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Investment Thesis

Entegris's critical role in semiconductor production will catalyze spread compression.

- 1 Company supplies mission critical inputs to semiconductor production and is expanding footprint.**
- 2 Unit-driven sales are increasing and improving the quality of their revenue.**
- 3 Management has made a strong commitment to deleverage to <3.0x following acquisition.**

ENTG 5.95% 06/15/2030 Sr Unsecured Notes

Current Price	\$92.72
Current YTW	7.27%
Current OAS	351 bps
Target OAS	321 bps
Upside	30 bps
1-Year Total Return	8.22%

Company Overview

Entegris supplies critical materials and components to the semiconductor industry.

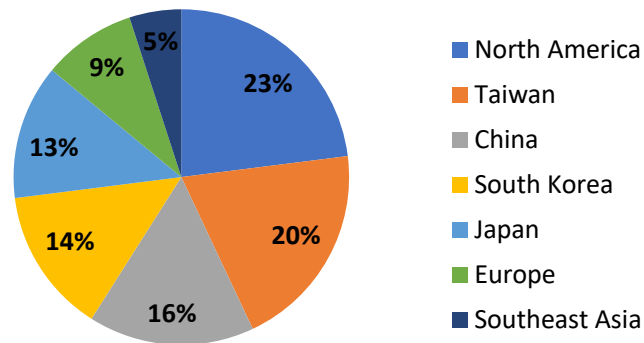
Key Facts:

- Founded in 1966
- **4400+** patents worldwide
- Supplier of products and systems that purify, protect, and transport critical materials
- Global infrastructure of design, manufacturing, logistics, distribution, service and technical support facilities

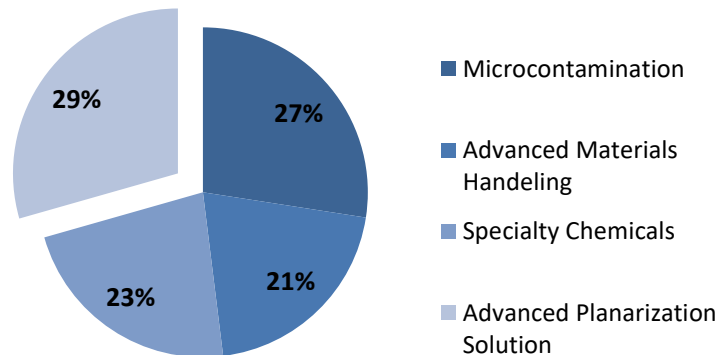
Entegris recently acquired CMC MATERIALS

- Acquired for **\$6B** (\$4.7B cash, \$1.3B stock)
- Supplier of consumables for semiconductor producers, specifically CMP Pads and Slurries (critical components in semiconductor fabrication)
- Created the **Advanced Planarization Solutions** segment following the acquisition

Revenue by geography



Business Segments



Capital Structure & Bond Selection

We are recommending the Entegris 5.95% senior unsecured bond.

Capital Structure Description	Maturity	Price	Coupon	Option-Adjusted Spread	Yield to Worst	Duration	Amount (\$000)
1st Lien Secured Loans							
ENTG Rev 1L	-	-	-	-	-	-	-
ENTG TL B 1L	7/6/2029	\$ 99.25	6.81	-	7.08	-	\$ 2,495,000
Secured Bonds							
ENTG 4 3/4	4/15/2029	\$ 90.03	4.75	302	6.78	5.33	\$ 1,600,000
Senior Unsecured Loans							
ENTG Bridge TL Guar	7/5/2023	\$ 100.50	-	-	7.07	-	\$ 205,000
Senior Unsecured Bonds							
ENTG 4 3/8	4/15/2028	\$ 88.37	4.38	323	7.07	4.64	\$ 400,000
ENTG 3 5/8	5/1/2029	\$ 81.75	3.63	361	7.25	5.50	\$ 400,000
ENTG 5.95	6/15/2030	\$ 92.54	5.95	351	7.27	5.77	\$ 895,000
Total							\$ 5,995,000

	2022E
Capital Structure	Net Leverage
1st Lien Secured Loans	1.7x
Secured Bonds	3.2x
Senior Unsecured Loans	3.4x
Senior Unsecured Bonds	5.1x

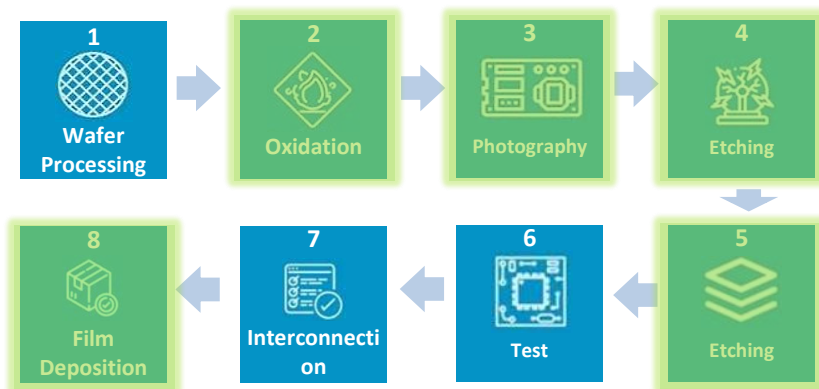
Bond selection:

1. Highest coupon bond at 5.95%.
2. Highest yield to worst.
3. Most liquid senior unsecured bond.

Thesis #1: Critical supplier with a growing moat

The semiconductor fabrication process is becoming more reliant on Entegris's products.

Entegris's solution offering

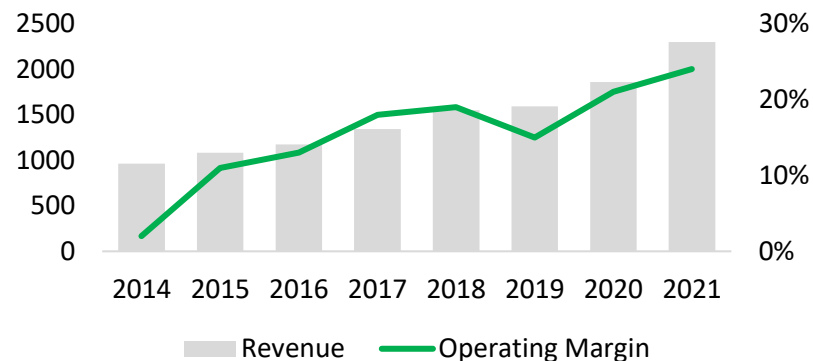


CMC acquisition will make producers more **dependent** on Entegris

CMC Acquisition



Entegris Margins

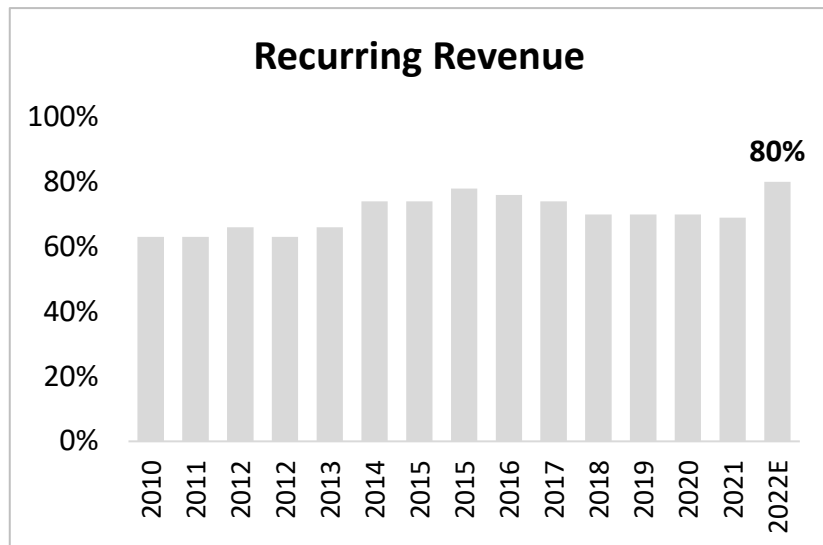


- Entegris has been able to increase margins over the last 7 years as they develop critical partnerships with their customers.
- Pricing power will increase as they grow their moat.

