Intel: The chipmaker too big to fail?

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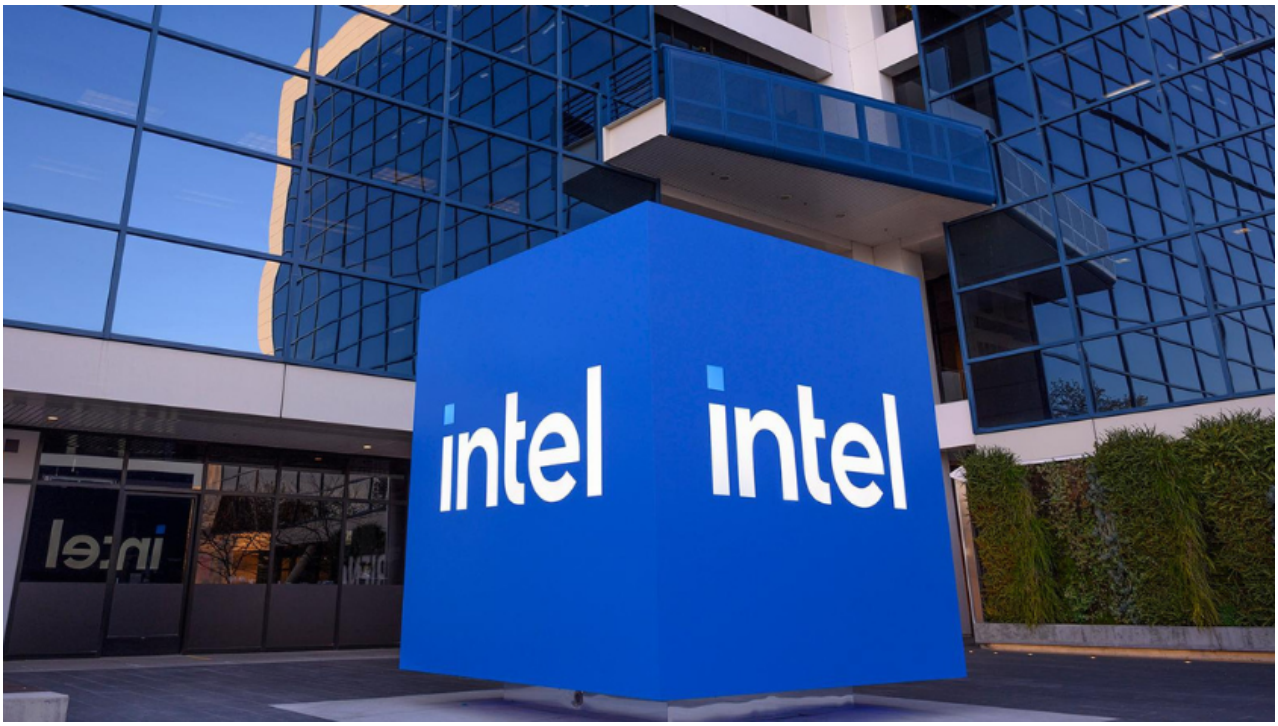


It’s troubling times at one of the world’s largest semiconductor firms. Has it got what it takes to weather the storm?

At the turn of the century, financial institutions with storied histories like the Lehman Brothers were considered ‘too big to fail.’ Yet, 2008 saw the collapse of several big-name firms once considered untouchable.

The concept of being too big to fail isn’t so much that the size of the institution is so large that it’s unlikely to collapse, but more that its importance to the economy is so great it cannot be allowed to fail. Several of those financial firms, such as Bank of America and AIG, received billions in government assistance to keep them afloat.

It’s an apt analogy when assessing the seriousness of the challenges facing another storied American business: semiconductor manufacturer Intel.

Its chips underpin PCs and devices across the globe, providing vital computing power for industries like telecoms, healthcare, and automotive.

But while its importance is apparent, the company is managing the fallout from failures with its Raptor Lake CPUs, a diminishing market position currently dominated by a small number of behemoth rivals, and a share price slump so dramatic it’s the worst the

company has seen in over half a century.

There are even clashes in the boardroom as Lip-Bu Tan recently resigned over the company's direction, specifically over a failure to set out a meaningful AI strategy.

It's tough times at Intel then, and while it's purely hypothetical to place it in the same ballpark in terms of its outlook as Lehman Brothers, with recent headlines, it's hard not to think, what if.

So is Intel too big to fail? Or is it simply a victim of a series of setbacks? *Capacity* takes a look at what's gone wrong and what's going on.

