

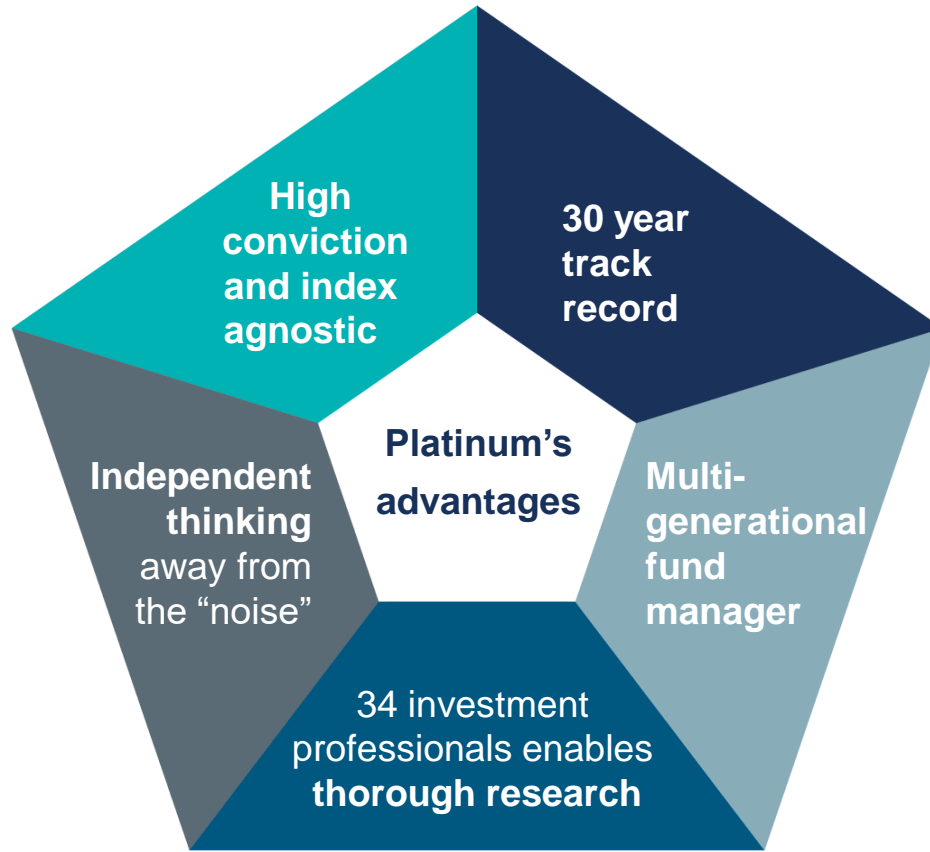


Platinum International Technology Fund

Fund in Focus Webinar
Friday 27 October 2023

Platinum Investment Management Limited ABN 25 063 565 006 AFSL 221935

Why invest with Platinum?



Specialist Technology & Communications team

In addition to drawing on the whole investment team



Jimmy Su

- ◆ Portfolio Manager of the Platinum International Technology Fund from Oct 2022
 - ◆ Joined Platinum in 2017
 - ◆ Previous experience as an analyst at BT and Morgan Stanley Wealth Management
 - ◆ CFA, BCom (University of Sydney)
-



Kevin Chan

- ◆ Senior Investment Analyst in the Technology and Communications team
 - ◆ Joined Platinum in 2011
 - ◆ Previous experience as a software engineer and business analyst
 - ◆ CFA, Beng Hons1, BSc (University of Sydney)
-



Tom Tao

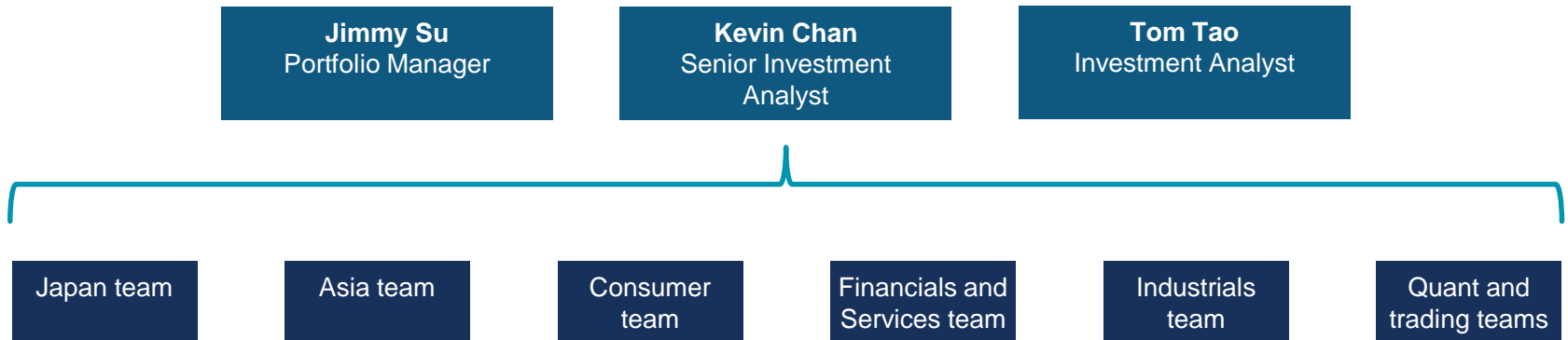
- ◆ Investment Analyst in the Technology and Communications team
 - ◆ Joined Platinum in 2021
 - ◆ Previous experience at Yarra Capital and Eight Investment Partners
 - ◆ BCom (Curtin), MFA (La Trobe)
-



23 years experience investing in technology

Dedicated Technology and Communications team

- ◆ Launched in May 2000.
- ◆ Invests primarily in technology and telecom securities.
- ◆ Also invests in providers of computing, networking and telecommunications equipment, software, semi-conductors and related capital equipment providers, IT services, as well network operators, content providers and “internet” based businesses



Outline of today's presentation

Section	Duration
Generative AI: misconceptions and investment opportunities	~15 minutes
Advertising: the next leg of growth for streaming	~ 5 minutes
Auto semis: unappreciated niche of the chips industry	~ 5 minutes
Q & A	

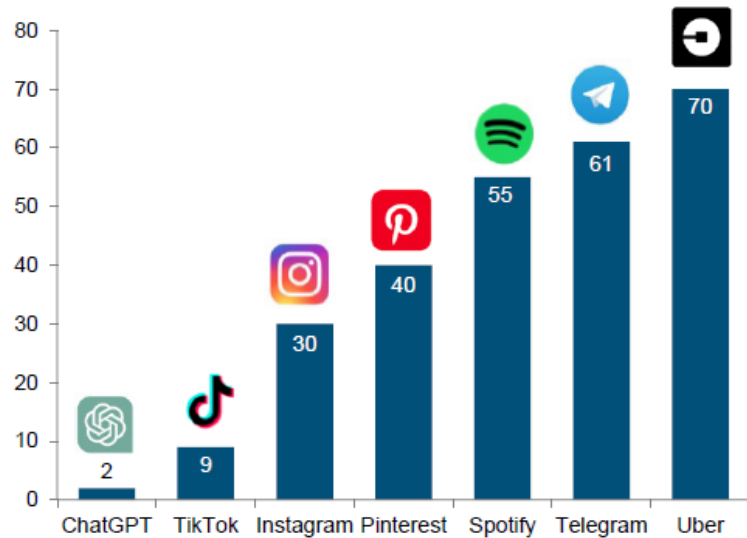


Generative AI

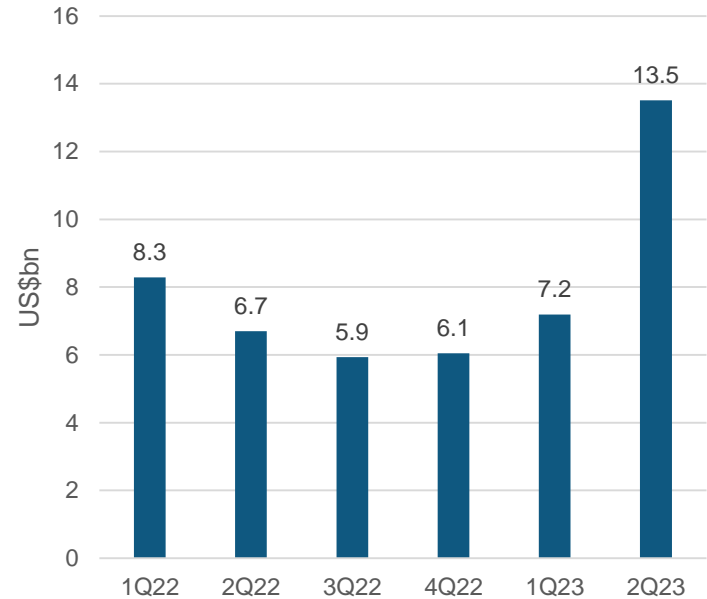
Misconceptions and investment
opportunities

