

# Phoenix Partners



**LONG Rating** 

IRR: 18.1% Upside: 36.6%

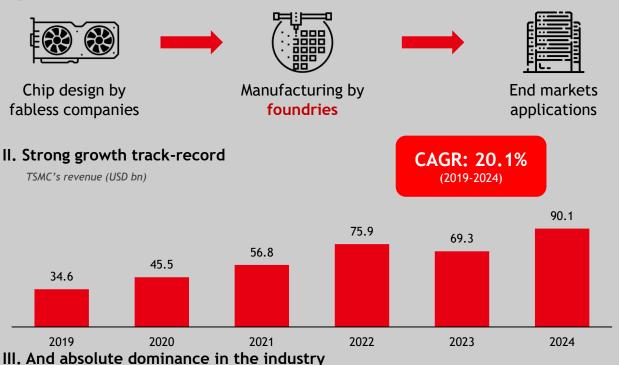
NYSE: TSM (5 year investment)

LTS Challenge 2025

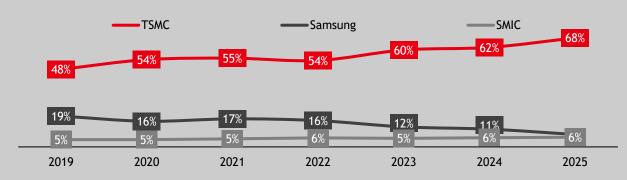
# tsmc At a glance

#### I. A fundamental business for the modern economy

Semiconductor value chain



#### Semiconductor manufacturing market share (%)



## **Investment Pillars**



#### Leading pure-play foundry

Being the leading pure-play gives it a 39 p.p superior operating margin, while maintaining a 41.6% Return on Invested Capital.



#### **Customers** base

TSMC's most important customers have been with the company for between 11 and 21 years, meaning faster ramp-ups and higher margins for projects, translating into 23 p.p. superior IRRs.



#### Foundation of Al

Positioned to be the monopolist in AI/HPC nodes, the main catalyst for fueling a 17.1% revenue CAGR in the next 10 years.

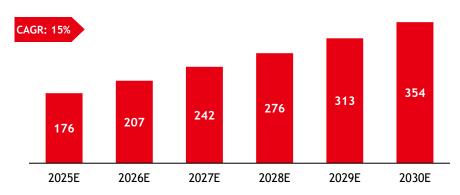
# I. Foundries are powering global technology



TSMC is in a highly promising, yet cyclical industry, that relies on high investments and fixed costs

#### 1. A promising industry ready to grow

Foundries Market Size (USD billions)

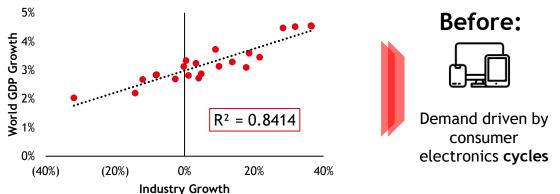


#### 3. Also, relying on huge infrastructure investments

Total CapEx of Foundries (USD billions)

#### 2. A historically cyclical business, but it will require continuous investments in the future

Correlation between World GDP Growth and Industry Growth (%)

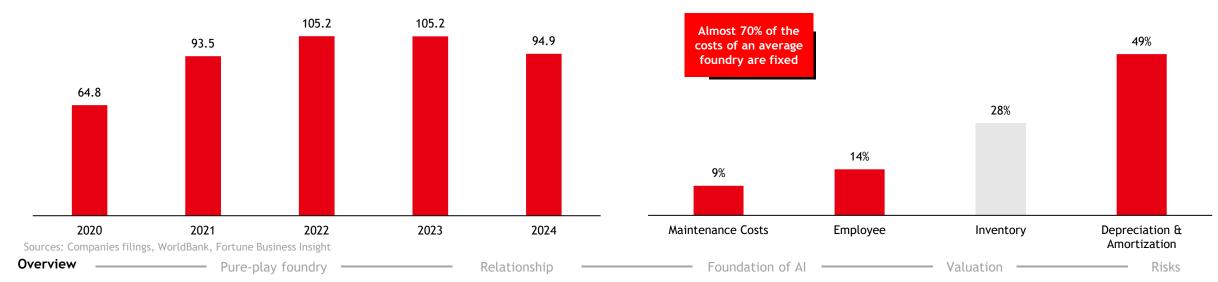


#### Now: چىشىرە

Demand driven by Al platforms, which require continuous scaling

#### 4. As a result, most of the costs are fixed

Cost distribution of an average foundry (%)



# I. TSMC creates the pure-play foundry

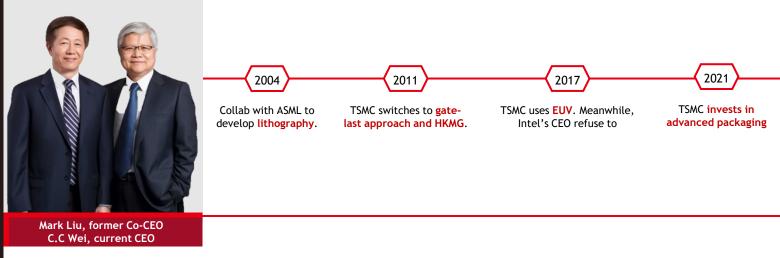


TSMC started as a pure-play, a winner business model that best spreads fixed costs and shares technology

1. Morris' vision of a pure-play model proved correct, while IDMs struggled



3. Even without Morris Chang, the company is set to make the right strategic decisions



#### 2. Backed by a strong culture from the beginning

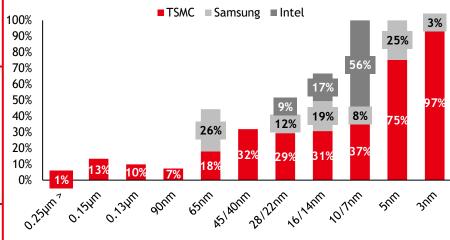
Conversation with David Su, director of TSMC for 18 years



David Su, Former TSMC Director

- Culture is different; people in Taiwan study, work and are obedient. They go beyond what is asked and are much more prepared to do what you want. In the end, TSMC's advantage lies in a combination of culture, methodology, discipline and commitment to horizontality.
- 4. Decisions and culture made the company the leader

Market Share by node (% of capacity)



Sources: Company filings, Acquired

Pure-play foundry

Relationship

Foundation of Al

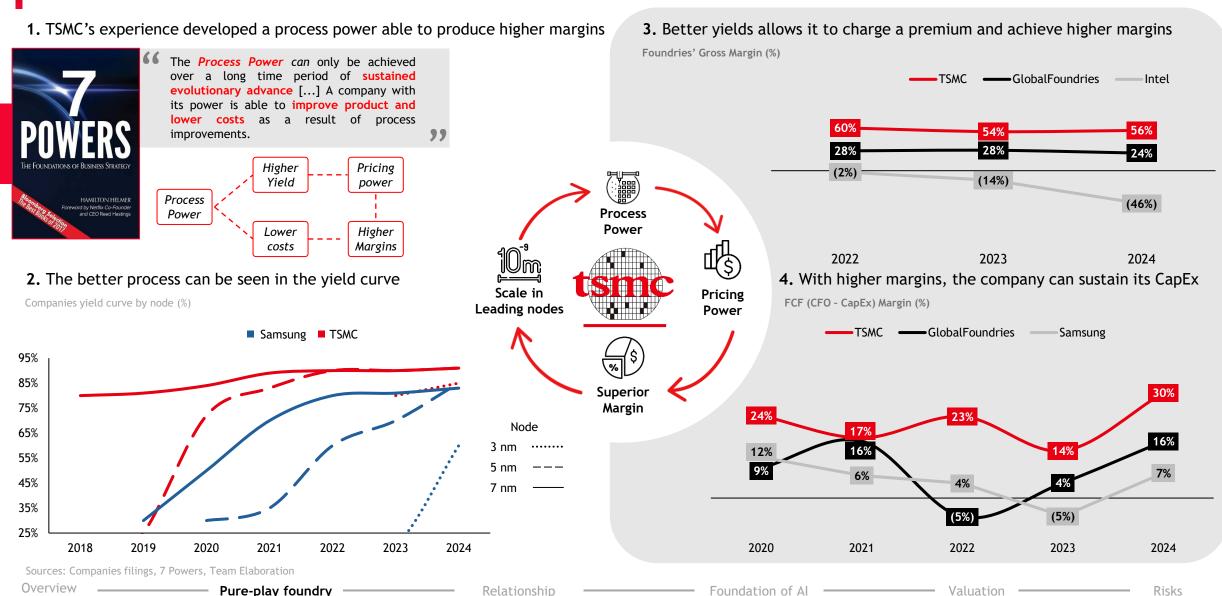
Valuation

Ricks

## I. The winning business model



High fixed costs and differences in yield generate economies of scale and process power

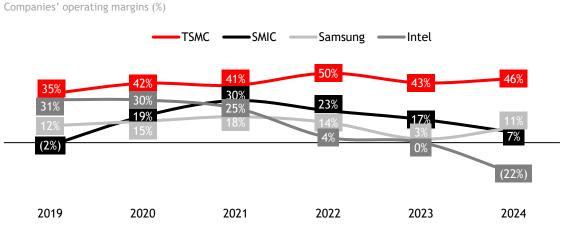


## I. The financials beyond this business model



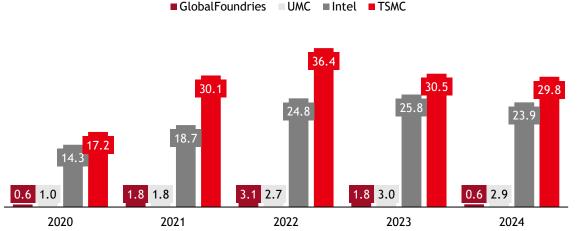
Sharp growth, high margins and excellent returns define the company's business model

1. The flywheel allows the company to operate better than competitors



3. High margins enable the company to reinvest with high returns

Companies' CapEx levels (USD bn)



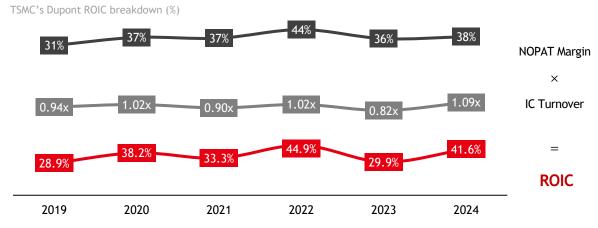
Sources: Companies filings

Pure-play foundry

Relationship

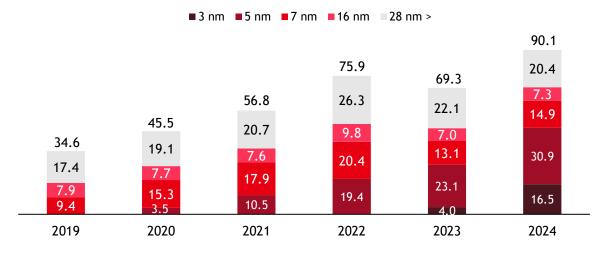
Risks

2. And, with a better use of the assets, the company can also deliver high returns



4. Fueling the company's high growth in the last years, driven by new nodes

TSMC's net revenues by nodes (USD bn)



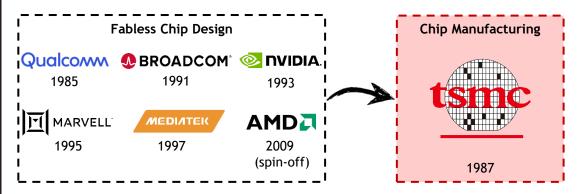
# II. Strong relationships with clients are another major advantage



By creating an ecosystem with their clients, and not competing with them, TSMC creates a strong bond

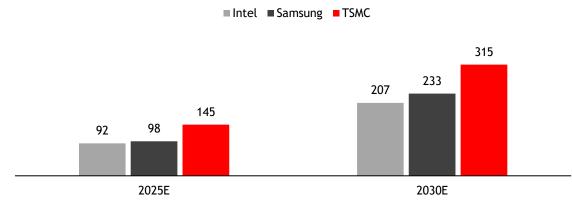
1. The birth of the business model created the fabless ecosystem

Companies born in TSMC's ecosystem and date of foundation



**2.** By not competing with clients, TSMC has a broader market to achieve

Serviceable addressable market (USD bn)

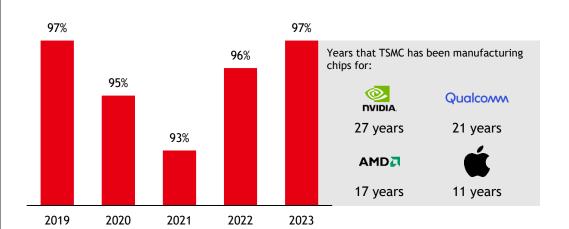


3. High customer satisfaction rates, alongside with decades of partnership, make customers stick to TSMC, even if competitors match their quality and pricing

TSMC's Annual Customer Trust Rate (%)

Sources: Companies filings

Overview



Why we believe customers will stick to TSMC



Historical peers' failures in specific nodes introduce a delivery risk for the new products across the supply chain.



concerns about empowering a competitor with intellectual property and operational scalability.



