

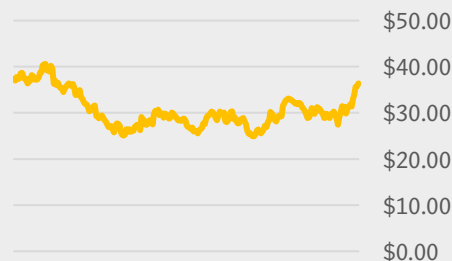
**May 1, 2023**

All figures in are in \$USD unless otherwise stated

<b>Stock Rating:</b>	Buy
<b>Price Target:</b>	\$35.68
<b>Current Price:</b>	\$30.30

**Key Financial Information:**

Market Cap:	\$128.0Bn
Revenue (TTM):	\$11.7Bn
Operating Cashflow:	\$15.4Bn
Dividend Payout:	\$6.0Bn

**52-Week Performance**


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## Intel Corporation (NASDAQ:INTC)

### Why Buying Intel is Byte of the Year

Intel has served as a pioneering innovator in the semiconductor industry. Its early contributions didn't end there, it has continued to play a dominant role in the ever-growing industry.

The industry is strategically important to many countries and has grown considerably within the last decade. Despite the positive macros, Intel is currently trading at \$30.30 which is well below its pre-pandemic price of around ~\$55 per share.

Intel's stock price comes on the heels of the industry's contractionary period which came after unprecedented growth during Covid-19. Intel is also on its course to fulfill its IDM 2.0 strategy which aims to bring performance parity with competitors and has planned on entering the foundries business (semiconductor manufacturing) by taking advantage of government incentives for the onshoring of manufacturing of chips. Intel's IDM 2.0 has resulted in historically high capital expenditure spend with further spending expected.

Under Thesis I, we forecasted using market share which yielded a share price of \$43.21. Projecting out each segment yielded a share price of \$28.14. The average of the two is our price target of \$35.68.

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Western Algorithmic Trading Club 2023

All figures in USD unless otherwise stated.



# Company Overview

May 1, 2023

## Business Description

Intel is headquartered in Santa Clara, California, and was founded in 1986 by Robert Noyce and Gordon Moore who is the namesake of the famous Moore’s Law. Intel has had a long history of advancing the semiconductor industry and is still a driver of innovation. In 2023, Intel is diversified into many segments that cater to personal and commercial computing needs while dedicating significant resources to research and development of semiconductors.

## Management

### Pat Gelsinger– CEO

Pat Gelsinger (Exhibit I) is the current CEO of Intel since 2021 succeeding Bob Swan. Pat comes from an electrical engineering background and has spent over three decades working at Intel. His succession of Bob was met with positive reception as analysts viewed the selection of an insider with a technical background as a positive sign that Intel would return to its roots of innovating. Pat formerly served as the CEO of VMWare before returning to Intel. Pat has also played an instrumental part in the creation of the IDM 2.0 strategy.

### EXHIBIT I – Pat Gelsinger



## Segment Overview (Exhibit II)

### 1. Client Computing Group

The CCG group serves the needs of personal computers by supplying Intel CPUs. This segment represents one of Intel’s core groups.

### 2. Data Center & AI

The DC&AI serves the needs of companies requiring enterprise server chips. Customers would include the Tech Giants like Google and Facebook. This is also one of Intel’s core groups.

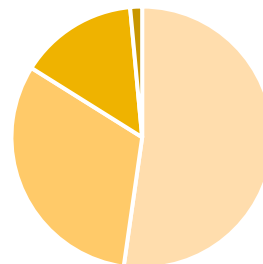
### 3. Network and Edge

The Network and Edge segment offers various computing components for computing and network purposes. Its main customers would include tele-communications firms like Cisco. While not as large as the aforementioned segments this group has achieved steady growth in the past few years.

### 4. Intel Foundries Services

This segment represents a very small portion of Intel’s revenues and has instead been losing money however, this segment is a core component of Intel’s IDM 2.0 strategy. They are hoping to serve customers in the same way TSMC does.

### EXHIBIT II – 2022 Revenue Segmentation



- Client Computing Group
- D&AI
- Network and Edge
- Intel Foundries Services



# Segment Overview: Client Computing Group

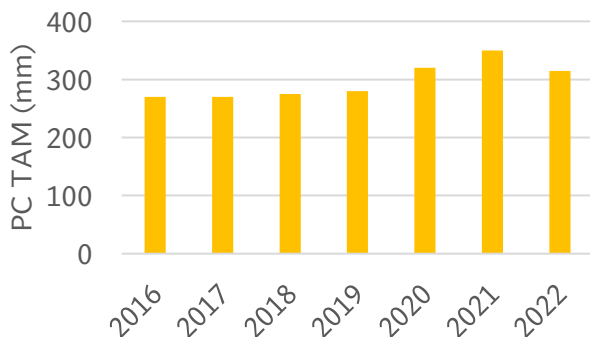
May 1, 2023

## Overview

Intel's Client Computing Group (CCG) consists of selling chips to be used within Personal Computers (PCs) either for business or personal use. CCG is one of Intel's key segments, accounting for 50% of revenues in FY 2022.

