

BUY rating

IRR: 16.4% (5y) **Upside:** 37,1%

LTS Challenge 2025



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A New Era for Foundries, Driven by AI and End-Market Diversification



From concentrated leadership to AI acceleration, the pure-play foundry model gains momentum

1. A fast-expanding industry shaped by **concentrated market share and distinct business models**

An Expanding Industry Slice...

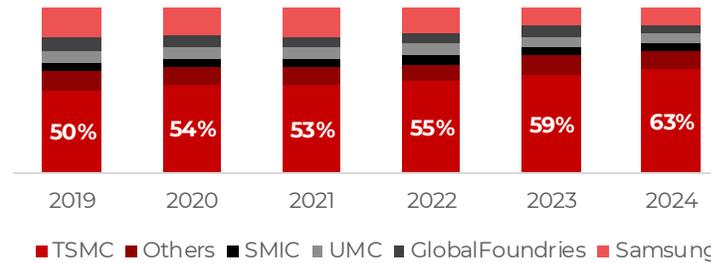
Foundry Market Size (USD Billion)

CAGR: 12.12%



With a clear leader: TSMC

Foundry Market Share (USD Billion)



Two business models dominate the landscape

Pure-play foundries

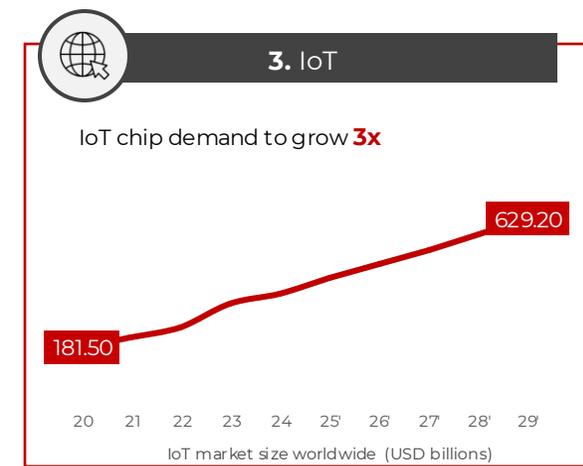
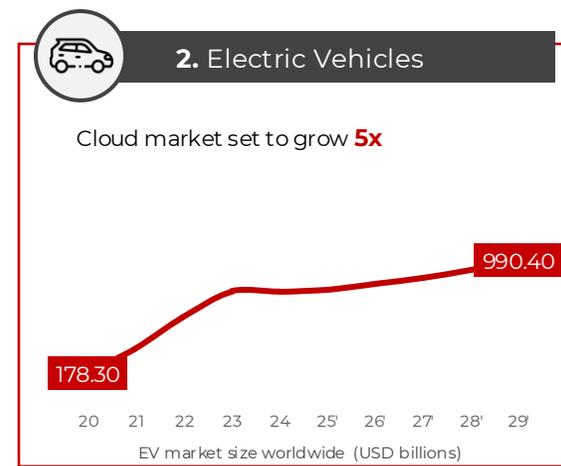
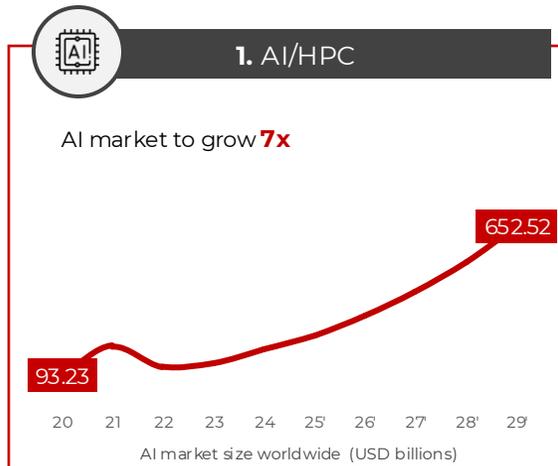
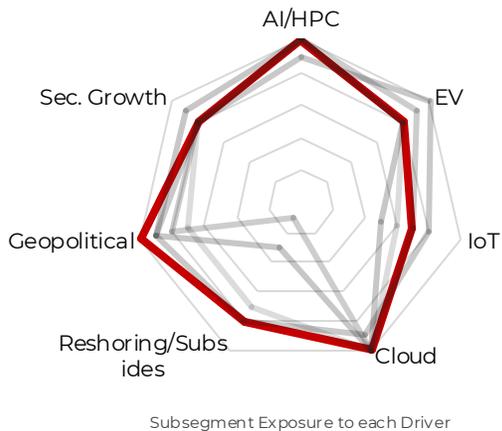
Manufactures chips for external clients without designing its own products

IDMs

Designs, manufactures, and sells its own chips in-house



2. Explosive AI demand is reshaping the foundry landscape, with **EVs** and **IoT** reinforcing the trend

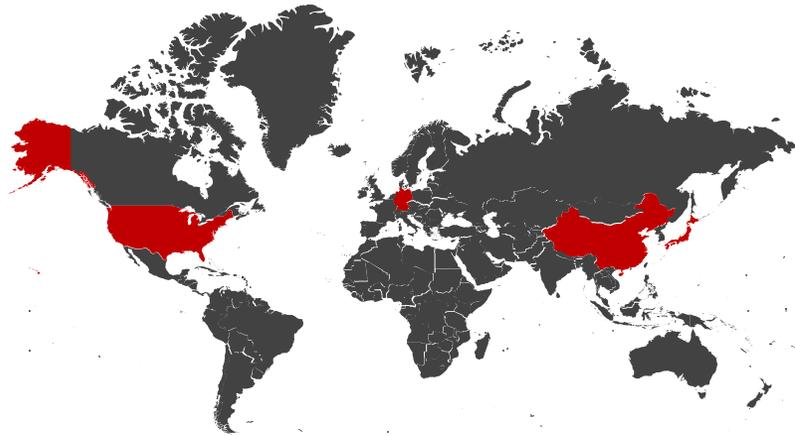


Global Reach and Node Leadership Power TSMC's Structural Growth Story



Built for Scale, Powered by Execution, Dominating Advanced Nodes

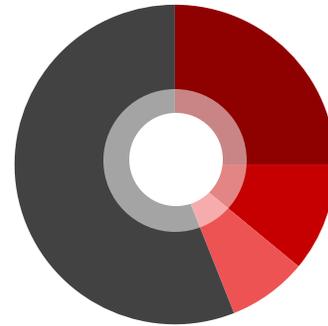
1. **Undisputed leader** in advanced chips, TSMC expands globally through **strategic capacity, top-tier partnerships,** and exposure to **high-growth markets**



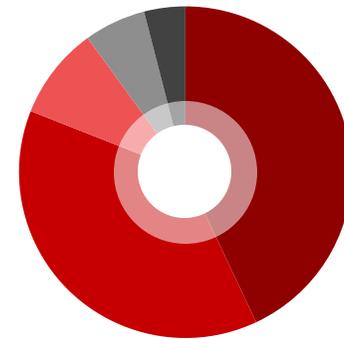
Scale and Presence

- 500+ clients
- 10+ fabs operating
- 60+ countries served
- 6 countries with physical operations

Client & Market Breakdown

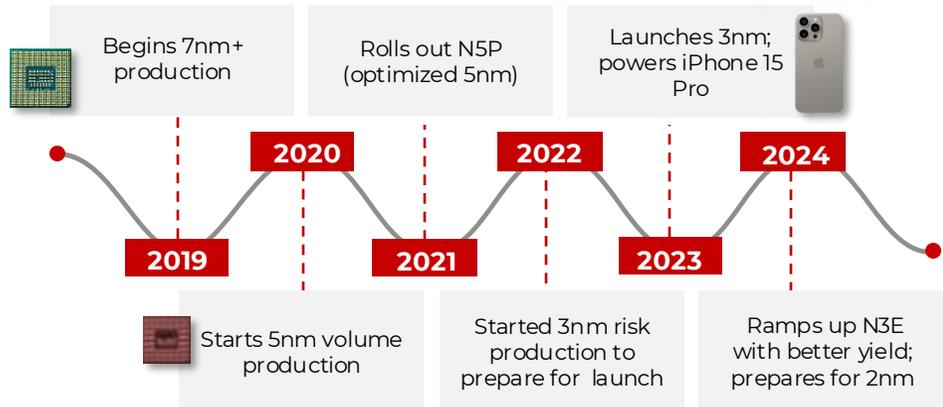


- Apple
- Nvidia
- AMD
- Others

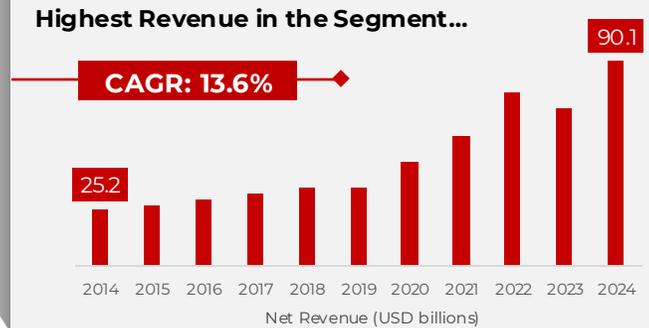


- High Performance Computing (HPC)
- Smartphones
- Internet of Things (IoT)
- Automotive
- Consumer Electronics

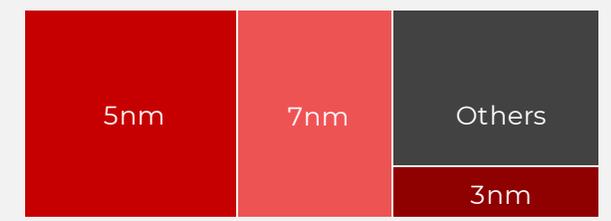
2. From pioneering foundry operations to **global dominance,** TSMC's sustained execution fuels **unmatched financial strength**



Leadership in Advanced Nodes



TSMC earns mainly from advanced nodes



TSMC Revenue Breakdown by Node - 1Q25

Investment Thesis: TSMC



1 - Technical Sovereignty

From 3nm to advanced packaging, TSMC owns the core of next-gen semiconductor capability.

2 - Operational Triumph

The foundry where even competitors come to stay, driven by world-class service and reliability.

3 - Overseas Expansion

Strategic fab expansion balances risk, captures incentives, and builds proximity to key global clients.

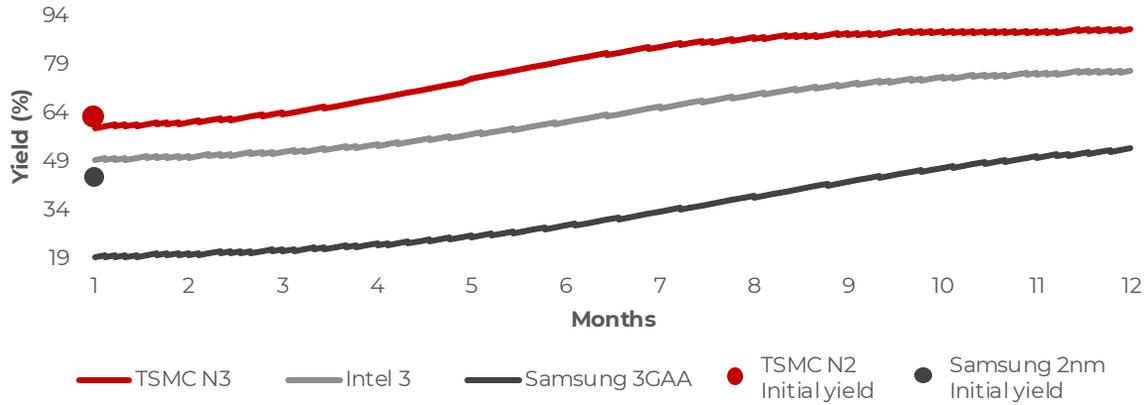
Mastering Yield, Speed, and Scale that no one can replicate



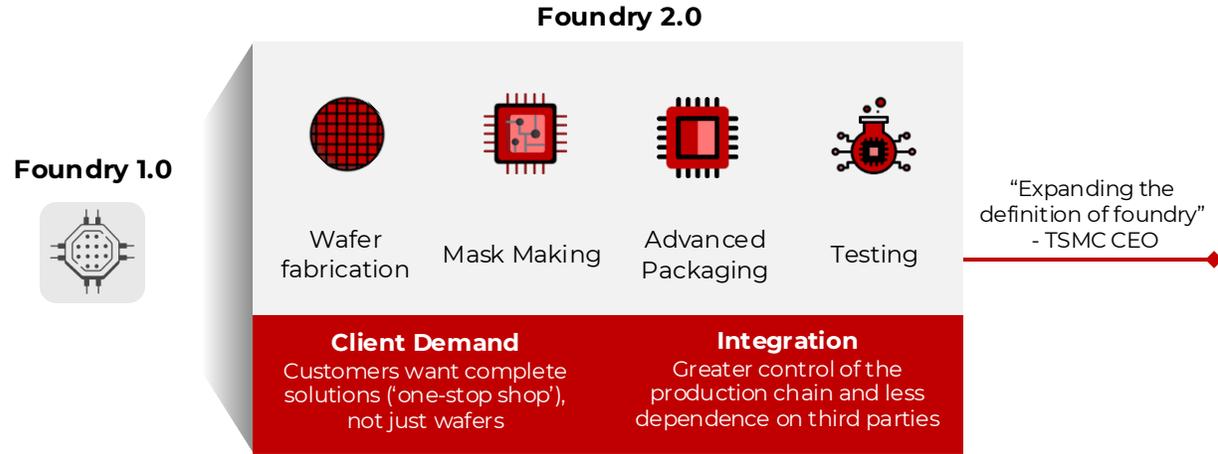
An integrated strategy of fast ramp-up, EUV optimization, and derivative nodes locks in 90 percent share

1. Faster yield ramp-up signals process maturity way ahead of its peers

Yield ramp-up (%) 0-12 months

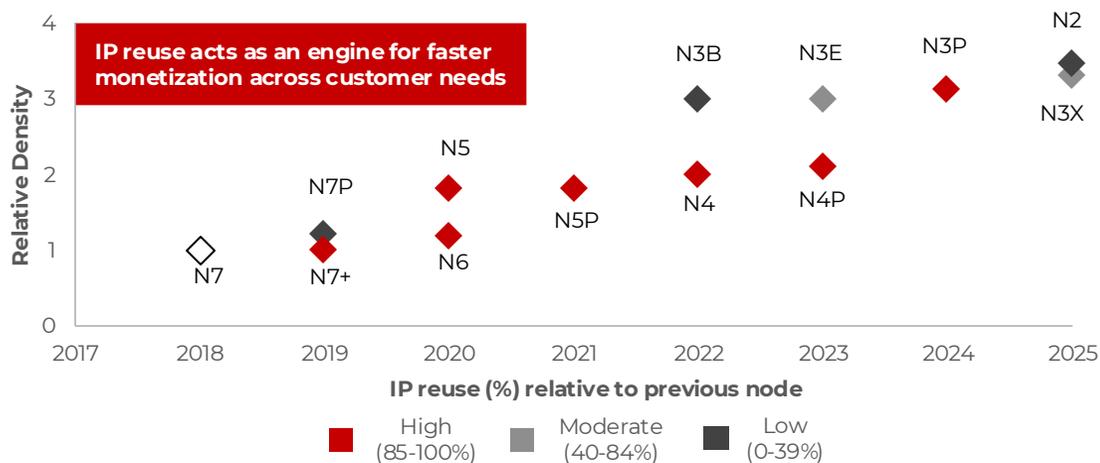


2. ...enabled by Foundry 2.0: a verticalized model that aligns design, manufacturing, and customer integration



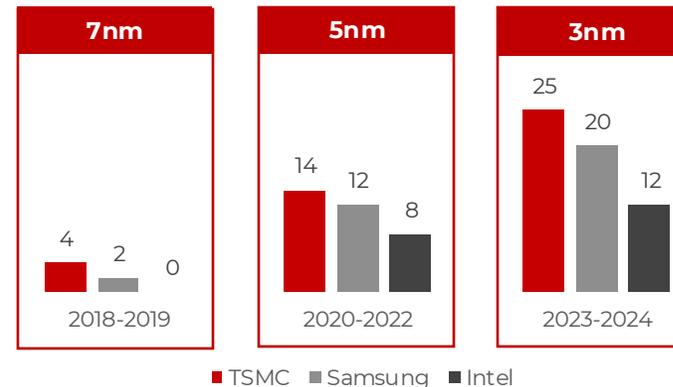
3. Derivative nodes reuse prior IP, compressing time-to-market and reducing engineering complexity

Relative Density from N7 and IP reuse (%)

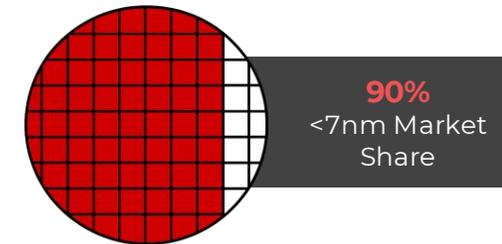


4. ...allowing EUV to be used where it delivers highest technical and economic returns

EUV Layer per advanced node



5. Culminating in consistent dominance across advanced nodes market share

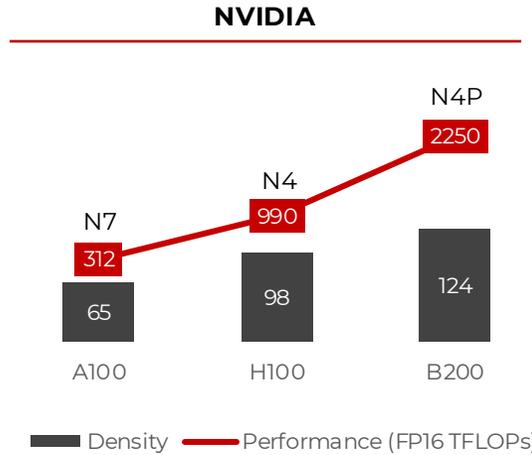
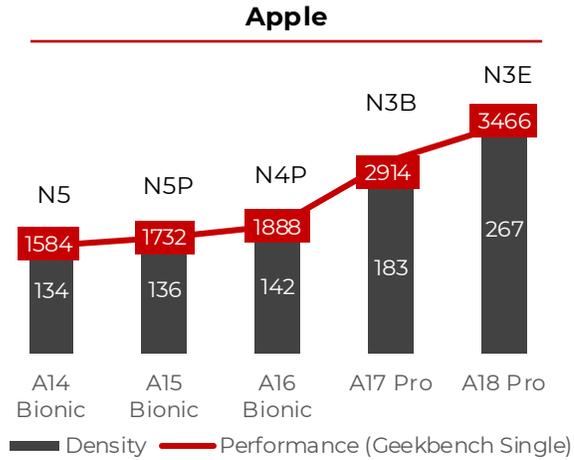


Visible superiority in the final product, which customers pay for

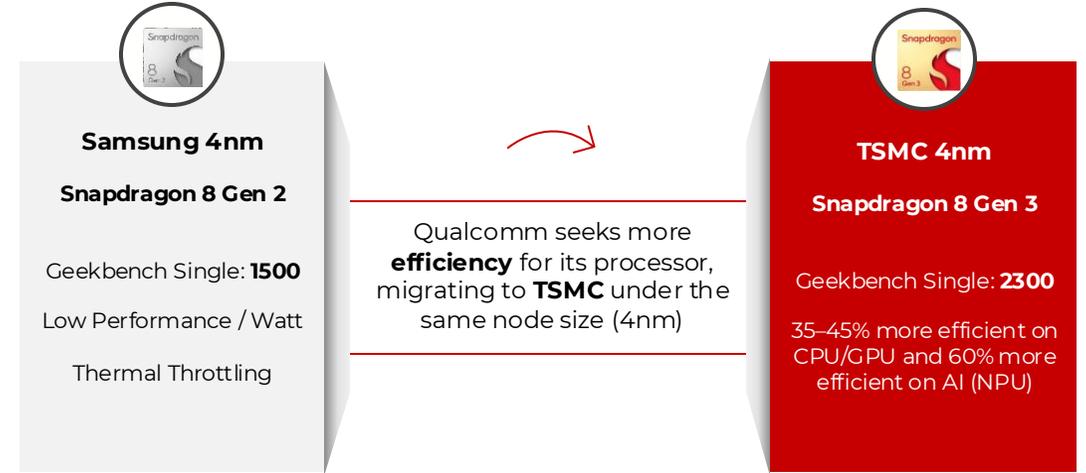
TSMC's silicon advantage drives customer migration, ASP premiums, and consistent free cash flow growth



1. Apple's and NVIDIA roadmap with TSMC proves **consistent gains in density and performance**

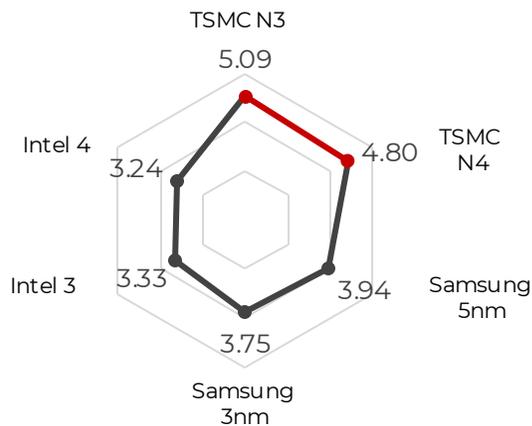


2. ...and confirmed by Qualcomm's switch from Samsung **for better 4nm results**



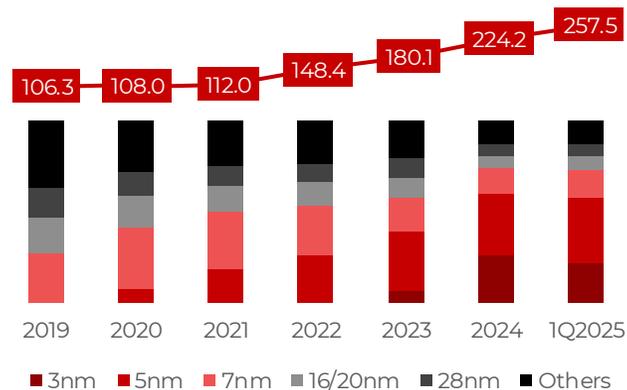
3. Building on **TSMC's superior density per EUV layer** across all nodes

Efficiency Measure = Density (MTr/mm²) / EUV Layers



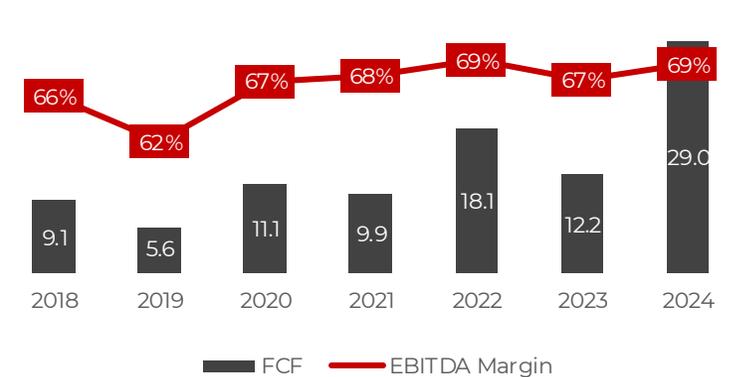
4. ...which supports **premium ASPs** and greater revenue per wafer

Revenue per node (%) and average ASP (thousand)



5. **With top-tier margins and reliable free cash flow.**

Free Cash Flow (US Billion) and EBITDA Margin (%)



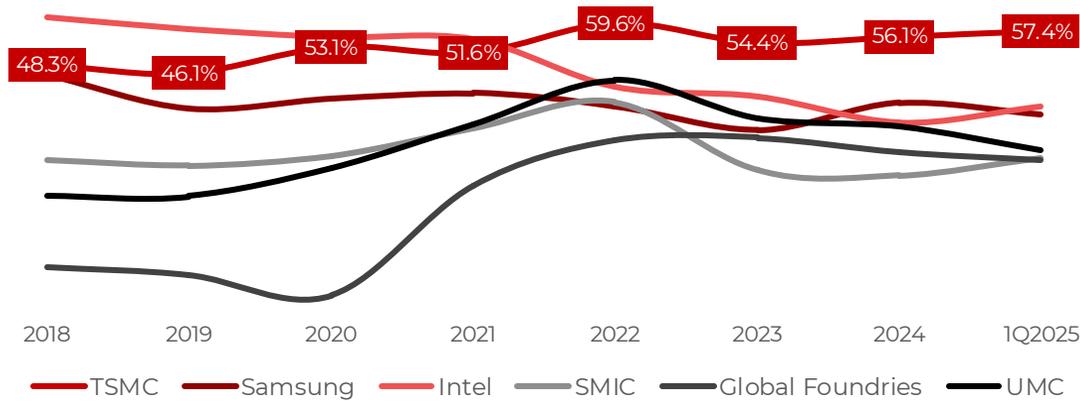
Resulting in profitability metrics that only it has



TSMC's shows how to allocate capital: Result comes by out-engineering and out-operating its peers.

