Intel Stock Investment Analysis - Nailing the Upside Is The Only Option in my opinion...

Intel has been a dividend/buyback value stock up till 2021 and the previous CEO, Bob Swan was often called a bean counter. Things have changed in the last two years when the new CEO turned it into a growth promising stock. Unfortunately for Intel, the switch to growth started exactly when growth as an investing premise started to falter.

Intel stock price down more than 50% since new CEO

However, if Intel manages to turn things around eventually, the stock should rebound and surpass previous levels. I'll first look into the last earnings for those already knowing Intel's risk and reward and then dig deeper into the business details for a proper risk and reward investing analysis to conclude with what is likely the most important thing with Intel; a proper investment strategy.

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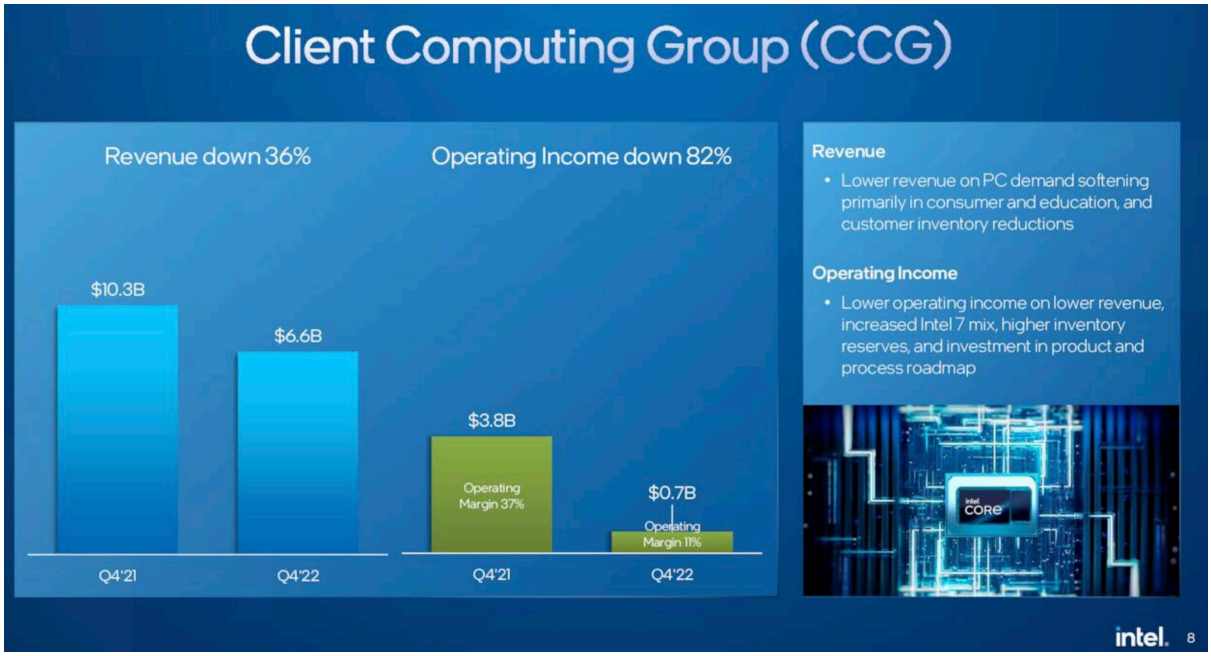
Intel 2022 FY Earnings Disaster

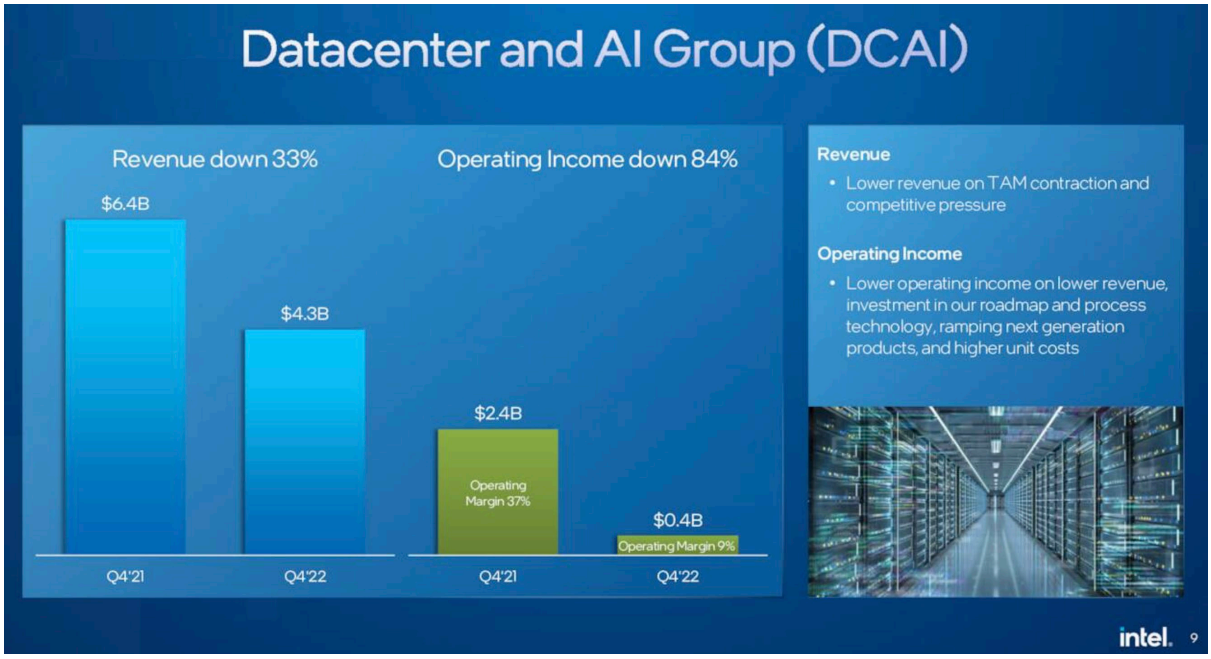
I would describe Intel's earnings as a disaster because of what the management was guiding 6 to 8 months ago vs. the current reality. They had been saying how gross margins should stabilize around 51% and then go higher to the previous levels of 54%. Margins got obliterated and fell to 43.8% while revenue was down a staggering 28% for the quarter.

Intel Q4 2022 earnings presentation

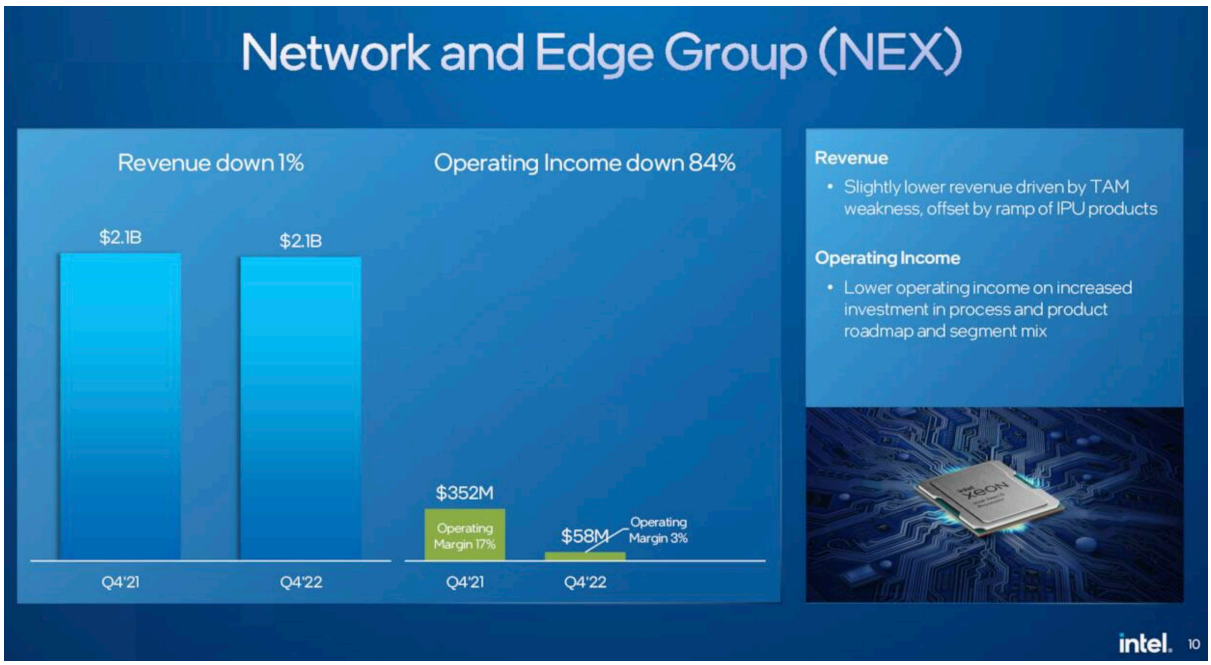
They were constantly lowering the outlook while the real results just went worse. PC related sales were simply dismal, and the main issue is that they didn't see it because if they had seen in, then they could have kept the margins stable at least by a degree.