GenAI most impactful narrative in tech this year

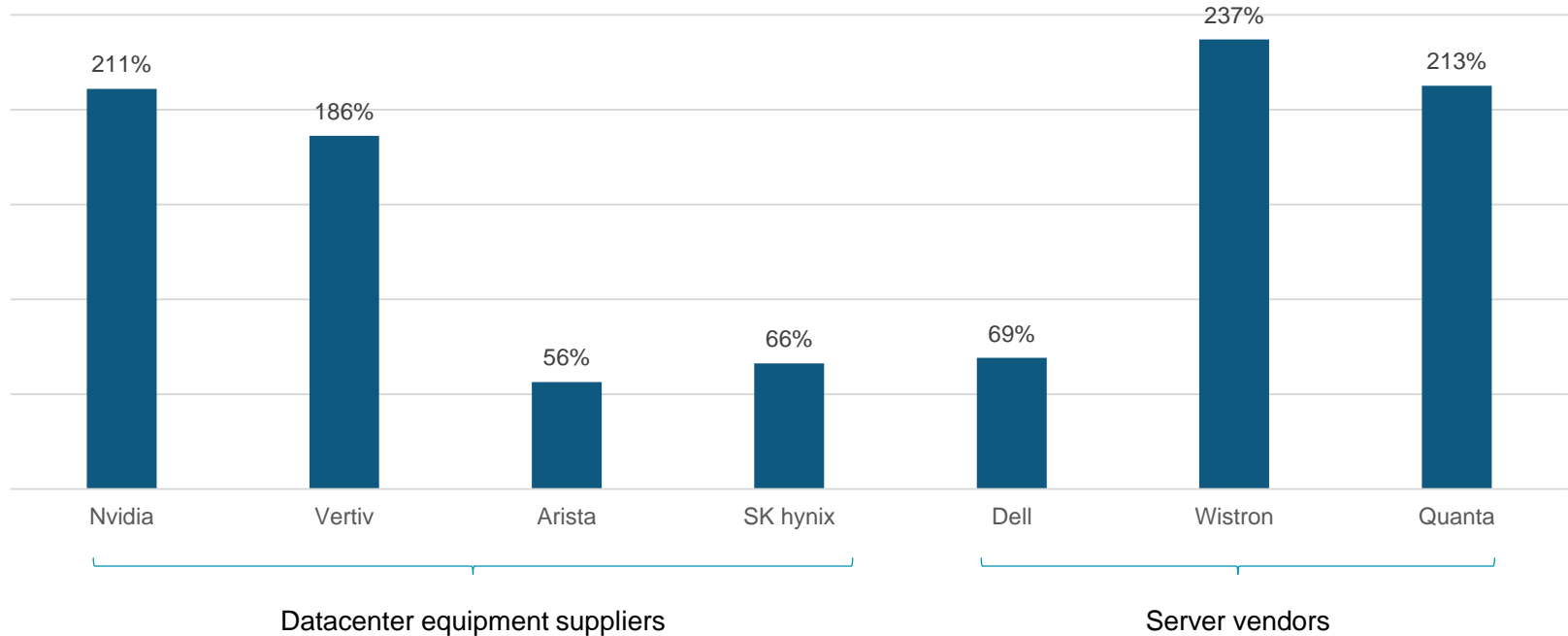
Number of months it took to surpass 100m users



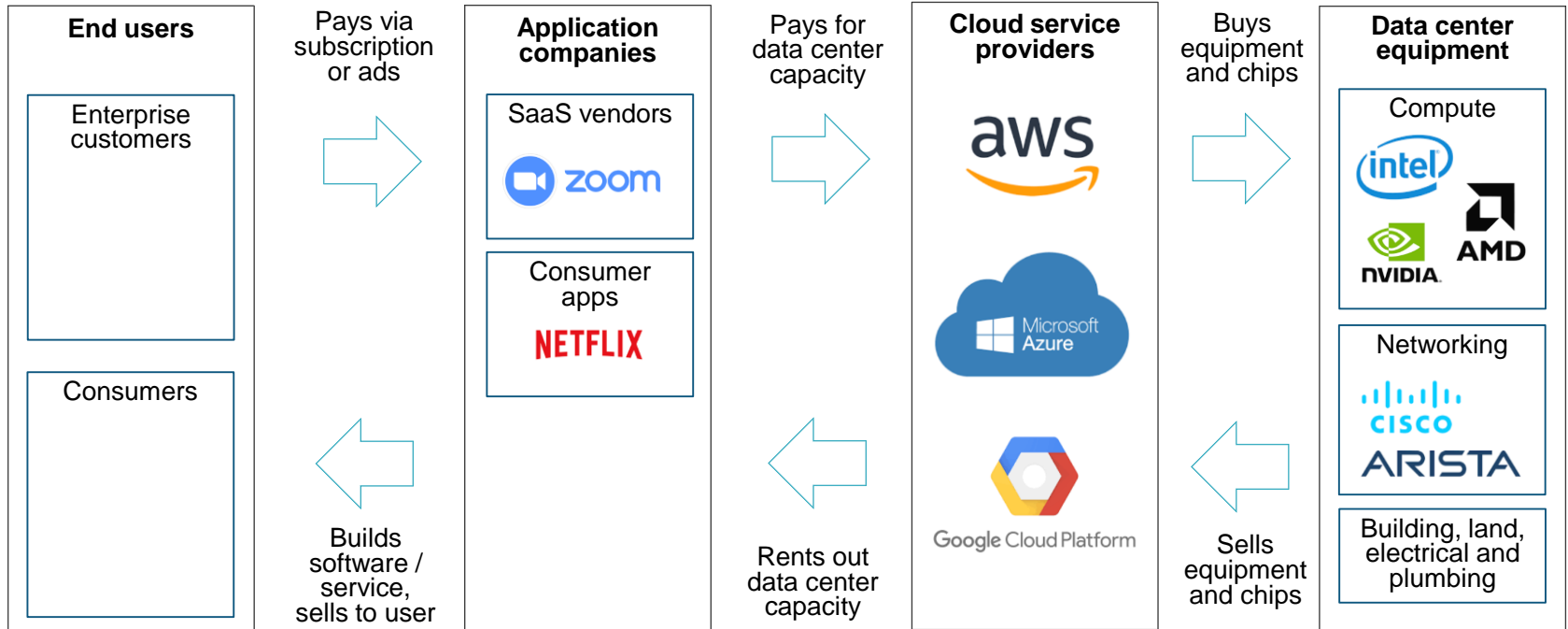
Nvidia quarterly reported revenue



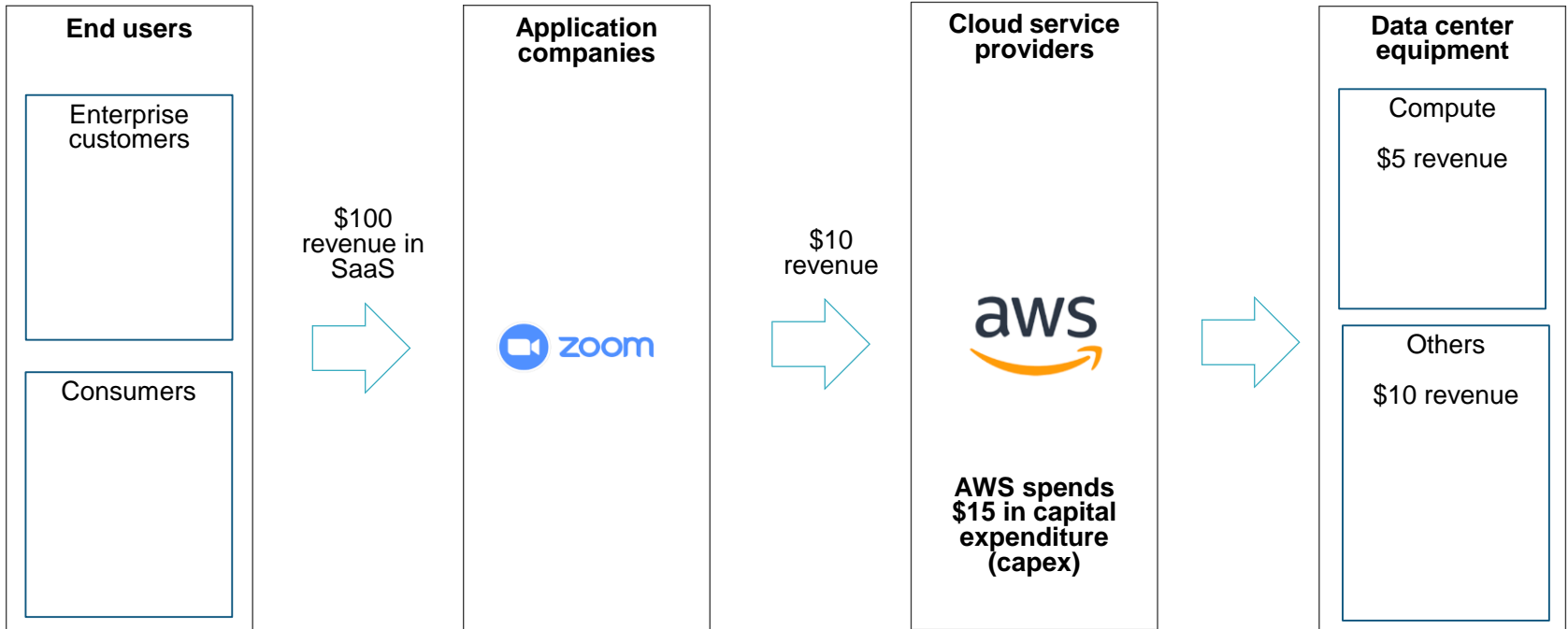
GenAI most impactful narrative in tech this year