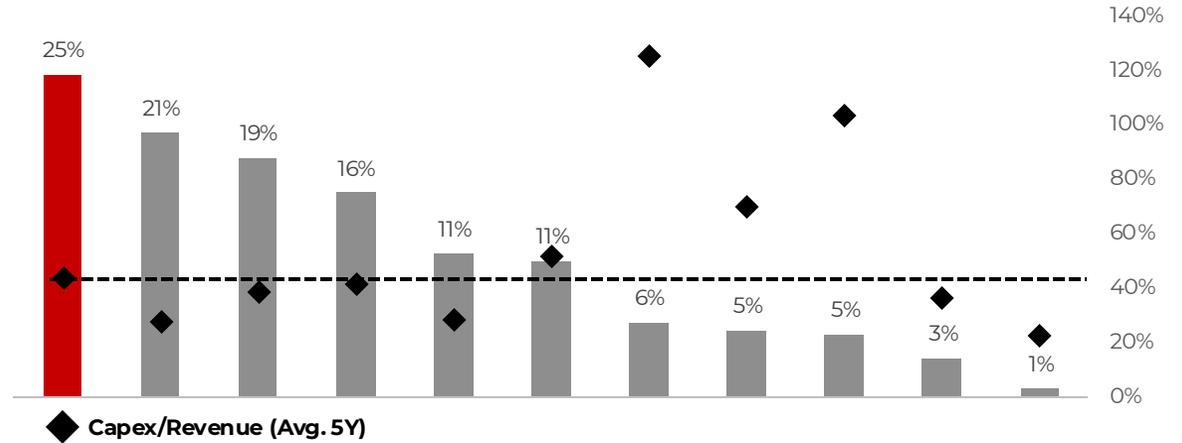
1. TSMC leads in gross margin — consistently and across cycles, result of a more efficient process

Gross Margin (%)

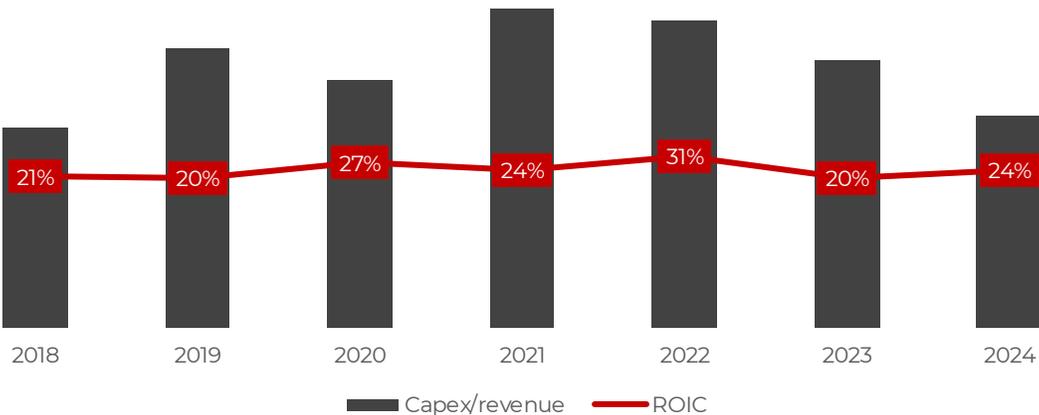


2. And translates efficiency into superior returns on invested capital

ROIC (Avg. 5Y) and Capex/Revenue (Avg. 5Y) of market peers

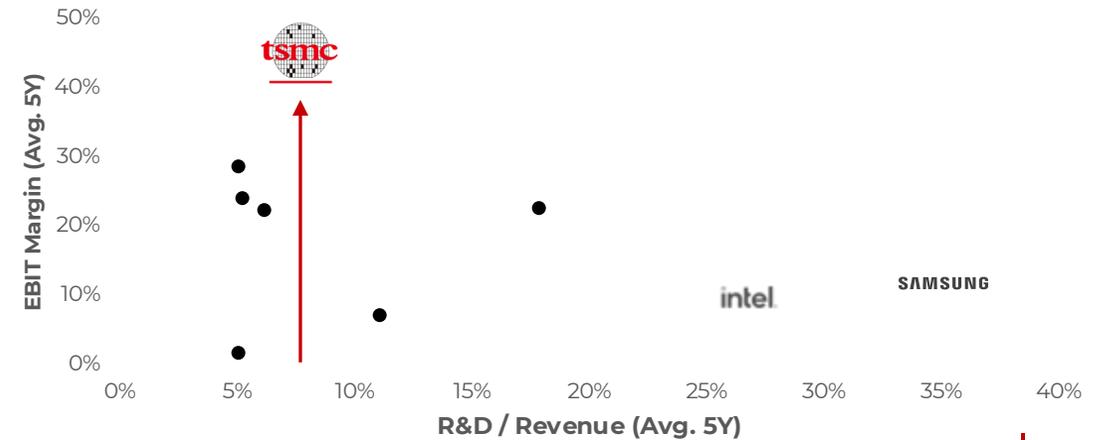


3. ...sustaining ROIC even through peak capex investment periods, showing that it is not just a question of total invested capital



5. And even with lower R&D intensity, EBIT margins remain the best, showing volume and efficiency in allocation.

EBIT Margin (Avg. 5Y) and R&D / Revenue (Avg. 5Y) of market peers



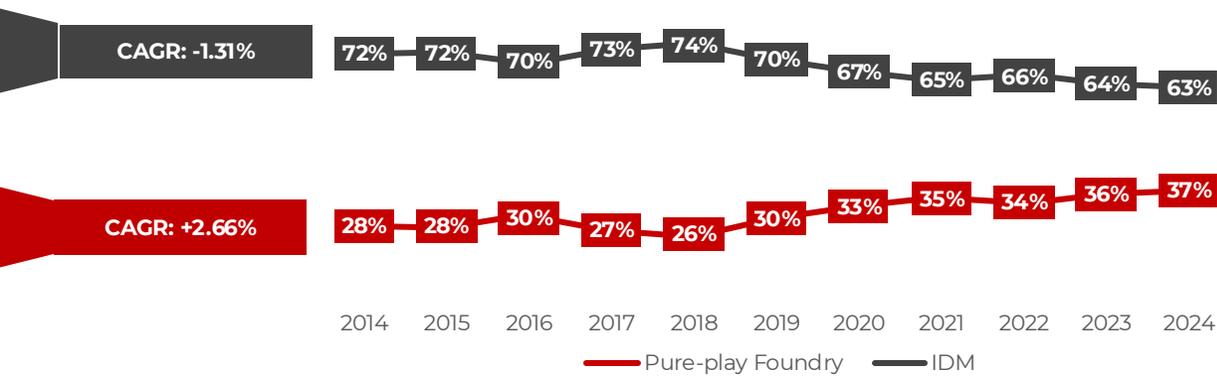
Pure-play Foundries Outperform IDMs in Returns and Efficiency



Driven by fabless demand, foundries deliver higher ROE with comparable Capex and superior utilization vs. IDMs

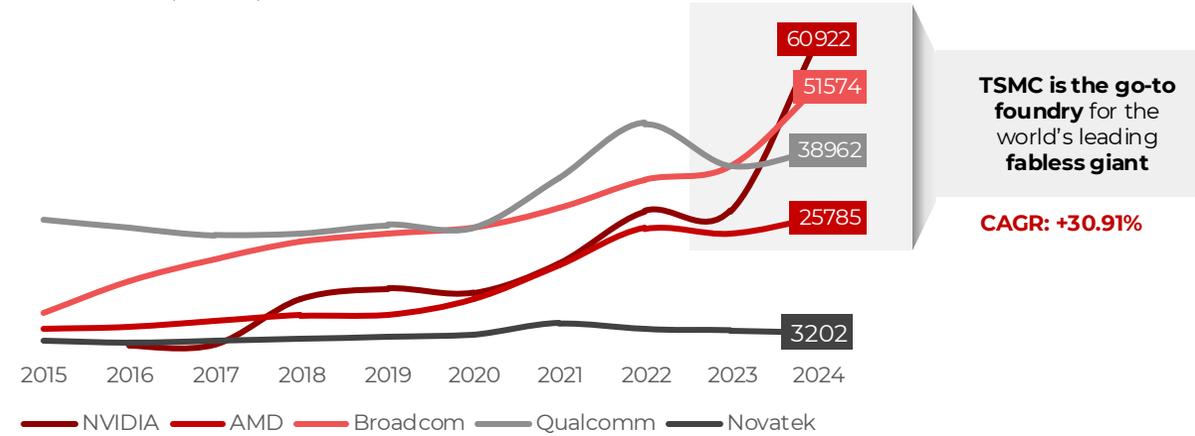
- Over the past decade, the semiconductor industry has **shifted toward specialization and scale**, leading to the **rise of the pure-play foundry model**

Foundry vs IDM Market Share Evolution

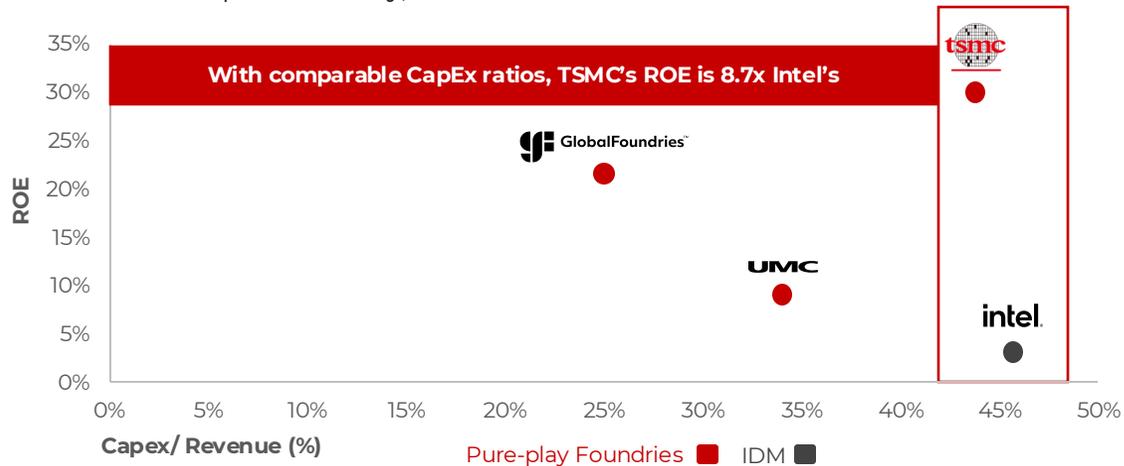


- The rise of fabless companies accelerated this shift, driving sustained **demand for foundries like TSMC, whose model is built to serve them**

Fabless Revenue (2015-2024)



- Pure-play foundries have proven more efficient** by delivering **higher returns** with similar capital intensity, which reinforces this structural transition



- Their **broad client base helps stabilize fab utilization**, while IDMs, with fewer clients and reliance on internal demand, face greater underuse risk

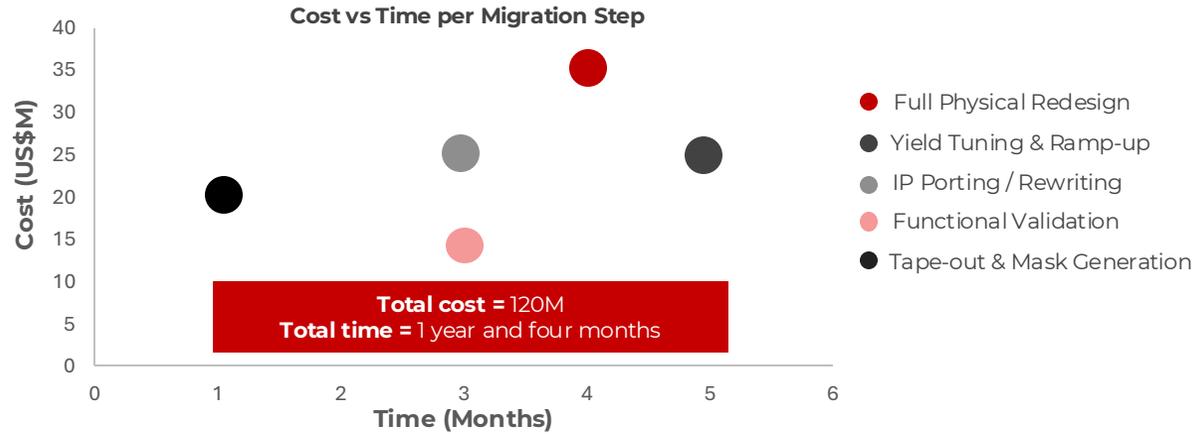


Operational and Financial Lock-In Reinforces Client Retention



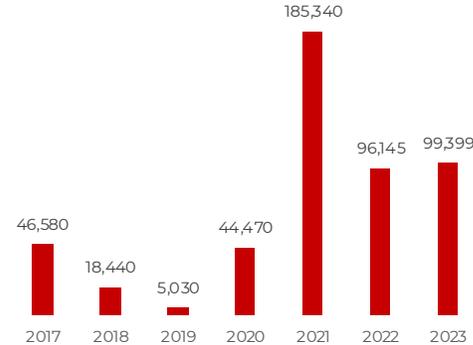
Migration risks, financial entrenchment, and supply chain leverage make client exit costly and unlikely.

1. **Switching foundries requires costly redesigns and long lead times**, making customers reluctant to exit



2. **This reluctance is reinforced by financial entrenchment** as TSMC's negative working capital, driven by large prepayments, shows clients are funding the system they rely on

Historical Prepayments to TSMC



	2017	2018	2019	2020	2021	2022	2023
NOWC excluding prepayments:	73,609	101,184	74,245	106,643	272,302	18,760	41,540
NOWC including prepayments:	27,029	82,744	69,215	62,173	86,962	-77,385	-57,859

3. **Trust amplifies this lock-in**, as TSMC's neutrality and flawless execution **turn clients into long-term partners**

From Competitor to Partner

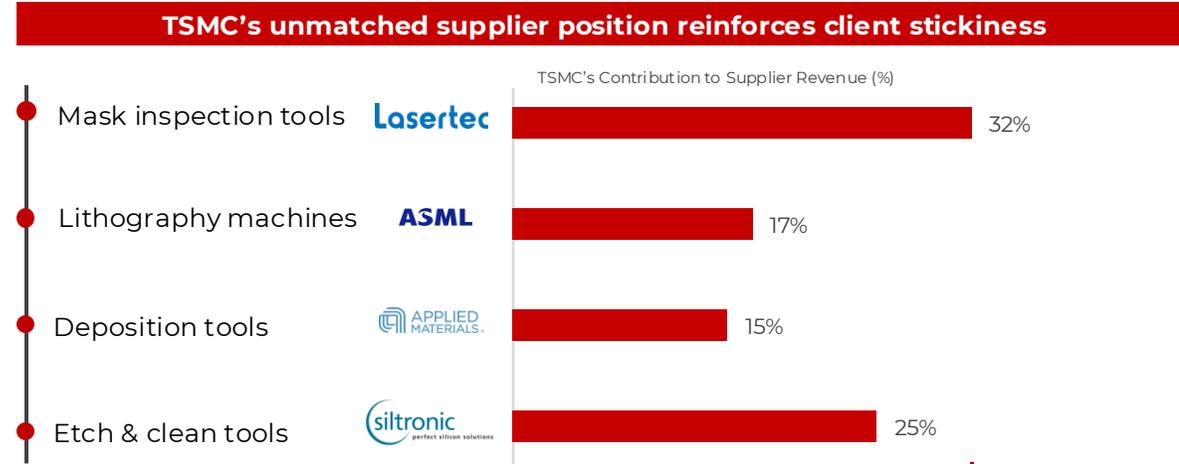
(2010-2012) **SAMSUNG** | (2012- now) **TSMC**

Amid an intellectual property dispute, **Apple shifted from Samsung to TSMC to safeguard its chip designs**

"It is a trust business. We do not compete with our customers."

-Mark Liu, former Chairman of TSMC

4. **At the core, TSMC's command over its supplier ecosystem delivers unique scale benefits and tailored inputs, reinforcing client dependence**



Precision That Begins Before the Fab and Extends to the Boardroom



TSMC pairs open access and design readiness with industry-leading service and disciplined leadership.

1. With the **largest network of EDA partners** and the **deepest IP portfolio** in the industry, **TSMC removes friction before manufacturing even begins**



2. With its open platform, **TSMC welcomes all**, making it the only foundry where even **rivals become repeat customers**



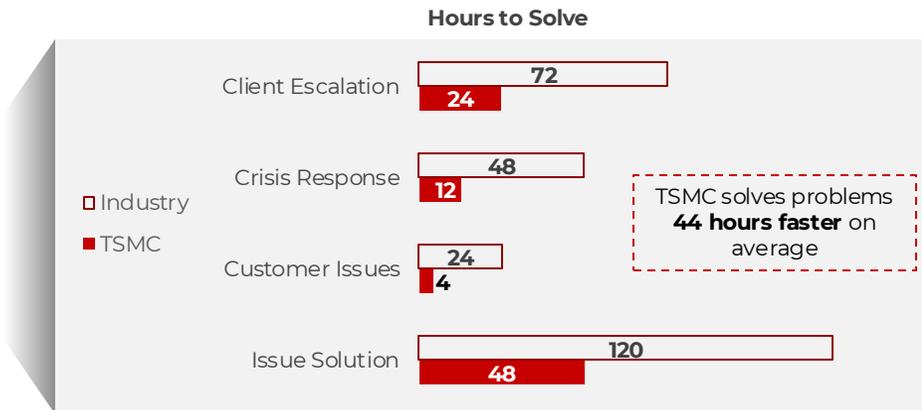
Why they do this?

Intel and Samsung turn to TSMC when internal nodes fall short. **To stay competitive with AMD, NVIDIA, and Apple, hitting the market on time is non-negotiable, and TSMC ensures that.**

3. TSMC's precision is not limited to machines. Internally, the **company solves problems quickly** and delivers on timelines that **no other foundry can match**.

TSMC-Online

- 24 hour assistance
- Real-Time order tracking
- Escalation available for urgent matters



4. TSMC's leadership team focus on **discipline, innovation, and long-term thinking** is what makes the company's unmatched performance repeatable and sustainable.



C.C. Wei
Chairman & CEO
With TSMC since 1998



Y.P. Chyn
Co-COO (Operations)
With TSMC since 1987



Dr. Y.J. Mii
Co-COO (R&D)
With TSMC since 1994

96 Years
Combined Experience

In **TSMC performance compensation** is based on:

TSMC's relative TSR vs. **S&P 500 IT Index**

If **TSMC** outperforms the index by *X* percentage points, the vesting ratio is:
 $50\% + (X \times 2.5\%)$

ESG modifier:
Adds or subtracts up to **10%** of the award based on ESG achievements

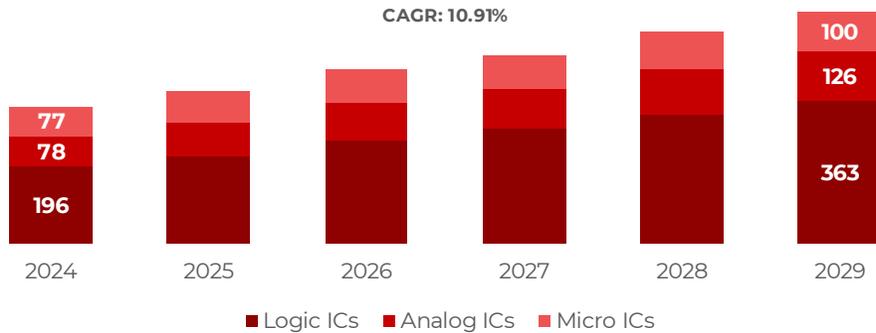
A Global Expansion Engineered for Leadership in Mature Nodes



With new fabs, TSMC increases its mature nodes capability leveraging on the automobile and sensor markets

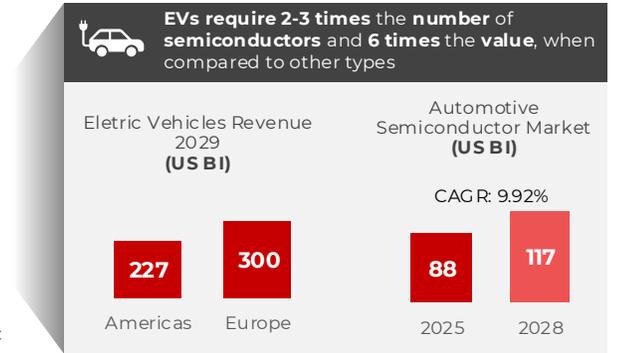
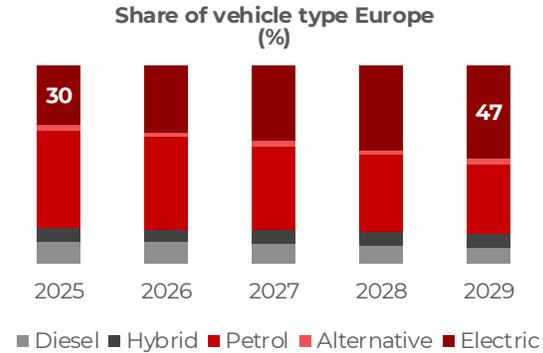
1. The **global demand for integrated circuits** is expected to **grow**, and **TSMC** is expanding to meet it with...

Global revenue from integrated circuits (US BI)



2. The **German Expansion**, reaching the **European automotive and industrial market** to capture the growing EV market...

Dresden Fab | JV between **TSMC, Bosch, NXP** and **Infinion**



3. And **The Japanese Expansion**, guaranteed demand from **strong partners** with a focus on sensors production

Kukamoto Fab | JV between **TSMC, Sony, Denso** and **Toyota**

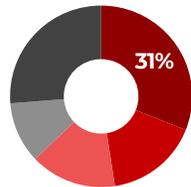
CMOS Image Sensor Market Global (US BI)



SONY

Holds **more than 50%** of the global CMOS market

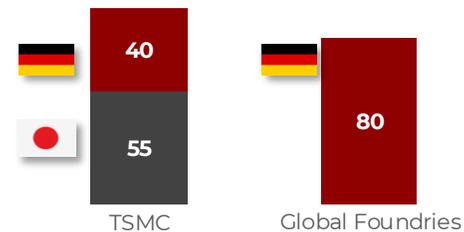
Share of vehicle sales in Japan (%)



Holds **31%** of Japan's vehicle production

4. With an **unmatched mature nodes focused overseas expansion**, TSMC demonstrates its commitment to **maintaining leadership in this sector**

Asia/Europe future capacity (in thousands of wafers per month)



- SAMSUNG** No mature nodes expansion
- intel** No mature nodes expansion
- SMIC** Blocked by sanctions

"For TSMC, **mature nodes** are more than just a revenue stream, they **underpin the company's ability to invest in advanced nodes.**" Robert Castellano, OEM Consultant



TSMC's U.S. Bet: Turning Geopolitics Into Opportunity



By building capacity in the U.S., TSMC not only scales but strategically mitigates political and supply chain risks

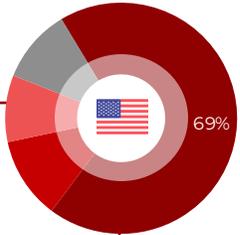
- The **U.S. is TSMC's biggest market**, and the company is **building capability** to meet its ever-growing demand

"TSMC is expanding investment in the country because of **large U.S. customer demand**, **production lines** there are fully **booked for this year and the next two.**"
REUTERS March 6, 2025

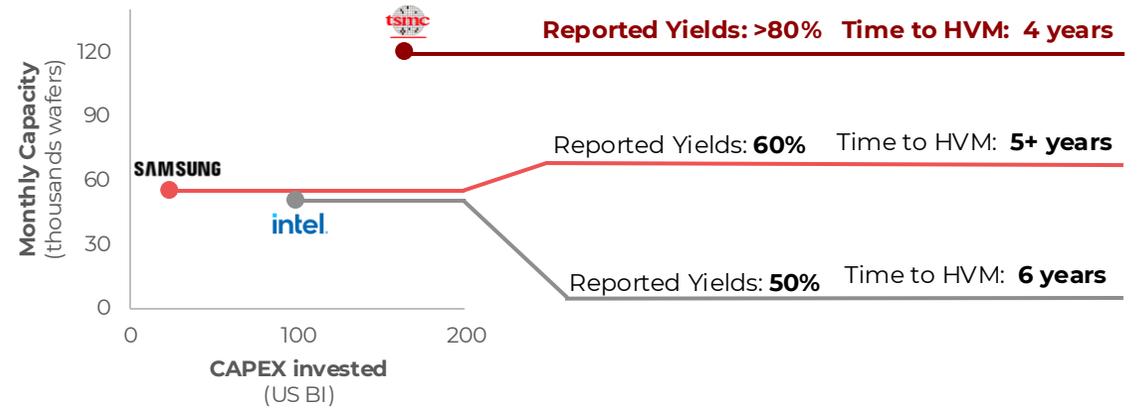
TSMC Arizona Fab Timeline

	Production Status	Capacity
Phase 1	Mass production started in Q4 2024	30,000 wafers p/month
Phase 2	Mass production to start in 2028	50,000 wafers p/month
Phase 3	Mass production to start in 2030	80,000 wafers p/month

TSMC's Revenue Origin (%)



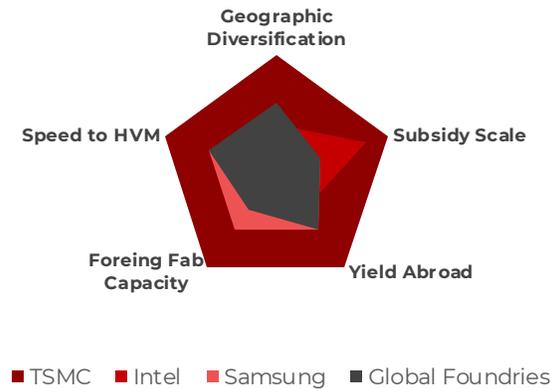
- ...A capability unmatched by any competitor, paving the way **for TSMC to become America's leading advanced-node manufacturer.**



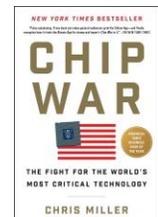
- With **subsidies**, TSMC reduces costs and risks of its overseas expansion, meanwhile its peers haven't been able to access this level of public-private support.



- TSMC stands as the **uncontested frontrunner in global expansion.** In an age of chip wars, it's not just about scale, but where and with whom that scale is built.



TSMC's US investment an extraordinary success



TSMC's investment allows it to, in effect, enter a **partnership** with the **new US administration**

-Chris Miller, 'Chip War' author

Valuation: Projections

How our thesis relate to valuation



1. Catalyst

Technical Sovereignty

Operational Triumph

Overseas Expansion

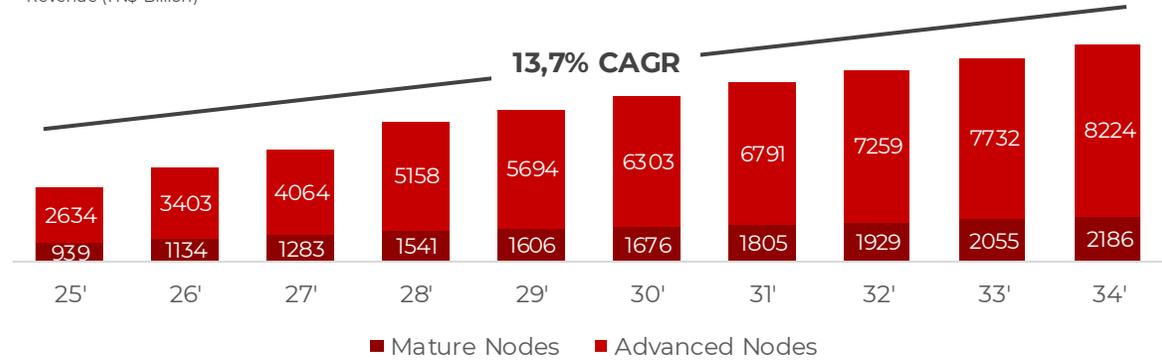
Linkage with Financials

ASPs	Ability to pass on prices
Margins	Margin stabilization through higher yields and less R&D need
Revenue	Customer retention and demand fulfillment
NOWC	Advanced payments
Revenue	New Fabs with high demand
Risk Reduction	Expansion to countries with lower risk and required premium

2.

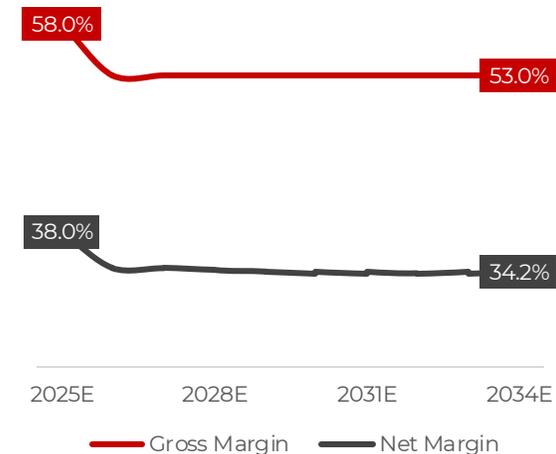
We have reached **revenue** growth led by advanced nodes

Revenue (TN\$ Billion)



3.

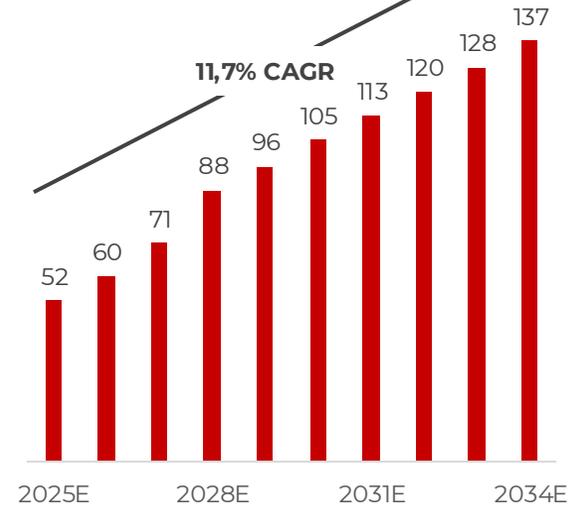
Margins that decreases due to the yield of new factories, but **stabilizes**.



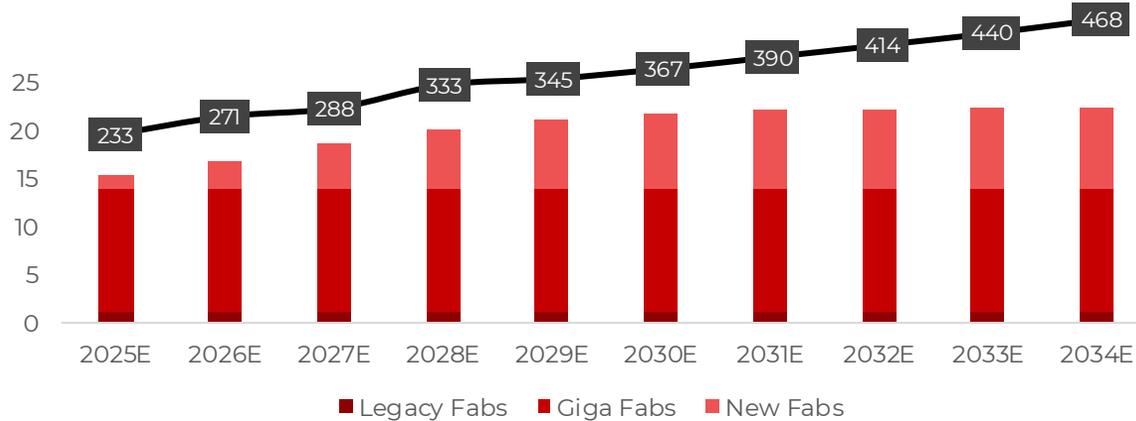
4.

