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Intel Corporation

Navigating a Changing Landscape: Strategic Shifts for Long-term Resilience

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Abstract

Intel Corporation stands at a pivotal juncture, navigating transformative industry trends and competitive challenges. This report critically examines Intel's strategies across key segments, including its IDM 2.0 initiative, AI and data center markets, supply chain localization, and Mobileye's advancements in the automotive sector. By analyzing macroeconomic and technological shifts, Intel's financial risks, R&D investments, and market dependencies, the report highlights both opportunities and vulnerabilities. Strategic diversification into AI hardware, automotive solutions, and foundry services positions Intel to capitalize on emerging markets. However, execution risks, high CAPEX needs, and competitive pressure demand disciplined cost management, innovation, and robust partnerships to secure sustainable growth and leadership in the semiconductor industry.

Key Words: Semiconductor Industry; Strategic Resilience; AI and data-centric growth, Technological innovation

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This report is part of the “Intel Corporation: Navigating a Changing Landscape” report (annexed), developed by Pedro Beckert (39470) & Mário Gavião (58955) and should be read has an integral part of it.

Contents

Introduction:

Intel Corporation, a leading semiconductor company worldwide, sits at a pivotal time in its history facing both challenges and opportunities for the redefinition of its positioning in the fast-evolving landscape it operates in. This report critically discusses Intel's strategic moves in the several market segments it operates in. These segments are the following: IDM 2.0 strategy, AI and data center markets, supply chain optimization, and the advancements within the automotive segment through Mobileye. This report will try to present an independent and analytical view of the long-term growth trajectory of Intel by evaluating its competitive positioning, risks, and growth potential in each segment.

Intel's ability to adapt and be innovative remains extremely vital in a no-longer-business-as-usual atmosphere, as changes within the semiconductor industry continue unabated, fueled by technology advancements, geopolitics, and shifting market demands. The following report will assess Intel's current activities, along with an analysis of the financial and operational risks, Capex and R&D expenditure, mitigation strategies and market demand shifts these tactics are causing.

Macro Trends within the Semiconductor Industry:

The semiconductor industry is now in the middle of an unprecedented transformation, supported by several macroeconomic and technological trends. These shifts will reshape market dynamics and have a significant impact on how companies position themselves for value capture.

AI Hardware Market (USD Billion)

Source: Grand View Research

Demand Surge for AI and HPC Chips:

The semiconductor industry is going through one of the most significant transformative periods, driven by the exponential growth in demand for artificial intelligence (AI) chips and high performance computing (HPC) solutions. The AI hardware market is projected to grow at a CAGR of 24.71% through 2028. This trend is completely redefining the semiconductor landscape, as companies strive

to develop specialized processors to meet the diverse requirements of AI and HPC. Key sectors, including healthcare, automotive, finance, and data-intensive enterprises, are driving this growth in demand for both general-purpose GPU-based solutions and dedicated AI accelerators.

For Intel, this surge represents both a significant growth opportunity and a challenge. Intel aims to strategically align itself with these trends. Which is evident from its most recent investments in the Xeon processor line, which caters to data center workloads, and Habana Gaudi AI accelerators, which specifically target AI training and inference. However, competing in this segment requires Intel to confront the performance and efficiency benchmarks set by competitors like NVIDIA. NVIDIA's dominance in the GPU space and its CUDA ecosystem provide it with a considerable edge, particularly in AI applications that rely on robust software frameworks and developer adoption.

Intel's response to this challenge hinges on its ability to innovate at both the hardware and software levels. To gain market share, Intel must demonstrate tangible performance improvements in its processors while addressing critical metrics such as power efficiency, cost-per-computation, and scalability for AI and HPC workloads. The Xeon product line must evolve rapidly to meet the needs of cloud providers and enterprises that are shifting to hybrid and multi-cloud AI strategies. Similarly, Habana Gaudi accelerators must deliver competitive performance-per-watt metrics to attract customers in the AI training market.

This dynamic presents an opportunity for Intel to differentiate itself through strategic investments in R&D, partnerships, and acquisitions. Recent moves, such as Intel's pivot towards integrating advanced packaging technologies and leveraging its IDM 2.0 model, could strengthen its competitive positioning. However, these initiatives come with substantial costs and execution risks, particularly as Intel faces pressure to simultaneously maintain leadership in traditional CPU markets and expand its footprint in high-growth areas like AI and HPC.

Geopolitical Tensions and Localization of Supply Chains:

Another critical factor affecting the industry is the geopolitical landscape. Growing tensions between the U.S. and China, further complicated by the global semiconductor shortage of 2020–2021, have shed light on several weaknesses in the current supply chain model. Policymakers in both the U.S. and Europe have moved to introduce legislation as the CHIPS Act and European Chips Act, respectively designed to localize semiconductor manufacturing.

These indeed are some great opportunities for Intel as its IDM 2.0 strategy aligns with the goals of supply chain localization. In this context, Intel invests billions in setting up U.S.-based and European manufacturing facilities to reduce geopolitical risks and simultaneously gain financial incentives by the respective governments. However, localization has its cost pressures, especially when competing with Asian low-cost manufacturers who have already gained economies of scale.

Shift to Fabless Business Models:

One key structural change seen in the semiconductor industry has been the growing dominance of fabless companies. Companies such as AMD, Qualcomm, and NVIDIA are adopting a fabless model where they only do design and outsource the fabrication to foundries such as TSMC. Such a model gives agility and cost efficiency a boost, hence competitive edge over integrated device manufacturers (IDMs) like Intel.

While the IDM model gives Intel more control over production and supply chain, it indeed comes with higher capital expenditure requirements. In order for Intel to remain competitive, it has to find ways to balance the advantages of its IDM approach with the flexibility and cost benefits offered by fabless models, including strategic collaborations with external foundries to supplement its internal capacity.

Emergence of 5G and IoT:

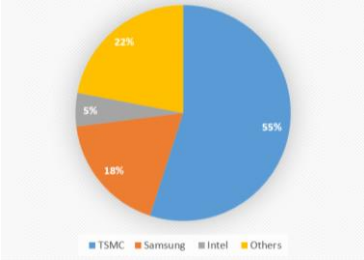
The rollout of 5G networks and the increase of IoT devices are other growth drivers for the semiconductor industry. These technologies require advanced chips with greater energy efficiency and processing power, opening new markets for companies able to innovate in these areas. Intel's focus on networking products

and edge computing solutions positions it to benefit from these trends, although competition from specialized players like Qualcomm remains intense.

IDM 2.0 and Foundry Services

Intel's IDM 2.0 strategy is designed to bring its manufacturing, design, and foundry services under one umbrella. The company's efforts to expand foundry services, includes substantial investments in U.S. and European facilities, are critical for addressing geopolitical concerns around supply chain security and tapping into the growing semiconductor market.

Progress and Challenges:



Foundry Market Share

Source: SEMI industry data and MarketWatch

While the $20 billion investment in Arizona facilities and its expansion in Ohio mark efforts by Intel to capture demand for localized semiconductor manufacturing, its foundry services market share remains marginal compared to TSMC and Samsung, which together have more than 70% market share.

Moreover, Intel has faced delays in the execution of its roadmap, especially in transitioning to advanced nodes like Intel 4 and Intel 3. These delays not only impact its ability to compete with industry leaders but also erode customer confidence in its foundry services. These gaps will have to be addressed by large operational improvements and an enhanced focus on meeting timelines.

Risk and Opportunities:

The CHIPS Act has provided $52 billion in subsidies to U.S.-based semiconductor manufacturers, positioning Intel to benefit from increased government support. For Intel, the potential for foundry services growth is directly tied to its ability to innovate and execute on its roadmap for advanced nodes.

Expanding its foundry capabilities also offers Intel a pathway to serve external customers, diversifying revenue streams. However, scaling this operation to compete with entrenched players like TSMC requires significant improvements in efficiency, cost structure, and customer retention strategies. Successfully capturing the growing demand for localized production can redefine Intel’s competitive edge.

Besides, partnerships with key players in the technology ecosystem will further cement Intel's foundry customer base. In such a scenario, the partnership with

hyperscalers and fabless chipmakers will accelerate the pace of adoption of Intel's services and increase revenue. Emphasis on niche areas, such as custom silicon solutions for AI and HPC workloads, may also place Intel in a differentiated position in the foundry market.

Financial Considerations:

Intel's IDM 2.0 strategy involves an infusion of multi-billion-dollar investments into US and European manufacturing facilities, significantly affects its financial structure. Intel modernizes and scales production, which means higher CAPEX. By 2023, the CAPEX portion exceeds 20% of revenue, which should increase further. At the same time, diversification into foundry services is bound to stabilize Intel's revenues through reducing dependence on the wild variability of the PC market. Long-term success will depend upon Intel's ability to secure external customers and improve profitability within its foundry operations.

In the near term, these investments may weigh on Intel's operating margins. However, as foundry services achieve scale and attract marquee customers, they can become a steady and profitable revenue stream, improving Intel's overall financial stability simultaneously affecting the value of the stock.

AI and Data Centers

The AI and data center segments are the two most important units in Intel's growth strategy. AI hardware markets are projected to grow at a 20% CAGR through 2028, with Xeon processors and Habana Gaudi accelerators holding key positions in Intel's portfolio.

