Intel: Analysis and Recommendations

Financial Accounting

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1. **Company Background**

Intel has a broad product portfolio of computer processing equipment. Its computing products fall under nine broad categories, the most important being processors, memory/storage, and chipsets. Research and development are crucial to Intel, as the computing industry is driven by constant innovation. According to Intel, “from edge computing to the 5G network, cloud computing, AI, and autonomous driving, our products deliver the necessary building blocks” for computer hardware to customers Lenovo, HP, and Dell (About Intel). Intel is the world's largest producer of computer semiconductor chips. Its top five competitors in terms of revenue are Samsung Electronics, Taiwan Semiconductor Manufacturing, SK Hynix, Inc., and Broadcom Corporation (Zippia). Smaller companies like NVIDIA have found space in the industry through unique innovations and supremacy of niche products. Over the years, Intel has expanded beyond PC manufacturing to add a focus on data. Its data-centric businesses include The Data Center Group, Internet of Things, Mobileye, Non-volatile Memory Solutions Group, and the Programmable Solutions Group. The big data sector is incredibly competitive, including traditional big data companies like IBM, HP, SAP, and Dell along with new tech giants Meta and Google (*KDnuggets*).

Intel Corporation’s ticker is INTC; the company's stocks are traded on the NASDAQ. In the past three years, Intel’s stock price rose from a low of $46.75 in 2018 to a high of $60.08 in 2019. Recently, its stock price has fallen, due to the economic crisis brought on by the COVID-19 pandemic, to $47.07 in 2020. This fall should not be attributed to financial performance as revenue has consistently increased each year from $71 million for FY 2018 to $78 million for FY 2020. Intel has also maintained a low cost of goods sold, totaling $27 million for FY 2018 and only reaching $34 million in FY 2020. These numbers translate to increasing earnings per share between 2018 and 2020 totaling 4.57, 4.77, and 4.98, respectively. Intel’s debt-to-equity ratio has remained below 0.9 since 2018 and its current ratio hovers around 2.00. Intel is liquid and does not have overwhelming debt.

As an industry leader in computer chips and data processing, current technological advancements are of the utmost importance to Intel. Those important advancements include artificial intelligence, 5G networking, and the rise of the intelligent edge (data processing at the

point of data creation). Every year that technology advances, the need for computing and processing grows exponentially. That need is nearly infinite in the long run.

Intel has experienced growth in the data processing business. In 2020, 49% of Intel's $77.9 billion in revenue was generated through data processing. A substantial portion of Intel's data products consists of chips and processors built for the 5G network revolution. Intel introduced the processors for 5G wireless stations, the next-gen Intel 5G accelerators, Intel Xeon 5G processors, and the Intel 700 Series 5G ethernet adapter. All four products are essential to the infrastructure of 5G networks and will continue to generate revenue as the 5G revolution booms.

The COVID-19 pandemic resulted in a move away from traditional desktop PCs, towards notebook computers, and higher demand data/cloud services. Intel pivoted quickly after noticing these trends to meet demand and keep revenue high. These quick adaptations can be attributed to effective management and the newly established Pandemic Response Technology Initiative, a segment of the research and development team that supports workers, students, and businesses to find problems that can be solved with technology.

2. **Understanding Profit**

For the past two years, Intel's sales growth has trended upwards in the single digits, from 1.6% in FY 2019 to 2.8% in FY 2020. In the same period, earnings growth slightly declined from -0.02% to -0.71%. While they are single-digit numbers, the COVID-19 pandemic has caused several disruptions that are accelerating changes to Intel's business strategy. The aforementioned decline in demand for desktop PCs has negated some of the positive sales growth of notebook PCs. However, Intel's cloud-related products are 34% of the business, and there was a sufficient increase in demand for cloud-based products during the year to increase cloud-related revenue by $2.6 billion. As the pandemic subsides, the demand for cloud services will continue increasing, positioning Intel to leverage its economies of scale and diverse cloud products into higher cloud-related revenues.

Speed of operations is an important aspect of analysis when understanding what drives profit. Intel's total asset turnover ratio was 0.54 for both FY 2019 and FY 2020; Nvidia's was 0.72 for FY 2020. This difference indicates Nvidia gained eighteen cents more on each dollar of assets

than Intel. The receivables turnover ratio also examines companies' effectiveness in collecting accounts receivables. Intel had a receivables turnover ratio of 10.78, meaning it collect its accounts every 34 days. Nvidia is less efficient, with a ratio of 8.16. Intel has maintained a higher ratio than Nvidia for the past two years, indicating Intel's ability to collect cash significantly faster than Nvidia.