And a steadily **growing** EPS

Earns per share (TN\$)



Wafer fab production × ASPs = Revenue

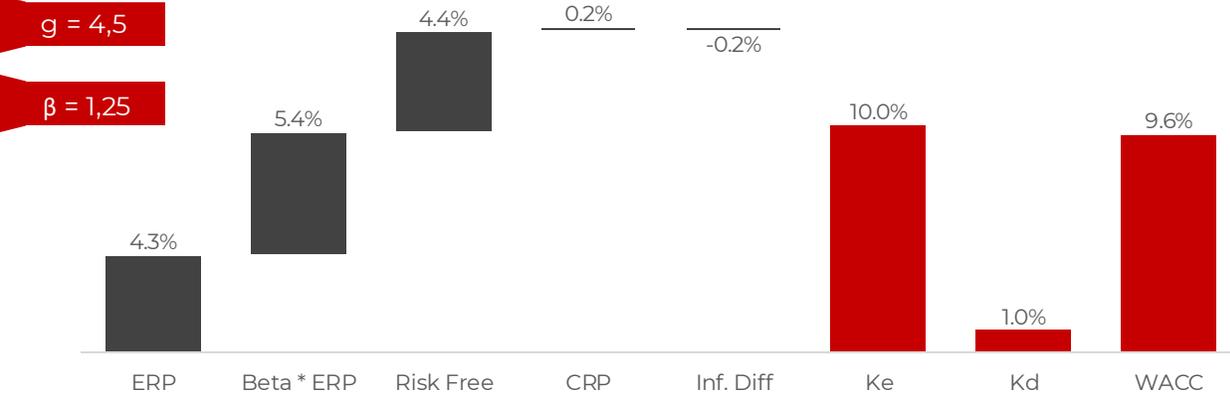


Deep dive into the DCF

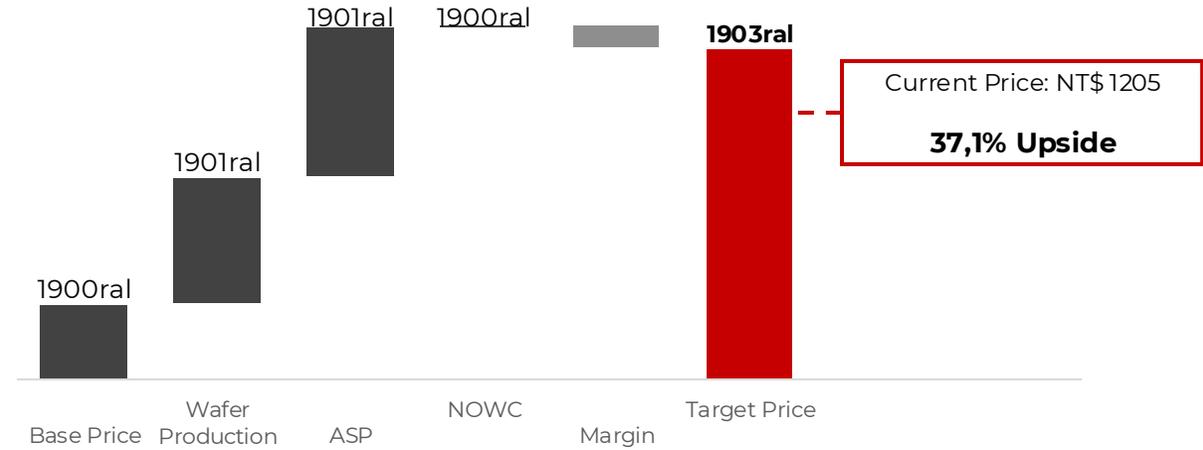
What we did to arrive at the implied value



1. We perform the WACC through CAPM, re-levered sector Beta, Ke and g weighted by revenue location



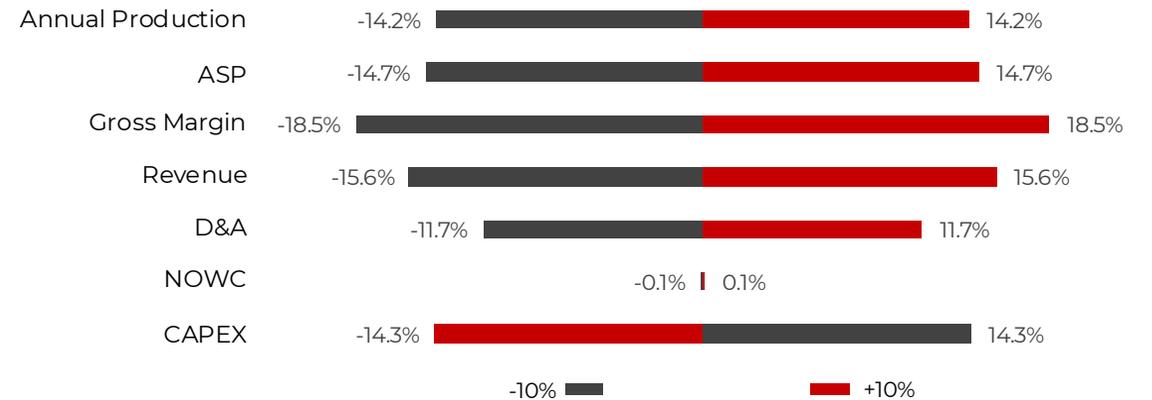
2. We break down the composition of our target price, which comes mostly from revenue expansion



3. We sensitized our model by wacc and g, which still reflects a **96% positive scenarios**

g	WACC				
	8.6%	9.1%	9.6%	10.1%	10.6%
5.50%	123.43%	89.44%	63.87%	43.95%	28.04%
5.00%	96.41%	69.78%	49.06%	32.50%	18.98%
4.50%	75.96%	54.39%	37.15%	23.08%	11.41%
4.00%	59.95%	42.00%	27.36%	15.21%	4.98%
3.50%	47.07%	31.82%	19.18%	8.53%	-0.55%

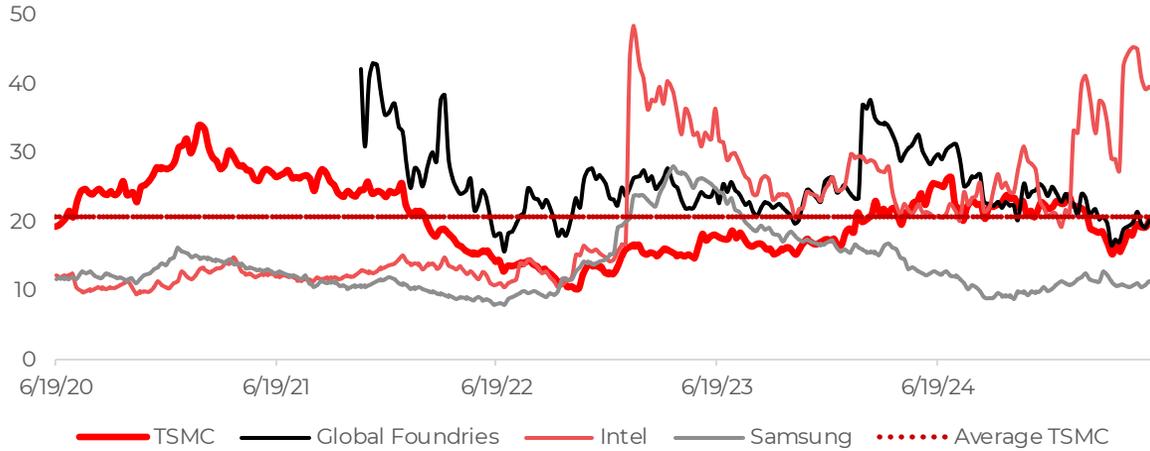
4. And through tornado analysis we can see that both **ASP** and **gross margin**, are the more sensitive variables, in which tsmc has **greater control** and **competitive advantage**



Multiples

We see a 16.4% IRR for a five-year investment, confirmed by our scenario analysis

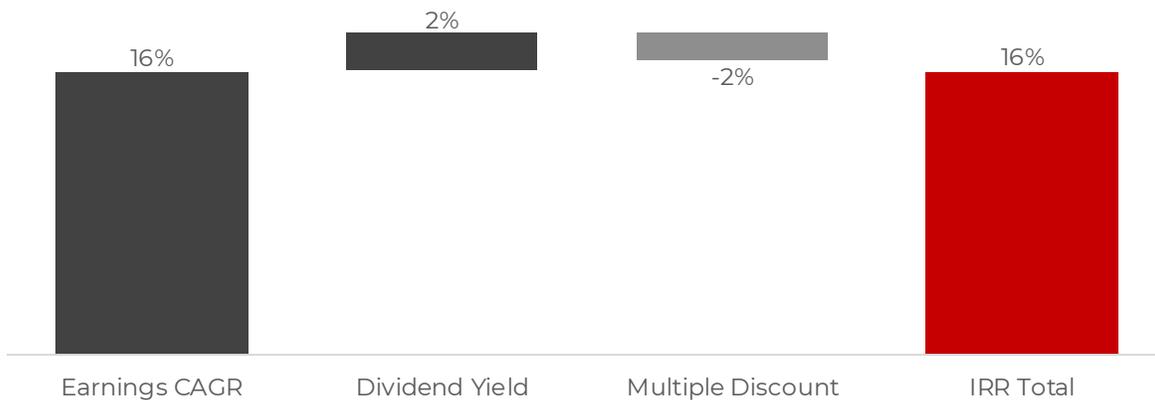
1. TSMC's P/E fwd remains in line with market and historical levels, and trades near a 22.67x multiple



2. With an exit P/E of 20.7 that aligns with TSMC historical numbers, we see good returns in the vast majority of the cases

		Exit P/E				
		18.70x	19.70x	20.70x	21.70x	22.70x
Year	2027	11%	13%	15%	17%	18%
	2028	15%	16%	18%	19%	20%
	2029	14%	15%	16%	17%	18%
	2030	14%	15%	15%	16%	17%
	2031	13%	14%	15%	15%	16%
Revenue CAGR	Bear 18.14%	12%	13%	14%	15%	16%
	Base 20.33%	14%	15%	16%	17%	18%
	Bull 22.53%	17%	18%	19%	20%	21%

3. Decomposing IRR, where is it coming from?



4. Confirming our thesis, TSMC offers good returns and we proceed with our buy recommendation

For a 5 year investment in TSMC, exiting in 2029, we see:

Exit P/E 20.7x **IRR 16.4%** **MIRR 13%** **MOIC 2.1**

Critical Risks and Scenario Testing

We raised our main concerns about the company and tested different scenarios

1. We outlined the key risks to our thesis

Technological Risks

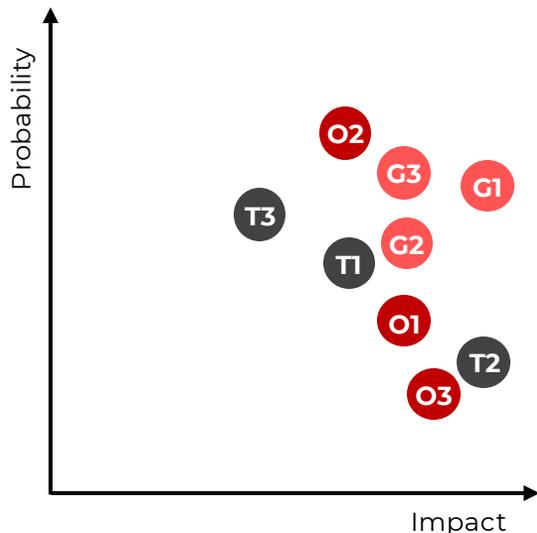
- T1** - Need for constant tech upgrades
- T2** - Risk of low yield or product failure
- T3** - Growing cybersecurity threats

Operational Risks

- O1** - Disruption from natural disasters
- O2** - Utility supply instability (water, power)
- O3** - Revenue concentration in few clients

Geopolitical risks

- G1** - U.S.-China tensions disrupting supply chains
- G2** - Trade barriers and export controls
- G3** - Global tech decoupling and localization



Mitigation Measures

- Expand overseas manufacturing footprint
- Investments in R&D and ecosystem partnerships
- Strengthen infrastructure resilience and utility backups

2. We also assessed the impact on valuation across scenarios

Bull

Annual Wafer Shipment CAGR: 6.60%

ASP CAGR: 8.79%

Revenue CAGR: 15.80%

Gross margin: 54%

Stock price

Upside: 64.6%

IRR: 19.1%

Base

Annual Wafer Shipment CAGR: **5.60%**

ASP CAGR: **7.79%**

Revenue CAGR: **13.66%**

Gross margin: **53%**

Stock price

Upside: **37.1%**

IRR: **16.4%**

Bear

Annual Wafer Shipment CAGR: 4.60%

ASP CAGR: 6.79%

Revenue CAGR: 11.53%

Gross margin: 52%

Stock price

Upside: 13.8%

IRR: 13.7%

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1. Overview

A New Era for Foundries, Driven by AI and End-Market Diversification

Global Reach and Node Leadership Power TSMC's Structural Growth Story

Investment thesis

2. Technical Sovereignty

Mastering Yield, Speed, and Scale

Visible superiority in the final product

Resulting in profitability metrics that only it has

3. Operational Triumph

Pure-play Foundries Outperform IDMs in Returns and Efficiency

Operational and Financial Lock-In Reinforces Client Retention

Precision That Begins Before the Fab and Extends to the Boardroom

4. Overseas Expansion

A Global Expansion Engineered for Leadership in Mature Nodes

TSMC's U.S. Bet: Turning Geopolitics Into Opportunity

5. Summary

Valuation: Projections
Deep dive into the DCF

Multiples

Critical Risks and Scenario Testing

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- [21. How do tariffs impact each subsegment?](#)
- [22. International Governance](#)
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Will China invade Taiwan?

China would face overwhelming political, logistical, and military obstacles in any attempt to invade Taiwan.



“Hegseth reassures allies that US will support them against Chinese aggression”

US Defense Secretary, Pete Hegseth on May 30



	 Aircraft Carriers	 Nuclear Submarines	 Fighter Jets
	11	6	1790
	2	12	1212

◆ The United States Military still commands the air and the sea

“Taiwan’s New Strategy: Make China Fear the Pain of an Invasion”

Porcupine strategy Designed to make Taiwan hard to attack and constly to conquer.



Our Interview with DR. Spektor

- **United States** is still **stronger** than China
- Taiwan will be **costly to conquer**
- **Taiwanese Government** is very **cautious** regarding their relation to the Chinese Government

“The risk is real, but not imminent”

Dr. Matias Spektor

Professor at FGV-RI,
Doctorate from Oxford



How do tariffs impact each subsegment?



All subsegments may be affected, but only some have the capacity to effectively navigate the situation

Fabless

- Up to 54% U.S. tariffs on China-assembled devices
- Export bans on advanced chips to China
- Bans block sales to major Chinese cloud clients
- Changing rules force chip redesigns and delays

Equipment

- Export bans on EUV/DUV tools to China
- 20–32% tariffs on tools shipped cross-border
- Blocked sales to SMIC, YMTC

Packaging & Testing

- Tariffs on final-stage chips assembled in China
- Customers shifting away from China

EDA & IP

- Export controls on EDA software to China
- Loss of Chinese clients

Foundries

- Tariffs on chips made in Taiwan/China
- Restrictions on supplying to Huawei/SMIC
- Geopolitical risk over Taiwan

How are leading companies positioned to face these risks?

- Hard to mitigate
- Actively mitigating
- Mitigating underway

International Governance

A Company guided by experienced leaders that have dedicated their whole careers to TSMC



Dr. C. C. Wei - CEO

Experience

TSMC
Chairman & CEO (since 2024 – present)
CEO (2018 –2024)
President & Co-CEO (2013 –2018)
Co-COO (2012 –2013)
SVP, Business Development (2009 – 2012)
SVP, Mainstream Technology Business (pre-2009)
VP, South Site Operation (early tenure)

Prior Experience



**David Keller – CEO
TSMC North America**

Experience

TSMC North America
CEO (2017-present)
President – Previously
Joined the company in 1997

Prior Experience



**Paul de Bot – President
TSMC Europe**

Experience

TSMC Europe
President (since 2024)
Leading operations in Europe and Israel - (since 2022)
General Manager, EMEA (appointed 2022)
Joined TSMC in 2015, with roles in account management

Prior Experience



**Makoto Onodera –
President TSMC Japan**

Experience

TSMC Japan
Representative Director & President (since 2006)
Joined TSMC in 1997

Prior Experience

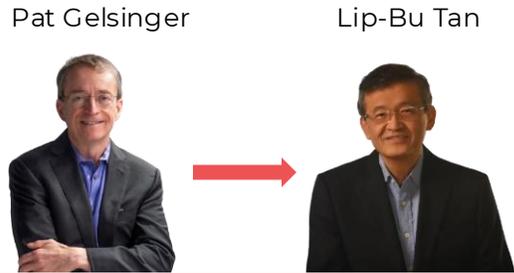


Intel Is Not Ready to Compete

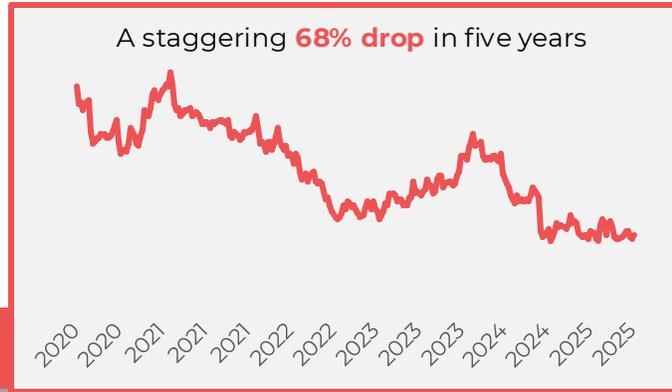
Intel has gone through turbulent times recently, and the weather doesn't seem to be getting any better.



Intel's leadership transition reflects **deeper structural issues**, with **governance instability** contributing to a sharp **market decline**



Intel's governance changed out of necessity after heavy losses and Gelsinger's exit.



Core Challenges at Intel:

- Cancellation of Intel 20A Node for Arrow Lake
- Years of delays transitioning from 10nm to 7nm
- Massive net loss of \$16.6 billion in 2024
- Falling behind in global foundry market share
- CEO Exit Amid Strategic Uncertainty

The effects of **internal misalignment** are visible in Intel's advanced node execution, marked by **cancellations, delays, and limited market traction**

Node	TSMC	Intel	Leader
7nm	Mass production (2018)	Delayed, never fully ramped (2020)	TSMC
5nm	Mass production (2020)	No volume production	TSMC
3nm	Mass production (late 2022)	Still not in volume (as of mid-2025)	TSMC
2nm	Planned for 2025	No clear timeline	TSMC
20A	-	Canceled in 2024	-
18A	-	Planned for late 2025	-

Apple

One of TSMC's most important client, why Apple chooses and will continue to choose TSMC



Apple and TSMC have built a **trusted partnership** spanning 14 years, dating back to 2011...

...A long-standing collaboration marked by **reliability and innovation** that still holds true more than a decade later

“TSMC founder says Tim Cook told him in 2011 that Intel did not know how to be a foundry”

Acquired Podcast, January 2025

“When the customer asks a lot of things, we have learned to respond to every request”



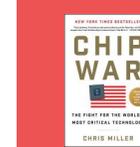
Morris Chang, TSMC Founder

Intel was seen as **lacking the customer-first approach** crucial for a foundry business.

While TSMC customizes its processes to align with client needs

Intel, focused on its own chip design and manufacturing, **struggled to shift toward serving external partners.**

But what does the future hold for this partnership? Amid an increasingly unpredictable U.S. political landscape...



“Apple’s iPhone processors are fabricated exclusively in Taiwan. Today, no company besides TSMC has the skill or the production capacity to build the chips Apple needs”
– Chip War

Today Apple represents more than 20% of TSMC's annual revenue



...Apple will continue to rely on the safest, most reliable, and trusted supplier: TSMC.

“Apple to Source Billions of US-Made Chips in Supply Chain Shift”

Bloomberg

“The fund’s expansion includes a multibillion-dollar **commitment from Apple** to produce advanced silicon **in TSMC’s Fab 21 facility in Arizona. Apple is the largest customer at this state-of-the-art facility**, which employs more than 2,000 workers to manufacture the chips in the United States. Mass production of Apple chips began last month.”

Apple press note February 24, 2025



“Trump threatens 25% tariff on Apple, other tech giants if they don't start making devices in America”

CNBC May 23, 2025



“Trump’s New Tariffs Test Apple’s Global Supply Chain”

The New York Times May 23, 2025

NVIDIA

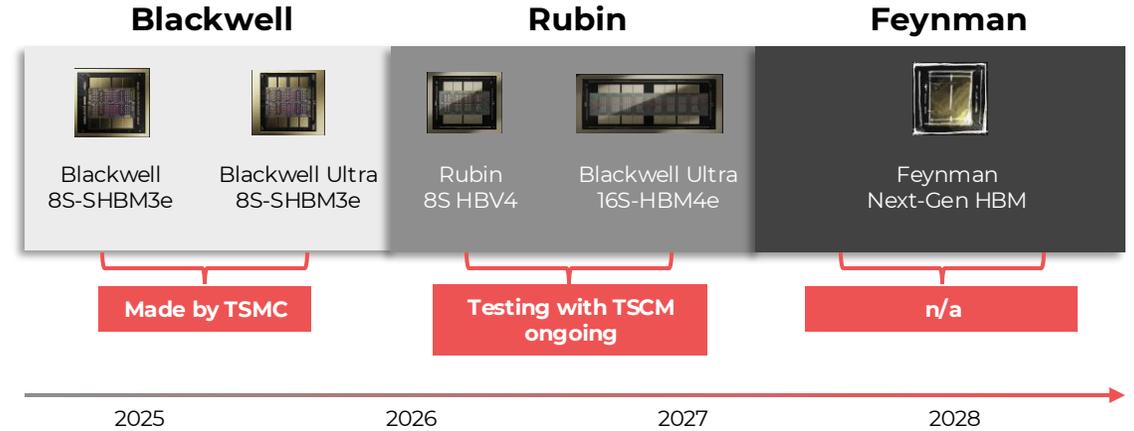
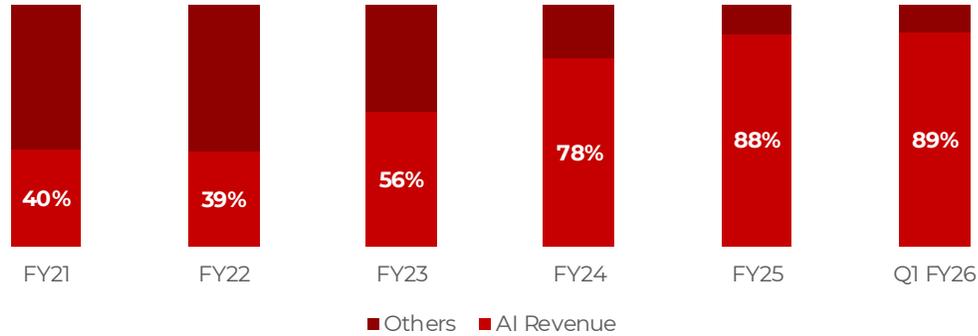
A Fabless leader, with an evergrowing relation with TSMC



NVIDIA has had an **excellent performance** in recent years, accelerated by **demand** for **HPC chips that fuel AI data centers**

And to continue this leadership, **NVIDIA will launch new systems** in coming years, **with TSMC as chosen foundry**

Revenue Origin NVIDIA



With **NVIDIA confirming that it will be part of TSMC's overseas operations** in Arizona independently of the price as long as it is fair. And acknowledging that TSMC is the only option for advanced packaging, **TSMC proves its undeniable pricing power**

“NVIDIA to Manufacture American-Made AI Supercomputers in US for First Time”
 Nvidia April 14, 2025

NVIDIA Blackwell chips have **started production at TSMC's chip plants in Phoenix, Arizona.**

Within the next four years, NVIDIA plans to produce up to **half a trillion dollars of AI infrastructure** in the United States through partnerships with TSMC and others

EDN TAIWAN “This is a very advanced packaging technology. I'm sorry we **don't have any other choice at the moment.**”
 EDN may 21, 2025

“How much more does NVIDIA have to pay for chips made in the USA?” - Reporter

“I don't know, it doesn't matter” - Huang

“Whatever is the price, as long as it is consistent and fair, that's the price” - Huang

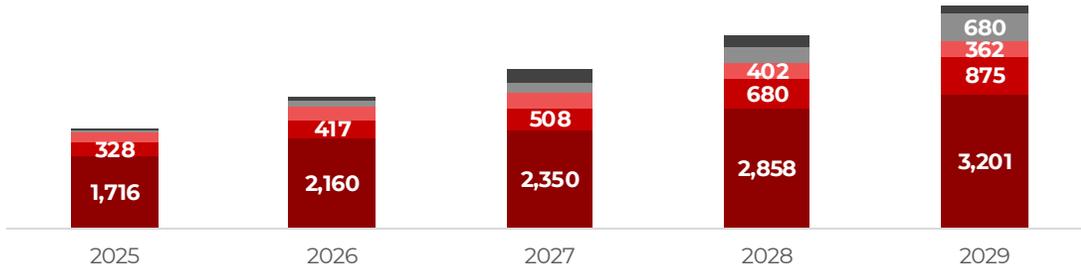
Jensen Huang, NVIDIA CEO



Global **5G** smartphone subscriptions units are projected to **reach 5 billion in the next 4 years...**

...Qualcomm has **invested in new chips** that will capture this 5G demand growth and in other chips focused on the growth in AI

Smartphone subscriptions for 5G
(in millions of units)



Qualcomm® X85
AI-powered 5G across devices

Qualcomm® 5G AI Processor

Icons representing: Smartphone, Laptop, Car, and Wi-Fi signal.

Snapdragon 8 elite

“Qualcomm’s AI powerhouse”

TSMC has continuously been chosen by Qualcomm’s as the go to manufacturer of its chips, and with the investments in the United States, we can expect an **even greater customer-supplier relation.**

Qualcomm is reported to launch a **new premium 4nm chipset** that will be positioned below its flagship named the Snapdragon 8s Gen 4. As noted by the report, the chip reportedly **will be manufactured using TSMC’s 4nm process.**

Arizona Fab Capacity

Year/Quarter	4nm Monthly Output	Situation
Q1 2025	20,000 wafers	Mass production
Mid-2025	30,000 wafers	Full ramp-up target
2026–2027	>30,000 wafers	Stable

Cristiano Amon,
Qualcomm CEO



‘Music to our ears’: Qualcomm CEO welcomes TSMC’s \$100 billion investment

“TSMC is a great supplier of manufacturing for Qualcomm. They have a facility in Arizona. We already have chips built in Arizona. **The more capacity that they put we’re going to use it, same way we’ve been using in Taiwan, we’re going to use it in other locations,**” Amon said.



March 4, 2025

Qualcomm CEO highlights ties with TSMC, Taiwan ODMs

“For chip manufacturing, we’re among the largest fabless” he said, noting that Qualcomm, ships about 40 billion components every year, with **TSMC being the company’s “primary manufacturing partner.”**



May 20, 2025

Energy costs

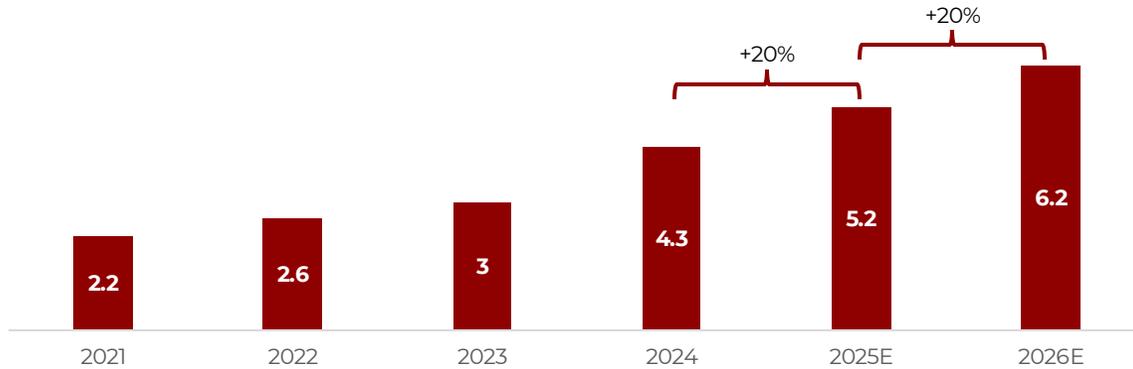


Taipower, Taiwan's state-run utility company has accumulated high losses

Electricity prices in Taiwan **expected to rise**. This shift would push TSMC's energy share of manufacturing **costs up** and **jeopardize margins**

Higher energy costs could reduce in 2% TSMC's gross margin by 2026. This becomes clear when we simulate this impact on market consensus of margins

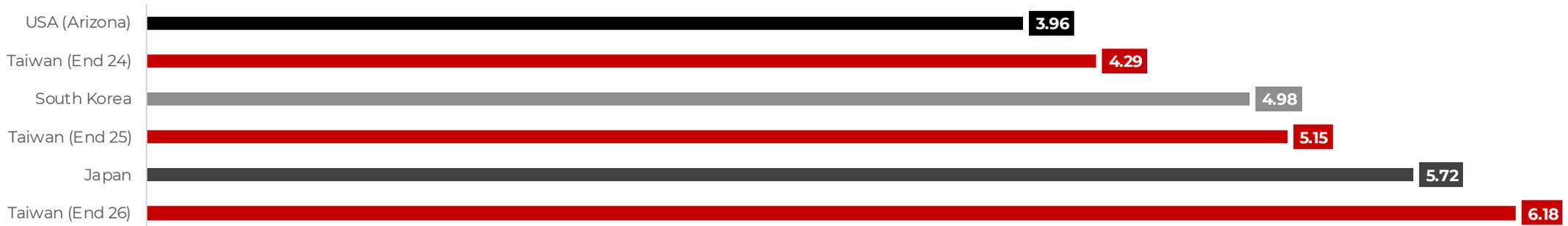
Taipower's Extra-High-Voltage Tariff (NTW/KWH)



Year	2025	2026
Gross Margin Consensus	58.50%	58.20%
Gross Margin Consensus with Tariff Hike of:		
Best case	10%	57.90%
Base case	20%	57.80%
Worst case	30%	56.70%

With Taiwan's electricity set to hit NT\$6.2/kWh,, **TSMC's U.S. expansion is more than geopolitical it's also economic**. Arizona's cheaper and more stable energy environment creates a long-term protection from sudden price hikes

Extra High Voltage Electricity Costs (NTW per KWh)



Advanced Packaging

A market filled with opportunities that TSMC leads



More end customers are seeking advanced-packaging providers because of the growing need for fast, reliable computing for applications such as autonomous vehicles.

