

Equity Research Report – Intel Corp

Information Technology
Semiconductors NASDAQ

Date: 27/08/2021
Ticker: NASDAQ:INTC

Current Price: \$53.82
Headquarters: Santa Clara, U.S.

Target Price: \$70,00 / +30%
Recommendation: BUY

Technical: Intel Corp. is currently floating around the support line of 53.

Highlights

I, Jochem Verzijl, issue a **BUY** recommendation on Intel Inc. (INTC) based on a one-year target price of **\$70,00**, offering a **30%** upside potential from its closing price of \$53,82 on August 27, 2021. Our recommendation is primarily driven by:

Macroeconomic Outlook – Semiconductors had a rough time because of the global pandemic, which cut away lots of revenue. The forecast is that the semiconductor market will reach \$522 billion in 2021, which is a 12.5% year-over-year growth rate. Also, a continued robust growth in consumer, computing, 5G, and automotive semiconductors spending is initiated. Supply constraints will continue through 2021. While shortages initially occurred in automotive semiconductors, the impact is felt across the board in semiconductors manufactured at older technology nodes. Much like a traffic jam and the ripple effect, a disruption on the semiconductor supply chain operating close to capacity will impact across the supply chain. The industry will continue to struggle to rebalance across different industry segments, while investment in capacity now will improve the industry’s resiliency in a few years. However, with more people being vaccinated (and therefore hopefully falling covid-rates), production will start heading towards normal levels.

Brand diversity – Micro processors (CPU) and chipsets.

Client Computing group. Makes up 52% of the sales.

Data Center Group (market growing at an exponential rate): Intel makes data centers processors for:

1. Cloud Service Providers
2. Enterprise and Government
3. Communications Service Providers

Growth Strategy – Two new CPU core designs - one termed an efficiency core and the other a performance core

A finished CPU chip for PCs (likely to be called Intel Core 12th Generation, but codenamed Alder Lake) that leverages those designs and integrates an intriguing element Intel calls a Thread Director

A data center-focused CPU (codenamed Sapphire Rapids) that uses the new performance core

Two new GPU architectures based on the company’s latest Xe GPU core

Two complete GPU SOC designs (one focused on gaming graphics codenamed Alchemist, the other on AI and high-performance computing codenamed Ponte Vecchio)

A next-generation IPU (infrastructure processing unit) leveraging FPGAs, and a custom ASIC that’s designed to simplify the creation of cloud computing-focused data centers

Numerous software advancements, including an AI-powered graphics tool called XeSS that can dramatically improve the speed and quality of 4K gaming visuals, and the latest developments in its OneAPI framework for simplifying the process of writing software that can use all these different chips

customers to their sites.



Market profile	
Closing price	\$53,82
52-week high/low	\$43,61-\$68,49
Avg. Volume	22,012,714
Dil. Shares Outst. (3m)	4,08M
Market Cap	\$218,63B
Dividend Yield	2,58%
Beta (5y/m)	0,59
EV / Book	2,56x
EV / EBITDA	6.60x
P / E	11,28
Inst. Holdings	64,61%
Insider Holdings	0,54%

Valuation		
	DCF	Multiples
Est. Price	\$115.4	\$177.1
Weights	50%	50%
Target Price	\$146.2	

Latest news

Intel Corporation (NASDAQ:INTC) +1.52% premarket, announced that the Intel Foundry Services will lead the first phase of the U.S. Department of Defense's multi-phase Rapid Assured Microelectronics Prototypes - Commercial (RAMP-C) program to establish a domestic commercial foundry infrastructure.

Apple (NASDAQ:AAPL), Intel (NASDAQ:INTC) and semiconductor equipment companies are the most likely beneficiaries from China's current push to become more self-sufficient regarding chip production, according to a new research note from CFRA. Traditional hardware companies like Dell (NYSE:DELL) and HP (NYSE:HPQ) and memory companies are the most likely to feel a negative impact.

Intel (NASDAQ:INTC) Chief Executive Pat Gelsinger wants to build more chip factories outside of China, but he would like some governmental help in paying for the facilities. And it looks like he even spoke with Biden Administration officials about the matter.

Intel (NASDAQ:INTC) CEO Patrick Gelsinger said Thursday that the semiconductor industry is ripe for further consolidation because of production and R&D's high costs, and that INTC plans to be one of the companies buying smaller competitors. Gelsinger explained that the high cost of development made scale extremely important in the semiconductor industry. He added that Intel (INTC), which recently announced a broad array of new products, is one of three companies that can effectively compete.