The sole company adopting a client-centric decision-making model, especially in pricing, where it deliberately underutilizes its full pricing power.

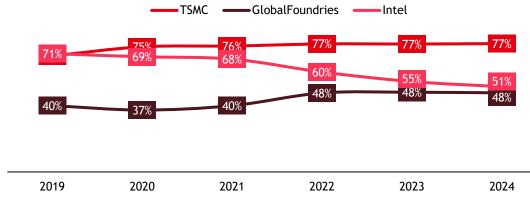
## II. In addition, TSMC has attracted customers due to client-focus



The company prioritized reinforcing its flywheel over exercising pricing power, increasing its ecosystem

1. Flat cash margins shows limited pricing power utilization...

Cash Gross Margin (%)



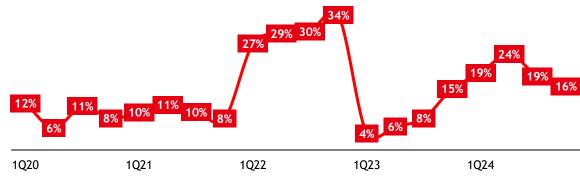
3. Creating switching costs and consumer surplus valued by key clients

TSMC's annual customer satisfaction rate (%)

#### 91% Jensen Huang Founder and CEO of Nvidia [...] TSMC's wafer price is indeed too low, and that TSMC's contribution to the world and the tech industry is under-presented by its financial results [...] At Computex in Taipei, on 5th June 2024 2020 2021 2022 2023

2. ...even though when needed, TSMC has raised its prices to maintain margins

TSMC's wafer average selling price YoY growth (%)



4. In the end TSMC is the place to go when facing difficulties with suppliers

Customers that switched to TSMC after facing problems with their former suppliers

Case study: companies switching to TSMC						
	When?	From?	Why?			
AMD <mark></mark>	2011	GlobalFoundries	Struggles with technical and yield demands			
Ć	2014	Samsung	Intellectual property concerns			

Sources: Company filings, Team elaboration

Pure-play foundry

Relationship

# II. Apple was the main enabler of leading-edge, powering TSMC

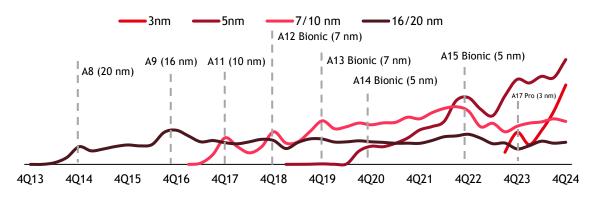
Relationship



The power of TSMC's partnership with Apple allowed the company to ramp-up its leading-edge fabs with scale

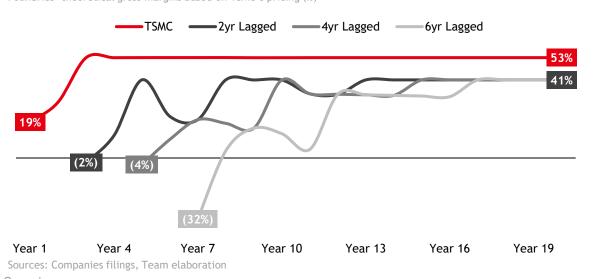
#### 1. Apple's commitment has ensured demand for each new node

Revenue per node and Apple's chip (USD bn)



#### 3. Once the fabs are fully depreciated, TSMC can reduce its price

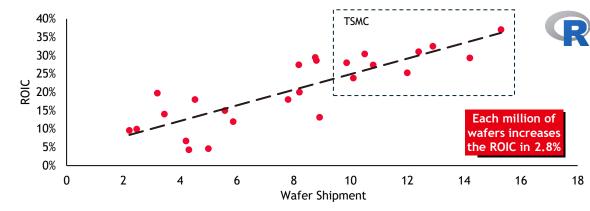
Foundries' theoretical gross margins based on TSMC's pricing (%)



Pure-play foundry

#### 2. That demand is essential for the company to achieve a superior return

Correlation between Wafer Shipments and ROIC (# millions, %)



#### 4. This playbook decreases competitors' margin and increases TSMC's IRR

Foundry's project IRR sensitivity analysis (%)

	IRR	1	2	3	4	5
	30%	25.1%	21.9%	19.5%	17.6%	16.1%
Cash Flow Margin	40%	35.2%	30.0%	26.3%	23.5%	21.2%
-low	50%	45.3%	37.8%	32.7%	28.9%	26.0%
Cash F	60%	55.3%	45.3%	38.8%	34.1%	30.5%
_	70%	65.2%	52.6%	44.6%	39.0%	34.7%

TSMC can ramp-up its fabs within 2-3 years with a cash margin of 60-70%, which translates into an average IRR of ~45% for their foundry projects.

By contrast, their average peer takes 3 years to ramp-up fabs, with a cash margin of 35%, resulting in an IRR for their foundry projects of ~22%, 23 p.p. below TSMC's.

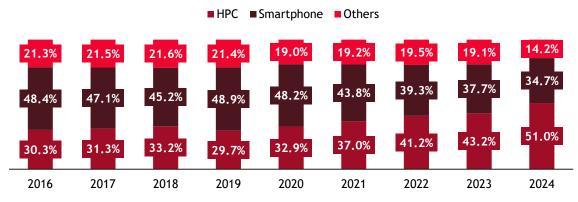
# III. Future outlook: Al-driven demand in a slowing Moore's Law landscape



There is a clear driver for the industry ahead, but capturing it is not trivial, as important challenges are to come

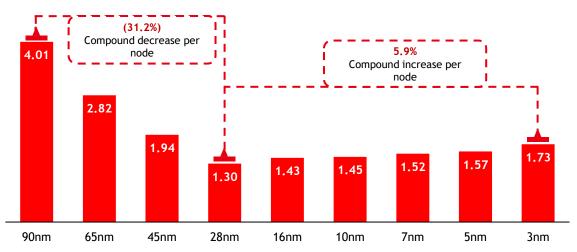
#### 1. Recently, HPC/AI has been the main driver of revenue growth

TSMC's share of revenue by end market (%)



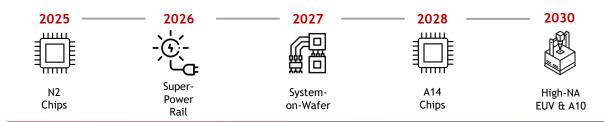
#### 3. Besides slowing down, Moore's Law is also becoming ever more expensive...

Cost per 100 million gates (USD)



#### 2. So TSMC already has a clear roadmap to supply this ever-growing demand

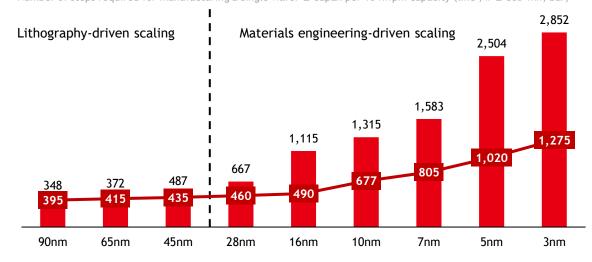
TSMC's advanced technology roadmap



15% Expected average PPA increase per node vs. 40% predicted by Moore's Law

#### 4. ...as increased complexity is demanding higher levels of CapEx

Number of steps required for manufacturing a single wafer & CapEx per 10 kwpm capacity (line, # & USD mn, bar)



Source: Companies filings

Overview — Pure-play foundry — Relationship — Foundation of AI — Valuation — Risks

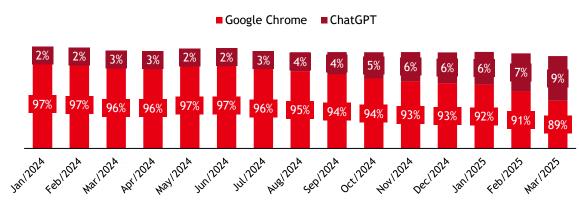
# III. TSMC is prime-positioned to thrive in the next years



As AI becomes the new powerhouse of global economy, everyone will turn to TSMC

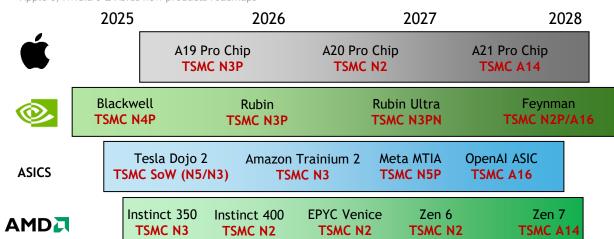
#### 1. Al has changed the competitive landscape for tech companies

Search Usage Market Share (%)



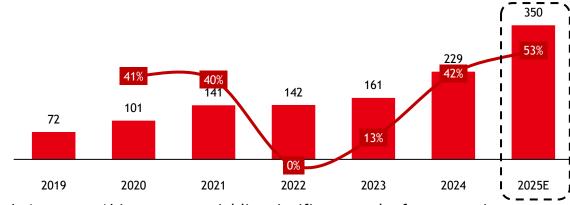
#### 3. TSMC's main clients have already defined roadmaps for the near future

Apple's, Nvidia's & ASICs new products roadmaps



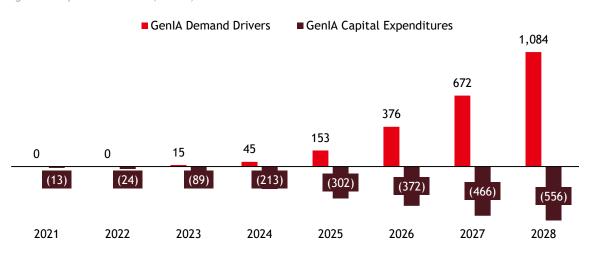
#### 2. Driving increasing capital expenditures in Al-infrastructure

Big techs' CapEx and YoY growth (bar, USD bn & line, %)



#### **4.** As we see Al investments yielding significant results for companies

Big Techs' Capex and Revenue (USD bn)



Sources: Companies filings, Team Elaboration, Morgan Stanley, Sensorweb, SimilarWeb

Overview — Pure-play foundry — Relationship — Foundation of AI — Valuation — Valuation

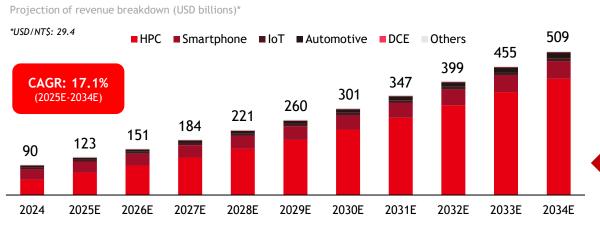
## From Narrative to Numbers: Key Valuation Drivers



The main projections in our financial model, sustaining our investment rating

1. Revenue breakdown indicates HPC as the main driver for the company's growth, beyond management's most recent guidance

Relationship





ROIC projection (%)