Competitive Positioning:

This reflects in Intel's commanding 71% market share in data center processors, considering traditional workloads. But when it comes to AI hardware, NVIDIA is at the helm, where Intel is still in its initial stages. AMD's EPYC processors are also fierce rivals with their performance and energy efficiency.

Intel's introduction of the Sapphire Rapids line of Xeon processors shows it is committed to meeting the customers' demands for high performance and power efficiency. These products have been subject to delays, which are limiting their

competitive impact. Closing the execution gap in product launches will be critical for Intel as it looks to maintain and grow its footprint in the data center.

Risks and Opportunities:

Intel must address performance gaps in its AI accelerators to remain competitive. The ongoing shift to cloud and edge computing represents a significant growth opportunity, provided Intel can deliver cost-effective and efficient solutions.

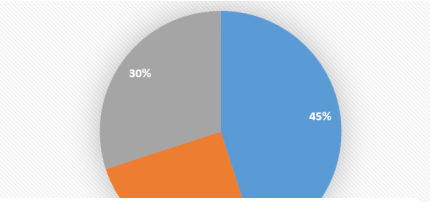
Intel's partnerships with major cloud providers and its focus on power efficiency can enhance its competitiveness. Additionally, expanding its AI software ecosystems such as optimizing frameworks for Xeon and Gaudi processors—could attract a broader developer base, further strengthening its market position.

Furthermore, Intel's exploration of modular and heterogeneous computing architectures can enable it to address evolving customer needs more effectively. By providing scalable solutions tailored to AI and data center workloads, Intel can differentiate itself in a highly competitive market.

Financial Considerations:

Intel's success in the AI and data center markets will have a profound impact on its revenue and profitability. Currently, data center processors contribute significantly to Intel's top line, but expansion into AI hardware could unlock new, higher-margin opportunities. However, addressing competitive gaps will likely increase R&D expenditures in the short term. If Intel can secure a stronger foothold in the AI market, this could drive significant revenue growth and stabilize its financial performance by diversifying its customer base.

Supply Chains and Manufacturing Plants:



Regional Manufacturing Footprint

Source: Intel Investor presentations

Intel's supply chain strategy focuses on resilience and localization. Its investments in advanced manufacturing plants in the U.S. and Europe, bolstered by the CHIPS Act, position the company to reduce reliance on Asian suppliers.

Strengths and Weaknesses:

Intel's integrated model enhances its ability to control production and reduce risks associated with supply chain disruptions. However, the company's capital expenditure intensity-over 20% of revenue-and execution risks are a concern.

Moreover, Intel's ability to achieve cost competitiveness in localized production remains uncertain. High labor and operational costs in the U.S. and Europe may undermine its pricing power unless offset by significant gains in production efficiency or substantial government subsidies. To stay competitive, Intel must balance its investments in internal capacity with strategic collaborations with external foundries, ensuring flexibility while capitalizing on its unique strengths in supply chain control.

Risks and Opportunities:

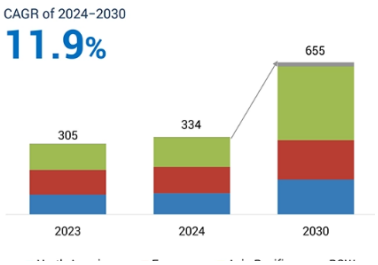
By localizing production, Intel can reduce geopolitical risks, secure supply chains, and respond to growing demand for chips in North America and Europe. Cost competitiveness with Asian manufacturers will depend on continued process improvements and innovation in efficient production. It is vital that these facilities are fully operational through Intel's collaborations with local governments and suppliers.

In addition, these investments bring possibilities to develop further collaborations with OEMs that need secured chip supplies. This makes the dual-source strategy a no-brainer and improves regional incentives for Intel regarding operational resilience and market credibility.

Financial Implications:

Intel's supply chain strategy under the CHIPS Act presents significant long-term financial benefits but comes with short-term costs. Capital-intensive expansions in North America and Europe will strain cash flows initially. However, government incentives and reduced reliance on volatile global supply chains can improve profitability over time. These efforts position Intel to capture new markets while mitigating external risks that have historically impacted its financial performance.

EyeQ Chips and the Automotive Segment:



ADAS Market Growth (Units)

Source: Markets&Markets.com

Mobileye has placed Intel as a market leader in ADAS through its EyeQ chips. The ADAS market is projected to grow 11.9% CAGR through 2030, thus providing an extremely lucrative avenue for growth for Intel.

Competitive Positioning:

Strong partnerships of Mobileye with leading carmakers such as BMW and Volkswagen reflect its market leadership. At the same time, however, this space also sees stiff competition from players such as NVIDIA's Drive platform and Qualcomm's Snapdragon Ride, and thus, requires continued innovation.

Risks and opportunities:

With a focus on data-driven advances and partnerships, Mobileye is well-placed to capitalize on the revolution in autonomous driving. Integration with broader AI capabilities can further help enhance this competitive advantage.

Besides these new updates in mapping and sensor fusion, Mobileye is uniquely positioned to realize Level 4 and Level 5 autonomous systems. It can leverage this strong position in ADAS to drive Mobileye into high-margin, next-generation autonomous solutions.

Also, Mobileye is exploring revenue models such as recurring software fees on advanced mapping and fleet management solutions. This would drastically shift the focus toward being a software-centric approach to marginally increase its ability to entice long-term partnerships from automakers.

Financial Implications:

The ADAS market is a fundamental growth area for Intel, led by Mobileye. It is expected that as EyeQ chip adoption increases, the revenue from the automotive sector will also increase massively for Intel. Moreover, the development of autonomous driving technologies and recurring software revenue models can increase profit margins much more. The growth of Mobileye also reduces Intel's dependence on traditional semiconductor markets.

Financial Risk Analysis:

Intel's bold growth initiatives expose it to significant financial risks, particularly as it balances large-scale investments with the need for consistent financial performance. Its reliance on the IDM 2.0 strategy amplifies this risk, given the heavy upfront costs and long payback periods associated with manufacturing expansions and supply chain localization. These risks are exacerbated by market volatility, as demand fluctuations in its core markets, such as PCs and data centers, can quickly impact revenue.

However, Intel's financial risks could be mitigated by successful diversification into high-growth segments like AI hardware, foundry services, and automotive chips. If executed effectively, these initiatives can reduce Intel’s dependence on cyclical markets, providing a more stable revenue stream. Maintaining robust liquidity and employing disciplined capital allocation strategies will be critical to offset the pressures of high capital intensity and market competition.

High Capital Expenditure:

Intel’s commitment to IDM 2.0 has resulted in capital expenditures exceeding 20% of revenue as of 2023, with future increases expected. This level of expenditure, while essential for manufacturing capacity expansion and supply chain localization, places considerable stress on cash flows and operating margins. A key challenge lies in the long lead times of semiconductor fabrication facilities, where returns may not materialize for several years, amplifying the risks of delayed ROI or unforeseen market disruptions.

To mitigate these risks, Intel must focus on execution efficiency and leverage government subsidies from the CHIPS Act and European Chips Act. Collaborations with governments and private sector stakeholders can provide financial relief while enabling smoother integration into local ecosystems. Simultaneously, Intel should prioritize advanced packaging technologies and modular manufacturing to maximize cost efficiencies and enhance scalability.

Increased R&D Spending:

Intel’s high R&D spending, among the largest in the industry, underscores its intent to maintain competitive positioning against rivals like NVIDIA and AMD. However, this investment carries risks of diminishing returns if product delays or inefficiencies persist. Delays in key product launches, such as Sapphire Rapids, have underscored the potential for R&D costs to escalate without delivering the expected technological or financial payoffs.

To ensure its R&D investments yield meaningful returns, Intel must adopt rigorous timeline management and enhance cross-functional collaboration. A particular focus should be on AI and HPC segments, where leadership in emerging markets could yield lucrative margins. Additionally, expanding the software ecosystem around its hardware products, such as optimizing AI frameworks for Xeon and Habana Gaudi processors, will help Intel attract a larger developer base, creating a virtuous cycle of innovation and adoption.

Intel can also optimize R&D spending by focusing on collaborative research with leading universities and startups in the semiconductor space. Establishing co-development agreements for innovative solutions in AI accelerators and HPC could help the company share costs while enhancing the pace of innovation. Furthermore, prioritizing modular product architectures would allow Intel to reuse core technologies across different market applications, improving ROI on R&D initiatives. As rivals like NVIDIA leverage robust developer ecosystems, Intel must also expand its software ecosystem to complement its hardware—this involves providing better tools and platforms for developers, which could amplify demand for its AI and HPC solutions while creating new channels for customer engagement.

Revenue Concentration in PC and Data Center Markets:

Intel's revenue profile is overly concentrated in the PC and data center markets, where a collective 87% share of total revenue would likely originate in 2023. This makes the company much more susceptible to demand variations across these segments, and recent trends indicate headwinds from the overall market saturation and general economic uncertainty affecting worldwide PC sales.

