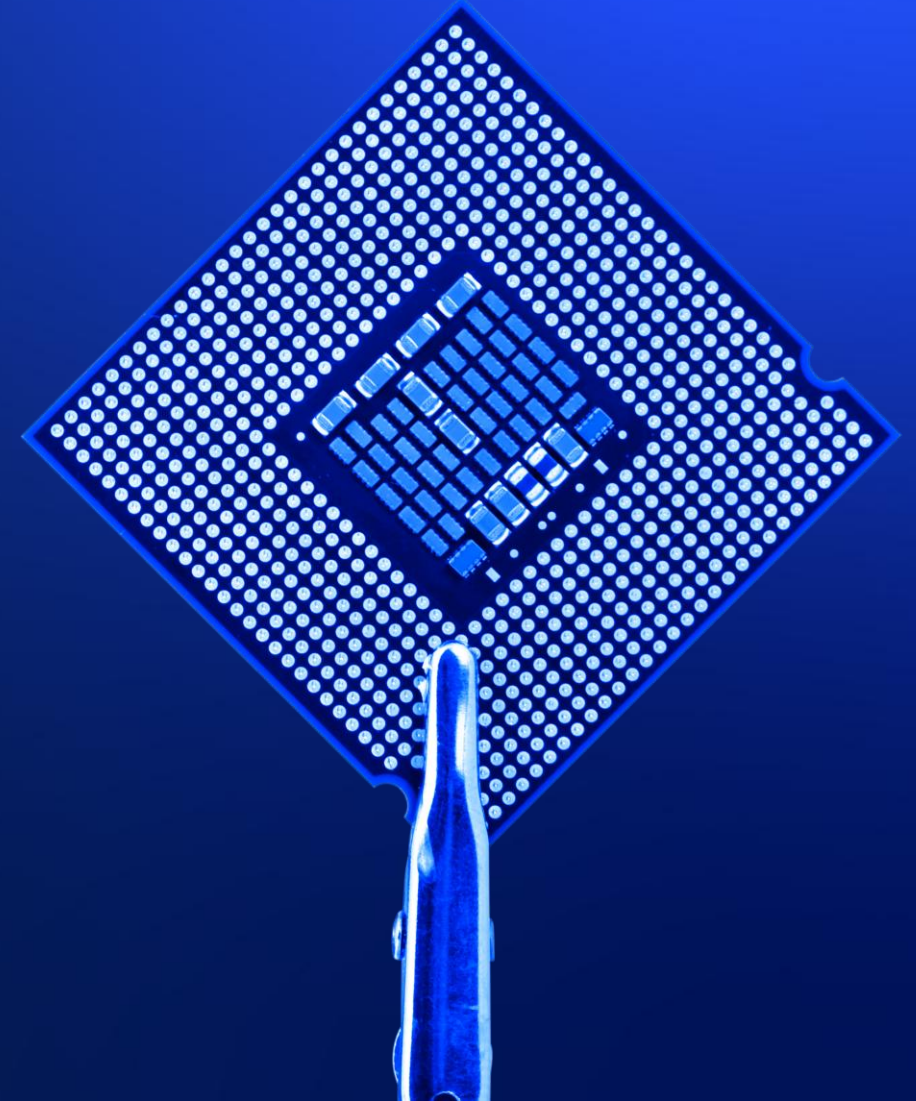


McKinsey Value Intelligence

Perspectives on value creation in semiconductor

Q2 2025 update



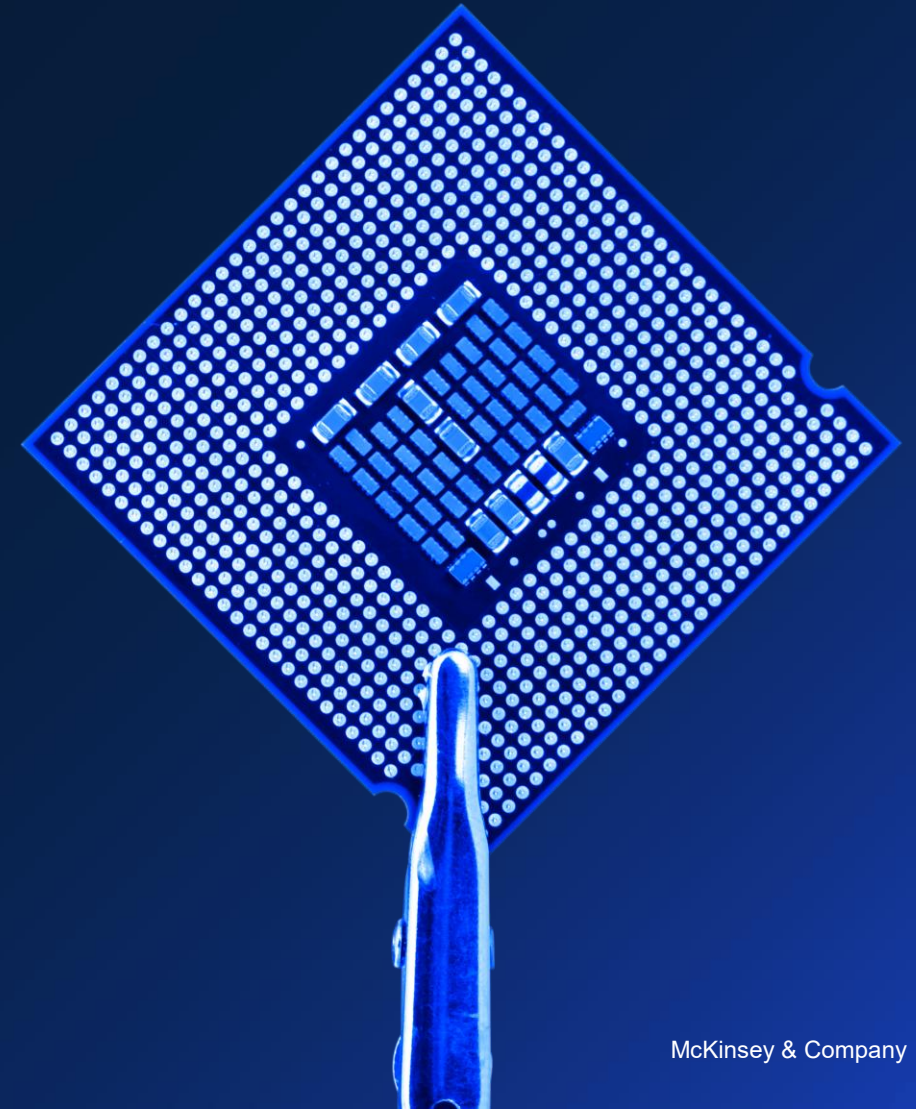
What this is

A perspective on the value creation in semiconductors including capital markets performance of semiconductor companies across sub-segments

... measured across ~320 publicly listed semiconductor companies worldwide, through the value chain (e.g., fabless, IDMs, capital equipment)





... that assesses key metrics of value creation and capture, including total shareholder returns, market cap and multiples

... with a historical and future-looking lens and sharing value creation themes for the semiconductor industry



Overview of public semiconductor companies analyzed

Semiconductor and capital equipment companies public in Q2 2025 (n=318)¹

Value chain step	Segment	Number of companies	Revenue FY24, bn USD	% of total	Description
Equipment 	Capital equipment	85	188	19%	Equipment used for the fabrication of semiconductor devices, comprised of both wafer fabrication and back-end production equipment. <i>Excludes Nikon</i>
	EDA	6	13	1%	Software, hardware, and services companies which assist in the definition, planning, design, implementation, verification, and subsequent manufacturing of semiconductor devices
Design 	IP	4	5	1%	Reusable design blocks which can be licensed out to chip designers
	Fabless	107	339	34%	Chip design w/o production assets. <i>Excludes Apple</i>
Chip manufacturing 	MPU	1	53	5%	Micro processing unit companies, which include chip design with (Intel) and without (AMD) production assets and have a core focus on MPUs
	Memory IDM	8	89	24%	Design, manufacture, and sell primarily memory ICs. <i>Excludes Samsung Electronics</i>
	Analog IDM	6	19		Design, manufacture, and sell primarily analog ICs
	Diversified IDM	19	87		Design, manufacture, and sell a wide range of semiconductor devices with no core focus on a single category. <i>Excludes Toshiba</i>
	IDM others	39	36		Design, manufacture, and sell mostly non-memory, non-analog devices. <i>Excludes Fujitsu, Sony and Fuji</i>
	Foundry	13	123	12%	Wafer manufacturing outsourcing partners of IDMs and fabless chipmakers
	Packaging and Test	30	49	5%	Providing housing of a semiconductor chip or module. Occurs under two business models: (1) in-house ATP services performed by IDMs and foundries after fabrication; and (2) by outsourced vendors (OSATs)
	Total	318	1,000		
Pkg. & Assembly 					

1. For comparison PHLX Semiconductor index contains 30 companies, with \$629B in 2024 revenue; analysis on subsequent pages includes 318 companies

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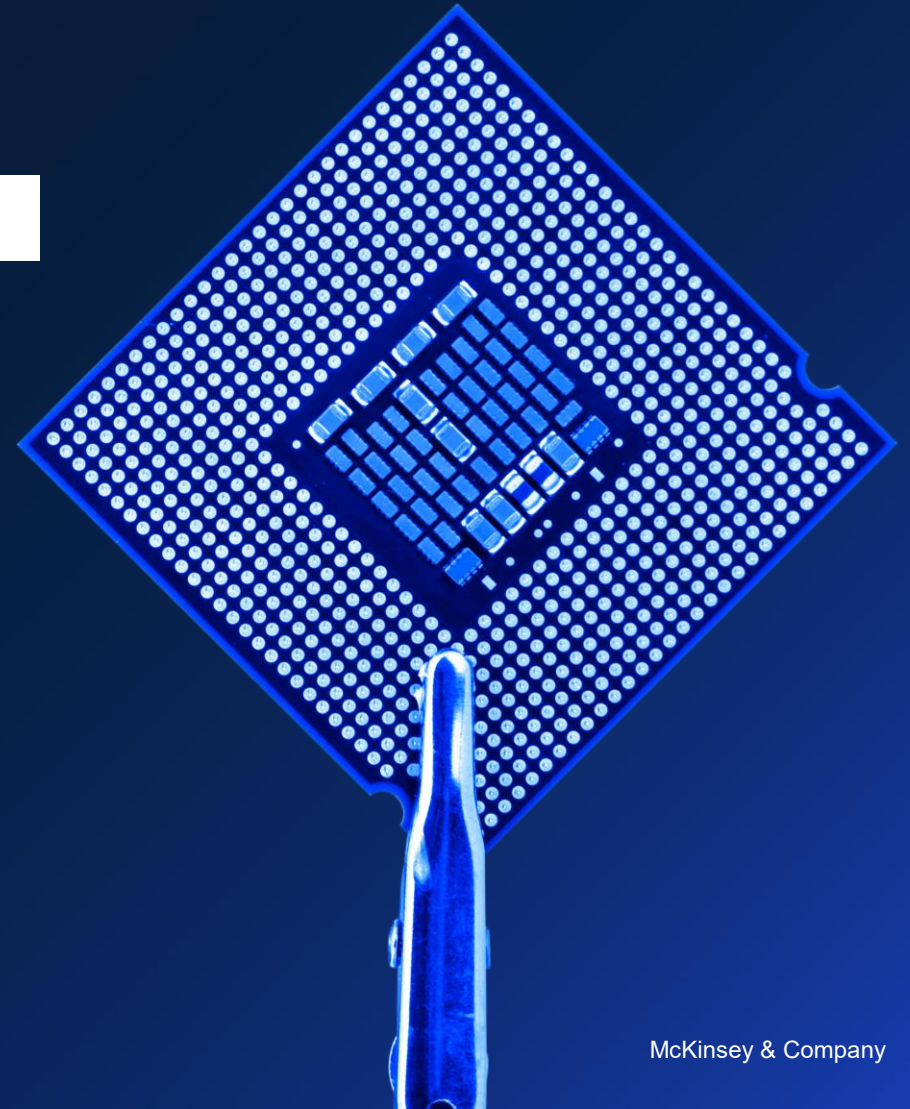
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Semiconductor update and priority drivers of value creation

As of August 8th, 2025

Key updates in our perspective on value creation

- **Semiconductor TSR fully recovered after Q1 volatility, but recovery was uneven**
Recovery was driven by easing geopolitical tension and tariff uncertainty in parallel with sustained AI-driven datacenter demand, though this rebound has been uneven, with AI fabless players recovering more rapidly than other parts of the value chain. Macro and geopolitical risks remain in focus, including new US tariffs of up to 100% on foreign-made chips, which some major players may avoid due to US production footprints
- **\$3,400Bn in market cap gains since March: 73% from Nvidia, Broadcom, and AMD**
Value creation was highly concentrated in a few AI infrastructure leaders. Nvidia became the world's most valuable company at over \$4,300Bn market cap. Investors doubled down on companies viewed as foundational to the AI ecosystem
- **Strong TSR rebound in US, Europe, and APAC**
The US jumped from -18% in Q1 to +56% in Q2 (as of July 30), with similar momentum in Europe and APAC. Mainland China's more modest +4% Q2 TSR reflects a lower starting point of volatility, having already held steady at +9% in Q1
- **Long-term growth expectations revised upward, with profit CAGR now at 9%**
Industry outlook improved, with long-term operating profit growth expectations rising from 6% in March to 9% in July