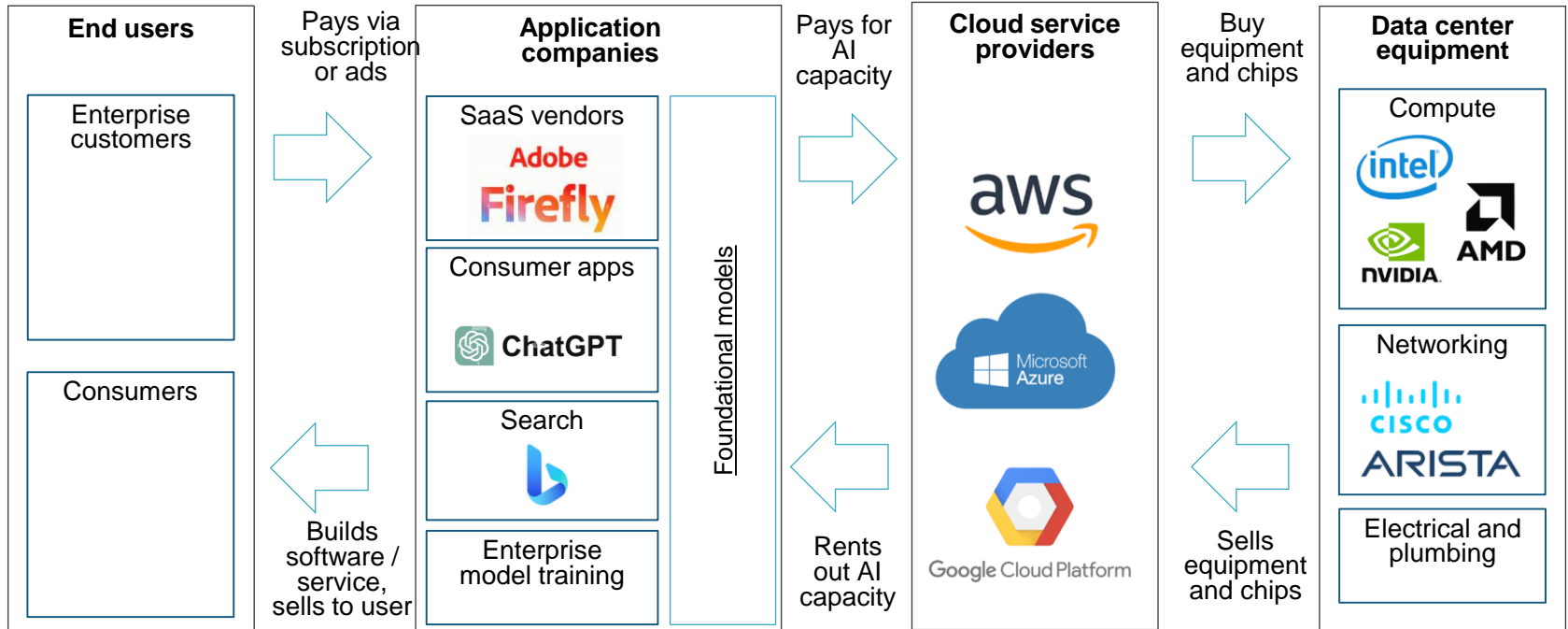
Cloud computing value chain



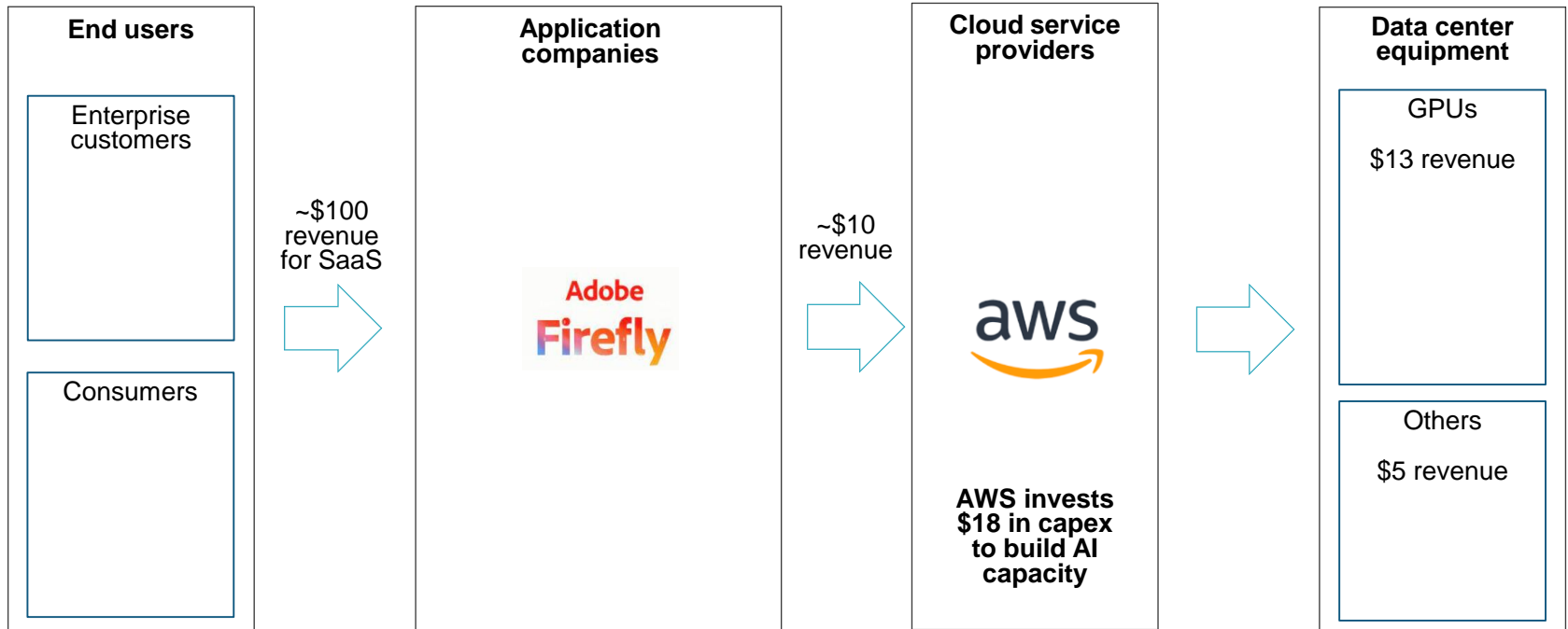
Cloud computing – unit economics



Generative AI value chain similar to cloud computing



Unit economics for AI is similar to cloud computing



Misconception #1

Media and investors focus on Nvidia and AI companies. The **crucial link between the two are the cloud service providers** who invests capital to provide the underlying infrastructure to the ecosystem.