While the efforts of Intel to diversify into foundry services, AI hardware, and automotive chips have been a step in the right direction, these initiatives remain at their fairly nascent stages. Till the time these segments mature, Intel remains vulnerable to adverse trends in its core markets. For instance, increasing competition from AMD in the CPU space and from NVIDIA in the GPU and AI accelerator markets is a continuing risk to its market share and pricing power.

Beyond its core markets, Intel must accelerate its efforts to create new revenue streams by capitalizing on AI and automotive growth. The successful scaling of Mobileye's offerings, such as EyeQ chips and mapping solutions, could significantly reduce dependency on PCs and data centers. Moreover, the company's entry into custom silicon for AI accelerators and edge computing presents an opportunity to serve a broader set of customers. Diversifying product lines within emerging technologies not only spreads risk but also positions Intel as a more resilient player against cyclical economic challenges. Achieving balanced revenue streams, however, will require aggressive expansion and marketing efforts to solidify Intel's brand within these newer segments.

Mitigation Strategies:

To handle such financial risks, Intel needs to pursue a well-disciplined cost management and capital allocation approach. Utilizing the incentives provided by the government through the CHIPS Act and European Chips Act can help to a certain extent in mitigating part of the financial risks arising from its expansion plans. Operational efficiencies within the manufacturing facilities can help optimize the ROI timelines. Besides,

Intel should contemplate strategic partnerships as a source of de-risking their investments. The collaboration will help diversify the client base and speed up commercialization with hyperscalers and fabless chipmakers. Lastly, prudent finance management-healthy balance sheets and preserved liquidity-will be of essence in navigating high stakes where Intel operates.

Critical Insights and Summary:

Intel faces a complex landscape with significant opportunities and challenges that will shape its long-term trajectory. The company's IDM 2.0 strategy exemplifies a bold commitment to supply chain resilience and diversification, but execution risks remain a critical hurdle. Intel's dominance in the data center market continues to

provide a robust foundation, though the growing AI hardware segment demands greater innovation to close the gap with NVIDIA and AMD. Given this background, the leadership of Mobileye in ADAS is the promising avenue of growth, but further competitive advantages require ongoing advancements and deeper integration with broader AI ecosystems.

While Intel is positioned for a windfall of government incentives, such as the CHIPS Act, the success of the company to meet cost competitiveness and technological milestones will be very critical. By leveraging partnerships, efficiently manufacturing, and developing its portfolio in high-growth areas such as AI and automotive, Intel will be able to secure its place as one of the leading semiconductor companies for years to come.

INTEL CORPORATION (INTC)

COMPANY REPORT

TECHNOLOGY

16 DECEMBER 2024

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Navigating a Changing Landscape

A Value Investment Opportunity?

Recommendation:	**HOLD**
Vs Previous Recommendation	*HOLD*
Price Target FY24:	**25.00 $**
Price (as of 17-Dec-24)	**20.76 $**

52-week range ($)	18.51-51.28
Market Cap ($B)	89.84
Outstanding Shares (B)	4.292

Source:Yahoo Finance (Intel Corp. vs S&P500)

Source: Yahoo Finance (Intel Corp. vs S&P500)

(Values in $ Millions)	2024E	2025F	2026F
Revenues	50,981	44,104	41,464
EBITDA	-813.1	-7,319	-7,435
EBITDA margin (%)	-1.59	-16.59	-17.93
CAPEX	-355.1	6,308	-288.8
NWC	20,978	21,456	17,061

Source: Company Data and NOVA Research

- The company's annual revenue growth is forecasted at negaative 5.99%, with an EBITDA margin of -1.59%. However, concerns include a high Net Working Capital as percentage of revenues (41.15%) and an increasingly negative Free Cash Flow, standing at negative $6,519.12 billion.
- The PC and laptop CPU market is projected to stabilize with an annual growth rate of 3% to 5% from 2023 through 2028, reaching a value of $200 billion in 2023. The data center market, valued at $250 billion in 2023, is expected to grow at a CAGR of 12% to 14% from 2023 to 2028.
- Intel holds a 65% market share in the client CPU market and a 71% share in the data center processor market.
- Intel plans to invest billions in new manufacturing facilities in the United States and Europe to address the global semiconductor demand and reduce reliance on external plants.
- Intel faces strong competition from AMD, whose Ryzen series CPUs challenge Intel's dominance in the high-performance segment. Additionally, NVIDIA's GPUs pose a significant challenge in the AI and high-performance computing sectors.

Company description

Intel is a global technology leader, designing and manufacturing essential technologies that power the world's computers, servers, and devices. From the cloud to the edge, Intel's products and innovations drive artificial intelligence, 5G network transformation, and the rise of new immersive experiences.

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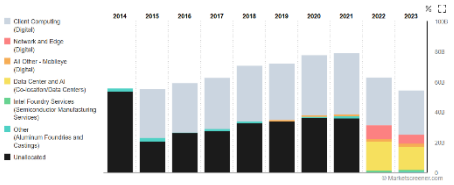
Company Overview

Intel's Presence Worldwide
Source: Intel's 10-k report

Intel Corporation is recognized globally for its expertise in semiconductor production and its solutions in computing and artificial intelligence innovation. Headquartered in Santa Clara, California, Intel employs a workforce of over 120,000 spread across 40 countries, with significant manufacturing and research facilities worldwide. The company's business activities are divided into five primary segments: Client Computing Group (CCG), Data Center and AI (DCAI), Network and Edge Group (NEX), Intel Foundry Services (IFS), and Mobileye.



Historical Segment Revenue
Source: Market Screener

Historically, the CGD segment has contributed the majority of Intel's revenue. In 2023 the CGD segment contributed $35 billion, representing approximately 66% of Intel's total revenue, followed by the DCAI segment with $11 billion (21%). The remaining segments, NEX, IFS, and Mobileye accounted together for the remaining 13% as depicted in the "Historical Segment Revenue" chart, which highlights the dominance of CGD.

Each segment serves distinct markets, supporting Intel's goals of driving digital transformation, advancing data-centric applications, and leading in semiconductor technology.

Intel's Client Computing Group (CCG) represents the company's largest segment, focusing on producing and distributing processors and chipsets that enhance both the performance and security features of personal and professional devices. The CCG division targets a wide range of customers, from individuals seeking high-quality personal devices to enterprises requiring robust computing solutions for business operations.

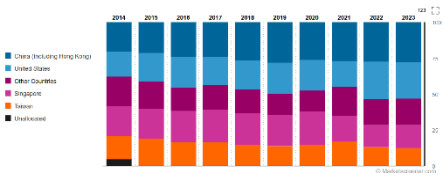
The Data Center and AI (DCAI) segment is vital in supporting data centers by offering advanced computing solutions tailored to enterprise needs. This segment includes server processors, memory, storage options, and AI accelerators, enabling users to manage large data volumes and perform complex computational tasks. Intel's DCAI products are essential for businesses, cloud service providers, and organizations focused on data management and machine learning capabilities. Given the increasing demand for AI applications and big data handling, Intel remains focused on DCAI as a strategic priority.

In the Network and Edge (NEX) division, Intel provides networking solutions and edge computing products that facilitate data processing closer to its origin, thereby reducing latency and improving efficiency. This segment includes network processors, Ethernet products, and support for 5G infrastructure—crucial for

telecommunications companies and sectors adopting edge computing. Intel's focus on NEX aligns with the growing adoption of IoT and the global expansion of 5G networks, reinforcing Intel's position in connectivity and edge computing.

Intel Foundry Services (IFS) is a recent addition to Intel's portfolio, aiming to provide manufacturing and packaging solutions for external clients. Leveraging Intel's advanced manufacturing capabilities, IFS delivers custom silicon products and innovative packaging options for companies outside Intel's traditional scope. By serving semiconductor companies and other businesses in need of custom chip designs, IFS strengthens Intel's presence in the foundry space, addressing the global demand for diversified semiconductor manufacturing and supply chain solutions.

The Mobileye division focuses on advanced driver-assistance systems (ADAS) and autonomous driving technologies, underscoring Intel's commitment to AI-powered automotive technology. Mobileye offers vision-based sensing systems, mapping technologies, and software platforms to support driver assistance and autonomous driving solutions. By concentrating on the automotive sector and collaborating with car manufacturers and autonomous vehicle developers, Mobileye showcases Intel's move into mobility innovation and the future of autonomous transportation.



Geographical Revenue Distribution
Source: Market Screener

In 2023, Intel's revenue distribution by region highlights the company's extensive international reach and reliance on diverse markets. China was Intel's largest revenue source in 2023, contributing $14.85 billion or 28% of the total, followed closely by the United States at $13.6 billion (26%). Other key regions included Singapore with $8.6 billion, Taiwan with $6.87 billion, and an additional $9.95 billion from various markets. This geographic breakdown, depicted in geographical revenue distribution graph, emphasizes Intel's critical roles in both North American and Asian markets, with Asia serving as a significant hub for the production and consumption of Intel products.