Drivers of (future) value creation in semiconductors

-  **Geopolitical dynamics and tariffs**
Rising tensions and tariffs continue to drive local-for-local strategies, with diversified manufacturing and resilient supply chains critical to manage fragmentation
-  **Artificial Intelligence**
Continues to be a demand driver, with a shift from training to inference across cloud and edge workloads. Value is increasingly created through integrated platforms, hardware combined with software and developer ecosystems (e.g., CUDA, ROCm)
-  **Demand shifts**
Differentiating structural demand drivers from temporary shifts is crucial. Align capacity and R&D investments with long-term demand drivers to maximize value creation
-  **Operating efficiency and leverage**
Improving agility and resilience remains critical ahead of the next growth wave. Leaders are increasing R&D productivity through AI tools, optimizing through-cycle cash flow, and tightening CAPEX discipline, which is especially important amid persistent cost pressures
-  **M&A and Partnerships**
Mega-deals faced regulatory pushback and high valuations. However, targeted acquisitions (e.g., Qualcomm-Alphawave) demonstrate how companies are scaling capabilities and filling technology gaps. Ecosystem partnerships and consolidation remain key levers

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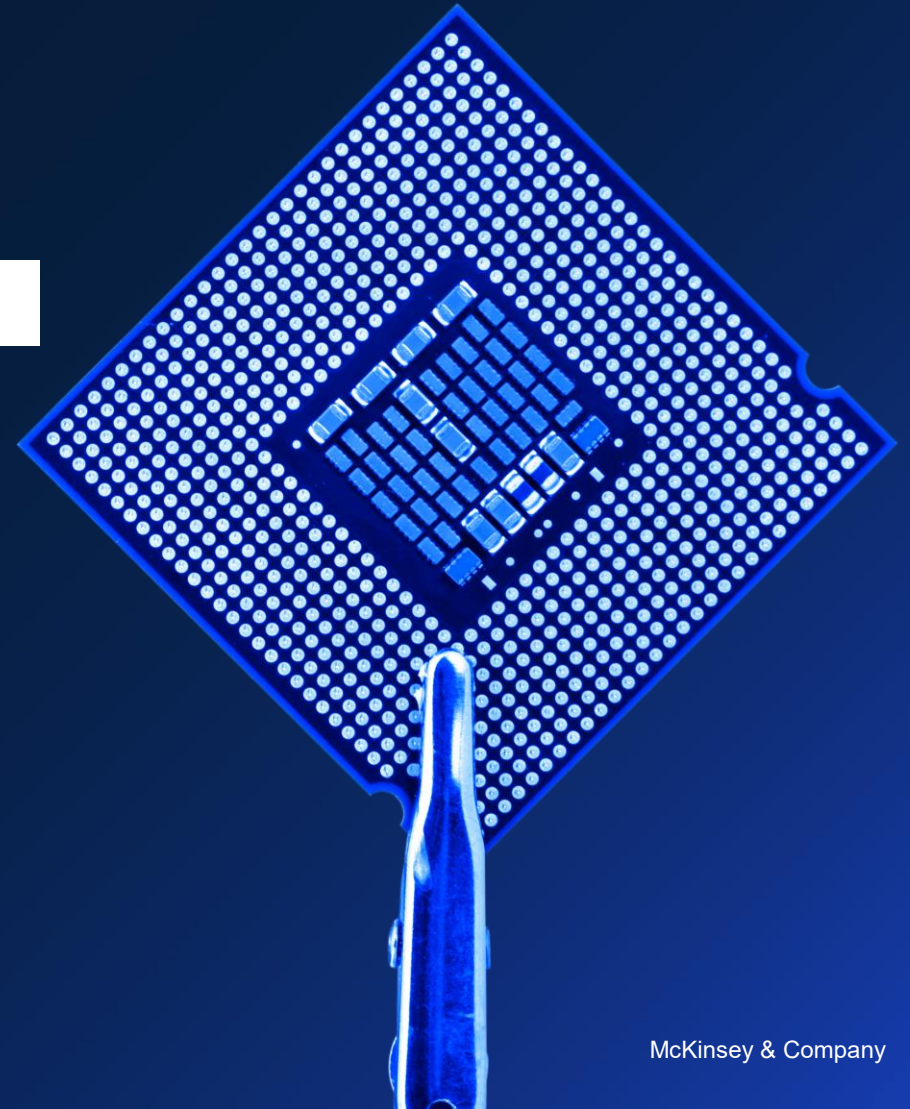
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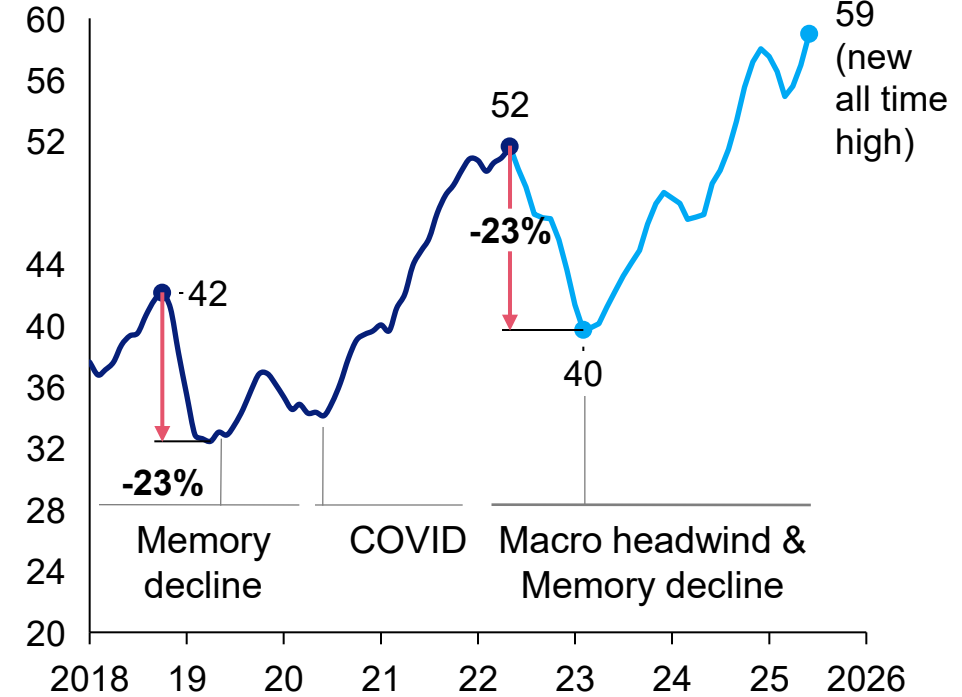
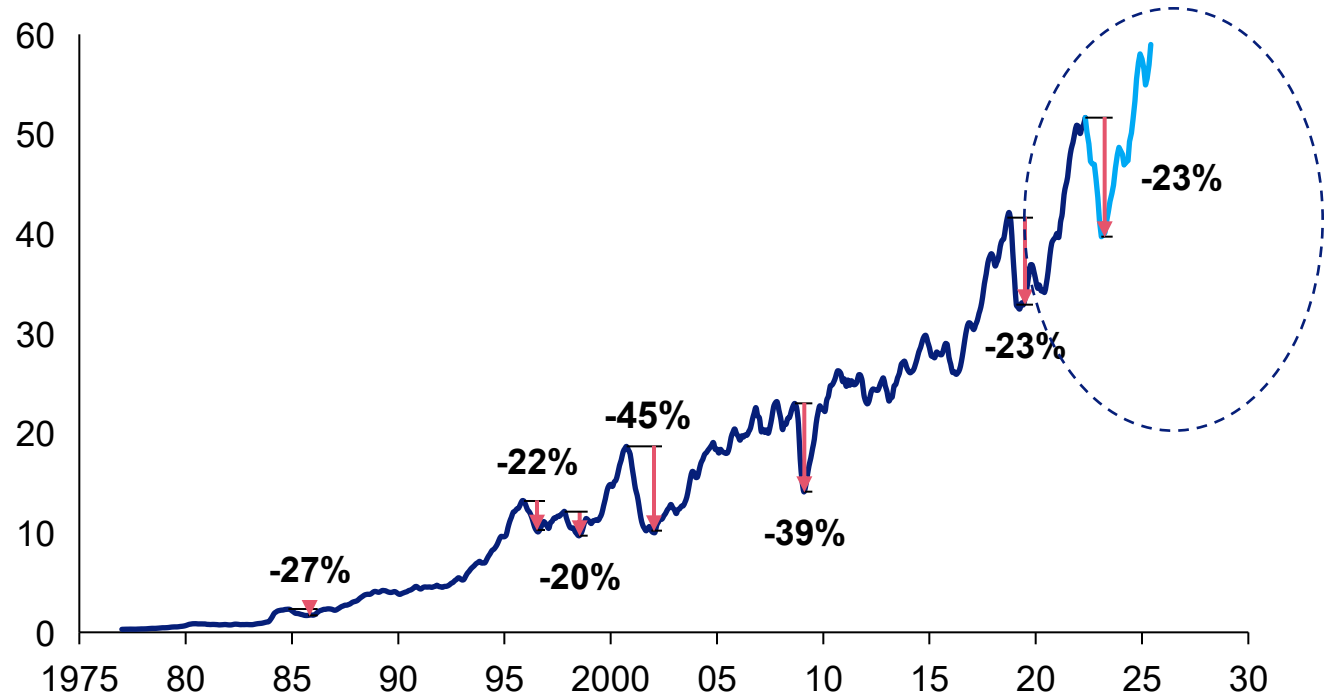
Semiconductor sales established new all-time highs in May 2025, large part of recovery driven by AI demand

Monthly global semiconductor revenues, USD bn (3-month moving average)

AS OF JULY 2025¹

Demand has been volatile the past years ...

... recently the industry has recovered to all-time highs, but this recovery has been uneven, largely driven by the AI demand



Distinct cycles ① ② ③ ④ ⑤ ⑥

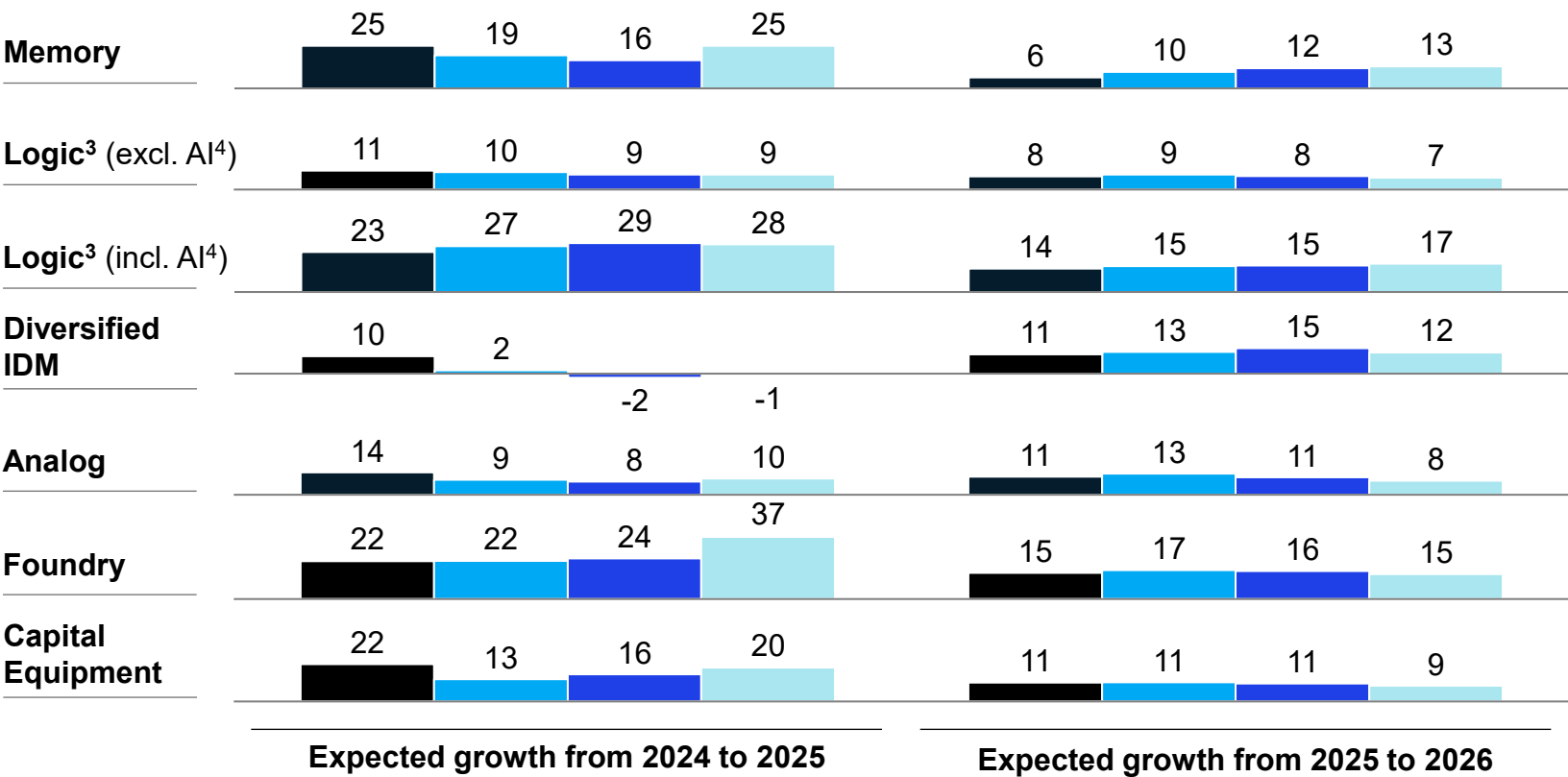
1. Numbers until May 25 (2-month reporting delay)
Source: SIA; WSTS; McKinsey