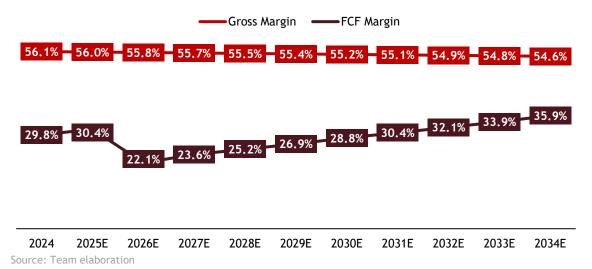
2024

2025E



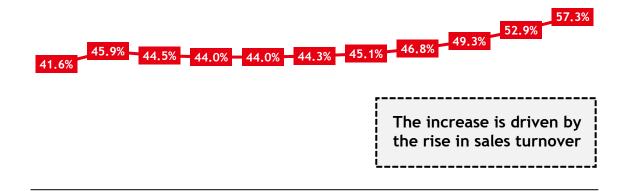
2. Increasing margins due to superior pricing and efficiency in the future

Gross margin and FCF margin projections (%)



Pure-play foundry

3. We see improvement in the company's ROIC, with capex converging to D&A  $\,$ 



2029E

2030E

2032E

2033E

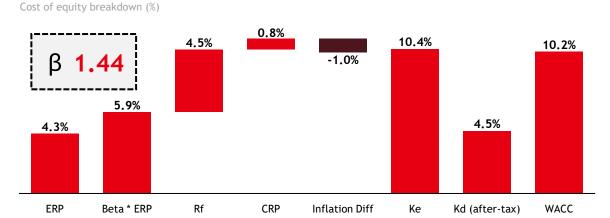
2034E

## A Closer Look at the DCF: USD 294.3 target price



#### Our calculations behind our target price

#### 1. We estimated our Cost of Capital, resulting in a 10.2% WACC



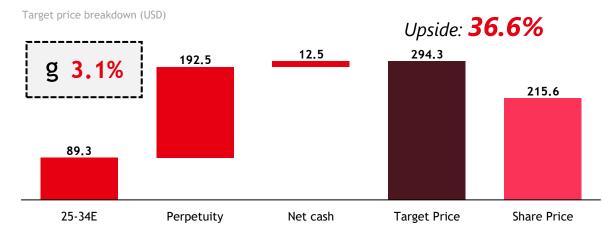
#### 3. Such upside remains consistent in most scenarios of g and WACC

Ke and g sensitivity analysis for upside (%)

#### Perpetuity (g)

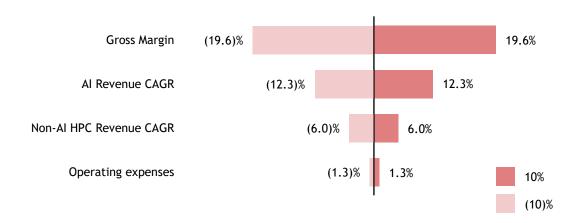
		2.2%	2.5%	2.8%	3.1%	3.4%	3.7%	4.0%
	8.7%	61.8%	67.5%	73.8%	80.7%	88.5%	97.2%	107.0%
_	9.2%	48.2%	52.9%	58.1%	63.8%	70.0%	76.9%	84.7%
Capital	9.7%	36.5%	40.5%	44.8%	49.4%	54.6%	60.2%	66.4%
	10.2%	26.4%	29.7%	33.3%	36.6%	41.5%	46.1%	51.2%
t of	10.7%	17.5%	20.4%	23.4%	26.7%	30.2%	34.1%	38.3%
Cost	11.2%	9.7%	12.1%	14.7%	17.5%	20.5%	23.7%	27.2%
	11.7%	2.7%	4.8%	7.0%	9.4%	12.0%	14.7%	17.7%

#### 2. Arriving at a target price of USD 304.5, indicating a significant upside



#### 4. A tornado analysis indicates that top-line and margins drive the thesis

Tornado Analysis: Impact on upside if our numbers are 10% higher or lower than our projections (%)



Source: Team elaboration, Finra

Overview — Pure-play foundry — Relationship — Foundation of AI — Valuation — Risks

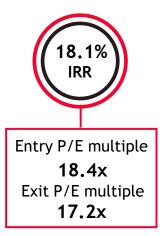
## Multiples and IRR breakdown



We see TSMC proving to be a strong investment, yielding a 18.1% IRR using an exit multiple of 17.2x.

#### 1. The numbers behind our IRR

IRR breakdown (USD billions) 25' 26' 30' **Transaction** (900)1,971 **Dividends** 28 60 74 Tax rate 21% 21% 21% 21% 21% Cash Flow (884)2,029



#### 2. With consistent IRR across various scenarios, reinforcing our long thesis

Exit multiple and revenue CAGR sensitivity analysis for IRR (x,%)

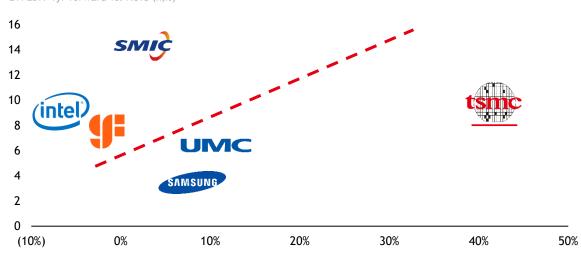
Exit multiple

Exit multiple

		14.2x	15.2x	16.2x	17.2x	18.2x	19.2x	20.2x
CAGR	16.3%	11.7%	12.9%	14.1%	15.3%	16.3%	17.3%	18.3%
	17.3%	12.6%	13.9%	15.0%	16.2%	17.3%	18.3%	19.3%
	18.3%	13.6%	14.8%	16.0%	17.2%	18.3%	19.3%	20.3%
шe	19.3%	14.4%	15.7%	16.9%	18.1%	19.2%	20.2%	21.3%
Income	20.3%	15.4%	16.7%	18.0%	19.2%	20.3%	21.3%	22.4%
	21.3%	16.4%	17.7%	18.9%	20.2%	21.3%	22.4%	23.4%
Net	22.3%	17.4%	18.7%	19.9%	21.2%	22.3%	23.4%	24.4%

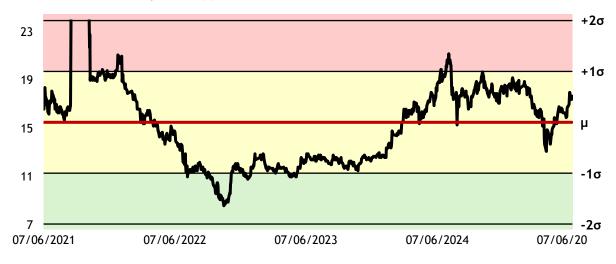
#### 3. TSMC stands out when adjusting price for profitability...

EV/EBIT 1yr forward vs. ROIC (x,%)



#### 4. ...with multiples near the 4-year average, suggesting a safe entry point

TSMC's historic consensus 1y P/E fwd (x)



Sources: Team elaboration, Bloomberg analytics

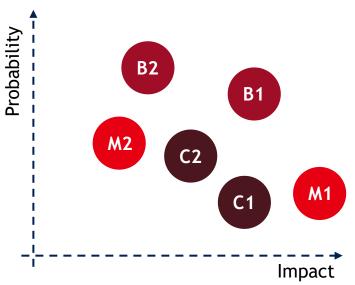
Overview — Pure-play foundry — Relationship — Foundation of AI — Valuation — Valuation

# Key risks and sensitivies



We raised main concerns and tested different scenarios to support our valuation

1. Risk matrix



2. Even when stress-testing our investment under different scenarios, we still see an attractive risk-return opportunity

B1  C1 - Increase in competitiveness in the new nodes  C2 - Huawei taking Apple's market share in China  Business risks  B1 - Demand for artificial intelligence below expectations  B2 - Cyclicality of chip demand  Macroeconomics risks  We observe that the company has very sustainable competitive advantages and low operational risks. However, it faces significant geopolitical risk due to tensions regarding China.		Competitive risks
Business risks  B1 - Demand for artificial intelligence below expectations B2 - Cyclicality of chip demand  Macroeconomics risks  We observe that the company has very sustainable competitive advantages and low operational risks. However, it faces significant geopolitical risk due to tensions  market share in China  Business risks  B1 - Demand for artificial intelligence below expectations  B2 - Cyclicality of chip demand  Macroeconomics risks  M1 - Invasion of Tawain by China  M2 - Deterioration of the global economy	B2	-
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We observe that the company has very sustainable competitive advantages and low operational risks. However, it faces significant geopolitical risk due to tensions  Macroeconomics risks  M1 - Invasion of Tawain by China  M2 - Deterioration of the global economy	C1 M	
We observe that the company has very sustainable competitive advantages and low operational risks. However, it faces significant geopolitical risk due to tensions  M1 - Invasion of Tawain by China  M2 - Deterioration of the global economy	-¦	B2 - Cyclicality of chip demand
very sustainable competitive advantages and low operational risks. However, it faces significant geopolitical risk due to tensions  **China**  **M2 - Deterioration of the global economy**		Macroeconomics risks
risks. However, it faces significant geopolitical risk due to tensions  M2 - Deterioration of the global economy	very sustainable competitive	•
• .	risks. However, it faces significant	
	•	

25E-30E	Bear	Base	Bull
Revenue CAGR	13.0%	20.4%	25.0%
Gross margin	49.5%	55.6%	60.3%
Capex to sales	40.4%	35.7%	34.4%
Exit P/E multiple	11.3x	17.2x	19.7x
IRR	(2.5%)	18.1%	30.4%

Source: Team elaboration

# Yes! We would be shareholders of tsmc

Current Price: U\$ 215.6

Target Price: U\$ 294.3

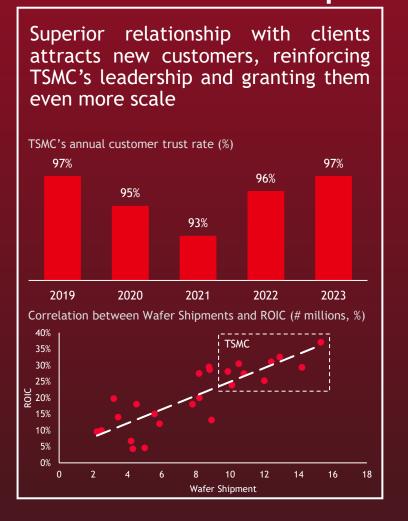
**36.6% Upside** 

18.1% 5yr IRR

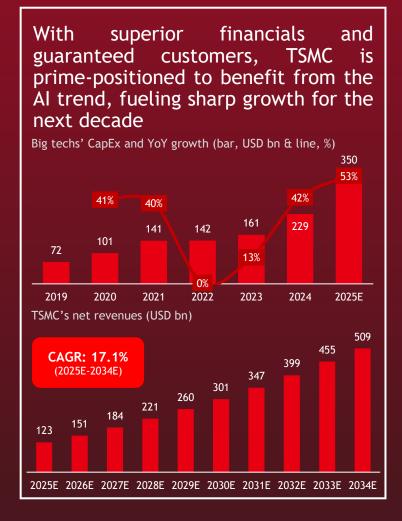
## I. Pure-play foundry

Leadership in wafer manufacturing, due to its superior business model, grants the company with higher margins and returns. Number of players with leading edge capacity in each node (#) 130nm 90nm 65nm 45nm 32nm 22nm 16nm 10nm 7nm Operating margin (%) TSMC —— SMIC —— Samsung —— Intel 2019 2020 2021 2022 2023 2024

# II. Client relationship



### III. Foundation of Al









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- <u>59. SG&A</u>

# Multiples Justifying our P/E Source: Team Elaboration

Implied P/E calculation

Free Cash Flow to Equity	2030	2031	2032	2033	2034	Perpetuity
(=) EBIT	3,867	4,440	5,077	5,763	6,409	
(-) Tax Rate	15.5%	15.5%	15.5%	15.5%	15.5%	
(=) Nopat	3,267	3,752	4,289	4,869	5,414	
(+) D&A	2,097	2,421	2,782	3,176	3,550	
(-) Capex	(2,752)	(2,987)	(3,216)	(3,423)	(3,549)	
(-) Chg WC	(0,185)	(0,212)	(0,237)	(0,259)	(0,248)	
(=) FCFF	(2,428)	(2,973)	(3,617)	(4,362)	(5,166)	
(+/-) Debt Variation	0,308	0,321	0,328	0,330	0,322	
(-) Financial Result ex lease interest * (1-t)	(0,048)	(0,054)	(0,061)	(0,068)	(0,074)	
(=) FCFE	2,688	3,240	3,885	4,624	5,415	76,423