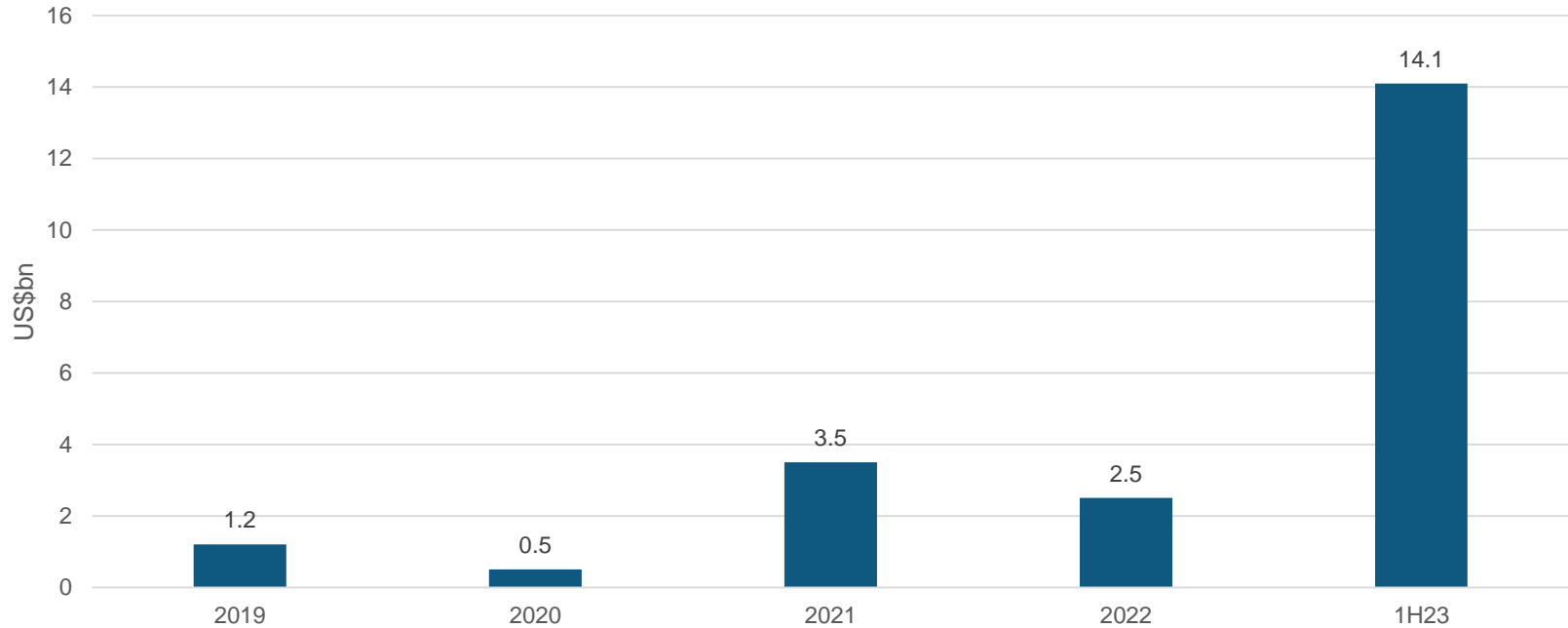
AI adoption still nascent

Demand in FY23	Today	Notes
SaaS vendors	<p>SaaS cos announced AI modules in 1H. Commentary more muted vs 3 months ago.</p> <p>Github Copilot at ~\$150mn in revenue.</p>	<p>Practical challenges -> move corporate data into cloud, governance, security, privacy, regulations.</p> <p>Monetization remains unclear and some SaaS vendors are giving AI modules away for free to drive adoption e.g. Zoom.</p>
Consumer app	<p>Open AI probably do \$1bn in revenue, Anthropic do \$200mn in revenue.</p>	<p>ChatGPT traffic and engagement metrics peaked in May and declining.</p>
Search	<p>Bing Copilot and Bard.</p>	<p>Market share data for search suggest very little or any impact at all on search market.</p>
Enterprise model training	<p>Most companies in early experimental phase.</p>	<p>Accenture said about 300 companies are testing, costs \$1mn per yr but most are personnel / consulting costs.</p>



VC and private markets still enthusiastic about gen AI

Equity funding in generative AI



Private funding driving demand for GPUs

AI application companies (~\$4bn raised)

- **Training new models and building AI products**, but use cases are unclear.
- Majority investing into AI assistants and HMI's – i.e. copy cats to ChatGPT.
- Don't make money, **reliant on external funding** to keep going.
- **Using cash raised to rent hundreds or thousands of GPUs for up to 3 years** in advance, causing GPU capacity shortage at CSPs.

Tier 2 CSPs (~\$10bn raised)

- Start ups, ex crypto mining and HPC businesses – “**the grift shift**”.
- Competing with the big 3 CSPs by **buying GPUs and renting them out for as much as 50% off**. This is a key driver of the GPU shortage.
- We estimate that **they made up as much as ~35% of the QoQ growth** in Nvidia data center revenues.
- Don't make money, **reliant on external funding to buy more GPUs** and keep going.



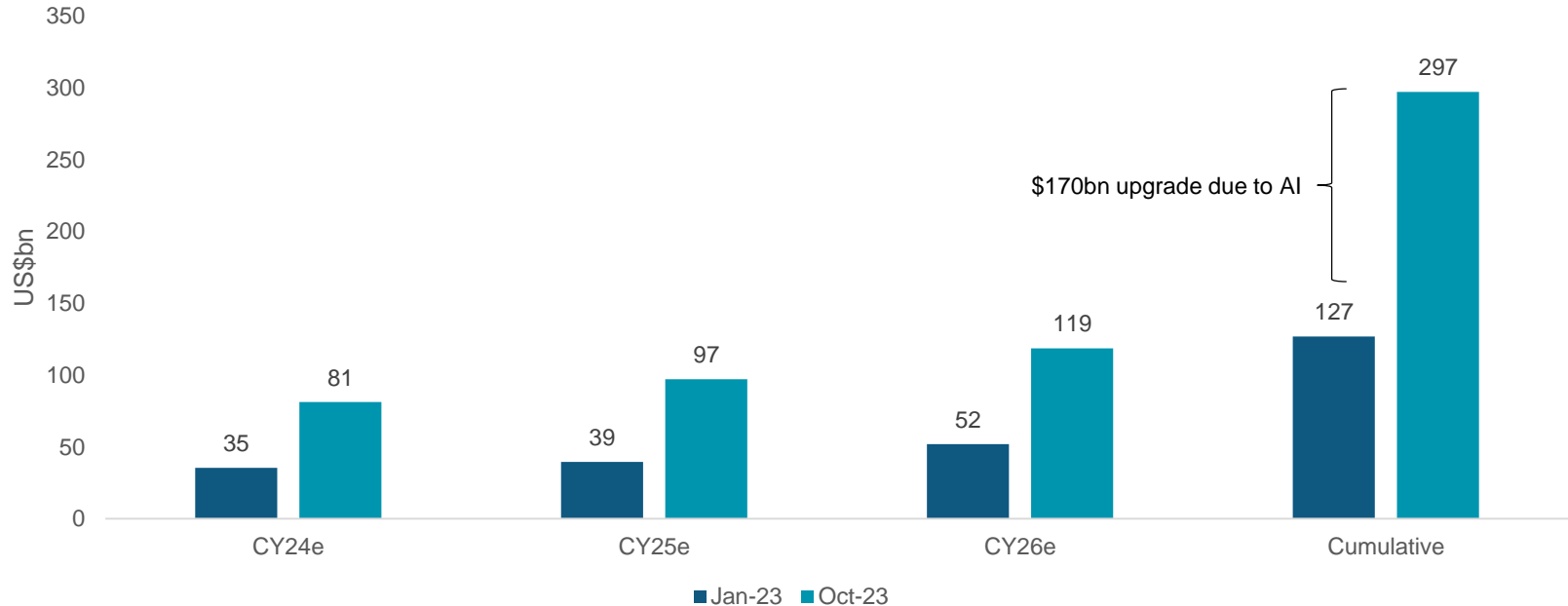
Misconception #2

GPU shortage is caused by flood of investor funding into the AI sector. **There is very little end demand for AI products.** Sector growth at risk of investors losing confidence and withdrawing further funding.