Thesis #2: Improving quality and resilience of revenue

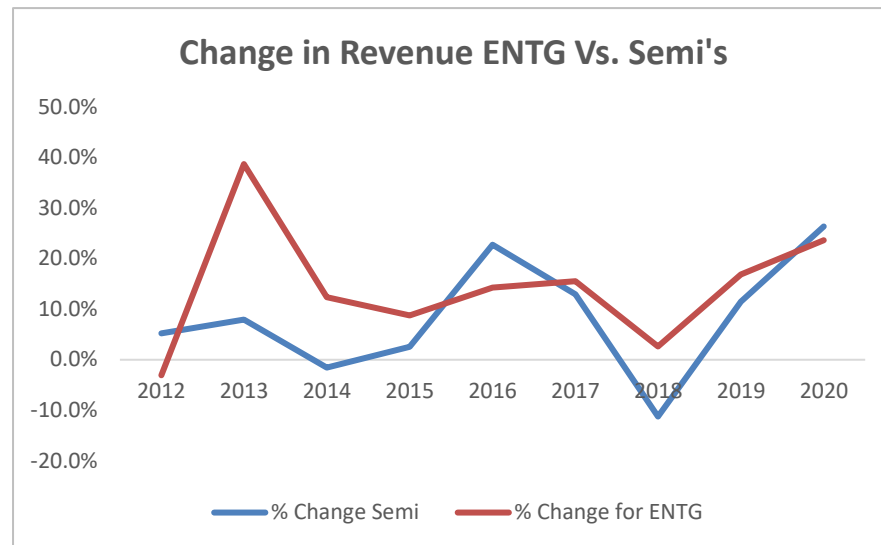
Entegris's acquisition of CMC increases unit-driven revenue, further insulating it from some of the industry cyclicality.

Recurring revenues are sticky:



- Historically high unit-based revenue
- Addition of CMC products (100% recurrent) further increases the stickiness of the revenue
- Revenue dependent on global semiconductor demand, which is on track to be a \$1T industry
- Switching costs are high for the customers

Revenues are resilient:



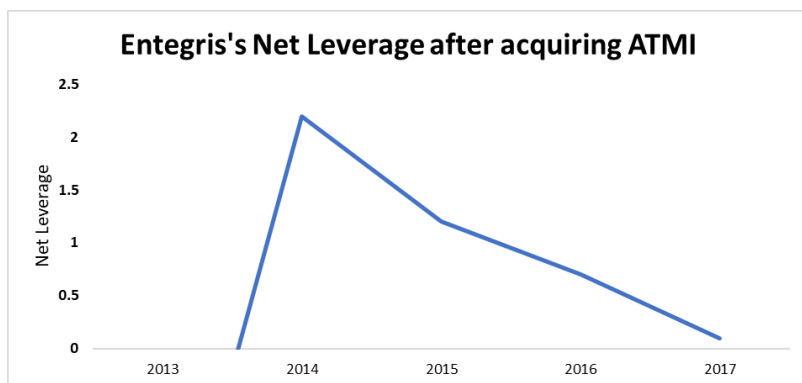
- Entegris's revenue has been more resilient versus the broader semiconductor industry.
- If there is significant economic downturn, revenues would likely hold up better.

Thesis #3: Robust commitment to deleveraging

Management has made a strong commitment to deleverage and will prioritize this with capital allocation.

Track record of debt reduction:

- Entegris acquired ATMI Inc for \$1.15B in 2014
- Entegris has shown rapid deleveraging in past following a large acquisition



Stated commitment to pay down debt:

- Paying down debt is the most important priority after R&D and Capex
- Targeting a net leverage of **<3x**
- Drivers of reduction are EBITDA expansion and selectively paying down their bridge and term loan
- Dividends to continue, **share buybacks on hold**
- **Large scale acquisitions on hold**, focus on value accretive consolidations

Hypothetical Paydown					
	2022	2023	2024	2025	2026
Net Leverage	5.1x	4.2x	3.7x	3.1x	2.4x
Int Coverage	3.5x	2.4x	2.7x	3.5x	4.6x
EBIT	653	768	837	999	1170
EBITDA	947	1097	1196	1303	1468

Valuation

Even in a down market they will be able to service their debt and pay down a portion of their debt

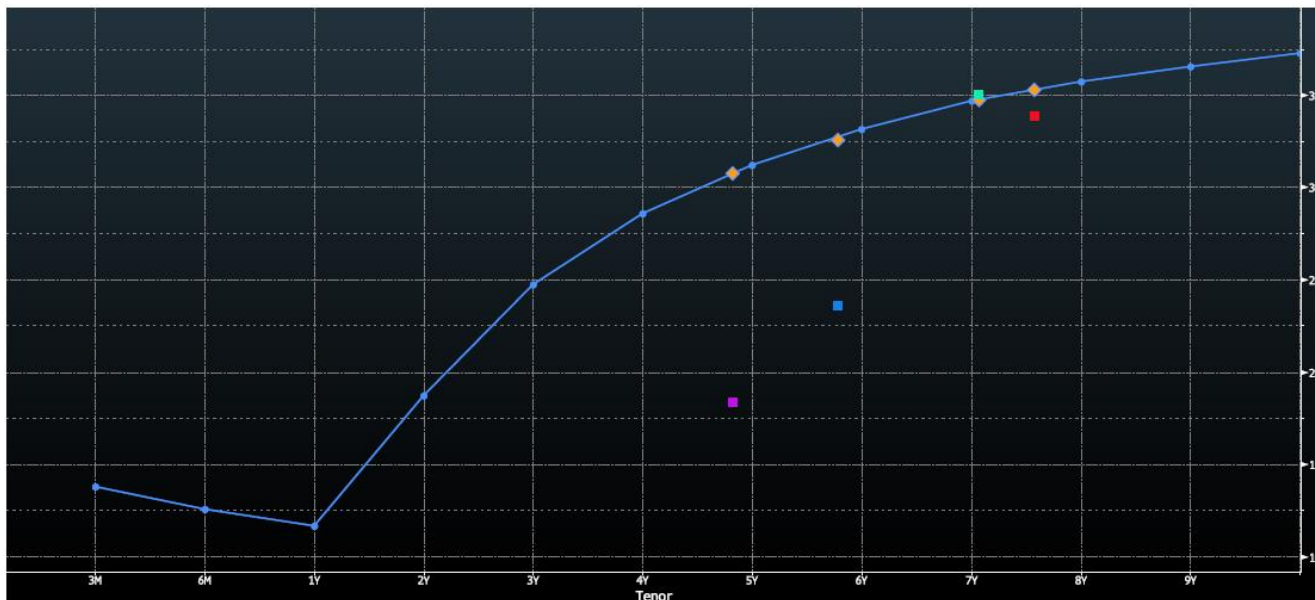
	Base Case			Bear Case			Bull Case		
\$M	FY 2022E	FY 2023E	FY 2024E	FY 2022E	FY 2023E	FY 2024E	FY 2022E	FY 2023E	FY 2024E
Revenue	\$3,264	\$3,656	\$3,985	\$3,264	\$3,428	\$3,599	\$3,264	\$3,819	\$4,163
Revenue Growth	42%	12%	9%	42%	5%	5%	42%	17%	9%
EBITDA	\$947	\$1,097	\$1,196	\$947	\$960	\$972	\$947	\$1,184	\$1,332
EBITDA Margin	29%	30%	30%	29%	28%	27%	29%	31%	32%
Interest Expense	187	325	307	187	363	345	187	318	292
Cash Flow									
Cash Flow from Operations	555	628	747	555	536	561	555	666	870
Capex	(490)	(366)	(399)	(490)	(274)	(288)	(490)	(381)	(416)
Balance Sheet									
Cash & Equivalents	961	961	961	961	961	961	961	961	961
LT Debt	\$5,790	\$5,603	\$5,333	\$5,790	\$5,604	\$5,409	\$5,790	\$5,590	\$5,215
Credit Metrics									
Net Debt/EBITDA	5.1	4.2	3.7	5.1	4.7	4.5	5.1	3.9	3.1
Interest Coverage (EBIT/Interest)	3.5	2.4	2.7	3.5	2.0	2.1	3.5	2.6	3.3