Growth from 2024-2025 is driven by memory, AI logic and foundry; diversified is going through a delayed cycle

Analyst consensus view¹ on YoY sales growth projection development of Top 37 companies, Percent

3Q24 4Q24 1Q25 2Q25

Semiconductor segments²



1. Sales weighted average growth estimates; 2. Top-30 semiconductor supplier based on their semiconductor sales by device category and seven capital equipment players; 3. Includes Intel; 4. AI being represented by NVIDIA, AMD, Broadcom

As of July 30th, 2025

Comments

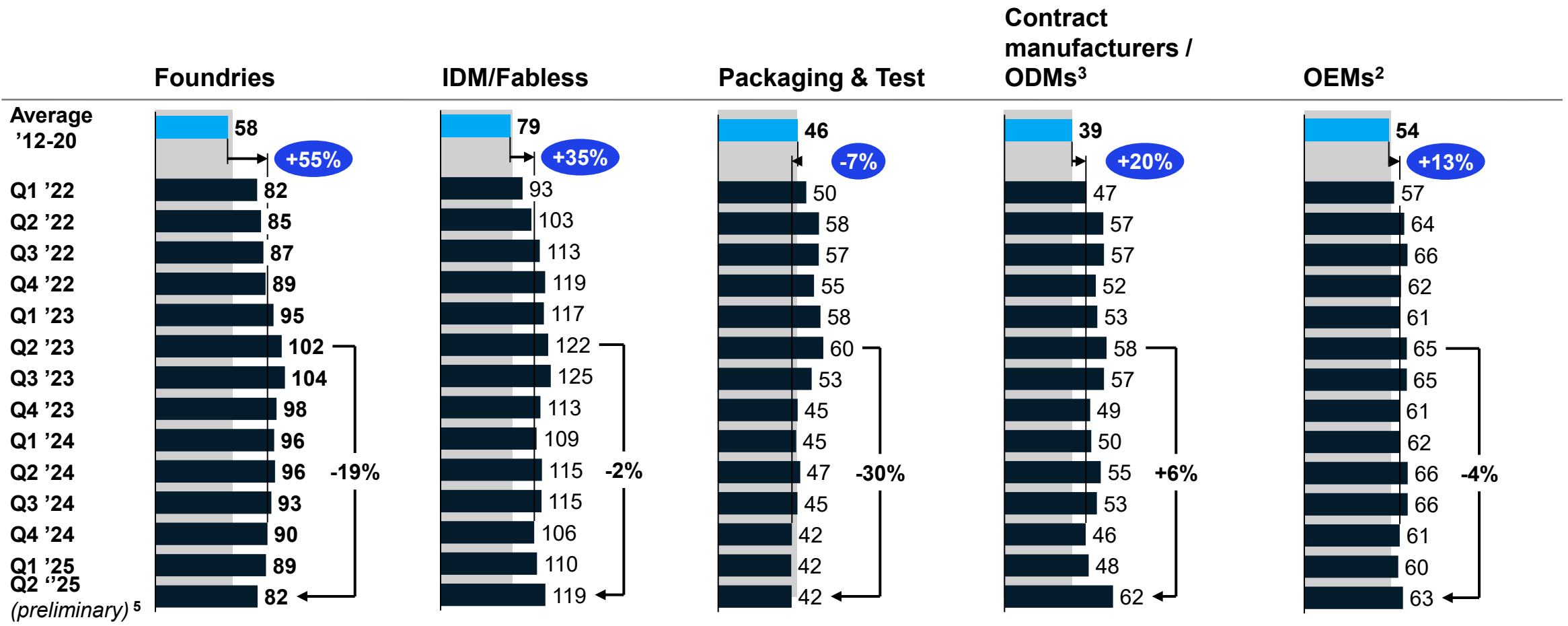
- The 2025 upswing is driven by growth across memory, logic, foundry, and capital equipment
- AI plays a key role in the market strength of 2025
- 2025 outlook for diversified, memory, and analog has worsened recently – these two segments are experiencing a delayed cycle with growth expected to catch up in 2026
- The growth rate in 2026 is expected to slow down, except for diversified IDM

2025 exhibits deacceleration on downward inventory trend due to rising tensions and tariffs

Average days of inventory⁴ (DOI)

As of July 30th, 2025

2012-2020 inventory range



1. Distributors includes 10 distributor companies (semiconductors and Arrow Electronics, Avnet, Macnica Holdings, Supreme, WPG Holdings, and WT Microelectronics) 2. Includes 21 companies such as Hon Hai, Wistron, Pegatron, Jabil, Flex 3. OEM/ODM/EMS customers includes 98 public companies that are the largest purchasers of semiconductors, and do both design and purchasing (e.g., Samsung, Lenovo, Dell, Huawei, etc.) 4. 1-quarter rolling average 5. Based on companies that reported CQ2025 as on July 31st 2025

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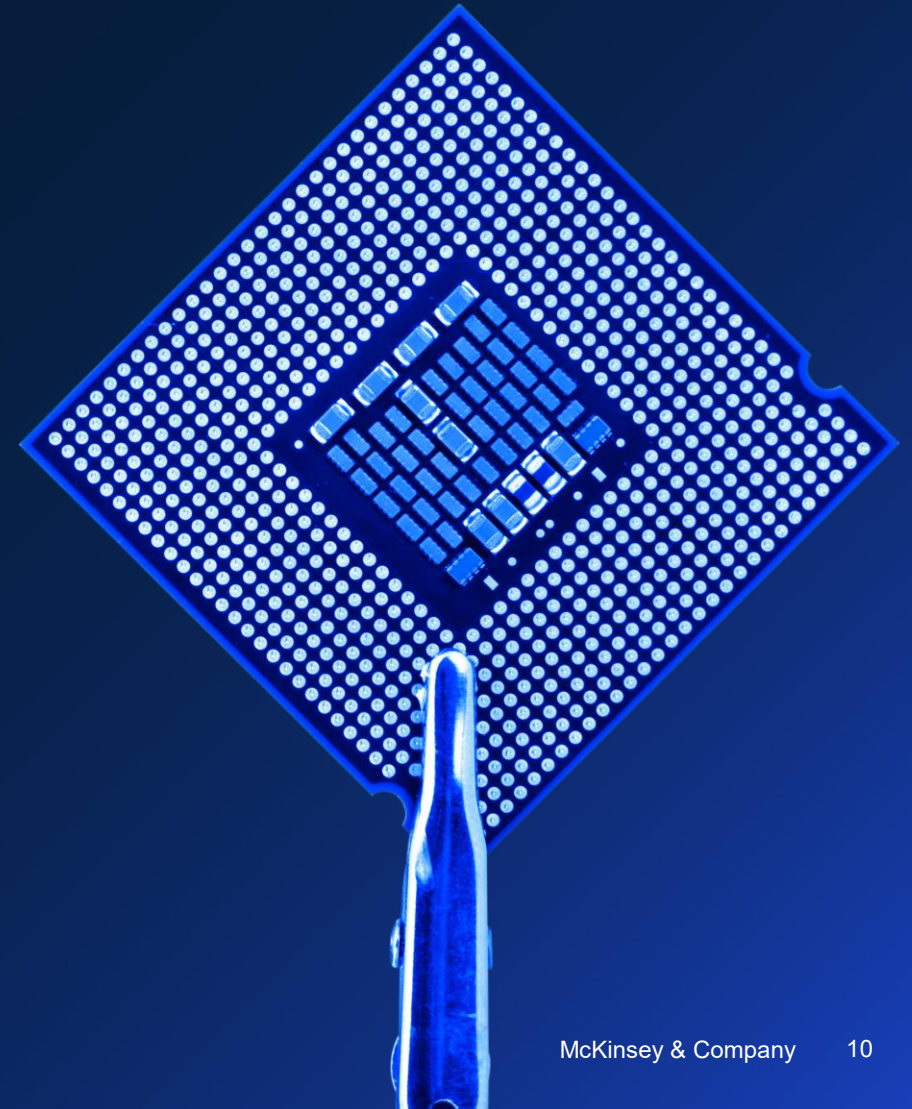
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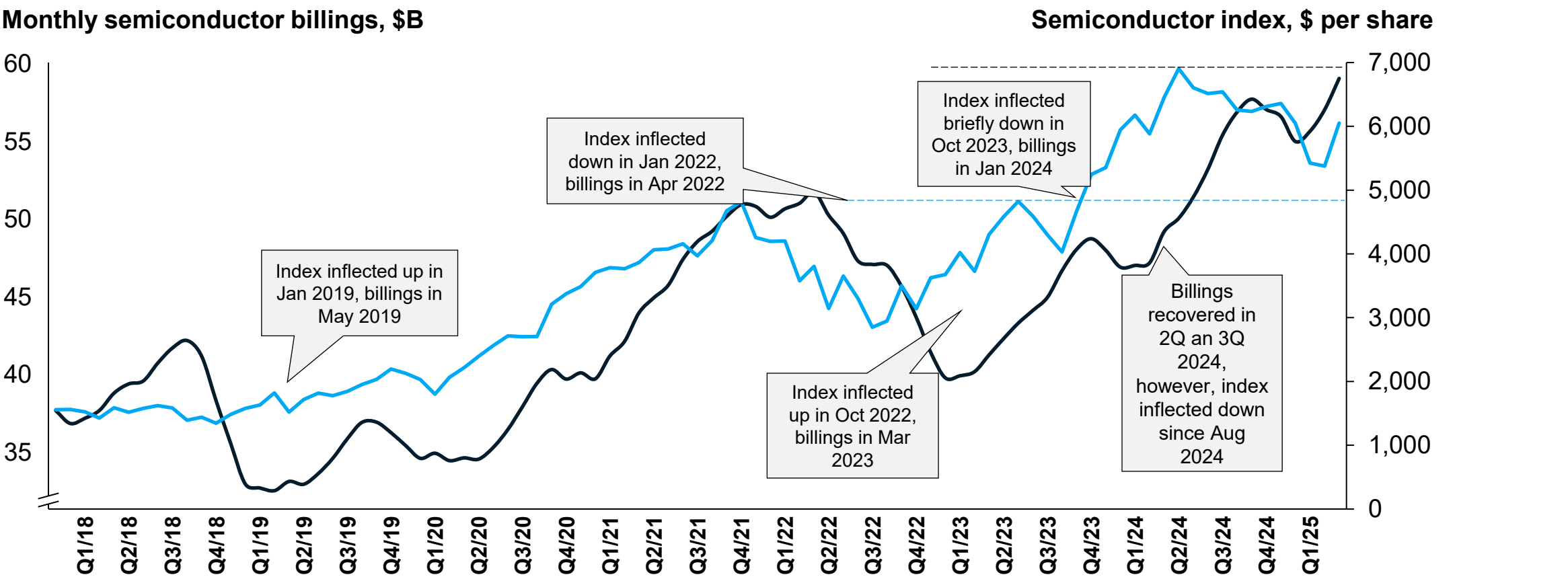
Deep-dive into select industry segments



Billings recovered over 2025 after Q424 decline

Global monthly semiconductor billings vs. PHLX semiconductor index, Q1 2018 – May 2025

— Worldwide semiconductor billings
— PHLX Semiconductor index

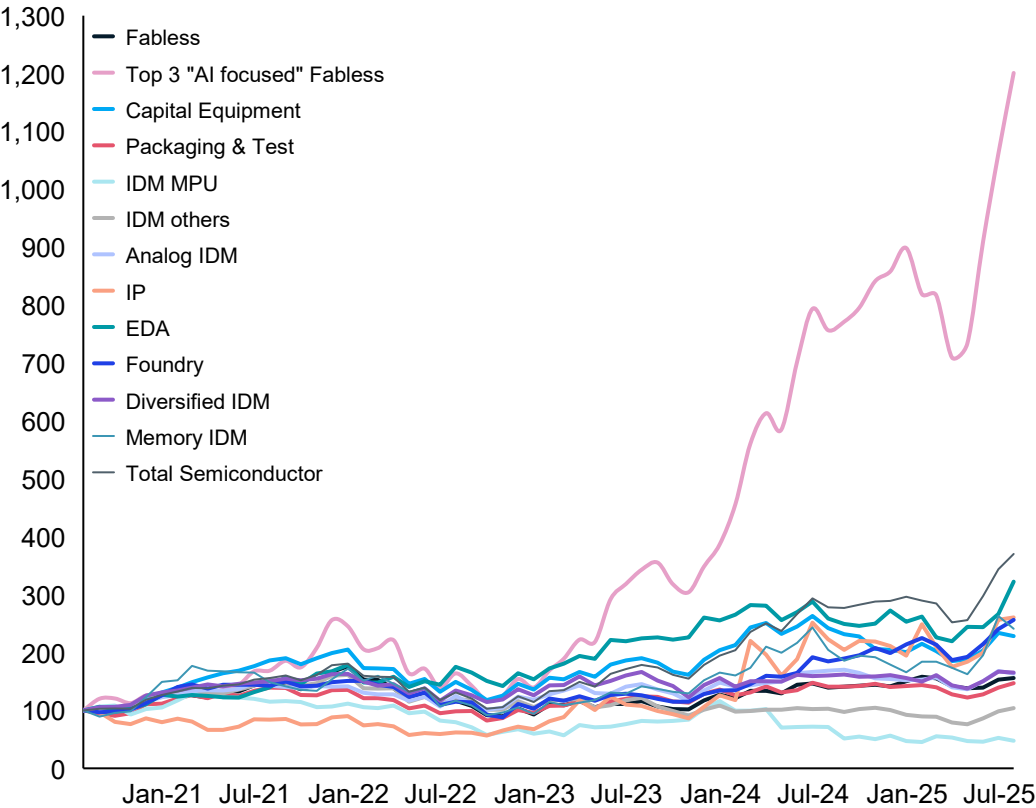


TSR recovery was observed across the entire value chain, with the most significant gains concentrated among AI focused Fabless

