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Weekly Credit Brief Jul 04 - Jul 10 2023

Demand woes and high capex chip away at Intel Corp's credit outlook

by Amrita Parab

- **NUS-CRI Agg PD for Intel corporation points to its deteriorating financial conditions due to its slipping market position and costly expansion strategy**
- **NUS-CRI Forward PD suggests that amidst the ongoing downward semiconductor industry cycle, the credit health of Intel may face a greater deterioration as compared to rival firms such as AMD and Nvidia as well as the US semiconductor device industry**

Intel Corporation (NASDAQ: INTC) has been facing tough competition from rivals such as Advanced Micro Devices (NASDAQ: AMD) and Nvidia Corporation (NASDAQ: NVDA), resulting in a decline in its market share. Since the end of 2021, Intel's operating margin has consistently declined, with Q1 2023 marking the company's worst quarterly loss to date. Despite the current slump in demand which is expected to further contract revenue generation, Intel has increased efforts to upgrade its chip-making capabilities in order to remain competitive. The company's aggressive capital spend in conjunction with its eroding margins and worsening sales may weigh on the company's credit risk outlook.

Traditionally, the central processor (CPU) has been the key component in computers and servers, with Intel as the dominant player in the market. However, with the rise of AI applications requiring significant computing power, the focus has shifted to the graphics processing unit (GPU). As a result, Nvidia, being a global leader in the supply of GPUs, is experiencing a surge in sales. Furthermore, although AMD also suffers under the strain of declining PC sales, its market share in the data center segment expanded by 62% YoY in 2022, as compared to a decline of 16% for Intel.

As such, the NUS-CRI 1-year Probability of Default (PD) of Intel Corp has steadily climbed since the last quarter of 2022, crossing the A- upper bound when proxied by PDiR2.0[1] bounds and remains higher than the broader US semiconductor devices industry's Aggregate (median) 1-year PD (Agg PD). Over the coming twelve months, the increase in Intel Corp's NUS-CRI Forward 1-year Probability of Default (Forward PD)[2] indicates a larger deterioration in the credit profile as compared to that of its main competitors and the aggregate (median) Forward PD of the broader industry. The higher decline in credit health may stem from the impact on performance due to higher capital expenditure linked to its expansion plans, a resultant potential increase in leverage, and the erosion of its debt service capabilities.

[1] The Probability of Default implied Rating version 2.0 (PDiR2.0) provides a more familiar interpretation by mapping the NUS-CRI 1-year PDs to the S&P letter grades. The method targets S&P's historical credit rating migration experience exhibited by its global corporate rating pool instead of relying solely on the reported default rates.

[2] The Forward PD estimates the credit risk of a company in a future period, which can be interpreted similarly to a forward interest rate. For example, the 6-month Forward 1-year PD is the probability that the firm defaults during the period from 6 months onwards to 18 months – this is conditional on the firm's survival in the next 6 months.