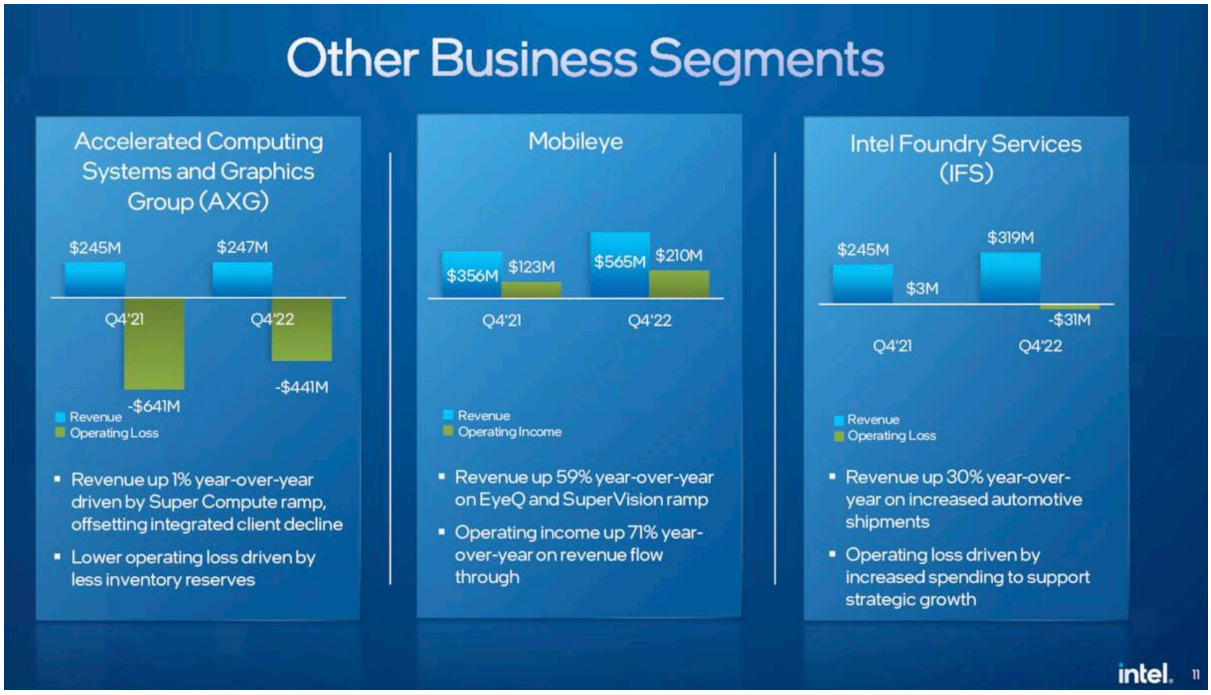
Same with the data centers.



Network is stable but a much smaller part of the business even if operating margins are also down.



Smaller businesses also doing ok.



From bad to worse, here is the earnings outlook with even lower gross margins, negative earnings and revenues down a staggering 40%.

Here are my notes on the conference call:

- 'macro headwinds' are the issues according to the CEO

- PC market has near-term weaknesses but they say they grew market share

- Server market to decline even further in the first half of 2023 and then recover (we can't know whether that will be the case, they promised recovery already and it didn't happen)

- $3 billion cost savings focus - (from growth to savings, that is how it goes sometimes)

- they say they are on track on their growth and product launches and "continue to be on track to regain transistor performance and power performance leadership by 2025"

- a lot of talk about tech, but as we see above, it doesn't really matter, what matters is the market

- the internal foundry model should lead to $8 to $10 billion in savings exiting 2025, thus 2026

- the plan in short, CEO:

> We will, one, deliver on five nodes in four years, achieving process performance parity in 2024 and unquestioned leadership by 2025 with Intel 18A. Two, execute on an aggressive Sapphire Rapids ramp, introduce Emerald Rapids in second half 2023 and Granite Rapids and Sierra Forest in 2024. Three, ramp Meteor Lake in second half 2023 and PRQ Lunar Lake in 2024, and four, expand our IFS customer base to include large design wins on Intel 16, Intel 3 and 18A this year.
>
> We also need to improve our cost structure and drive operational efficiency. On this front, we will, one, return to profitability and deliver the benefits of our calendar year 2023, 2024 and 2025 efforts to reduce costs and drive efficiencies. Two, execute on our internal foundry P&L by 2024. And three, expand on the use of our smart capital strategy to leverage multiple pools of capital, including SCIPs and Chips in the US and Europe to balance our long-term capacity aspirations with near-term realities.

- the following is just an accounting change that will temporarily increase the profits or lower the losses, but it is nothing more than accounting and given the performance discussed above, it should be brought down to 3 years, not increased to 8:-)))

> Before turning to Q1 guidance, let me take a moment to discuss an accounting change that will impact our results beginning in the first quarter. Effective January 2023, we increased the estimated useful life of certain production machinery and equipment from five years to eight years. This change better reflects the demonstrated economic value of our machinery and equipment over time and is more aligned with the business model changes inherent to our IDM 2.0 strategy.

and numbers will look better by $4 billion, this doesn't fall into the savings plan so ok, but still, they are trying to make things look better, likely to get better bonuses but when a company starts messing with accounting to make things look better, it is not a good sign.

> The change will be applied prospectively beginning Q1 2023. When compared to the estimated useful life in place as of the end of 2022, we expect total depreciation expense in 2023 to reduce by roughly $4.2 billion. An approximate $2.6 billion increase to gross profit, a $400 million decrease in R&D expense and a $1.2 billion decrease in ending inventory values.

- all in all, if Q1 is a sign of 2023 we are looking at a decline of 50% in revenues from the $79 billion peak a while ago - analysts look more towards $50, but then again we can't know.

> Now turning to guidance. For Q1, we expect first quarter revenue of $10.5 billion to $11.5 billion. In addition to continued macro headwinds, we expect customers will burn inventory at a meaningfully faster pace than the prior few quarters in response to macro TAM softness impacting CCG, DCAI and the x lines of business.

INCOME STATEMENT | BALANCE SHEET | CASH FLOW STATEMENT | RATIOS | SEGMENTS

Income Statement | TIKR.com	31/12/16	30/12/17	29/12/18	28/12/19	26/12/20	25/12/21	LTM
Revenues	59,387.00	62,761.00	70,848.00	71,965.00	77,867.00	79,024.00	69,540.00
Total Revenues	**59,387.00**	**62,761.00**	**70,848.00**	**71,965.00**	**77,867.00**	**79,024.00**	**69,540.00**
% Change YoY	*7.3%*	*5.7%*	*12.9%*	*1.6%*	*8.2%*	*1.5%*	
Cost of Goods Sold	(22,767.00)	(23,663.00)	(27,111.00)	(29,825.00)	(34,255.00)	(35,209.00)	(37,165.00)
Gross Profit	**36,620.00**	**39,098.00**	**43,737.00**	**42,140.00**	**43,612.00**	**43,815.00**	**32,375.00**
% Change YoY	*5.6%*	*6.8%*	*11.9%*	*(3.7%)*	*3.5%*	*0.5%*	
% Gross Margins	*61.7%*	*62.3%*	*61.7%*	*58.6%*	*56.0%*	*55.4%*	*46.6%*

With gross margins going from 61.7% to 39% expected, possibly even lower.