Main Risk factors – Rising competition. Competitive competition is hitting Intel from every angle these days, with AMD leading the charge. Historically, Intel had always been able to keep competitors away by reinvesting enormous amounts of cash back into research and development and coming out with better technology every two years or so. The smaller company's (AMD) couldn't keep up with this breakneck pace of innovation. This created a virtuous cycle where Intel would offer customers higher performance processors for lower prices than competitors, which would lead to customers always picking Intel as a supplier which would translate into more cash flow that Intel could reinvest back into R&D for better chips. For many years, this reinforced the company's dominance in the market share for CPU's. However, it has got to be said that recently Intel has somewhat stumbled by delaying their launches of the 10nm and 7nm microprocessors, this delay gave AMD the time to launch their own 7nm microprocessor which is equivalent to Intel's 10nm microprocessor. This gave AMD the opportunity to steadily gain CPU-market share q-after-q.

Main competitor: Advanced Micro Devices – Currently, AMD is Intel's biggest opponent in the field. Intel went from boasting 82% of market share in early 2017 to just over 55% as recently as q2 2021. This statistic alone has had the effect of scaring many investors away and the stock price has been very volatile over the past three years or so. As a matter of fact, Intel 'fired' its previous CEO Bob Swann, because of these manufacturing setbacks.

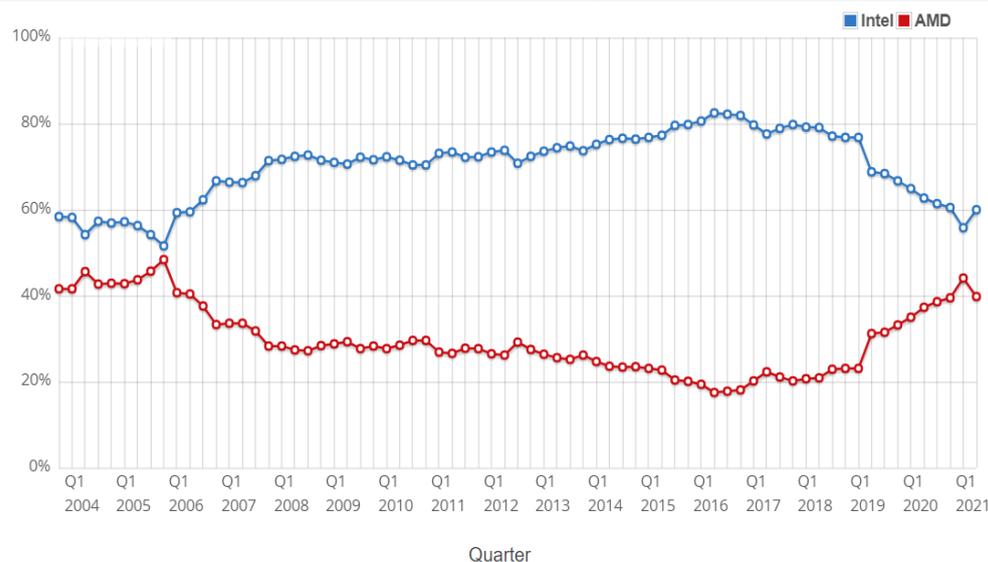
The loss of market share to AMD has also had the effect of fragilizing Intel's wide moat. In the past, it could be said that Intel held an incredible amount of pricing power. Since the best performing chips were made by Intel and costumers had limited alternatives, Intel had the capacity to raise prices whenever the volume of sales faltered in order to maintain steady profits

Strong pricing power offsetting falling PC volumes = earnings & revenue growth.

Intel might not be able to use this strategy to its advantage in the future.

Other competition: Amazon, Apple, Microsoft and Google. They have voiced their interest in entering the semiconductor market with their own chips. As a matter of fact, Apple has already started manufacturing their own chip called M1, that goes into all their Macintosh computers and iPad pro tablets. Obviously this did not bode well for Intel, which lost between \$1.5 and \$3.0 billion in annual sales as a result of the end of the partnership.

Intel brings in \$77.87B of annual revenues, so this wasn't a catastrophic event for them.



The cost of recent acquisitions – Intel acquired some companies which should represent potential growth in avenues. However, they also create some risk due to the heavy price that was paid for some acquisitions. For example, Intel paid 140x earnings for Mobileye in 2017. Only time will tell if these acquisitions were really worth the money that was paid.