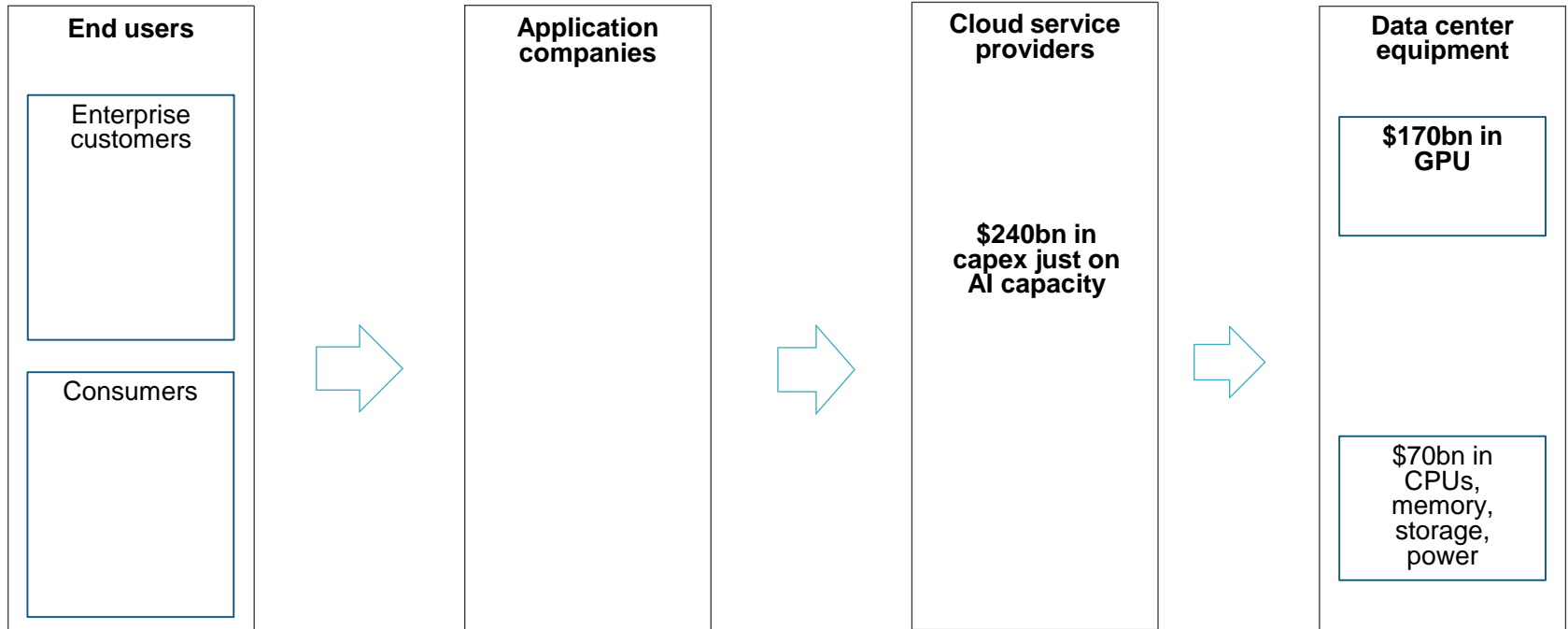


Market thinks NVDA sells \$170bn AI GPUs over 3 years

Consensus revenue forecast - NVDA

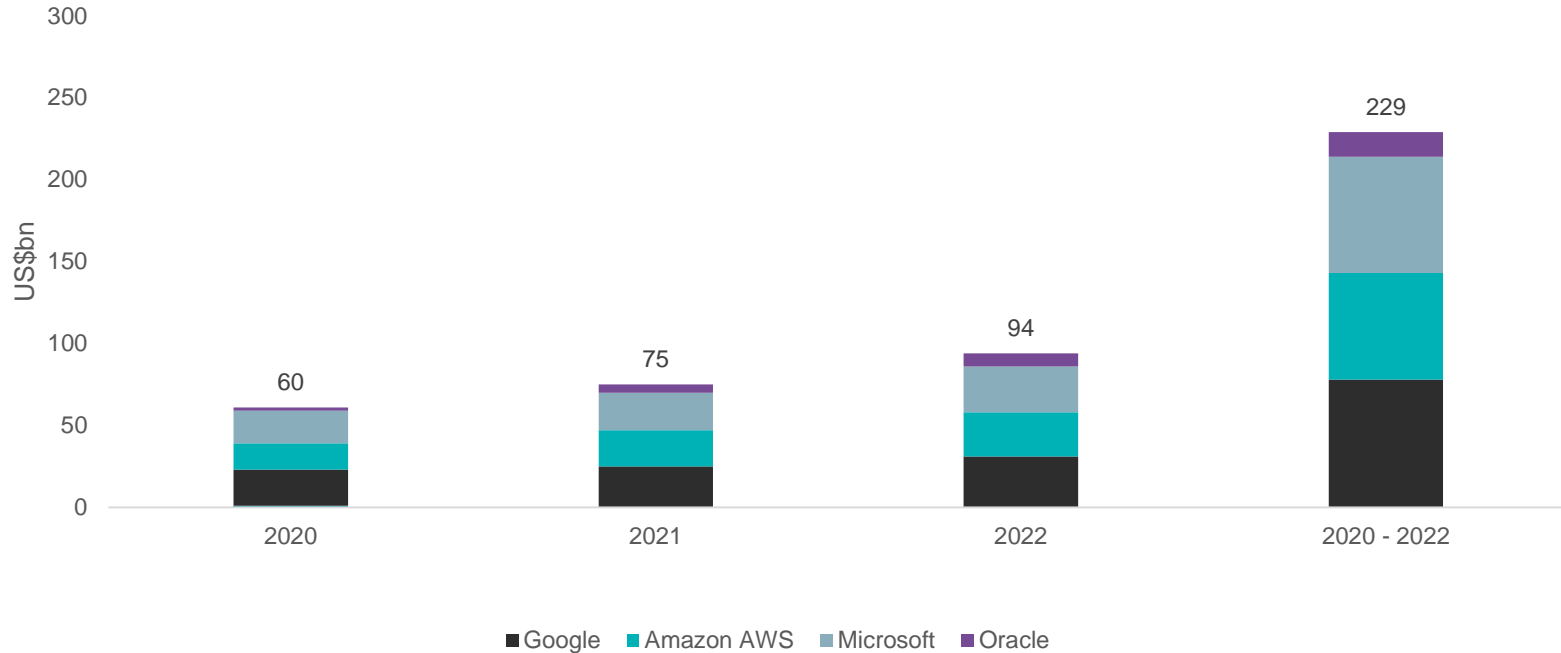


Implies CSPs to spend ~\$240bn on AI over next 3 years...

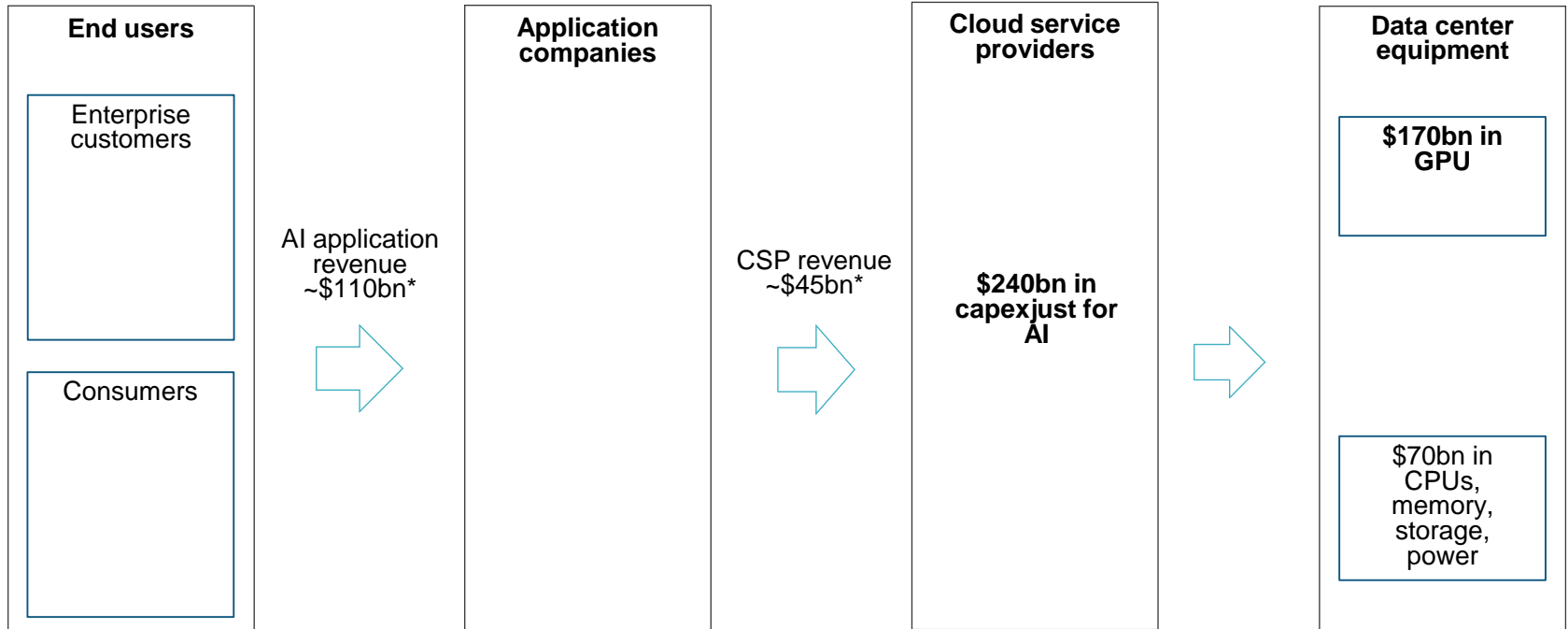


... and double capacity expansion vs last 3 years

Cash flow statement – Capital expenditures



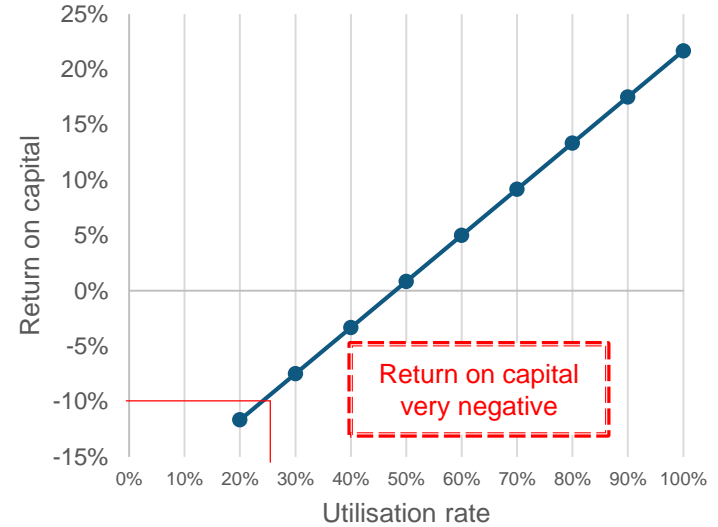
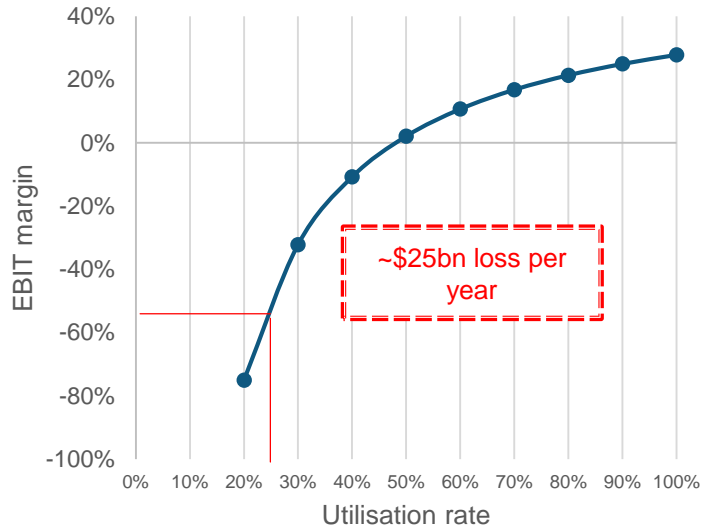
We (optimistically) think revenue will only be ~\$45bn...