Cash Periods					
Periods	1	2	3	4	5
NPV	2,434	2,658	2,887	3,112	49,889
		g		Ke	
		3.1%	1	0.4%	

Equity Value	60,981
Net Income 30'	3,384
Implied P/E	18.0

**Appendix** 

21

# Our double-stage growth model



Source: Team elaboration

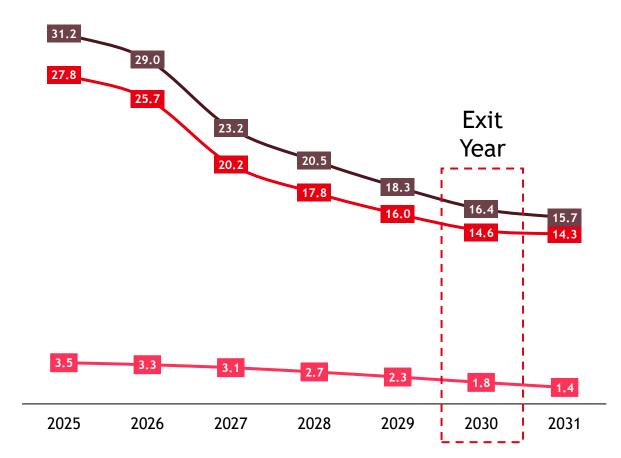
#### P/E double stage formula:

First Stage Steady State 
$$\frac{P}{E} = \frac{ROE - g}{ROE \times (Ke - g)} \times \left(1 - \frac{(1+g)^n}{(1+Ke)^n}\right) + \frac{ROE_{LT} - g_{LT}}{ROE_{LT} \times (Ke_{LT} - g_{LT})} \times \frac{(1+g)^n}{(1+Ke)^n}$$

First Stage	2025	2026	2027	2028	2029	2030
$ROE_t$	31%	31%	32%	33%	33%	34%
$g_t$	22%	21%	20%	20%	19%	19%
P/E First Stage	3.5x	3.3x	3.1x	2.7x	2.3x	1.8x
P/E Steady State						
$ROE_{LT}$	16%	16%	16%	16%	16%	16%
$g_{LT}$	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
P/E Double Stage	31.2x	29.0x	23.2x	20.5x	18.3x	16.4x

#### P/E derived:

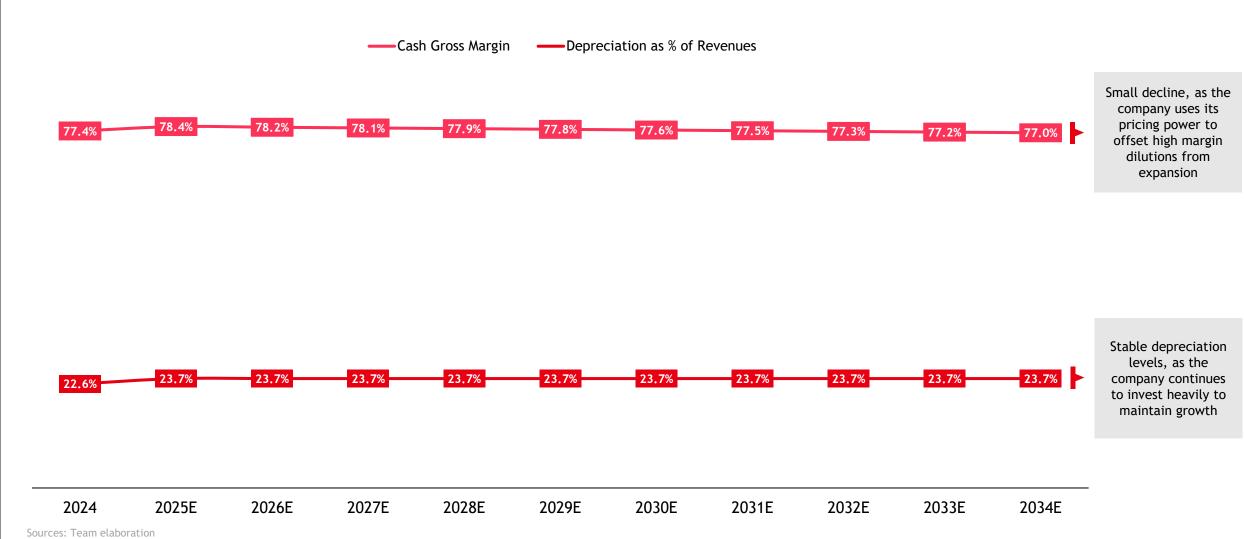




Source: Team elaboration, Damodaran

# How did we get to our gross margin?





Appendix

# How TSMC has performed relative to its own guidance



TSMC has consistently beaten guidance for past 12 years

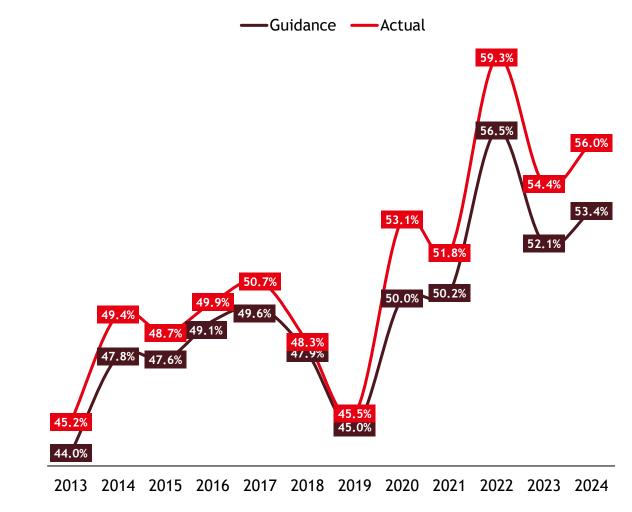
#### 1. TSMC has never missed a revenue guidance

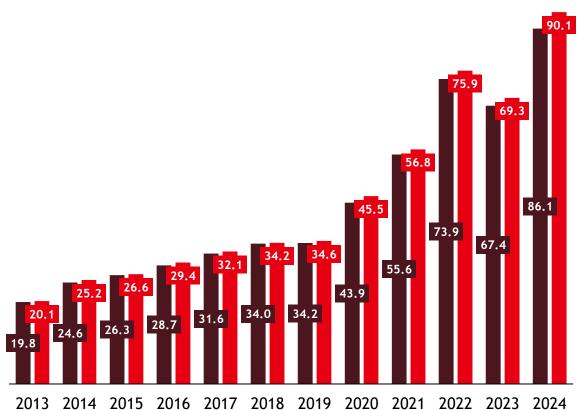
TSMC's Actual Revenue X 1 Year Before Guidance

■ Guidance ■ Actual

#### 2. TSMC has never missed a gross margin guidance

TSMC's Actual Gross Margin X 1 Year Before Guidance





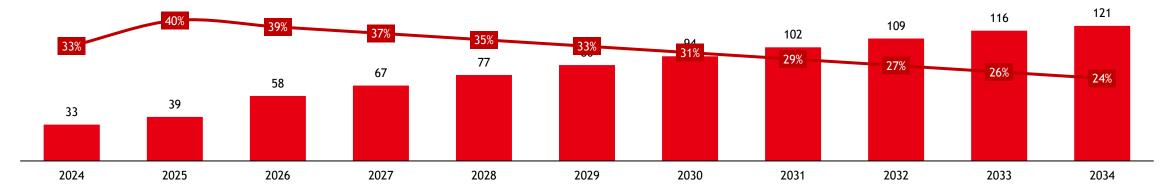
# **CapEx Cyclicality**



Due to high and increasing demand for AI-applications, we expect high CapEx in the next years

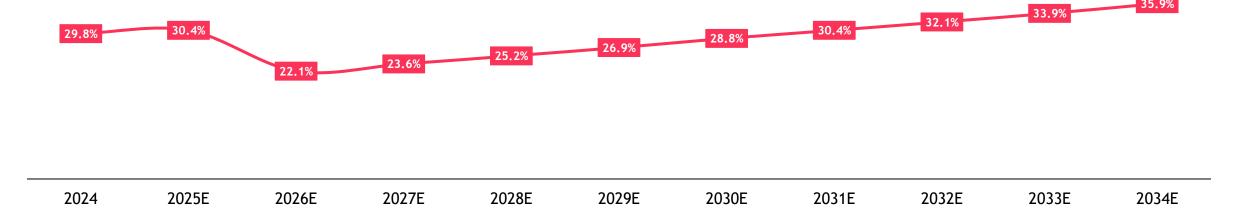
#### 1. CapEx will increase due to new projects to support high growth

Capex and as percentage of revenue (USD billion, %)



#### 2. Pressing down short-term margins at the expense of future growth

FCF Margin (%)



# How did we get our Ke?



We calculated a cost of equity (Ke) of 10.4% for TSMC

Risk free US	4.5%	Bond 10y US
ERP (w/ CRP)	5.1%	ERP 4.3% and CRP 0.8% (Damodaran 2025)
Beta	1.44	
Inflation differential	(1.0%)	CPI 2.5% USA and CPI 1.5% Taiwan (Bloomberg and IMF)
Cost of Equity	10.4%	

Sources: NYU, Bloomberg, IMF, Team elaboration

# How did we get our TSMC B?

We calculated TSMC's beta and arrived at 1.44

Sector* unlevered beta	1.39	*Global Foundries, UMC, TSEM, ASML, Nvidia, AMD, Intel, Samsung
TSMC D/E Ratio	0.04	
Effective tax rate	15.5%	Last 2-year average
TSMC levered beta	1.44	

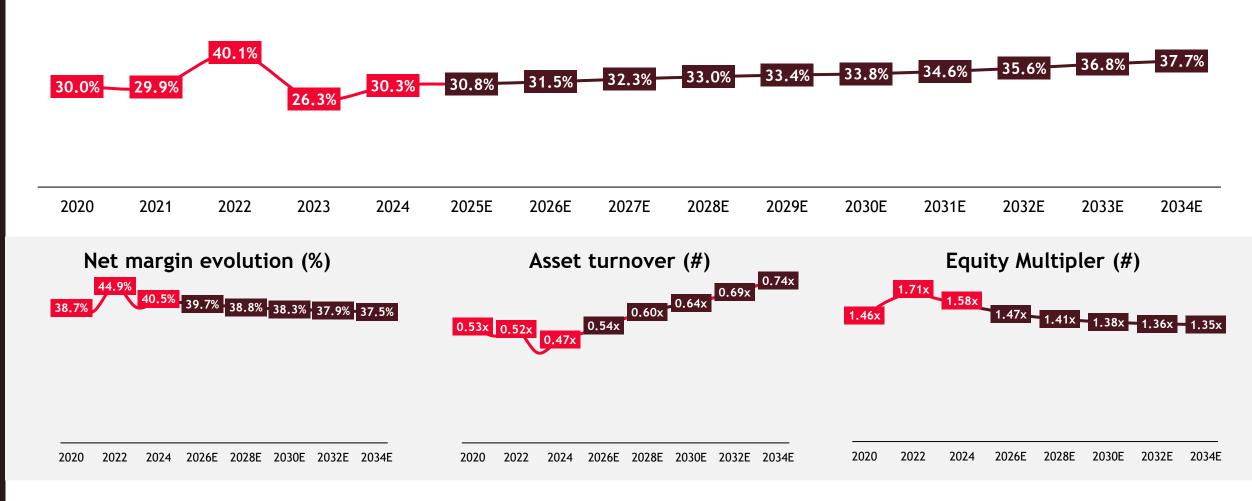
Sources: Bloomberg, Team elaboration

# ROE projection and DuPont analysis



Source: Team elaboration, Company filings

1. We project a slight improvement in the company's ROE over the coming years, driven by better asset turnover as the company's growth slows down



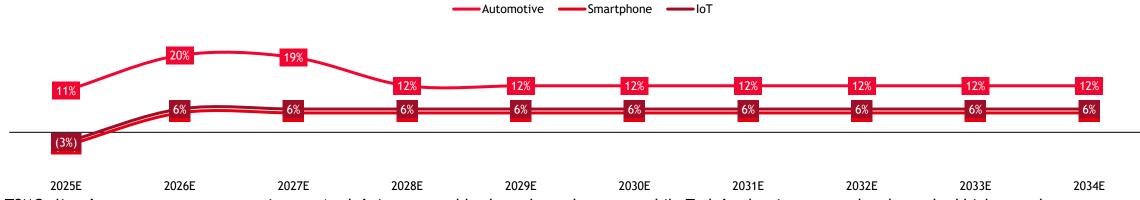
# How is demand for non-Al products outlook?