To acquire and retain high-value fabless customers, manufacturers need to be comfortable codeveloping advanced-packaging solutions.

McKinsey & Company

Amkor and TSMC to Expand Partnership and Collaborate on Advanced Packaging in Arizona

Advanced packaging boosts chip performance and efficiency, essential for AI, 5G, and compact, high-performance devices, and its **sales are expected to rise**

Advanced Packaging Sales Worldwide (In USD B)

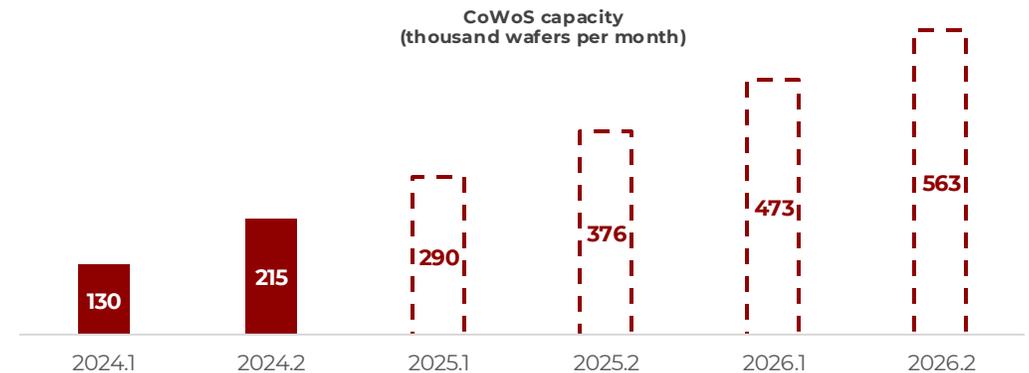


■ High-power computing ■ Consumer ■ Network ■ Mobile ■ Automotive ■ Industrial

TSMC's advanced-Packaging business, led by CoWos, is set to have a rapid expansion, as Fabless Designers ramp up volumes and need for more computing cores



With **TSMC's CAPEX investment** in coming years, **CoWos capacity** is expected to reach 100 thousand wafers per month by 2026



22 Biggest Suppliers

Dissecting the Supply Chain: Who Powers TSMC's Operations



Company	Sales to TSMC as % of total revenue	CAPEX/COGS/R&D	(% of TSMC's CAPEX/COGS/R&D)
ASML	16.68%	CAPEX	13.28%
Applied Materials	15.00%	CAPEX	9.61%
KLA	18.01%	CAPEX	4.95%
Tokyo Electron	13.66%	CAPEX	4.15%
Lam Research	9.38%	CAPEX	3.67%
Shin-Etsu Chemical	4.32%	CAPEX	3.06%
Lasertec	31.90%	CAPEX	1.85%
Entegris	16.00%	CAPEX	1.31%
AGC	3.63%	COGS	1.26%
Sumitomo Chemical	3.12%	COGS	1.15%
Tokyo Ohka Kogyo	30.40%	COGS	1.02%
Air Liquide	1.42%	COGS	0.92%
Onto Innovation	23.00%	CAPEX	0.88%
Siltronic	25.06%	COGS	0.87%
Toray Industries	1.77%	COGS	0.78%
Advantest	6.86%	COGS	0.77%
Keysight Technologies	10%	R&D	0.69%
SCREEN Holdings	6.02%	CAPEX	0.68%
Organo	15.43%	CAPEX	0.61%
Resonac Holdings	2.72%	COGS	0.60%
Globalwafers	9.98%	COGS	0.54%
Teradyne	7.84%	CAPEX	0.53%

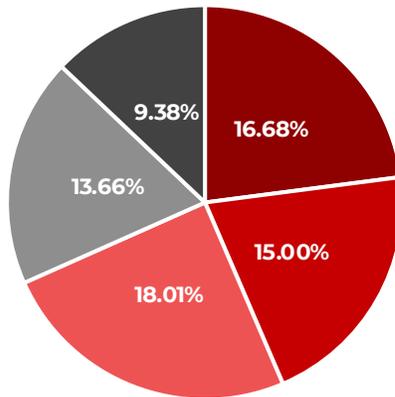
The 5 Biggest Suppliers

TSMC's 5 Largest Equipment Partners make up more than 35% of the company's CAPEX/COGS/R&D spending



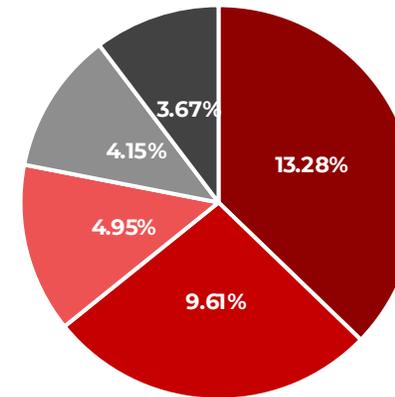
Company	Sales to TSMC as % of total revenue	CAPEX/COGS/R&D	(% of TSMC's CAPEX/COGS/R&D)
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KLA	18.01%	CAPEX	4.95%
Tokyo Electron	13.66%	CAPEX	4.15%
Lam Research	9.38%	CAPEX	3.67%

Sales to TSMC as % of Total Revenue



■ ASML ■ Applied Materials ■ KLA ■ Tokyo Electron ■ Lam Research

% of TSMC's CAPEX



■ ASML ■ Applied Materials ■ KLA ■ Tokyo Electron ■ Lam Research

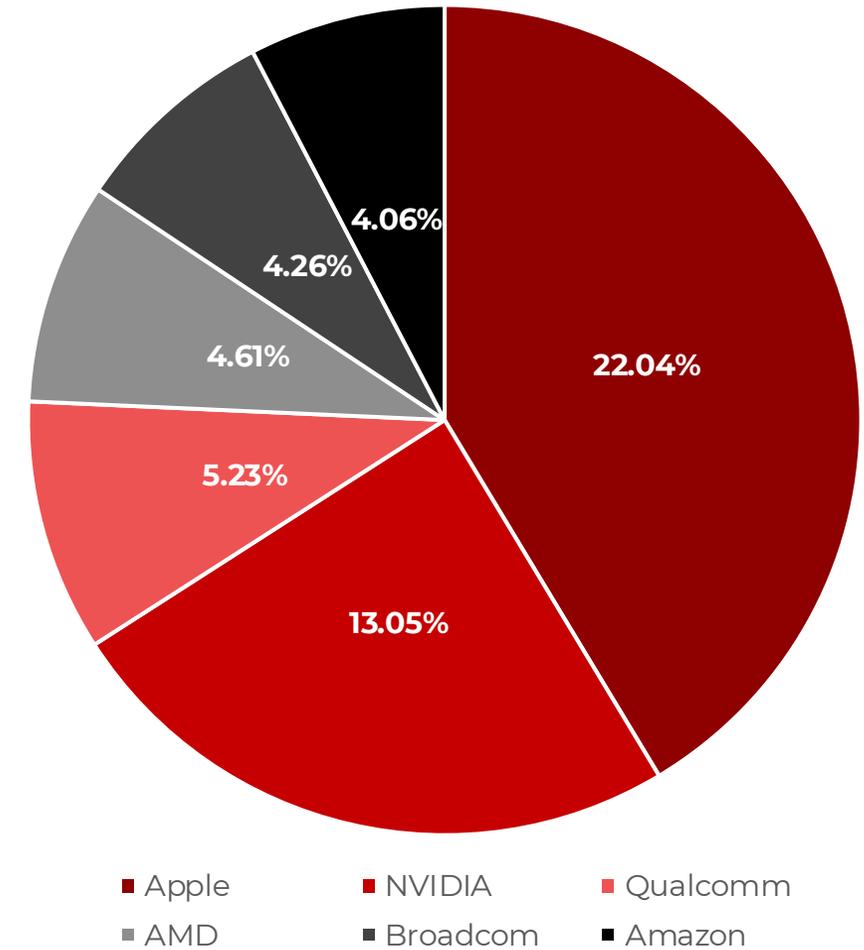
Key takeaway: TSMC-ASML numbers are similar in both cases

20 Biggest Clients

United States Dominates Revenue Composition Among Top Clients



Country	Company Name	Revenue Participation
United States	Apple	22.04%
United States	NVIDIA	13.05%
United States	Qualcomm	5.23%
United States	AMD	4.61%
United States	Broadcom	4.26%
United States	Amazon	4.06%
Taiwan	Media Tek	3.45%
United States	Intel	2.91%
Japan	Sony	1.22%
United States	Marvell	1.11%
Germany	Infineon	0.83%
France	STMicroelectronics	0.78%
United States	CISCO	0.66%
China	Will Semiconductor	0.63%
United States	Analog Devices	0.61%
Taiwan	Global Unichip	0.58%
Netherlands	NXP	0.54%
United States	Texas Instruments	0.49%
Taiwan	Phison Electronics	0.43%
United States	Cirrus Logic	0.38%

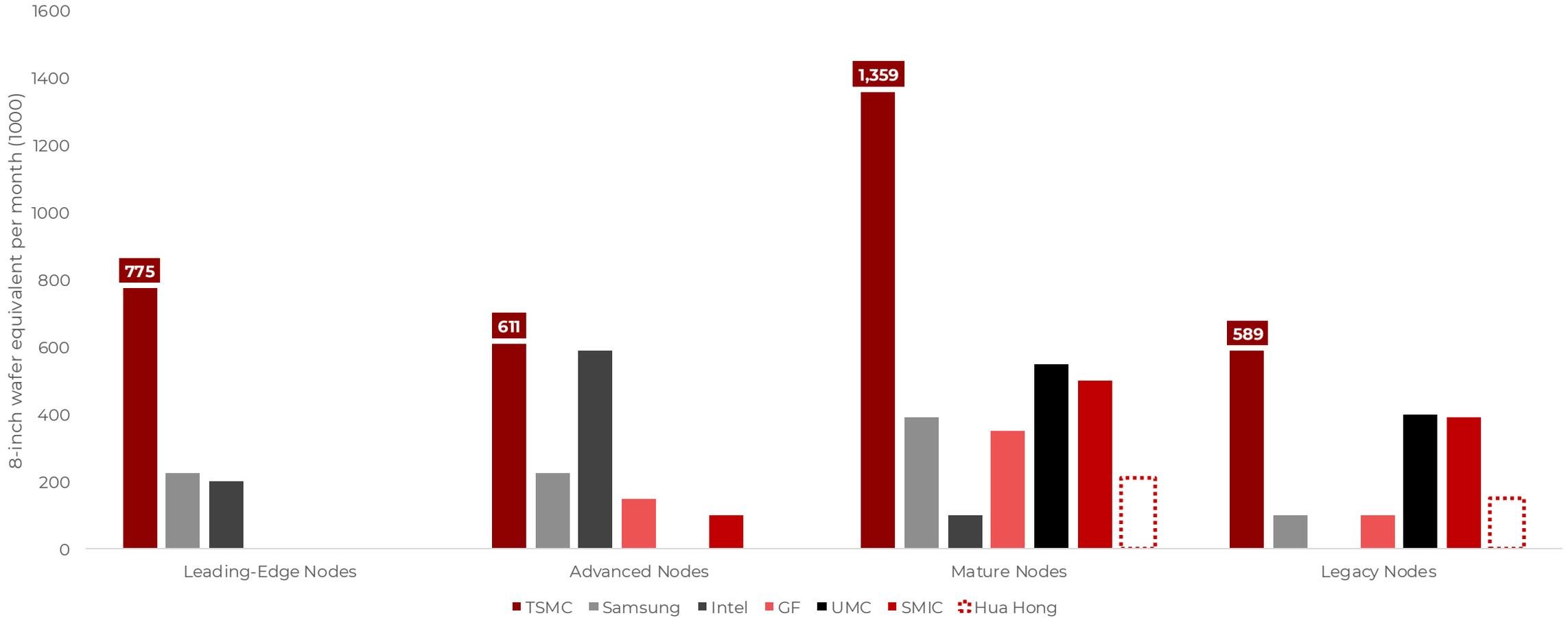


Installed Capacity

Installed Capacity Leadership from Leading-Edge to Legacy



Installed Capacity

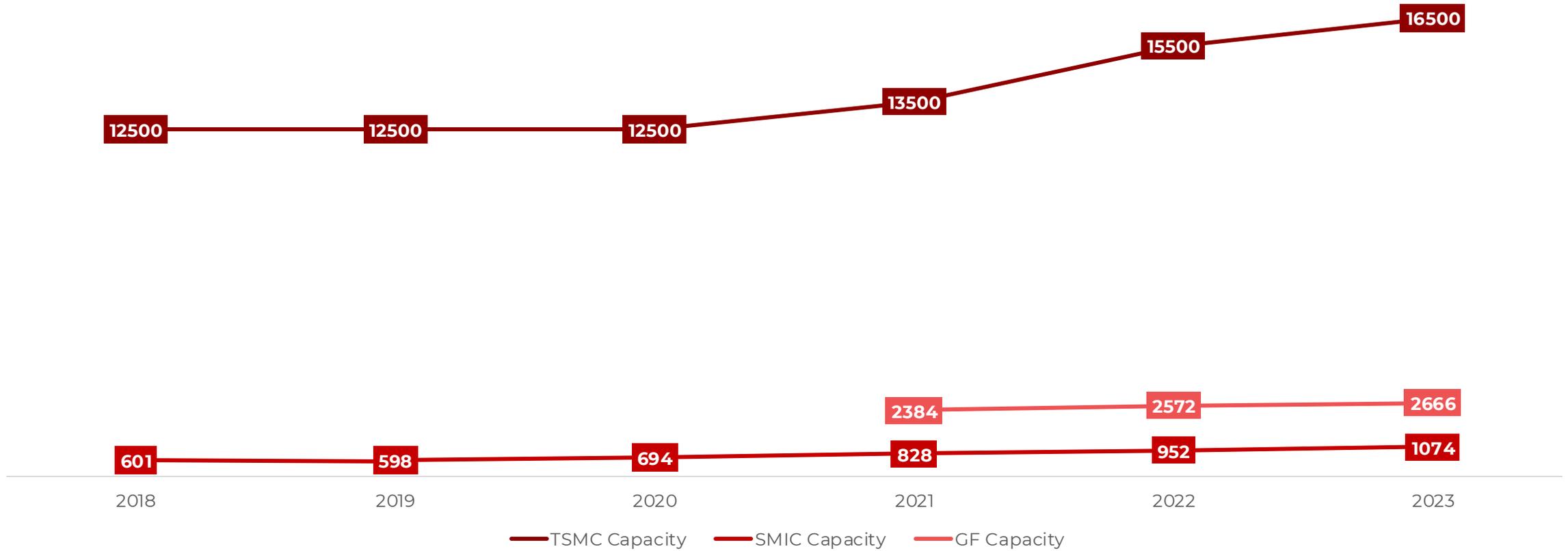


Capacity

Comparing Capacity Across Peers



Capacity in Advanced Nodes (in thousand 12"-equivalent wafers)

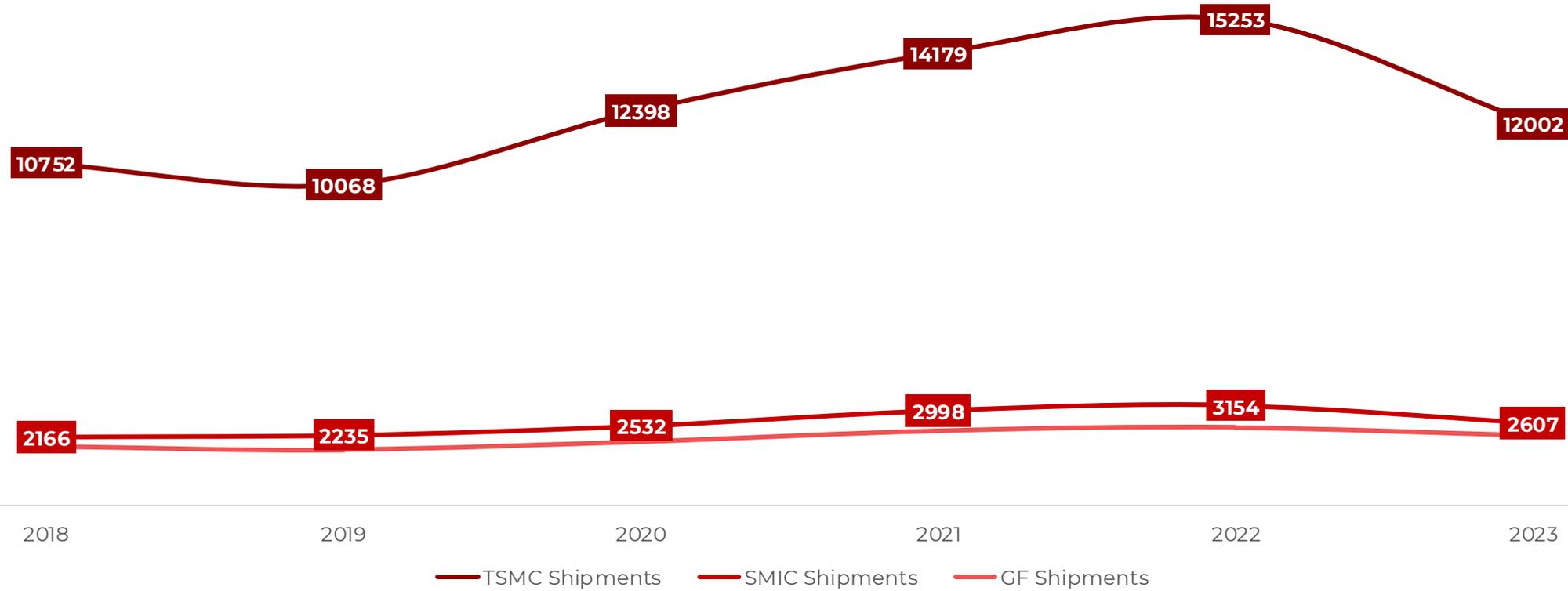


Shipments

TSMC Maintains Dominance Despite Market Fluctuations



Wafer Shipments
(in thousand 12"-equivalent wafers)

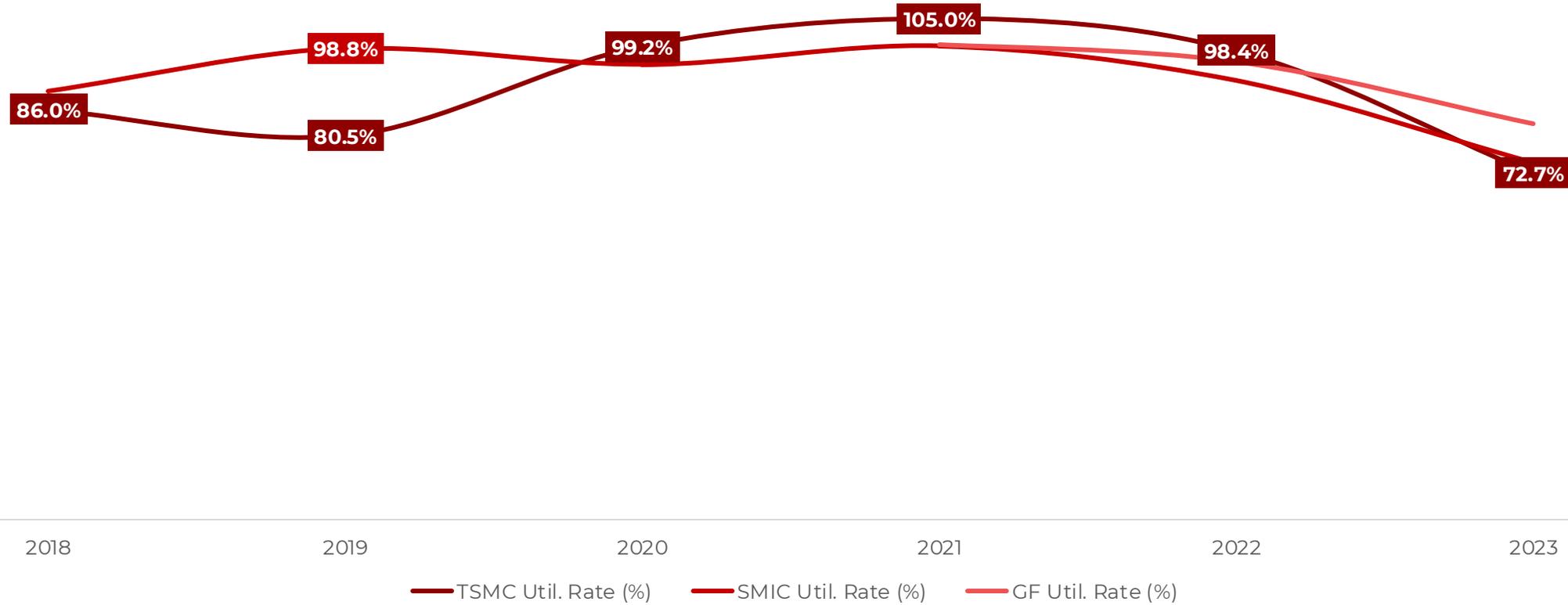


Utilization Rate

Capacity Utilization Trends Across Leading Foundries

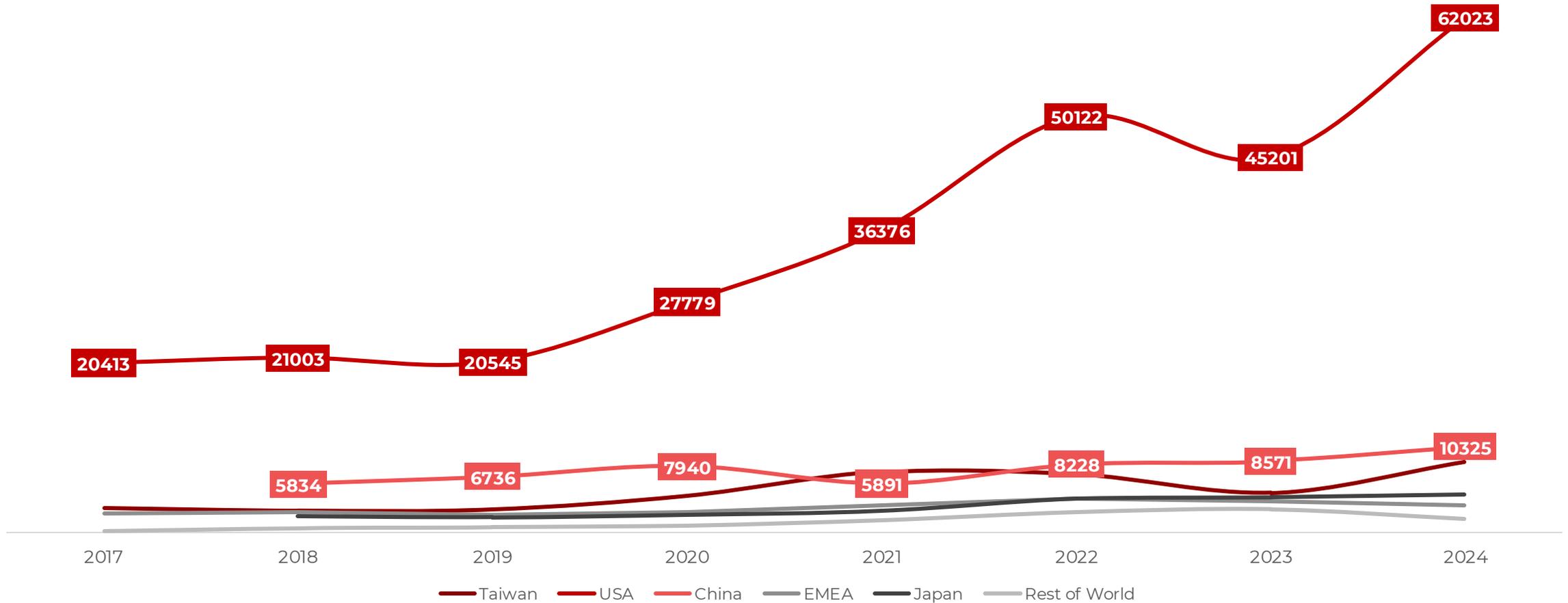


Utilization Rate (node level utilization rate)

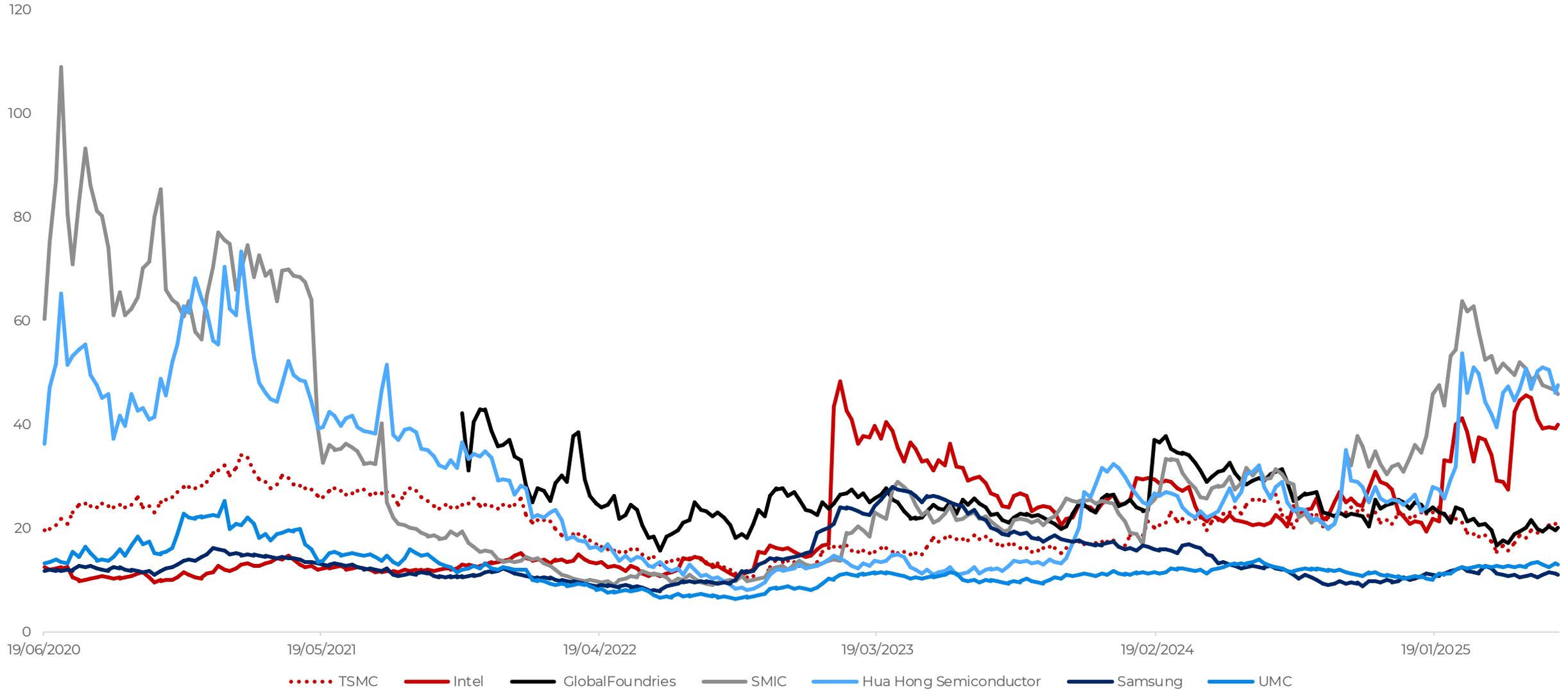


TSMC's Revenue by Region

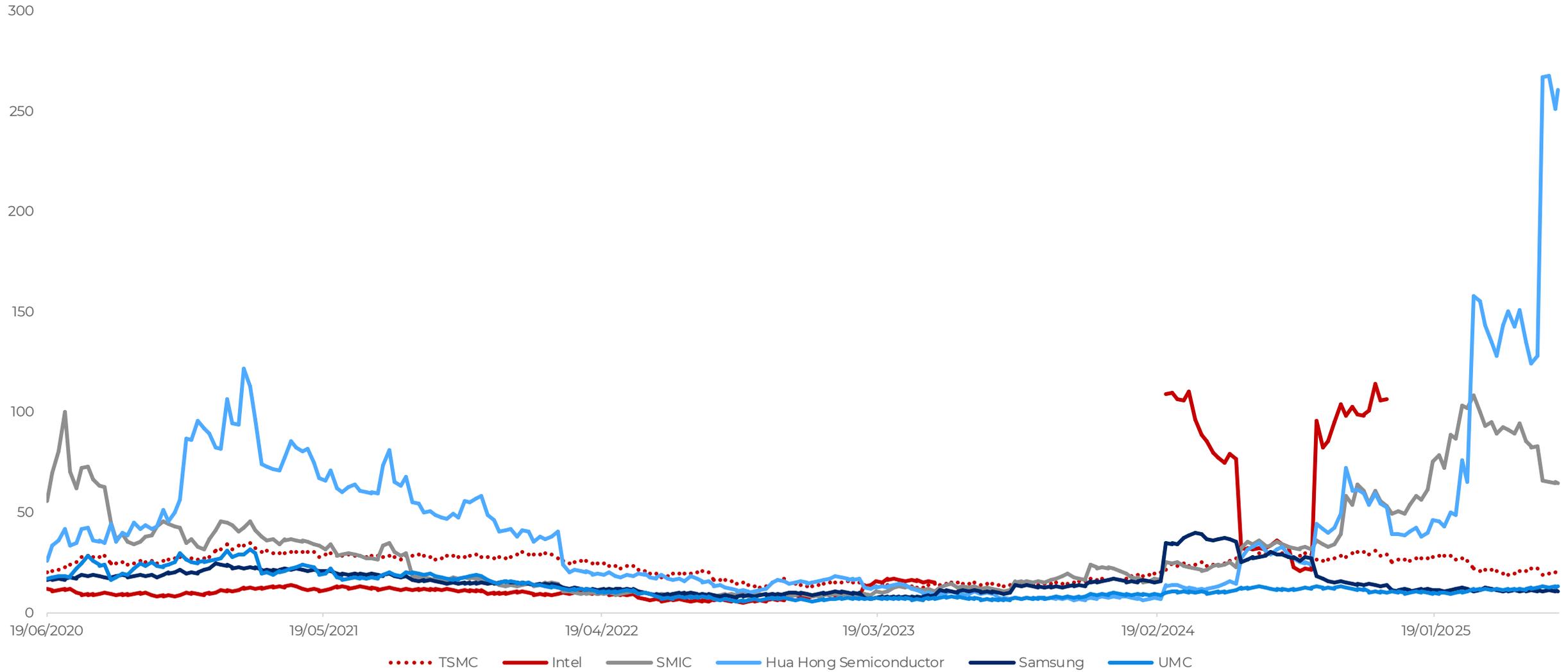
United States remains the biggest market