Acquisition	Acquired for
Altera	\$16.70B
Mobileye	\$15.30B
McAfee	\$7.69B
LevelOne	\$2.20B
Habana	\$2.00B
SiFive	\$2.00B
Moqvit	\$900.00M

Future prospects of the company

Intel is a major player in the semiconductor industry that in my opinion is poised for decades of growth. Think about the Internet of Things and think about the cloud. Are there any industries that will outpace these two during the next decade? The digitization of the world is a trend that is still in its infancy and Intel will be one of the biggest beneficiaries of the shift from physical to digital. Same goes for Artificial Intelligence and what to say about the promise of every car in the world being equipped with autonomous driving capabilities

IoT Chips Market is Estimated to Reach USD 531.80 Billion by 2026 With Registering Growth of 5.9% CAGR | Market Research Future

This growth can be seen in the numbers coming out of Mobileye. In 2020, 19.30m iq-chips were shipped in 2020 versus 2.7m in 2014.

Our total revenue grew from \$59.4 billion in 2016 to \$77.9 billion in 2020, representing 7% CAGR. Data-centric businesses collectively grew faster than Intel at 9% CAGR over the last five years and are approaching 50% of our revenue.

PC to Data-centric Transformation Over the Last 5 years

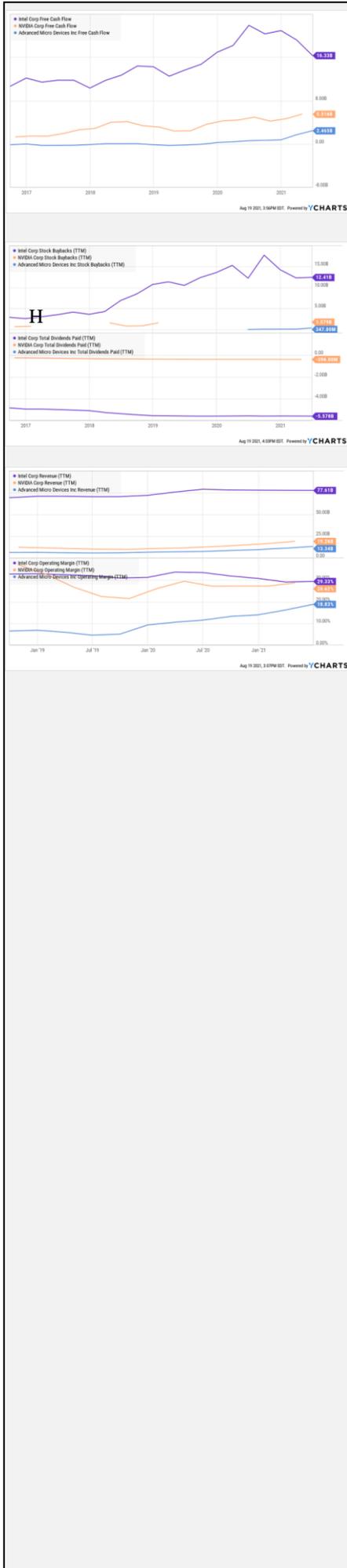


Revenues from Intel's two major business segments have also been on the rise year after year. Growth in the data centric business is not very surprising due to the boom of cloud applications in the recent years. What's more surprising is that pc sales are also increasing steadily y/o/y. What can be seen from this is that so far Intel is dealing with the threat of ARM-chips and mobile devices decently enough that they are still able to grow their legacy cash cow business. One caveat here is that COVID-19 has definitely in boosting sales for 2020 and the start of 2021. The fact that Intel is the biggest player in an industry benefitting from massive tailwind can easily counteract the fact that they have been losing market-share to AMD recently. Even if this trend remains and Intel's market share keeps eroding in the next couple of years, the business can still show net-growth due to the expansion of the total addressable market.

Just being a player in a growing industry isn't enough to be a successful business. It's a well-known fact that growing industries attract ore competition, thereby reducing margins and leading to less profits for each individual player. But, Intel's wide moat and numerous intangible assets give me the assurance that the company will fully benefit from the trend written about earlier.

The first component of Intel's moat is the x86 architecture the company uses to build its micro-processors. Intel is one of the two semiconductor companies that build their chips on the x86 ecosystem, the other one is AMD. The x86 ecosystem is used in the vast majority of personal computers and datacenter CPU's. Gaming computers are also an area where x86 is mostly used. A direct result of this x86 monopoly is that chipmakers which use an ARM-architecture like Apple, Broadcom, and Qualcomm have had an extremely hard time entering these markets. The switching costs for customers who want to switch from x86 to ARM are absurdly high. ARM-chips are not efficient enough to take on the intense workloads needed for pc and server chips. This means Intel and AMD have pretty much a duopoly in this market, with Intel being the much bigger player.