Autos present some growth, while other segments are already in their mature fase

#### 1. Different growth outlooks across different sectors

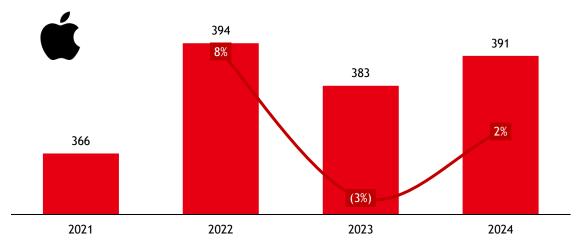
TSMC's projected revenue growth by sector (%)

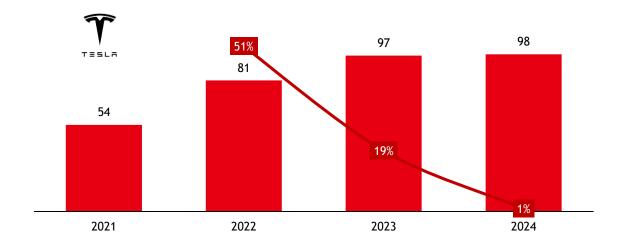


3. TSMC client's revenue supports our view, as Apple's is more stable throughout the years, while Tesla's, despite recent slowdown, had high growth

Apple's revenues and YoY growth (USD bn, bar & %, line)

Tesla's revenues and YoY growth (USD bn, bar & %, line)





Sources: Companies filings, Team elaboration

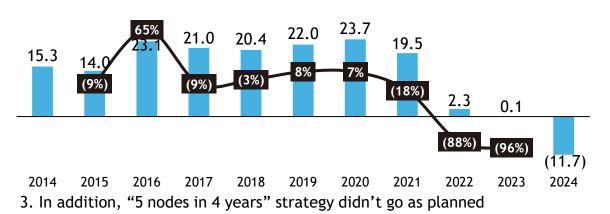
## Why do we believe Intel won't be able to compete with TSMC?



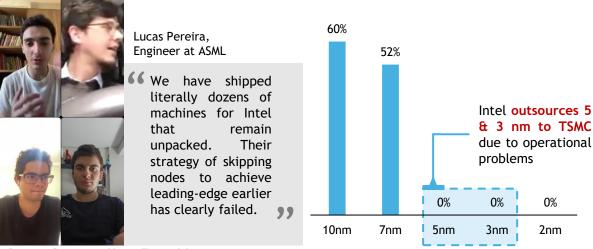
A series of incorrect past decisions, combined with recent desperation to catch up, have destroyed INTC

#### 1. Incorrect decisions have led to significant operating losses

INTC's Operating Profits and YoY growth (USD bn, %)



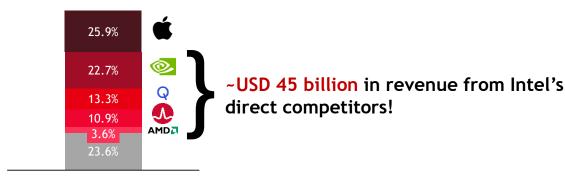
Intel's manufacturing market share per node (%)



Sources: Companies filings, Team elaboration

2. And Intel's outlook is difficult: they must attract their own competitors

TSMC's revenue by costumer (%)



TSMC's Revenue by costumer

4. Finally, differently from TSMC, Intel isn't able to use their depreciated fabs

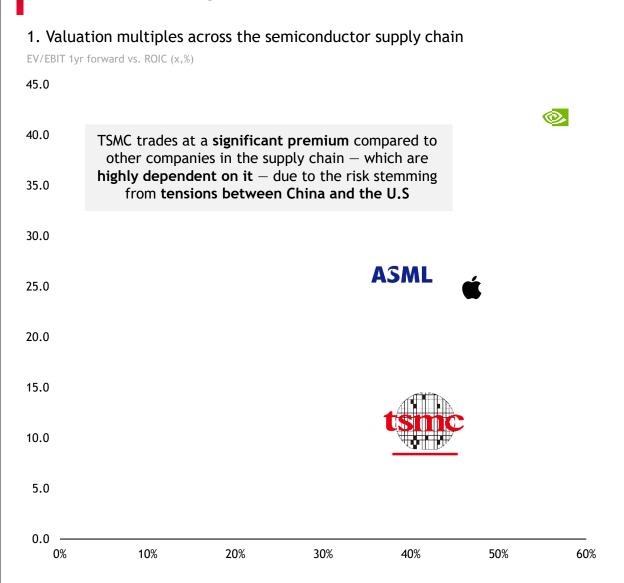
Market share per node by capacity (%)



## How do China-U.S. tensions impact the case?



Source: Bloomberg, Team elaboration



2. TSMC's clients haven't changed their behavior in face of tariffs

Now, let me talk about the recent tariff. We understand there are uncertainties and risks from the potential impact of tariff policies. However, we have not seen any change in our customers' behavior so far. Therefore, we continue to expect our full year 2025 revenue to increase by close to mid-20s percent in US dollar terms.

1Q25 Earnings Call



C.C. Wei President & CEO

3. Additionally, TSMC has been diversifying its geographical exposure









1 new factory under construction

3 new factories under construction

2 new factories under construction

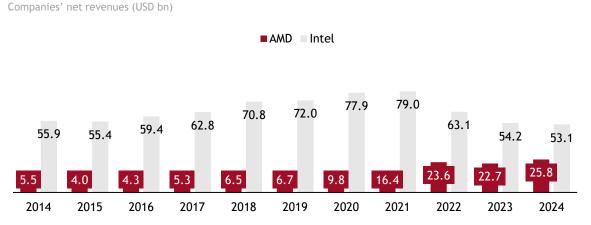
**Appendix** 

## Why do we believe Intel will need to outsource to TSMC



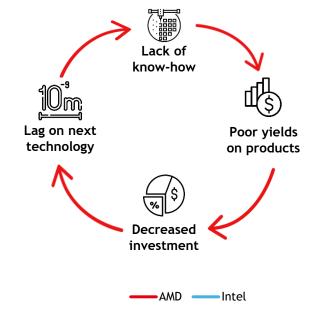
AMD's spin-off success story makes us believe that outsourcing is the way to go for Intel

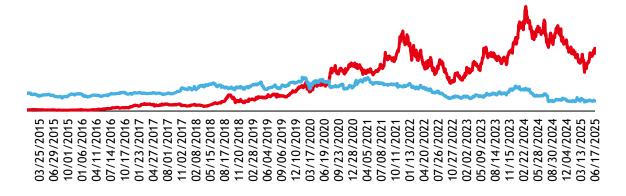
1. AMD has been catching-up with Intel, as it is benefiting from outsourcing



3. Leading to differences in operational results, while the stocks reflect these differences

AMD ——Intel 2021 2022 2023 2024 2. As Intel now faces huge difficulties in new technologies





Companies' operating margins (%)

# Foundries theoretical margin



The rationale: what happens when TSMC lowers their prices after depreciation is accounted for?

1. The leader (TSMC) sets is prices to maintain their target margin in 53%, lowering their prices after depreciation hits

Leader											
#	Year	1	2	3	4	5	6	7	8	9	10
kwpsm	Production	480	960	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440
\$	Price	6,116	6,054	5,993	5,871	5,810	5,382	4,954	4,526	4,097	<sub>3,669</sub> O
bn	Revenue	2,936	5,812	8,630	8,454	8,366	7,750	7,133	6,517	5,900	5,284
bn	Cash COGS	881	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600
bn	Depr. COGS	1,500	1,500	1,500	1,500	1,500	300	300	300	300	300
bn	Gross Profit	555	1,712	4,570	4,479	4,436	4,110	3,783	3,457	3,125	2,799
	Margin	18.9%	29.5%	53.0%	53.0%	53.0%	53.0%	53.0%	53.0%	53.0%	53.0%

2. Lagged companies have to match the leaders' prices, but as depreciation is still accounting, they can't sustain healthy margin levels

4yr											
	Year	1	2	3	4	5	6	7	8	9	10
kwpsm	Production					320	640	960	960	960	960
\$	Price					5,810	5,382	4,954	4,526	4,097	3,669
bn	Revenue					1,487	2,755	3,804	3,476	3,147	2,818
bn	Cash COGS					540	1,484	2,033	1,840	1,650	1,457
bn	Depr. COGS					1,000	1,000	1,000	1,000	1,000	200
bn	Gross Profit					-53	271	771	636	497	1,161
	Margin					-3.5%	9.8%	20.3%	18.3%	15.8%	41.2%

Output

# Foundry project IRR



Based on previous prices, we sensitized ramp-up years and cash margins

#### 1. Ex 1 $\rightarrow$ 1 year ramp-up and 30% margin

Year	1	2	3	4	5	6	7	8	9	10
Capacity	0	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440
Price	6,116	6,054	5,993	5,871	5,810	5,382	4,954	4,526	4,097	3,669
Revenue	0	8,718	8,630	8,454	8,366	7,750	7,133	6,517	5,900	5,284
Margin	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Capex	-9,000	0	0	0	0	0	0	0	0	0
Cash Flow	-9,000	2,616	2,589	2,536	2,510	2,325	2,140	1,955	1,770	1,585

#### 2. Ex 2 $\rightarrow$ 3 year ramp-up and 60% margin

Year	1	2	3	4	5	6	7	8	9	10
Capacity	0	480	960	1,440	1,440	1,440	1,440	1,440	1,440	1,440
Price	6,116	6,054	5,993	5,871	5,810	5,382	4,954	4,526	4,097	3,669
Revenue	0	2,906	5,754	8,454	8,366	7,750	7,133	6,517	5,900	5,284
Margin	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
Capex	-9,000	0	0	0	0	0	0	0	0	0
Cash Flow	-9,000	1,744	3,452	5,073	5,020	4,650	4,280	3,910	3,540	3,170

# The race for the leading-edge



How did TSMC achieve leadership in the industry against main peers

Year	Intel	TSMC	Samsung	Leadership
2015	14nm	16nm	14nm	Intel
2017	10nm (operating issues)	10nm	10nm	Intel
2019	10nm	7nm	7nm	TSMC
2021	10nm	5nm	5nm	TSMC
2023	7nm	3nm	5nm (yield issues)	TSMC
2025	7nm	2nm	3nm	TSMC

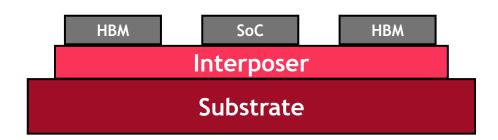
Sources: Company filings, Team elaboration

# Advanced packaging



What is this new technological innovation from TSMC and why will it be another driver for growth

1. CoWoS overview CoWoS advantage





**Better yields:** no longer needs to increase dies size, resulting in less wastage



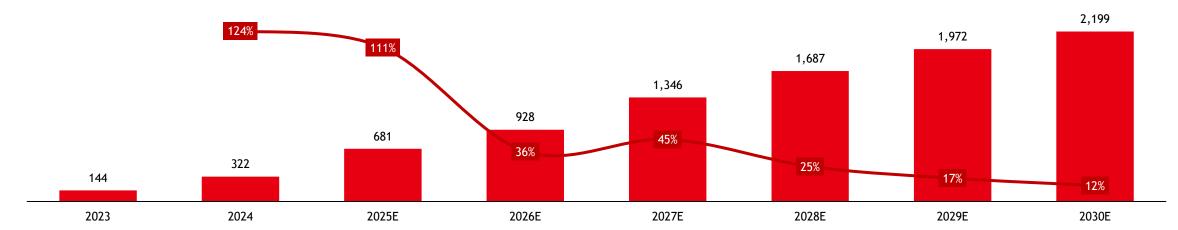
**Increased Flexibility:** able to integrate dies on different nodes



IC design cycle: designers are now able to reuse dies from prior generations

2. We project strong growth for the product, as its Al applications are very important

CoWoS capacity and YoY growth (kwpm, bar & %, line)



Source: Company filings, team elaboration

## What would be of TSMC in case China invades Taiwan?



Why do we believe our investment faces significant downside in case Taiwan is invaded?