Intel has made strategic adjustments to evolve into a more versatile and responsive technology provider. Recognizing the industry's shift toward specialized computing, Intel has invested in expanding its manufacturing capacity and reorganized its segments to focus on high-growth areas like data centers, artificial intelligence, and foundry services. Recently, Intel announced plans to invest billions in new manufacturing facilities in the United States and Europe to meet global semiconductor demand and reduce reliance on external foundries. This initiative aligns with Intel's overarching goal of establishing itself as a leader in advanced chip

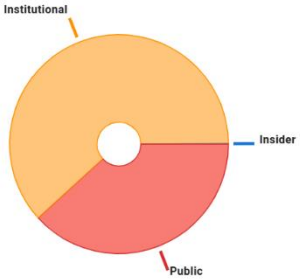
production and delivering comprehensive technological solutions across various sectors.

While these investments align with the geopolitical efforts to strengthen the domestic supply chains, the returns that are being projected by Intel may be overestimated to some degree. The high capex-to-revenue ratio (-22.23%) and the continuing challenges in matching TSMC's process leadership put in question the feasibility of Intel achieving any significant foundry market share. Additionally, supply chain and execution risks could exacerbate operational challenges.

Intel's different business segments display unique profitability profiles, with established segments maintaining steady margins while newer areas like IFS continue to grow. For instance, established segments such as CCG and DCAI remain significant revenue drivers, while Intel's investment in IFS and Mobileye reflects a strategy to diversify revenue streams and capture emerging technology markets. Intel has faced increasing competition from companies like AMD and NVIDIA, which excel in high-performance and specialized computing sectors. In response to these competitive pressures, Intel has ramped up product innovation and expanded its manufacturing capabilities, aiming to reclaim its position in high-performance computing and AI-driven technologies.

Intel's growth projections include an annual revenue growth of 5.8%. However, This target assumes that a breakthrough in product differentiation and cost efficiency is achievable over fierce competitors such as AMD and Nvidia who recently achieved significant market share over Intel.

Historical Growth, Ownership and Governance



Intel Ownership Structure
Source: ChatMill.com

The majority of Intel's revenue growth over the last decade has been through internal innovation, such as advances in x86 processors, and acquisitions like Mobileye, which expanded its presence in the autonomous vehicle market. Though the data center and AI businesses have shown some promise, challenges in the client computing group, mainly because of the competition, have restricted growth in the last few years.

The ownership structure of Intel is dominated by institutional investors who own over 60% of the company, with Vanguard Group (9.1%), BlackRock (8.1%) and State Street (4.5%) holding more than 20% combined. Governance is ensured through a board composition that has broad experience within the

industry. However, analysts have noted that Intel's agility in the fast-moving semiconductor market might be further improved with greater operational agility and better risk management.

Intel's stock has traded between $18.51 and $51.28 over the last year, showing the market's sensitivity to both industry trends and company-specific news. The notable price movements include a spike after the announcement of the CHIPS Act, which signaled increased government support for domestic manufacturing.

Looking ahead, Intel is committed to reaffirming its position as a major player in the semiconductor industry. The company plans substantial investments in research and development, expanded production capabilities, and a growing focus on emerging fields such as artificial intelligence and autonomous vehicles. Through these initiatives, Intel seeks to achieve long-term growth and deliver sustained value to its shareholders. At the same time, the company faces challenges related to intense industry competition, supply chain constraints, and the capital-intensive nature of semiconductor manufacturing, which necessitate strategic capital management and operational agility.

Introduction to the Market Segments

Intel currently operates in several key markets within the semiconductor and technology industry. The following examines the CPU, Data center and AI, network infrastructure, semiconductor foundry, and advanced driver-assistance markets. These markets will be evaluated based on Intel’s current presence, market trends, and it’s competitive positioning within these markets, with a strong emphasis on the markets that significantly contribute the most to the company’s revenue without omitting the opportunities present in the remaining markets.

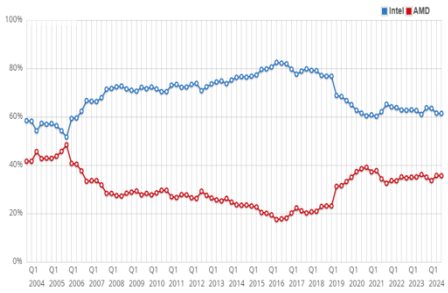
CPU Market

Market Overview

The worldwide market for PC and laptop CPUs has experienced fluctuations due to changes in consumer technology usage and a rising demand for enhanced graphics processing power and multitasking capabilities. Driven by a shift to remote work in 2020 and 2021, the market saw an increase, but then experienced a downturn with a 16% drop in shipments in 2022. Projections suggest the market

will stabilize with an annual growth rate of 3% to 5% from 2023 through 2028. In 2023, the market was valued at $200 billion, with trends in gaming and increased demand for high-performance CPUs—due to work needs and advanced applications—fueling its growth

Intel's CPU Segment (CCG)



Intel and AMD Market Share
Source: Statista

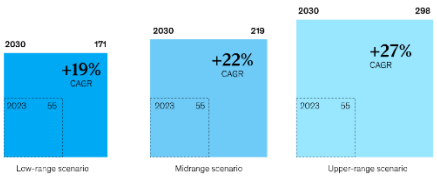
Intel dominates the client CPU market with a 65% market share as of 2023, despite strong competition from companies like AMD. Intel's latest processors, including the Alder Lake and Raptor Lake series, have been well-received for balancing performance and affordability across consumer and business sectors. One area where Intel stands out is in integrated GPUs (iGPUs); Intel's CPUs generally include iGPU capabilities by default, making them popular for budget-friendly, lightweight laptops compared to AMD alternatives. While AMD has recently advanced in high-performance CPUs, Intel has focused on energy-efficient processors with enhanced AI functionalities to address the rising demand for AI applications in consumer electronics.

Competitive Landscape

In the competitive landscape, AMD's Ryzen series presents a significant challenge in the high-performance CPU segment, and Apple's M-series chips have notably impacted Intel's presence in the Mac market. Intel's strategic focus on energy efficiency and AI capabilities in its CPUs is essential for maintaining its market position and appealing to both personal and professional users.

Data Centers & AI Markets

Market Overview



Global Demand for data center capacity (gigawatts)
Source: McKinsey & Co

The data center and AI hardware markets are experiencing strong growth, driven by increasing adoption of cloud computing services, AI applications across various industries, and demand for high-performance computing. In 2023, the global data center market was valued at around $250 billion and is expected to grow at a compound annual growth rate (CAGR) of 12% to 14% from 2023 to 2028 along with the demand for Data center capacity expected to grow 19% to 27% until 2030. As businesses increasingly implement AI technologies for tasks such as data analysis and natural language processing, the AI hardware market is also expanding, with a projected growth rate of 20%.

Intel's Data Center and AI Group (DCAI)

Intel has a longstanding presence in the data center processor market, with its Xeon chips holding 22% of the market share. However, Intel faces rising competition from AMD's EPYC processors, which are known for performance and energy efficiency in AI and data-intensive tasks. NVIDIA is also emerging as a key player in AI, where GPUs are favored for parallel processing capabilities. Intel has introduced its Xeon Scalable Processor series and Gaudi AI accelerators specifically for AI and machine learning applications. To reinforce its position in AI training and inferencing, Intel plans to launch its 4th Gen Xeon CPUs and Gaudi 2 in 2023.

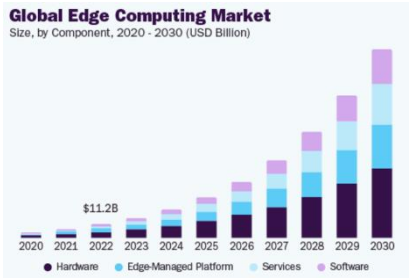
Competitive Landscape

NVIDIA's strong position in GPUs for AI applications presents a challenge for Intel, as GPUs are critical for AI model training and high-performance computing (HPC). AMD is advancing with its EPYC processors, which offer cost advantages in certain competitive segments. Intel is adapting by focusing on developing AI-specific chips and scalable infrastructure solutions to defend its market share from these competitors.

As mentioned before, Intel's CPU segment represents 66% of the company's revenue, underscoring its critical importance. This reliance highlights the need to maintain dominance in this market, especially against fierce competitors like the AMD Ryzen series and Apple's M-series chips.

Network Infrastructure Market

Market Overview



Global Edge Computing Market
Source: Fortune Business Insights

The network and edge computing markets are expected to grow, driven by the expansion of connected devices, 5G technology rollout, and the demand for low-latency data processing. The global edge computing market was valued at $16.45 billion in 2023 and is projected to grow at an annual rate of 36.9% until 2030, as sectors like telecommunications, automotive, and smart cities adopt decentralized data processing. Major growth drivers include 5G infrastructure, real-time data analysis capabilities, and the integration of industrial Internet of Things (IoT) systems.

Intel's Network and Edge Group

Intel has leveraged its expertise in network infrastructure to establish a strong foothold in edge computing, offering products like Xeon D processors and Atom SoCs for low-power edge applications. Intel also partners with major telecom companies to support 5G integration through its Network and Edge Group, which delivers solutions for NFV and SDN—key elements in 5G expansion. Intel's geographic footprint in this market is particularly strong in North America and Asia, driven by %G expansion and IoT adoption in these regions.

Additionally, Intel's OpenVINO toolkit enables AI deployment at the network edge, enhancing its appeal for businesses interested in edge-based AI solutions.