*See appendix for details



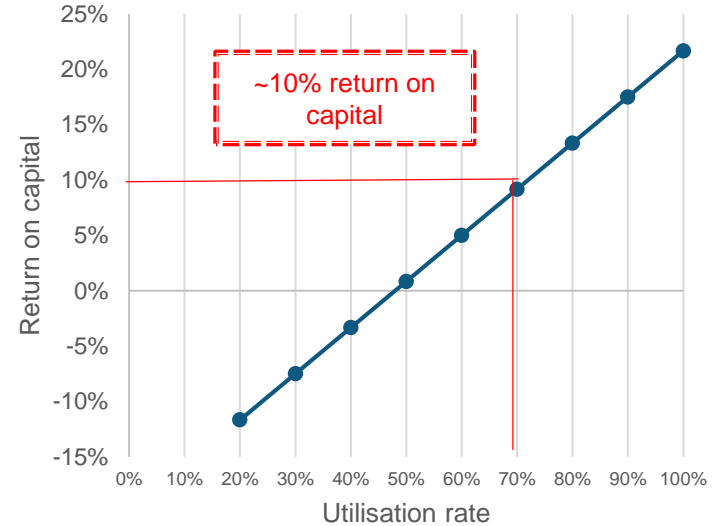
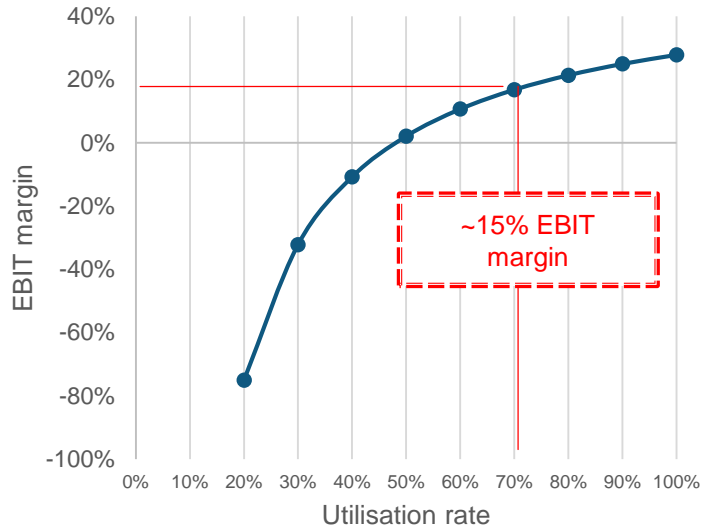
... and the industry will be heavily loss making



Industry added too much capacity and not enough demand to fill it



To make ~10% ROC, CSPs need to do ~\$180bn in revenue



IaaS industry revenue was ~\$160bn in 2022. We don't think it's reasonable to assume this doubles in 3 years



Misconception #3

We don't think Nvidia revenues can grow in line with expectations over the next three years. Absent of killer apps or solutions which can soak up the capacity, **such level of investment implies an overcapacity problem.**

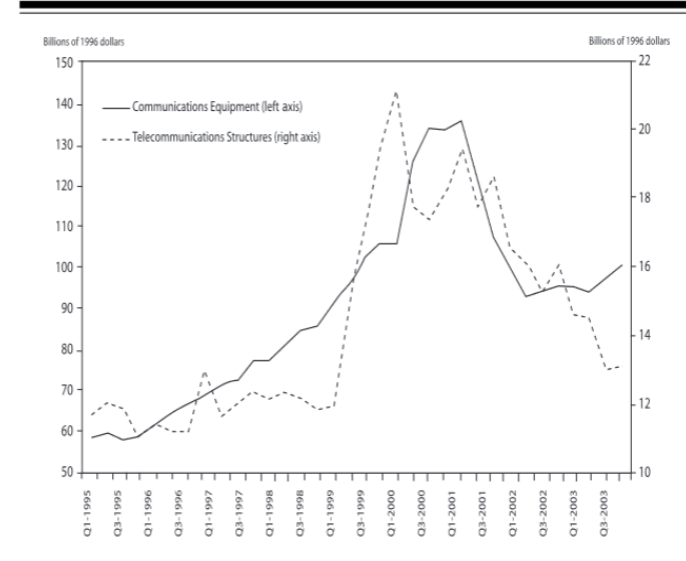


Cisco in the telco boom and bust 1996 – 2002

Background

- 1996 – 2000 **US telecommunications industry tripled fiber capacity** from ~105k miles to ~355k miles.
- **Internet usage was growing quickly** and new entrants added own fiber capacity.
- Capex benefited equipment providers who sold switches and fiber to the telcos. **Revenue more than doubled from \$62bn to ~\$135bn.**
- By 2000, **only ~3% of capacity was utilized**, weakening macro, investors lost confidence in new entrants and funding dried up.
- **Telcos cut back on fiber investments** and equipment sales fell from ~\$135bn to ~\$90bn a year later.

Figure 2 Real Private Fixed Investment in Communications Equipment and Structures



Source: BEA/Haver



Cisco in the telco boom and bust 1996 – 2002

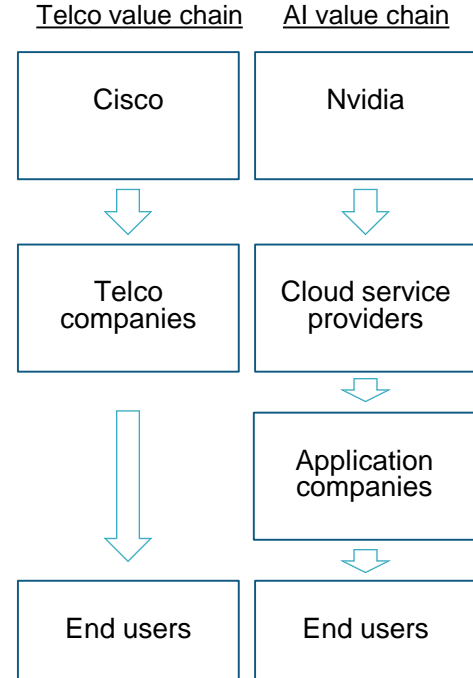
Cisco

- Cisco revenue grew from ~\$4bn to ~\$22bn (**+40% p.a.**).
- Stock was trading on **25x sales** in 2000.
- Investors **justified this valuation by assuming Cisco's revenue will continue to grow at that rate well into the future** driven by growth in internet demand and strong telco capex growth.
- When the bubble burst and equipment sales began falling, stock went from ~\$80 to ~\$20 (-75% decline).
- Investors had **reset the growth expectations much lower.**



Cisco in the telco boom and bust 1996 – 2002

Factors	Cisco in telco boom/bust	Nvidia in 2023
Capital intensity of customers	High – laying fiber	High – adding GPU capacity
Capacity expansion by new entrants	Qwest, Level 3, IXC	CoreWeave, Lambda, Applied Digital
New entrants' business models	Undercut incumbents on price, profitability questionable	Undercut incumbents on price, profitability questionable
Bullish demand side forecasts	“Internet use doubles every 3 to 4 months”	“GenAI will double IT spend”
Use cases and monetization	Internet – unsure	GenAI - unsure
Valuations	P/S 25x at peak	P/S 21x for CY23e



Investor enthusiasm, capacity overbuilds and stock market boom and busts in capital intensive industries is not new...



Misconception #4

“This time it’s different”.