CURRENT PRICE: \$92.54	Base Case	Downside Case	Upside Case
Spread Adjustment	-30 bps	+30 bps	-50 bps
Price	94.41	91.12	95.55
1-Year Total Return	8.22%	5.25%	9.45%

- Base Case:** Short term headwinds, EBITDA margins grow with CMC cost synergies, interest rates stay ~ 4% and debt is paid down steadily
- Bear Case:** Demand stay lower for longer, EBITDA margins decline, interest rates jump to 6% and debt pay down is delayed due to liquidity
- Bull Case:** Short term headwinds are less severe, EBITDA margins grow more than expected with CMC integration, interest rates stay at 4% and debt pay down is accelerated with excess cashflow

Relative Value

Entegris has strong relative value compared to other semiconductor companies.



Entegris is trading similar to other companies that have gone through a large transaction but is better positioned, as they pay down their debt they should trade tighter to other semiconductor companies.

Company	Maturity Date	Moody's/S&P Rating	Yield to Worst	Spread	Net Leverage
Entegris	6/15/2030	Ba2/BB	7.27%	338	5.1x
Coherent	12/15/2029	B2/B+	7.24%	359	5.8x
On Semiconductor	8/15/2030	Ba2/BB	6.26%	235	0.9x
Amkor	9/15/2027	B1/BB	6.52%	220	0.4x

1

Macroeconomic Risk

HIGH

Semiconductor sales are highly correlated with macroeconomic trends

- **Mitigation:**

- In the long run semiconductors will be necessary to drive technological innovation specifically in computers and vehicles

2

Political Risk

Medium

Entegris ceased selling to certain entities in China and wrote off \$40-50M of revenue

- **Mitigation:**

- Chip manufacturers like Taiwan Semiconductor are moving more operations to the US and Entegris has a strong presence in North America

3

Technological irrelevance

Low

Entegris may fail to keep up with innovations in the semi space and become irrelevant

- **Mitigation:**

- Entegris' products are heavily integrated with their customers process, even if they decided to move away from Entegris it would be costly and take a long time to overhaul their systems

Summary and Questions



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APPENDIX

Income Statement

Income Statement for Entegris

Dollars in Millions

						Projected Year Ending December 31				
	<u>FY2017</u>	<u>FY2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>Proj 2022</u>	<u>Proj 2023</u>	<u>Proj 2024</u>	<u>Proj 2025</u>	<u>Proj 2026</u>
Revenue	\$1,342.5	\$1,550.5	\$1,591.1	\$1,859.3	\$2,298.9	\$3,264.4	\$3,656.2	\$3,985.2	\$4,343.9	\$4,734.8
COGS	<u>\$733.5</u>	<u>\$830.7</u>	<u>\$879.4</u>	<u>\$1,009.6</u>	<u>\$1,239.2</u>	<u>\$1,795.4</u>	\$1,974.3	\$2,112.2	\$2,302.3	\$2,462.1
Gross Profit	\$609.0	\$719.8	\$711.7	\$849.7	\$1,059.7	\$1,469.0	\$1,681.8	\$1,873.1	\$2,041.6	\$2,272.7
Selling, General, Administrative (Non D&A)	<u>\$158.0</u>	<u>\$181.4</u>	<u>\$209.8</u>	<u>\$181.7</u>	<u>\$202.1</u>	<u>\$293.8</u>	292.5	318.8	304.1	331.4
D&A	<u>\$102.2</u>	<u>\$127.3</u>	<u>\$141.4</u>	<u>\$136.5</u>	<u>\$138.2</u>	<u>\$293.8</u>	329.1	358.7	304.1	298.3
R&D	<u>\$107.0</u>	<u>\$118.5</u>	<u>\$121.1</u>	<u>\$136.1</u>	<u>\$167.6</u>	<u>\$228.5</u>	292.5	358.7	434.4	473.5
EBIT	\$241.8	\$292.7	\$239.4	\$395.4	\$551.8	\$652.9	\$767.8	\$836.9	\$999.1	\$1,169.5
Interest Expense (net of amounts capitalized)	<u>31.6</u>	<u>30.3</u>	<u>42.3</u>	<u>47.8</u>	<u>41.0</u>	<u>187.4</u>	<u>325.4</u>	<u>307.1</u>	<u>285.8</u>	<u>253.8</u>
All Other Items	<u>(25.5)</u>	<u>(8.0)</u>	<u>121.1</u>	<u>6.7</u>	<u>31.7</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Pretax income	235.7	270.4	76.0	340.9	479.1	465.5	442.4	529.7	713.3	915.7
Income taxes (benefit)	<u>99.7</u>	<u>13.7</u>	<u>63.2</u>	<u>59.3</u>	<u>69.9</u>	83.8	79.6	95.4	128.4	164.8
Net income (all)	\$136.0	\$256.7	\$12.8	\$281.6	\$409.2	\$381.7	\$362.8	\$434.4	\$584.9	\$750.9
EBITDA	344.0	419.9	380.8	531.9	690.0	946.7	1096.9	1195.6	1303.2	1467.8
Margin	26%	27%	24%	29%	30%	29%	30%	30%	30%	31%
<u>Ratios & assumptions</u>	<u>FY2017</u>	<u>FY2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>Proj 2022</u>	<u>Proj 2023</u>	<u>Proj 2024</u>	<u>Proj 2025</u>	<u>Proj 2026</u>
Gross Profit	45.4%	46.4%	44.7%	45.7%	46.1%	45.0%	46.0%	47.0%	47.0%	48.0%
SG&A as a % of Revenue	11.8%	11.7%	13.2%	9.8%	8.8%	9.0%	8.0%	8.0%	7.0%	7.0%
R&D as a % of Revenue	8.0%	7.6%	7.6%	7.3%	7.3%	7.0%	8.0%	9.0%	10.0%	10.0%
Tax Rate	42.3%	5.1%	83.2%	17.4%	14.6%	18.0%	18.0%	18.0%	18.0%	18.0%