Competitive Landscape

Qualcomm and NVIDIA are notable competitors in the edge computing market, providing chipsets for IoT and edge AI applications. Intel's position in this space is strengthened by its investments in edge software and partnerships with telecom providers. However, to remain competitive against rivals focused on high-performance, power-efficient edge solutions, Intel must continue to innovate.

While Intel still holds a 22% market share in the data center processors market, its position in AI hardware is less competitive. Nvidia's GPUs dominate the AI market, especially for training and inferencing tasks, where Intel's Gaudi accelerators are still catching up. AMD's EPYC processors also present strong competition due to their greater energy efficiency and cost-effectiveness.

Semiconductor Foundry Market

Market Overview

The semiconductor manufacturing sector is anticipated to grow at a rate of 8% to 10% between 2023 and 2028, with TSMC and Samsung as leading players. Geopolitical tensions are prompting companies to diversify their supply chains, driving interest in U.S.-based semiconductor production. This interest has been further fueled by the CHIPS Act, which incentivizes domestic manufacturing.

Intel's Foundry Services

Intel's strategy under the IDM 2.0 plan includes expanding its foundry services to serve external clients, rather than focusing solely on in-house production. With a

substantial $20 billion investment in new U.S. facilities, Intel aims to attract customers seeking secure, local supply chains. Recent partnerships with ARM suggest Intel's intent to grow its foundry presence by focusing on ARM-designed products, which are gaining traction in sectors like IoT, automotive, and edge computing.

Competitive Landscape

While Intel's foundry services hold a smaller share compared to TSMC and Samsung, the shift to contract manufacturing presents a promising opportunity, especially in automotive and IoT sectors prioritizing local production. Intel's progress in 20nm and 18nm processes is a strategic move to bridge the gap in performance and reliability compared to TSMC.

Intel's foundry services currently contribute a minor portion of its overall revenue, reflecting that this projects is still in it's initial stages compared to more established players like TSMC and Samsung.

Advanced Driver Assistance Systems

Market Overview

The ADAS and autonomous vehicle markets are projected to grow steadily at a CAGR of 20% to 25% through 2030, driven by regulatory emphasis on vehicle safety and rising consumer interest in autonomous driving. By 2030, the ADAS market alone is expected to exceed $90 billion.

Intel's Mobileye Segment

Intel's Mobileye is a market leader in ADAS technology, with notable partnerships with automakers like BMW, Ford, and Volkswagen. The EyeQ chips, widely used for autonomous functionalities, include the latest EyeQ5 chip, which supports fully autonomous driving. Mobileye's strengths lie in its extensive driving data database and expertise in camera-based ADAS, which is cost-effective for OEMs. Intel's decision to take Mobileye public through an IPO in 2023 underscores its confidence in the sector and its commitment to advancing radar and lidar technologies for autonomous systems.

Competitive Landscape

In the ADAS market, Mobileye faces competition from NVIDIA's Drive platform and Qualcomm's Snapdragon Ride, both of which offer advanced ADAS solutions integrated with AI capabilities. Mobileye's success depends on maintaining partnerships with automakers and delivering technological innovation to stay competitive. To respond to this competition, Intel is driving Mobileye's EyeQ roadmap to improve sensor fusion, object recognition, and collision avoidance technologies.

Mobileye's strengths include its vast driving database and its long-standing partnerships with automakers such as BMW and Volkswagen. However, competition from players like Nvidia and Qualcomm, which offer more advanced AI platforms, remains a challenge.

Summary of Market Analysis

To summarize, Intel is expected to maintain a strong position in the CPU and data center markets, which are its primary revenue drivers. However, it faces challenges in the semiconductor foundry and edge computing markets, segments where its revenue contribution and competitive strength remain somewhat limited. Geographically, North America and Asia continue to play a crucial role in Intel's market strategy and growth.

Intel's Segments SWOT Analysis

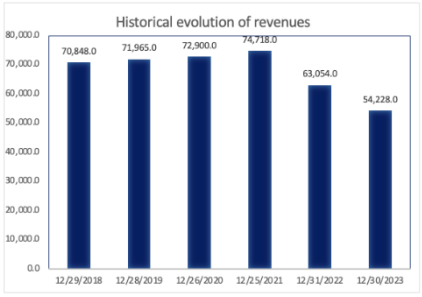
Market	Strengths	Weaknesses	Opportunities	Threats
CPU	-Strong Market Share (65%) -Well-established product reputation	-Increasing competition from AMD and Apple -Challenges in competing on advanced process technology	- Growth in demand for high-performance and energy-efficient CPUs	- Risk of further market share loss due to superior performance of Ryzen and M-series chips
Data Center & AI	-Strong market share (22%) -Strong Xeon product line with tailored AI accelerators	-Lagging behind Nvidia in AI hardware -Dependence on slower product cycles	-Expanding AI hardware market growing -Cloud computing growth driving demand for AI and data center solutions	-Rapid advancements by Nvidia and AMD
Network Infrastructure Market	-Strategic presence in North America and Asia (key 5G markets) -OpenVINO toolkit facilities AI	-Limited edge AI product diversity compared to competitors	-5G rollout and IoT adoption increasing demand for network processors.	-Intense competition from Qualcomm and Nvidia in edge AI

	deployment at the network edge			
Foundry Services	-Recent investment in U.S facilities for localized production (IDM 2.0 strategy) -Strong R&D capabilities to innovate foundry services	-Small market share compared to TSMC and Samsung. -High CAPEX costs limiting profitability	-Geopolitical trends favoring US-based semiconductor manufacturing (CHIPS ACT)	-Dependence on catching up technologically with TSMC
ADAS	-Market Leader in ADAS with Mobileye's EyeQ chips -Established partnership with BMW and Volkswagen	-Lack of advanced AI integration compared to Nvidia and Qualcomm platforms	-Growing autonomous driving market projected to grow at 25% CAGR through 2030 -Rising regulatory emphasis on safety features favors ADAS adoption	-Strong competition from Nvidia's Drive platform and Qualcomm's snapdragon ride

Valuation

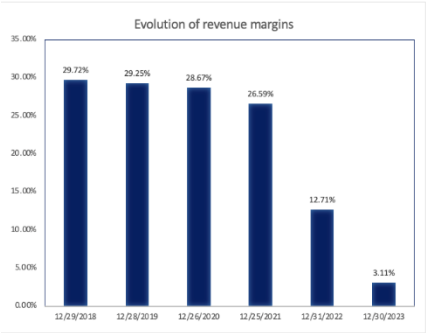
Financial Analysis

The analysis conducted looked at the historical evolution of the revenues from 2018 to 2023. Overall, we observed a relatively stable trend with some fluctuations. In 2018, revenues stood at $70,848.0, followed by a slight increase to $71,965.0 in 2019. The year 2020 witnessed a further rise to $72,900.0, marking a peak for the period under consideration. Subsequently, revenues experienced a notable decline in 2022, reaching $63,054.0. This downward trend continued into 2023, with revenues further decreasing to $54,228.0.



A closer look reveals that in the initial years, from 2018 to 2020, there was a gradual and consistent growth trajectory. However, a significant dip occurred in 2022, potentially attributed to various factors such as Russia's invasion of Ukraine, which disrupted global supply chains, particularly for energy and food, leading to significant price increases. Consequently, this fuelled inflation and dampened consumer spending. Also, the increased geopolitical tensions, including trade disputes and the war in Ukraine, created uncertainty and discouraged investment, which slowed economic growth.

Intel's operating margins give us an insight on how efficient the company's operations are. Companies with consistently higher margins often have a competitive advantage in their industry. At the end of 2018 Intel's operating margin was 32.91%, which suggested that the company was on target to reach its goal of 40% operating margin. In 2019 and 2020 the operation margin was 30.62% and 30.41%, which went slightly down because of the Covid-19 pandemic. After the pandemic, most companies, including Intel, began over hiring employees because there was a lot of demand for their services, especially in the technology sector. This is because, as the whole world came to a complete stop, there were delays in production and the demand for goods and services exponentially increased. In addition, costumers also had a lot more money to spend because of government subsidised furlough (80% of the full salary). This meant that the company didn't account for the fact that the demand was going to eventually come down, and that meant that the operating margin was going to decrease because the company became more inefficient, which meant that it was less profitable. In 2021 the operating margin fell approximately 6% to 24% because it was the year the then CEO Pat Gelsinger announced plans to re-enter the foundry market as part of its IDM 2.0 strategy, to become a major provider of US and Europe-based foundry capacity, which is still unprofitable, losing about $25 billion per year. In 2022, the operating margin fell even more to 3.70%. There were many reasons for this. Intel encountered delays in advancing its manufacturing processes, which harmed its ability to deliver next-gen products on schedule. These delays affected Intel's ability to adapt and stay competitive in the semiconductor industry. Competitors like AMD and Nvidia made substantial advancements, particularly in AI and high-performance computing sectors. AMD, under CEO Lisa Su, achieved a large market share, which increased the pressure on Intel to become more competitive.