Positioning

Positioning	Examples	Fund position
Avoid bets on how big AI will be	Nvidia, Dell, Vertiv	-
Buy companies where generative AI can be a sustaining innovation and valuations are reasonable	Adobe (see our September quarterly), Microsoft	~7%
Short business models disrupted by Dall E and ChatGPT today	Freelancer marketplace businesses, stock photo businesses	~2%
Short AI hype businesses	AI stock promotion schemes, R&D projects masquerading as real businesses	~1%



In summary

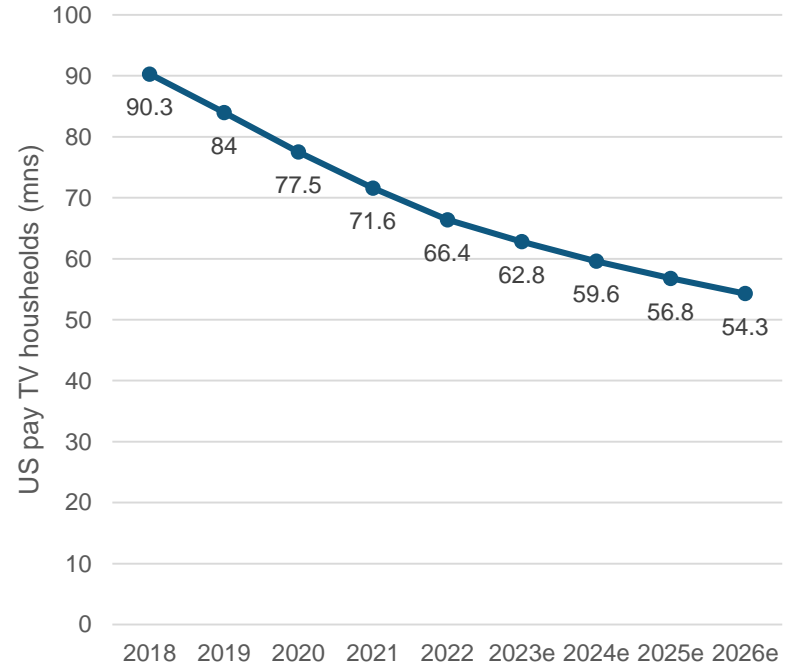
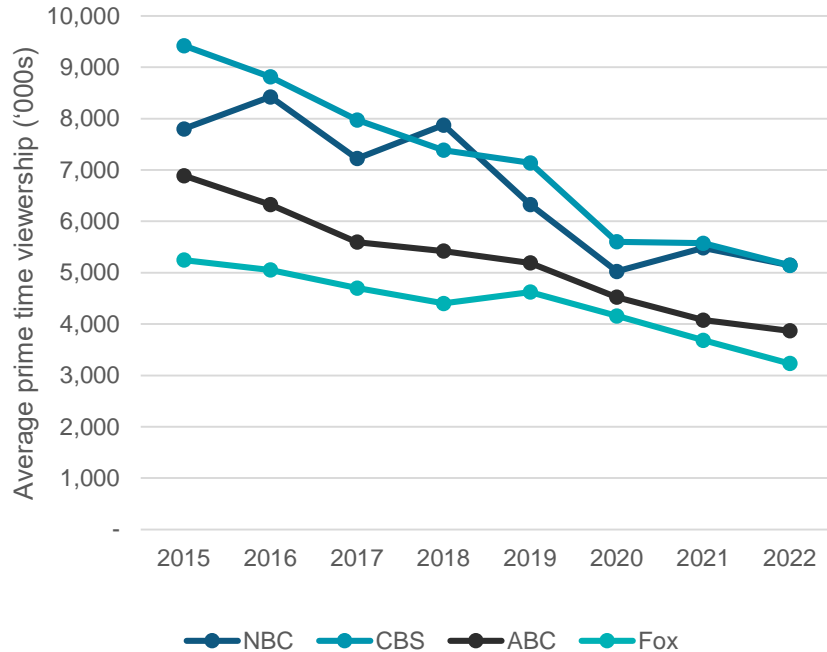
1. We think the market is **over-estimating the demand for GPUs**, the current growth in GPU demand is being driven by private markets and VC funding and not end demand;
2. We saw the same thing happen in the telco boom and there are some **scary similarities between the peak hype in Cisco and Nvidia**; and
3. We prefer to play AI where it is a **sustainable innovation tool and valuations are reasonable** like Adobe and via **crucial infrastructure companies where the enthusiasm has not been priced in.**



Advertisements

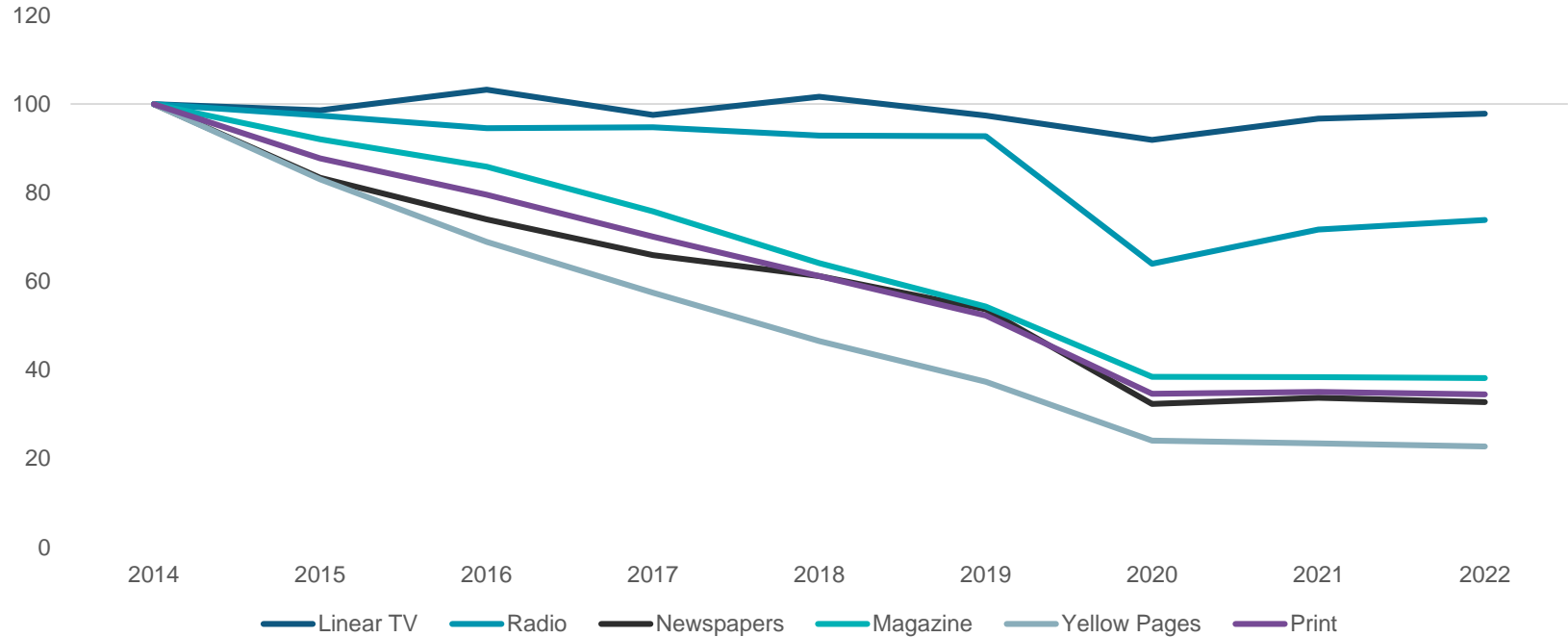
The next leg of growth for streaming

US households watching less linear TV



Brands still spending \$60bn a year on linear TV ads

US traditional media advertising spend in US\$ - indexed to 100



Major streaming services are adding ad inventory...

Netflix

STEP 1 OF 3

Choose the plan that's right for you

- ✓ Watch all you want.
- ✓ Recommendations just for you.
- ✓ Change or cancel your plan at any time.

	Standard with ads	Standard	Premium
Monthly price	A\$6.99	A\$16.99	A\$22.99
Video and sound quality	Good	Good	Best
Resolution	1080p	1080p	4K+HDR
Watch Netflix on your TV, computer, mobile phone and tablet	✓	✓	✓
Downloads	—	✓	✓

[See all plans](#)

Amazon

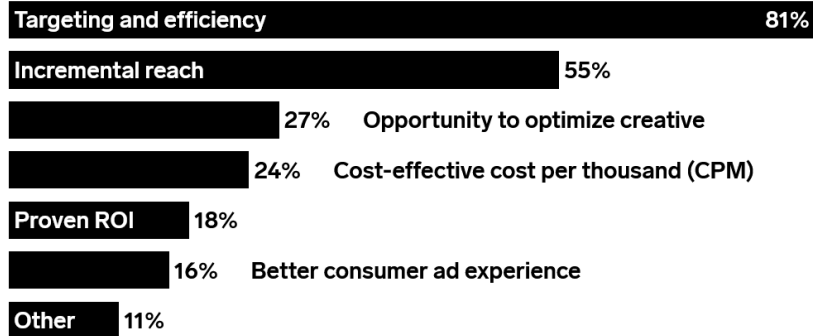
To continue investing in compelling content and keep increasing that investment over a long period of time, starting in 2024, Prime Video shows and movies will include **limited advertisements in Australia**. We aim to have meaningfully **fewer ads** than linear TV and other streaming TV providers. No action is required for Australian Prime members. We're not making changes in 2024 to the current price of Prime membership. We will also **offer a new ad-free option and will share the price of that option at a later date**. We will email Prime members several weeks before ads are introduced into Prime Video with information on how to sign up for the ad-free option if they would like.