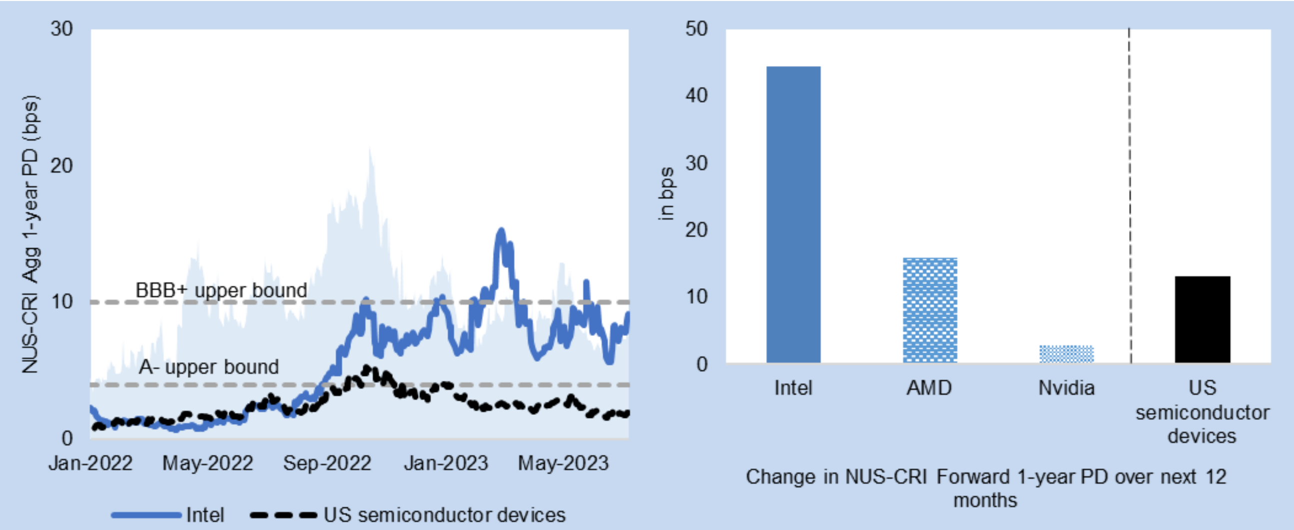

Figure 1a (LHS): NUS-CRI Agg (median) 1-year PD for Intel Corp. and the US Semiconductor device industry from Jan-2022 to Jul-2023 along with its interquartile range, with reference to PDiR2.0 bounds Figure 1b (RHS): Change in NUS-CRI Forward 1-year PD over the coming 12 months for Intel Corp, it main competitors, and the US semiconductor device industry as of Jul-2023. *Source: NUS-CRI*

Intel Corporation reported its largest-ever quarterly loss in Q1 2023 of USD 2.76bn, which is likely to worsen through 2023, following a sharp decline in personal computer sales (-29% YoY[3]) that severely impacted its business. The company's sales dropped with first-quarter revenue reaching USD 11.7 bn (-36% YoY). Intel's data-center division experienced a 39% decline in sales in Q1 2023, as it lost market share to competitors such as AMD. Additionally, over the first half of 2023, as demand waned, Intel was also dealing with an inventory glut and underutilization of factory capacity, which added to costs. In comparison, both AMD and Nvidia have maintained a higher gross margin as compared to Intel, which experienced a 14.7% YoY contraction in gross margin in Q1 2023. Despite the slump in the global market, AMD and Nvidia have remained profitable while Intel registered a negative operating profit margin (See Figure 2a). The deteriorating profit margins and elevated capital expenditure have contributed to Intel being free cash flow negative and driven the deterioration in its credit health as compared to the broader semiconductor industry (see Figure 1a).