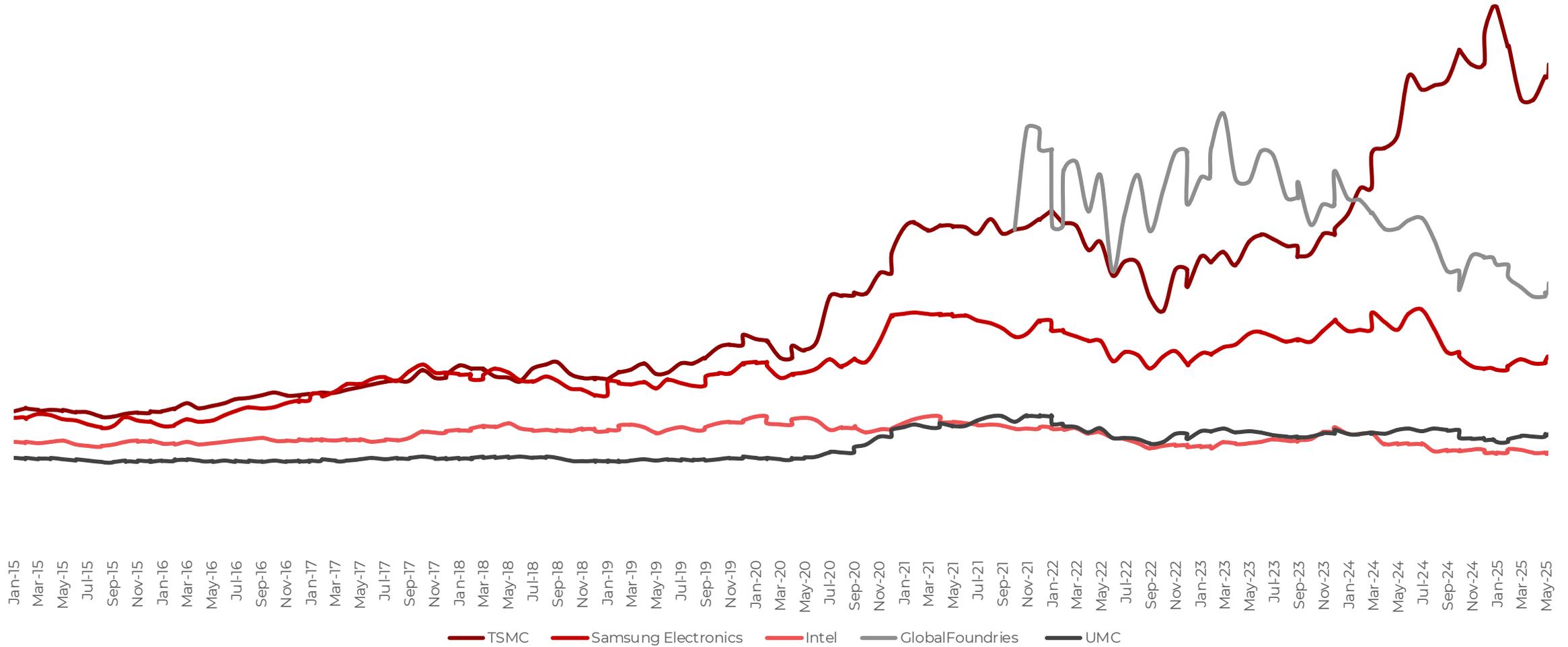
Foundries P/E NTM



Foundries P/E LTM



Foundries Stock Performance (%)



TSMC Stock Price



Revenue Build-Up

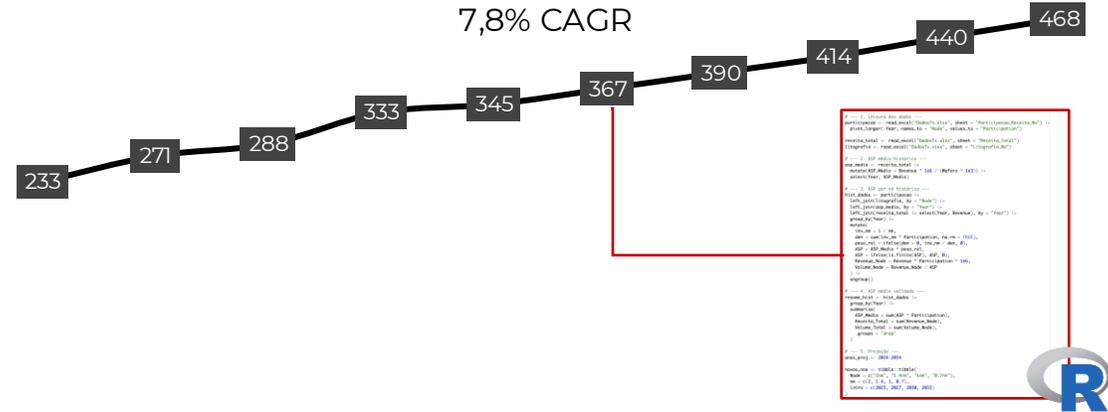


1. Fabs mapping

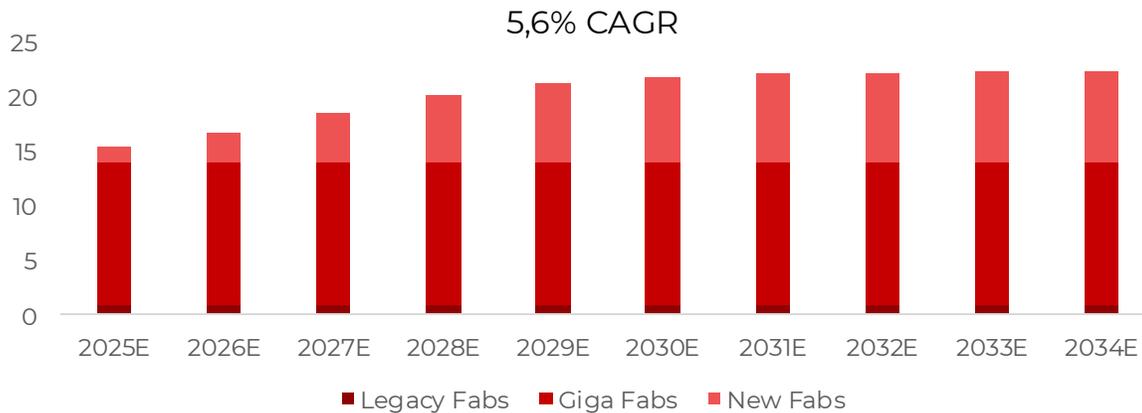
Classification	Fabs	Wafers/m ² /year	Clean Room Area (m ²)	Ramp-up
Old Fabs	2 - 10	17,5	56.000	-
Giga Fabs	12 - 18	22,5	574.000	-
New Fabs	20 - 25	25	335.000	95% in the fifth year

2. We project ASP to match revenue guidance and adjust for seasonality by new node launches per Moore's Law through 2029

ASP (TN\$ Thousand)



3. Wafers Production (Million)



4. Then we reach revenue

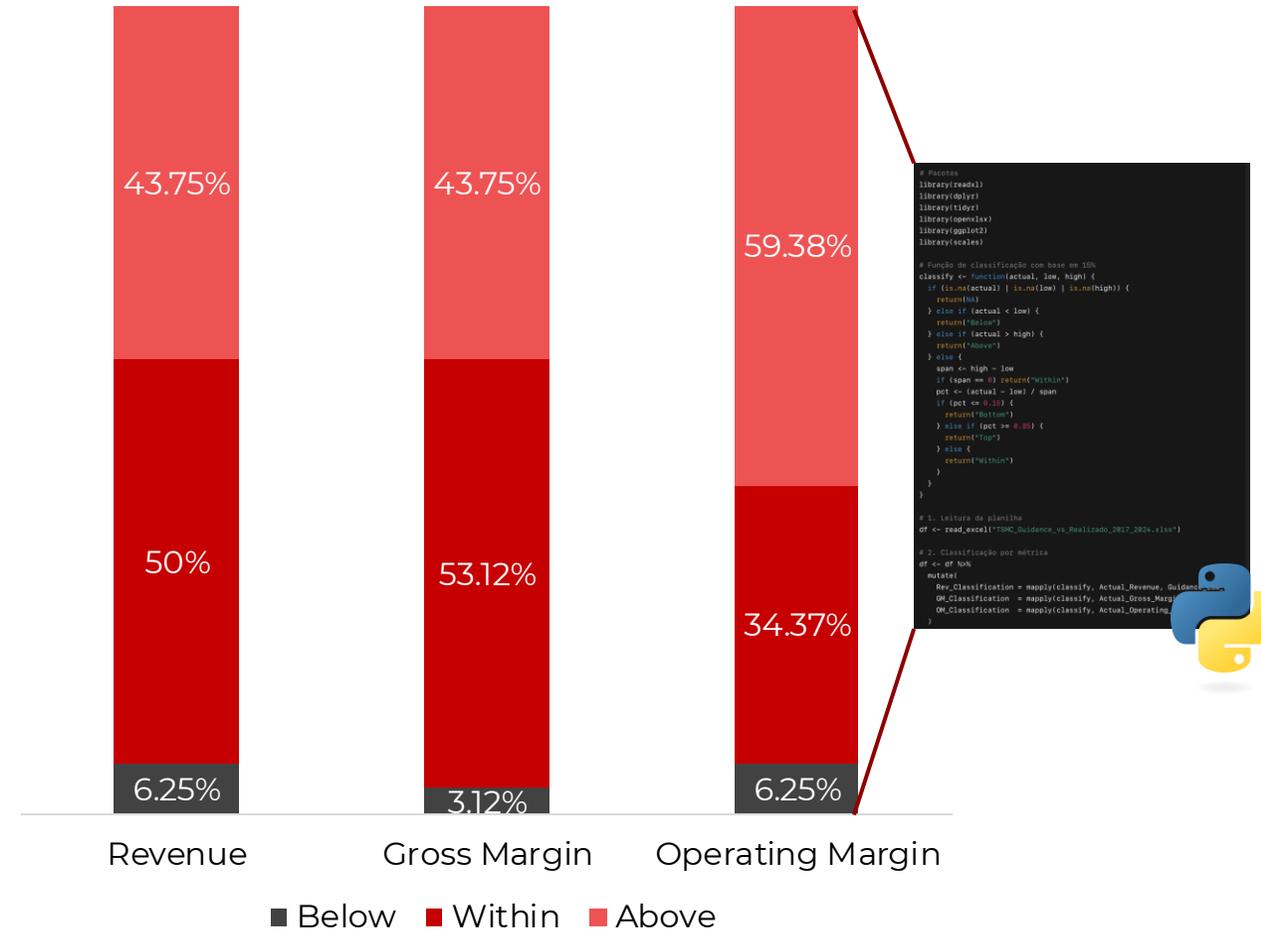
$$\text{Annual Wafer Production} \times \text{ASP} = \text{Revenue}$$

1.

20% Revenue CAGR (24-29')
 58% Gross Margin (2Q25')
 53% or More Gross Margin (25'-29')

Reverse DCF:
 19,01% Revenue CAGR (24-29')

2. Evaluating 40 quarters,, 94% were within or above guidance



Income Statement



Income Statement	2017	2018	2019	2020	2021	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Net Revenue	977,447	1,031,474	1,069,985	1,339,255	1,587,415	2,263,891	2,161,736	2,894,308	3,573,166	4,537,831	5,347,678	6,699,007	7,300,252	7,978,782	8,595,663	9,188,089	9,786,742	10,410,245
COGS	(482,621)	(533,599)	(577,284)	(628,125)	(767,878)	(915,536)	(986,625)	(1,269,954)	(1,500,730)	(2,132,780)	(2,513,408)	(3,148,533)	(3,431,118)	(3,750,028)	(4,039,961)	(4,318,402)	(4,599,769)	(4,892,815)
Cost of Goods & Services	(244,500)	(266,721)	(317,683)	(323,976)	(376,200)	(509,811)	(487,260)	(647,221)	(776,491)	(1,392,733)	(1,693,351)	(2,183,826)	(2,287,780)	(2,393,256)	(2,439,689)	(2,447,288)	(2,431,802)	(2,402,410)
Depreciation & Amortization	(238,121)	(266,878)	(259,601)	(304,149)	(391,678)	(405,725)	(499,365)	(622,733)	(724,239)	(740,048)	(820,058)	(964,707)	(1,143,338)	(1,356,772)	(1,600,272)	(1,871,114)	(2,167,966)	(2,490,406)
% of Total D&A		91%	90%	92%	93%	93%	94%	94%	94%	94%	94%	94%	94%	94%	94%	94%	94%	94%
Gross Profit	494,826	497,874	492,702	711,130	819,537	1,348,355	1,175,111	1,624,354	2,072,436	2,405,050	2,834,269	3,550,474	3,869,133	4,228,755	4,555,701	4,869,687	5,186,973	5,517,430
Gross Margin	51%	48%	46%	53%	52%	60%	54%	56%	58%	53%	53%	53%	53%	53%	53%	53%	53%	53%
Operating Expenses	(108,156)	(112,822)	(119,352)	(144,382)	(169,430)	(226,294)	(253,653)	(302,301)	(370,528)	(459,008)	(535,774)	(663,792)	(725,648)	(796,330)	(863,159)	(929,482)	(998,092)	(1,070,716)
Selling, General & Admin	(27,169)	(26,254)	(28,086)	(35,570)	(44,488)	(63,445)	(71,464)	(96,888)	(106,583)	(135,358)	(159,515)	(199,824)	(217,758)	(237,998)	(256,399)	(274,070)	(291,927)	(310,526)
General & Administrative	(21,197)	(20,266)	(21,737)	(28,458)	(36,930)	(53,525)	(60,873)	(83,745)	(89,507)	(113,672)	(133,959)	(167,809)	(182,870)	(199,867)	(215,320)	(230,160)	(245,156)	(260,775)
Research & Development	(80,732)	(85,896)	(91,419)	(109,486)	(124,735)	(163,262)	(182,370)	(204,182)	(276,816)	(351,549)	(414,288)	(518,977)	(565,555)	(618,122)	(665,912)	(711,807)	(758,185)	(806,489)
Depreciation & Amortization	(22,022)	(25,668)	(27,283)	(27,576)	(30,717)	(31,529)	(32,825)	(40,034)	(46,560)	(47,576)	(52,720)	(62,019)	(73,503)	(87,224)	(102,878)	(120,290)	(139,374)	(160,103)
% of Total D&A		9%	10%	8%	7%	7%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Other Operating Expense	21,760	24,776	27,754	28,172	30,610	31,927	33,207	38,725	59,430	75,475	88,945	111,421	121,421	132,707	142,967	152,820	162,777	173,148
EBIT	386,671	385,053	373,350	566,748	650,108	1,122,061	921,458	1,322,053	1,701,908	1,946,042	2,298,495	2,886,682	3,143,486	3,432,425	3,692,542	3,940,205	4,188,881	4,446,714
EBIT Margin %	40%	37%	35%	42%	41%	50%	43%	46%	48%	43%	43%	43%	43%	43%	43%	43%	43%	43%
Non-Operating (Income) Loss	8,112	17,167	18,973	8,346	21,171	24,006	51,684	92,716	79,760	99,243	113,742	127,237	138,309	146,089	156,517	170,077	188,268	212,286
Interest Expense, Net	6,134	11,643	12,939	6,937	295	10,672	48,295	76,718	71,195	90,335	104,825	118,748	129,705	137,393	147,794	161,391	179,628	203,617
Other Investment (Inc) Loss	146	158	417	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Foreign Exch (Gain) Loss	0	2,438	2,095	(3,303)	13,663	4,506	(2,685)	0	0	0	0	0	0	0	0	0	0	0
(Income) Loss from Affiliates	2,986	3,058	2,844	3,593	5,603	7,798	4,655	4,879	5,306	5,648	5,657	5,229	5,344	5,437	5,463	5,426	5,380	5,410
Other Non-Op (Income) Loss	(1,154)	(130)	678	1,120	1,610	1,029	1,420	11,119	3,260	3,260	3,260	3,260	3,260	3,260	3,260	3,260	3,260	3,260
EBT	394,782	402,220	392,323	575,094	671,278	1,146,066	973,142	1,414,769	1,861,429	2,144,528	2,525,980	3,141,155	3,420,104	3,724,603	4,005,577	4,280,359	4,565,416	4,871,288
Abnormal Losses (Gains)	1,351	(4,710)	(2,478)	9,683	(8,152)	(1,876)	6,029	(8,931)	(1,135)	(1,446)	(1,038)	(858)	(2,176)	(1,135)	(1,373)	(2,298)	(1,469)	(1,511)
EBT (GAAP)	396,133	397,510	389,845	584,777	663,126	1,144,191	979,171	1,405,839	1,860,293	2,143,082	2,524,941	3,140,297	3,417,928	3,723,174	4,004,204	4,278,061	4,563,947	4,869,777
Income Tax Expense (Benefit), GAAP	(52,986)	(46,326)	(44,502)	(66,619)	(66,053)	(127,290)	(141,404)	(233,407)	(502,279)	(578,632)	(681,734)	(847,880)	(922,841)	(1,005,257)	(1,081,135)	(1,155,077)	(1,232,266)	(1,314,840)
Income (Loss) Incl. MI, GAAP	343,147	351,184	345,344	518,158	597,073	1,016,901	837,768	1,172,432	1,358,014	1,564,450	1,843,207	2,292,417	2,495,088	2,717,917	2,923,069	3,122,985	3,331,681	3,554,937
Minority Interest, GAAP	(35)	(54)	(80)	(273)	(533)	(370)	730	836	78	148	284	415	352	256	291	320	327	309
Net Income, GAAP	343,111	351,131	345,264	517,885	596,540	1,016,530	838,498	1,173,268	1,358,092	1,564,598	1,843,492	2,292,832	2,495,440	2,718,173	2,923,360	3,123,304	3,332,008	3,555,246
Tax Rate	-13%	-12%	-11%	-11%	-10%	-11%	-14%	-17%	-27%									

Revenue Build Up (1)



Revenue Build-Up	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Revenue	2,894,307	3,573,166	4,537,831	5,347,678	6,699,007	7,300,252	7,978,782	8,595,663	9,188,089	9,786,742	10,410,245
		0	0	0	0	0	0	0	0	0	0
Annual Wafer Shipment	12,911	15,335	16,745	18,568	20,117	21,160	21,762	22,060	22,189	22,240	22,260
YoY		0	0	0	0	0	0	0	0	0	0
ASP	224	233	271	288	333	345	367	390	414	440	468
YoY		0	0	0	0	0	0	0	0	0	0
Total volume with Ramp Up		15,335	16,745	18,568	20,117	21,160	21,762	22,060	22,189	22,240	22,260
Volume with average productivity		17,817	18,853	20,098	21,069	21,738	22,160	22,385	22,486	22,526	22,542
Productivity (wafers/m ² /years)	23	0	0	0	0	0	0	0	0	0	0
Fab 2											
Type	Old										
Area (m ²)		6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000
Productivity (wafers/m ² /ano)		18	18	18	18	18	18	18	18	18	18
Ramp-up		1	1	1	1	1	1	1	1	1	1
Volume (wafers)		105,000	105,000	105,000	105,000	105,000	105,000	105,000	105,000	105,000	105,000
Volume - Productivity New Fabs (wafers)		135,000	135,000	135,000	135,000	135,000	135,000	135,000	135,000	135,000	135,000
Fab 3											
Type	Old										
Area (m ²)		12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Productivity (wafers/m ² /ano)		18	18	18	18	18	18	18	18	18	18
Ramp-up		1	1	1	1	1	1	1	1	1	1
Volume (wafers)		210,000	210,000	210,000	210,000	210,000	210,000	210,000	210,000	210,000	210,000
Volume - Productivity New Fabs (wafers)		270,000	270,000	270,000	270,000	270,000	270,000	270,000	270,000	270,000	270,000
Fab 5											
Type	Old										
Area (m ²)		6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000
Productivity (wafers/m ² /ano)		18	18	18	18	18	18	18	18	18	18
Ramp-up		1	1	1	1	1	1	1	1	1	1
Volume (wafers)		105,000	105,000	105,000	105,000	105,000	105,000	105,000	105,000	105,000	105,000
Volume - Productivity New Fabs (wafers)		135,000	135,000	135,000	135,000	135,000	135,000	135,000	135,000	135,000	135,000

Revenue Build Up (2)



Fab 6

Type	Old										
Area (m ²)		15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
Productivity (wafers/m ² /ano)		18	18	18	18	18	18	18	18	18	18
Ramp-up		1	1	1	1	1	1	1	1	1	1
Volume (wafers)		262,500	262,500	262,500	262,500	262,500	262,500	262,500	262,500	262,500	262,500
Volume - Productivity New Fabs (wafers)		337,500	337,500	337,500	337,500	337,500	337,500	337,500	337,500	337,500	337,500

Fab 8

Type	Old										
Area (m ²)		8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000
Productivity (wafers/m ² /ano)		18	18	18	18	18	18	18	18	18	18
Ramp-up		1	1	1	1	1	1	1	1	1	1
Volume (wafers)		140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000
Volume - Productivity New Fabs (wafers)		180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000

Fab 10

Type											
Area (m ²)		9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000
Productivity (wafers/m ² /ano)		18	18	18	18	18	18	18	18	18	18
Ramp-up		1	1	1	1	1	1	1	1	1	1
Volume (wafers)		157,500	157,500	157,500	157,500	157,500	157,500	157,500	157,500	157,500	157,500
Volume - Productivity New Fabs (wafers)		202,500	202,500	202,500	202,500	202,500	202,500	202,500	202,500	202,500	202,500

Fab 12

Type	GigaFab										
Area (m ²)		90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000
Productivity (wafers/m ² /ano)		23	23	23	23	23	23	23	23	23	23
Ramp-up		1	1	1	1	1	1	1	1	1	1
Volume (wafers)		2,025,000	2,025,000	2,025,000	2,025,000	2,025,000	2,025,000	2,025,000	2,025,000	2,025,000	2,025,000
Volume - Productivity New Fabs (wafers)		2,025,000	2,025,000	2,025,000	2,025,000	2,025,000	2,025,000	2,025,000	2,025,000	2,025,000	2,025,000

Fab 14

Type	GigaFab										
Area (m ²)		90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000
Productivity (wafers/m ² /ano)		23	23	23	23	23	23	23	23	23	23
Ramp-up		1	1	1	1	1	1	1	1	1	1
Volume (wafers)		2,025,000	2,025,000	2,025,000	2,025,000	2,025,000	2,025,000	2,025,000	2,025,000	2,025,000	2,025,000
Volume - Productivity New Fabs (wafers)		2,025,000	2,025,000	2,025,000	2,025,000	2,025,000	2,025,000	2,025,000	2,025,000	2,025,000	2,025,000

Fab 15

Type	GigaFab										
Area (m ²)		104,000	104,000	104,000	104,000	104,000	104,000	104,000	104,000	104,000	104,000
Productivity (wafers/m ² /ano)		23	23	23	23	23	23	23	23	23	23
Ramp-up		1	1	1	1	1	1	1	1	1	1
Volume (wafers)		2,340,000	2,340,000	2,340,000	2,340,000	2,340,000	2,340,000	2,340,000	2,340,000	2,340,000	2,340,000
Volume - Productivity New Fabs (wafers)		2,340,000	2,340,000	2,340,000	2,340,000	2,340,000	2,340,000	2,340,000	2,340,000	2,340,000	2,340,000

Revenue Build Up (3)



Fab 18											
Type	GigaFab										
Area (m ²)		290,000	290,000	290,000	290,000	290,000	290,000	290,000	290,000	290,000	290,000
Productivity (wafers/m ² /ano)		23	23	23	23	23	23	23	23	23	23
Ramp-up		1	1	1	1	1	1	1	1	1	1
Volume (wafers)		6,525,000	6,525,000	6,525,000	6,525,000	6,525,000	6,525,000	6,525,000	6,525,000	6,525,000	6,525,000
Volume - Productivity New Fabs (wafers)		6,525,000	6,525,000	6,525,000	6,525,000	6,525,000	6,525,000	6,525,000	6,525,000	6,525,000	6,525,000
Fab 20											
Type	New										
Area (m ²)		100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Productivity (wafers/m ² /ano)		25	25	25	25	25	25	25	25	25	25
Ramp-up		0	0	1	1	1	1	1	1	1	1
Volume (wafers)		298,000	672,250	1,250,000	1,827,750	2,202,000	2,381,500	2,455,000	2,483,250	2,493,750	2,497,750
Volume - Productivity New Fabs (wafers)		2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000
Fab 21											
Type	New										
Area (m ²)		15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
Productivity (wafers/m ² /ano)		25	25	25	25	25	25	25	25	25	25
Ramp-up		0	0	1	1	1	1	1	1	1	1
Volume (wafers)		44,700	100,838	187,500	274,163	330,300	357,225	368,250	372,488	374,063	374,663
Volume - Productivity New Fabs (wafers)		375,000	375,000	375,000	375,000	375,000	375,000	375,000	375,000	375,000	375,000
Fab 22											
Type	New										
Area (m ²)		150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000
Productivity (wafers/m ² /ano)		25	25	25	25	25	25	25	25	25	25
Ramp-up		0	1	1	1	1	1	1	1	1	1
Volume (wafers)		1,008,375	1,875,000	2,741,625	3,303,000	3,572,250	3,682,500	3,724,875	3,740,625	3,746,625	3,750,000
Volume - Productivity New Fabs (wafers)		3,750,000	3,750,000	3,750,000	3,750,000	3,750,000	3,750,000	3,750,000	3,750,000	3,750,000	3,750,000
Fab 23											
Type	New										
Area (m ²)		30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
Productivity (wafers/m ² /ano)		25	25	25	25	25	25	25	25	25	25
Ramp-up		0	0	1	1	1	1	1	1	1	1
Volume (wafers)		89,400	201,675	375,000	548,325	660,600	714,450	736,500	744,975	748,125	749,325
Volume - Productivity New Fabs (wafers)		750,000	750,000	750,000	750,000	750,000	750,000	750,000	750,000	750,000	750,000
Fab 24											
Type	New										
Area (m ²)		40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000
Productivity (wafers/m ² /ano)		25	25	25	25	25	25	25	25	25	25
Ramp-up		0	0	0	0	1	1	1	1	1	1
Volume (wafers)		0	0	119,200	268,900	500,000	731,100	880,800	952,600	982,000	993,300
Volume - Productivity New Fabs (wafers)		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000