Q&A session

how to get back to margins of 51% to 53% that you talked about as normal? Answer: revenue has to go up, high current inventory burn:

> So net of that, I feel very confident we will get back to 51% to 53% in the medium term. And in the long term, I feel very confident we will get back to 54% to 58%. And I think Pat said it in the past, we aim to beat that range.

Question on the capex for 2023:

> But it seems like, best case, revenue is going to be in the mid-50s roughly. And if I take a little less than 35% of that, because you said that it's still going to be 35% or less, that will be the net CapEx intensity. And I sort of divide the numbers, it implies a gross CapEx number, something in the range of $20 billion, give or take. Can you sort of help us just handicap that number?

It is a cyclical business, no way around it:

David Zinsner

Yes. I think clearly, revenue is going to be the most significant driver of gross margins. We're a high fixed cost model. So we suffer the consequence of that, obviously, when revenue is declining, but we also get the benefit when revenue is expanding. And so what will -- what is currently a headwind does turn to a tailwind as the business recovers.

Dividend question

David Zinsner

Yes. Well, obviously, we announced a $0.365 dividend for the first quarter. That was consistent with the last quarter's dividend. I'd just say the Board, management, we take a very disciplined approach to the capital allocation strategy, and we're going to remain committed to being very prudent around how we allocate capital for the owners. And we are committed to maintaining a competitive dividend.

Conclusion on earnings call

It is clear they can't predict their own market and that is normal due to the nature of it. If we have a recession in Europe and the US, all their hopes for improvement in the second part of 2023 will be destroyed and Intel will be a company with revenues below $50 billion, no profit and a very likely dividend cut. That might be the best time to buy but more about that in the investment strategy part.

Intel Business Overview

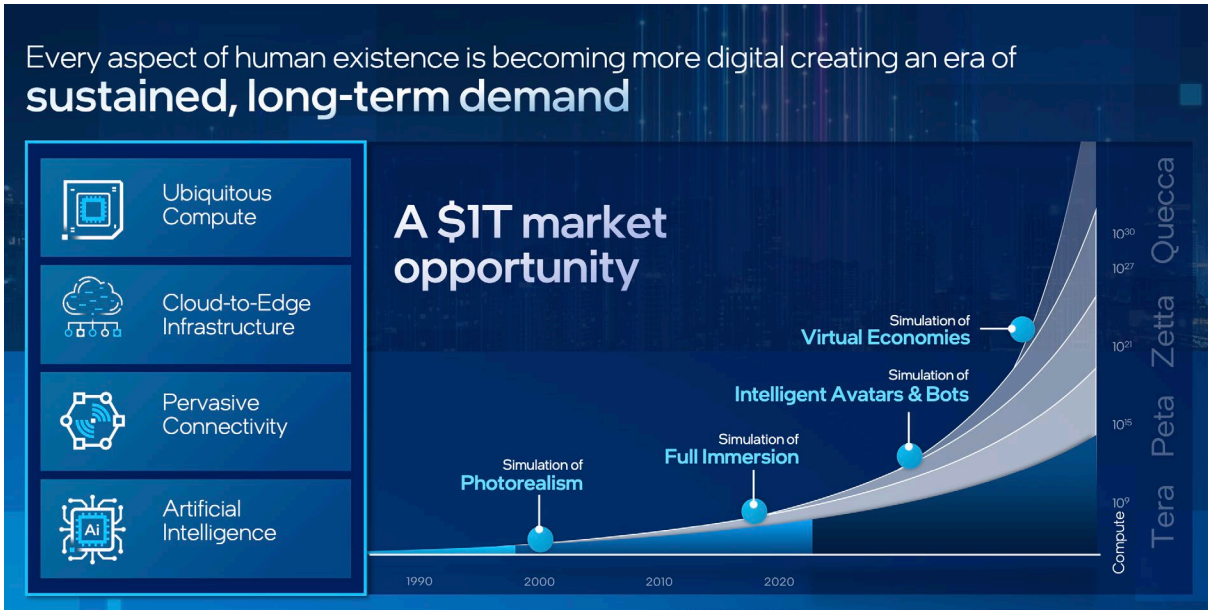
Intel is a company producing semiconductors for all the applications those have, from the PCs many of us have on our desks to data centers and so forth. I'll put a negative tone to this description because I want you to have a better grasp on the cyclicality and highly competitive nature of the semiconductor industry showing how things might not be as straightforward as those look on a presentation.

There is certainly opportunity in what Intel does but we must keep in mind it is a very cyclical sector. When things in the economy are exuberant, people rush to invest and buy while when there is a perceived slowdown, the PC you have already suddenly will do good for a while.

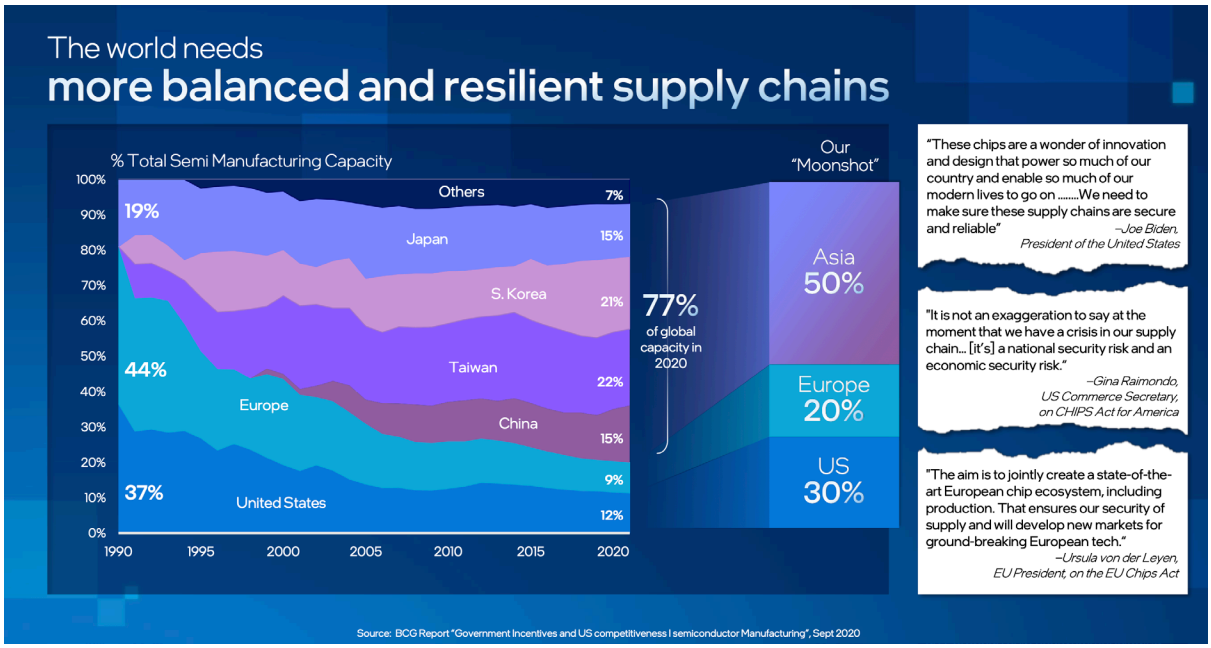
The same happens within the industry, when things are good companies rush to invest a lot of money, increase production, that consequently leads to oversupply and a crash in revenues with ugly financials.

The 2022 Investor presentation is a good place to start understanding Intel.