1. TSMC's core is in Taiwan, despite recent efforts for diversification

Number of foundries by location

Wafer capacity by location (kwpm)

2. And the strategy is clear: Taiwan first, rest of world later

7 21	91.6%
■Taiwan ■RoW	■Taiwan ■RoW

	7nm	5nm	3nm	2nm
Taiwan	2019	2021	2023	2025
Rest of World	N/A	2024	2026	2027

3. Leading-edge will stay in Taiwan, and management doesn't intend to change

4. Finally, without Taiwan competitive advantages are no more

	Our customers continue to use that TSMC's leading edge technology, and they also adopt the advanced packaging technologies more and more. Most likely, the capacity will be in Taiwan first, we ramp it and then bring to the US.  1025 Earnings Call	,,
C.C. Wei President & CEO		

Competitive Advantage	Is it Taiwan-dependent?
Process Power	
Scale Economies	
Switching Costs	

Sources: Company filings, Team elaboration

## Why do we believe AI will be a big deal



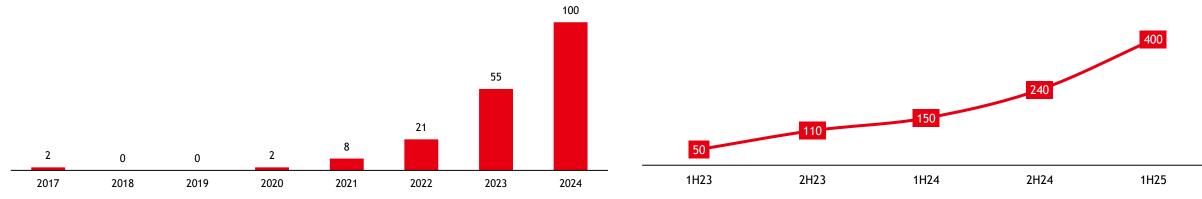
Al is becoming the new paradigm for tech investing, and we believe it will change the world we live in

### 1. Everyone wants to become the leader in Al

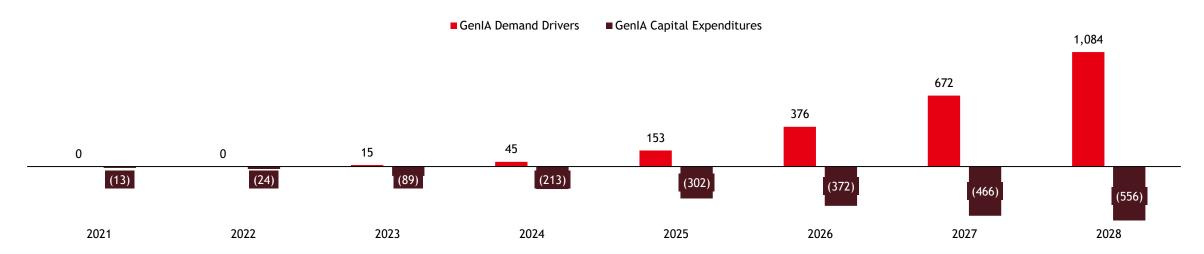
Number of large language models launched per year (#)

### 2. As general public has been accepting it evermore

Number of weekly active users of ChatGPT (millions)



3. And we will start to see this trends yielding results in the next years



Source: Epoch AI, Morgan Stanley

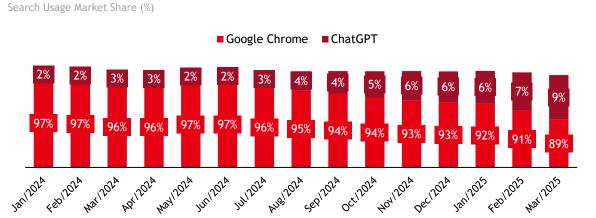
## Others reasons why we believe in AI growth in the long-term

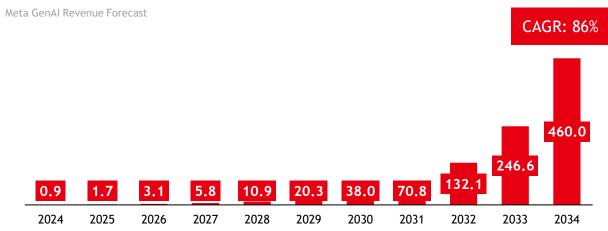


The big tech companies will invest in AI to avoid competition, increase revenue or reduce costs

1. Al has changed the competitive landscape for tech companies

2. Meta is a success story in Al-driven revenue

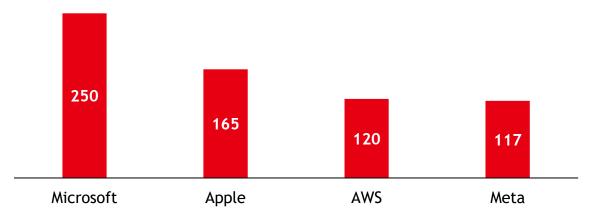




3. We also sensitized how much the four major big tech companies could potentially save through layoffs, based on their average salaries

Number of employees (# Thousand)

Total cost savings from employee expenditures (USD millions, yearly)



### Average salary in big tech companies

		3,000	4,000	5,000	6,000	7,000
£,	20%	4,658	6,211	7,764	9,317	10,870
layof	25%	5,823	7,764	9,705	11,646	13,587
of L	30%	6,988	9,317	11,646	13,975	16,304
%	35%	8,152	10,870	13,587	16,304	19,022

Source: Glassdoor, Interviewjoy Inc., ClearenceJobs, SimilarWeb, Meta lawsuit against FTC

## TSMC: a business of people

## The main characters of TSMC's success story

### 1. Long-term partners are the people who run the business

TSMC's directors and stint at the company (years)











2. Cultural pillars perpetuating success

David Su, Former TSMC Director

Culture is different; people in Taiwan study, work and are obedient. They go beyond what is asked and are much more commitment to horizontality.

prepared to do what you want. In the end, TSMC's advantage lies in a combination of culture, methodology, discipline and

Limited compensation for board (tied to  $\alpha$ ) & shared profits with employees

### TSMC's cultural pillars:

- Observation period for bottom 5% performers of the company
- Client focused decision, prioritizing long-term relations

3. Returns to shareholders were consistent across different managements



Sources: Company filings, Team elaboration

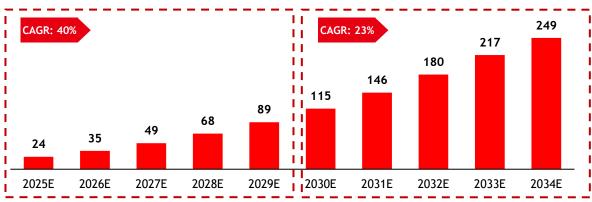
## How does our view differ from the market consensus



We see three diversions from consensus: strong demand beyond guidance, mispricing and further outsourcing

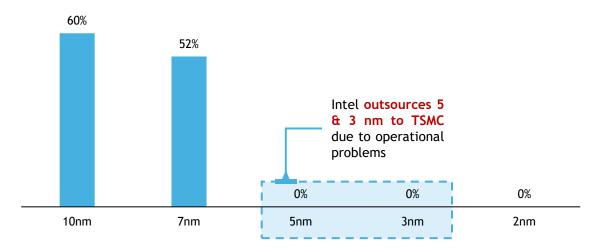
### 1. Foreseeing strong Al-demand beyond company's guidance

TSMC's AI-related revenue projection (USD bn)



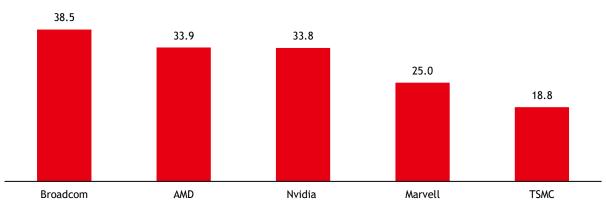
### **3.** Furthermore, outsourcing is the way to go, increasing TSMC's market

Intel's manufacturing market share per node (%)



### 2. Even so, TSMC is the cheapest Al-semiconductor player

Companies' 1yr P/E forward (x)



### 4. And leadership is already extended into 2nm

(6 It is reported that TSMC's 2nm yield already stands at 60%. The other largest foundries, Samsung and Intel have been having issues with their yields for years and latest performance trials at 2nm show yields that are as long as 50% behind TSMC's.

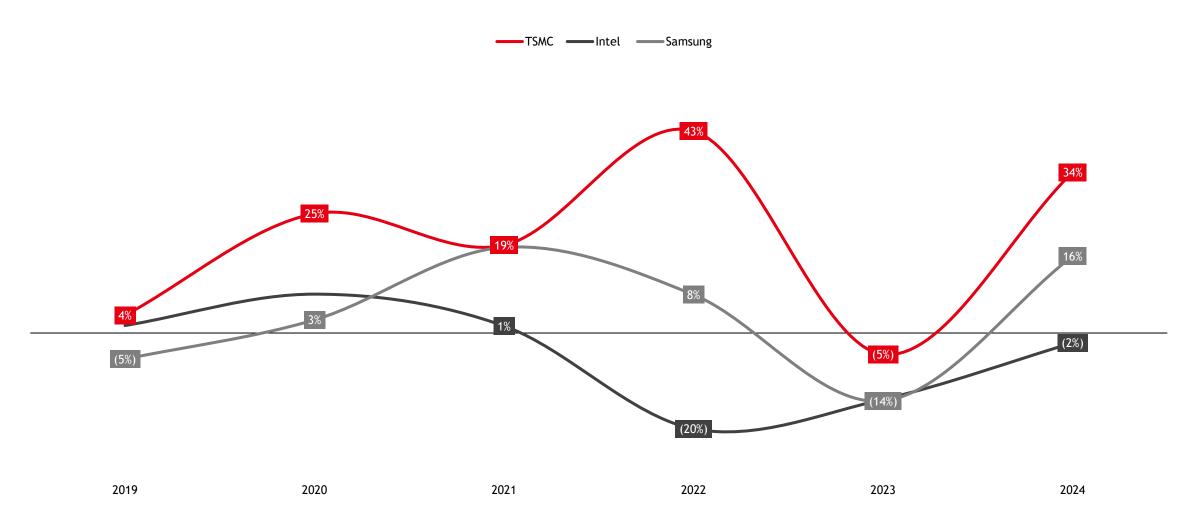
Taiwan Economic Daily, June 2025

## Comparables: IDMs - Revenue Growth



How does TSMC's revenue growth compare with its peers (IDMs)

1. Revenue YoY growth



## **Comparables: IDMs - Margins**



How do TSMC's margins compare with its peers (IDMs)

## 1. Gross Margin



# Comparables: IDMs - ROE



How do TSMC's margins compare with its peers (IDMs)

Dupont Analysis: ROE (%) breakdown on Net Margin (%), Asset Turnover (#) and Financial Leverage (#) per company