Balance Sheet



Balance Sheet	2017	2018	2019	2020	2021	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Assets																		
Cash and Cash Equivalents	553,392	577,815	455,399	660,171	1,064,990	1,342,814	1,465,428	2,127,627	2,665,885	3,217,328	3,616,355	4,146,084	4,355,696	4,662,282	5,042,240	5,546,445	6,216,294	7,081,357
Investments in Marketable Financial Instruments	96,967	117,367	128,049	131,306	123,465	218,672	222,217	294,392	409,309	519,812	612,581	767,377	836,250	913,976	984,640	1,052,503	1,121,080	1,192,502
Accounts Receivable	122,317	129,198	139,771	146,038	198,302	231,340	201,938	272,088	365,131	463,707	546,463	684,551	745,990	815,327	878,364	938,902	1,000,077	1,063,791
Inventories	73,881	103,231	82,981	137,353	193,102	221,149	250,997	287,869	362,503	515,176	607,117	760,532	828,791	905,824	975,858	1,043,115	1,111,080	1,181,866
Other Current Assets	11,646	24,069	16,414	17,317	27,214	38,922	53,453	106,376	61,432	78,017	91,940	115,173	125,510	137,175	147,781	157,966	168,259	178,978
Total Current Assets	857,203	951,680	822,614	1,092,185	1,607,073	2,052,897	2,194,033	3,088,352	3,864,260	4,794,040	5,474,456	6,473,716	6,892,236	7,434,585	8,028,883	8,738,933	9,616,789	10,698,495
Long-term Investments	41,569	29,305	30,172	27,728	29,384	68,928	129,442	149,040	183,997	233,672	275,374	344,960	375,920	410,861	442,627	473,133	503,960	536,067
Property, Plant and Equipment	1,062,542	1,072,050	1,352,377	1,555,589	1,975,119	2,693,837	3,064,475	3,234,980	3,670,514	4,330,940	5,335,944	6,661,507	8,008,071	9,365,735	10,680,848	11,915,723	13,044,863	14,049,761
Intangible assets	14,175	17,002	20,653	25,768	26,821	25,999	22,766	26,282	32,094	39,474	48,171	59,066	70,939	83,916	97,895	112,839	128,755	145,686
Right-of-use	0	0	17,232	27,728	32,734	41,914	40,424	40,128	45,861	53,140	61,719	72,466	84,178	96,978	110,767	125,507	141,208	157,908
Other Non-current Assets	16,372	20,091	21,757	31,713	54,372	81,204	81,231	153,156	199,095	258,815	336,448	437,368	568,559	739,101	960,799	1,248,996	1,623,639	2,110,658
Total Non-Current Assets	1,134,658	1,138,448	1,442,191	1,668,526	2,118,430	2,911,882	3,338,338	3,603,586	4,131,561	4,916,042	6,057,657	7,575,367	9,107,667	10,696,590	12,292,936	13,876,198	15,442,425	17,000,080
Total Assets	1,991,861	2,090,128	2,264,805	2,760,711	3,725,503	4,964,779	5,532,371	6,691,938	7,995,820	9,710,082	11,532,113	14,049,083	15,999,904	18,131,175	20,321,819	22,615,130	25,059,214	27,698,575
Liabilities																		
Short-term Loans	63,767	88,755	118,522	88,559	114,921	-	-	-	0	0	0	0	0	0	0	0	0	0
Accounts Payable	30,069	34,357	40,206	41,095	48,723	56,522	57,293	74,227	92,650	131,670	155,169	194,379	211,825	231,514	249,413	266,603	283,974	302,065
Payables to Contractors and Equipment Suppliers	55,724	43,134	140,811	157,805	145,742	213,500	171,485	192,635	218,570	257,897	317,742	396,676	476,861	557,706	636,018	709,552	776,789	836,628
Cash Dividends Payable	0	0	129,652	129,652	142,617	142,617	168,558	220,419	220,419	220,419	220,419	220,419	220,419	220,419	220,419	220,419	220,419	220,419
Accrued Expenses and Other Current Liabilities	150,746	139,397	129,745	197,440	282,933	152,274	506,954	717,386	771,114	1,095,879	1,291,455	1,617,799	1,762,999	1,926,863	2,075,839	2,218,909	2,363,482	2,514,057
Current Portion of Bonds Payable and Bank Loans	58,401	34,900	31,800	2,600	4,567	19,314	9,293	59,858	59,858	59,858	59,858	59,858	59,858	59,858	59,858	59,858	59,858	59,858
Total Current Liabilities	358,707	340,543	590,736	617,151	739,503	944,227	913,583	1,264,525	1,362,611	1,765,723	2,044,644	2,489,132	2,731,962	2,996,360	3,241,546	3,475,340	3,704,522	3,933,028
Bonds Payable	91,800	56,900	25,100	254,105	610,071	834,336	913,900	926,604	1,281,905	1,594,854	1,962,859	2,560,696	2,652,511	2,737,572	2,738,899	2,683,014	2,590,414	2,472,929
Long-term Loans	-	-	-	1,968	3,309	4,760	4,383	31,824	18,524	13,524	5,024	0	0	0	0	0	0	0
Other Non-current Liabilities	18,595	15,189	11,833	16,304	181,123	191,203	185,300	116,653	151,644	197,130	256,260	333,127	433,050	562,946	731,805	951,314	1,236,665	1,607,610
Leasing	-	-	15,041	20,561	20,764	29,764	31,942	28,756	34,488	41,768	50,347	61,094	72,805	85,605	99,395	114,135	129,835	146,536
Total Noncurrent Liabilities	110,395	72,089	51,974	292,938	815,267	1,060,063	1,135,525	1,103,837	1,486,561	1,847,276	2,274,490	2,954,917	3,158,366	3,386,123	3,570,098	3,748,462	3,956,914	4,227,075
Total Liabilities	469,102	412,632	642,710	910,089	1,554,770	2,004,290	2,049,108	2,368,362	2,849,172	3,612,999	4,319,134	5,444,048	5,890,328	6,382,483	6,811,644	7,223,803	7,661,436	8,160,102
Shareholder's Equity																		
Capital Stock at Par Value	259,304	259,304	259,304	259,304	259,304	259,304	259,321	259,327	259,327	259,327	259,327	259,327	259,327	259,327	259,327	259,327	259,327	259,327
Capital Surplus	56,310	56,316	56,340	56,347	64,762	69,330	69,876	73,261	73,261	73,261	73,261	73,261	73,261	73,261	73,261	73,261	73,261	73,261
Legal Capital Reserve	241,723	276,034	311,147	311,147	311,147	311,147	311,147	311,147	311,147	311,147	311,147	311,147	311,147	311,147	311,147	311,147	311,147	311,147
Special Capital Reserve	-	26,907	10,675	42,259	59,304	3,154	-	-	-	-	-	-	-	-	-	-	-	-
Unappropriated Earnings	991,639	1,073,706	1,011,513	1,235,280	1,536,378	2,323,224	2,846,884	3,606,105	4,420,960	5,359,719	6,465,814	7,841,514	9,338,778	10,969,681	12,723,697	14,597,680	16,596,885	18,730,033
Treasury Stock	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	(26,918)	(15,450)	(27,569)	(54,680)	(62,609)	(20,506)	(28,314)	38,705	38,705	38,705	38,705	38,705	38,705	38,705	38,705	38,705	38,705	38,705
Equity Attributable to Shareholders of the Parent	1,522,058	1,676,817	1,621,410	1,849,657	2,168,286	2,945,653	3,458,914	4,288,545	5,103,400	6,042,159	7,148,254	8,523,954	10,021,218	11,652,121	13,406,137	15,280,120	17,279,325	19,412,473
Noncontrolling Interests	702	679	685	965	2,447	14,836	24,349	35,031	43,247	54,923	64,725	81,081	88,358	96,570	104,037	111,207	118,453	125,999
Total Equity	1,522,760	1,677,496	1,622,095	1,850,622	2,170,733	2,960,489	3,483,263	4,323,576	5,146,648	6,097,082	7,212,979	8,605,034	10,109,576	11,748,692	13,510,174	15,391,327	17,397,778	19,538,472
Total Liabilities and Equity	1,991,862	2,090,128	2,264,805	2,760,711	3,725,503	4,964,779	5,532,371	6,691,938	7,995,820	9,710,081	11,532,113	14,049,083	15,999,903	18,131,174	20,321,819	22,615,130	25,059,214	27,698,575
Check	OK	OK	OK	OK	OK	OK	OK	OK										

Cash Flow Statement



Cash Flow Statement	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Net income	1,358,092	1,564,598	1,843,492	2,292,832	2,495,440	2,718,173	2,923,360	3,123,304	3,332,008	3,555,246
Depreciation & amortization	770,833	787,659	872,817	1,026,773	1,216,896	1,444,061	1,703,227	1,991,493	2,307,444	2,650,627
Noncontrolling Interests	8,216	11,676	9,802	16,356	7,277	8,213	7,466	7,170	7,246	7,547
Decreases / (Increases) in Working capital assets	(122,733)	(267,834)	(188,620)	(314,736)	(140,035)	(158,036)	(143,677)	(137,981)	(139,431)	(145,219)
Increases / (Decreases) in Working capital liabilities	72,151	363,785	219,075	365,554	162,645	183,552	166,875	160,260	161,944	168,667
Cash from Operating Activities	2,086,561	2,459,884	2,756,565	3,386,779	3,742,223	4,195,963	4,657,252	5,144,247	5,669,211	6,236,868
Payables to Contractors and Equipment Suppliers	25,935	39,327	59,845	78,934	80,185	80,845	78,312	73,534	67,237	59,839
PP&E Capex	(1,200,000)	(1,440,000)	(1,868,291)	(2,340,398)	(2,550,452)	(2,787,507)	(3,003,024)	(3,209,997)	(3,419,145)	(3,636,975)
Intangibles Capex	(12,178)	(15,466)	(18,226)	(22,832)	(24,881)	(27,194)	(29,296)	(31,315)	(33,355)	(35,481)
Investments in Marketable Financial Instruments	(114,917)	(110,503)	(92,769)	(154,796)	(68,873)	(77,726)	(70,664)	(67,863)	(68,576)	(71,423)
Long Term Investments	(34,957)	(49,675)	(41,702)	(69,586)	(30,961)	(34,940)	(31,766)	(30,507)	(30,827)	(32,107)
Cash from Investing Activities	(1,336,118)	(1,576,317)	(1,961,143)	(2,508,678)	(2,594,983)	(2,846,522)	(3,056,438)	(3,266,147)	(3,484,666)	(3,716,146)
Long Term Debt and Bonds Payable	342,001	307,949	359,505	592,813	91,815	85,061	1,327	-55,884	-92,601	-117,485
Dividends	(543,237)	(625,839)	(737,397)	(917,133)	(998,176)	(1,087,269)	(1,169,344)	(1,249,322)	(1,332,803)	(1,422,098)
Cash from Financing Activities	(201,236)	(317,890)	(377,892)	(324,320)	(906,361)	(1,002,208)	(1,168,017)	(1,305,206)	(1,425,404)	(1,539,583)
Other Variations in Capital Assets	(45,940)	(59,720)	(77,633)	(100,920)	(131,191)	(170,542)	(221,697)	(288,197)	(374,643)	(487,019)
Other Variations in Capital Liabilities	34,991	45,486	59,130	76,867	99,923	129,896	168,859	219,509	285,352	370,945
Net change in cash	538,258	551,443	399,027	529,728	209,612	306,587	379,958	504,205	669,849	865,063

Revolver need analysis



Revolver need analysis	2018	2019	2020	2021	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Cash at beginning of the year								2,127,627	2,665,885	3,217,328	3,616,355	4,146,084	4,355,696	4,662,282	5,042,240	5,546,445	6,216,294
(-) Minimum Cash Balance								(2,109,033)	(2,678,419)	(3,156,425)	(3,954,036)	(4,308,916)	(4,709,414)	(5,073,523)	(5,423,198)	(5,776,548)	(6,144,566)
(+) Current period cash flows except revolver								549,207	565,677	417,530	553,781	240,880	347,233	432,796	572,893	759,141	981,138
(=) Cash available								567,801	553,143	478,433	216,100	78,047	-6,485	21,556	191,936	529,038	1,052,866
Minimum cash as % of net revenue	56%	43%	49%	67%	59%	68%	74%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%

SG&A	2017	2018	2019	2020	2021	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Operating Expenses	(108,156)	(112,822)	(119,352)	(144,382)	(169,430)	(226,294)	(253,653)	(302,301)	(370,528)	(459,008)	(537,578)	(669,399)	(735,396)	(810,637)	(882,222)	(953,348)	(1,026,710)	(1,103,970)
% Net revenue	-11%	-11%	-11%	-11%	-11%	-10%	-12%	-10%	-10%	-10%	-10%	-10%	-10%	-10%	-10%	-10%	-10%	-11%
Selling, General & Admin	(27,169)	(26,254)	(28,086)	(35,570)	(44,488)	(63,445)	(71,464)	(96,888)	(106,583)	(135,358)	(159,515)	(199,824)	(217,758)	(237,998)	(256,399)	(274,070)	(291,927)	(310,526)
% Net revenue	-3%	-3%	-3%	-3%	-3%	-3%	-3%	-3%	-3%	-3%	-3%	-3%	-3%	-3%	-3%	-3%	-3%	-3%
General & Administrative	(21,197)	(20,266)	(21,737)	(28,458)	(36,930)	(53,525)	(60,873)	(83,745)	(89,507)	(113,672)	(133,959)	(167,809)	(182,870)	(199,867)	(215,320)	(230,160)	(245,156)	(260,775)
% Net revenue	-2%	-2%	-2%	-2%	-2%	-2%	-3%	-3%	-3%	-3%	-3%	-3%	-3%	-3%	-3%	-3%	-3%	-3%
Research & Development	(80,732)	(85,896)	(91,419)	(109,486)	(124,735)	(163,262)	(182,370)	(204,182)	(276,816)	(351,549)	(414,288)	(518,977)	(565,555)	(618,122)	(665,912)	(711,807)	(758,185)	(806,489)
% Net revenue	-8%	-8%	-9%	-8%	-8%	-7%	-8%	-7%	-8%	-8%	-8%	-8%	-8%	-8%	-8%	-8%	-8%	-8%
Depreciation & Amortization	(22,022)	(25,668)	(27,283)	(27,576)	(30,717)	(31,529)	(32,825)	(40,034)	(46,560)	(47,576)	(52,720)	(62,019)	(73,503)	(87,224)	(102,878)	(120,290)	(139,374)	(160,103)
% Net revenue	-2%	-2%	-3%	-2%	-2%	-1%	-2%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-2%
% Total D&A	9%	10%	8%	7%	7%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Other Operating Expense	21,760	24,776	27,754	28,172	30,610	31,927	33,207	38,725	59,430	75,475	88,945	111,421	121,421	132,707	142,967	152,820	162,777	173,148
% Net revenue	2%	2%	3%	2%	2%	1%	2%	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%

PP&E / Intangibles



Fixed Assets	2017	2018	2019	2020	2021	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
PP&E																		
PP&E BoP	1,062,542	1,072,050	1,352,377	1,555,589	1,975,119	2,693,837	3,064,475	3,234,980	3,670,514	4,330,940	5,335,944	6,661,507	8,008,071	9,365,735	10,680,848	11,915,723	13,044,863	13,044,863
(+) Capex	292,164	539,380	514,628	810,921	1,125,377	856,024	791,564	1,200,000	1,440,000	1,868,291	2,340,398	2,550,452	2,787,507	3,003,024	3,209,997	3,419,145	3,636,975	3,636,975
As % of PP&E	27%	40%	33%	41%	42%	28%	24%	33%	33%	35%	35%	32%	30%	28%	27%	26%	26%	26%
As % of Net Revenue	30%	52%	48%	61%	71%	38%	37%	34%	32%	35%	35%	35%	35%	35%	35%	35%	35%	35%
(-) Depreciation	(282,656)	(259,029)	(312,355)	(390,393)	(406,675)	(485,415)	(621,210)	(764,467)	(779,573)	(863,288)	(1,014,836)	(1,203,888)	(1,429,844)	(1,687,910)	(1,975,121)	(2,290,005)	(2,632,078)	(2,632,078)
As % of PP&E	26%	19%	20%	20%	15%	16%	19%	21%	18%	16%	15%	15%	15%	16%	17%	18%	19%	19%
As % of Net Revenue	29%	25%	29%	29%	26%	21%	29%	21%	17%	16%	15%	16%	18%	20%	21%	23%	25%	25%
As % of Capex	97%	48%	61%	48%	36%	57%	78%	64%	54%	46%	43%	47%	51%	56%	62%	67%	72%	72%
(+/-) Others	0	(24)	940	(998)	17	29	151	0	0	0	0	0	0	0	0	0	0	0
As % of PP&E	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
As % of Net Revenue	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PP&E EoP	1,062,542	1,072,050	1,352,377	1,555,589	1,975,119	2,693,837	3,064,475	3,234,980	3,670,514	4,330,940	5,335,944	6,661,507	8,008,071	9,365,735	10,680,848	11,915,723	13,044,863	14,049,761
Intangibles																		
Intangibles BOP	14,175	17,002	20,653	25,768	26,822	25,999	22,767	26,283	32,094	39,474	48,171	59,066	70,939	83,916	97,895	112,839	128,755	128,755
(+) Capex	7,027	8,854	12,240	8,946	7,867	1,754	7,368	12,178	15,466	18,226	22,832	24,881	27,194	29,296	31,315	33,355	35,481	35,481
As % of PP&E	41%	43%	47%	33%	30%	8%	28%	38%	39%	38%	39%	35%	32%	30%	28%	26%	24%	24%
As % of Net Revenue	0.7%	0.9%	1.1%	0.7%	0.5%	0.1%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
(-) Amortization	(4,200)	(5,203)	(7,124)	(7,893)	(8,690)	(4,986)	(3,852)	(6,367)	(8,086)	(9,529)	(11,937)	(13,008)	(14,217)	(15,316)	(16,372)	(17,439)	(18,550)	(18,550)
As % of PP&E	25%	25%	28%	29%	33%	22%	15%	20%	20%	20%	20%	18%	17%	16%	15%	14%	13%	13%
As % of Net Revenue	0.4%	0.5%	0.7%	0.6%	0.5%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
As % of Capex	60%	59%	58%	88%	110%	284%	52%	52%	52%	52%	52%	52%	52%	52%	52%	52%	52%	52%
(+/-) Others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
As % of PP&E	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
As % of Net Revenue	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Intangibles EOP	14,175	17,002	20,653	25,768	26,822	25,999	22,767	26,283	32,094	39,474	48,171	59,066	70,939	83,916	97,895	112,839	128,755	145,686

Depreciation Waterfall	2017	2018	2019	2020	2021	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E	
Year									2024										
Gross PP&E									8,010,110										
Non-Depreciable PP&E									13,054										
Accumulated depreciation									4,774,723										
Net PP&E (excl. non-depreciable)									3,222,333										

Average useful life 10.0

Years	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Depreciation from PP&E prior to 2025			644,467	515,573	412,459	329,967	263,973	211,179	168,943	135,154	108,124	86,499
Depreciation from PP&E of 2025			120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000
Depreciation from PP&E of 2026				144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000
Depreciation from PP&E of 2027					186,829	186,829	186,829	186,829	186,829	186,829	186,829	186,829
Depreciation from PP&E of 2028						234,040	234,040	234,040	234,040	234,040	234,040	234,040
Depreciation from PP&E of 2029							255,045	255,045	255,045	255,045	255,045	255,045
Depreciation from PP&E of 2030								278,751	278,751	278,751	278,751	278,751
Depreciation from PP&E of 2031									300,302	300,302	300,302	300,302
Depreciation from PP&E of 2032										321,000	321,000	321,000
Depreciation from PP&E of 2033											341,914	341,914
Depreciation from PP&E of 2034												363,698
Total Depreciation			764,467	779,573	863,288	1,014,836	1,203,888	1,429,844	1,687,910	1,975,121	2,290,005	2,632,078

D&A	2017	2018	2019	2020	2021	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
D&A		(292,546)	(286,884)	(331,725)	(422,395)	(437,254)	(532,191)	(662,797)	(770,833)	(787,659)	(872,817)	(1,026,773)	(1,216,896)	(1,444,061)	(1,703,227)	(1,991,493)	(2,307,444)	(2,650,627)
D&A as % of COGS		91%	90%	92%	93%	93%	94%	94%	94%	94%	94%	94%	94%	94%	94%	94%	94%	94%
D&A as % of SG&A		9%	10%	8%	7%	7%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
D&A as % of Others		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PP&E Depreciation		(282,656)	(259,029)	(312,355)	(390,393)	(406,675)	(485,415)	(621,210)	(764,467)	(779,573)	(863,288)	(1,014,836)	(1,203,888)	(1,429,844)	(1,687,910)	(1,975,121)	(2,290,005)	(2,632,078)
PP&E Depreciation as % of Total D&A		97%	90%	94%	92%	93%	91%	94%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%
Other Depreciation		(5,691)	(22,652)	(12,245)	(24,109)	(21,890)	(41,790)	(37,735)	-	-	-	-	-	-	-	-	-	-
Other Depreciation as % of Total D&A		2%	8%	4%	6%	5%	8%	6%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
As % of Net Revenue		1%	2%	1%	2%	1%	2%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Intangibles Amortization		(4,200)	(5,203)	(7,124)	(7,893)	(8,690)	(4,986)	(3,852)	(6,367)	(8,086)	(9,529)	(11,937)	(13,008)	(14,217)	(15,316)	(16,372)	(17,439)	(18,550)
Intangibles Amortization as % of Total D&A		1%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Capex																		
CAPEX		299,191	548,234	526,867	819,868	1,133,244	857,777	798,932	1,212,178	1,455,466	1,886,517	2,363,230	2,575,333	2,814,701	3,032,320	3,241,312	3,452,500	3,672,456

Right of use & Leasing



RoU & Leasing		2017	2018	2019	2020	2021	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
1. Right of Use																			
Right of Use BOP	[TWD mn]	0.0	0.0	0.0	17,232.0	27,728.0	32,734.0	41,914.0	40,424.0	40,128.4	45,860.6	53,140.4	61,719.4	72,466.3	84,177.7	96,977.6	110,767.2	125,507.2	141,207.5
Additions	[TWD mn]	-	-	-	13,481.0	7,770.0	12,610	2,145	4,579	11,648	14,792	17,432	21,837	23,797	26,009	28,020	29,951	31,903	33,935
As % of Right of Use	[%]				28.0%	28.0%	38.5%	5.1%	11.3%	29.0%	32.3%	32.8%	35.4%	32.8%	30.9%	28.9%	27.0%	25.4%	24.0%
As % of Net Revenue	[%]				0.5%	0.6%	0.1%	0.2%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
(-) D&A	[TWD mn]	-	-	-	-	2,764.0	3,073	3,456	3,679	5,332	6,771	7,979	9,996	10,893	11,905	12,826	13,710	14,603	15,533
As % of Right of Use	[%]					10%	9%	8%	9%	13%	15%	15%	16%	15%	14%	13%	12%	12%	11%
As % of Net Revenue	[%]					0.2%	0.1%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
(+) Others	[TWD mn]	-	-	-	-	0.0	-357	-179	-1,196	-584.0	-741.6	-874.0	-1,094.8	-1,193.1	-1,304.0	-1,404.8	-1,501.6	-1,599.5	-1,701.4
As % of Right of Use	[%]					0.0%	-1.1%	-0.4%	-3.0%	-1.5%	-1.6%	-1.6%	-1.8%	-1.6%	-1.5%	-1.4%	-1.4%	-1.3%	-1.2%
As % of Net Revenue	[%]					0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Right of Use EOP	[TWD mn]	0	0	17,232.0	27,728.0	32,734.0	41,914.0	40,424.0	40,128	45,860.6	53,140.4	61,719.4	72,466.3	84,177.7	96,977.6	110,767.2	125,507.2	141,207.5	157,908.1
2. Leasing Liabilities																			
Leasing Liabilities BOP	[TWD mn]	-	-	-	15,041.0	20,561.0	20,764.0	29,764.0	31,942.0	28,756.0	34,488.2	41,768.0	50,347.0	61,093.9	72,805.3	85,605.3	99,394.8	114,134.8	129,835.1
(+) Additions	[TWD mn]	-	-	-	13,481.0	7,770.0	12,610.0	2,145.0	4,579.0	11,648	14,792	17,432	21,837	23,797	26,009	28,020	29,951	31,903	33,935
As % of Leasing	[%]				89.6%	37.8%	60.7%	7.2%	14.3%	0	0	0	0	0	0	0	0	0	0
As % of Net Revenue	[%]				1.0%	0.5%	0.6%	0.1%	0.2%	0	0	0	0	0	0	0	0	0	0
(-) Cash outflow	[TWD mn]	-	-	-	6,355.0	7,511.0	7,618.0	4,917.0	3,415.0	10,318	13,104	15,443	19,345	21,081	23,041	24,822	26,533	28,262	30,062
As % of Leasing	[%]				42%	37%	37%	17%	11%	36%	38%	37%	38%	35%	32%	29%	27%	25%	23%
As % of Net Revenue	[%]				0.5%	0.5%	0.3%	0.2%	0.1%	0	0	0	0	0	0	0	0	0	0
(+) Others	[TWD mn]	-	-	-	-1,606.0	-56.0	4,008.0	4,950.0	-4,350.0	4,403	5,592	6,590	8,255	8,996	9,832	10,592	11,322	12,059	12,828
As % of Leasing	[%]				-10.7%	-0.3%	19.3%	16.6%	-13.6%	15.3%	16.2%	15.8%	16.4%	14.7%	13.5%	12.4%	11.4%	10.6%	9.9%
As % of Net Revenue	[%]				0.0%	0.2%	0.2%	-0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Leasing Liabilities EOP	[TWD mn]	-	-	15,041.0	20,561.0	20,764.0	29,764.0	31,942.0	28,756.0	34,488.2	41,768.0	50,347.0	61,093.9	72,805.3	85,605.3	99,394.8	114,134.8	129,835.1	146,535.7

Financial Result



Financial Result	Unit	2017	2018	2019	2020	2021	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Interest income		9,610	14,853	16,189	9,018	5,709	22,422	60,294	87,213	87,831	108,843	127,277	146,072	161,458	172,048	185,388	201,728	222,666	249,427
Cash and Cash Equivalents		553,392	577,815	455,399	660,171	1,064,990	1,342,814	1,465,428	2,127,627	2,665,885	3,217,328	3,616,355	4,146,084	4,355,696	4,662,282	5,042,240	5,546,445	6,216,294	7,081,357
Investments in Marketable Financial Instruments		95,967	117,367	128,049	131,306	123,465	218,672	222,217	294,392	409,309	519,812	612,581	767,377	836,250	913,976	984,640	1,052,503	1,121,080	1,192,502
Interest (%)		3.0%	2.2%	2.5%	1.3%	0.6%	1.6%	3.7%	4.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%
Finance costs		(3,330)	(3,051)	(3,251)	(2,081)	(5,414)	(11,750)	(11,999)	(10,495)	(16,636)	(18,508)	(22,452)	(27,324)	(31,753)	(34,655)	(37,594)	(40,336)	(43,038)	(45,810)
Bonds Payable		91,800	56,900	25,100	254,105	610,071	834,336	913,900	926,604	900,502	1,143,615	1,347,710	1,688,270	1,839,794	2,010,796	2,166,261	2,315,563	2,466,434	2,623,568
Interest (%)										1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%
Interest expense										(16,444)	(18,397)	(22,422)	(27,324)	(31,753)	(34,655)	(37,594)	(40,336)	(43,038)	(45,810)
Long-term Loans		0	0	1,967	3,309	4,760	4,382	31,824	18,524	13,524	5,024	0	0	0	0	0	0	0	0
Interest (%)										1.20%	1.20%	1.20%	1.20%	1.20%	1.20%	1.20%	1.20%	1.20%	1.20%
Interest expense										(192)	(111)	(30)	0	0	0	0	0	0	0
Net Interest		6,280	11,802	12,939	6,937	295	10,672	48,295	76,718	71,195	90,335	104,825	118,748	129,705	137,393	147,794	161,391	179,628	203,617

Retained Earnings



Retained Earnings	Unit	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Retained Earnings BOP	[TWD mn]	3,606,105	4,420,960	5,359,719	6,465,814	7,841,514	9,338,778	10,969,681	12,723,697	14,597,680	16,596,885
(+) Net Income	[TWD mn]	1,358,092	1,564,598	1,843,492	2,292,832	2,495,440	2,718,173	2,923,360	3,123,304	3,332,008	3,555,246
YoY	[%]		15%	18%	24%	9%	9%	8%	7%	7%	7%
As % of Net Revenue	[%]										
(-) Dividends Paid	[TWD mn]	-543,237	-625,839	-737,397	-917,133	-998,176	-1,087,269	-1,169,344	-1,249,322	-1,332,803	-1,422,098
YoY	[%]		15%	18%	24%	9%	9%	8%	7%	7%	7%
As % of Net Income	[%]	-40%	-40%	-40%	-40%	-40%	-40%	-40%	-40%	-40%	-40%
Retained Earnings EOP	[TWD mn]	4,420,960	5,359,719	6,465,814	7,841,514	9,338,778	10,969,681	12,723,697	14,597,680	16,596,885	18,730,033