Balance Sheet

Balance Sheet for Entegris

Dollars in Millions

	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>Projected Year Ending December 31</u>				
						<u>Proj 2022</u>	<u>Proj 2023</u>	<u>Proj 2024</u>	<u>Proj 2025</u>	<u>Proj 2026</u>
Cash & Short-Term Investments	\$625.4	\$482.1	\$351.9	\$580.9	\$402.6	\$960.6	\$960.6	\$960.6	\$960.6	\$960.6
Accounts Receivable, net	183.4	222.1	234.4	264.4	347.4	444.3	497.6	542.4	591.3	644.5
Inventories	198.1	268.1	287.1	323.9	475.2	643.8	721.1	786.0	856.7	933.8
Other Current Assets	50.7	57.1	59.0	65.0	88.2	125.2	140.3	152.9	166.7	181.7
Total Current Assets:	1,057.6	1,029.4	932.4	1,234.2	1,313.4	2,174.0	2,319.6	2,441.9	2,575.2	2,720.6
PP&E	359.5	419.5	479.5	525.4	654.1	1,495.0	1,823.1	2,005.9	2,205.1	2,444.1
Other Assets	559.0	868.8	1,104.1	1,158.1	1,224.4	6,310.0	6,106.0	5,890.3	5,655.1	5,424.5
Total Assets:	\$1,976.1	\$2,317.7	\$2,516.0	\$2,917.7	\$3,191.9	\$9,979.0	\$10,248.7	\$10,338.1	\$10,435.5	\$10,589.1
Accounts Payable	\$66.8	\$93.1	\$84.2	\$81.6	\$130.7	263.0	294.5	321.0	349.9	381.4
ST Debt & Curr Value of LT Debt	100.0	4.0	4.0	-	-	-	-	-	-	-
Other Current Short Term Liabilities	122.2	172.6	176.2	221.0	248.2	248.2	248.2	248.2	248.2	248.2
Total Current Liabilities:	289.0	269.7	264.4	302.6	378.9	511.2	542.7	569.2	598.1	629.6
Long-Term Debt	574.4	934.9	932.5	1,085.8	937.0	5,790.0	5,603.2	5,332.8	5,014.2	4,539.7
Long Term Lease Obligations	0.0	0.0	43.8	39.7	60.1	60.1	60.1	60.1	60.1	60.1
Other Long-Term Liabilities	117.8	101.1	109.5	110.1	102.0	465.0	465.0	465.0	465.0	465.0
Total Liabilities:	981.2	1,305.7	1,350.2	1,538.2	1,478.0	6,826.3	6,671.0	6,427.2	6,137.4	5,694.4
Paid In Capital	867.7	837.7	842.8	844.8	879.8	1,993.5	2,115.1	2,076.4	1,944.2	1,858.7
Retained Earnings	147.4	213.8	366.1	577.8	879.8	1,204.9	1,508.3	1,880.3	2,399.6	3,081.7
Other	(22.1)	(39.5)	(43.1)	(43.1)	(45.7)	(45.7)	(45.7)	(45.7)	(45.7)	(45.7)
Total Equity:	993.0	1,012.0	1,165.8	1,379.5	1,713.9	3,152.7	3,577.6	3,910.9	4,298.1	4,894.6
Total Liabilities and Equity:	\$1,976.1	\$2,317.7	\$2,516.0	\$2,917.7	\$3,191.9	\$9,979.0	\$10,248.7	\$10,338.1	\$10,435.5	\$10,589.1
<u>Ratios & assumptions</u>						<u>Proj 2022</u>	<u>Proj 2023</u>	<u>Proj 2024</u>	<u>Proj 2025</u>	<u>Proj 2026</u>
Inventory as % of COGS	49	52	53	51	54	49	49	49	49	49
Accounts Receivable as % of Sales	24	30	25	22	29	29	29	29	29	29
Other ST Assets as % of Sales	71	85	85	88	106	71	71	71	71	71
Accounts Payable as % of COGS	14	13	13	13	14	14	14	14	14	14