From the above chart, not even 12 months ahead, demand has crashed, the investments don't look as good as those did and Intel is in a bad situation. However, this could be just a temporary slowdown for long-term demand growth.



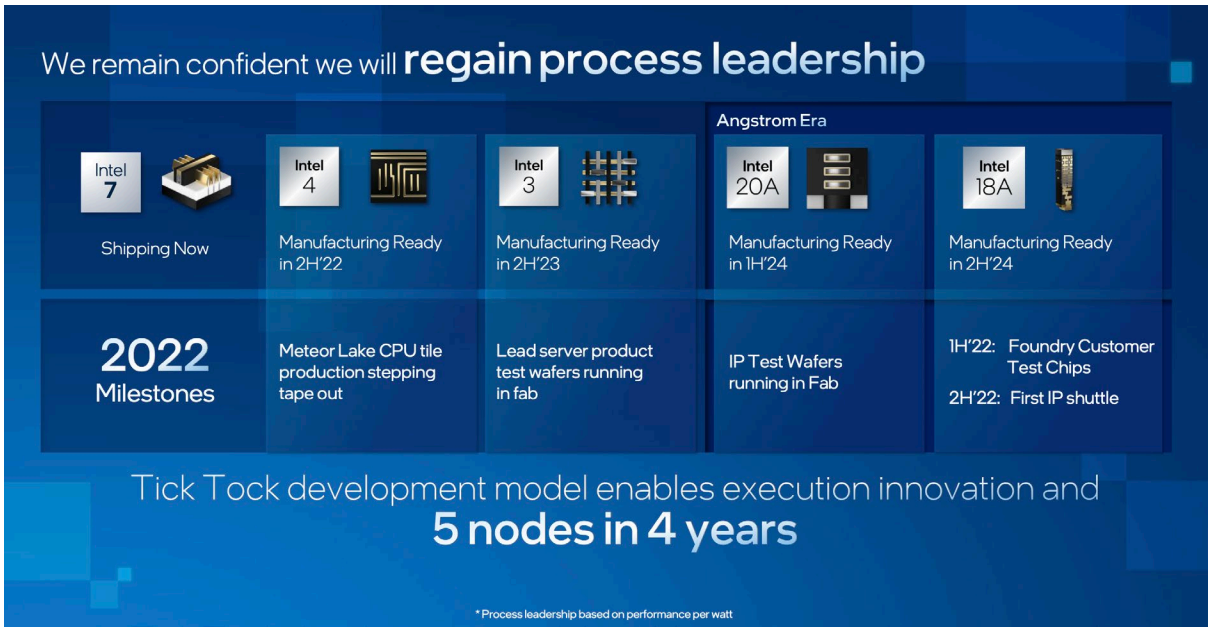
Intel's goal is also to lower dependency on China/Asia, but somehow that isn't an issue as big as it was 12 months ago. Maybe it will come back as an issue maybe not, but Intel is betting big on the need to build local supply chains.



The CEO says they will be leaders in most segments by 2025, a leadership they have lost over the last 7 years.

Will that be true? Well, the answer will depend on what the competition comes up with and even most importantly, at what cost the competition will be able to build. If a competitor makes something 20% weaker but 50% cheaper, there goes your leadership.

The goal is to regain processing leadership:



I Googled the above question to get a tech view on the situation.

Most searches are from news reporting the stated goal but one is countering and saying how analysts are skeptical it is something achievable as fast as 2025.

From Marketwatch:

"As Intel has lost the node-marketing war, they are now giving up entirely, renaming their nodes to more closely match TSMC's scheme," Rasgon said in a note. "The forthcoming 'enhanced' 10nm Superfin (10++) is now called 'Intel 7'; 7nm is now 'Intel 4'; '7+' is now 'Intel 3'; with a new node ('Intel 20A') taking the place of what would have likely been called 5nm before."

The Register

TSMC's 2025 timeline for 2nm chips suggests Intel gaining steam

Semiconductor veteran says x86 titan could catch up with Asia-Pacific rivals in three years

Dylan Martin Mon 18 Apr 2022 // 18:49 UTC

TSMC said it won't start production at its 2nm node until the second half of 2025 or possibly the end of that year, which could signal a shift in the competitive landscape.

The Taiwanese chip foundry revealed the timeline for its 2nm node, known officially as N2, during a conference call [PDF] last week for its first-quarter financial results. With a mid- to late-2025 production timeline, after late-2024 risk production, TSMC's 2nm production dies will likely land in the hands of their designers in volume in 2026, which, in turn, means those chips could, at the earliest, be available for phones, PCs, and servers that year.

TSMC made the disclosure only a few days after Intel, which is revitalizing its competing foundry business, revealed that its next-generation 18A node will be ready for manufacturing in the second half of 2024, months ahead of the previously given 2025 timeline. As the A is short for ångströms, Intel's 18A label suggests it will be a 1.8nm process (see *Register passim* for caveats about node sizes.)

Now here's the fun part: does this mean Intel will beat TSMC to the market with a comparable manufacturing process? We should remain skeptical, though there is reason to believe competition is growing tighter and Intel could catch up or take the lead by 2025, assuming things keep going smoothly.

Intel CEO Pat Gelsinger has maintained that his x86 goliath will become the leader in process performance with its 18A node, and the company's recent disclosure that production will begin several months sooner shows the chipmaker is feeling confident right now.

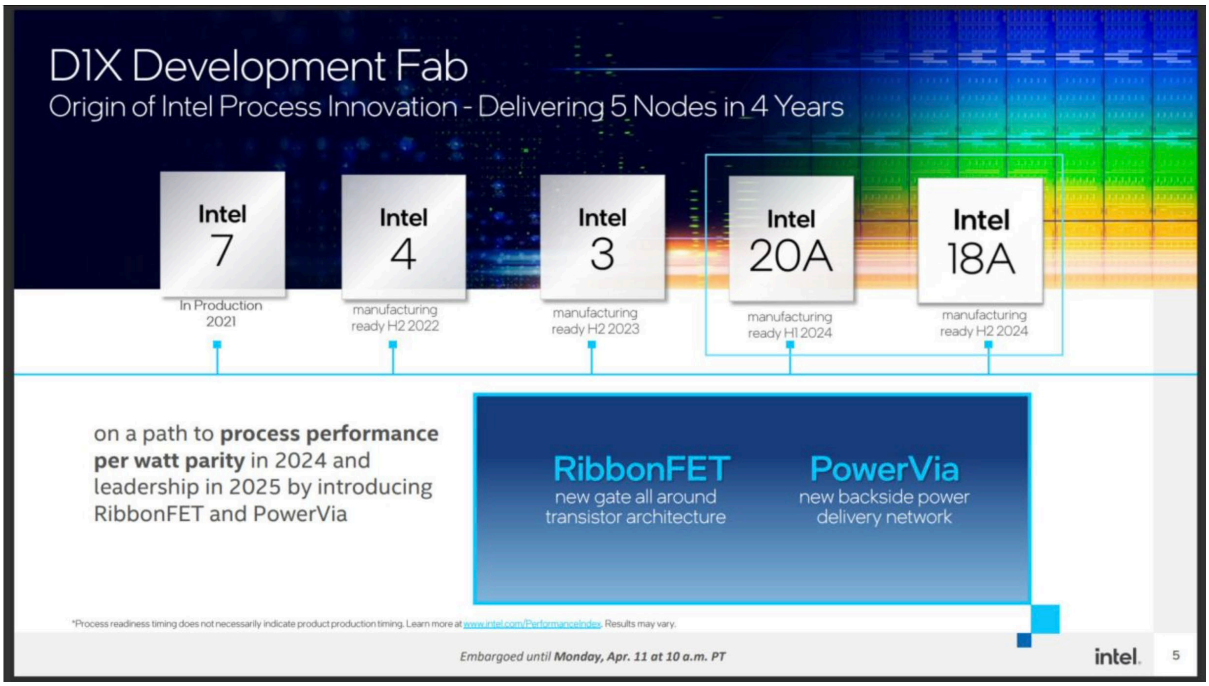
At the same time, TSMC CEO CC Wei said on the earnings call that his company expects its 2nm node to provide the "best technology, maturity, performance and cost" for chip designers, though it is apparently entering production later than Intel's 18A node.