During the pandemic, CCG experienced rapid growth. However, it has faced challenges recently, with revenues down 22% and operating margin down 60% in YoY in FY 2022. A key metric to analyze the PC segment's performance is to look at the Total Addressable Market (TAM) for PCs. Intel initially estimated that the PC TAM would maintain a size of 300mm units after the pandemic. Current PC TAM contracted 14.3% in 2021-2022 from 350mm units to just over 300mm units (Exhibit III). Intel attributes this decline due to a glut of inventory that the market is still processing through. This oversupply of inventory stems from the significant spending that consumers and businesses made during the pandemic leading to reduced demand for PCs. Intel's market share has been deteriorating from a market share of 92% in 2018 to 77% in 2022 due to competitors producing superior products.

**EXHIBIT III – Historical PC TAM**



## Growth Opportunities

A significant portion of the global population still lack internet connection preventing them from fully embracing the digital era. However, the increasing demand from populations in Asia and Africa pose an opportunity for the PC TAM, As the use of PCs for personal, business, and education purposes grow in these regions, the market for PCs is expected to grow. Under Intel's IDM 2.0 strategy they are investing heavily into bridging the gap with competitors in terms of chip performance. With proper execution, Intel can reclaim its lost market share.

## Key Risks

Key risks for the CCG segment include the current inventory glut, increasing lifecycles of PCs, and competitors producing their own chips. The oversupply in inventory is having an adverse effect on the CCG segment as observed in 2022 performance. The extent of this glut is expected to continue till end of 2023 but could last longer. As PC performance exceeds the needs of regular users, users will upgrade less often, thus pushing demand down. Intel's market share has been deteriorating as competitors like AMD and former customers like Apple are building their proprietary chips that are superior to Intel's current chips. If Intel fails to match its competitors' technological advancements, Intel's market share is expected to decline.

## Conclusion

Intel's CCG group is one of its foundations for the firm's overall performance. Currently, it has been facing downward pressures. These pressures are not appearing to abate in the near-term. Consequently, the segment will likely continue to underperform.



# Segment Overview: Data Center & AI

May 1, 2023

## Overview

The Data Center & AI (DC&AI) segment provides cloud service providers and enterprise customers with chips to meet their higher performance demands. Intel provides its Xeon chips to customer like Amazon Web Services and Google Cloud. The segment comprises a significant percentage of Intel's revenues at \$19.2Bn in FY 2022. Competitors like Nvidia and AMD offer similar products, intensifying the market competition.

Similar to the CCG segment, the DC&AI segment reported declines in revenues by 15% and operating margin down 73% (Exhibit IV) from 2022-2021 YoY performance. Some key success factors within the segment include general macro-economic pressures as Intel's customer are large companies. Intel competes directly on price and performance.

## Growth Opportunities

AI has served as a huge driver of growth for the DC&AI segment which can be seen through the current rivalry between Google's BARD and Microsoft-backed OpenAI's ChatGPT. Other applications of AI will continue to drive the growth of the industry.

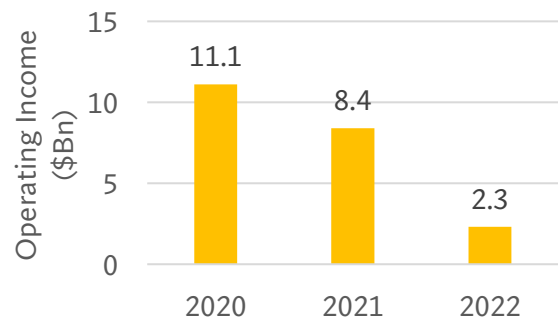
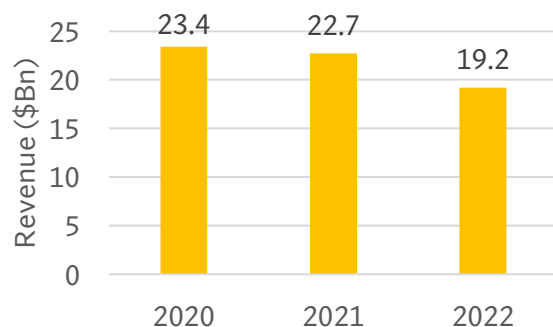
## Key Risks

CCG and DC&AI experience similar trends as both serve consumers that are linked to cloud computing and AI. The decline in revenues in 2022 can be attributed to an inventory glut on top of macro-economic headwinds. Technological advancement is another key risk for the DC&AI sector. Node size indicates the size of a transistor and is used as a metric to determine how powerful a certain chip is. A lower size means that more transistors can be fit onto the board thus making it more powerful. Currently, Intel was only recently able to produce 7nm nodes on a mass scale while competitors like TSMC produce 5nm nodes on a mass-scale and are focusing on 3nm now. The technological gap threatens Intel's ability to take advantage of the growth in AI applications.

## Conclusion

As one of Intel's most important segments, DC&AI's current downward pressures are a worrying sign of the overall performance and competitiveness of Intel and its products. The growth in AI applications is a huge market that Intel can take advantage of if it can produce competitive products for large customers like Microsoft and Google.