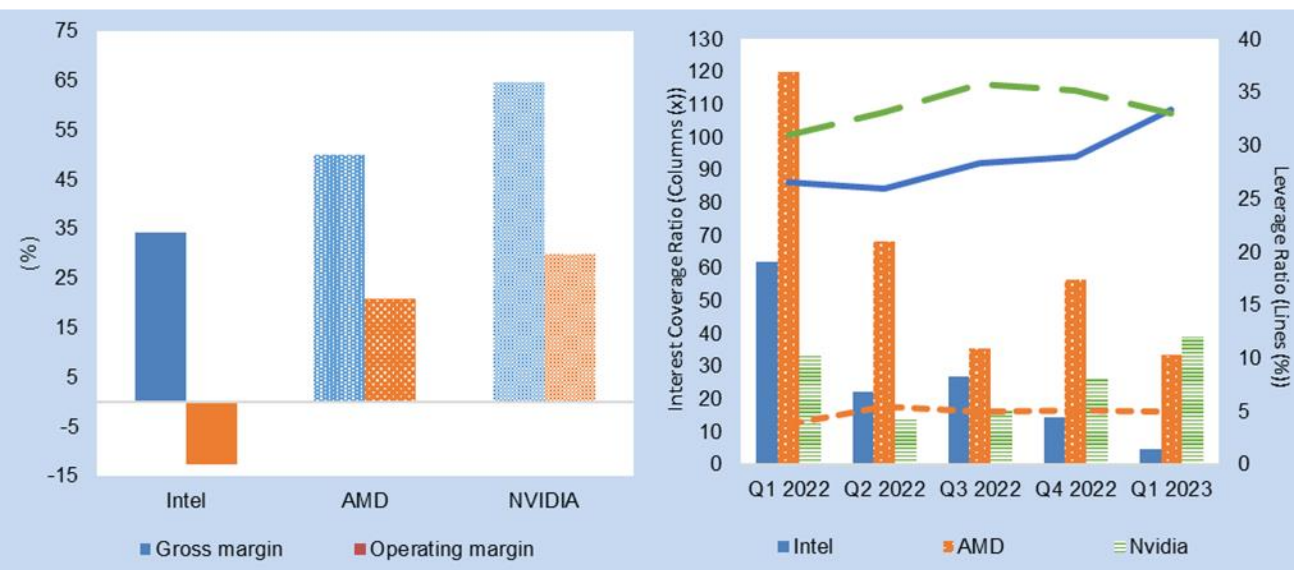

Figure 2a (LHS): Gross and operating margin of Intel Corp, AMD, and Nvidia Corp[4] as of Q1 2023. Figure 2b (RHS): Quarterly EBITDA/Interest expense ratio for Intel, AMD, and Nvidia (columns) (LHS Axis) and quarterly total debt/total capital (Lines in corresponding colors) (RHS axis) for Intel, AMD, and Nvidia[5] .*Source: Company filings, Bloomberg*

To regain its market share and position as a market leader, Intel has embarked on an aggressive expansion strategy wherein it seeks to reinvent itself by building out its chip manufacturing capabilities to compete with the

[3] The decline in PC sales marks a reversal in the pandemic era's jump in demand when consumers rushed to purchase electronic devices like computers and smartphones due to the pandemic-induced shift towards remote learning and work.
[4] Data as of Apr-2023
[5] Nvidia Corp's financial year runs from February to January. The data represents the latest 4 quarters reported by the company. Dated - Jul-2022, Oct-2022, Jan-2023 and Apr - 2023

likes of Taiwan Semiconductor Manufacturing Co. The company has indulged in hefty capital expenditure to facilitate its goal. Intel Corporation's capital expenditures reached a substantial USD 24.8bn in 2022, a growth of 33% YoY and 39% of Intel's annual revenue[6]. To fund the expansion, the company has turned to debt, with its debt in Q1 2023 rising by 35% compared to Q1 2022 to an all-time high of USD 50 bn. Amidst the downturn in revenue generation, the company has seen its ability to service debt erode over the past few quarters (see Figure 2b). Although a total debt-to-capital ratio of 33.36%, and only 16%[7] of its total outstanding debt maturing over the next 3 years, may provide it some breathing space, amidst the current interest rate environment any refinancing or new debt issuance may result in a higher interest expense burden. Regardless, Intel's recent USD 11bn bond issuance in Feb-2023 attracted around USD 42bn of investor orders, indicating that despite its current hurdles the company's access to funding remains sound. On the other hand, despite the downturn faced by the global industry, AMD and Nvidia, compared to Intel, have managed to maintain their debt capital ratios while simultaneously sustaining positive profit margins and improved debt serviceability.

Looking ahead, Intel Corporation's long-term outlook appears uncertain and remains dependent on it becoming a global leader in the foundry business. Rivals' continuous investments in R&D intensify competition, especially in the field of artificial intelligence. In the short term, the company's leverage may remain high due to its ongoing investments in its manufacturing capabilities. Simultaneously, the threat of persistent negative profit margins adds pressure to its financial flexibility and may necessitate additional debt issuance, potentially weakening the company's credit outlook as suggested by the change in Forward PD in figure 1b. To navigate the current challenges, Intel has initiated a cost-cutting exercise aimed at achieving annual savings of USD 10 bn by 2025. Additionally, the company expects government support in the form of subsidies, which could provide further assistance. Both cost savings and subsidies have the potential to bolster Intel's credit health amidst the headwinds it currently faces.

[6] Historically, capital expenditure has amounted to less than 20% of Intel's annual revenue.
[7] Data from the company's 2022 10K filing

Credit News

Recharged bond rout unnerves investors

Jul 09. Last week's announcement that the US labor market remains tight has rallied yields on the 2-year and 10-year treasury notes as investors bet towards further and longer tightening by the US Federal Reserve. For the first time since Mar-2023, the yield on the 10-year Treasury note increased to greater than 4%, while the 2-year Treasury note reached its highest point since 2007. Rising yields on Treasury notes signal that investors are pricing in a resilient US economy, leading to a potential drop in the US stock and money markets as investor expectations of interest rate increases align with that of the Fed. Although many market signals point towards an incoming recession, robust economic data suggests that the US economy may need to tighten further for a US recession to become a reality. (WSJ)