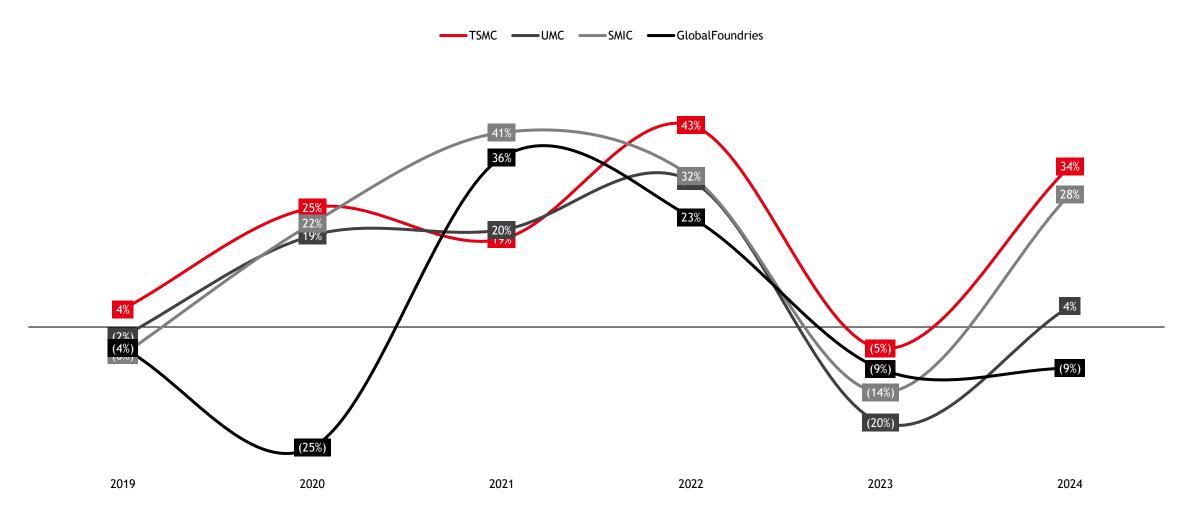
		2022			2023			2024	
Net Margin	45%	18%	12%	39%	6%	3%	41%	12%	(36)%
×									
Asset Turnover	0.52x	0.69x	0.35x	0.41x	0.60x	0.28x	0.47x	0.60x	0.27x
×									
Financial Leverage	1.71x	1.33x	1.76x	1.65x	1.30x	1.74x	1.58x	1.30x	1.87x
=									
ROE	40.1%	16.5%	7.8%	26.3%	4.0%	1.5%	30.3%	8.6%	(18.2)%
	tsmc	SAMSUNG	(intel)	tsmc	SAMSUNG	intel	tsinc	SAMSUNG	intel

## **Comparables: Foundries**



How do TSMC's financials compare with its peers (Foundries)

1. Revenue YoY growth



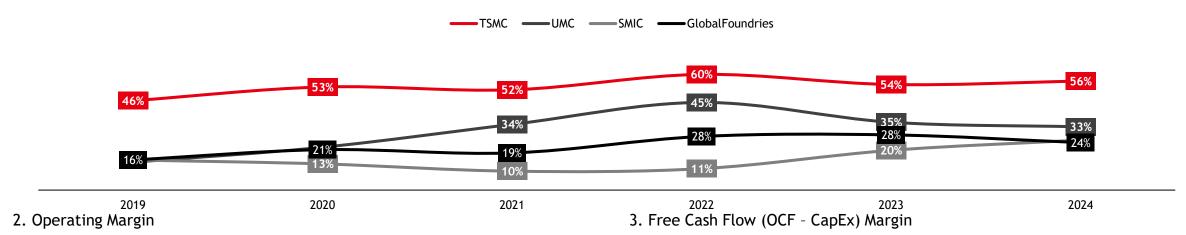
## Comparables: Foundries (Margins)

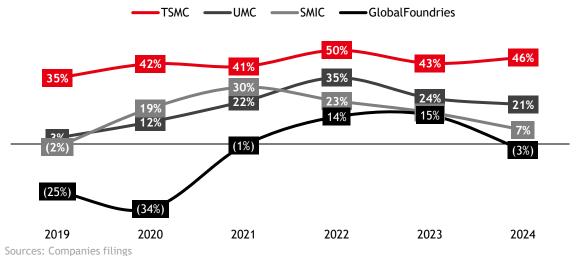


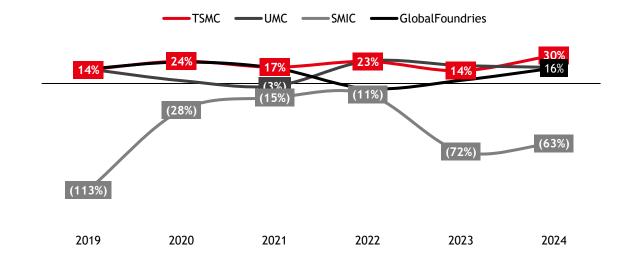
How do TSMC's financials compare with its peers (Foundries)

### 1. Gross Margin









oources. Companies mings

# Comparables: Foundries - ROE



How do TSMC's Return on Equity compare with its peers (IDMs)

Dupont Analysis: ROE (%) breakdown on Net Margin (%), Asset Turnover (#) and Financial Leverage (#) per company

		0.52x 0.17x 0.53x 0.4				202	23			20	24	
Net Margin	45%	25%	31%	18%	39%	14%	28%	14%	41%	<b>6</b> %	20%	(4)%
×												
Turnover	0.52x	0.17x	0.53x	0.45x	0.41x	0.13x	0.40x	0.41x	0.47x	0.16x	0.41x	0.40x
Financial Leverage	1.71x	1.51x	1.59x	1.79x	1.65x	1.55x	1.56x	1.62x	1.58x	1.54x	1.51x	1.55x
= ROE	40.1%	6.4%	26.2%	14.5%	26.3%	2.9%	17.5%	9.1%	30.3%	1.5%	12.5%	(2.4)%
	tsmc	<i>sмі</i> с	UMC	g:	tsinc	<i>sмі</i> с	UMC	g:	tsinc	<i>sмі</i> с	UMC	

## **Balance Sheet I**



Source: Team elaboration

Balance sheet	[Units]	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Current Assets	[mn NT\$]	2,194,033	3,088,352	3,751,867	4,235,516	4,819,739	5,506,801	6,302,115	7,211,798	8,250,078	9,431,638	10,769,640	12,256,955
Cash and Cash Equivalents	[mn NT\$]	1,687,644	2,422,020	3,030,201	3,369,457	3,783,378	4,280,187	4,870,234	5,566,583	6,360,791	7,268,905	8,307,797	9,508,499
Account Receivables	[mn NT\$]	202,010	272,088	295,110	362,925	442,569	531,092	626,070	724,167	835,973	960,706	1,096,503	1,225,556
Inventory	[mn NT\$]	250,997	287,869	321,314	397,891	488,550	590,279	700,569	815,807	948,073	1,096,786	1,260,098	1,417,658
Total Other Current Assets	[mn NT\$]	53,381	106,376	105,242	105,242	105,242	105,242	105,242	105,242	105,242	105,242	105,242	105,242
Non-Current Assets	[mn NT\$]	3,338,164	3,603,413	3,923,698	4,579,577	5,279,413	5,999,256	6,706,403	7,360,760	7,927,300	8,361,347	8,609,047	8,609,047
Gross Fixed Assets	[mn NT\$]	6,310,306	6,930,027	7,921,945	9,385,878	11,085,331	13,021,819	15,183,329	17,543,224	20,105,514	22,863,996	25,799,968	28,844,058
Accumulated Depreciation	[mn NT\$]	(4,154,121)	(4,775,331)	(5,630,049)	(6,681,178)	(7,962,977)	(9,501,162)	(11,314,428)	(13,411,809)	(15,833,009)	(18,615,470)	(21,791,237)	(25,340,776)
Construction in Progress	[mn NT\$]	908,290	1,080,284	1,244,985	1,488,060	1,770,242	2,091,782	2,450,685	2,842,528	3,267,978	3,726,004	4,213,500	4,718,949
Acquisition/(Divestures)	[mn NT\$]	-	-	-	-	-	-	-	-	-	-	-	-
Net Fixed Assets	[mn NT\$]	3,064,475	3,234,980	3,536,881	4,192,760	4,892,596	5,612,439	6,319,586	6,973,943	7,540,483	7,974,530	8,222,230	8,222,230
Other Long Term Assets	[mn NT\$]	144,421	219,566	226,024	226,024	226,024	226,024	226,024	226,024	226,024	226,024	226,024	226,024
Long Term Investments and Associates	[mn NT\$]	129,268	148,867	160,793	160,793	160,793	160,793	160,793	160,793	160,793	160,793	160,793	160,793

## **Balance Sheet II**



Source: Team elaboration

Balance sheet	[Units]	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Current Liabilities	[mn NT\$]	942,805	1,308,656	1,318,038	1,348,287	1,384,176	1,424,499	1,468,387	1,514,630	1,565,770	1,621,374	1,680,624	1,738,060
ST Debt and Current Portion of LT Debt	[mn NT\$]	9,293	59,858	65,045	76,604	90,365	105,860	122,829	140,946	159,805	179,113	198,504	217,484
Accounts Payable	[mn NT\$]	57,293	74,227	78,422	97,112	119,239	144,068	170,986	199,112	231,394	267,690	307,549	346,004
Other Current Liabilities	[mn NT\$]	876,219	1,174,571	1,174,571	1,174,571	1,174,571	1,174,571	1,174,571	1,174,571	1,174,571	1,174,571	1,174,571	1,174,571
Non-Current Liabilities	[mn NT\$]	1,135,525	1,103,837	1,225,082	1,410,159	1,630,511	1,878,602	2,150,312	2,440,398	2,742,353	3,051,507	3,361,994	3,665,900
Long Term Debt	[mn NT\$]	918,283	958,429	1,041,479	1,226,556	1,446,908	1,694,999	1,966,709	2,256,795	2,558,750	2,867,904	3,178,391	3,482,297
Other Long Term Liabilities	[mn NT\$]	217,242	145,408	183,603	183,603	183,603	183,603	183,603	183,603	183,603	183,603	183,603	183,603
Equity	[mn NT\$]	3,453,866	4,279,272	5,132,445	6,056,647	7,084,465	8,202,955	9,389,819	10,617,531	11,869,255	13,120,104	14,336,070	15,462,042
Share Capital	[mn NT\$]	259,321	259,327	259,326	259,326	259,326	259,326	259,326	259,326	259,326	259,326	259,326	259,326
Share Premium	[mn NT\$]	69,876	73,261	73,307	73,307	73,307	73,307	73,307	73,307	73,307	73,307	73,307	73,307
Other Reserves	[mn NT\$]	282,833	349,852	380,399	380,399	380,399	380,399	380,399	380,399	380,399	380,399	380,399	380,399
Retained Earnings	[mn NT\$]	2,817,493	3,561,826	4,381,951	5,306,153	6,333,971	7,452,461	8,639,325	9,867,037	11,118,761	12,369,610	13,585,576	14,711,548
Preferred Stock	[mn NT\$]	-	-	-	-	-	-	-	-	-	-	-	-
Minority Interest	[mn NT\$]	24,344	35,005	37,462	37,462	37,462	37,462	37,462	37,462	37,462	37,462	37,462	37,462

# Cash Flow Statement I



Source: Team elaboration

Cash Flow Statement	[Units]	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Cash flow from operations	[mn NT\$]	2,253,080	2,685,148	3,254,595	3,891,895	4,577,081	5,296,184	6,094,365	6,987,276	7,962,063	8,920,066
Net Income	[mn NT\$]	1,449,500	1,759,721	2,120,971	2,519,134	2,942,165	3,384,012	3,884,954	4,441,965	5,045,546	5,618,684
Add Non Cash Expenses/(income)	[mn NT\$]	854,718	1,051,129	1,281,800	1,538,184	1,813,266	2,097,381	2,421,200	2,782,461	3,175,768	3,549,539
Depreciation and Amortization	[mn NT\$]	854,718	1,051,129	1,281,800	1,538,184	1,813,266	2,097,381	2,421,200	2,782,461	3,175,768	3,549,539
Extraordinaries	[mn NT\$]	0	0	0	0	0	0	0	0	0	0
Other Non-Cash Items	[mn NT\$]	0	0	0	0	0	0	0	0	0	0
Changes in Working Capital:	[mn NT\$]	(51,138)	(125,702)	(148,176)	(165,423)	(178,350)	(185,209)	(211,790)	(237,150)	(259,251)	(248,158)
(Increase)/Decrease Receivables	[mn NT\$]	(23,022)	(67,815)	(79,644)	(88,522)	(94,978)	(98,097)	(111,806)	(124,733)	(135,798)	(129,053)
(Increase)/Decrease Inventories	[mn NT\$]	(33,445)	(76,577)	(90,659)	(101,729)	(110,290)	(115,238)	(132,266)	(148,713)	(163,312)	(157,560)
(Increase)/Decrease Other Current Assets	[mn NT\$]	1,134	-	-	-	-	-	-	-	-	-
Increase/(Decrease) Payables	[mn NT\$]	4,196	18,690	22,127	24,829	26,918	28,126	32,282	36,296	39,859	38,455
Increase/(Decrease) Other Current Liabilities	[mn NT\$]	-	-		-	-			-	-	-