### EXHIBIT IV – DC&IA Performance





# Segment Overview: Network and Edge

May 1, 2023

## Overview

The Networks and Edge (NEX) segment focuses on delivering computing hardware for general-purpose computing, acceleration, and networking devices. The segment targets customers in the tele-communications space and cloud computing. Some customers in this segment include Nokia, Cisco, and Ericsson. NEX makes up 14% of total revenue for FY 2022, representing its third most important segment.

Contrary to the DC&AI and CCG segments, the NEX segment's revenue figure grew by 11% in 2022 to \$8.9Bn (Exhibit V) primarily driven by Ethernet ASPs and 5G. However, the operating margin decreased by 24% to \$740mm due to higher investments and greater inventory reserves according to Intel.

## Growth Opportunities

The current trends in the network space represent strong opportunities for Intel. The world requires stronger and stronger digital infrastructure as more people get on the internet and as demands for speed and bandwidth increase to accommodate more complex tasks.

Some examples include digitizing hospitals and factories. Intel enjoys the benefits of high barriers to entry within this segment as their customers are large corporations and will likely not switch due to a lack of competitors. Any switch to competitors will come with significant switching and searching costs. Therefore, the NEX segment may represent one of Intel's most well-fortified segments with strong growth prospects.

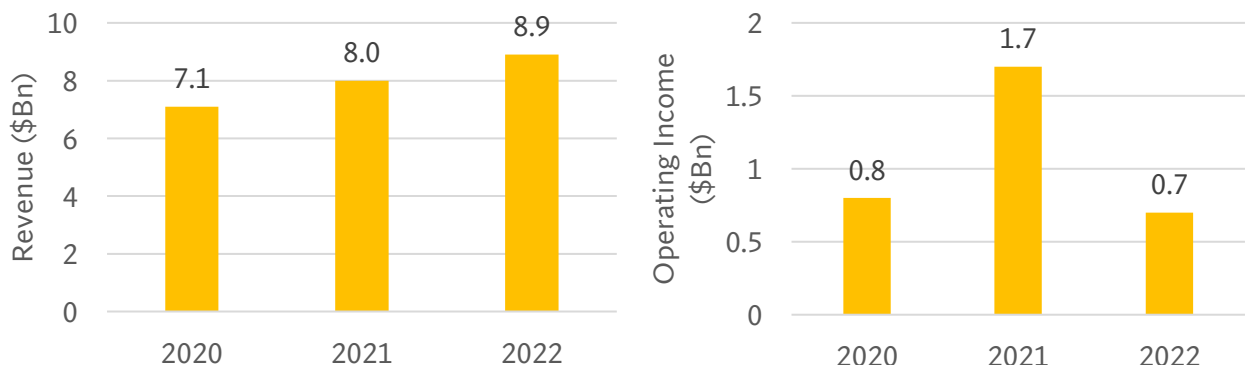
## Key Risks

The segment deals with many of the same issues that the broader Intel company faces where significant CapEx and R&D are needed to continue advancing the chips needed in the tele-communications space. This will reduce margins and further increase risks should their products be not satisfactory for their customers' needs.

## Conclusion

Despite comprising a smaller percentage of sales at Intel, NEX represents one of Intel's most promising segments. It benefits from large expected growth due to cloud computing and 5G and has already secured some of the industry's biggest customers. The industry has high switching and searching costs which means any loss of sale due to customers changing suppliers is low.

**EXHIBIT V – NEX Performance**





# Segment Overview: Intel Foundry Services

May 1, 2023

## Overview

Intel Foundry Services (IFS) was established in early 2021 to expand Intel's offerings into the foundry services market. The foundry services market is the business of manufacturing semiconductors for fabless clients who have their own specifications and chip IP. Fabless clients include Apple, Nvidia, and AMD.

IFS revenue in 2022 was \$895 million (Exhibit VI), up 14% from the previous year. Despite the said increase, IFS reported an operating loss of \$320m in 2022, a further increase from 2021's \$23m loss. The change in operating losses was due to an increase in operating expenditures to drive strategic growth.

## Growth Opportunities

Intel's takeover of Tower, a leading analog semiconductor foundry, is expected to be completed in Q2 of 2023 – pending Chinese antitrust approval. This strategic acquisition will give Intel a strong position in the mature technologies front.

Intel and Arm have announced an agreement that makes it easier for Arm licensees to manufacture products at Intel fabrication facilities (fabs). The agreement marks a significant win for Intel's IDM 2.0 strategy.

Intel's IDM 2.0 strategy consists of significant capital investment into Intel's internal factory network for at-scale manufacturing, expanded use of third-party foundry capacity, and the building out of IFS. Intel's factory network is global with fabs and assembly/test plants in four continents. Intel's use of third-party foundry capacity is limited to communications, connectivity, graphics, and chipset technology.