As of July 30th, 2025

Indexed TSR, by segment and indices¹

Jul 30, 2020 = 100



Total shareholder returns, Percent CAGR, USD

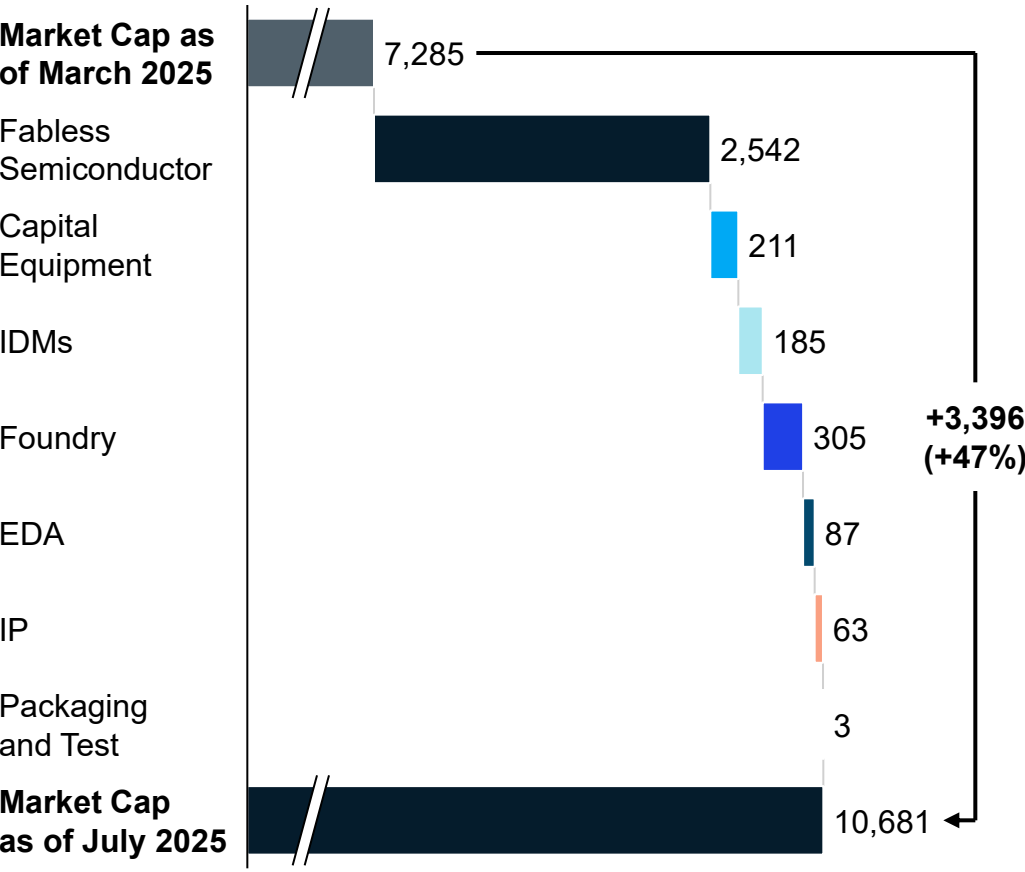
		Last 5 years		Q1 2025		Q2 2025	
		Jul 20 – Jul 25 ²		Jan 25 – Mar 25		Apr 25 – Jul 25 ²	
Fabless		9		-6		10	
Top 3 "AI focused" Fabless ⁴		64	-21			69	
Capital Equipment		18		-8		23	
Foundry		21		-13		37	
IDMs	IDM MPU ³	-14			13		-10
	Memory	19			4		39
	Analog IDM	10		-8			17
	Diversified IDM	11		-8			15
	IDM others	1		-15			32
Packaging & Test		8		-10			15
EDA		26		-13			47
IP		21		-10			49
Total Semiconductor ¹		30		-15			47
PHLX Semiconductor		23		-14			36
S&P 500		16		-4			14

1. 318 companies (Capital equipment 85, EDA 6, IP 4, Fabless Semiconductor 104, Fabless AI focus 3 (NVIDIA, Broadcom, AMD) MPU 1, Memory IDM 8, Analog IDM 6, Diversified IDM 19, IDM others 39, Foundry 13 and Packaging and Assembly 30) 2. As of Jul 30, 2025, 3. Contains Intel only. 4. Top 3 "AI focused" Fabless: NVIDIA, Broadcom, AMD

Sector gained ~\$3,400Bn market capitalization since March 2025, of which ~75% came from Fabless players

Semiconductor market cap build-up by segment

Mar 31, 2025– Jul 30, 2025, USD \$B



318 companies (Capital equipment 85, EDA 6, IP 4, Fabless Semiconductor 107, MPU 1, Memory IDM 8, Analog IDM 6, Diversified IDM 19, IDM others 39, Foundry 13 and Packaging and Assembly 30)

Source: McKinsey Value Intelligence, S&P Global

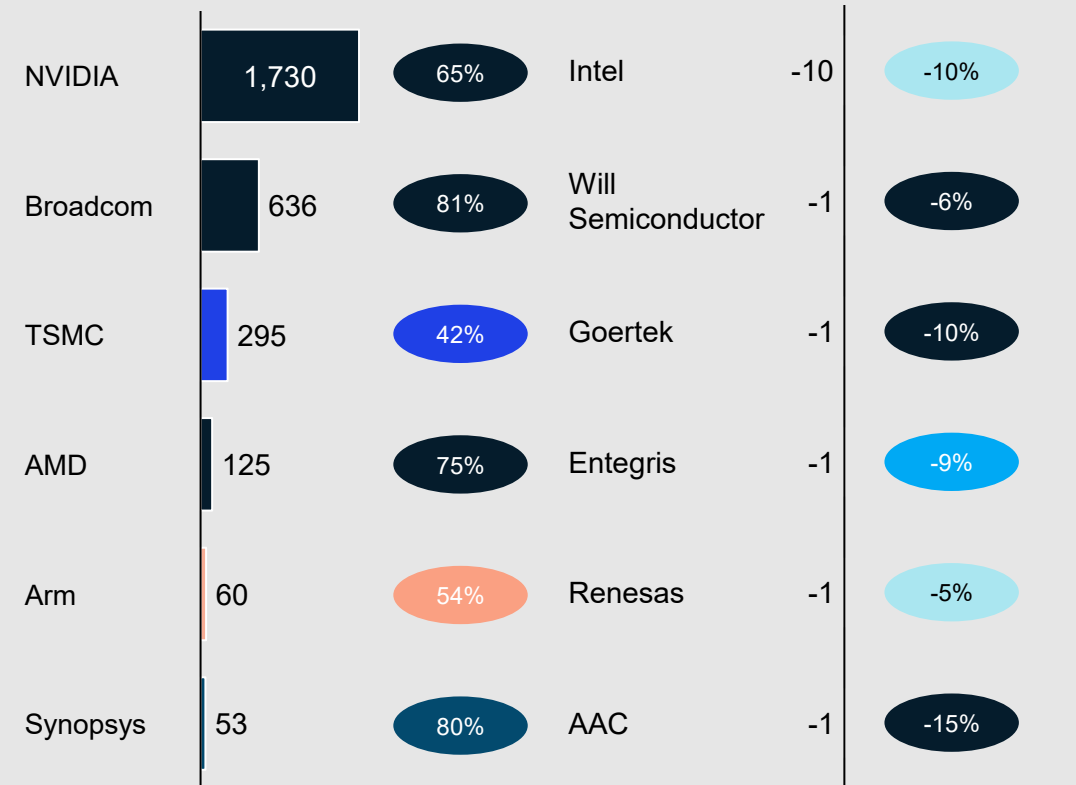
x% % Change vs March 2025 market cap

Market capitalization increases

Mar 31, 2025 – Jul 30, 2025, USD \$B

Market capitalization decreases

Mar 31, 2025 – Jul 30, 2025, USD \$B



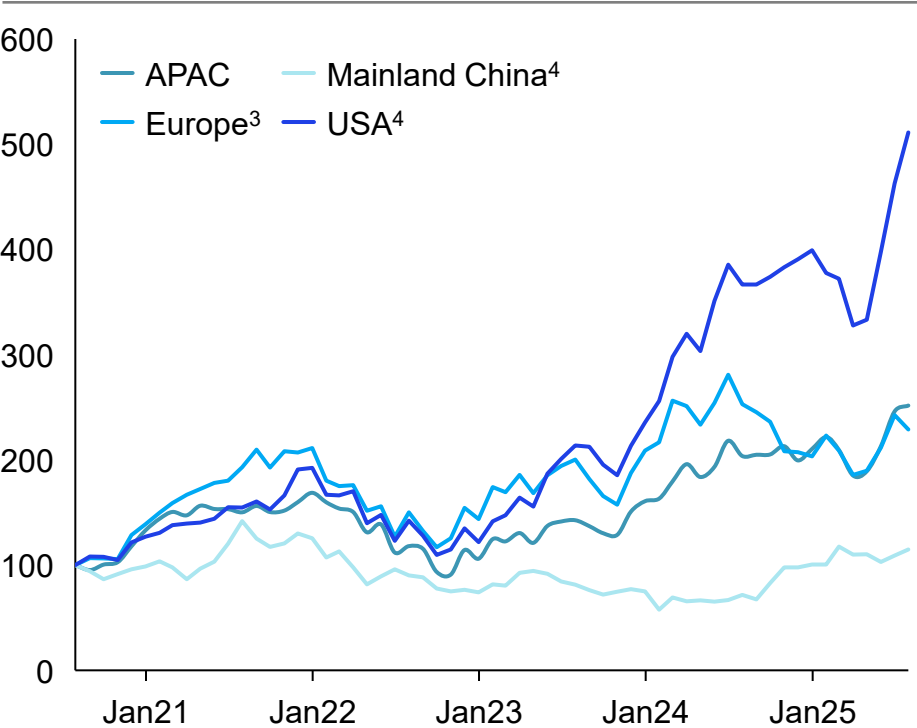
Strong recovery observed across all regions in Q2 2025, except China, which did not experience a decline during Q1 2025

Total Shareholder Return (TSR) performance by geography, USD¹

As of July 30th, 2025

Total Shareholder Return (TSR) Index¹

Jul 30, 2020 = 100



Total shareholder returns, Percent CAGR, USD

	Last 5 years Jul 20 – Jul 25 ²	Q1 2025 Jan 25 – Mar 25	Q2 2025 Apr 25 – Jul 25 ²
Europe	18	-9	23
USA ³	39	-18	56
APAC	20	-12	36
Mainland China ⁴	3	9	4
Others ⁵	31	-21	47
Total Semiconductor ¹	30	-15	47
PHLX Semiconductor	23	-14	36
S&P 500	16	-4	14

1. 318 companies (Europe 26, USA 78, APAC 152, Mainland China 59 and Others 3); 2. As of Jul 30 2025; 3. Includes companies from Cayman Islands, and Bermuda; 4. Taiwan included under APAC; 5. Includes Africa & Middle East and Latin American & Caribbean companies

Fabless peers in USA have led the market cap recovery in Q2 2025

TSR and Margin by region and segment¹

As of July 30th, 2025

		Market Cap ³ USD Bn	2024 EBITA Margin ² %	Last 5 Years TSR Jun 20 – Jul 25 ¹	Q1 2025 Jan 25 – Mar 25 ¹	Q2 2025 Apr 25 – Jul 25 ¹
Capital Equipment	USA	500	27	21	-6	29
	Europe	324	31	17	-9	12
	APAC	238	23	18	-14	36
	Mainland China	103	9	7	4	8
EDA	USA	221	26	27	-14	48
IP	Europe	173	48	25	-13	53
Fabless	USA	6431	47	55	-21	65
	Mainland China	166	9	0	11	0
	APAC	126	17	18	-4	14
IDM	USA	690	9	6	-6	18
	APAC	202	25	16	5	32
	Europe	136	20	9	-5	22
	Mainland China	103	10	1	-4	8
Foundry	APAC	1036	42	23	-16	41

1. Includes figures for subsegments with aggregate market cap above 90 USD Bn as of Jul 30, 2025; 2. Based on average from companies within the segment; 3. Aggregate market cap as of Jul 30, 2025