A growing pond of rival fish

Intel has a storied history of being a top player in the semiconductor space. From introducing the first programmable microprocessor to replacing magnetic core memories with DRAM, it's been long operated at the forefront of the market.

So what's gone wrong? The answer is multifaceted but largely lies with the current makeup of the market.

While consistently a top player, Intel has lagged when it comes to changes in technology. Originally touted by Apple to provide chips for the iPhone, Intel would go on to lose out to Samsung.

The company then largely ignored the GPU side of consumer electronics, missing potentially lucrative opportunities to provide hardware for video game consoles and higher-end mobile devices.

Further compounding its woes, Intel fell to the wayside amid the AI boom, with businesses looking to build generative AI systems instead turning to the Jensen Huang-led Nvidia, now the darling of the technology sector.

Intel is aiming to regain customers interested in AI workloads with its new Panther Lake wafer. | Credit: Intel Corp

Simply put, Intel has found itself falling behind an increasingly complex market.

Unlike Nvidia, which focuses largely on designing chips and related software, Intel does a bit of everything, but therein lies part of its growing staleness.

For example, Intel's foundry business posted a $7 billion operating loss on $18.9 billion in revenue in 2023. The company lost significant ground in the foundry market to TSMC, which manufactures chips for many of Intel's rivals. While TSMC itself has struggled to meet demands, customers simply don't want to flock to Intel.

Following the global chip shortage, rivals from across the globe are looking to stake their claim. None more than AMD, which has gone from next to no market share in the server CPU space to encroaching on Intel's prized patch.

With increasingly fierce competition from AMD, Samsung, and the seemingly evergreen Nvidia, Intel's place in the semiconductor pond is increasingly becoming less and less sizable.

Layoffs & cutbacks

While the company has faced tough rivalry in the market, its perilous position came to the fore in early August after it announced it was laying off 15% of its workforce, which equates to around 17,000 jobs.

“Our costs are too high, our margins are too low,” CEO Pat Gelsinger said as he unveiled a slew of cost-cutting measures as the company’s revenues had not grown as expected.

Intel required “bolder actions” Gelsinger said as the company faces a second half of 2024 that looks to be “tougher than previously expected.”

The market reacted so negatively to the news that Intel’s stock plummeted to a 50-year low — dropping to below $20 a share.

Alvin Nguyen, a senior analyst at Forrester, said from a strategic perspective, the layoffs were “the right thing to do long term.”

“Intel has its foundry and data centre AI business which may require more investments and where it stands to make gains,” Nguyen said. “Personnel costs are some of the most expensive to fund, so the workforce reduction is the only way to free up enough funds.”

However, Nguyen warned that such a significant workforce reduction could hinder Intel's ability to address future market challenges.

“If they have gotten rid of the wrong people, this could cause long-term issues in product development and growing market share. Short-term market challenges may mean they are not properly staffed or may be missing key personnel to address the issues and problems that come up.”

In addition to cutting back on staff, Intel cashed in its shares in chip designer Arm. Disclosures to the Securities and Exchange Commission showed Intel no longer holds its 1.18 million shares in the British company — just one quarter prior, the shares were valued at around $147 million.

Intel is aiming to make $10 billion in cost-savings, with manufacturing plants in Europe victims of those measures.

The company was planning to build a $32 billion manufacturer site in Magdeburg, Germany, as well as a plant near the Polish city of Wrocław, but these have since been paused for two years “based on anticipated market demand.”

Also set to fall victim as part of Intel’s cost-cutting measures is Altera, its programmable logic device manufacturing unit.

Having purchased Altera in 2015 in a $16 billion deal, Intel plans to sell its stake, though still wants the company to go public.

While it never publicly commented on the Arm share sales, pausing factory projects and dumping a business it paid $16 billion almost a decade ago highlights the company’s ongoing desire to shore up its worrisome financial position.

The blunders: Raptor Lake fails & OpenAI misstep

Companies often find themselves in precarious positions off the back of a few missteps, and Intel is no exception.