From 2018 to 2023, Intel has been divesting from its businesses, and we can see this through the Capital Expenditure. In 2018 the CAPEX of Intel was negative $15.1 billion, in 2019 and 2020 was -$16.2 billion and -$14.4 billion. In 2021, after the pandemic, as mentioned above, companies, including Intel, where having trouble staying afloat because they hired too many employees. This was likely the main reason why Intel's CAPEX decreased by a significant amount (-$20.3 billion). In 2022 Intel divested approximately another $5 billion, reducing its capital expenditure to -$25.05 billion, and the amount remained flat in 2023 (-$25.7 billion).

For the past 6 years Intel has had a positive working capital, though it has experienced notable fluctuations. This means that the company can cover its short-term obligations, which indicates a good financial health, even though there was a decrease in revenues and EBITDA. Intel's working capital decreased from $12.2 billion in 2018 to $8.9 billion in 2019, indicating a reduction in short-term liquidity during the same period. Intel's working capital reached its peak of $30.3 billion in 2021 after reaching $22.5 billion in 2020. This can be explained by the fact that the US Federal Reserve set interest rates below 1% to keep the economy running during the Covid-19 pandemic. This meant that the cost of borrowing money was very low. In 2020, with interest rates going back up to control inflation, there was a decline in the working capital to $18.3 billion and further to $15.2 billion in 2023, reflecting a decrease in short-term financial resources.

Financial Forecast

We followed the Discounted Cash Flows Model (DCF) approach to value Intel for the next 10 years. We used the DCF model because we believe that it is very helpful in determining the intrinsic value of Intel using the company's future cash flows. The DCF values Intel based on its free cash flows, which represent the actual money available to investors, not accounting profits that can be affected by accounting rules. This makes the model more aligned with the real financial performance of the company.

To value Intel, we used a forecasting period of 10 years, from the end of 2024 to the end of 2034. This is because, high growth businesses such as Intel take a longer time to stabilize and a 10-year forecast allows us to capture the company's full growth potential, especially if the company is undergoing extensive changes such as Intel. In December 2024, the estimated revenue was $50.98 billion, with a negative growth rate of -5.99%. We forecasted the 2025 growth rate to be even lower at -13.49%. The reasons for it are the fact that Intel's foundry business has been losing $25 billion per year for the last 2 years, so there will be restructuring costs for Intel's foundry business spin-off. In addition, after Intel announced the $10 billion cost reduction, the United States Government passed the CHIPS and Science Act which awarded Intel $3 billion to bring chipmaking to the US. Because of these changes, we expected the revenues to go down 7.5% in 2025, after the changes were implemented, and then bounce back up in the following years. The

growth is forecasted to stabilise at 5% annually starting in 2027, which reflects a long-term normalised growth assumption. By 2034 we expect the revenue to be at $61.2 billion. We feel that this assumption is critical because overly optimistic growth rates would inflate the valuation, while overly conservative rates might undervalue the company.

The recovery in EBITDA margins, from -1.59% in 2024 to 32.07% in 2034 can also be explained by the cost cutting measures announced and enacted by Intel, the award given by the Joe Biden administration as part of the CHIPS and Science Act, and the restructuring costs of Intel's foundry business spin-off. After 2026, the DCF model shows us the operational improvements. Margins above 25% Align with the industry leaders such as Nvidia and AMD, but the model also assumes that Intel can maintain strong pricing power and manage its costs effectively.

The Free Cash Flow (which becomes positive only in 2031 at $1.75 billion) of the company was derived from the Operating Cash Flows (-$1.1 billion in 2024 and $17.1 billion by 2034), which also increases with the value of depreciation and amortisation and the value of the Net Operating Profit Less Adjusted Taxes (NOPLAT), and the Investment Cash Flows, which is the difference between the Capital Expenditure and the Change in Net Working Capital (NWC). The CAPEX is modelled as 15% of the revenue from 2027 onwards to reflect Intel's high capital intensity due to manufacturing and R&D investments. The NWC assumptions suggest working capital decreases and then stabilises in line with revenue, with a NWC of $20.9 billion in 2024 and $17.3 billion, which is consistent with Intel's current financial structure. As mentioned before, the model assumes Intel's cash flow generation will stabilise after 2027, with significant contributions from the FCF in later years, which means that most of the value comes from medium to long-term performance.

The Weighted Average Cost of Capital (WACC) (10.57% post-tax) is used as the discount rate in the DCF model, reflecting the company's cost of funding equity and debt. The Cost of Equity (28.58%) calculations were based on the CAPM formula, and the risk-free rate was derived from the U.S Treasury 1 month T-Bill. The stock's Beta was 1.03 which means that like its closest competitors, Intel's stock volatility is higher than the overall market volatility, which reflects the higher risk. The Market Risk Premium (MRP) was calculated at 8.61%. Intel's effective interest rate on its debt, adjusted for tax savings due to interest deductibility was

computed as 6.12%, and the Intel's Cost of Equity is 13.28%. For Intel, a higher WACC reflects the industry risks and macroeconomic factors such as the inflation rate (currently at 2.75%), the U.S. GDP ($23.39 trillion).

D/V (historical)	25.32%
β_e (historical)	1.02
β_d	0.20
β_u	0.87
Debt/Value (target)	33.54%
β_d	0.20
β_e	1.03
Risk-free rate	4.40%
Market Risk Premium	8.61%
Tax Rate	15.00%
Cost of Debt	6.12%
Cost of Equity	13.28%
WACC (post-tax)	10.57%
g	1.32%

Risks and ESG

Category	Description	Probability	Economic Impact
Macroeconomic Risk	Slowdown in global demand for semiconductors due to cyclical downturns or recessions.	High	High
Competition Risk	Intense competition from TSMC, AMD, NVIDIA, and emerging players in the semiconductor space.	High	High
Technological Risk	Failure to keep up with technological advancements, such as process node development.	Medium	High
Supply Chain Risk	Disruptions in raw material supply, geopolitical tensions, or reliance on specific suppliers.	Medium	High
Regulatory Risk	Changes in trade policies, export restrictions, or environmental regulations.	Medium	Medium
Foundry Business Risk	Inability to scale its new foundry business effectively or compete with TSMC.	High	High
Cybersecurity Risk	Threats to intellectual property, customer data, and operational systems from cyberattacks.	Medium	High

Intel performs well in energy efficiency and renewable energy adoption. However, its large-scale manufacturing contributes to significant carbon emissions and water usage. The company has set a goal to achieve net-zero emissions by 2040.

Key Factor	Metric	Intel	Industry Average/Median
Carbon Emissions	Total CO2 Emissions (MTCO2e)	~2.5 million (2023 est.)	~2.8 million
Energy Efficiency	Renewable Energy Usage (%)	~90%	~75%
Water Usage	Water Withdrawal (million m^3/year)	~9.5	~10.2
Waste Management	% of Waste Diverted from Landfills	~80%	~70%

Intel invests significantly in employee training and corporate social responsibility (CSR). However, its gender diversity remains slightly below the industry average.

Factor	Metric	Intel	Industry Average/Median
Gender Diversity	% of Women in Workforce	~27%	~30%
Workforce	Employee Retention Rate (%)	~85%	~80%
Community Impact	Annual CSR Investments ($M)	~125	~110
Workplace Safety	Total Recordable Incident Rate (TRIR)	~0.45	~0.65

Intel demonstrates strong ESG reporting and transparency. However, its board diversity and executive pay ratio could be improved to align more closely with best practices.

Key Factor	Metric	Intel	Industry Average/Median
Board Diversity	% of Women on the Board	~30%	~35%
Executive Pay	CEO Pay Ratio	140:01:00	~120:1
Shareholder Rights	Votes Required for Major Decisions (%)	50%+1	50%+1
Transparency	ESG Reporting Score	A-	B+

Recommendation

Our price target being $25 per share and the current share price at $20.76, we see a healthy upside potential for Intel in the long run (20.42%). With new leadership and a clear path, Intel stills have some challenges to overtake. However, being a leader of the industry and a household name, Intel has a very good chance to come out on the other side stronger than before. Furthermore, the U.S needs the company to succeed, since it is trying to once again, become a leader in the semiconductors industry. Market drivers such as the increased demand for AI and High-Performance Computing, Cloud and Data Center expansion, PC market recovery and Innovation, and Financial and Cost Structure Improvements, Intel will have the opportunity to seize a bigger share of the market and increase the revenues for the nest years and continue to drive innovation.

Our recommendation is **HOLD**.