Cash Flow Statement

Cash Flow Statement for Entegris

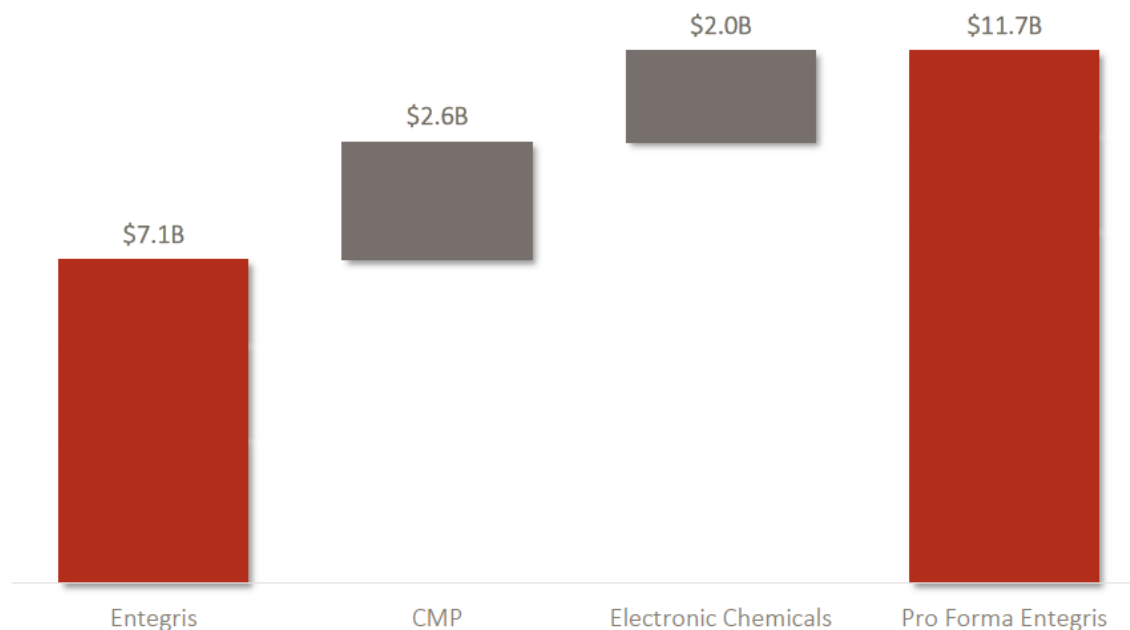
Dollars in Millions

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<u>Operating activities</u>										
Net income	\$85.1	\$240.8	\$254.9	\$295.0	\$409.1	\$381.7	\$362.8	\$434.4	\$584.9	\$750.9
Depreciation	58.2	65.1	75.0	83.4	90.3	161.6	182.8	199.3	195.5	191.8
Amortization	44.0	62.2	66.4	53.1	47.9	132.2	146.2	159.4	108.6	106.5
(Increase) / decrease in working capital	40.2	(79.4)	(43.1)	(19.3)	(196.7)	(170.3)	(114.1)	(95.8)	(104.4)	(113.8)
Other Non Cash Adjustments	65.9	23.9	29.2	34.5	49.9	49.9	49.9	49.9	49.9	49.9
Cash Flow from Operating Activities:	293.4	312.6	382.3	446.7	400.5	555.1	627.7	747.2	834.4	985.2
<u>Investing activities</u>										
Capital expenditures	(93.6)	(110.2)	(112.4)	(131.8)	(210.6)	(489.7)	(365.6)	(398.5)	(434.4)	(426.1)
Cash from Acquisitions and Divestitures	(20.0)	(380.7)	(277.4)	(111.9)	(91.9)	(4,424.9)	0.0	0.0	0.0	0.0
Other	1.1	4.9	3.9	0.3	4.5	0.0	0.0	0.0	0.0	0.0
Cash Flow from Investing Activities:	(112.5)	(485.9)	(385.9)	(243.3)	(298.1)	(4,914.6)	(365.6)	(398.5)	(434.4)	(426.1)
Free Cash Flow	\$199.8	\$202.4	\$269.9	\$314.9	\$189.8	\$65.4	\$262.1	\$348.6	\$400.0	\$559.1
<u>Financing activities</u>										
Net Issuance (Repayment) of long-term debt	90.0	266.2	(4.0)	149.0	(150.0)	4,990.0	(186.8)	(270.4)	(318.7)	(474.4)
Cash Dividends Paid	(9.9)	(35.6)	(40.6)	(43.2)	(43.5)	(56.6)	(59.4)	(62.4)	(65.5)	(68.8)
Share Repurchase	(28.0)	(173.8)	(80.3)	(44.6)	(67.1)	0.0	0.0	0.0	0.0	0.0
Stock Issuance	5.6	5.6	7.3	8.7	24.7	24.7	24.7	24.7	24.7	24.7
Other	(30.4)	(28.0)	(9.2)	(47.8)	(40.6)	(40.6)	(40.6)	(40.6)	(40.6)	(40.6)
Cash Flow from Financing Activities:	27.3	34.4	(126.8)	22.2	(276.5)	4,917.5	(262.1)	(348.6)	(400.0)	(559.1)
Foreign Exchange	16.4	3.5	4.1	7.3	(2.3)	0.0	0.0	0.0	0.0	0.0
Net change in cash	219.0	(143.3)	(130.2)	229.0	(178.3)	558.0	0.0	0.0	0.0	0.0
<u>Ratios and Assumptions</u>										
CAPEX as a % of Sales	(7.0%)	(7.1%)	(7.1%)	(7.1%)	(9.2%)	(15.0%)	(10.0%)	(10.0%)	(10.0%)	(9.0%)
Depreciation as % of CAPEX	(62.2%)	(59.1%)	(66.7%)	(63.3%)	(42.9%)	(33.0%)	(50.0%)	(50.0%)	(45.0%)	(45.0%)
Amortization as a % of CAPEX	(47.0%)	(56.4%)	(59.1%)	(40.3%)	(22.7%)	(27.0%)	(40.0%)	(40.0%)	(25.0%)	(25.0%)

Broadens Technology Depth and Capabilities

Expanding Our Served Semiconductor Market from \$7Bn to ~\$12Bn

2023 SAM by Division/Application



Enhanced portfolio to drive compelling co-development opportunities and faster time-to-solution

Management's Plan

Management has made a very strong commitment to pay down debt

Capital Structure and Allocation Policy

- Target gross leverage ratio at closing ~4.0x with goal to rapidly deleverage to <3.0x
- Committed to BB rating profile and disciplined deleveraging over time
- Maintaining quarterly dividend to Entegris' shareholders after announcement
- Suspending Entegris' share buy back program until leverage target is achieved

1

Investments in R&D and CapEx

- ER&D target: trending up to 8-9% of sales
- CapEx target: trending down to 9-10% of sales

2

Debt Paydown and Cash Levels

- Maintain debt ratings
- ~3.5x gross leverage by 2024 (excluding potential divestitures)
- Maintain sufficient liquidity

3

Cash Return to Shareholders

- Dividends continue
- Buybacks on hold

4

Value Accretive Acquisitions

- Large-scale acquisitions on hold near term
- Intend to be a consolidator
- Targets: core semi and other adjacent markets

Levers for liquidity

1. Generally, they have cash on their balance sheet and they have already said they will carry lower cash levels if necessary
2. Planning to divest redundant assets acquired in the CMC deal, They already have a deal to sell CMC's pipeline service.
3. They can lower Capex if necessary to deal with short term headwinds.

Resize SG&A-related cost structure

- Eliminate duplicate public company costs
- Functional teams redesigned
- Customer-facing organization realigned

Optimize supply chain costs

- Facilities rationalization
- Logistics and procurement savings
- Reduce back-office support costs

~\$75M
EXPENSES TO
ACHIEVE
SYNERGIES



Drivers of Paydown

- EBITDA
- Lower CapEx
- Improved net working capital
- Repatriation of cash to U.S.
- Any potential divestitures

Track Record of Debt Reduction

- Two years post ATMI close: gross leverage to ~3x
- Three years post ATMI close: gross leverage to ~2x



Indenture Key Provisions

Term	Description
Notes	5.95% Bonds due 06/15/2030
Issuer	Entegris Escrow Corporation
Principal Amount	\$895,000,000
Coupon Rate	5.95% paid semi-annually
Maturity Date	June 15 th 2030
Covenants	<ol style="list-style-type: none"> 1. Change of Control 2. Limit of Indebtedness 3. Cross Default 4. Certain Sales of Assets 5. Merger Restrictions 6. Limitation on Sale-and-Leaseback 7. Limitation on Subsidiary Debt 8. Ratings Trigger
Events of Default	<ol style="list-style-type: none"> a) Failure to make payments when due b) Default in Other Agreements c) Breach of Certain Covenants d) Breach of representation

Entegris' Acquisition

Acquiree Name	Date	Transaction value	Details
Mykrolis Corporation (Merger)	2005		Liquid filtration and gas purification technologies
ATMI, Inc	2014	\$1.15 billion	Advanced Materials
PSS	2018	\$37 million	Particle sizing instrumentation for liquid applications
SAES Pure Gas	2018	\$355 million	High-capacity gas purification systems
Flex Concepts	2018	\$1.9 million	Quick-turn custom configurations for bioprocessing
MPD Chemicals	2019	\$165 million	Organometallics and other fine chemicals
Hangzhou Anow Microfiltration	2019	\$73 million	Filtration manufacturing in Asia
Sinmat	2020	\$75 million	CMP slurries for SiC, GaN, C
GMTI and CRP	2020	\$36 million	Advanced process monitoring for CMP chemistries
BASF's Precision Microchemicals business	2021	\$90 million	CMP slurries for SiC and high-purity cleaners for HDD
CMC Materials	2022	\$5.7 billion	CMP slurries and pads

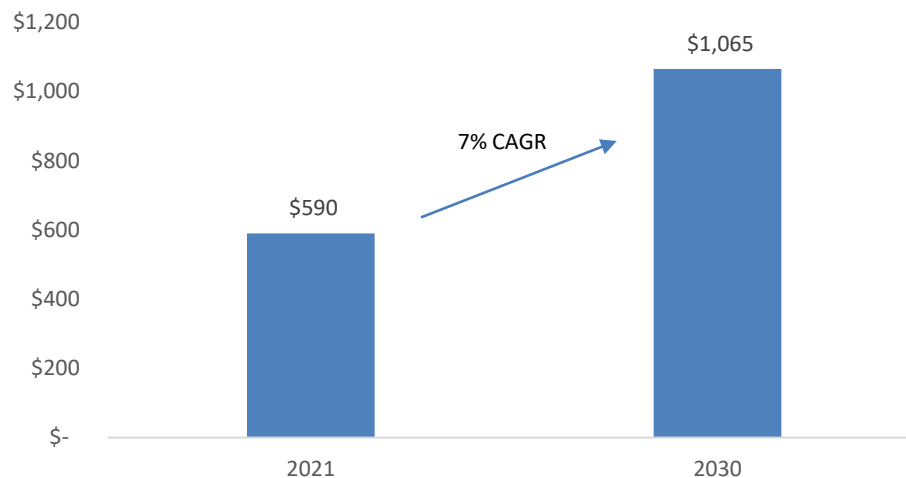
Industry is growing and competition is fragmented

Semiconductor market is growing

Semiconductor market is estimated to grow, requiring more consumable and capex expenditure which are the two areas Entegris operates in.