In a recent analysis, Scotten Jones, head of semiconductor consulting firm IC Knowledge, said Intel's recent acceleration in node development has led him to believe that the chipmaker could "flip the script" and leapfrog rivals TSMC and Samsung in

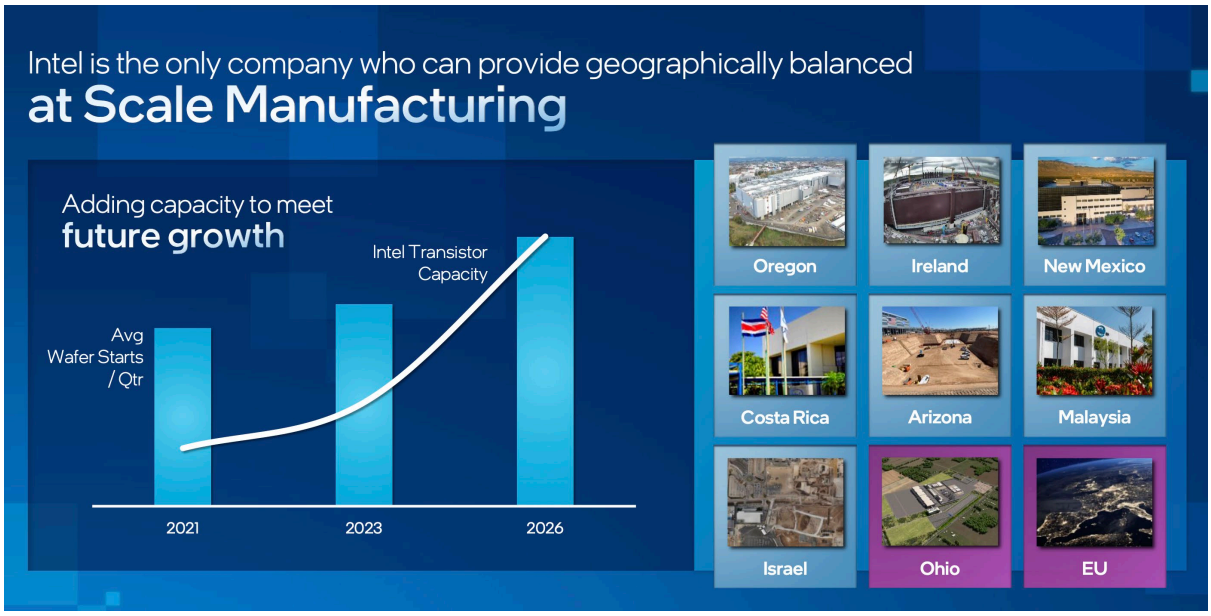
Source: https://www.theregister.com/2022/04/18/tsmc_2nm_2025_timeline/

Above, a good overview on what Intel has been saying compared to the same statements coming from TSMC. So, who will be the winner, and most importantly, what of it all will matter for investment returns, will be seen in the future. I know for sure, it is impossible to predict because nobody knows what will demand for semis look like in 2024, 2026 or 2028, but all the investments made now for those times have to be done already, so that is what creates the risk and reward.

Intel looks good on its position, but then again, from an investing perspective, there are many factors that come into play for good investment returns.



Intel's plan is to invest strongly into new fabs and integrate the production process for itself and also customers.

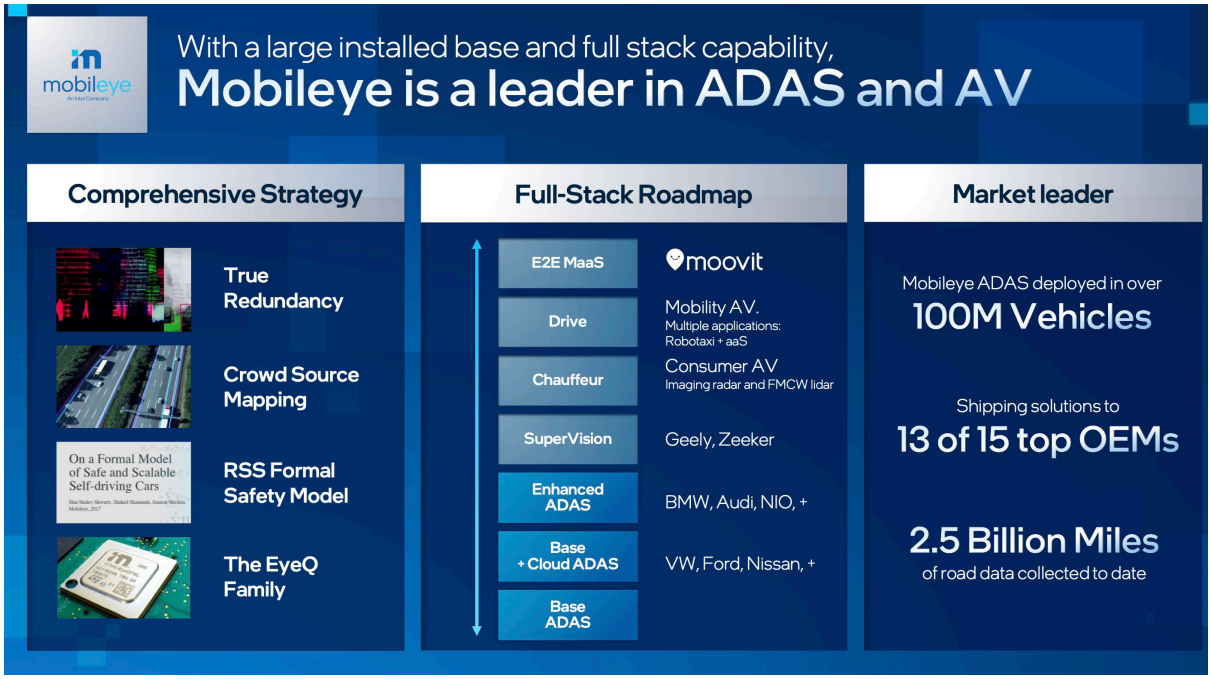


A funny slide from the February 2022 presentation, Intel is the next growth story, with revenues down 40% since, at least :-(.

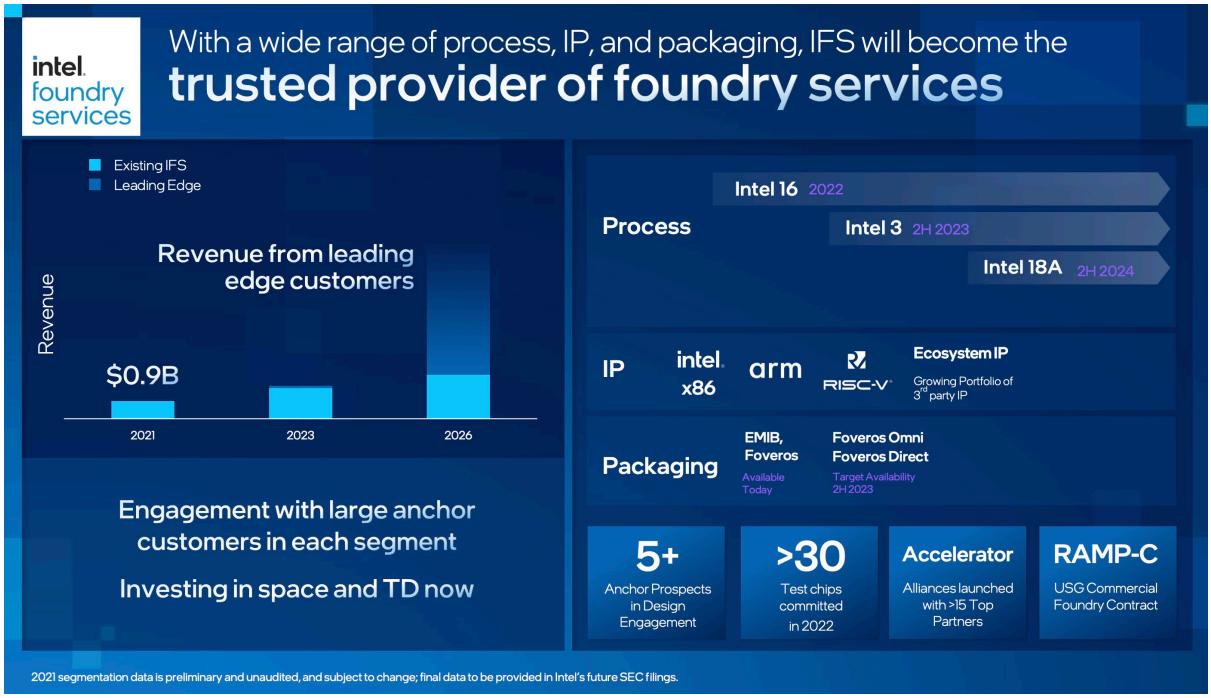
Based on these projections, Intel was really cheap in 2022 as it had the potential to make $20 billion per year in free cash flow, and the plan was to double that by 2026, thus $40 billion and therefore the market cap of $200 billion didn't seem that bad.