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2nd graph – Historical Revenue by segment

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3rd graph – Geographical Revenue distribution

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4th graph – Intel ownership structure

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5th graph – Intel vs AMD CPU market share

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6th graph – Data center capacity future projections

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7th graph – EDGE computing market

Fortune Business Insights (2024). Retrieved from https://www.fortunebusinessinsights.com/edge-computing-market-103760

8th graph – Intel Financials

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Financial Statements

Income Statement:

Reformulated Consolidated Income Statement

In Millions of USD except Per Share 12 Months Ending	FY 2018 12/29/2018	FY 2019 12/28/2019	FY 2020 12/26/2020	FY 2021 12/25/2021	FY 2022 12/31/2022	FY 2023 12/30/2023
Revenue	**70,848.0**	**71,965.0**	**72,900.0**	**74,718.0**	**63,054.0**	**54,228.0**
Revenue Margins (%)	29.72%	29.25%	28.67%	26.59%	12.71%	3.11%
Cost of Revenue	**27,111.0**	**29,825.0**	**30,812.0**	**32,898.0**	**36,188.0**	**32,517.0**
Gross Profit	**43,737.0**	**42,140.0**	**43,299.0**	**43,815.0**	**26,866.0**	**21,711.0**
Gross profit Margin (%)	61,70%	58.60%	57.60%	55.40%	42.60%	40.00%
Operating Expenses	**20,421.0**	**20,105.0**	**19,934.0**	**24,359.0**	**24,532.0**	**21,618.0**
Operating Expenses as % of Revenue	28.82%	27.94%	25.60%	**30.82%**	**38.91%**	**39.87%**
Operating Income	**23,316.0**	**22,035.0**	**23,678.0**	**19,456.0**	**2,334.0**	**93.0**
Operating Margin (%)	32,91%	30.62%	30.41%	24.62%	3.70%	0.17%
Depreciation & Amortization	**9,085.0**	**10,826.0**	**12,239.0**	**11,792.0**	**13,035.0**	**9,602.0**
Depreciation	**7,520.0**	**9,204.0**	**10,482.0**	**9,953.0**	**11,128.0**	**7,847.0**
As % of Revenue	10.61%	12.79%	13.46%	12.59%	17.65%	14.47%
Amortization	**1,565.0**	**1,622.0**	**1,757.0**	**1,839.0**	**1,907.0**	**1,755.0**
EBITDA	**33,634.0**	**32,956.0**	**35,774.0**	**32,158.0**	**20,950.0**	**14,269.0**
Pre-Tax Income	**23,317.0**	**24,058.0**	**25,078.0**	**21,703.0**	**7,768.0**	**762.0**
Income Tax Expense	***2,264.0***	***3,010.0***	***4,179.0***	***1,835.0***	***-249.0***	***-913.0***
Tax Rate (%)	*9.70%*	*12.50%*	*16.70%*	*8.50%*	*-3.20%*	*-119.80%*
Net Income	**21,053.0**	**21,048.0**	**20,899.0**	**19,868.0**	**8,017.0**	**1,689.0**
Net Margin (%)	29.72%	29.25%	26.84%	25.14%	12.71%	3.11%
Basic Weighted Avg Shares	**4,611.0**	**4,417.0**	**4,199.0**	**4,059.0**	**4,108.0**	**4,190.0**
Diluted Weighted Avg Shares	**4,701.0**	**4,473.0**	**4,232.0**	**4,090.0**	**4,123.0**	**4,212.0**
Basic EPS	**4.57**	**4.77**	**4.98**	**4.89**	**1.95**	**0.40**
Diluted EPS	**4.48**	**4.71**	**4.94**	**4.86**	**1.94**	**0.40**
Dividend per Share	**1.20**	**1.26**	**1.32**	**1.39**	**1.46**	**0.74**

Source: Bloomberg

Balance Sheet:

Reformulated Consolidated Balance Sheet

In Millions of USD except Per Share 12 Months Ending	FY 2018 12/29/2018	FY 2019 12/28/2019	FY 2020 12/26/2020	FY 2021 12/25/2021	FY 2022 12/31/2022	FY 2023 12/30/2023
Total Assets	**127,963.0**	**136,524.0**	**153,091.0**	**168,406.0**	**182,103.0**	**191,572.0**
Current Assets	**28,787.0**	**31,239.0**	**47,259.0**	**57,718.0**	**50,407.0**	**43,269.0**
Cash & Marketable Securities	**17,692.0**	**17,090.0**	**29,047.0**	**34,711.0**	**34,250.0**	**25,034.0**
Cash & Cash Equivalents & Short-Term Investment	11,650.0	13,123.0	23,895.00	28,413.0	28,338.00	17,955.00
Inventories	**7,253.0**	**8,744.0**	**8,427.0**	**10,776.0**	**13,224.0**	**11,127.0**
Non-Current Assets	**99,176.0**	**105,285.0**	**105,842.0**	**110,688.0**	**131,696.0**	**148,303.0**
Total Liabilities	**52,981.0**	**58,865.0**	**72,053.0**	**73,015.0**	**78,817.0**	**81,607.0**
Current Liabilities	16,626.0	22,310.00	24,754.0	27,462.00	32,155.00	28,053.00
Short-Term Debt	1,261.0	3,693.0	2,504.0	4,591.0	4,367.0	2,288.0
Non-Current Liabilities	36,355.0	36,555.0	47,299.0	45,553.0	46,662.0	53,554.0
Long-Term Debt	25,098.0	25,308.0	33,897.0	33,510.0	37,684.0	46,978.0
Total Debt	26,359.0	29,551.0	36,928.0	38,576.0	42,460.0	49,697.0
Total Shareholder's Equity	**74,982.0**	**77,504.0**	**81,038.0**	**95,391.0**	**101,423.0**	**105,590.0**
Total Liabilities & Shareholder's Equity	**125,535.0**	**136,524.0**	**153,091.0**	**168,406.0**	**182,103.0**	**191,572.0**
Working Capital	**12,161.0**	**8,929.0**	**22,505.0**	**30,256.0**	**18,252.0**	**15,216.0**
Special Company Reference Items						
Debt -To-Equity	35.15%	38.65%	45.57%	40.44%	41.11%	45.19%
Debt-To-Capital	26.01%	27.06%	26.34%	28.80%	29.13%	31.13%
Return-On-Assets	16.71%	15.92%	14.43%	12.36%	4.57%	0.90%
Return-On-Equity	29.07%	27.58%	26.34%	22.52%	8.14%	1.63%
Current Ratio	1.73	1.40	1.91	2.10	1.57	1.54
Quick Ratio	1.11	0.93	1.24	1.38	1.01	1.01
Shares Outstanding	4,516.0	4,290.0	4,062.0	4,070.0	4,137.0	4,228.0
Book Value per Share	15.95	17.36	19.15	23.32	24.60	25.07

Source: Bloomberg

Cash Flows Statement:

Consolidated Statement of Cash Flows

In Millions of USD except Per Share	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
12 Months Ending	12/29/2018	12/28/2019	12/26/2020	12/25/2021	12/31/2022	12/30/2023
Cash from Operating Activities						
Net Income	**21,053.00**	**21,048.00**	**20,899.00**	**19,868.00**	**8,017.00**	**1,689.00**
Depreciation & Amortization	9,085.00	10,826.00	12,239.00	11,792.00	13,035.00	9,602.00
Stock-Based Compensation	1,546.00	1,705.00	1,854.00	2,036.00	3,128.00	3,229.00
Gains (Losses) on Equity Investments	155.00	-892.00	-1,757.00	-1,458.00	-4,254.00	-42.00
Change in Working Capital						
Accounts Receivable	-1,714.00	-935.00	883.00	-2,674.00	5,327.00	731.00
Inventories	-214.00	-1,481.00	-687.00	-2,339.00	2,436.00	2,097.00
Accounts Payable	211.00	696.00	405.00	1,190.00	-29.00	-801.00
Accrued Compensation and Benefits	-260.00	-260.00	348.00	515.00	-1,533.00	-614.00
Change In Deposits Advances	1,367.00	-782.00	-181.00	-1,583.00	24.00	-
Income Taxes Payable or Receivable	-1,601.00	885.00	-1,620.00	-441.00	-4,535.00	-3,531.00
Other Assets and Liabilities	301.00	1,942.00	73.00	-459.00	-1,278.00	-451.00
Cash Flow from Operations	**29,432.0**	**33,145.00**	**35,864.00**	**29,991.00**	**15,433.00**	**11,471.00**
Cash From Investing Activities						
Capital Ependitures	-15,181.00	-16,213.00	-14,453.00	-20,329.00	-25,050.00	-25,750.00
As % of Revenue	21.43%	22.53%	18.56%	25.73%	39.73%	47.48%
Purchases of Short-Term Investments	-3,843.00	-2,268.00	-29,239.00	-5,051.00	-43,647.00	-44,414.00
Maturities and sales of Short-Term Investments	12,111.00	7,178.00	15,377.00	28,832.00	48,730.00	44,077.00
Cash Flow From Investing	**-11,239.00**	**-14,405.00**	**-21,524.00**	**-25,167.00**	**-10,231.00**	**-24,041.00**
Cash From Financing Activities						
Dividends Paid	-5,541.00	-5,576.00	-5,568.00	-5,644.00	-5,997.00	-3,088.00
Increase/Decrease In Short-Term Borrowings	-	-	-	-	-	-3,944.00
Debt Issuance	423.00	3,392.00	10,247.00	4,974.00	6,548.00	11,391.00
Cash (Repurchase) of Equity	-10,175.00	-12,826.00	-13,332.00	1,395.00	2,009.00	4,001.00
Stock Issuance	555.00	750.00	897.00	1,020.00	2,009.00	4,001.00
Repurchase of Common Stock	-10,730.00	-13,576.00	-14,229.00	2,415.00	-	-
Repayments and Retirement of Debt	-3,026.00	-2,627.00	-4,525.00	-2,500.00	-5,329.00	-519.00
Proceeds from (Payment for) Debt	-2,603.00	765.00	5,722.00	2,474.00	5,164.00	6,928.00
Tax Benfeit from Stock Options	2.58%	3.06%	5.88%	6.98%	6.85%	5.92%
Cash Flow From Financing	**-18,607.00**	**-17,565.00**	**-12,669.00**	**-5,862.00**	**1,115.00**	**8,505.00**
Special Company Reference Items						
Net Change in Cash	**-414.00**	**1,175.00**	**1,671.00**	**-1,038.00**	**6,317.00**	**-4,065.00**
Cash & Cash Equivalents Beginning of Period	3,433.00	3,019.00	4,194.00	5,865.00	4,827.00	11,144.00
Cash & Cash Equivalents End of Period	3,019.00	4,194.00	5,865.00	4,827.00	11,144.00	7,079.00
Free Cash Flow	**14,251.00**	**16,932.00**	**21,411.00**	**9,662.00**	**-9,617.00**	**-14,279.00**
Free Cash Flow Margin (%)	20.11%	23.53%	27.50%	12.23%	-15.25%	-26.33%
Free Cash Flow Per Share	3.03	3.79	5.06	2.36	-2.33	-3.39
Operating Cash Flow Per Share	6.26	7.41	8.47	7.33	3.74	2.72