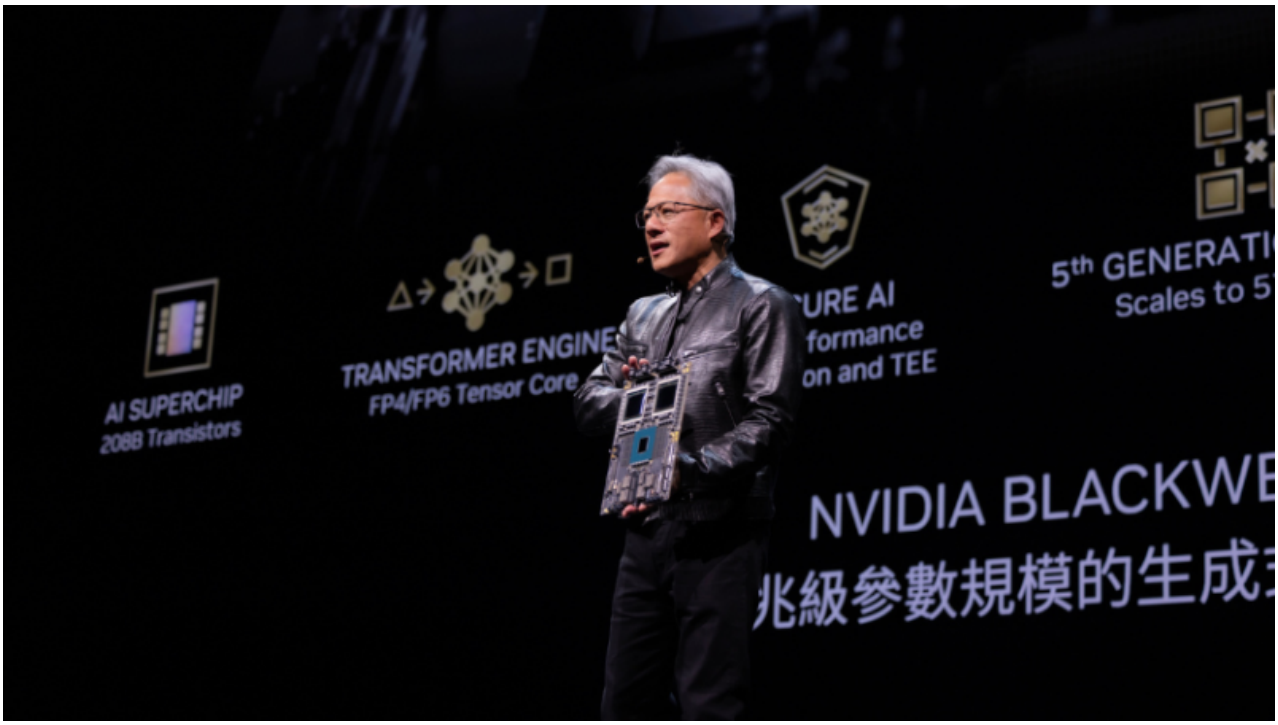
Its indecisiveness in the AI market is compounded by reports that it opted not to invest in ChatGPT developers OpenAI back in 2017.

Intel reportedly considered investing $1 billion for a 15% stake when it was a nonprofit, which would also have seen OpenAI use its hardware to train its AI models.

Then-CEO Bob Swan, however, said generative AI wouldn't be a short-term success, meaning the chipmaker wouldn't be able to quickly recoup its investment.

Hindsight is of course 20/20: Had Intel backed OpenAI, its $1 billion stake would be worth $12 billion today given that Microsoft's February 2024 investment valued the company at more than $80 billion.

That number is key given that Intel's current market value stands around $80-90 billion. And It was Nvidia that went on to supply its chips to OpenAI, which would see it go on to briefly become the world's most valuable company.



With all eyes on Nvidia, Intel has been left scrambling to catch up | Credit: Nvidia

A decision not to make a particular investment is one thing, but facing multiple class-action lawsuits over faulty products is another.

Intel currently faces at least two legal cases over instability issues with its 13th and 14th Gen Raptor Lake processors.

The CPUs would become insatiable due to issues with overly elevated voltages, and while Intel issued a fix and replace damned units, the issue was so widespread it caused issues in high-end systems and consumer PCs.

Every tech company faces issues with hardware. Rival AMD, for example, saw issues with its recently launched Ryzen 9000 processors.

However, the issues with the Raptor Lake were brought up a while back and it took Intel quite some time to resolve, with Nguyen saying its response having “served to undermine trust in the Intel brand.