## Key Risks

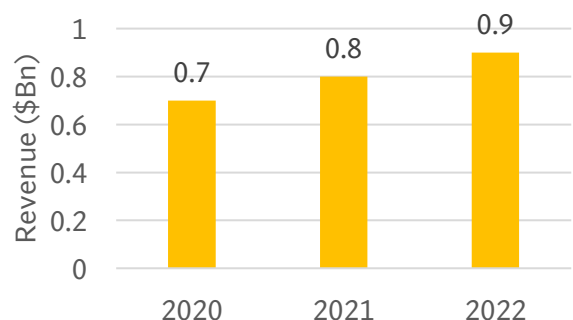
Intel's venture into the foundry segment requires significant capital expenditure to both build and run the fabs. As such, Intel has planned spending above \$20 billion for the initial construction and setup of multiple US-based fabs. Given the large up-front investment, IFS is a long-term strategy whose upside and utility will not be fully realized in upcoming earnings. This extended time horizon will require consumer and governmental demand for foundry services to maintain, or exceed, current levels.

As for short-term risks, Intel may be obligated to pay a \$353mm termination fee to Tower if regulatory approval is not granted before August 15, 2023. If the takeover is approved before the deadline, Intel will need to ensure adequate R&D spending to maintain Tower's current position in the mature market.

## Conclusion

To conclude, IFS presents a significant opportunity for Intel. Despite the need for substantial investments in the form of CapEx and R&D, IFS has shown preliminary signs of promising top-line revenue growth. Managing risks in an uncertain market and capitalizing on client demand will be crucial for IFS's long-term success.

**EXHIBIT VI – IFS Revenue**





# Industry Analysis

May 1, 2023

## Key Trends

Key trends in the semiconductor space have changed significantly in recent years as the semiconductor shortage comes to a caveated end. The production and distribution of many common consumer goods are no longer impacted by a shortage of chips. Having said this, the demand for specialized chips continues to outgrow production capabilities. Investment in fabrication facilities outside of Asia, including significant investment in America and Europe, has become an increasingly relevant trend as geopolitical tensions in Asia flare. The increased popularity and investment in artificial intelligence is a significant trend that will shape the semiconductor industry for the foreseeable future.

## Industry Outlook

Global macroeconomic and geopolitical factors, including the war in Ukraine and China-Taiwan relations, are major catalysts in the current semiconductor industry. Rising interest rates, high inflation, decreasing consumer confidence, and tech-led stock retreats have resulted in significant market cap losses. The top ten global chip companies' market caps decreased by 34% YoY as of November 2022 (Source: Deloitte). Recruiting top talent and investment in R&D will be instrumental for future success.

## Industry Overview

The semiconductor industry is a crucial component of the global technology landscape as it powers advancements in various sectors including consumer electronics, telecom, automotive, artificial intelligence, and cloud computing.

The semiconductor industry involves the design, manufacturing, and distribution of semiconductor chips that serve as the brains for all electronic devices. The industry is characterized by intense competition, rapid technological advancements, and a constant drive for innovation to meet the increasing demand for higher performance and energy-efficient chips.

## Key Companies

The largest players in the semiconductor space by way of TTM revenue include Taiwan Semiconductor Manufacturing Co. Ltd. (TSMC), Intel Corp., Qualcomm Inc., Broadcom Inc., and Micron Technology Inc. The companies are primarily based in the USA, Taiwan, and South Korea. It is important to note that Samsung, one of the largest producers of semiconductors globally, was not included above due to its diverse revenue streams. Such companies have annual revenue figures in the range of \$25B to \$80B, gross profit margins of 15% to 50%, and total assets between \$30B and \$180B. Needless to say, the major players in the semiconductor space are amongst the largest and most powerful companies in the world.

## Government Assistance

Semiconductor R&D and production are a top priority for governments globally. A country's chip architecture knowledge and means of chip production have a direct impact on national security. Not only do chips play a key role in the military with chips in tanks, fighter jets, etc. They also directly govern a nation's computing abilities, including facial recognition, satellites, and other strategic technologies.



# Financial Analysis

May 1, 2023

## Falling Revenues

Intel's main revenue-driving segments are its CCG, DC&AI, and NEX segments. CCG and DC&AI comprise most of Intel's revenues and have both seen sharp decreases in FY 2022. This decline in revenues is due to macro-economic circumstances that have slowed down purchasing of Intel's products as seen in Intel's 22.7% increase in inventory. This decrease in revenue is cyclical and revenues can be expected to return to historical values. However, an additional factor is that Intel's products are technologically inferior to competitors like AMD and Nvidia. This is a far harder barrier to overcome and will require greater R&D. It is also very difficult to predict the pace and effectiveness of development and thus is a source of major uncertainty for Intel.

## Increasing Cost of Sales

Manufacturing of semiconductors and integrated devices has high fixed costs. Aside from variable costs which are subject to the prices of commodity items, fixed costs per unit item decrease as volume increases. The decline in revenues from their CCG and DC&AI group has resulted in an overall efficiency of Intel's manufacturing decreasing which causes their cost of sales to decrease at a slower rate than their revenues.

This is a further hit in their margins as seen in Exhibit VIII. This means that further declines in revenue are worrying but higher revenues figure could mean that Intel's operating income would rise rapidly.