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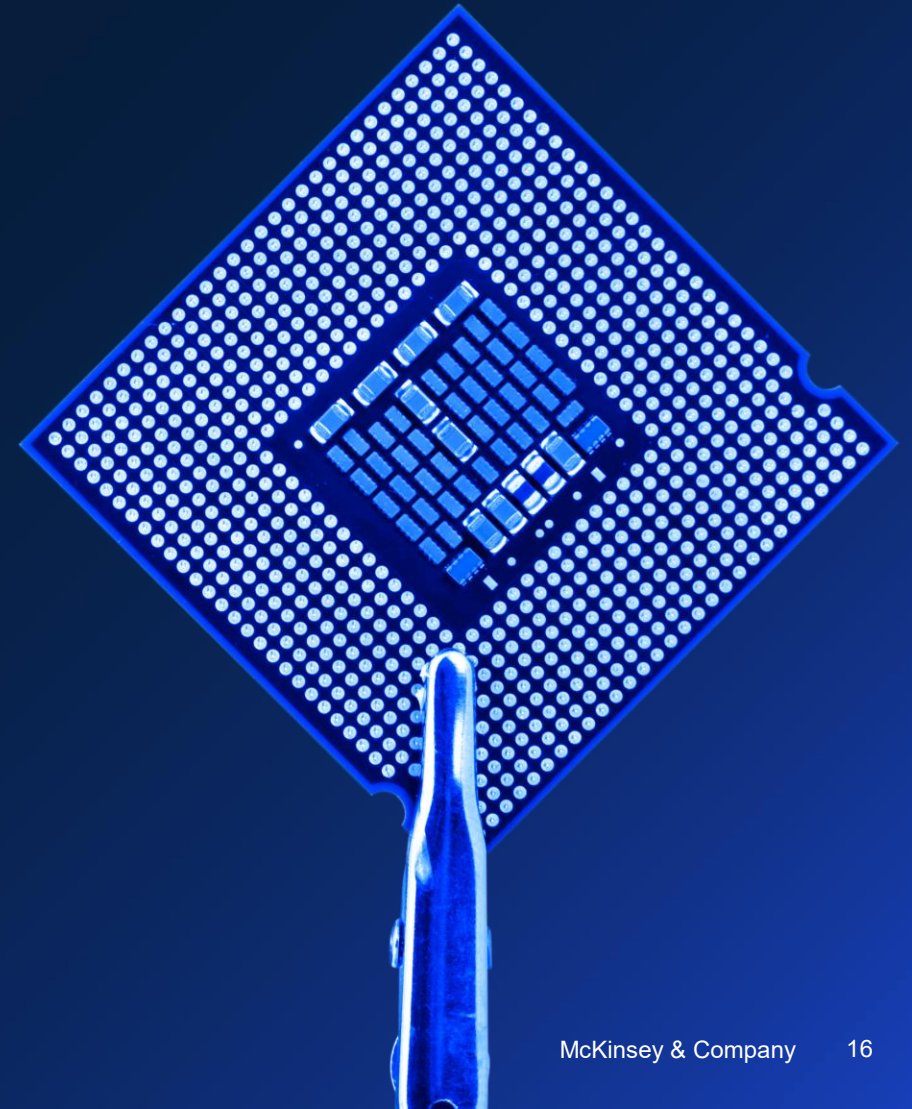
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Overall growth expectation is strong with long term operating profit growth expectation at 9% (vs. 6% last quarter)

Subsector multiples and comparison of operating performance

Below average Above average

As of July 30th, 2025

Sub-segments sorted by EV/EBITA	# ¹	EV/EBITA ² 2026E, Ratio	Revenue growth, CAGR in %		EBITA Margin, average in %		Long term operating profit growth ⁴
			2019-24 ³	2024-26E ³	2019-24 5-year avg ³	2024-26E 2-year avg ³	2026+
IP	4	56	14	20	6	38	>10
EDA	5	30	14	23	24	36	>10
Top 3 Fabless "AI focused" ⁵	3	26	39	32	45	62	>10
Fabless Semiconductor	72	16	11	13	19	22	5
MPU	1	22	-6	1	20	4	6
Diversified IDM	19	21	6	7	27	23	>10
IDM Others	26	19	4	11	13	13	>10
Capital Equipment	81	18	11	11	25	27	7
Analog IDM	6	17	7	6	34	38	5
Foundry	13	16	16	23	34	39	6
Pck & Test	26	13	6	13	10	9	>10
Memory IDM	8	6	5	26	14	32	5
Total Industry	264	20	11	18	25	35	9

1. Only companies with 2024 to 2026E data available. For 2019-24 CAGR excludes companies with no revenue in 2019

2. EV based on market capitalization as of July 30th 2025. Companies without 2025E-2026E estimates available excluded

3. 2025-26 estimates based on consensus analyst estimates of Jul 30, 2025. Companies without 2025E estimates available excluded

4. Based on simple DCF model with 2024-25 revenue and EBITA based on analyst consensus estimates as of Jul 30, 2025, invested capital based on LFY except for MPU (2019-24 avg), Pck & Test (2020-2024 median) LT margin based on 2026E except for Fabless AI Focus, Memory IDM, EDA (2021-26E median)

5. Includes NVIDIA, Broadcom and AMD

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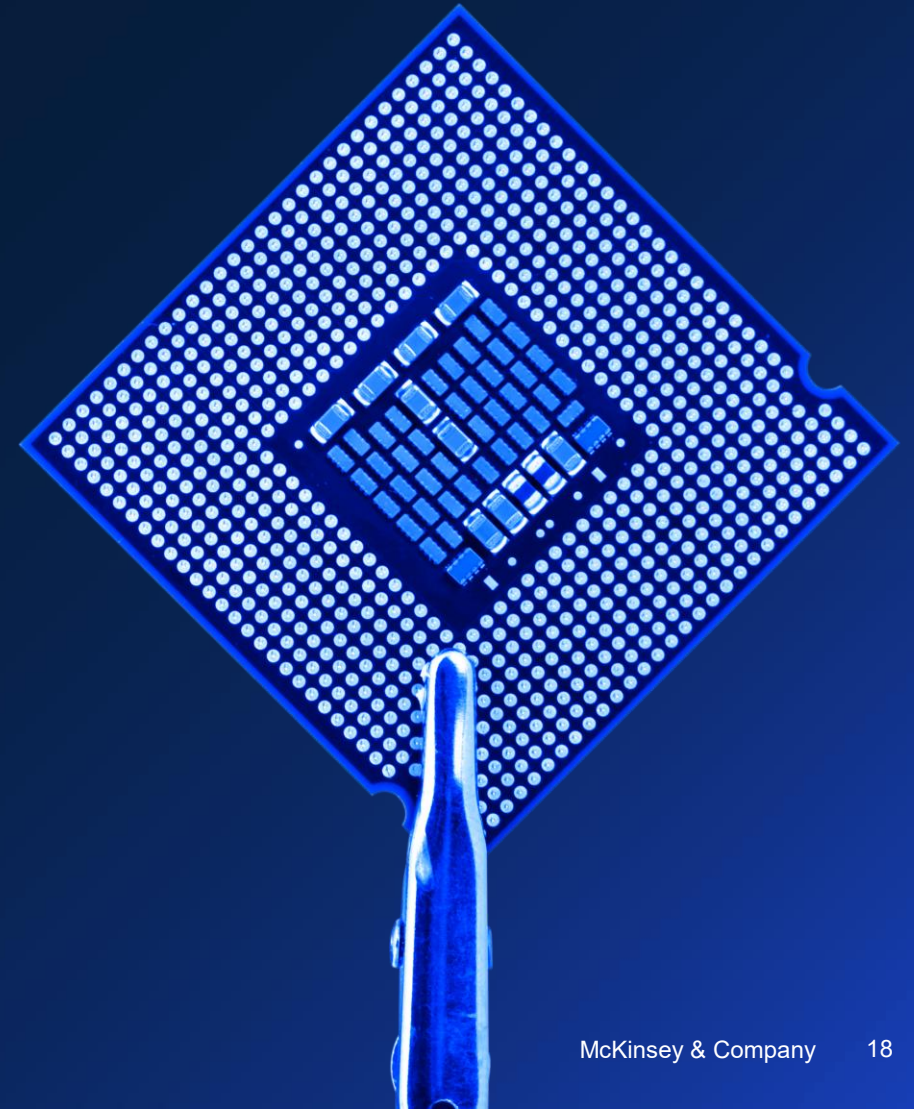
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Capital equipment peers performed strongly across the segment, while Fabless TSR weighted towards largest, top performers

CAGR TSR performance of top players by segment, Jul 2020 – Jul 2025, CAGR, USD¹

As of July 30th, 2025

As of July 30 th , 2025			xx Market Cap in USD Bn		Europe	USA	APAC	Mainland China	
Capital equipment		IDMs (incl. IDM MPUs) ^{2,8}		Fabless ⁴		Foundry ^{5,6,7}		Packaging & Test	
KLA	<div><div></div>38%<div>122</div></div>	ON Semi	<div><div></div>23%<div>24</div></div>	NVIDIA	<div><div></div>76%<div>4374</div></div>	TSMC	<div><div></div>24%<div>1004</div></div>	King Yuan	<div><div></div>32%<div>5</div></div>
Advantest	<div><div></div>35%<div>50</div></div>	Cambricon	<div><div></div>22%<div>40</div></div>	Broad com	<div><div></div>61%<div>1423</div></div>	UMC	<div><div></div>20%<div>18</div></div>	ASE	<div><div></div>21%<div>22</div></div>
Disco	<div><div></div>30%<div>31</div></div>	Renesas	<div><div></div>20%<div>23</div></div>	Hygon	<div><div></div>30%<div>45</div></div>	Tower	<div><div></div>17%<div>5</div></div>	Amkor	<div><div></div>13%<div>6</div></div>
ASM	<div><div></div>29%<div>25</div></div>	ADI	<div><div></div>17%<div>115</div></div>	MPS	<div><div></div>23%<div>35</div></div>	SMIC	<div><div></div>12%<div>63</div></div>	Powertech	<div><div></div>12%<div>3</div></div>
Applied Materials	<div><div></div>25%<div>152</div></div>	NXP	<div><div></div>15%<div>56</div></div>	Media Tek	<div><div></div>22%<div>74</div></div>	Vanguard	<div><div></div>4%<div>6</div></div>	Chipbond	<div><div></div>5%<div>1</div></div>
Lam	<div><div></div>23%<div>126</div></div>	Infineon	<div><div></div>12%<div>54</div></div>	Marvell	<div><div></div>18%<div>70</div></div>	Nexchip	<div><div></div>3%<div>6</div></div>	Inari	<div><div></div>2%<div>2</div></div>
NAURA	<div><div></div>20%<div>35</div></div>	Texas Instruments	<div><div></div>11%<div>172</div></div>	AMD	<div><div></div>18%<div>291</div></div>	China Resources	<div><div></div>2%<div>9</div></div>	Tongfu	<div><div></div>1%<div>6</div></div>
TEL	<div><div></div>18%<div>84</div></div>	Microchip Technology	<div><div></div>9%<div>38</div></div>	Qual comm	<div><div></div>11%<div>172</div></div>	Global Foundries	<div><div>-4%</div><div>22</div></div>	JCET	<div><div>-3%</div><div>9</div></div>
ASML	<div><div></div>16%<div>279</div></div>	ST	<div><div>0%</div><div>24</div></div>	Montage	<div><div>0%</div><div>14</div></div>	Sumco	<div><div>-11%</div><div>3</div></div>	LCSP	<div><div>-7%</div><div>3</div></div>
Keysight	<div><div></div>11%<div>29</div></div>	Intel	<div><div>-14%</div><div>89</div></div>	Omni vision	<div><div>-4%</div><div>21</div></div>	PSMC	<div><div>-22%</div><div>2</div></div>	Tianshui Huatian	<div><div>-9%</div><div>4</div></div>
Others (75 peers) ³	<div><div></div>11%</div>	Others (78 peers) ^{2,3}	<div><div>2%</div></div>	Others (97 peers) ³	<div><div></div>9%</div>	Others (3 peers) ³	<div><div>-5%</div></div>	Others (19 peers) ³	<div><div></div>10%</div>

1. As of July 30 2025; 2. Excluding Memory, given high cyclicality; 3. Weighted average TSR by market cap.; 4. Hygon TSR as of IPO date of Aug 2022 5. GlobalFoundries TSR as of IPO date of Oct 2021; 6. Powerchip TSR as of IPO date of Dec of 2020; 8. Nexchip TSR as of IPO date of May 23; 8. Cambricon TSR as of IPO date of Jul 2020