The second component of Intel's moat is the nature of the semiconductor business, which is an extremely capital intensive business. In order to be and remain a top player in this industry over the long-term, huge amounts of cash are required for Research and Development. Intel also boasts a number of fabrication facilities worldwide that represent a tremendous cost advantage for an integrated company like them. In addition, these \$20.00B dollar worth facilities represent a considerable barriers to entry for potential new market entrance. Intel's revamped fabrication business provides even greater protection from downside risk thanks to the increased diversification of revenue segments. Many companies such as AMD, NVIDIA, Apple, Broadcom, and Qualcomm only design their chips and outsource the manufacturing to firms like TSMC. This means Intel effectively competes on two fronts; design & manufacturing.



Manufacturing front – Intel’s fab facilities have been struggling to keep up with the pace of innovation since around 2015, when the 10nm process was first delayed. This part of the business is actually mostly responsible for AMD’s technology catching up with that of Intel’s.

However, things seem to be turning around with the arrival of Pat Gelsinger as CEO. In his recent announcement of the new idm 2.0 strategy, he unveiled the birth of Intel Foundry Services as well as the plan to build two new fab facilities in Arizona.

“We are setting a course for a new era of innovation and product leadership at Intel. Intel is the only company with the depth and breadth of software, silicon and platforms, packaging, and process with at-scale manufacturing customers can depend on for their next-generation innovations. IDM 2.0 is an elegant strategy that only Intel can deliver – and it’s a winning formula. We will use it to design the best products and manufacture them in the best way possible for every category we compete in,” said Pat Gelsinger, CEO at Intel.

Highlights new idm 2.0 strategy :

1. We will continue to build most of our products in Intel factories remaining a global leader in chip-making and process technology.
2. We will expand our use of external boundaries to make some of our products. Foundries already manufacture a range of Intel products, from communications and connectivity to graphics and chipsets.
3. Intel Foundry Services will serve the exploding global demand for chips. We will make them for fabulous companies offering our world-class process technologies, advanced packaging, and broad ip-portfolio.

With this focus on increasing manufacturing production, Intel hopes to be able to become the second largest manufacturer in the world by the mid-2020s, focusing on the US and Europe as key markets. Considering the current global shortage caused by the booming demand for chips, Intel is looking in the right direction with this move. Intel Foundry Services will work with the likes of Amazon, Qualcomm, and Microsoft, and let these companies design their own chips with Intel. I think this is a winning move since Intel was feeling the pressure from big tech companies starting to design their own arm-chips. Intel is trying to be a big competitor to TSMC down the line.

Building these fabs will take time and Intel can’t sit around focusing on this part of their business without think of improving their own products. End of July 2021, Intel laid out its process roadmap outlining technological advances they will make all the way to 2025. In order to regain their qualitative advantage over AMD, Intel will outsource some of its designs to TSMC while the fab-facilities get built. In this way, Intel wastes no more time and stops AMD from running away with the technological lead.

At this point I need to make it clear that AMD is currently not ahead of Intel, they have merely caught up. It’s a common mistake to think otherwise due to the nomenclature, but AMD and TSMC’s 7nm process is actually equal in performance to Intel’s 10nm process. in my opinion, Intel holds at least three big advantages over its major competitors:

- Western Fabs
- Scale
- Free Cash Flow Optionality

In the near term, Intel's free cash flow generation is likely to remain robust due to an extremely strong demand environment in the chip sector. Therefore, Intel's new leadership team has ample resources to orchestrate a turnaround at the company. Gelsinger has already made some big moves by entering the foundry services business, and a \$20B commitment to building two new fabs in Arizona is just the first step. I believe Intel's plan to become a Western alternative to TSMC and Samsung foundry holds merit. The world needs a balanced semiconductor supply chain, and as we discussed before, Intel is probably the only company that can deliver at-scale foundry services on Western soil.