## Capital Expenditure

Intel has always had high CapEx spending throughout its existence. However, under its IDM 2.0 strategy, the pace of spending for CapEx has been greater than usual. With a 33% increase in CapEx when comparing FY 2022 and FY 2021 (Exhibit IX). This extra capital is being spent on catching up with competitors technologically but also on building the fabs in Europe and North America so Intel can make chips in-house. Intel does not either provide a CapEx schedule to determine how much cash is further expected to be used for IDM 2.0. Financially, all the CapEx spent in these forthcoming years can be analyzed through the Return on Asset. However, these factories will not be revenue generating until 2025 at its earliest and if there are no delays. This makes assessing the viability of Intel's CapEx spending speculative and difficult to determine whether the stock price will increase or decrease.

EXHIBIT VIII – YoY % Margin

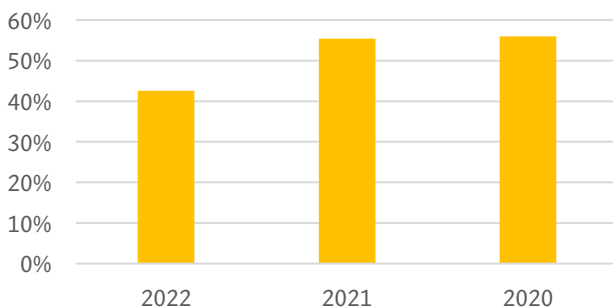
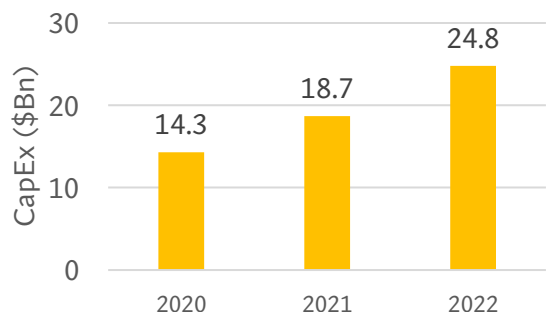


EXHIBIT IX – CapEx Spending





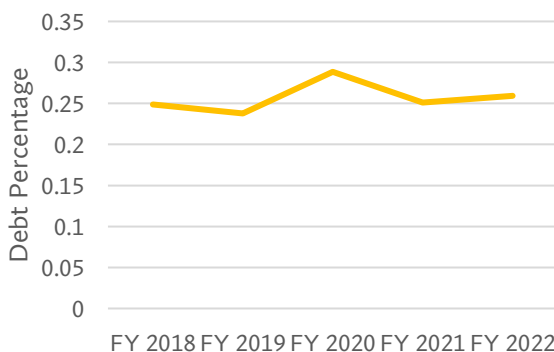


## Capital Structure

Despite the hardships that Intel is currently undergoing, it has not significantly used debt to undergo its IDM 2.0 strategy. While its amount of leverage is comparable to its competitors at around 30%, it is still low especially when having an A+ credit rating by S&P Global. In the last five years, Intel has kept up its debt ratio to around 30% except for the slight increase in 2020 (Exhibit X). Its Debt-to-EBITDA ratio increased to 4.71x from the 5-year average of ~1x. Its interest coverage also fell from 57x in 2021 to 15x in 2022. Despite the decreases in its solvency metrics, Intel still has a long way before becoming bankrupt.

The current stability with the amount of debt Intel is using is not expected to remain. As Intel undergoes its IDM 2.0 strategy, huge spending will be required that cannot be fully met with its cash flows. New debt will have to be issued, management might potentially be waiting for when rates are lower so they can secure a cheaper cost of debt when the Federal Reserve starts cutting rates.

**EXHIBIT X – Intel Debt to Invested Capital**



## Cash Reserves

Intel sits on strong levels of cash of around \$27.5Bn as of March 2023. This cash reserve allows Intel to perform necessary acquisitions and continue funding its IDM 2.0 strategy. These levels of cash began in 2020 after a large amount of debt was issued in 2020 which was put into cash.

## Dividends

Intel has had strong dividend payouts and was a favorite for investors looking to build a dividend-yielding portfolio. However, in light of recent poor performance and the IDM 2.0 strategy, Intel cut its dividend by 65%. This was not considered a surprising move as dividends payouts are reserved for companies without a need for excess cash. This is quite the opposite for Intel with its poor performance in the last year and needs as much cash for its IDM 2.0 strategy.

## Cost Cutting Measures

Alongside the reduction in dividends, Intel has recently undergone various cost cutting measures. Intel has stated it will cut costs by \$3Bn in 2023 and up to \$23Bn through 2025. Some things that will be cut will include headcount, however, no exact figures have been released so far. They have also stated they will trim the budgets for the CCG and DC&AI segments of the business. Cost cutting measures are often well-received by Wall Street, however, the exact impact is yet to be known.



# Thesis I: Cyclicalty of Semiconductor Industry May 1, 2023

## Historical Downturns

Despite semiconductors playing such an integral part in today's world, the industry has been cyclical to market conditions and technological advancements. Therefore, Intel's poor performance in this current time can be attributed to the cyclicalty of the industry thus, revenues and margins can be expected to rebound.

There are two elements to analyze to determine whether Intel's shares are currently underpriced: long-term growth of semiconductors and historical short-term cyclicalty.