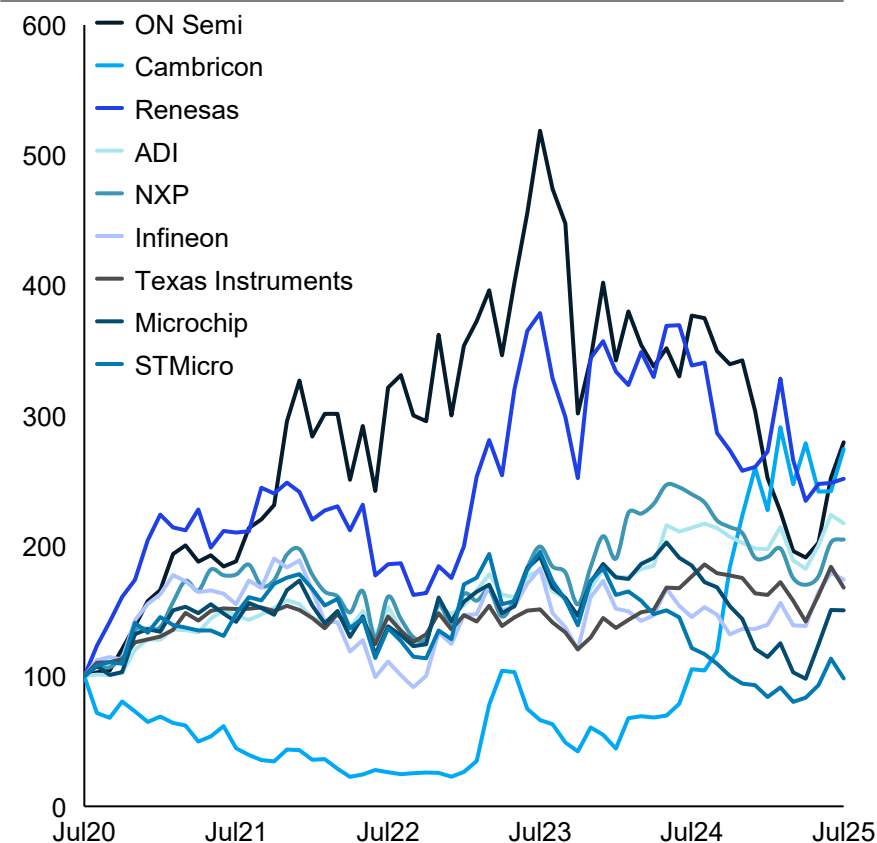
IDM TSR performance

TSR across different time periods for top-10 (by market cap) established IDM & MPU companies²

As of July 30th, 2025



















xx Market Cap in USD Bn

Total Shareholder Return (TSR) Index
Jul 30, 2020 = 100








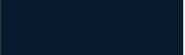
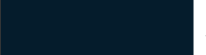
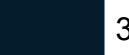

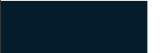







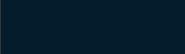
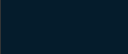
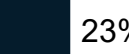

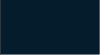

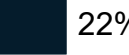



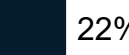



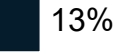

1. As of Jul 30, 2025
2. Excluding Memory, Intel & AMD

Total shareholder returns, Percent CAGR, USD

Top 10 players sorted by TSR		Last 5 years Jul 20 – Jul 25 ¹	Q1 2025 Jan 25 – Mar 25	Q2 2025 Apr 25 – Jul 25 ¹	
		23	-35		43 (24)
		22	-5		11 (40)
		20	2	-5	(23)
		17	-5		15 (115)
		15	-8		17 (56)
		12	2		25 (54)
		11	-3		6 (172)
		9	-15		46 (38)
		0	-14		22 (24)

IDM financial performance

As of July 30th, 2025

Top 10 players ² sorted by 2024 EBITA margin	2024 Revenue (USD Bn)	Revenue CAGR, % 2019-2024 2024-2026E ¹		2024 EBITA (USD Bn)	2024 Margin %	Margin Change pp % 2019-2024 2024-2026E ¹	
 ANALOG DEVICES	 9	9%	12%	 3.8	 41%	1%	18%
 TEXAS INSTRUMENTS	 16	2%	11%	 5.4	 34%	-7%	3%
 NXP	 13	7%	3%	 3.8	 30%	6%	7%
 onsemi	 7	5%	-4%	 2.0	 28%	14%	-3%
 infineon	 17	14%	7%	 3.9	 23%	7%	-4%
 RENESAS	 9	5%	7%	 1.9	 22%	11%	10%
 MICROCHIP	 4	-4%	13%	 1.0	 22%	-11%	21%
 ST Microelectronics	 13	7%	0%	 1.8	 13%	0%	-1%
 Cambricon 寒武纪科技	0	27%	85%	0	-23%	n.m	34%

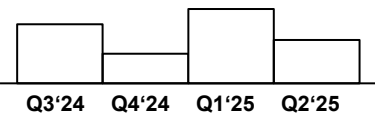
1. Based on consensus estimates as of Jul 30, 2025

2. Excluding Memory

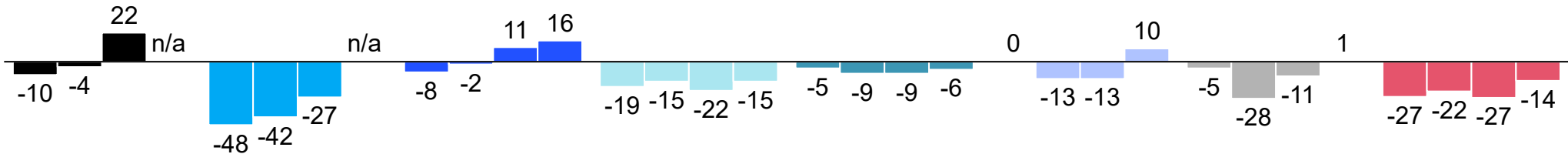
IDMs quarterly growth and margin evolution

Quarterly y-o-y revenue growth and margin evolution, CQ3'2024-CQ2'2025^{1,2,3}

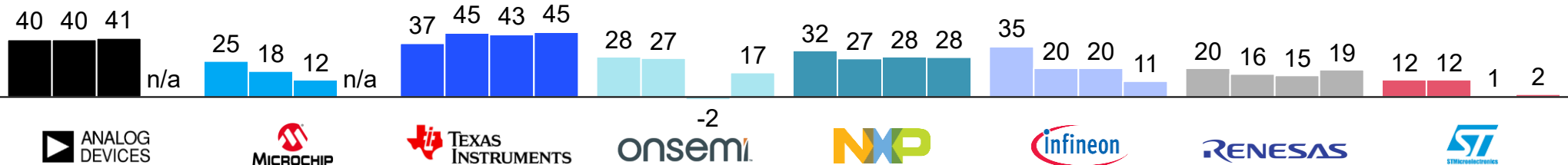
As of July 30th, 2025



Quarterly
y-o-y
Growth %



EBITA
margin %



1. Excluding Memory
2. Based on actual CQ25 number if reported, revenue growth measured in USD
3. Excluding Cambricon numbers as those exhibit high volatility

Capital equipment TSR performance

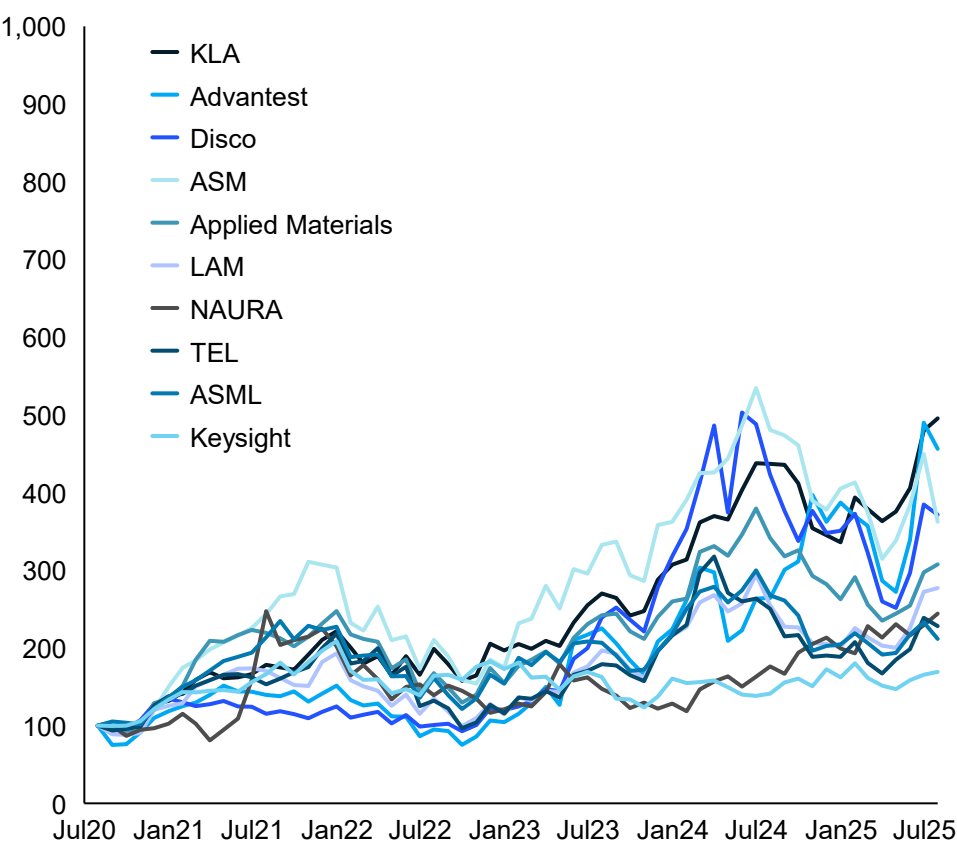
TSR across different time periods for top-10 (by market cap) established capital equipment companies

As of July 30th, 2025

xx Market Cap in USD Bn

Total Shareholder Return (TSR) Index





















Jul 30, 2020 = 100



1. As of Jul 30, 2025



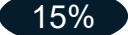
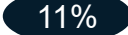

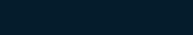
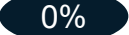
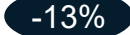










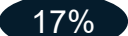
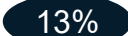

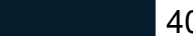
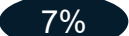
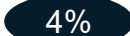

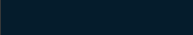
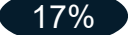
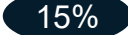
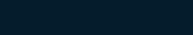
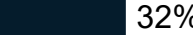
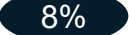
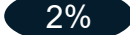


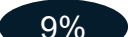
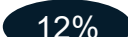

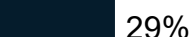
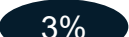
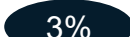











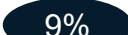


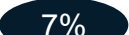



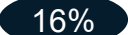



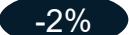
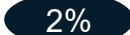










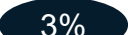
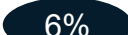


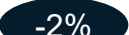
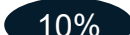
Source: McKinsey Value Intelligence, S&P Global

Total shareholder returns, Percent CAGR, USD

Top 10 players sorted by TSR		Last 5 years Jul 20 – Jul 25 ¹	Q1 2025 Jan 25 – Mar 25	Q2 2025 Apr 25 – Jul 25 ¹
		38	8	36 (122)
		35	-26	59 (50)
		30	-26	43 (31)
		29	-22	15 (25)
		25	-11	31 (152)
		23	1	37 (126)
		20	7	15 (35)
		18	-11	36 (84)
		16	-7	11 (279)
		11	-7	12 (29)

Capital equipment financial performance

As of July 30th, 2025

Top 10 players sorted by 2024 EBITA margin	2024 Revenue (USD Bn)	Revenue CAGR, %		2024 EBITA (USD Bn)	2024 Margin %	Margin Change pp %	
		2019-2024	2024-2026E ¹			2019-2024	2024-2026E ¹
	 5.2	 15%	 11%	 2.5	 49%	 0%	 -13%
	 2.6	 15%	 8%	 1.1	 42%	 17%	 1%
	 9.8	 17%	 13%	 3.9	 40%	 7%	 4%
	 29.3	 17%	 15%	 9.4	 32%	 8%	 2%
	 14.9	 9%	 12%	 4.4	 29%	 3%	 3%
	 27.2	 13%	 6%	 7.9	 29%	 6%	 1%
	 16.2	 9%	 9%	 4.6	 28%	 7%	 1%
	 3.0	 16%	 19%	 0.8	 28%	 -2%	 2%
	 4.1	 48%	 28%	 1.0	 24%	 14%	 0%
	 5.0	 3%	 6%	 1.0	 20%	 -2%	 10%

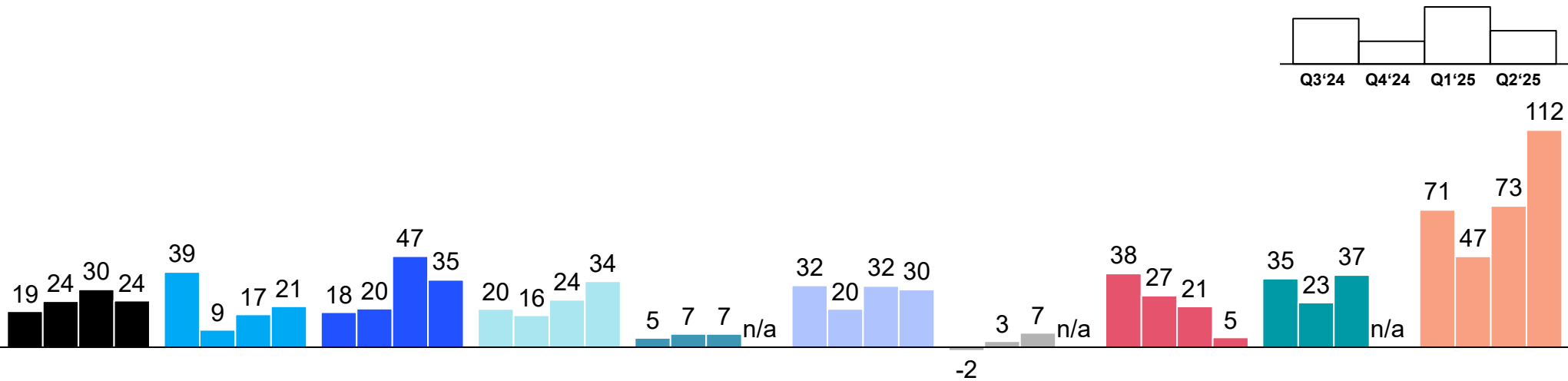
1. Based on consensus estimates as of Jul 30, 2025

