	37,105
Accounts receivable	2533	2963	4953	6068	5237	5679	6125	6547	6960	7381
<i>AR Days</i>	62	62	77	85	72	72	72	72	72	72
COGS	8222	9510	12149	13792	14330	15539	16758	17914	19044	20198
Inventories	3,474.00	3,904.00	4,309.00	5,932.00	5,795.93	6,284.67	6,778.04	7,245.55	7,702.32	8,169.09
<i>Inventory Days</i>	152.11	147.79	127.68	154.84	145.60	145.60	145.60	145.60	145.60	145.60
SG&A	982	1093	1229	1438	1578	1711	1846	1973	2098	2225
Prepaid expenses and other current assets	581	764	1386	1344	1323	1435	1547	1654	1758	1865
<i>As a % of SG&A</i>	59.16%	69.90%	112.77%	93.46%	83.83%	83.83%	83.83%	83.83%	83.83%	83.83%
Total Current Assets	6588	7631	10648	13344	12356	13398	14450	15447	16420	17415
Current Liabilities										
COGS	8222	9510	12149	13792	14330	15539	16758	17914	19044	20198
Accounts Payable	958	1124	1472	1755	1731	1877	2024	2164	2300	2439
<i>AP Days</i>	42	43	44	46	43	43	43	43	43	43
<i>AP turnover</i>	15	15	16	15	15	15	15	15	15	15
SG&A	982	1093	1229	1438	1578	1711	1846	1973	2098	2225
Other accrued liabilities	1005	1390	1606	1657	1414.5	1414.5	1414.5	1414.5	1414.5	1414.5
<i>As a % of SG&A</i>	102.34%	127.17%	130.68%	115.23%	118.85%	122.98%	121.94%	119.75%	120.88%	121.39%
Total Current Liabilities	1963	2514	3078	3412	3145	3291	3439	3578	3715	3854
(Increase)/Decrease in NWC	4625	5117	7570	9932	9211	10107	11011	11868	12706	13561
<i>Change in NWC</i>		492.00	2,453.00	2,362.00	(721.14)	895.98	904.47	857.05	837.38	855.71

Appendix N: Comparable Companies (Part 2)

Comps Output	EV	Debt	Cash	Equity	Shares	Per Share
FWD EBIT	7,523					
Min	15.14	113897.2282	5457	\$6,535	112819	844.00
Q1	16.13	121387.7871	5457	\$6,535	120310	844.00
Med	17.46	131352.6171	5457	\$6,535	130275	844.00
Q3	23.40	176063.0416	5457	\$6,535	174985	844.00
Max	29.12	219059.602	5457	\$6,535	217982	844.00
FWD EBITDA	7502.29					
Min	12.20	91525.08	5457	\$6,535	90447	844.00
Q1	14.68	110114.84	5457	\$6,535	109037	844.00
Med	16.55	124171.52	5457	\$6,535	123094	844.00
Q3	20.05	150432.55	5457	\$6,535	149355	844.00
Max	24.05	180459.50	5457	\$6,535	179382	844.00
FWD Revenue	28545.92					
Min	1.92	54687.69818	5457	\$6,535	53610	844.00
Q1	3.73	106585.4045	5457	\$6,535	105507	844.00
Med	5.11	145766.6705	5457	\$6,535	144689	844.00
Q3	6.87	196008.5269	5457	\$6,535	194931	844.00
Max	7.51	214324.6459	5457	\$6,535	213247	844.00
EV/Rev	4.80x					
Min	1.96	31049.32507	5457	\$6,535	29971	844.00
Q1	3.29	52076.26712	5457	\$6,535	50998	844.00
Med	4.85	76794.54868	5457	\$6,535	75717	844.00
Q3	6.62	104812.6788	5457	\$6,535	103735	844.00
Max	7.21	114256.5542	5457	\$6,535	113179	844.00
EV/EBIT	15.93x					
Min	13.61	105806.0648	5457	\$6,535	104728	844.00
Q1	15.35	119364.9962	5457	\$6,535	118287	844.00
Med	16.32	126888.9207	5457	\$6,535	125811	844.00
Q3	22.64	176026.161	5457	\$6,535	174948	844.00
Max	27.94	217250.0703	5457	\$6,535	216172	844.00

Metric	Median (\$USD)	Spread (\$USD)	Max (\$USD)
LTM EV/Revenue	89.71	44.39	134.10
LTM EV/EBITDA	141.57	70.96	212.53
LTM EV/EBIT	149.07	109.20	258.26
LTM P/E	145.9285832	76.35	222.2740413
FWD 2024 EV/Revenue	170.03	80.57	250.60
FWD 2024 EV/EBITDA	176.95	35.58	212.53
FWD 2024 EV/EBIT	154.35	103.91	258.26
FWD 2024 P/E	147.0215601	75.25	222.2740413
DCF GG	148.0728901	181.20	329.2706369
DCF MM	163.5197757	32.57	196.0900462
52 Week Range	122.11	33.19	155.3

Target Price Calculation	Share Value	Weight	Weighted Value
FWD 2024 P/E	\$184.65	25.00%	\$46.16
FWD 2024 EV/EBITDA	\$238.67	25.00%	\$59.67
FWD 2024 EV/EBIT	\$179.80	25.00%	\$44.95
FWD 2024 EV/Revenue	\$138.71	25.00%	\$34.68
Comps Target Price			\$185.46

GG	\$147.60	25.00%	\$36.90
MM	\$163.37	25.00%	\$40.84
Comps	\$185.46	50.00%	\$92.73
Target Price			\$170.47
% Upside			15.14%

Appendix M