Continued growth within the semiconductor is guaranteed. According to a report by Statista (Exhibit XI), the industry is expected to maintain a CAGR of 8.1% till 2027, with the market reaching a size of \$818Bn by 2027 from a current size of \$600Bn. This represents an increase of 36% and this is only within the next five years. Beyond five years, growth is difficult to forecast as technology and use cases are rapidly increasing with the prevalence of electric cars, which have far greater electronic components, and the demand for data centers for AI applications.

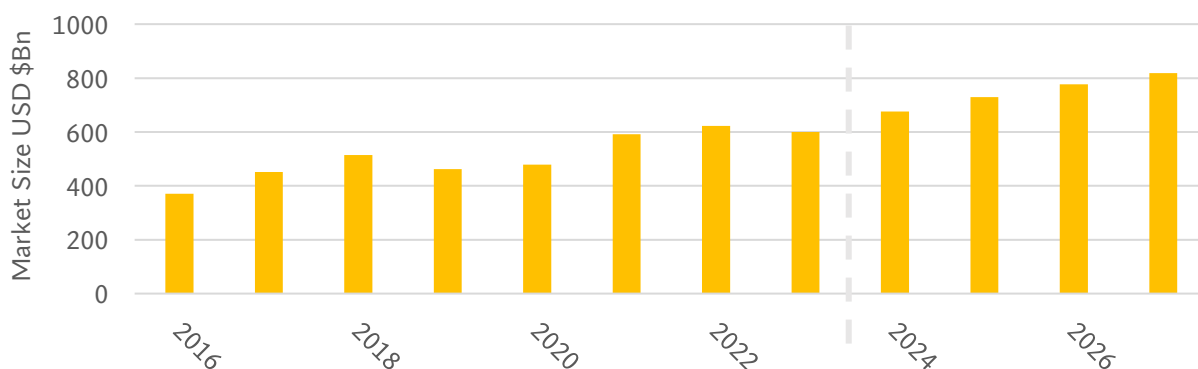
## When Will It Bottom-Out

Short-term downturns of an industry are expected in a free market. Some examples include the Dot-com Bust, the Subprime Mortgage Crisis, and Covid-19. The Dot-com Bust resulted in market size decreasing by 32% from \$204Bn to \$139Bn. The market recovered to \$255Bn in 2007 before dropping due to the upcoming financial crisis. We determined that Intel's 10-year P/E and P/B averages are 13.5x and 2.7x respectively. While Intel has negative earnings and so the P/E ratio cannot be utilized it is trading at a P/B ratio of 1.2x. Intel is trading at near book value of its equity which is far below its 10-year average. Further risk of the stock dropping in value is unlikely.

## Cyclicalty Upside

When looking at multiples Intel should be trading at closer to \$65.24 USD which is a far cry from the \$30.30 USD it is currently at. Should we assume that the market is overreacting to the cyclicalty of the semiconductor industry then Intel has a huge upside and limited downside since it is trading at almost book value.

**EXHIBIT XI – Forecasted Semiconductor Market Size**





# Thesis I: Cyclicalities of Semiconductor Industry May 1, 2023

## Long-Term Upside

The valuation assessed Intel's long-term growth alongside the semiconductor industry. Without considering the impacts of Intel's IDM 2.0 and should Intel maintain a consistent market share of the semiconductor industry. We will arrive at a stock price of \$43.21 USD. This valuation does not consider the huge CapEx spending that is required in IDM 2.0. The terminal value composes a significant portion of the value of Intel. Changes in the multiples used will dramatically alter the value.

## Exhibit VII - WACC

WACC Calculation	
<b>Cost of Debt Calculations</b>	
Risk-Free Rate	3.4%
Risk-Spread	1.4%
Tax Rate	21%
<b>Cost of Debt</b>	<b>3.8%</b>
<b>Cost of Equity Calculations</b>	
Risk-Free Rate	3.4%
Beta	0.76
MRP	6.0%
<b>Cost of Equity</b>	<b>8.0%</b>
<b>Cost of Capital Calculations</b>	
% of Debt	29.1%
% of Equity	70.9%
<b>Cost of Capital</b>	<b>6.8%</b>