## **Cash Flow Statement II**



Source: Team elaboration

Cash Flow Statement	[Units]	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Cash flow from investments	[mn NT\$]	(1,175,003)	(1,707,008)	(1,981,636)	(2,258,027)	(2,520,413)	(2,751,739)	(2,987,740)	(3,216,508)	(3,423,468)	(3,549,539)
Purchase of Property, Plant & Equipment	[mn NT\$]	(1,156,618)	(1,707,008)	(1,981,636)	(2,258,027)	(2,520,413)	(2,751,739)	(2,987,740)	(3,216,508)	(3,423,468)	(3,549,539)
Acquisitions/Divesture	[mn NT\$]	-	-	-	-	-	-	-	-	-	-
Purchase/Sale of LT assets	[mn NT\$]	(6,458)	-	-	-	-	-	-	-	-	-
Purchase/Sale of Investments	[mn NT\$]	(11,926)	-	-	-	-	-	-	-	-	-
Cash flow from financing	[mn NT\$]	(469,896)	(638,883)	(859,039)	(1,137,058)	(1,466,622)	(1,848,096)	(2,312,417)	(2,862,655)	(3,499,702)	(4,169,825)
Issuance/Repayment of Debt	[mn NT\$]	88,236	196,636	234,114	263,585	288,680	308,203	320,813	328,462	329,877	322,887
Change in other LT liabilities	[mn NT\$]	38,195	-	-	-	-	-	-	-	-	-
Change in Common Equity - Net	[mn NT\$]	45	-	-	-	-	-	-	-	-	-
Payment of Cash Dividends	[mn NT\$]	(629,376)	(835,519)	(1,093,153)	(1,400,644)	(1,755,302)	(2,156,299)	(2,633,230)	(3,191,117)	(3,829,580)	(4,492,712)
Other Financing Charges, Net	[mn NT\$]	33,004	-	-	-	-	-	-	-	-	-



Payout
Source: Team elaboration

	[Units]	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Net Income	[mn NT\$]	1,449,500	1,759,721	2,120,971	2,519,134	2,942,165	3,384,012	3,884,954	4,441,965	5,045,546	5,618,684
Dividend paid	[mn NT\$]	629,376	835,519	1,093,153	1,400,644	1,755,302	2,156,299	2,633,230	3,191,117	3,829,580	4,492,712
Payout	[mn NT\$]	43.4%	47.5%	51.5%	55.6%	59.7%	63.7%	67.8%	71.8%	75.9%	80.0%

## **Discount Cash Flow**



Source: Team elaboration

Discount Cash Flow	[Units]	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
EBIT	[mn NT\$]	1,633,301	1,993,613	2,412,672	2,873,299	3,360,779	3,867,373	4,440,883	5,077,062	5,763,944	6,409,110
tax rate	[mn NT\$]	15.5%	15.5%	15.5%	15.5%	15.5%	15.5%	15.5%	15.5%	15.5%	15.5%
Nopat	[mn NT\$]	1,379,799	1,684,187	2,038,205	2,427,338	2,839,158	3,267,124	3,751,620	4,289,059	4,869,330	5,414,362
(+) D&A	[mn NT\$]	854,718	1,051,129	1,281,800	1,538,184	1,813,266	2,097,381	2,421,200	2,782,461	3,175,768	3,549,539
(-) Capex	[mn NT\$]	(1,156,618)	(1,707,008)	(1,981,636)	(2,258,027)	(2,520,413)	(2,751,739)	(2,987,740)	(3,216,508)	(3,423,468)	(3,549,539)
(+/-) Change in WC	[mn NT\$]	(51,138)	(125,702)	(148,176)	(165,423)	(178,350)	(185,209)	(211,790)	(237,150)	(259,251)	(248,158)
Free Cash Flow to Firm (FCFF)	[mn NT\$]	1,026,760	902,606	1,190,193	1,542,073	1,953,662	2,427,557	2,973,291	3,617,862	4,362,379	5,166,204
(+/-) Debt Variation	[mn NT\$]	88,236	196,636	234,114	263,585	288,680	308,203	320,813	328,462	329,877	322,887
(-) Financial Result ex lease interest * (1-t)	[mn NT\$]	(22,138)	(26,072)	(30,756)	(36,030)	(41,805)	(47,972)	(54,390)	(60,962)	(67,562)	(74,022)
Free Cash Flow to Equity (FCFE)	[mn NT\$]	1,092,859	1,073,170	1,393,551	1,769,628	2,200,536	2,687,788	3,239,714	3,885,363	4,624,695	5,415,069

## Revenue Breakdown I



Source: Team elaboration

Cash Flow Statement	[Units]	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Net Revenue	[mn NT\$]	3,603,216	4,431,223	5,403,658	6,484,493	7,644,150	8,841,887	10,207,006	11,729,964	13,388,021	14,963,721
Revenue by Platform	[mn NT\$]										
HPC	[mn NT\$]	2,205,462	2,939,864	3,810,044	4,794,949	5,851,891	6,939,657	8,186,822	9,583,145	11,105,124	12,534,459
% of net sales	[mn NT\$]	61%	66%	71%	74%	77%	78%	80%	82%	83%	84%
YoY Growth	[mn NT\$]	49%	33%	30%	26%	22%	19%	18%	17%	16%	13%
IA revenue	[mn NT\$]	694,634	1,021,112	1,449,979	1,986,471	2,622,141	3,386,933	4,278,825	5,284,349	6,376,448	7,332,915
% of HPC	[mn NT\$]	31%	35%	38%	41%	45%	49%	52%	55%	57%	59%
YoY Growth	[mn NT\$]	60%	47%	42%	37%	32%	29%	26%	24%	21%	15%
Non - IA revenue	[mn NT\$]	1,510,829	1,918,752	2,360,065	2,808,478	3,229,749	3,552,724	3,907,997	4,298,797	4,728,676	5,201,544
% of HPC	[mn NT\$]	69%	65%	62%	59%	55%	51%	48%	45%	43%	41%
YoY Growth	[mn NT\$]	45%	27%	23%	19%	15%	10%	10%	10%	10%	10%

## Revenue Breakdown II



Source: Team elaboration

Cash Flow Statement	[Units]	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Smartphone	[mn NT\$]	978,737	1,027,673	1,079,057	1,133,010	1,189,660	1,249,144	1,311,601	1,377,181	1,446,040	1,518,342
% of net sales	[mn NT\$]	27%	23%	20%	17%	16%	14%	13%	12%	11%	10%
YoY Growth	[mn NT\$]	-3%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Smartphone revenue in USD billions	[mn NT\$]	33,106	34,761	36,499	38,324	40,240	42,252	44,365	46,583	48,912	51,358
Market size	[mn NT\$]	149,000	156,450	164,273	172,486	181,110	190,166	199,674	209,658	220,141	231,148
TAM YoY growth	[mn NT\$]	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
TSMC market share	[mn NT\$]	22%	22%	22%	22%	22%	22%	22%	22%	22%	22%

## Revenue Breakdown III



Source: Team elaboration

Cash Flow Statement	[Units]	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
ІоТ	[mn NT\$]	169,381	179,544	190,317	201,736	213,840	226,670	240,271	254,687	269,968	286,166
% of net sales	[mn NT\$]	5%	<b>4</b> %	4%	3%	3%	3%	2%	2%	2%	2%
YoY Growth	[mn NT\$]	-2%	<b>6</b> %	6%	6%	<b>6</b> %	<b>6</b> %	6%	<b>6</b> %	<b>6</b> %	6%
IoT revenue in USD billions	[mn NT\$]	5,729	6,073	6,437	6,824	7,233	7,667	8,127	8,615	9,132	9,680
Market size	[mn NT\$]	53,000	56,180	59,551	63,124	66,911	70,926	75,182	79,692	84,474	89,542
TAM YoY growth	[mn NT\$]	<b>6</b> %	<b>6</b> %	6%	<b>6</b> %	6%	<b>6</b> %	<b>6</b> %	<b>6</b> %	6%	<b>6</b> %
TSMC market share	[mn NT\$]	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%

## Revenue Breakdown IV



Source: Team elaboration

Cash Flow Statement	[Units]	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Automotive	[mn NT\$]	160,375	192,203	229,359	256,882	287,708	322,233	360,901	404,209	452,714	507,040
% of net sales	[mn NT\$]	4%	<b>4</b> %	4%	<b>4</b> %	<b>4</b> %	<b>4</b> %	<b>4</b> %	3%	3%	3%
YoY Growth	[mn NT\$]	11%	20%	<b>19</b> %	12%	12%	12%	12%	12%	12%	12%
Automotive revenue in USD billions	[mn NT\$]	5,425	6,501	7,758	8,689	9,732	10,900	12,207	13,672	15,313	17,151
Market size	[mn NT\$]	76,000	85,120	95,334	106,775	119,587	133,938	150,011	168,012	188,173	210,754
TAM YoY growth	[mn NT\$]	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%
TSMC market share	[mn NT\$]	7.1%	7.6%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%

# Revenue Breakdown V



Source: Team elaboration

Cash Flow Statement	[Units]	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
DCE	[mn NT\$]	29,753	30,646	31,627	32,639	33,683	34,727	35,804	36,914	38,058	39,238
% of net sales	[mn NT\$]	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%
YoY Growth	[mn NT\$]	2.8%	3.0%	3.2%	3.2%	3.2%	3.1%	3.1%	3.1%	3.1%	3.1%
Others	[mn NT\$]	59,507	61,292	63,254	65,278	67,367	69,455	71,608	73,828	76,116	78,476
% of net sales	[mn NT\$]	1.7%	1.4%	1.2%	1.0%	0.9%	0.8%	0.7%	0.6%	0.6%	0.5%
YoY Growth	[mn NT\$]	2.8%	3.0%	3.2%	3.2%	3.2%	3.1%	3.1%	3.1%	3.1%	3.1%



SG&A
Source: Team elaboration

SG&A	[Units]	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
SG&A Expenses	[mn NT\$]	(71,464)	(96,888)	(121,257)	(146,412)	(175,368)	(206,462)	(239,174)	(272,330)	(309,890)	(350,302)	(393,774)	(432,188)
General and administrative	[mn NT\$]	(60,873)	(83,745)	(102,455)	(123,783)	(148,246)	(174,656)	(202,068)	(229,309)	(259,609)	(292,479)	(327,128)	(358,147)
Depreciation	[mn NT\$]			(17,375)	(22,343)	(28,411)	(35,741)	(44,491)	(54,816)	(66,851)	(80,703)	(96,437)	(120,057)
% of total depreciation	[mn NT\$]			2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%
Others	[mn NT\$]			(85,080)	(101,440)	(119,835)	(138,915)	(157,577)	(174,492)	(192,758)	(211,777)	(230,691)	(238,090)
% of net sales	[mn NT\$]			2.8%	2.8%	2.7%	2.7%	2.6%	2.6%	2.5%	2.5%	2.4%	2.4%
Gain in efficiency	[mn NT\$]			0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Marketing	[mn NT\$]			(18,802)	(22,628)	(27,122)	(31,806)	(37,106)	(43,022)	(50,281)	(57,823)	(66,646)	(74,041)
% of net sales	[mn NT\$]			0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
R&D expense	[mn NT\$]	(182,370)	(204,182)	(263,201)	(334,761)	(421,734)	(522,300)	(634,816)	(745,336)	(873,169)	(1,018,114)	(1,178,762)	(1,336,200)
Depreciation				(17,375)	(22,343)	(28,411)	(35,741)	(44,491)	(54,816)	(66,851)	(80,703)	(96,437)	(120,057)
% of total depreciation				2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%
Others	[mn NT\$]			(245,826)	(312,418)	(393,322)	(486,559)	(590,325)	(690,519)	(806,317)	(937,411)	(1,082,324)	(1,216,143)
% of net sales	[mn NT\$]			7.3%	7.6%	7.8%	8.1%	8.3%	8.4%	8.6%	8.7%	8.8%	8.9%
Increase in invesments	[mn NT\$]			0.3%	0.3%	0.3%	0.3%	0.3%	0.1%	0.1%	0.1%	0.1%	0.1%