Capital equipment quarterly growth and margin evolution

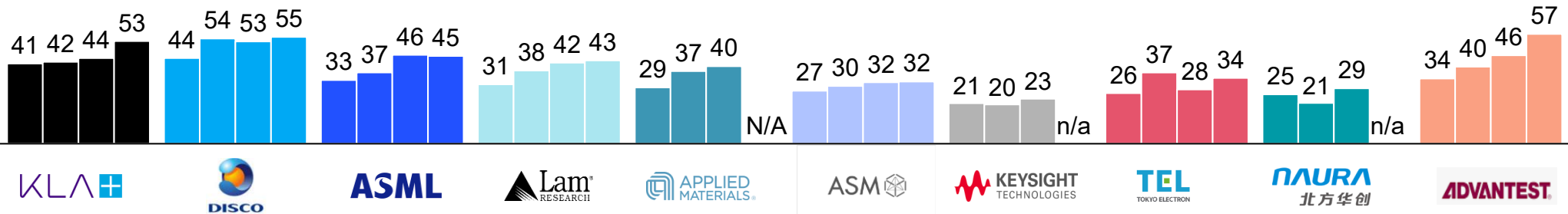
Quarterly y-o-y revenue growth and margin evolution, CQ3'2024-CQ2'2025^{1,2}

As of July 30th, 2025

Quarterly
y-o-y
Growth %



EBITA
margin %



1. Based on actual CQ25 number if reported, revenue growth measured in USD

Fabless Semiconductor TSR performance

TSR across different time periods for top-10 (by market cap) established Fabless Semiconductor companies

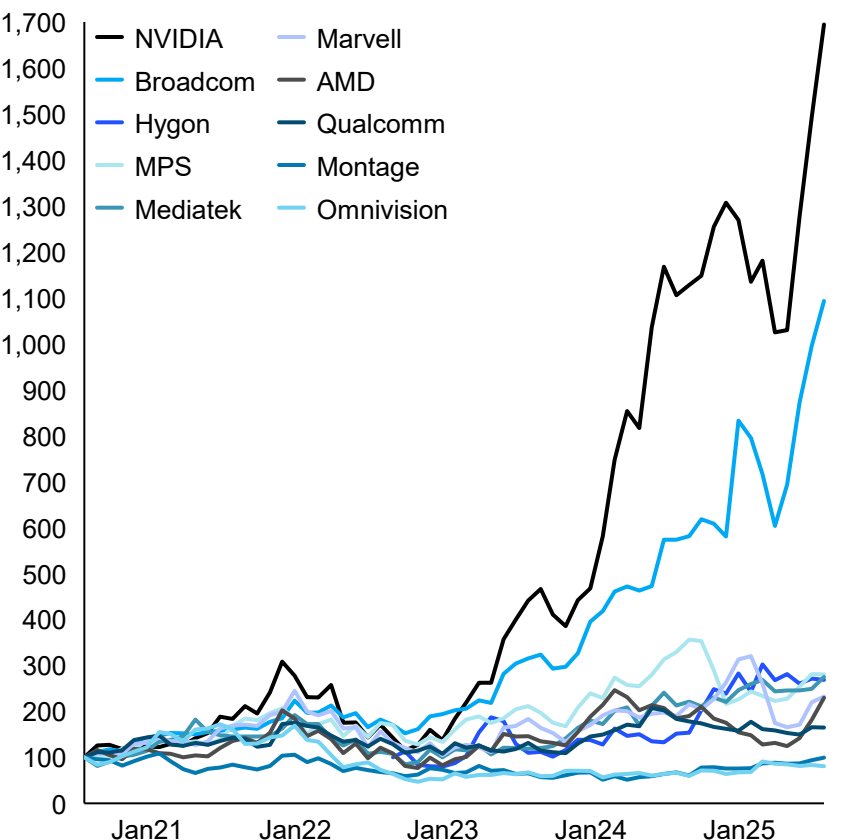
As of July 30th, 2025

xx

Market Cap in USD Bn

Total Shareholder Return (TSR) Index

Jul 30, 2020 = 100



1. As of Jul 30, 2025

Total shareholder returns, Percent CAGR, USD

Top 10 players
sorted by TSR

Last 5 years





















Jul 20 – Jul 25¹

Q1 2025

Jan 25 – Mar 25



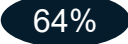
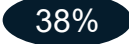


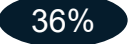



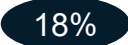
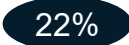


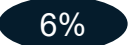



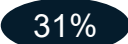
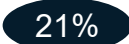

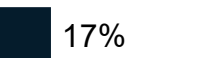
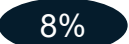



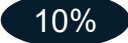
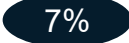


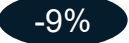
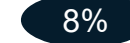


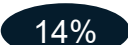


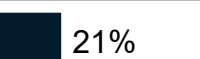







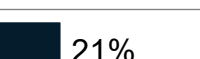




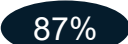
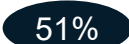


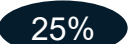











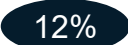
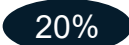

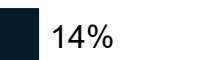
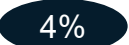
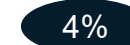








Q2 2025

Apr 25 – Jul 25¹

 	76	-19	65	4,374
 	61	-28	81	1,423
 	30	-5	0	45
 	23	-2	26	35
 	22	-1	13	74
 	18	-44	33	70
 	18	-15	75	291
 	11	1	4	172
 	0	16	13	14
 	-4	28	-6	21

Fabless financial performance

As of July 30th, 2025

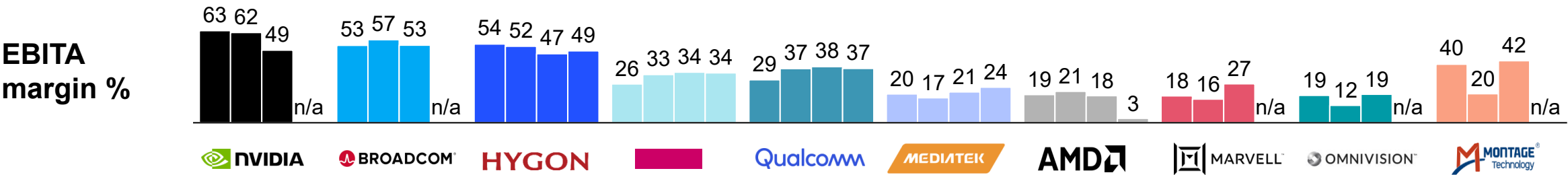
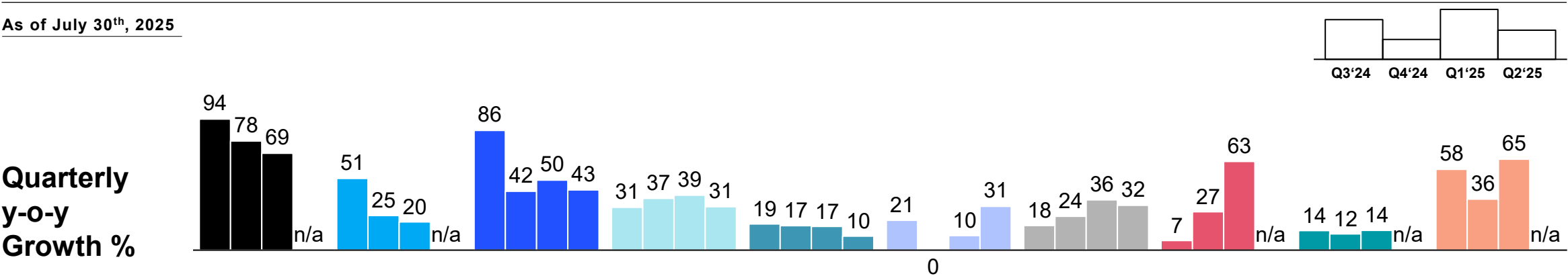
Top 10 players sorted by 2024 EBITA margin	2024 Revenue (USD Bn)	Revenue CAGR, % 2019-2024 2024-2026E ¹		2024 EBITA (USD Bn)	2024 Margin %	Margin Change pp % 2019-2024 2024-2026E ¹	
 NVIDIA	 130.5	 64%	 38%	 82.1	 63%	 36%	 4%
 BROADCOM [®]	 51.6	 18%	 22%	 24.8	 48%	 6%	 30%
 AMD	 25.8	 31%	 21%	 4.5	 17%	 8%	 17%
 Qualcomm	 39.0	 10%	 7%	 10.6	 27%	 -9%	 8%
 MEDIATEK	 16.2	 14%	 18%	 3.4	 21%	 10%	 0%
 MARVELL [™]	 5.8	 16%	 30%	 1.2	 21%	 9%	 29%
 HYGON	 1.3	 87%	 51%	 0.5	 40%	 25%	 -2%
 MPS	 2.2	 29%	 18%	 0.5	 24%	 8%	 12%
 OMNIVISION [™]	 3.5	 12%	 20%	 0.5	 14%	 4%	 4%
 MONTAGE [®] Technology	 0.5	 15%	 44%	 0.1	 28%	 -17%	 14%

1. Based on consensus estimates as of Jul 30, 2025

Fabless quarterly growth and margin evolution

Quarterly y-o-y revenue growth and margin evolution, CQ3'2024-CQ2'2025¹

As of July 30th, 2025



1. Based on actual CQ25 number if reported, revenue growth measured in USD

Foundry TSR performance

TSR across different time periods for top-10 (by market cap) established Foundry companies

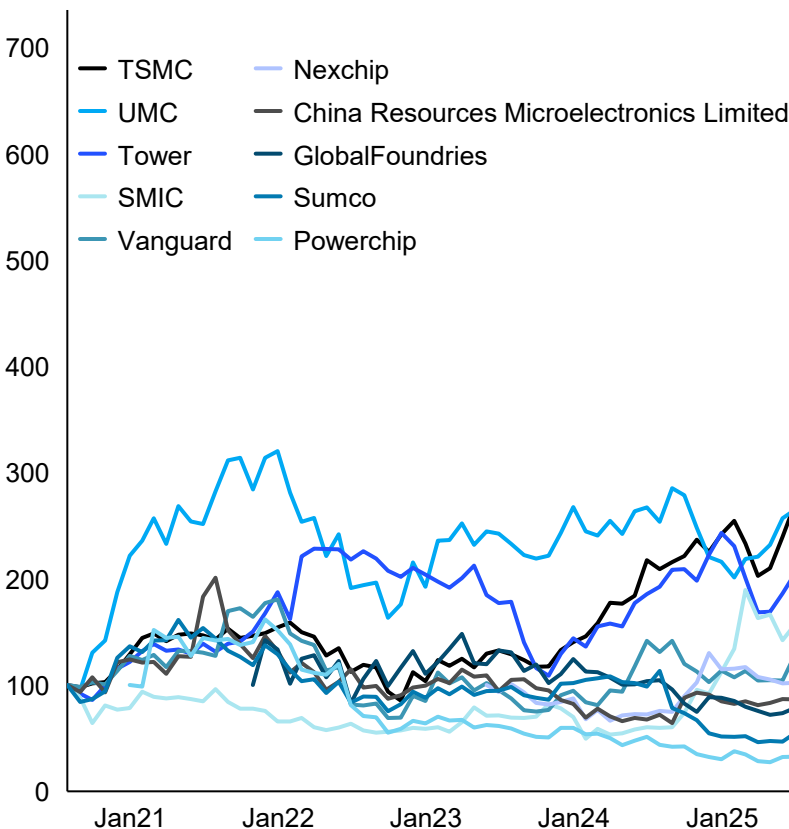
As of July 30th, 2025

xx

Market Cap in USD Bn

Total Shareholder Return (TSR) Index

Jul 30, 2020 = 100



Total shareholder returns, Percent CAGR, USD

Top 10 players sorted by TSR

Last 5 years

Jul 20 – Jul 25¹

Q1 2025

Jan 25 – Mar 25

Q2 2025



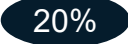
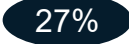


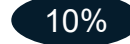
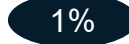


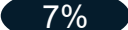
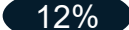

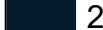

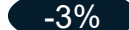


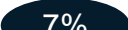
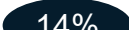



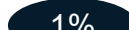










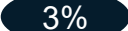
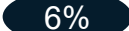


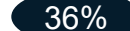
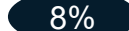


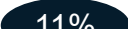



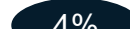
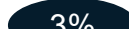






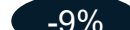



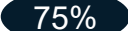




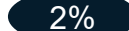


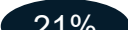



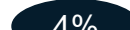
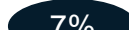








Apr 25 – Jul 25¹

	24	-16	42	1,004
	20	2	13	18
	17	-31	31	5
	12	45	8	63
	4	-8	18	6
	3	0	0	6
	2	0	0	9
	-4	0	0	22
	-11	-11	18	3
	-22	-26	-22	2