Entegris will not have to compete with many competitors to gain market share as “specialized” providers in the semi space are fragmented

Semiconductor Market (\$B)

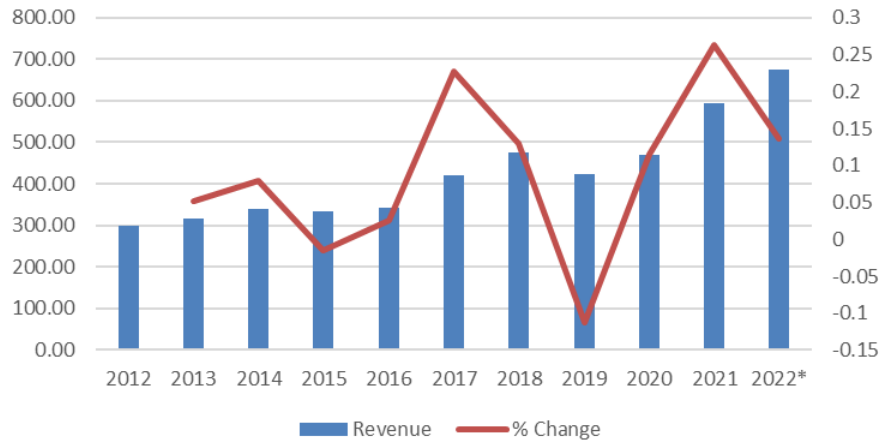


Firm	Specialization	Overlap
Teradyne	Testing	Low- Entegris does not have a lot of exposure in testing
Amkor	Packaging & Testing	Some – Entegris provides packaging solutions but also offer chemical specific solutions
MKS	Various	Low – Focused far more on machinery and systems in contrast to the consumables

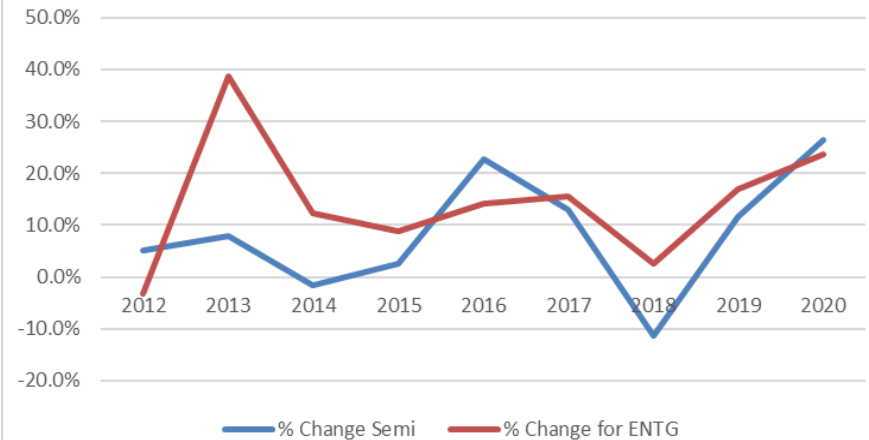
Semiconductor Revenue

While there is variation Entegris Revenues have been more resilient
vs. the broader industry

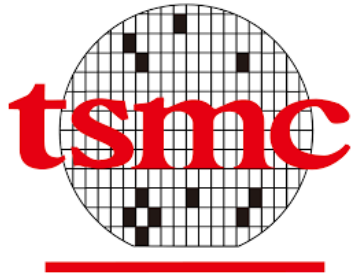
Semiconductor Revenue Over Time



Change in Revenue ENTG Vs. Semi's



**TSMC says latest chip plant
will cost around \$20B**



**Intel's \$5.4 billion foundry
acquisition hopes to catch
its fabless chip rivals flat-
footed**



**Samsung Unveils \$191B
Semiconductor Fab
Expansion in Texas**



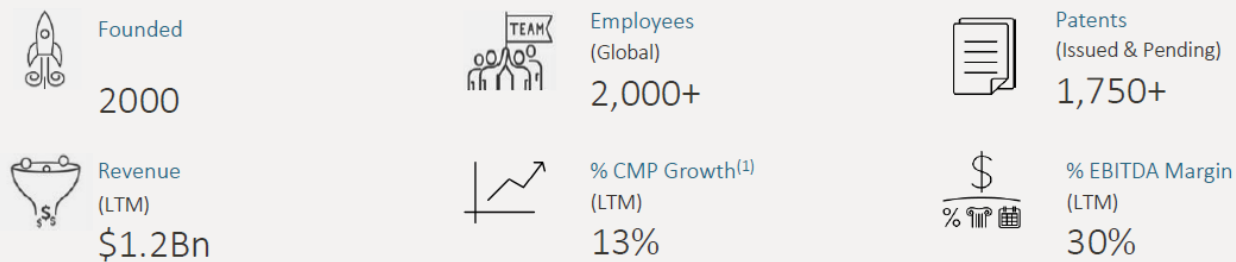
Bond Holders

Holder Name	Portfolio Name	Source	Opt	Position	% Out	Latest Chg	File Dt
		All	All				
1. T Rowe Price Group Inc		ULT-AGG		107,470	12.01	575	09/30/22
2. Allianz SE		ULT-AGG		64,285	7.18	-2,125	10/31/22
3. BlackRock Inc		ULT-AGG		36,367	4.06	5,892	11/16/22
4. AllianceBernstein LP		ULT-AGG		35,605	3.98	1,395	09/30/22
5. Chubb Ltd		ULT-AGG		35,073	3.92	35,073	06/30/22
6. Waddell & Reed Financial Inc		ULT-AGG		25,085	2.80	460	09/30/22
7. FMR LLC		ULT-AGG		20,896	2.33	8,280	11/15/22
8. JPMorgan Chase & Co		ULT-AGG		18,556	2.07	4,455	11/16/22
9. Royal Bank of Canada		ULT-AGG		17,575	1.96	575	07/31/22
10. American Beacon Advisors Inc	Multiple Portfolios	MF-AGG		14,570	1.63	0	09/30/22
11. Invesco Ltd		ULT-AGG		14,496	1.62	-455	11/16/22
12. Ameriprise Financial Inc		ULT-AGG		14,406	1.61	1,993	11/16/22
13. New York Life Insurance Co		ULT-AGG		14,030	1.57	14,030	06/30/22
14. Macquarie Group Ltd		ULT-AGG		10,970	1.23	420	09/30/22
15. State Street Corp		ULT-AGG		10,925	1.22	125	11/16/22
16. Neuberger Berman Group LLC	Multiple Portfolios	MF-AGG		9,860	1.10	9,860	06/30/22
17. Massachusetts Financial Services Co	Multiple Portfolios	MF-AGG		8,789	0.98	0	09/30/22
18. Vanguard Group Inc/The		ULT-AGG		7,995	0.89	0	10/31/22
19. Aviva PLC		ULT-AGG		7,860	0.88	0	08/31/22
20. Lincoln National Corp		ULT-AGG		7,500	0.84	7,500	06/30/22
21. Deutsche Bank AG		ULT-AGG		6,957	0.78	0	11/16/22
22. Prudential Financial Inc		ULT-AGG		6,710	0.75	6,710	06/30/22
23. MetLife Inc		ULT-AGG		5,100	0.57	5,100	06/30/22
24. Payden & Rygel	Multiple Portfolios	MF-AGG		4,625	0.52	4,625	09/30/22
25. Prudential PLC		ULT-AGG		4,190	0.47	0	07/29/22
26. Federated Hermes Inc		ULT-AGG		3,800	0.42	3,775	08/31/22
27. Janus Henderson Group PLC		ULT-AGG		3,569	0.40	-6	09/30/22
28. Manulife Financial Corp		ULT-AGG		3,550	0.40	-1,100	09/30/22
29. Unum Group		ULT-AGG		3,000	0.34	3,000	06/30/22
30. Standard Insurance Co	Multiple Portfolios	Sch-D		2,707	0.30	2,707	06/30/22
31. Voya Investment Management LLC	Multiple Portfolios	MF-AGG		2,685	0.30	0	10/31/22
32. FRANK RUSSELL COMPANY		ULT-AGG		2,542	0.28	-500	08/31/22
33. UBS AG		ULT-AGG		2,290	0.26	562	07/29/22