Another measure of Intel's profitability, its gross profit margin, has decreased over the past three years, from 62% in FY 2018 to 56% in FY 2020. The pandemic constrained the supply of many Intel products, especially microprocessors. A lower supply increases prices for those products, which contributed to the increase in the cost of goods sold by $4.4 billion during FY 2020. Regardless of the pandemic, products that create a larger portion of revenue (PC microprocessors, GPUs, cloud products) have a higher cost than other Intel products, putting downward pressure on gross margin. Per management: "the increase in platform revenue was offset by higher platform unit cost and a higher portion of our revenue from lower margin adjacent businesses" (Intel Inc., 38).

Fundamentally, profits come from assets that produce revenue efficiently. Intel's largest asset categories are PPE (Property, Plant, Equipment) and Goodwill, reflecting Intel's unique status as the largest producer of semiconductor chips in the world. To maintain this position, Intel invests heavily in its plants to stay competitive and produce the best microprocessors in the market. This raises the book value of its plant and equipment compared to its competitors. Investment into process influences the inventory turnover ratio, an indication of the pace at which companies sell inventory. Nvidia beat Intel's 3.99 ratio with a ratio of 4.48 for the year of 2020, as they saw higher sales growth than Intel. Thus, Nvidia's average days to sell inventory was lower than Intel's, 81 days to 94.

Intel's second largest asset category, Goodwill, is high due to Intel's recent acquisitions of Moovit and Habana Labs, which combined for a total acquisition cost of $2.1 billion. Intel believes these additions will accelerate its growth in the autonomous car and AI industries, respectively.

Intel's auditor is Ernst & Young LLP. The only critical matter reported by the auditors was Intel's inventory valuation. The specific challenge was determining whether to use the cost

or net realizable value, as determining the market value of an inventory must take into account current economic conditions, industry prices, forecasted supply and demand, and more. It is a highly subjective process.

3. **Returns on Profit**

The assessment of Intel and Nvidia's efficiency may be based on returns on investments through net income. Intel's FY 2020 net income decreased to $20.9 billion to $21 billion from FY 2019. Intel's net income has been stable at $21 billion for the last three years. Nvidia, in comparison, increased its net income from $2.8 billion in FY 2019 to $4.3 billion in FY 2020. However, analyzing market ratios is more effective when evaluating different-sized companies. Shareholders should examine net profit margin, which represents the percentage of profit gained from each dollar of revenue. Intel's margin was 26.84% for FY 2020, down 2.41% from the year prior. This margin has declined for several years, signaling Intel's consistent sales and operating expenses over the previous three years. Nvidia's net profit margin is lower than Intel's at 26% but significantly higher than the average microchip firm's margin of 10% (Macrotrends). Another important ratio for investors is return on equity (ROE), which states net income as a percentage of equity. Intel's lower sales and profit margins slightly decreased its ROE from 27.68% in FY 2019 to 26.36% in FY 2020. Nvidia's increased net income pushed its ratio to surpass Intel's ROE at 29.78 % for FY 2020, showing that Nvidia can use stockholder resources to generate profit better than Intel. Another ratio, earnings per share (EPS), reveals profitability health against other industry competitors. Intel had an EPS of 4.77, indicating good (but not great) profitability. In comparison, Nvidia's EPS was 7.02, due to its massive sales growth over the last year.

The current value of an owner's investment in Intel may be analyzed through the price/earnings (P/E) ratio and the dividend yield ratio. The P/E ratio reflects the relationship between the current market price of a company's stock and its earnings per share. For 2020, Intel's P/E ratio was 9.45. Intel's stock was selling at a price that was 9.45 times higher than its earnings per share, indicating analysts expect high earnings growth. Nvidia almost doubled Intel's ratio at 18.50, but the two companies had closer comparisons in 2019. High P/E ratios and good growth prospects do not guarantee success, however. To maintain this stock price, the

company must also meet the level of earnings expected by the market. To measure the real earnings for investors, the dividend yield ratio examines the dividends paid out per share, shown as a percentage of the stock price. Intel's dividend yield ratio for the year 2020 was 2.80%. As a more mature company, it is expected that Intel distributes more dividends than Nvidia, which had a dividend yield of .40 %. The dividend yield ratio is helpful, but it is important to compare this alongside the health of the stock price to make sure it is rising.