Retained Earnings



Retained Earnings	Unit	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Retained Earnings BOP	[TWD mn]	3,606,105	4,420,960	5,359,719	6,465,814	7,841,514	9,338,778	10,969,681	12,723,697	14,597,680	16,596,885
(+) Net Income	[TWD mn]	1,358,092	1,564,598	1,843,492	2,292,832	2,495,440	2,718,173	2,923,360	3,123,304	3,332,008	3,555,246
YoY	[%]		15%	18%	24%	9%	9%	8%	7%	7%	7%
As % of Net Revenue	[%]										
(-) Dividends Paid	[TWD mn]	-543,237	-625,839	-737,397	-917,133	-998,176	-1,087,269	-1,169,344	-1,249,322	-1,332,803	-1,422,098
YoY	[%]		15%	18%	24%	9%	9%	8%	7%	7%	7%
As % of Net Income	[%]	-40%	-40%	-40%	-40%	-40%	-40%	-40%	-40%	-40%	-40%
Retained Earnings EOP	[TWD mn]	4,420,960	5,359,719	6,465,814	7,841,514	9,338,778	10,969,681	12,723,697	14,597,680	16,596,885	18,730,033

Working Capital



Working Capital	2017	2018	2019	2020	2021	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Δ Net Operational Working Capital		55,715	-13,529	-7,042	24,789	-164,347	19,526	-67,421	50,581	-95,951	-30,455	-50,818	-22,610	-25,517	-23,198	-22,279	-22,513	-23,447
Net Operational Working Capital	27,029	82,744	69,215	62,173	86,962	-77,385	-57,859	-125,280	-74,699	-170,650	-201,105	-251,923	-274,533	-300,050	-323,249	-345,527	-368,040	-391,488
Assets	207,844	256,498	239,166	300,708	418,618	491,411	506,388	666,333	789,066	1,056,899	1,245,520	1,560,256	1,700,291	1,858,326	2,002,003	2,139,984	2,279,415	2,424,635
Accounts & Notes Receivables	122,317	129,198	139,771	146,038	198,302	231,340	201,938	272,088	365,131	463,707	546,463	684,551	745,990	815,327	878,364	938,902	1,000,077	1,063,791
Days of Net Revenue	45.7	45.7	47.7	39.8	45.6	37.3	34.1	34.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3
Inventories	73,881	103,231	82,981	137,353	193,102	221,149	250,997	287,869	362,503	515,176	607,117	760,532	828,791	905,824	975,858	1,043,115	1,111,080	1,181,866
Days of COGS	55.9	70.6	52.5	79.8	91.8	88.2	92.9	82.7	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2
Other ST Assets	11,646	24,069	16,414	17,317	27,214	38,922	53,453	106,376	61,432	78,017	91,940	115,173	125,510	137,175	147,781	157,966	168,259	178,978
Days of Net Revenue	4.3	8.5	5.6	4.7	6.3	6.3	9.0	13.4	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
Liabilities	180,815	173,754	169,951	238,535	331,656	568,796	564,247	791,613	863,764	1,227,549	1,446,624	1,812,179	1,974,824	2,158,376	2,325,252	2,485,511	2,647,456	2,816,123
Accounts Payable	30,069	34,357	40,206	41,095	48,723	56,522	57,293	74,227	92,650	131,670	155,169	194,379	211,825	231,514	249,413	266,603	283,974	302,065
Days of COGS	22.7	23.5	25.4	23.9	23.2	22.5	21.2	21.3	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Other Payables & Accruals	150,746	139,397	129,745	197,440	282,933	512,274	506,954	717,386	771,114	1,095,879	1,291,455	1,617,799	1,762,999	1,926,863	2,075,839	2,218,909	2,363,482	2,514,057
Days of COGS	114.0	95.4	82.0	114.7	134.5	204.2	187.5	206.2	187.5	187.5	187.5	187.5	187.5	187.5	187.5	187.5	187.5	187.5
Prepayments Impact																		
Assets	207,844	256,498	239,166	300,708	418,618	491,411	506,388											
Liabilities (ex. Prepayments)	134,235	155,314	164,921	194,065	146,316	472,651	464,848											
Prepayments	46,580	18,440	5,030	44,470	185,340	96,145	99,399											
Days of COGS	35.2	12.6	3.2	25.8	88.1	38.3	36.8											
Δ Net Operational Working Capital		27,575	-26,939	32,398	165,659	-253,542	22,780											
Net Operational Working Capital	73,609	101,184	74,245	106,643	272,302	18,760	41,540											

Cost of Equity

Country Risk Premium Taiwan	0.80%	CRP Damodaran
5Y Beta	1.30	Re-levered Beta
Inflation dif.	-0.7%	
Cost of Equity (Ke, USD nominal)	10.18%	



Cost of equity Sources

Risk Free Rate	4,43%	USA 10Y Treasury Yield
Equity Risk Premium USA	4,33%	CRP Damodaran
Country Risk Premium USA	0,00%	CRP Damodaran
5Y Beta	1,25	Re-levered Beta
Cost of Equity (nominal)	9,83%	

Risk Free Rate	4,43%	USA 10Y Treasury Yield
Equity Risk Premium USA	4,33%	CRP Damodaran
Country Risk Premium China	0,94%	CRP Damodaran
5Y Beta	1,25	Re-levered Beta
Inflation dif.	-0,2%	
Cost of Equity (nominal)	10,58%	

Risk Free Rate	4,43%	USA 10Y Treasury Yield
Equity Risk Premium USA	4,33%	CRP Damodaran
Country Risk Premium Taiwan	0,80%	CRP Damodaran
5Y Beta	1,25	Re-levered Beta
Inflation dif.	-0,4%	
Cost of Equity (Ke, USD nominal)	10,24%	

Risk Free Rate	4,43%	USA 10Y Treasury Yield
Equity Risk Premium USA	4,33%	CRP Damodaran
Country Risk Premium Japan	0,94%	CRP Damodaran
5Y Beta	1,25	Re-levered Beta
Inflation dif.	-0,2%	
Cost of Equity (Ke, USD nominal)	10,58%	

Cost of Debt (1)



Cost of debt

NT\$ Unsecured Bonds

Debt	Tranche	Principal	Effective Rate	% of total Debt	Weighted Average						
101-4	C	3,000	1.49%	0.30%	4.4858E-05	110-2	A	5,200	0.50%	0.52%	2.6092E-05
102-1	C	3,600	1.50%	0.36%	5.4191E-05		B	8,400	0.58%	0.84%	4.8892E-05
102-2	B	3,500	1.70%	0.35%	5.9710E-05		C	5,600	0.65%	0.56%	3.6529E-05
102-4	E	5,400	2.05%	0.54%	1.1109E-04	110-3	A	6,900	0.52%	0.69%	3.6007E-05
	F	2,600	2.10%	0.26%	5.4793E-05		B	7,900	0.58%	0.79%	4.5982E-05
109-1	A	3,000	0.58%	0.30%	1.7461E-05		C	4,900	0.65%	0.49%	3.1962E-05
	B	10,500	0.62%	1.05%	6.5330E-05	110-4	A	4,000	0.49%	0.40%	1.9469E-05
	C	10,500	0.64%	1.05%	6.7437E-05		B	8,000	0.50%	0.80%	4.0141E-05
109-2	A	5,900	0.52%	0.59%	3.0788E-05		C	5,400	0.55%	0.54%	2.9805E-05
	B	10,400	0.58%	1.04%	6.0533E-05		D	4,200	0.62%	0.42%	2.6132E-05
	C	5,300	0.60%	0.53%	3.1912E-05	110-6	A	3,200	0.54%	0.32%	1.7180E-05
109-3	A	4,500	0.55%	0.45%	2.4837E-05		B	6,900	0.54%	0.69%	3.7392E-05
	B	7,500	0.60%	0.75%	4.5159E-05		C	4,600	0.60%	0.46%	2.7697E-05
	C	2,400	0.64%	0.24%	1.5414E-05		D	1,600	0.62%	0.16%	9.9550E-06
109-4	A	5,700	0.58%	0.57%	3.3177E-05	110-7	A	7,700	0.65%	0.77%	5.0227E-05
	B	6,300	0.65%	0.63%	4.1095E-05		B	3,500	0.68%	0.35%	2.3708E-05
	C	1,900	0.67%	0.19%	1.2775E-05		C	5,500	0.72%	0.55%	3.9740E-05
109-5	A	4,800	0.50%	0.48%	2.4085E-05	111-1	A	2,100	0.63%	0.21%	1.3277E-05
	B	8,000	0.58%	0.80%	4.6564E-05		B	3,300	0.72%	0.33%	2.3844E-05
	C	2,800	0.60%	0.28%	1.6859E-05	111-2	A	3,000	0.84%	0.30%	2.5289E-05
109-6	A	1,600	0.40%	0.16%	6.4226E-06		B	9,600	0.85%	0.96%	8.1888E-05
	B	5,600	0.44%	0.56%	2.4727E-05		C	1,600	0.90%	0.16%	1.4451E-05
	C	4,800	0.48%	0.48%	2.3121E-05	111-3	-	6,100	1.50%	0.61%	9.1823E-05
109-7	A	1,900	0.36%	0.19%	6.8642E-06	111-4	A	1,200	1.60%	0.12%	1.9268E-05
	B	10,200	0.41%	1.02%	4.1968E-05		B	10,100	1.70%	1.01%	1.7231E-04
	C	6,400	0.45%	0.64%	2.8902E-05		C	1,200	1.75%	0.12%	2.1074E-05
110-1	A	4,800	0.50%	0.48%	2.4085E-05	111-5	A	1,400	1.95%	0.14%	2.7396E-05
	B	11,400	0.55%	1.14%	6.2921E-05		B	2,000	1.65%	0.20%	3.3117E-05
	C	4,900	0.60%	0.49%	2.9504E-05		C	8,900	1.65%	0.89%	1.4737E-04
							D	2,200	1.65%	0.22%	3.6428E-05

Cost of Debt (2)



111-6	A	2,500	1.82%	0.25%	4.5661E-05
	B	5,700	1.75%	0.57%	1.0010E-04
	C	1,000	1.80%	0.10%	1.8064E-05
112-1	A	3,500	2.00%	0.35%	7.0247E-05
	B	12,200	1.54%	1.22%	1.8854E-04
	C	2,300	1.60%	0.23%	3.6930E-05
112-2	A	4,800	1.78%	0.48%	8.5742E-05
	B	13,100	1.60%	1.31%	2.1034E-04
	C	2,300	1.65%	0.23%	3.8084E-05
112-3	A	5,300	1.82%	0.53%	9.6801E-05
	B	11,400	1.60%	1.14%	1.8304E-04
	C	2,600	1.65%	0.26%	4.3052E-05
112-4	A	6,000	1.80%	0.60%	1.0838E-04
	B	7,300	1.60%	0.73%	1.1721E-04
	C	700	1.65%	0.07%	1.1591E-05
112-5	A	7,900	1.76%	0.79%	1.3953E-04
	B	4,300	1.62%	0.43%	6.9906E-05
	C	5,500	1.76%	0.55%	9.7142E-05
113-1	A	12,000	1.64%	1.20%	1.9750E-04
	B	10,800	1.76%	1.08%	1.9075E-04
113-2	A	4,900	1.98%	0.49%	9.7363E-05
	B	6,600	2.10%	0.66%	1.3909E-04

Cost of Debt (3)



US\$ Unsecured Bonds							
Debt	Tranche	Principal	Rate	Effective Rate	Principal NT	% of total Debt	Weighted Average
109-1		1,100	2.70%	0.93%	32,910	3%	0.03%
110-5		1,000	3.10%	1.33%	29,918	3%	0.04%

Overseas Unsecured Bonds (US\$)							
Debt	Tranche	Principal	Rate	Effective Rate	Principal NT	% of total Debt	Weighted Average
		1,000	0.750%	-1.02%	29,918	3%	-0.03%
		750	1.000%	-0.77%	22,439	2%	-0.02%
		1,250	1.375%	-0.40%	37,398	4%	-0.01%
		1,100	1.250%	-0.52%	32,910	3%	-0.02%
		900	1.750%	-0.02%	26,926	3%	0.00%
		1,500	2.250%	0.48%	44,877	5%	0.02%
		1,250	1.750%	-0.02%	37,398	4%	0.00%
		1,250	2.500%	0.73%	37,398	4%	0.03%
		1,000	3.125%	1.35%	29,918	3%	0.04%
		1,000	3.250%	1.48%	29,918	3%	0.04%
		1,000	3.875%	2.10%	29,918	3%	0.06%
		500	4.125%	2.35%	14,959	2%	0.04%
		1,000	4.250%	2.48%	29,918	3%	0.07%
		1,000	4.500%	2.73%	29,918	3%	0.08%
		400	4.375%	2.60%	11,967	1%	0.03%
		600	4.625%	2.85%	17,951	2%	0.05%
Long-term Bank Loans		31,824	1.02%			3%	0.03%

Converting USD to NT yields	2025	2026	2027	2028
Inflation Taiwan	1.90%	1.70%	1.60%	1.60%
Inflation US	4.40%	2.90%	2.50%	2.50%
Accumulated Inflation Taiwan				1.07
Accumulated Inflation US				1.13
Annualized currency variation				-1.8%

Cost of Debt 1.0%

Beta and WACC

Beta

Peers	Beta (mensal 5y)	Effective Tax Rate	Unlevered Beta	Debt/Equity	Mkt Cap	Debt	Total
TSMC - TW	1,41	27%	1,37	0,04			
Tier 1							
VIS - TW	1,15	20%	1,05	0,12	173.784	21085	194.869
TSEM - US	0,99	25%	0,96	0,04	4046	162	4.208
GFS - US	1,88	25%	1,81	0,05	20743	1128	21.871
Samsung - KR	1,03	25%	1,02	0,02	378932	6304	385.236
NXPI - US	1,44	25%	1,22	0,24	49135	11725	60.860
SK Hynix - KR	1,30	25%	1,15	0,17	136050	23333	159.383
UMC - JP	1,44	31%	1,34	0,11	560730	62259	622.989
TXN - US	1,08	25%	1,02	0,08	165496	12848	178.344
Median	1,30	25,0%	1,15	0,08			
Average	1,30	25,3%	1,22	0,10			

Beta TSMC	1,25
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WACC

Ke	9,95%
We	96%
kd	1,0%
Wd	4%
Tax Rate	27%
WACC nominal	9,61%

Equity (TN mn)	25.751.204
Debt (TN mn)	990.162
Total Capital	26.741.367

North America	80%
China	7%
Asia Pacific	9%
Japan	4%

FCFF DCF



FCFF	Units	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E	Perpetuity
EBIT	[TWD mn]	1.701.908	1.946.042	2.298.495	2.886.682	3.143.486	3.432.425	3.692.542	3.940.205	4.188.881	4.446.714	4.446.714
Tax Rate	[%]	27%	27%	27%	27%	27%	27%	27%	27%	27%	27%	27%
(=) NOPAT	[TWD mn]	1.242.393	1.420.611	1.677.901	2.107.278	2.294.745	2.505.670	2.695.556	2.876.349	3.057.883	3.246.102	3.246.102
(+) D&A	[TWD mn]	770.833	787.659	872.817	1.026.773	1.216.896	1.444.061	1.703.227	1.991.493	2.307.444	2.650.627	2.650.627
(-) Change in NOWC	[TWD mn]	(50.581)	95.951	30.455	50.818	22.610	25.517	23.198	22.279	22.513	23.447	23.447
(-) CAPEX	[TWD mn]	(1.200.000)	(1.440.000)	(1.868.291)	(2.340.398)	(2.550.452)	(2.787.507)	(3.003.024)	(3.209.997)	(3.419.145)	(3.636.975)	(2.650.627)
(=) FCFF	[TWD mn]	762.645	864.221	712.882	844.470	983.798	1.187.740	1.418.957	1.680.125	1.968.695	2.283.201	66.848.469
WACC	[%]											9,61%
g	[%]											4,50%
Date		31/12/2025	31/12/2026	31/12/2027	31/12/2028	31/12/2029	31/12/2030	31/12/2031	31/12/2032	31/12/2033	31/12/2034	
Time Step		0,5	1,5	2,5	3,5	4,5	5,5	6,5	7,5	8,5	9,5	9,5
(=) PV of FCFF	[TWD mn]	725.791	750.343	564.674	610.100	648.438	714.216	778.436	840.682	898.698	950.879	27.840.209

DCF	Units	
Enterprise value [mn]	[TWD mn]	35.322.466
CF's	[TWD mn]	7.482.257
CF's as % of EV	[%]	21,2%
Perpetuity	[TWD mn]	27.840.208,7
Perpetuity as % of EV	[%]	78,8%
(-) Net debt	[TWD mn]	(1.141.165,0)
Equity value	[TWD]	36.463.631
# of Shares [mn]	[mn]	25.932
Target Price	[TWD]	1.406,1
Current Enterprise Value	[TWD mn]	-
Current Share Price	[TWD]	1.025
Upside/Downside	[%]	37,18%

FCFE DCF



FCFE	Units	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E	Perpetuity
Net Income	[TWD mn]	1.358.092	1.564.598	1.843.492	2.292.832	2.495.440	2.718.173	2.923.360	3.123.304	3.332.008	3.555.246	3.555.246
(+) D&A	[TWD mn]	770.833	787.659	872.817	1.026.773	1.216.896	1.444.061	1.703.227	1.991.493	2.307.444	2.650.627	2.650.627
(-) Change in NOWC	[TWD mn]	(50.581)	95.951	30.455	50.818	22.610	25.517	23.198	22.279	22.513	23.447	23.447
(-) CAPEX	[TWD mn]	(1.200.000)	(1.440.000)	(1.868.291)	(2.340.398)	(2.550.452)	(2.787.507)	(3.003.024)	(3.209.997)	(3.419.145)	(3.636.975)	(2.650.627)
(+) Net Borrowings	[TWD mn]	342.001	307.949	359.505	592.813	91.815	85.061	1.327	(55.884)	(92.601)	(117.485)	(117.485)
(=) FCFE	[TWD mn]	1.220.345	1.316.157	1.237.976	1.622.838	1.276.309	1.485.304	1.648.088	1.871.195	2.150.219	2.474.861	3.461.209
Ke	[%]	9,95%	9,95%	9,95%	9,95%	9,95%	9,95%	9,95%	9,95%	9,95%	9,95%	9,95%
g	[%]											4,5%
Date		31/12/2025	31/12/2026	31/12/2027	31/12/2028	31/12/2029	31/12/2030	31/12/2031	31/12/2032	31/12/2033	31/12/2034	
Time Step		0,5	1,5	2,5	3,5	4,5	5,5	6,5	7,5	8,5	9,5	9,6
(=) PV of FCFE	[TWD mn]	1.159.422	1.137.257	972.871	1.159.570	829.411	877.852	885.887	914.526	955.766	1.000.487	26.674.232

DCF	Units	
DCF	[TWD mn]	36.567.281
CF's	[TWD mn]	9.893.049
CF's as % of EV	[%]	27%
Perpetuity	[TWD mn]	26.674.232
Perpetuity as % of EV	[%]	73%
Equity Value	[TWD]	25.802.340
# of Shares [mn]	[mn]	25.932
Target Price	[TWD]	1410
Current Share Price	[TWD]	995
Upside/Downside	[%]	42%

Reverse Discounted Cash Flow



Reverse Discounted Cash Flow

FCFF	Units	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Revenue		2,894,308	3,526,881	4,408,468	5,154,943	6,371,720	6,928,817	7,556,354	8,128,505	8,678,791	9,235,164	9,814,679
Nosso Growth rate Y/Y	Our CAGR	13.66%	23%	27%	18%	25%	9%	9%	8%	7%	7%	6%
Solver (Market) Growth rate	Solver CAGR	12.99%	22%	25%	17%	24%	9%	9%	8%	7%	6%	6%
EBIT			1,679,862	1,890,565	2,215,656	2,745,650	2,983,546	3,250,698	3,491,860	3,721,798	3,952,797	4,192,319
EBIT Margin			48%	43%	43%	43%	43%	43%	43%	43%	43%	43%
Tax Rate			27%	27%	27%	27%	27%	27%	27%	27%	27%	27%
NOPAT			1,226,299	1,380,113	1,617,429	2,004,325	2,177,989	2,373,010	2,549,058	2,716,913	2,885,542	3,060,393
NOPAT Margin			35%	31%	31%	31%	31%	31%	31%	31%	31%	31%
(+) D&A			770,833	787,659	872,817	1,026,773	1,216,896	1,444,061	1,703,227	1,991,493	2,307,444	2,650,627
(-) Change in NOWC			(50,581)	95,951	30,455	50,818	22,610	25,517	23,198	22,279	22,513	23,447
(-) Capex			(1,200,000)	(1,440,000)	(1,868,291)	(2,340,398)	(2,550,452)	(2,787,507)	(3,003,024)	(3,209,997)	(3,419,145)	(3,636,975)
(=) JFCFF			746,551	823,723	652,409	741,517	867,042	1,055,080	1,272,459	1,520,688	1,796,353	2,097,493
WACC			9.7%	9.7%	9.7%	9.7%	9.7%	9.7%	9.7%	9.7%	9.7%	9.7%
g												4.5%
Date			31/12/25	31/12/26	31/12/27	31/12/28	31/12/29	31/12/30	31/12/31	31/12/32	31/12/33	31/12/34
Time Step			0.6	1.6	2.6	3.6	4.6	5.6	6.6	7.6	8.6	8.6
(=) PV of FCFF			706,384	710,170	512,509	530,630	565,342	626,839	688,834	749,894	807,145	

Implied DCF	Units
Present Value of FCFFs	5,897,747
Long-Term Growth Rate	4.5%
Final Year FCF * (1+g)	2,191,880
Terminal Value in Final Y	41,759,183
Present Value of Terminal Y	18,763,417
Total Enterprise Value (TEV)	24,661,164
(-) Net Debt	(1,141,165)
Equity Value	25,802,329

Share Price Calculation	Units
Diluted Shares Outstanding	25,932
Implied Share Price	995
Current Market Share Price	995
Implied Growth Rate	13%

Solver:
Implied Share Price to value Current Market Share Price, by changing Growth Rate each year

IRR



IRR	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Profit	1,172,432	1,358,014	1,564,450	1,843,207	2,292,417	2,495,088	2,717,917	2,923,069	3,122,985	3,331,681	3,554,937
PPS	45.2	52.4	60.3	71.1	88.4	96.2	104.8	112.7	120.4	128.5	137.1
Dividends		543,237	625,839	737,397	917,133	998,176	1,087,269	1,169,344	1,249,322	1,332,803	1,422,098
DPS		20.95	24.13	28.44	35.37	38.49	41.93	45.09	48.18	51.40	54.84
# of shares	25,932										
Entry P/E	22.67x										
Exit P/E	20.70x										
Choose exit year	2029										
Years	5										
Dividends	0	20.95	24.13	28.44	35.37	38.49	-	-	-	-	-
Stock buy/sell	-1025	-	-	-	-	1991.68	-	-	-	-	-
(=) Cash Flow	-1025	20.95	24.13	28.44	35.37	2030.17	0.00	0.00	0.00	0.00	0.00
IRR	16.4%										

MIRR | TSR | NPV | MOIC | Capital Gains



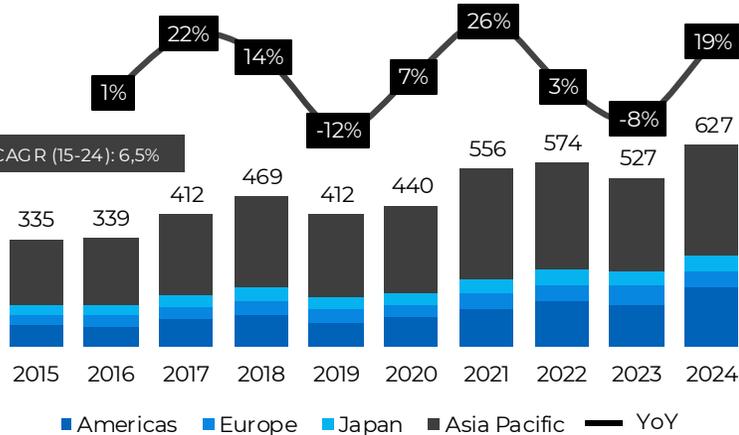
Cash flows			Cash flows	2025 BoP	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E	IRR	MIRR	NPV	MOIC	Capital gains TWD
2025 Exit	0.54	31/12/25	2025 Exit	-1,025.0	1,105										7.8%	3.8%	(20.1)	1.1	1,105
2026 Exit	1.54	31/12/26	2026 Exit	-1,025.0	21	1,273									12.5%	8.1%	47.0	1.3	1,294
2027 Exit	2.54	31/12/27	2027 Exit	-1,025.0	21	24	1,500								14.9%	10.8%	142.2	1.5	1,545
2028 Exit	3.54	30/12/28	2028 Exit	-1,025.0	21	24	28	1,865							17.7%	13.6%	311.6	1.9	1,939
2029 Exit	4.54	30/12/29	2029 Exit	-1,025.0	21	24	28	35	2,030						16.4%	13.0%	322.9	2.1	2,139
2030 Exit	5.54	30/12/30	2030 Exit	-1,025.0	21	24	28	35	38	2,211					15.5%	12.6%	335.1	2.3	2,359
2031 Exit	6.54	30/12/31	2031 Exit	-1,025.0	21	24	28	35	38	42	2,378				14.7%	12.2%	331.4	2.5	2,568
2032 Exit	7.54	29/12/32	2032 Exit	-1,025.0	21	24	28	35	38	42	45	2,541			14.0%	11.7%	320.0	2.7	2,775
2033 Exit	8.54	29/12/33	2033 Exit	-1,025.0	21	24	28	35	38	42	45	48	2,711		13.5%	11.3%	307.1	2.9	2,993
2034 Exit	9.54	29/12/34	2034 Exit	-1,025.0	21	24	28	35	38	42	45	48	51	2,893	13.0%	11.0%	294.9	3.1	3,227

A Look into Semiconductors

A structurally expanding market, reshaped by geopolitics and fueled by emerging technologies

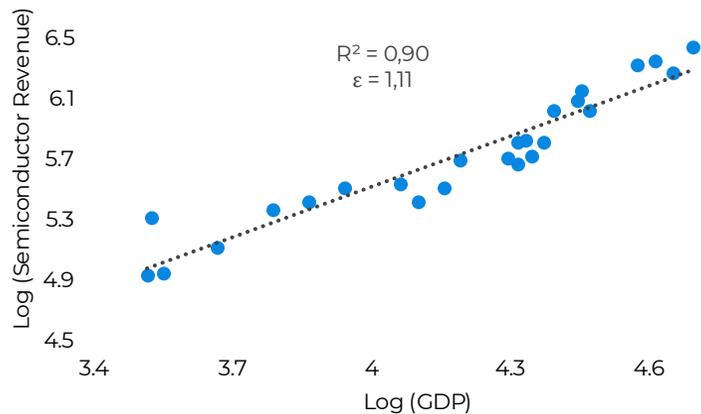
1. A growing market dominated by Asia end demand

Semiconductor Market Size (USD Billion)



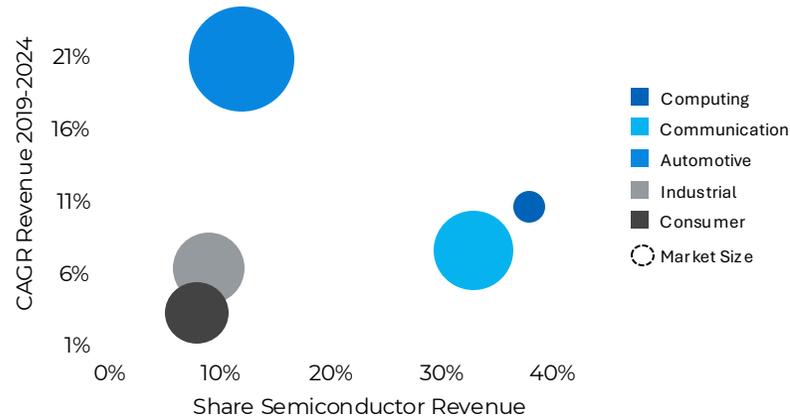
2. Highly correlated with GDP sensitivity, with stretching in elasticity

Proprietary Regression of Semiconductor Market Size and Global GDP



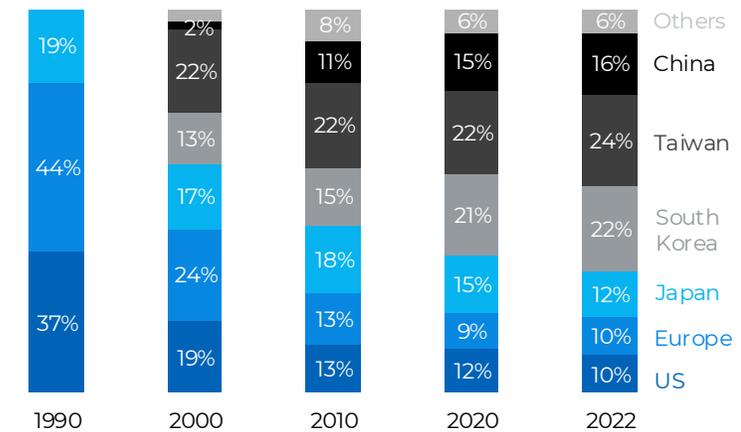
3. Industry is allocated where growth actually happens

Semiconductor Revenue CAGR, Share and Market Size per end-market



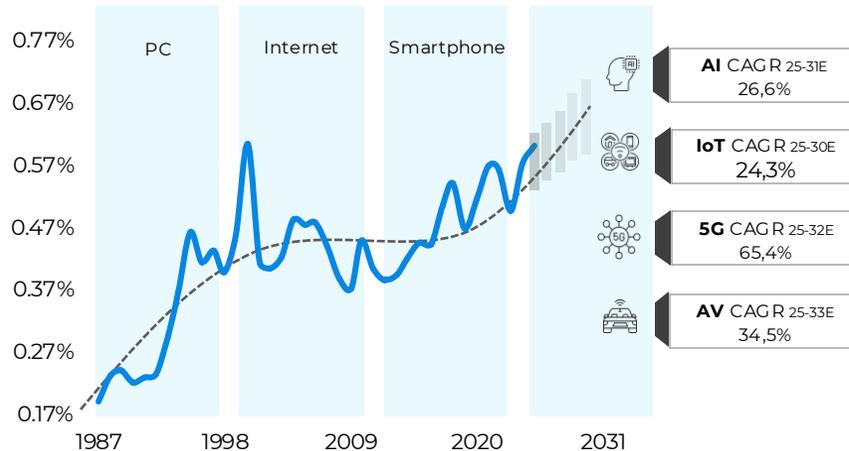
5. The chip chain production has become more regionally distributed

Manufacturing Capacity by Country (200/300 mm wafer diam.)