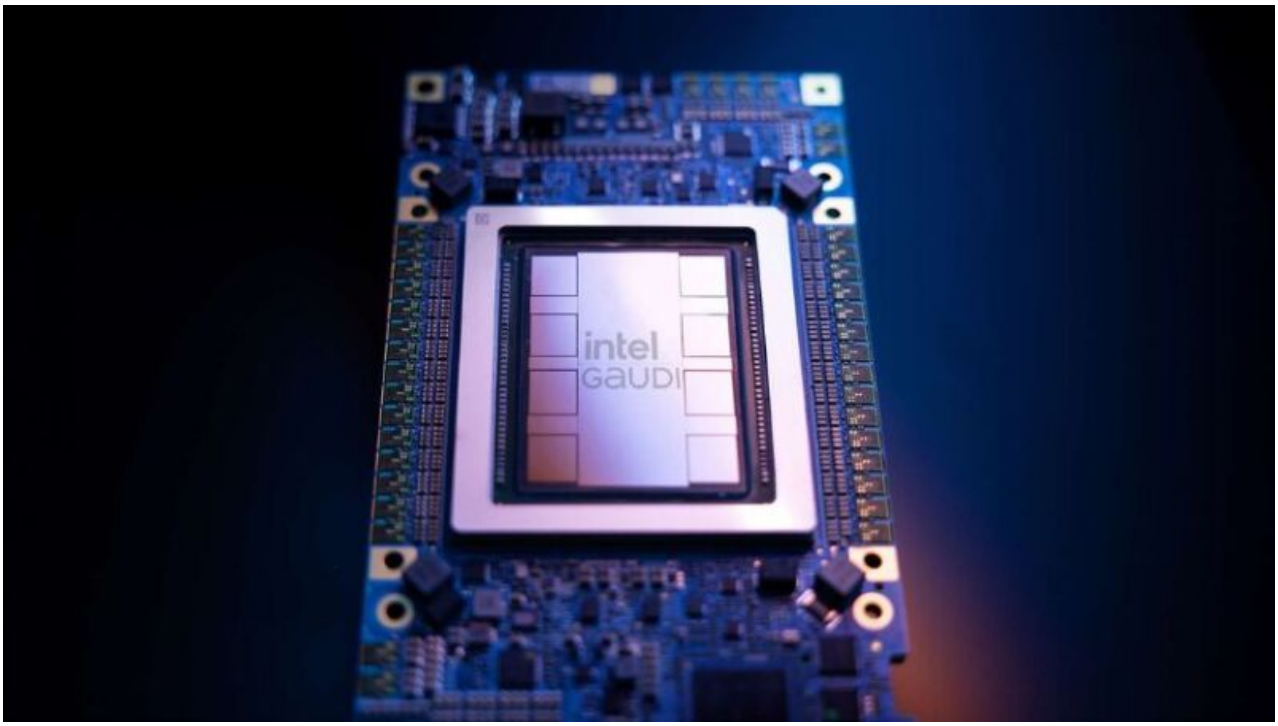
“Blunders will happen, but how they are handled shows a company’s mettle,” the analyst said. “The lead time for semiconductor development and when they were getting a new CEO (in 2021) may have distracted the organisation at that time and took them longer to recover from. But it is clear they need to be more transparent with customers and that is a message that needs to be driven from the top.”

Reasons to be cheerful?

“Don’t count Intel out just yet,” said Bob Rogers, the company’s former chief data scientist for IT transformation in the data centre group.

Rogers, now CEO of Oii.ai, a supply chain AI company, pointed to Intel’s Gaudi AI accelerators as a reason to be cheerful. The hardware is designed specifically to power AI workloads and directly compete with Nvidia units by at two-thirds the cost

“The challenge is that the most important driver of computing utilisation, AI, requires a different processor design than the one that made Intel a dominant force for more than 50 years,” he said. “Many years of success mean that it takes a while to turn the ship, but there is every likelihood that the Intel ship will turn.”



A Gaudi AI accelerator — which Bob Rogers thinks will help Intel compete with Nvidia

Rogers' more positive outlook has its merits. For one, Intel still holds a sizable share of the processor market despite facing increased competition, and the widening push by vendors for AI PCs provides it with steady demand.

It's not without risks, its push in the foundry space is a bold move, where Nguyen notes they're looking to leverage their market presence to address AI.

There's some more light emerging too, with rumours of Qualcomm interested in buying the company.

The news was met positively, with Intel's share prices rising above $22 for the first time in months. It's not exactly clear what Qualcomm exactly wants to buy, though should it come in for the company's design division it could constitute one of the largest tech mergers in history — should it not suffer the same fate as Nvidia's attempts to buy Arm.

There are also reports that US-based set management company Apollo Global Management is looking to invest up to $5 billion in the embattled semiconductor firm.

Apollo's investment would be equity-related and would provide a much-needed cash injection should it come to fruition.

A handful of blunders isn't going to cause the company to collapse anytime soon, but with a slide as dramatic as the one Intel's on and with boardroom discontent, it shows a ship slowly but increasingly driving off course.

To steady it, Intel has to compete and regain trust — but most important of all, weather upcoming storms to prevent it from further falling behind.

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