Equity Holders

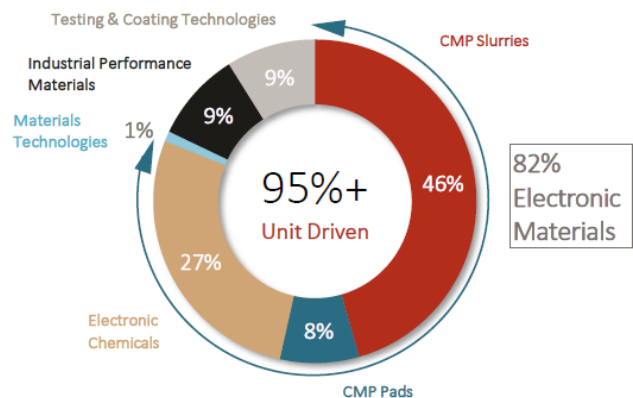
Holder Name	Portfolio Name	Source	Opt	Position	% Out	Latest Chg	File Dt	
		All	All					
1. BlackRock Inc		ULT-AGG		14,487,876	9.72	163,971	09/30/22	✓
2. Vanguard Group Inc/The		ULT-AGG		13,854,392	9.30	1,396,698	09/30/22	✓
3. T Rowe Price Group Inc		ULT-AGG		12,759,332	8.56	6,081,120	09/30/22	✓
4. Select Equity Group LP	SELECT EQUITY GROUP LP	13F		9,719,660	6.52	2,772,993	09/30/22	✓
5. AllianceBernstein LP		ULT-AGG		7,147,709	4.80	-376,625	09/30/22	✓
6. Sands Capital Management LLC	SANDS CAPITAL MANAGEMENT LLC	13F		5,206,311	3.49	452,103	09/30/22	✓
7. JPMorgan Chase & Co		ULT-AGG		4,265,092	2.86	-150,255	09/30/22	✓
8. WCM Investment Management	WCM INVESTMENT MANAGEMENT	13F		3,210,513	2.15	378,506	09/30/22	✓
9. London Co of Virginia/The	THE LONDON COMPANY	13F		3,048,588	2.05	355,732	09/30/22	✓
10. PRIMECAP Management Co	PRIMECAP MANAGEMENT COMPANY	13F		3,010,112	2.02	-8,500	09/30/22	✓
11. State Street Corp		ULT-AGG		2,887,952	1.94	252,843	09/30/22	✓
12. Massachusetts Financial Services Co	MASSACHUSETTS FINANCIAL SERVICES	13F		2,745,093	1.84	2,481	09/30/22	✓
13. Cantillon Capital Management LLC	CANTILLON CAPITAL MANAGEMENT LLC	13F		2,556,644	1.72	472,922	09/30/22	✓
14. Touchstone Advisors Inc	Multiple Portfolios	MF-AGG		2,289,768	1.54	347,920	09/30/22	✓
15. First Manhattan Co	FIRST MANHATTAN COMPANY	13F		2,041,061	1.37	1,097,182	09/30/22	✓
16. BNP Paribas SA		ULT-AGG		2,004,418	1.34	532,831	10/31/22	✓
17. Geode Capital Management LLC	GEODE CAPITAL MANAGEMENT LLC	13F		1,965,395	1.32	184,059	09/30/22	✓
18. Goldman Sachs Group Inc/The		ULT-AGG		1,893,727	1.27	-543,134	09/30/22	✓
19. Snyder Capital Management LP	SNYDER CAPITAL MANAGEMENT	13F		1,855,233	1.24	247,093	09/30/22	✓
20. Artisan Partners Ltd		ULT-AGG		1,766,098	1.19	-1,188	09/30/22	✓
21. William Blair & Co LLC		ULT-AGG		1,682,454	1.13	63,183	09/30/22	✓
22. EARNEST Partners LLC	EARNEST PARTNERS LLC	13F		1,579,722	1.06	-123,001	09/30/22	✓
23. Franklin Resources Inc		ULT-AGG		1,553,750	1.04	21,947	09/30/22	✓
24. Bank of America Corp	BANK OF AMERICA CORP	13F		1,398,887	0.94	-120,915	09/30/22	✓
25. Norges Bank	NORGES BANK	13F		1,383,559	0.93	35,174	12/31/21	✓
26. Gates Capital Management Inc	GATES CAPITAL MANAGEMENT INC	13F		1,302,718	0.87	180,800	09/30/22	✓
27. Congress Asset Management Co LLP	CONGRESS ASSET MANAGEMENT COMPANY	13F		1,207,721	0.81	-408,037	09/30/22	✓
28. Brown Advisory Inc		ULT-AGG		1,206,214	0.81	356,052	09/30/22	✓
29. Allianz SE		ULT-AGG		1,147,269	0.77	701,859	10/31/22	✓
30. Northern Trust Corp	NORTHERN TRUST CORPORATION	13F		1,060,968	0.71	91,091	09/30/22	✓
31. CIBC Private Wealth Group LLC	CIBC PRIVATE WEALTH GROUP LLC	13F		965,701	0.65	-80,777	09/30/22	✓
32. Charles Schwab Corp/The		ULT-AGG		935,551	0.63	129,877	09/30/22	✓
33. GW&K Investment Management LLC	GW&K INVESTMENT MANAGEMENT LLC	13F		905,614	0.61	93,765	09/30/22	✓

CMC Materials at a Glance



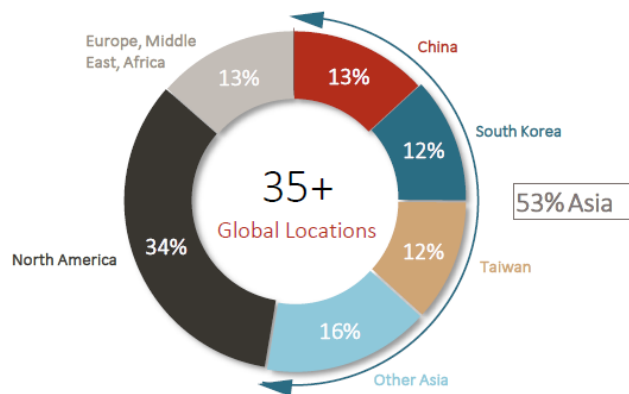
A Leading Semiconductor Platform...