<i>(all numbers in Billions)</i>	Intel	Advanced Micro Devices
Revenue	77	13
Free Cash Flow	16.3	1.7
R&D	13.5	2

AMD might have caught up to Intel, they might be taking (market)share away, they might be growing a lot faster, but in the end of the day Intel is still a much bigger firm with a lot more financial power. Can AMD really catch up to Intel’s numbers and dominate the market for the long term? Possibly. But is it very likely? That’s up to you to decide. Unless Intel fails to execute the plan laid out in idm 2.0, I see them turning the business around and taking back the lead. I especially trust the new CEO Pat Gelsinger who started working at Intel as an engineer in 80s, and became the first chief technology officer back in 2001. If anyone knows how to turn Intel around, it is him.

Financials of the company



Intel's revenues have been steadily increasing since 1986. Every so often it seems that the revenues plateau for two or three years. This might be due to the fact that the semiconductor industry is cyclical.

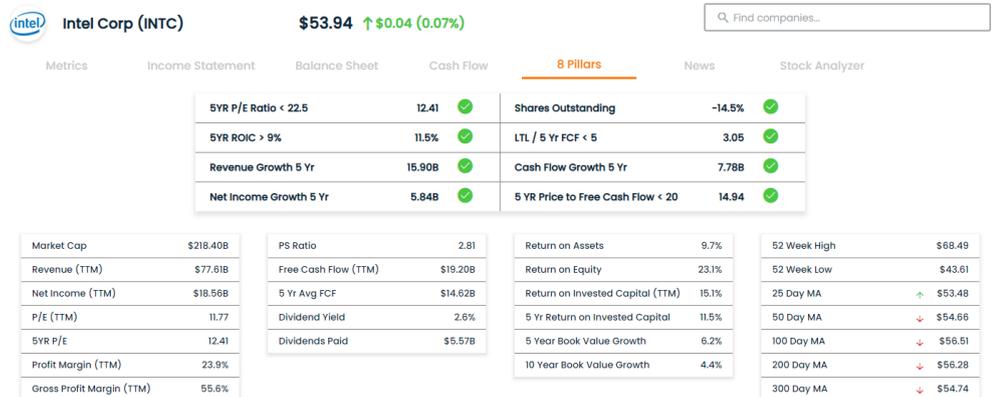
From 2016 to 2020, revenues increased from \$59.387B to \$75.732B, or 6% CAGR. That's not bad for a company this large.

Fiscal	2015	2016	2017	2018	2019	2020	TTM	5-Yr	Index
Return on Assets %	11.71	9.53	8.12	16.76	15.92	14.43	12.08	12.92	8.46
Return on Equity %	19.53	16.21	14.20	29.33	27.68	26.36	22.19	23.19	25.03
Return on Invested Capital %	15.12	12.24	10.38	21.43	20.30	18.93	15.72	16.57	14.36

Intel has a very respectable return on invested capital of about 17%. Considering Intel's working asset cost of capital is 4.5%, that means that for every dollar invested, Intel creates \$0.135 cents of value for shareholders. To put it into perspective, for every dollar invested AMD makes \$0.04 cents, Broadcom makes \$0.02 cents, Qualcomm makes \$0.05 cents, and Micron makes \$0.09 cents. Nvidia is the only semiconductor business that is more efficient making \$0.19 cents for each dollar invested.

All in b	2020	2019	2018	2017	2016	2015
Total current assets	47,249	31,239	28,787	29,500	35,508	38,320
Total current liabilities	24,754	22,310	16,626	17,421	20,302	15,646

Intel has \$47,249B dollars in current assets versus \$24,754B dollars in current liabilities. Long term debt of \$33,897B dollars looks manageable as well based on their cashflow of \$19,00B in the last year. Overall, the balance sheet looks healthy.



One of the things I love about Intel's management is that they consistently keep buying back shares. In the past 5yrs, Intel has gone from having 4.85B diluted shares outstanding, to 4.08B diluted shares outstanding. This is a reduction in shares of 16%. All this means is that every year one share of Intel gives you the rights to a slightly greater piece of the profit pie. Investors love companies that use excess cash to buy back shares, especially if it is a company with growing cashflows like Intel. Mathematically the business is becoming more valuable because it is producing more cash, but shares are becoming more valuable artificially as well.

Intel's free cashflow is growing y/o/y from \$12.00B in 2016 to \$20.00B in 2020. Although it is likely there will be a little slump in 2021, FCF over this period was \$14.6B dollars per year. With a 2.6% div. Yield, Intel currently gives out \$5.60B dollars in dividends. That dividend seems to be on the safer side, since Intel still has about \$14.00B dollars per year to buy back shares and reinvest back into the company.