1. As of Jul 30, 2025. Nexchip, Global Foundries and Powerchip since IPO

Foundry financial performance

As of July 30th, 2025

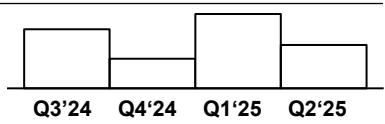
Top 10 players sorted by 2024 EBITA margin	2024 Revenue (USD Bn)	Revenue CAGR, % 2019-2024 2024-2026E ¹		2024 EBITA (USD Bn)	2024 Margin %	Margin Change pp % 2019-2024 2024-2026E ¹	
	 88.3			 40.5	 46%		
	 7.1			 1.6	 23%		
	 1.3			 0.2	 16%		
	 1.4			 0.2	 13%		
	 6.8			 0.9	 13%		
	 1.4			 0.1	 9%		
	 2.5			 0.2	 9%		
	 1.3			 0.1	 9%		
	 8.0			 0.3	 4%		
	 1.4		 7%	 -17%			

1. Based on consensus estimates as of Jul 30, 2025

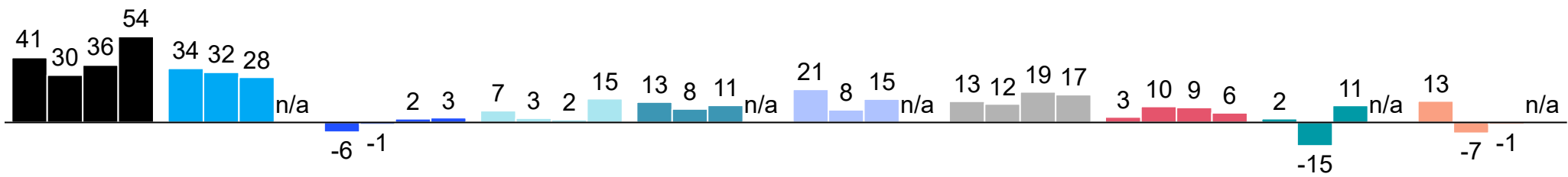
Foundry quarterly growth and margin evolution

Quarterly y-o-y revenue growth and margin evolution, CQ3'2024-CQ2'2025¹

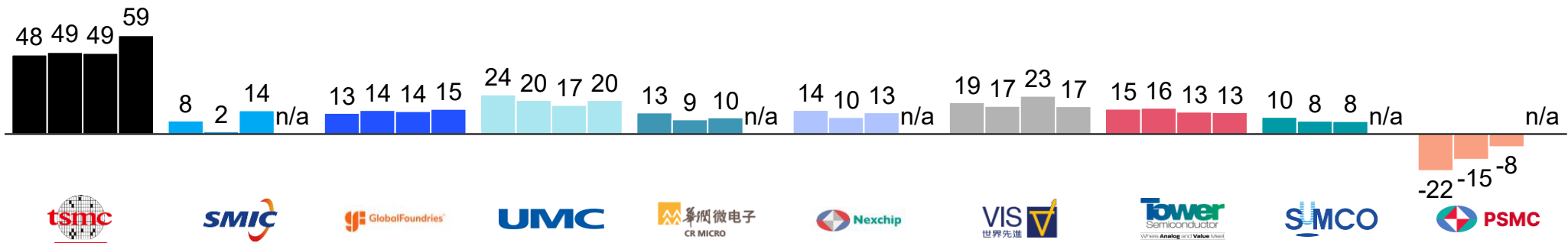
As of July 30th, 2025



Quarterly
y-o-y
Growth %



EBITA
margin %



1. Based on actual CQ25 number if reported, revenue growth measured in USD

Packaging & Test TSR performance

TSR across different time periods for top-10 (by market cap) established Packaging & Test companies

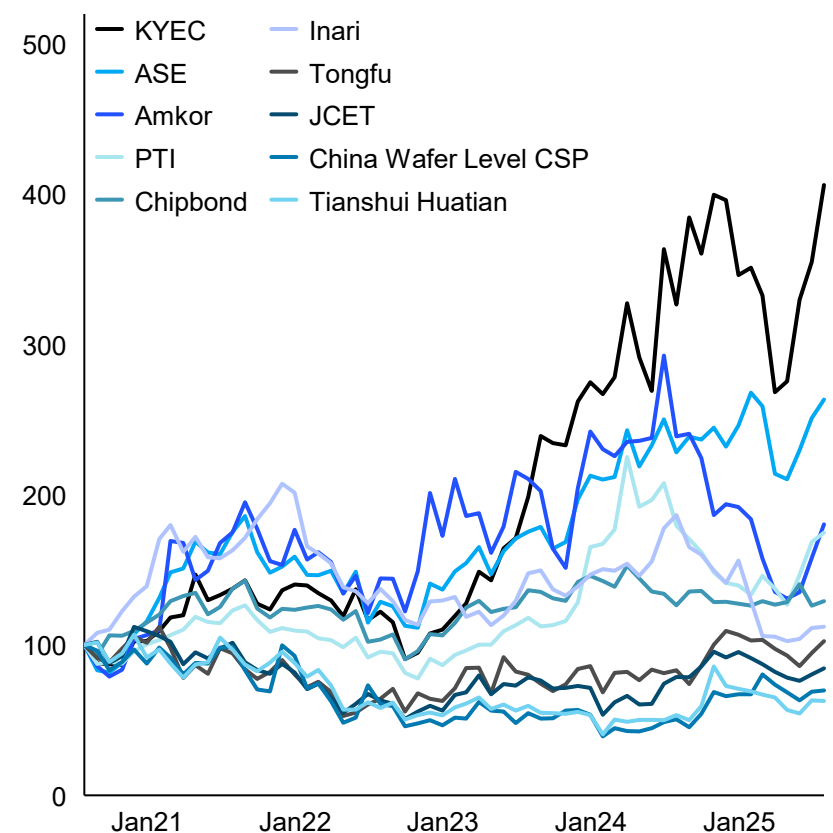
As of July 30th, 2025

xx

Market Cap in USD Bn

Total Shareholder Return (TSR) Index

Jul 30, 2020 = 100



1. As of Jul 30, 2025

Total shareholder returns, Percent CAGR, USD

Top 10 players sorted by TSR

Last 5 years

Jul 20 – Jul 25¹

Q1 2025

Jan 25 – Mar 25











Q2 2025

Apr 25 – Jul 25¹

		32	-23	51	5
		21	-13	23	22
		13	-29	33	6
		12	-1	27	3
		5	-1	2	1
		2	-32	6	2
		1	-9	5	6
		-3	-14	3	9
		-7	9	-5	3
		-9	-8	-3	4

Packaging & Test financial performance

As of July 30th, 2025

Top 10 players sorted by 2024 EBITA margin	2024 Revenue (USD Bn)	Revenue CAGR, % 2019-2024 2024-2026E ¹		2024 EBITA (USD Bn)	2024 Margin %	Margin Change pp % 2019-2024 2024-2026E ¹	
	0.8	-1%	30%	0.2	23%	7%	5%
	0.3	2%	7%	0.1	17%	-1%	1%
	0.2	14%	36%	0	16%	8%	10%
	2.2	0%	10%	0.3	13%	0%	1%
 順邦全球人才招募網	0.6	-2%	7%	0.1	12%	-14%	2%
	18.2	6%	16%	1.3	7%	1%	3%
	6.3	9%	4%	0.4	7%	1%	0%
 通富微電 TUSOFT MICROELECTRONICS CO., LTD.	3.3	22%	14%	0.2	6%	5%	0%
	4.9	8%	14%	0.2	5%	4%	1%
	2.0	11%	13%	0	1%	-4%	2%

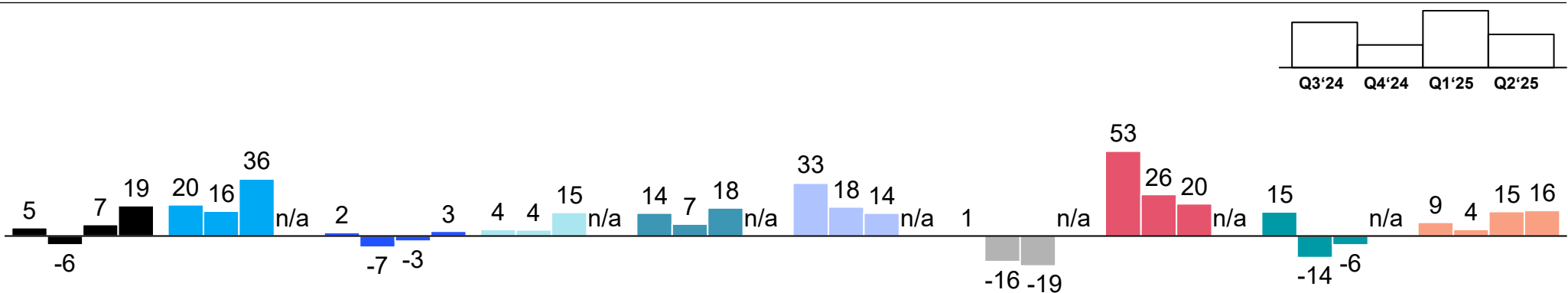
1. Based on consensus estimates as of Jul 30, 2025

Packaging & Test quarterly growth and margin evolution

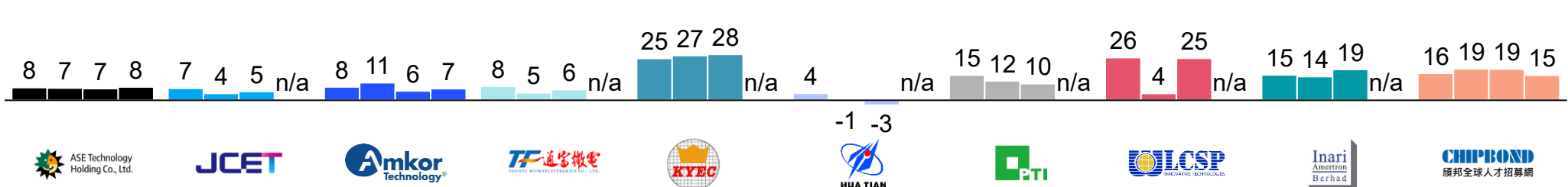
Quarterly y-o-y revenue growth and margin evolution, CQ3'2024-CQ2'2025¹

As of July 30th, 2025

Quarterly
y-o-y
Growth %



EBITA
margin %



1. Based on actual CQ25 number if reported, revenue growth measured in USD

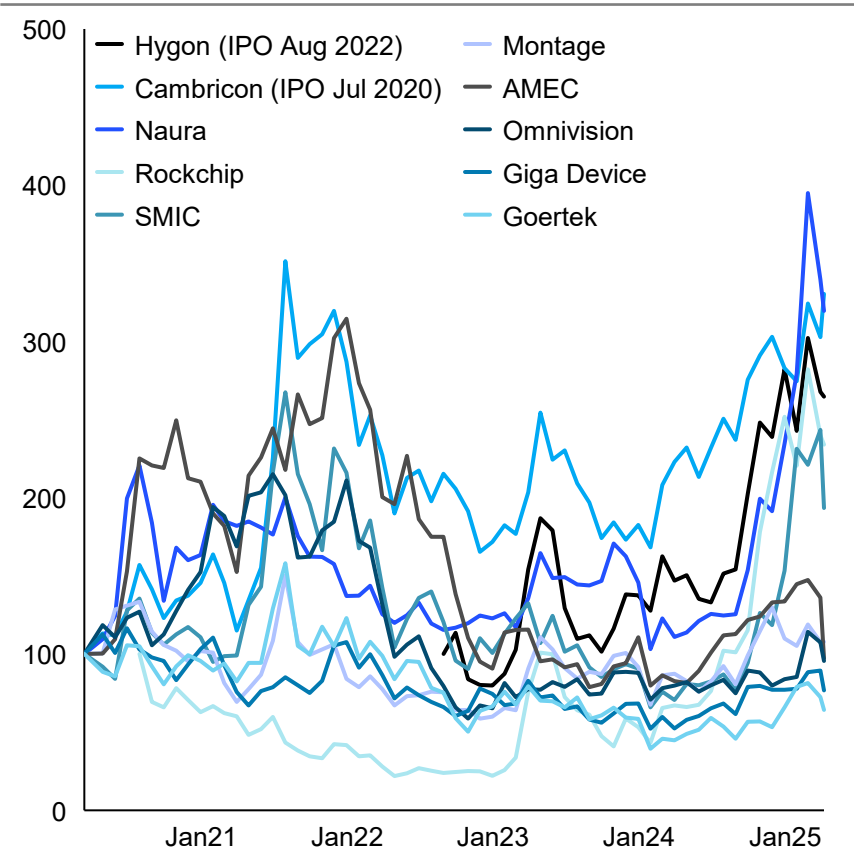
Mainland China performance

TSR across different time periods for top-10 (by market cap) established Mainland China

As of July 30th, 2025

xx Market Cap in USD Bn

Total Shareholder Return (TSR) Index
Jul 30, 2020 = 100



1. As of Jul 30, 2025

Total shareholder returns, Percent CAGR, USD

Top 10 players sorted by TSR	Last 5 years Jul 20 – Jul 25 ¹	Q1 2025 Jan 25 – Mar 25	Q2 2025 Apr 25 – Jul 25 ¹	Market Cap in USD Bn
HYGON	30	-5	0	45
Cambricon 寒武纪科技	25	-5	11	40
NAURA	20	7	15	35
Rockchip	12	59	-3	10
SMIC	12	45	8	63
MONTAGE Technology	0	16	13	14
AMEC	-1	-2	12	18
OMNIVISION [™]	-4	28	-6	21
GigaDevice	-6	10	7	11
Goertek	-10	2	-9	11

McKinsey
& Company