## EXHIBIT XIII – Discounted Cash Flow Statement based on Market Share

In Billions	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Semiconductor Market Size	451	515	462	479	592	622	600	676	730	777	819
% Of Intel Revenue	13%	11%	12%	11%	9%	9%	11%	11%	11%	11%	11%
Intel Revenue	62.8	70.8	72.0	77.9	79.0	63.1	64.7	72.9	78.7	83.9	88.3
Cost of Sales	23.7	27.1	29.8	34.3	35.2	36.2	31.5	35.5	38.3	40.8	43.0
Gross Margins	38%	38%	41%	44%	45%	57%	49%	49%	49%	49%	49%
Gross Profit	39.1	43.7	42.1	43.6	43.8	26.9	33.2	37.5	40.4	43.1	45.4
Operating Expenses	20.7	20.5	19.7	19.7	21.7	24.5	19.5	22.0	23.8	25.3	26.6
% Operating Expenses	33%	29%	27%	25%	28%	39%	30%	30%	30%	30%	30%
Operating Profit	18.4	23.2	22.4	23.9	22.1	2.3	13.7	15.5	16.7	17.8	18.7
Tax Rate	53%	10%	13%	17%	8%	-3%	12%	12%	12%	12%	12%
Net Operating Profit After Tax	8.7	21.0	19.6	19.9	20.2	2.4	12.1	13.6	14.7	15.7	16.5
D&A	6.8	7.5	9.2	10.5	10.0	11.1	9.4	10.9	12.4	12.6	13.5
D&A % of Revenue	11%	11%	13%	13%	13%	18%	15%	15%	16%	15%	15%
CapEx	(14.3)	(18.7)	(24.8)	(22.7)	(19.4)	(15.0)	(13.0)	(18.9)	(20.4)	(21.7)	(22.9)
CapEx % of Revenue	(0.2)	(0.3)	(0.3)	(0.3)	(0.2)	(0.2)	(0.2)	(0.3)	(0.3)	(0.3)	(0.3)
Change in NWC	6.0	(1.9)	0.1	2.5	(5.4)	(4.5)	(4.7)	(4.9)	(4.9)	(4.9)	(4.9)
<b>Unlevered FCF</b>	7.2	7.9	4.1	10.1	5.3	(6.0)	3.9	0.8	1.8	1.7	2.2
PV							3.62	0.68	1.51	1.34	1.61

## EXHIBIT XIV – Share Price Calculation

<b>Sum of Present Value</b>	<b>8.8</b>
<b>Terminal Value (Multiples Method)</b>	
EV/EBIT (Average)	10.1
Terminal EV	268.4
PV Terminal EV	<b>181.1</b>
<b>Share Price Calculation</b>	
Total Enterprise Value	189.9
Net Debt	9.4
Minority Interests	1.9
Equity Value	178.6
Shares Outstanding	4,133
Share Price	<b>43.21</b>



## Thesis II: An Overly Optimistic Management

May 1, 2023

### IDM 2.0 Failure

Under IDM 2.0, Intel is pursuing a heavy spending schedule in the next 5-7 years. As with any vitalization project, the risks cannot be understated in this current geopolitical and economic environment.

Intel's projections for future growth and profitability are deemed overly optimistic. The company has a history of setting high expectations but has faced challenges in meeting them consistently. Evidence of such broken promises is seen in their production of 7nm chips which faced many delays. Recent manufacturing delays and supply chain issues have hindered Intel's ability to fulfill demand and achieve revenue targets. This raises concerns about the company's ability to deliver on its ambitious projections in the future.

### Building Fabrication Plants

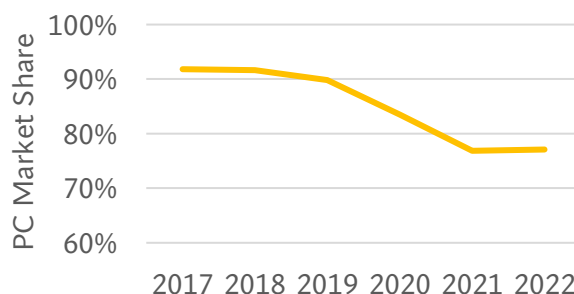
Intel has committed to building two fabs in Arizona with a price tag of \$20Bn, investments in their New Mexico plant, a €17Bn fab in Germany, along with many other investments. This is all in effort to become the second largest manufacturer of semiconductors behind TSMC. Intel has stated that production at some plants will start in 2025 and have a two year ramp up period. We believe that company forecasts will be inherently optimistic, therefore we have delayed production by two years in our models.

Intel is relying heavily on co-investing with governments and private entities and government subsidies as well. Due to the strategic nature of semiconductors and TSMC's poor geographic location, we can expect governments and private entities to have a vested interest for many years to come.

### Falling Market Share

Intel's lack of innovation and failure to keep pace with its competitors have resulted in the loss of market share. Over the past decade, Intel has faced increasing competition from AMD and Nvidia, particularly in the high-performance computing and data center markets. Intel's delay in transitioning to advanced manufacturing processes has also hindered its ability to introduce competitive products. As a result, AMD and Nvidia have gained market share, eroding Intel's dominant position in key segments. This trend indicates that Intel may struggle to regain its lost market share in the near term. As seen in Exhibit XV, Intel's market share has fallen considerably in the last five years

EXHIBIT XV – Intel Market Share of PCs



### Valuation

Under the second thesis, projections were calculated on per segment basis as seen in Exhibit XVI. The cost of capital calculation is seen in Exhibit XVII. The DCF (Exhibit XVIII) and share price calculation (Exhibit XIX) yield a share price of \$28.14. Based on the more pessimistic assumptions we made on Intel's market share and its Foundry Services segment, Intel would still be trading above its intrinsic value



# Thesis II: An Overly Optimistic Management

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## EXHIBIT XVI – Segmented Revenue Projections