EX/EFF DATE	TYPE	CASH AMOUNT	DECLARATION DATE	RECORD DATE	PAYMENT DATE
08/05/2021	CASH	\$0.3475	07/14/2021	08/07/2021	09/01/2021
05/06/2021	CASH	\$0.3475	03/10/2021	05/07/2021	06/01/2021
02/04/2021	CASH	\$0.3475	01/21/2021	02/07/2021	03/01/2021
11/05/2020	CASH	\$0.33	09/17/2020	11/07/2020	12/01/2020
08/06/2020	CASH	\$0.33	07/15/2020	08/07/2020	09/01/2020
05/06/2020	CASH	\$0.33	03/11/2020	05/07/2020	06/01/2020
02/06/2020	CASH	\$0.33	01/23/2020	02/07/2020	03/01/2020
11/06/2019	CASH	\$0.315	09/12/2019	11/07/2019	12/01/2019
08/06/2019	CASH	\$0.315	07/17/2019	08/07/2019	09/01/2019
05/06/2019	CASH	\$0.315	03/13/2019	05/07/2019	06/01/2019
02/06/2019	CASH	\$0.315	01/24/2019	02/07/2019	03/01/2019
11/06/2018	CASH	\$0.30	09/13/2018	11/07/2018	12/01/2018
08/06/2018	CASH	\$0.30	07/18/2018	08/07/2018	09/01/2018
05/04/2018	CASH	\$0.30	03/14/2018	05/07/2018	06/01/2018
02/06/2018	CASH	\$0.30	01/25/2018	02/07/2018	03/01/2018
11/06/2017	CASH	\$0.2725	09/13/2017	11/07/2017	12/01/2017
08/03/2017	CASH	\$0.2725	07/20/2017	08/07/2017	09/01/2017
05/03/2017	CASH	\$0.2725	03/22/2017	05/07/2017	06/01/2017
02/03/2017	CASH	\$0.26	01/20/2017	02/07/2017	03/01/2017
11/03/2016	CASH	\$0.26	09/12/2016	11/07/2016	12/01/2016

Dividend Summary

Div Yield (FWD)	2.58%
Annual Payout (FWD)	\$1.39
Payout Ratio	29.07%
5 Year Growth Rate	6.12%
Dividend Growth	7 Years

Last Announced Dividend

Amount	\$0.35
Ex-Div Date	08/05/2021
Payout Date	09/01/2021
Record Date	08/07/2021
Declare Date	07/15/2021
Div Frequency	Quarterly

Dividend analysis

Intel has paid a dividend for the past 22yrs, and has increased it by 7% per year (7% dividend CAGR) in the past 5yrs. The average dividend yield over the past five years has been 2.5%, but if you take into account share buybacks, the total yield to shareholders has been a stunning 6.5%.

Dividend Grades

Category	Grade	Description
Dividend Safety	A+	The company's ability to continue paying current dividend amount.
Dividend Growth	D-	The attractiveness of the dividend growth rate when compared to peers.
Dividend Yield	A	The attractiveness of the dividend yield compared to peers.
Dividend Consistency	A	The company's track record for paying consistent dividends.

Valuation

For a company of this caliber, with good future prospects, numerous avenues for growth, a diverse revenue stream, consistently growing cashflows, and an aggressive share buyback program I would gladly assign it a multiple of 20. Since the 5-year average free cashflow was \$14.6B dollars, this makes:

$$14.6B \times 20 = 292B$$

To determine Intel's fair value, we will employ our proprietary valuation model. Here's what it entails:

In step 1, we use a traditional DCF model with free cash flow discounted by our (shareholders) cost of capital.

In step 2, the model accounts for the effects of the change in shares outstanding (buybacks/dilutions).

In step 3, we normalize valuation for future growth prospects at the end of the 10 years. Then, we arrive at a CAGR using today's share price and the projected share price at the end of 10 years. If this beats the market by enough of a margin, we invest. If not, we wait for a better entry point.

In step 4, the model accounts for dividends.

With Intel's current market cap hovering around \$220B dollars, Intel can be seen as **undervalued** and a good **buy** at this point. According to my own calculations, Intel's fair value is \$70.00 dollar per share. With the share price in the 50s, I am quite happy with the margin of safety.

Technical



When taking a look at the 4 hour chart, I see a few indicators that give me bullish sentiment:

1. Candles near strong support.
2. RSI Oversold.
3. Mac D on it's down side.
4. High before the most recent previous high was broken.
5. 200/50 EMA Cross w/ 2 Orange Renkos