I hope Intel gives a new investor day in February to get the new charts as these are unfortunately obsolete. Given the sentiment, accounting change, we might not even get an investor day. We will see...

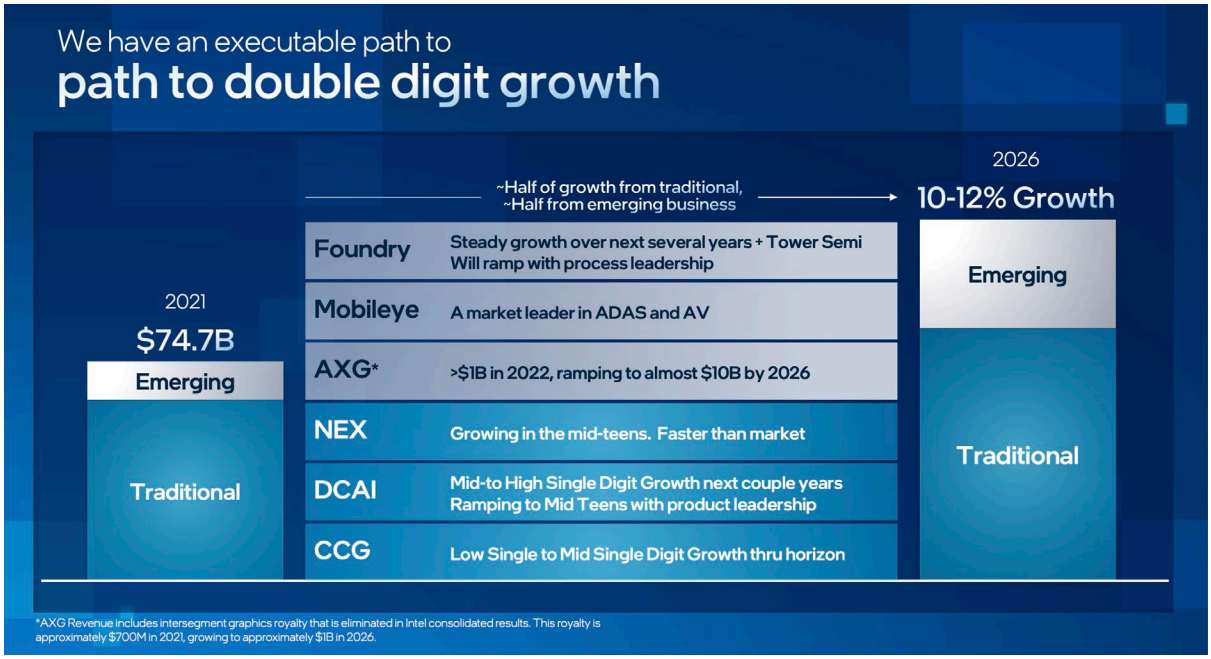
There are also other segments like Mobileye.



The plan is to go into TSMC's business.



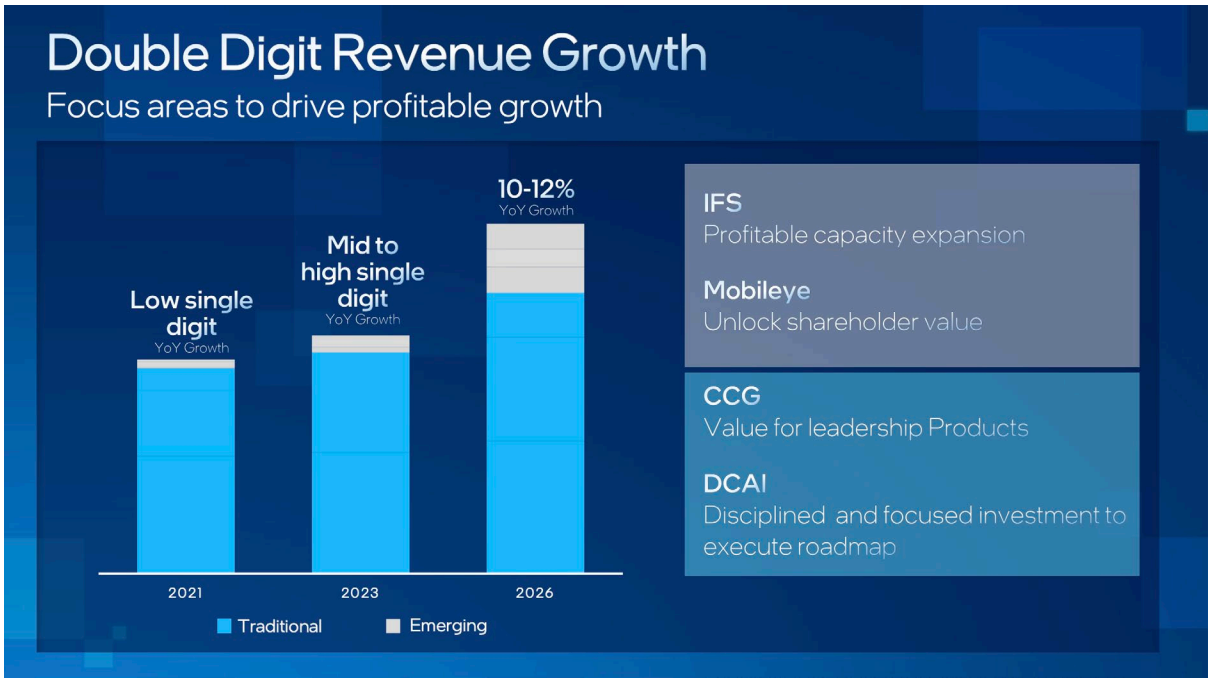
Intel's growth plan:



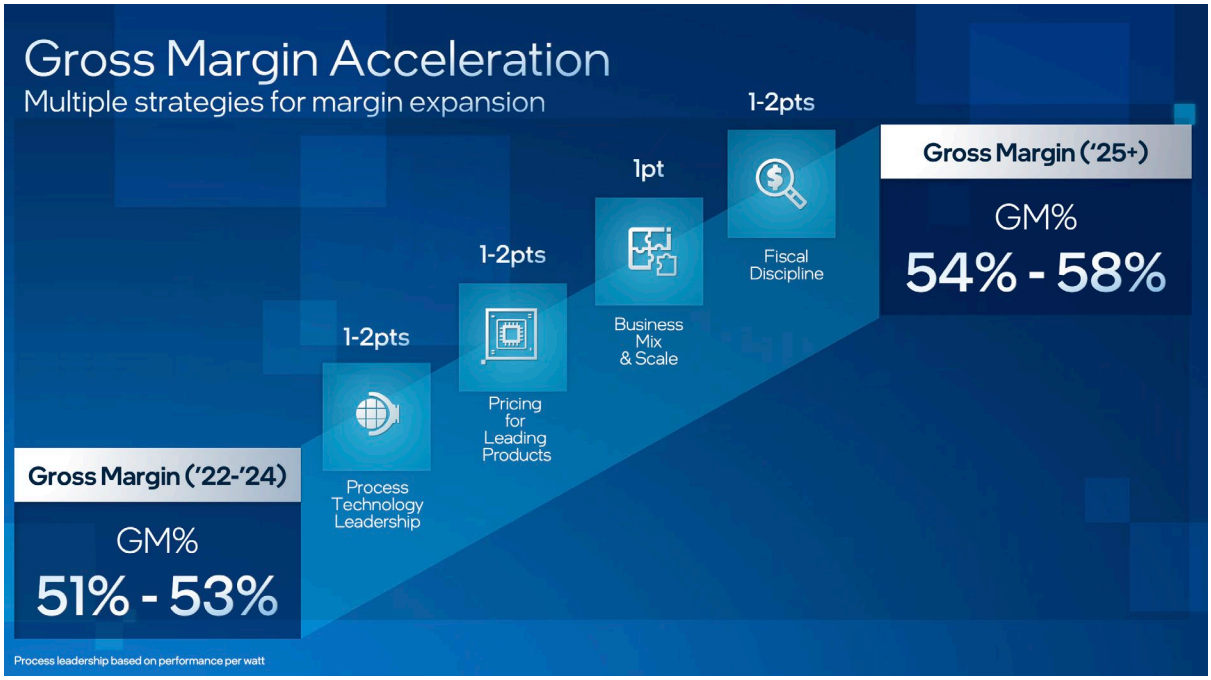
This was the CFO's presentation:

$450 billion total addressable market by 2026 expected (likely changed now)

The important thing of these 2022 February slides is to show what the company believed and invested on, comparing to how all has changed in not even 12 months.



Guided gross margin for Q1 2023 is 39%

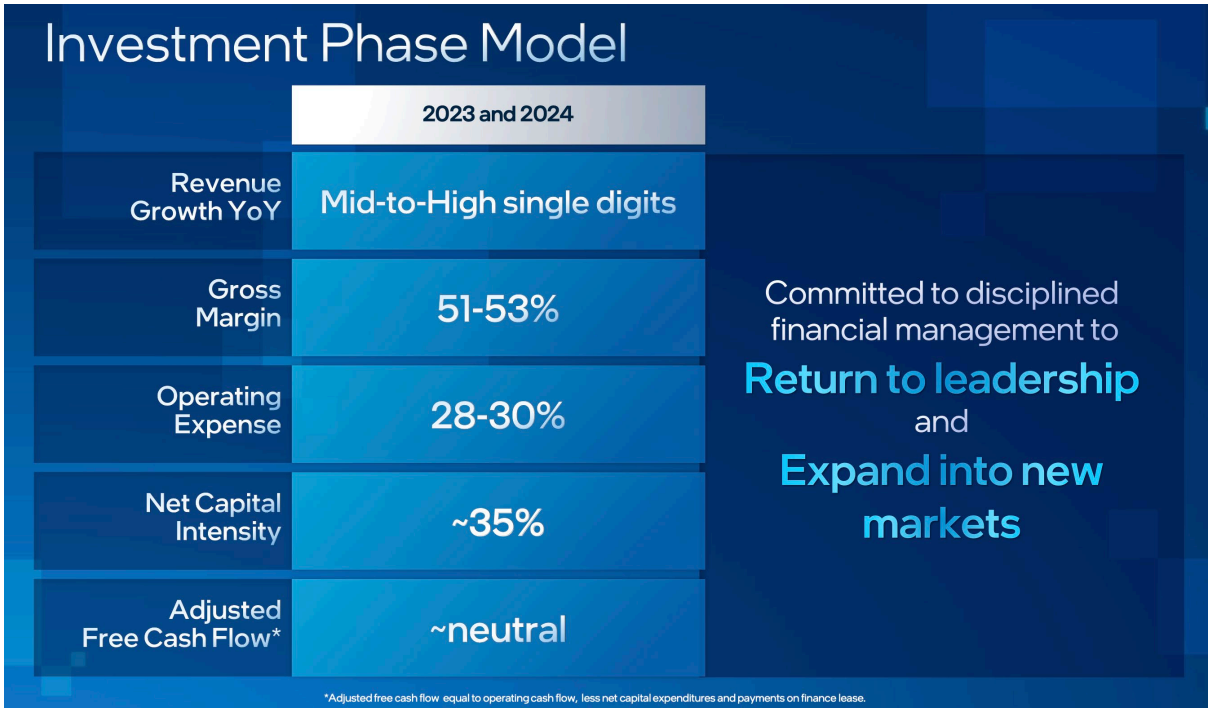


With 12% revenue growth and 20% FCF the calculations were that by 2026 or 2027 Intel would make $140 billion in revenue and almost $30 billion in FCF.

Just to copy the outlook for 2022

that ended like this and is now projecting a loss.

The problem is that to get to their goals, with a revenue drop of $13 billion for 2022, likely 25 billion for 2023 and possibly another 12 billion for 2024 if things start to improve, Intel suddenly needs $40 extra billion to develop on its plans and there is a big difference between financing projects with own cash or taking debt, or selling the project to third partners like Brookfield.



So, these were the business plans and financial expectations. All has changed with a murky outlook which means I can't value the company from a linear, as presented above by Intel, perspective. I have to think about what could be the scenarios for Intel going forward and create a risk and reward framework.

Intel Investing Valuation Scenarios

Given the drop in revenues, if Intel even reaches the projected growth in revenues, after the 50% quarterly drop, at best we can expect Intel to get back to $80 billion in revenue by 2026. If that happens and Intel somehow reaches a 10% FCF margin, not 20% as the $140 billion in revenues simply won't be there, we have $8 billion in FCF on the current $111 billion valuation.

If there is a sudden boom in demand for semis like we have enjoyed in 2020 to 2022, Intel might reach 20% growth per year, all could rebound and the above shown 2026 projections could become true, for $20 or even more billion in FCF. In that case, I would not be surprised to see Intel valued at $200 or even $300 billion.

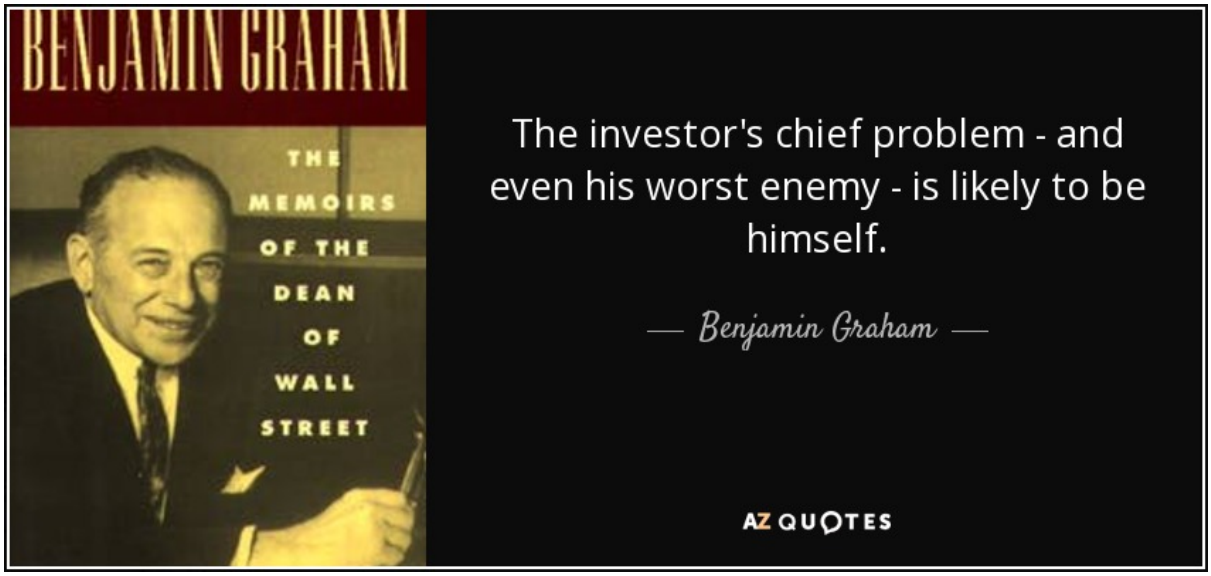
In case we enter a recession, the current investments in the semiconductor universe are enough to cover for demand, margins might remain consistently lower until investments retreat and then a boom comes on not enough capacity. In such a slow scenario, Intel could linger for a few years or even half a decade until the next boom in the semis cycle.