4. Financial Sustainability

To measure companies' abilities to meet its short-term obligations, Intel and Nvidia can be assessed on its current ratios for the years 2020 and 2019. Intel's current ratio for 2020 was 1.91 in comparison to Nvidia's current ratio of 4.09. Both these companies' ratios above 1 indicate good liquidity; however, an extremely high current ratio reflects inefficient use of resources. Understanding that sales may have been impacted by the COVID-19 pandemic, shareholders can look towards the companies' current ratios for 2019. Intel's 2019 current ratio was 1.40, and Nvidia's current ratio was 7.67. While Intel's current ratio was slightly lower, Nvidia's current ratio is significantly higher in comparison to 2020 current ratios. While Intel's liquidity is solid, Nvidia's high ratio suggests an inefficient use of resources. The difference between the 2020 and 2019 ratios may be attributed to the graphics card shortage that began in 2020, causing customers to purchase more from Nvidia than in previous years. During the same period, however, Intel was able to maintain consistent liquidity. Analyzing cash flows also provides insight into a company's ability to repay loans. Intel's net cash flows from operating activities are $14.5 billion higher than its net income, which takes amortization and depreciation into account (Intel's depreciation expenses are $78 billion). Higher cash flows than net income mean the company is healthier than it appears on its bottom line, as it can pay off a larger amount of its debts if necessary (Morningstar).

Intel and Nvidia's solvency can be assessed through debt-to-equity and times interest earned ratios, as well as its capital structure. Solvency refers to companies' ability to meet long-term obligations. Intel's capital structure is 53% equity and 47% debt, a ratio comparable to its industry competitor Nvidia. This is a sound capital structure, as Intel can support a large amount of debt through its significant noncurrent assets while also taking advantage of tax deductions on

interest payments. Debt-to-equity presents a comparison of a company's debt to its amount of equity. Intel reported a debt-to-equity ratio of 0.89 for 2020. For every dollar of stockholders' equity in 2020, Intel has $0.89 of liabilities. This low number is a positive indicator of Intel's debt. Nvidia, on the other hand, reported a slightly lower ratio than Intel, at 0.70 for 2020. The fact that Intel's debt-to-equity ratio is higher than Nvidia's is a potential concern for slightly growing debt. Times interest earned ratio shows a company's ability to meet interest obligations, as it reflects the amount of income earned for each dollar of interest expense. For 2020, Intel's time interest earned ratio was 40.87. In comparison, Nvidia's time interest earned ratio for 2020 was 24.96. While Nvidia's solvency was higher than Intel's in 2019, this ratio starkly declined in 2020, as the company made almost half the amount Intel reported. This comparison shows that Intel has a safer margin of error with respect to its ability to pay off interest during the accounting period.

5. Recommendations

After examining the information, it would be safe for creditors to loan money to Intel in the short term. Intel has an inventory turnover ratio of 3.99 and a receivables turnover ratio of 10.78. These ratios indicate that Intel has efficient operations that provide consistent inventory sales, and it collects receivables every 34 days. Because Intel can collect a steady source of revenue from its operations, it is safe to assume it will produce sufficient returns to pay for the principal and interest on the loan. Intel's cash flow from operating activities, are substantially higher than its net income, indicating that Intel has a lot of cash on hand and is able to use that cash to operate the company or pay off debts if needed.

It is safe for creditors to loan money to Intel in the long-run due to Intel's safe margin of error in paying interest. Over the course of 2020, Intel earned over $40 per dollar of interest in comparison to Nvidia's $25. This times interest earned ratio amount indicates Intel's reliability in paying back its long-term obligations, like interest to creditors. As stated above, Intel reported a low dollar amount of liability per dollar of stockholders' equity ($0.87), signifying that Intel does not finance its operations and growth purely with debt. Instead, Intel utilizes the equity provided by stockholders to promote growth. Because the ratio is under 1.0, Intel would be capable of

paying off its long-term debt; thus, creditors can rely on Intel's ability to pay back interest to creditors over a long-term period.

Investors should hold their Intel stock at its price of $49.25 (as of December 5th). Compared to competitors such as Nvidia, Intel is not experiencing high growth rates in sales or earnings, due to the changing nature of its business and the higher costs of its in-demand products. However, its financial health is sound, and the company is actively investing in sectors connected to the future of technology. In the short run, this will likely increase costs and inhibit earnings growth, but if Intel continues to produce quality products, the market will reward them in the long run. For current investors, it is wise to hold onto their shares and wait out the ups and downs; for potential investors, we recommend waiting a few years for Intel to demonstrate higher value in its growth sectors.

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