Revenue Projections	1	2	3	4	5	6	7	8	9	10
Fiscal Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Fiscal Year End Date	31-Dec-23	31-Dec-24	31-Dec-25	31-Dec-26	31-Dec-27	31-Dec-28	31-Dec-29	31-Dec-30	31-Dec-31	31-Dec-32
<b>Consumer Computing Group</b>										
PC TAM (mil)	260	268	276	284	293	301	310	320	329	339
Intel Market Share	75%	73%	73%	75%	77%	77%	80%	80%	82%	82%
Revenue (mil)	25,880	25,945	26,724	28,279	29,905	30,802	32,962	33,951	35,843	36,919
Total Market Size	34,506	35,541	36,608	37,706	38,837	40,002	41,202	42,438	43,712	45,023
Average Cost										
Operating Margin	25%	30%	35%	35%	35%	35%	35%	35%	35%	35%
<b>Operating Income</b>	6,470	7,784	9,353	9,898	10,467	10,781	11,537	11,883	12,545	12,922
<b>Data Center &amp; AI</b>										
Revenue (mil)	24205	24,931	25,679	26,449	27,243	28,060	28,902	29,769	30,662	31,582
Operating Margin	20%	25%	30%	35%	40%	46%	46%	46%	46%	46%
<b>Operating Income</b>	4,841	6,233	7,704	9,257	10,897	12,850	13,236	13,633	14,042	14,463
<b>Network and Edge</b>										
Revenue	9,790	10,573	11,208	11,656	11,889	12,127	12,369	12,617	12,869	13,126
Growth Rate	10%	8%	6%	4%	2%	2%	2%	2%	2%	2%
Operating Margin	14%	14%	14%	14%	14%	14%	14%	14%	14%	14%
<b>Operating Income</b>	1,332	1,439	1,525	1,586	1,618	1,651	1,684	1,717	1,752	1,787
<b>MobileEye</b>										
Revenue	3410	4920	6430	7940	9450	10960	12470	13980	15490	17000
Operating Margin	37%	37%	37%	37%	37%	37%	37%	37%	37%	37%
<b>Operating Income</b>	1,247	1,799	2,351	2,903	3,456	4,008	4,560	5,112	5,664	6,216
<b>AXG</b>										
Revenue	832	865	900	936	973	1,012	1,053	1,095	1,139	1,184
Operating Margin	-150%	-213%	-150%	-213%	-150%	-213%	-150%	-213%	-150%	-213%
<b>Operating Income</b>	-1700	-1700	-1700	-1700	-1700	-1700	-1700	-1700	-1700	-1700
<b>Intel Foundry Services</b>										
Revenue	1000	1000	1000	1000	3000	5000	7000	8000	9000	10000
Operating margin	0	0	20%	30%	45%	45%	45%	45%	45%	45%
<b>Operating Income</b>	0	0	200	300	1350	2250	3150	3600	4050	4500
<b>Total Revenue</b>	<b>65,117</b>	<b>68,235</b>	<b>71,940</b>	<b>76,261</b>	<b>82,460</b>	<b>87,961</b>	<b>94,756</b>	<b>99,411</b>	<b>105,003</b>	<b>109,811</b>

## Exhibit XVII – WACC

### WACC Calculation

#### Cost of Debt Calculations

Risk-Free Rate	3.4%
Risk-Spread	1.4%
Tax Rate	21%
<b>Cost of Debt</b>	<b>3.8%</b>

#### Cost of Equity Calculations

Risk-Free Rate	3.4%
Beta	0.76
MRP	0.06
<b>Cost of Equity</b>	<b>8.0%</b>

#### Cost of Capital Calculations

% of Debt	29.1%
% of Equity	70.9%
<b>Cost of Capital</b>	<b>6.8%</b>



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### EXHIBIT XVIII – Discounted Cash Flow Statement

In Billions	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Revenue	65.1	68.2	71.9	76.3	81.7	87.2	92.7	97.3	101.9	106.7
Operating Expenses	52.5	52.8	52.2	54.3	55.6	58.1	60.8	64.4	66.7	70.4
EBIT	12.6	15.4	19.8	22.0	26.1	29.1	31.9	32.9	35.3	36.3
Tax Rate	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%
Net Operating Profit After Tax	11.1	13.6	17.4	19.4	23.0	25.7	28.1	29.0	31.1	32.0
D&A	8.4	8.6	9.2	9.7	10.4	11.1	11.8	12.4	13.0	13.6
D&A % of Revenue	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%
CapEx	-18.6	-19.7	-21.1	-22.6	-24.0	-25.2	-26.4	-27.6	-27.6	-27.6
CapEx % of Revenue	-26%	-26%	-26%	-26%	-26%	-26%	-26%	-26%	-26%	-26%
Change in NWC	-4.9	-4.9	-4.9	-4.9	-4.9	-4.9	-4.9	-4.9	-4.9	-4.9
<b>Unlevered FCF</b>	5.22	6.19	9.35	11.54	13.26	13.71	15.33	15.68	15.68	15.68
PV	4.28	4.77	6.74	7.78	8.38	8.11	8.50	8.14	8.14	8.14

### Exhibit XIX – Share Price Calculation

Sum of Present Value 19.6

Terminal Value (Multiples Method)

EV/EBIT (Average) 10.1

Terminal EV 262.4

PV Terminal EV 127.6

Share Price Calculation

Total Enterprise Value 127.6

Net Debt 9.4

Minority Interests 1.9

Equity Value 116.3

Shares Outstanding 4.133

Share Price 28.14