% LTM Business Mix by Revenue



...with Global Reach

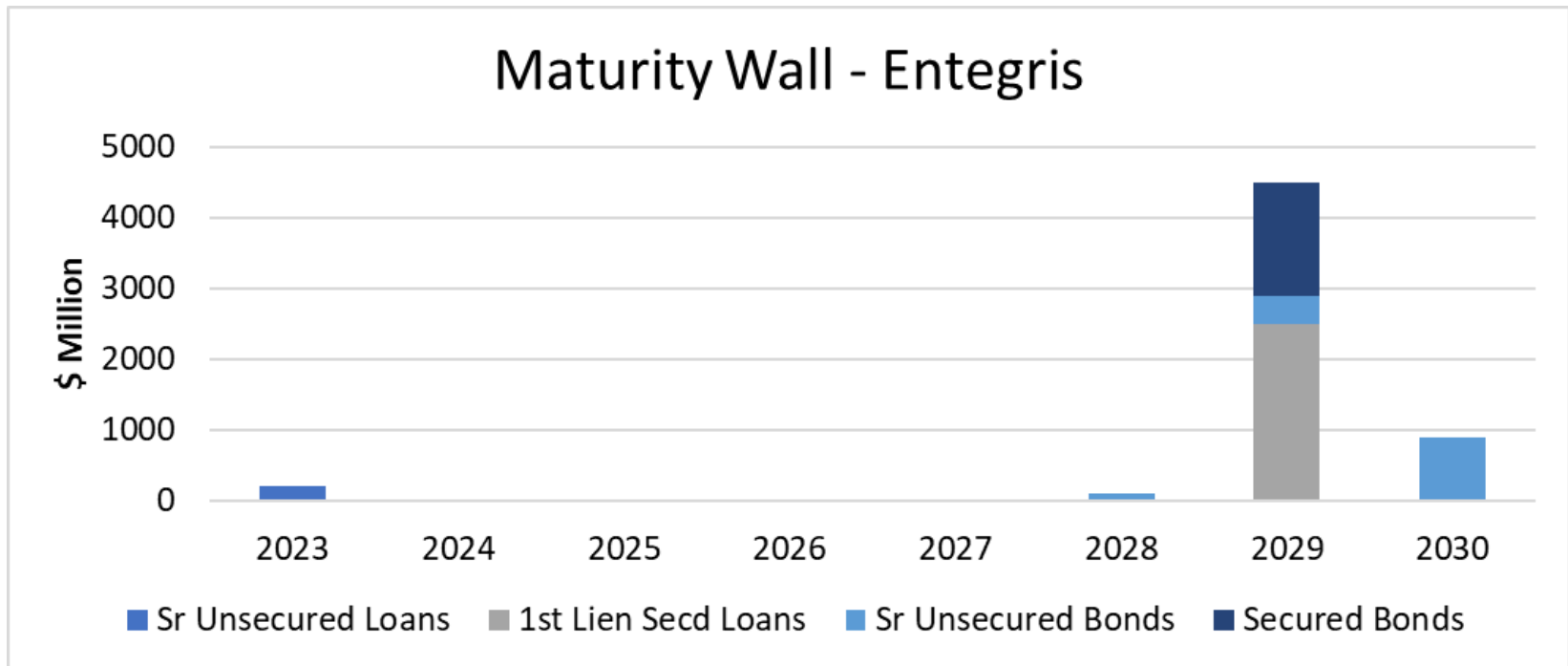
% LTM Geographic Mix by Sites



CMC Materials

- ✓ Leader in **CMP slurries and pads**
- ✓ Well-positioned in **advanced logic & memory nodes** (metals and dielectrics)
- ✓ **Strong customer collaboration model** to address the most critical CMP challenges from leading customers
- ✓ **95% unit-driven** revenue in electronic materials
- ✓ **Valuable solutions** – Long product tails

Entegris's Maturity wall

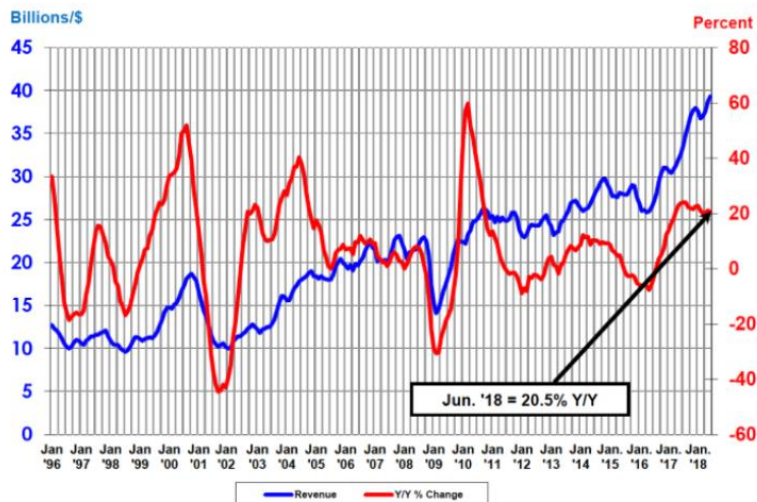


Entegris's Maturity wall is in 2029, enough time to pay down debt in the meantime

Semiconductor Industry in 2008

Worldwide Semiconductor Revenues

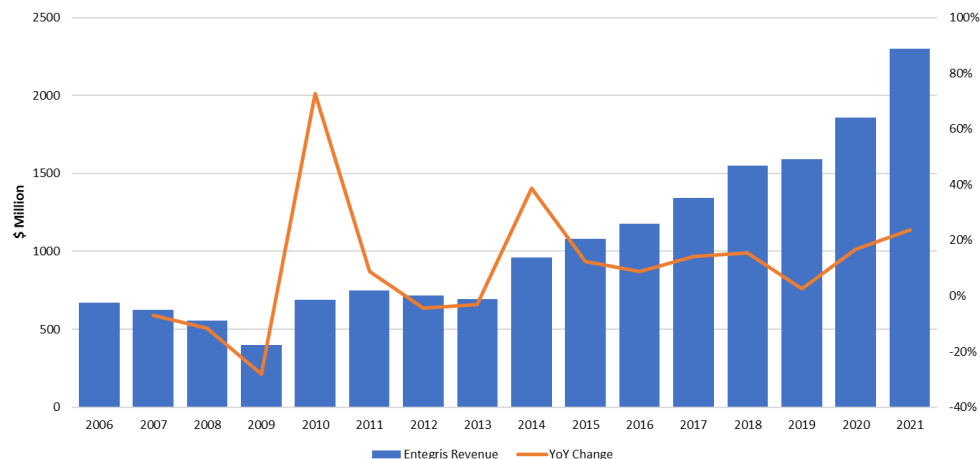
Year-to-Year Percent Change



Source: WSTS

Despite macro headwinds in 2008
Entegris held up better vs, the broader
industry and was able to rebound



Entegris' Revenue



Rating Agency Metrics

Rating Agency	Moody's	S&P
Rating	Ba1	BB+
Outlook	Negative	Stable
12-18 month forward view	Leverage 4.5x FCF to debt 5.2% Coverage 3.8x	Leverage 4x FCF to debt 10% - 15%

CMC Deal Overview

Entegris, Inc. acquires CMC Materials, Inc.			FactSet
Target  CMC Materials, Inc. (CCMP-US)		Industry Semiconductors	
Acquirer  Entegris, Inc. (ENTG-US)		Industry Industrial Machinery	
Announce Date 15 Dec '21	Close Date 06 Jul '22	Deal Type Acquisition / Merger	
Transaction Value (M) \$6,412.8	Base Equity (M) \$5,651.7	Offer Price/Share \$197.53	
Method of Payment Combo	Purpose Strategic	1 Day Premium 35.3%	
Source of Funds Bank Debt, Notes / Bonds, Internally Generated Funds, Bank Loan, Bond/Note Issuance			
Consideration Breakdown (M) Cash (\$3,805.3, 67.3%), Common Stock (\$1,846.4, 32.7%)			
Deal Characteristics Friendly, Reverse Triangular, Target Shareholder Approval Required (50.1%)			

Semiconductor Capex Cycle

Capex guidelines are currently being cut or delayed but growth should still occur