I think the key word many have forgotten after almost a decade of nothing but growth for the semis industry is that the industry is exactly that:

CYCLICAL

And that perfectly explains what has happened and you have seen how even Intel's management got caught in the cycle reversal. Can we predict when the cycle downturn will turn into an upturn? I think we can predict it will turn, but whether it will be a downturn of one year or 5 years, is impossible to predict.

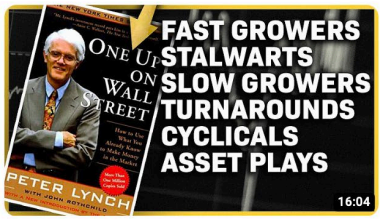
Intel Investing Scenarios - You Are Your Worst Enemy



I just received an email which is in line with many other emails I have received over the years about how I should research the whole industry and find the winners there. I remember having a discussion about semis with a person that has been investing in those since 1995 and all he said to me was how unpredictable the industry was and that nobody has any idea of how fast it can turn. Well, I think Intel's recent earnings showed exactly that.

On the other hand, everybody is looking at the huge upside many semiconductor stocks had over the last 5 years and many are simply chasing that success, convincing themselves about factors that will make the change. I wish I could give you the best semis stock to buy but the more I look at the sector the more I see it is an impossible feat.

Now when it comes to investing, Intel is clearly a cyclical and one can play on those cycle swings. Here is Peter Lynch's word on how to play on that:



Peter Lynch - 6 Stocks Categories Give You Answers When To Buy Or Sell A Stock
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So, when it comes to investing in Intel, or any other semis company for that matter, we have the following scenarios:

- Recession, sluggish demand on increased competition coming from all the heavy investments made in the last few years based on the rosy expectations of future growth. In such an environment almost nobody makes money, or if so, they make very little money.

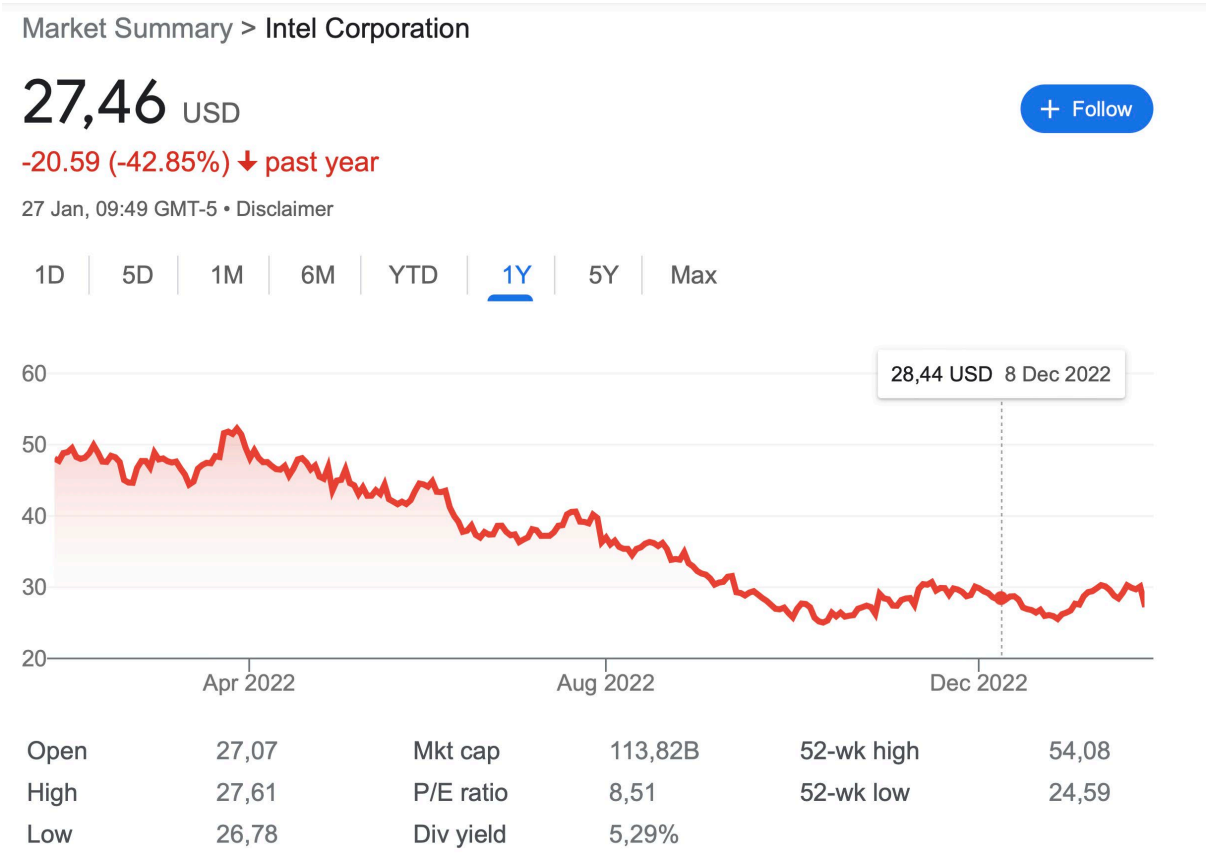
- Quick upturn, as inventories have to be replenished, demand for chips grows fast again, companies invest into future growth, AI etc. In such a scenario, everybody makes money.

- First sluggish for a year or two, then a fast upturn.

- oversupply for 5 years of more, looks so ugly that you regret the day you learned the world semiconductor stocks

Now, when it comes to investing, you can gamble on every quarter being the one that will be the rebound quarter and hope to nail the bottom. That is a game that can pay-off if things rebound but it can also look ugly for longer.

Peter Lynch suggests waiting for things to start improving first and then playing on that trend of improving earnings. So, after the first two quarters of good are in and it is clear it will last for a year or two, that is the best risk and reward strategy. however, this also means you miss the current possible bottom, and you buy at $40 to ride the wave to $60 for example.



On what is priced in above, I think the expectations of improvements in the second part of 2023 and a return to growth going forward is priced in. I don't think anybody now in the market believes that the current situation is more than just a temporary pause in the everlasting growth cycle that we have been in. This also means that if the growth doesn't start materializing, there is a lot more pain down the road for stocks.

The biggest blow for Intel could come if the next quarters are bad and then they cut the dividend. If they do it, I would not be surprised to see Intel in the teens.

So, whether this is a generational opportunity to by Intel or we will see Intel in the teens, depends on how the semis industry will develop over 2023 and longer. After a few years of following, I have learned that it is impossible to predict, thus all one can do is gamble, which also explains the extreme interest in a stock like this. It definitely is a risk and reward situation.

I'll simply stick to my plan which is to keep watching and keeping an open possibility that maybe all the stars align, and I can find a low risk, high reward investment opportunity in this space. At the moment the risk is there and the reward is uncertain. Keep in mind that if one follows about 20 such situations, maybe here and there one will be in the sweet spot. That is proper investing in my eyes.

Want to sleep well? Forget about semiconductor stocks - there is plenty of other :-)