Banks rush to lock in cheap funding with record sales of ultra-safe debt

Jul 09. European banks sold a record amount of mortgage-backed debt in H1 2023 to lock in cheap funding during the banking crisis in Mar-2023. EUR 175bn of covered bonds were sold to investors in the first six months, even higher than issuances in 2011 post the global financial crisis. Furthermore, covered bonds are backed by the issuer and an underlying pool of securities that typically tend to be mortgages, making them on the opposite end of the risk spectrum compared to AT1 bonds. Not a single covered bond has defaulted in history. Covered bonds can act as a beacon of stability during crisis periods, as they can be a relatively cheap source of funding. They also provide an alternative funding source to central bank measures such as the TLTRO. Despite their implied safety, increasing credit risk in the underlying property sector is set to cause headwinds for covered bonds. (FT)

US borrowing costs hit 16-year high as markets unsettled by jobs data

Jul 07. Stronger than expected jobs data saw yields on US government bonds increase to a 16-year high as investors sold stocks and bonds in fears of additional tightening by the Federal Reserve. Two-year Treasury notes hit 5.12% near the end of last week, whereas the ten-year Treasury note crossed the 4% threshold. The drop in stocks and bonds was not only limited to the US, many other countries, primarily in Europe, saw their market indices decrease as widespread sentiment in the market is that interest rates are going to be higher and longer for the foreseeable future. (FT)

UK sells GBP 4bn of debt at highest 2-year borrowing cost this century

Jul 05. The UK faced its highest borrowing cost for two-year debt in this century as bond yields surged, impacting the government's finances. Gilt prices plummeted, resulting in higher yields due to concerns about inflation and expectations of the Bank of England raising interest rates further. The auction of GBP 4bn worth of gilts produced a yield of 5.668%, the highest since the UK Debt Management Office's establishment. Rising debt servicing costs limit the government's ability to invest in public services. The BoE's unexpected rate hike and the potential for further increases have convinced investors that rates may peak at 6.25%. The UK plans to sell GBP 241bn of gilts this year, significantly more than the previous year. (FT)

Thailand's household debt swells amid policy stagnation concerns

Jul 09. Thailand's household debt, a persistent concern, has reached THB 16tn (USD 455bn) in the first quarter of 2023, accounting for 90.6% of the country's GDP, an increase from the previous quarter. The Bank of Thailand's redefinition of household debt contributed to the rise. The uncertainty surrounding the formation of a new government after the recent election adds to the financial industry's concerns. If a prime minister is not elected by the end of Sep, the caretaker government may remain with limited fiscal capabilities. To assist borrowers, the central bank may consider lowering the policy rate from the current 2.0%. Factors behind the rising debt include the pandemic's impact on income and increased access to digital finance. (Nikkei)

Some hospitals that spent big on nurses during pandemic are now short on cash (WSJ)

Hong Kong mortgage easing is cold comfort to buyers with high rates (BT)

Surging real yields spark worries over buoyant stock market (FT)

Regulatory Updates

Top Fed official signals support for July rate rise to tame 'hot' economy

Jul 06. A senior official at the US Federal Reserve has urged the central bank to resume raising interest rates without delay, reversing the decision to forgo an increase last month. Lorie Logan, President of the Dallas Fed and a member of the Federal Open Market Committee argued that a rate hike in June would have been appropriate given strong economic data. While officials supported a pause in rate hikes at the latest meeting, they indicated that further increases would be necessary to control demand. Logan expressed concerns about inflation and emphasized the importance of following through with rate hikes to maintain price stability. However, other officials, including Chair Jay Powell, have advocated for a more gradual approach to future rate increases. (FT)

South Korea asks banks to prepare USD 4bn to support credit union

Jul 10. According to banking sources, South Korea's financial services regulator has requested major commercial banks to prepare approximately USD 4bn in financing to support MG Community Credit Cooperatives (MGCCC), which has faced customer withdrawals. The Financial Services Commission has asked the banks to cooperate in providing liquidity through repurchase agreements to assist MGCCC. The credit cooperative has nearly 1,300 branches and is currently under scrutiny due to a rise in non-performing loans linked to real estate projects. The five major commercial banks have been asked to make financing available, with each bank preparing KRW 1tn (USD 960mn), subject to the extent of deposit withdrawals. The Korea Development Bank and the Industrial Bank of Korea are also setting up repurchase agreements. (Reuters)

Asia's central banks go easy as West ramps up inflation fight (Nikkei)

Markets price in UK interest rate of 6.5% by next March (FT)

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