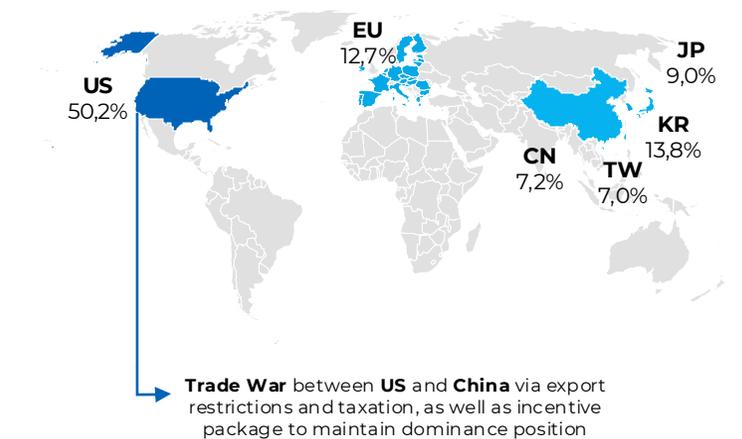
4. From input to engine of the world economy, driven by new technologies

Semiconductor TAM as % of Global GDP



6. But the US still dominates as the corporate headquarters, and is struggling to maintain its position.

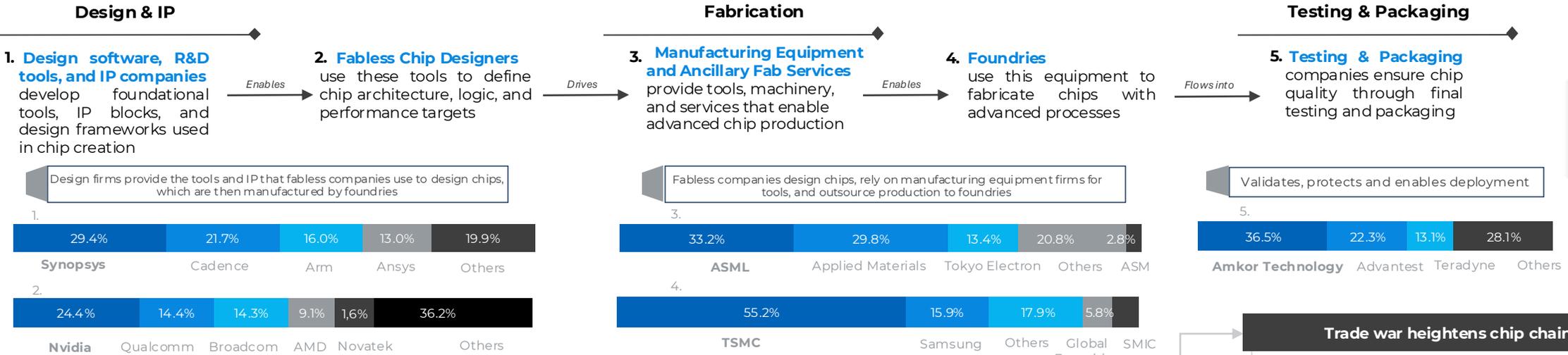
Countries Revenue Market Share by Company HQ



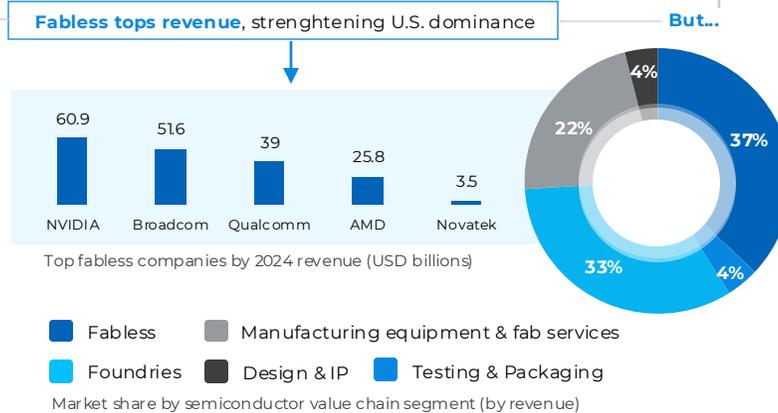
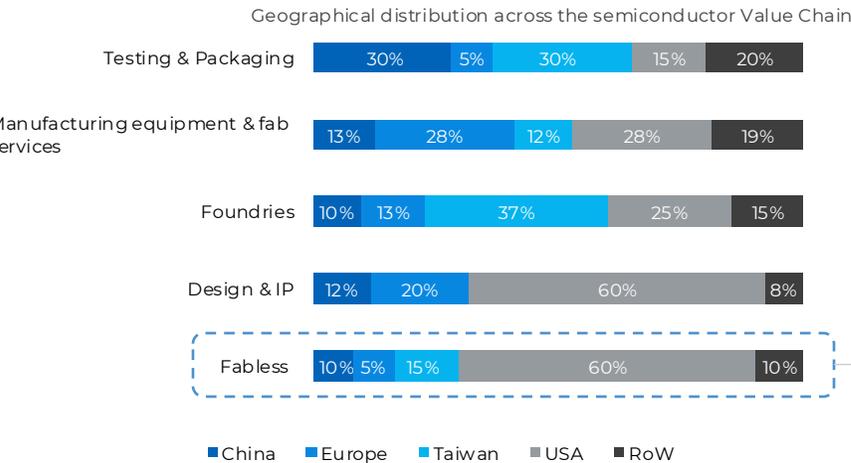
Inside the Semiconductor Value Chain

The value chain is specialized and dominated by few players, with U.S. leadership increasingly threatened by trade barriers

1. The value chain shows strong interdependence across specialized subsegments, with market share concentrated among a few dominant players



2. The United States leads across stages, holding the largest share of the global semiconductor production



Trade war heightens chip chain uncertainty

Top challenges cited by semiconductor executives

Supply chain disruption	35%
Territorialism/Tariffs/Trade restrictions	40%

1. Top executives see geopolitics and supply chain as key risks...

2. Reinforcing this perception, U.S. firms' reliance on China raises warning signs

Market	U.S. Firms	Other firms
Chinese Market	53.10%	46.90%
Americas Market	52.20%	47.80%

U.S. Semiconductor firms lead in key regional markets

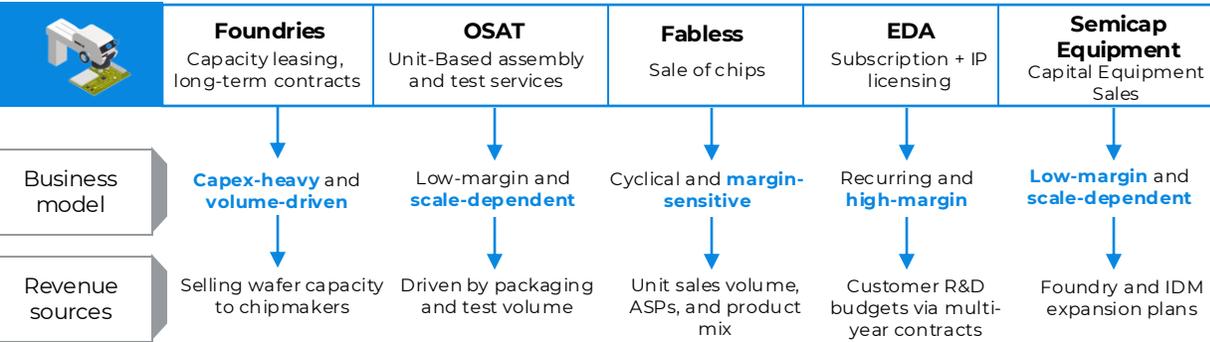
By Ongoing tech sanctions: By

- AI chips (Nvidia H100, AMD, MI300)
- Chipmaking equipment
- HVM memory chips
- 140+ chinese firms (imports)
- Gallium, germanium, antimony
- Rare earths
- Indirect reduction, push for self-sufficiency (imports)

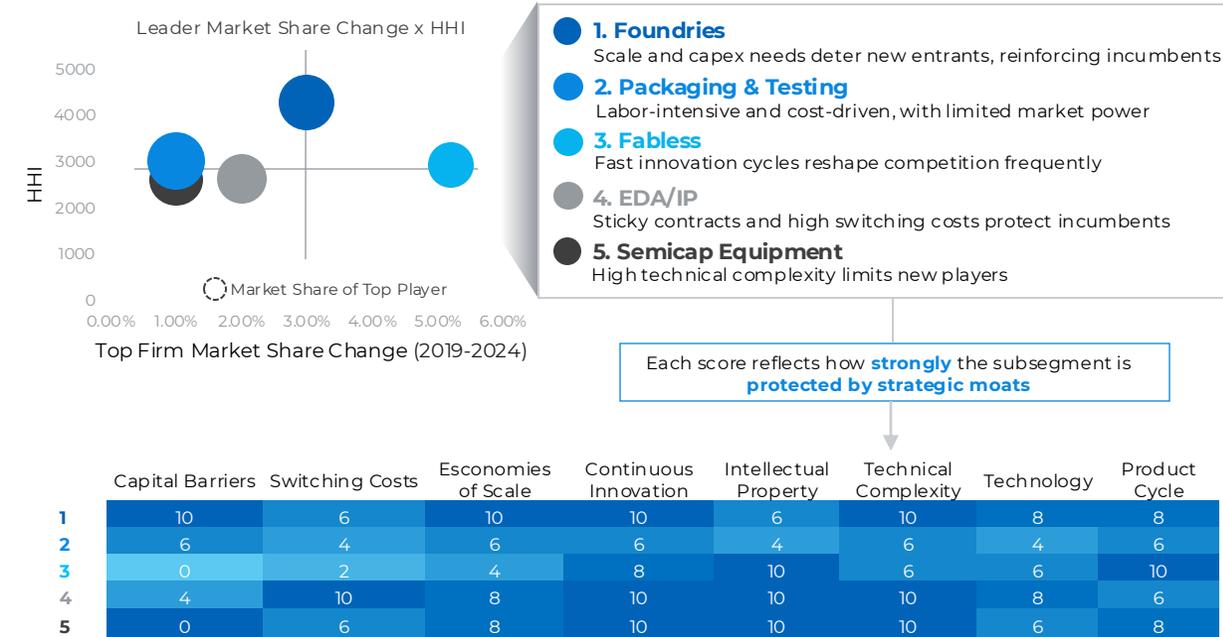
Decoding Sub-Segment Profiles

Each Sub-Segment has a distinct business model, moat, and growth driver, yet all have been propelled by AI

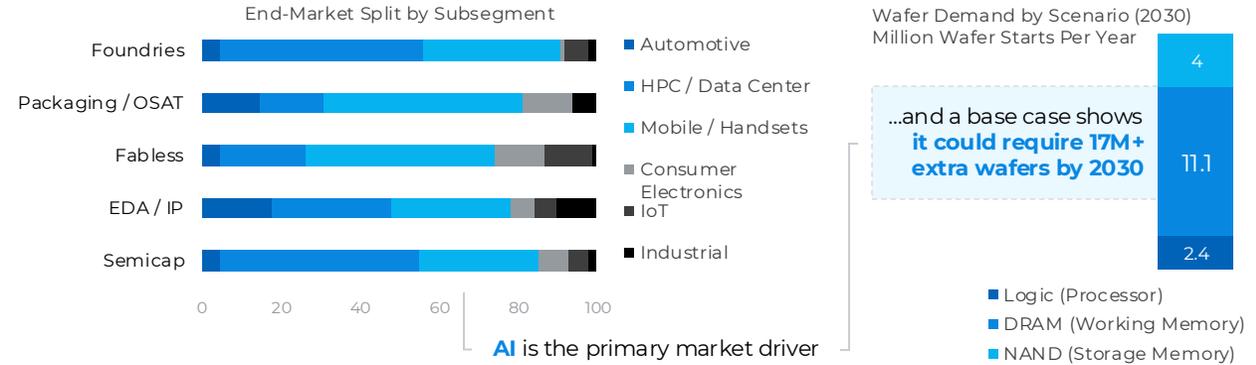
1. Each subsegment plays a unique role, with distinct business models and revenue sources



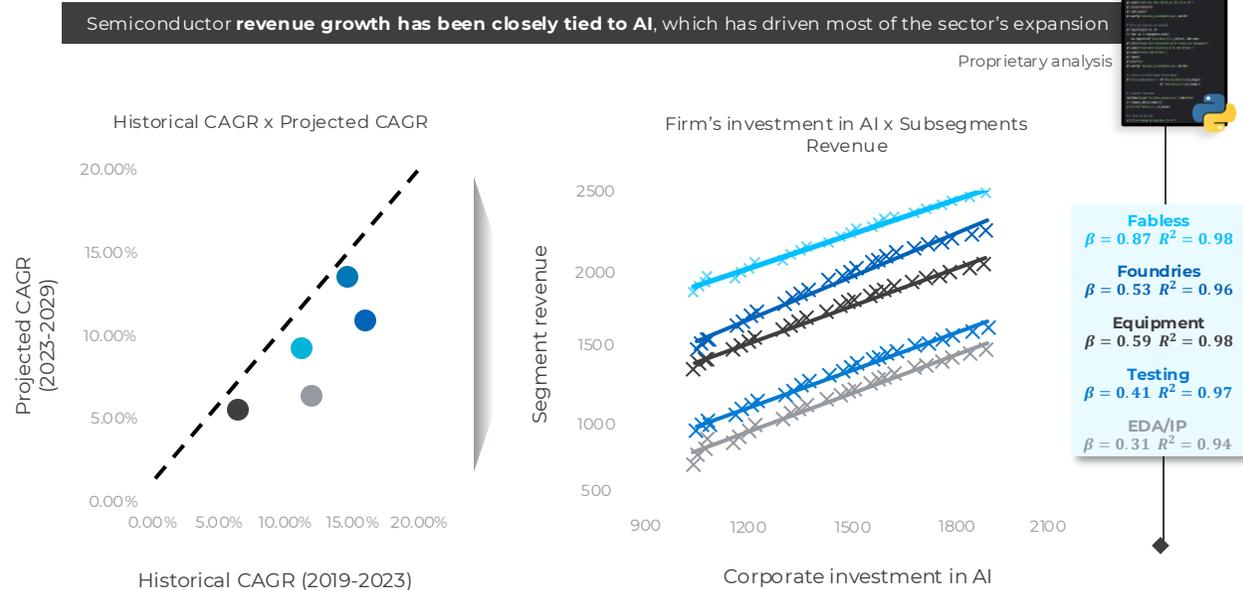
3. Diverging moats and entry barriers shape the competitive landscape



2. End-market exposure varies across segments, with AI leading future growth...



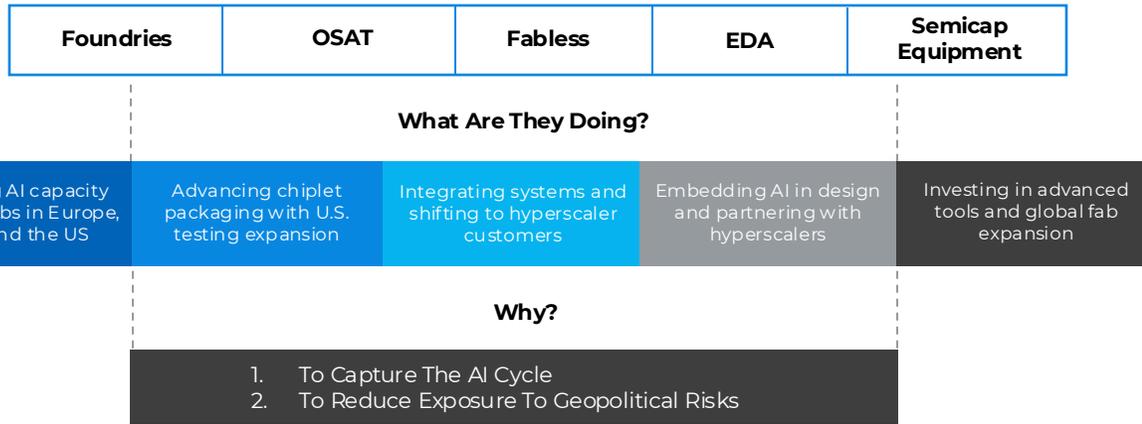
4. Historically, AI has been the key catalyst behind industry expansion, reinforcing its position as the leading driver



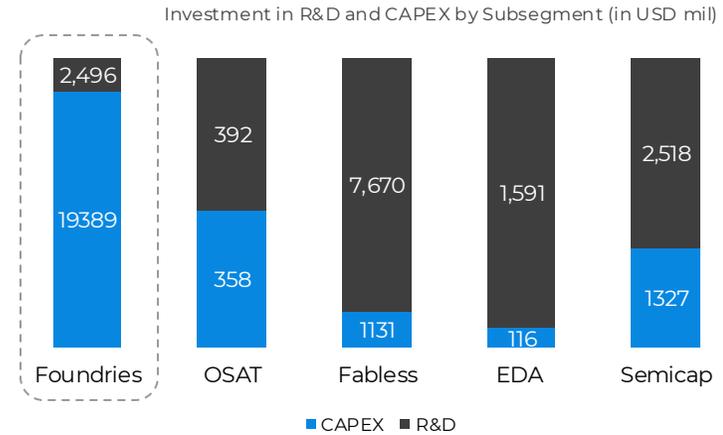
Sub-Segment Financials & Capex Trends

Capital requirements and financial profiles vary across subsegments, reflecting their distinct roles and business models

1. Through strategical and tactical movements, each sub-segment prepares for tomorrow in different ways...



2. But all of this moves require a great sum of investment to be accomplished, with each segment having an unique reinvestment profile



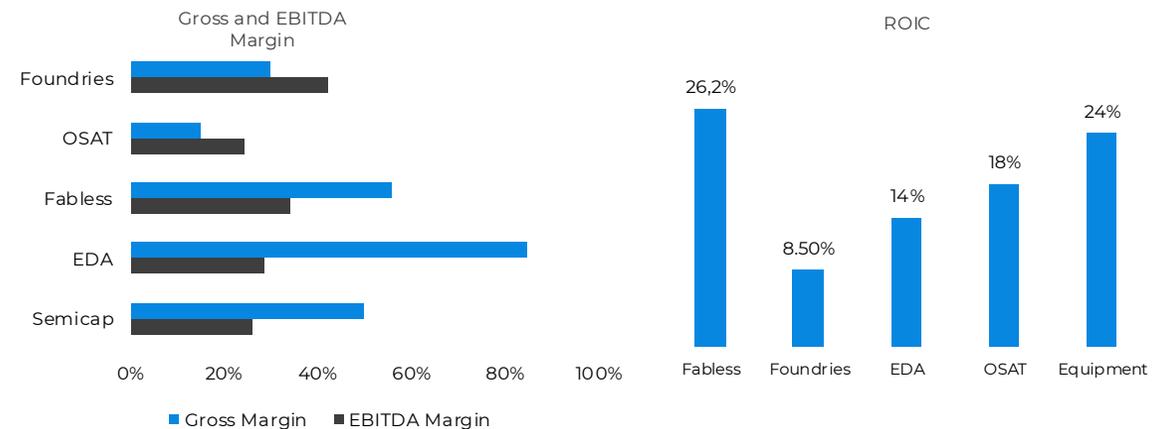
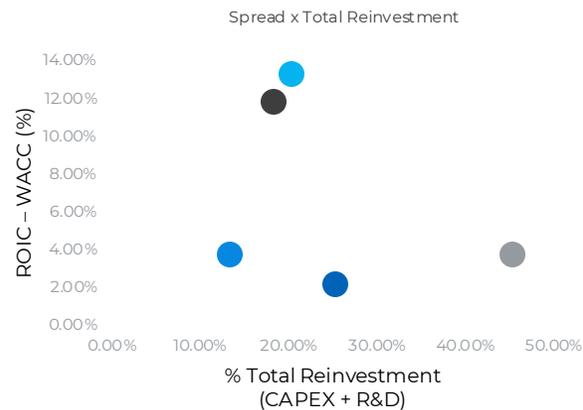
"With high CAPEX, only a few survive each cycle and invest in the next wave, leading to monopolies."

Gabriela Moraes, São Pedro Capital

3. Which ends up being a bigger burden for certain sub-segments

4. Where Foundries lead in EBITDA Margin thanks to scale, Fabless, who are asset-light, lead in ROIC. With Semicap being balanced, OSAT and EDA returning lower numbers

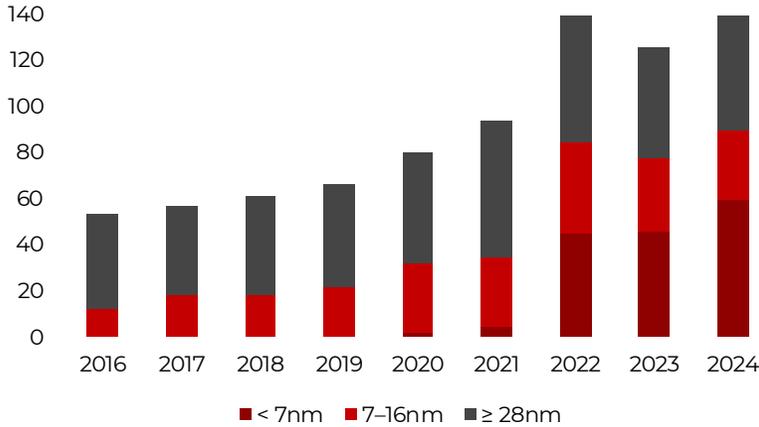
- Foundries**
Invest the most by far, and are still able to capture value
- Packaging & Testing**
Firms reinvest, but operate with the lowest returns
- Fabless**
Achieves the highest returns with some reinvestment burden
- EDA/IP**
Firms generate medium returns with an also medium reinvestment
- Semicap Equipment**
Solid returns with the benefit of low reinvestment thanks to market concentration



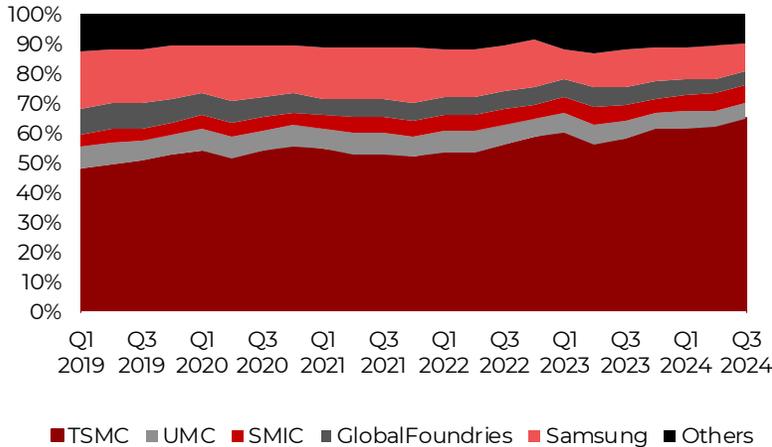
Foundries: The Strategic Link in the New Era of Semiconductors

Technical mastery, sectoral diversification and leveraging of the highest growth vectors

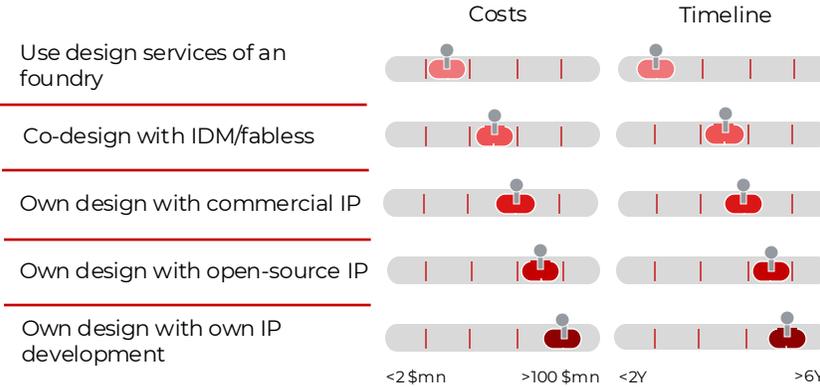
1. Fast-growing subsegment TAM led by new node technologies
Foundries Market Size (USD Billion)



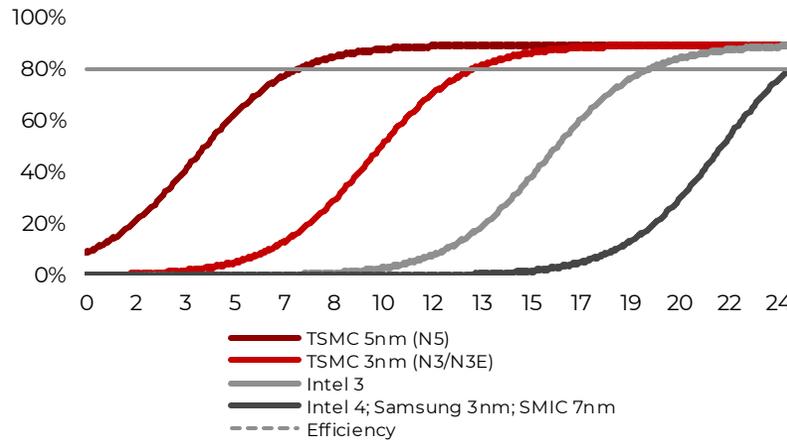
2. Centered on a main player, which is gaining even more space: TSMC
Main Players Market Share (%)



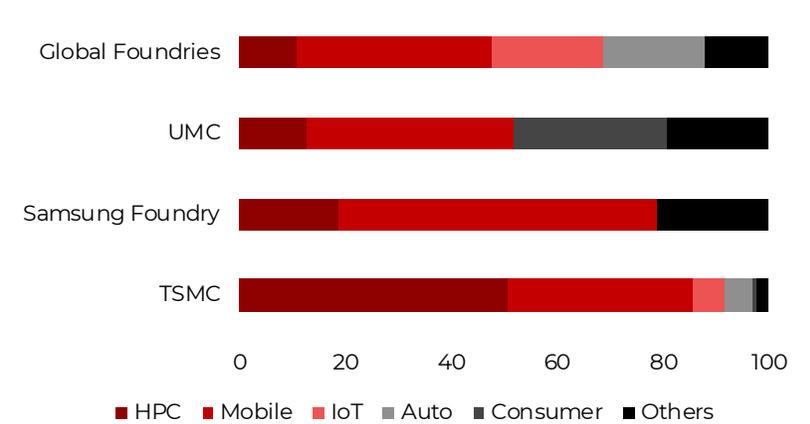
3. Using foundry services shortens timelines and reduces costs significantly, enabling increasing adoption of the subsegment



4. Moat goes beyond capex, it is in ramp-up mastery
Ramp-Up of Node Efficiency in Months



5. And it has broad diversification in the sector, being exposed to several end markets and customers
End Market Exposure per Company (%)



6. In this way, it is exposed to most exponential drivers, as well as subsidies and incentives.
Subsegment Exposure to each Driver