Source: Bloomberg

Discounted Cash Flow Model:

Discounted Cash Flow (DCF) Model Valuation

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Revenues	$50,981.08 M	$44,104.99 M	$41,464.19 M	$43,537.40 M	$45,714.27 M	$47,999.98 M	$50,399.98 M	$52,919.98 M	$55,565.98 M	$58,344.28 M	$61,261.49 M
Rev growth	*-5.99%*	*-13.49%*	*-5.99%*	*5.00%*	*5.00%*	*5.00%*	*5.00%*	*5.00%*	*5.00%*	*5.00%*	*5.00%*
EBITDA	-$813.07 M	-$7,319.16 M	-$7,435.89 M	-$3,453.94 M	$944.79 M	$3,392.03 M	$6,081.63 M	$9,031.71 M	$12,261.59 M	$15,791.88 M	$19,644.55 M
EBITDA margin	*-1.59%*	*-16.59%*	*-17.93%*	*-7.93%*	*2.07%*	*7.07%*	*12.07%*	*17.07%*	*22.07%*	*27.07%*	*32.07%*
Dep & Amort.	$2,555.29 M	$2,210.64 M	$2,078.28 M	$2,182.19 M	$2,291.30 M	$2,405.87 M	$2,526.16 M	$2,652.47 M	$2,785.09 M	$2,924.35 M	$3,070.56 M
Dep & Amort. as % of revenues	*5.01%*	*5.01%*	*5.01%*	*5.01%*	*5.01%*	*5.01%*	*5.01%*	*5.01%*	*5.01%*	*5.01%*	*5.01%*
EBIT	-$3,368.36 M	-$9,529.80 M	-$9,514.17 M	-$5,636.14 M	-$1,346.52 M	$986.16 M	$3,555.46 M	$6,379.24 M	$9,476.50 M	$12,867.54 M	$16,573.99 M
Taxes	$299.07 M	$846.13 M	$844.74 M	$500.42 M	$119.57 M	$147.92 M	$533.32 M	$956.89 M	$1,421.47 M	$1,930.13 M	$2,486.10 M
tax rate as % of EBIT	*-8.88%*	*-8.88%*	*-8.88%*	*-8.88%*	*-8.88%*	*15.00%*	*15.00%*	*15.00%*	*15.00%*	*15.00%*	*15.00%*
NOPLAT	-$3,667.43 M	-$10,375.93 M	-$10,358.91 M	-$6,136.55 M	-$1,466.09 M	$838.23 M	$3,022.15 M	$5,422.35 M	$8,055.02 M	$10,937.41 M	$14,087.89 M
OCF	-$1,112.14 M	-$8,165.29 M	-$8,280.63 M	-$3,954.36 M	$825.22 M	$3,244.10 M	$5,548.31 M	$8,074.82 M	$10,840.12 M	$13,861.75 M	$17,158.45 M
CAPEX	-$355.02 M	$6,308.61 M	-$288.75 M	$6,530.61 M	$6,857.14 M	$7,200.00 M	$7,560.00 M	$7,938.00 M	$8,334.90 M	$8,751.64 M	$9,189.22 M
CAPEX as % of revenues	*-0.70%*	*14.30%*	*-0.70%*	*15.00%*	*15.00%*	*15.00%*	*15.00%*	*15.00%*	*15.00%*	*15.00%*	*15.00%*
NWC	$20,978.00 M	$21,456.46 M	$17,061.93 M	$12,296.74 M	$12,911.57 M	$13,557.15 M	$14,235.01 M	$14,946.76 M	$15,694.10 M	$16,478.80 M	$17,302.74 M
NWC as % of revenues	*41.15%*	*48.65%*	*41.15%*	*28.24%*	*28.24%*	*28.24%*	*28.24%*	*28.24%*	*28.24%*	*28.24%*	*28.24%*
Δ NWC	$5,762.00 M	$478.46 M	-$4,394.53 M	-$4,765.20 M	$614.84 M	$645.58 M	$677.86 M	$711.75 M	$747.34 M	$784.70 M	$823.94 M
ICF	-$5,406.98 M	-$6,787.07 M	$4,683.27 M	-$1,765.41 M	-$7,471.98 M	-$7,845.58 M	-$8,237.85 M	-$8,649.75 M	-$9,082.23 M	-$9,536.35 M	-$10,013.16 M
FCF	-$6,519.12 B	-$14,952.36 B	-$3,597.35 B	-$5,719.78 B	-$6,646.76 B	-$4,601.47 B	-$2,689.55 B	-$574.93 B	$1,757.88 B	$4,325.41 B	$7,145.29 B

Discounted Free Cash Flows:

Discounted FCF	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Date	31/12/2024	31/12/2025	31/12/2026	31/12/2027	31/12/2028	31/12/2029	31/12/2030	31/12/2031	31/12/2032	31/12/2033	31/12/2034
t	0.15	1.15	2.15	3.15	4.15	5.15	6.15	7.15	8.15	9.15	10.15
DFCF	-$6,419.84	-$14,952.36	-$3,597.35	-$5,719.78	-$6,646.76	-$4,601.47	-$2,689.55	-$574.93	$1,757.88	$4,325.41	$7,145.29

In Millions of USD

Sum DFCF	-$25,553.62
Terminal Value	$28,243.98
Enterprise Value	$138,540.00
Net Debt	$37,686.00
Equity Value	$100,854.00
# shares (Billions)	4.31
Price Target	$25
Real Price as of Dec 15	$20.76
Upside Potential	20.42%

Sensitivity Analysis:

Sensitivity Analysis

Rev Growth	Price Target
	$25.00
6.50%	$32.50
5.00%	$25.00
4.50%	$22.50

CAPEX/Rev	Price Target
	$25.00
19.5%	$32.50
15.00%	$25.00
13.50%	$22.50

WACC (post tax)	Target Price
	$25.00
7.4%	$17.50
10.57%	$25.00
11.62%	$27.50

EBITDA Margin	Price Target
	$25.00
-5.55%	$17.50
-7.93%	$25.00
-8.73%	$27.50

NWC/Rev	Price Target
	$25.00
17.7%	$17.50
25.32%	$25.00
27.85%	$27.50

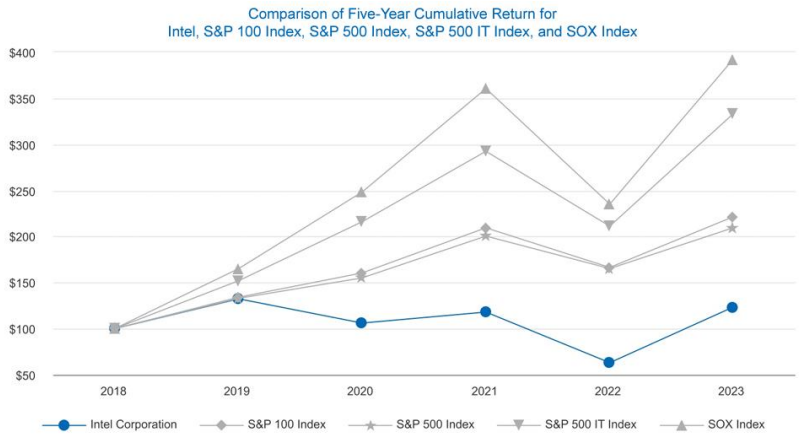
g	Target Price
	$25.00
0.93%	$17.50
1.32%	$25.00
1.45%	$27.50

D&A as % of Revenues	Price Target
	$25.00
3.5%	$17.50
5.01%	$25.00
5.51%	$27.50

D/V Target	Target Price
	$25.00
17.7%	$17.50
25.32%	$25.00
27.85%	$27.50

Tax Rate	Price Target
	25.00
-6.2%	17.50
-8.88%	25.00
-9.77%	27.50

Relative Valuation:



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Buy	Expected total return (including expected capital gains and expected dividend yield) of more than 10% over a 12-month period.
Hold	Expected total return (including expected capital gains and expected dividend yield) between 0% and 10% over a 12-month period.
Sell	Expected negative total return (including expected capital gains and expected dividend yield) over a 12-month period.

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