We expect linear ad budgets to move across to AVOD

Reasons US Agencies and Brand Marketers Are Shifting Linear TV Budget to OTT/Connected TV (CTV) in 2021, Nov 2020

% of respondents

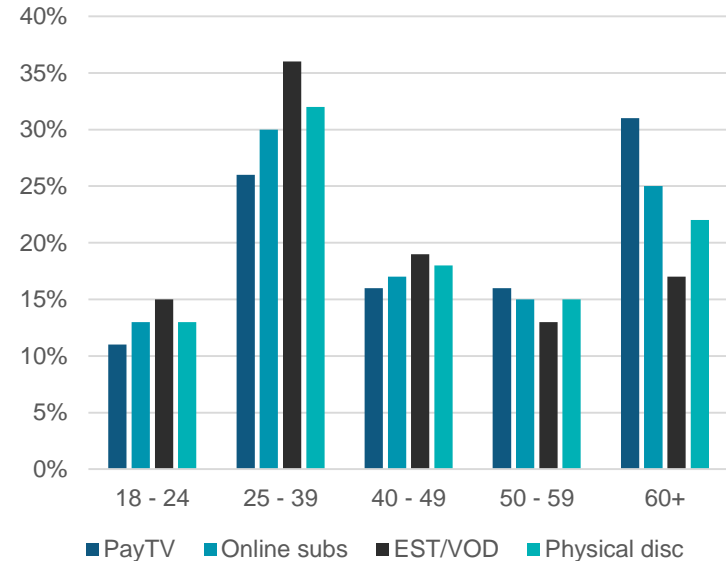


Note: n=74 who are shifting linear TV budget to OTT/CTV in 2021; top 3 responses
 Source: Interactive Advertising Bureau (IAB), "2021 Marketplace Outlook Survey Results," Dec 15, 2020

261880

eMarketer | InsiderIntelligence.com

2021 age group share of adult population



Framework on who likely wins – Amazon and Netflix

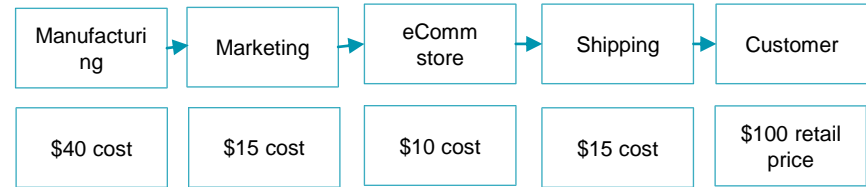
	Consideration	Amazon	Netflix	Apple	Disney + Hulu	Warner Discovery	Paramount	NBC Peacock
Ability to attract users to service	Shows (2022)	~1.5k	~2k	81	~2k	~2.7k	~700	~1k
	Movies (2022)	~7k	~4k	44	~2k	~3k	~2k	~2k
	Share of total viewership (Sept 2023)	4%	8%	< 1%	~6%	< 2%	< 2%	< 2%
	Capacity to spend	High	Medium	High	Low	Low	Low	Low
Ability to generate high ROI ad inventory at scale	Ability to scale ad inventory	Fast	Slow	Slow	Slow	Slow	Slow	Slow
	Quality of data for targeting	High	Medium	Low	Medium	Medium	Medium	Medium
	Technical competence	High	Medium	High	Low	Low	Low	Low
	Mgmt team rating	Very good	Very good	Good	Poor	Poor	Very poor	Poor



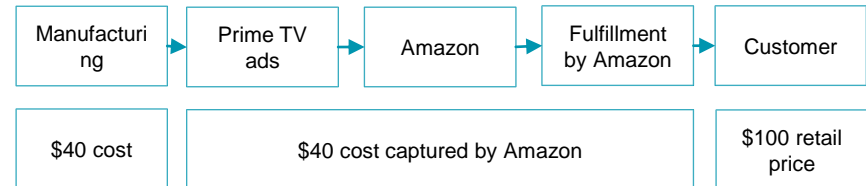
AVOD is one of many reasons why we own Amazon

	2024e	Medium term
AMZN AVOD - non sports		
Monthly MAUs (mn)	50	50
Ad CPMs	25	25
30 sec ads per hour	4	10
Hours watched per day	0.5	1
Ads per day	2	10
Hours watched per month	15	30
Mthly ad revenue per MAU	1.5	7.5
Ad revenue (US\$m)	900	4,500
Incremental AVOD costs	20%	20%
Incremental EBIT (US\$m)	720	3,600
Amazon FY23e EBIT (US\$m)	28,626	28,626
Relative change	3%	13%

Traditional eCommerce cost structure for brands



Amazon eCommerce cost structure for brands



Positioning

Positioning	Fund position
Long Netflix and Amazon	~8%
Short media stocks with large exposure to linear ad revenue and high debt load	~1%



In summary

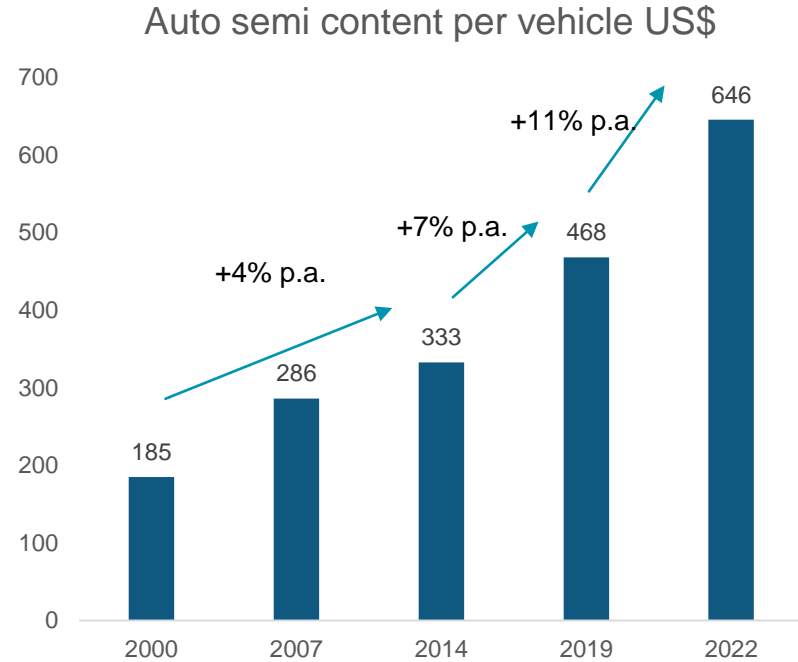
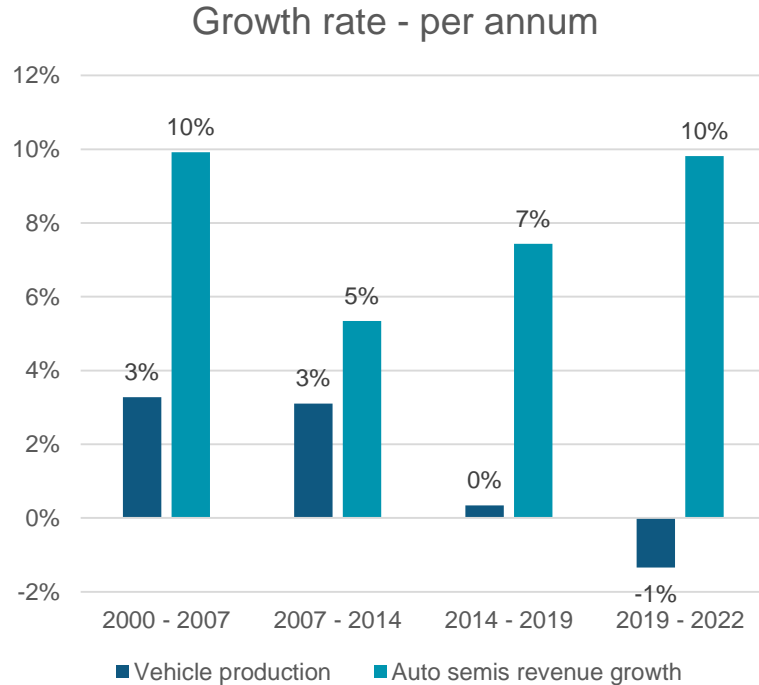
1. We think the next leg of growth for streaming services is **ad revenue**;
2. We think there will be 2-3 winners and the **most likely winners are Amazon and Netflix**; and
3. We think advertising could add ~US\$720m in revenue for Amazon in 2024 and **~US\$3.6bn in the medium term.**



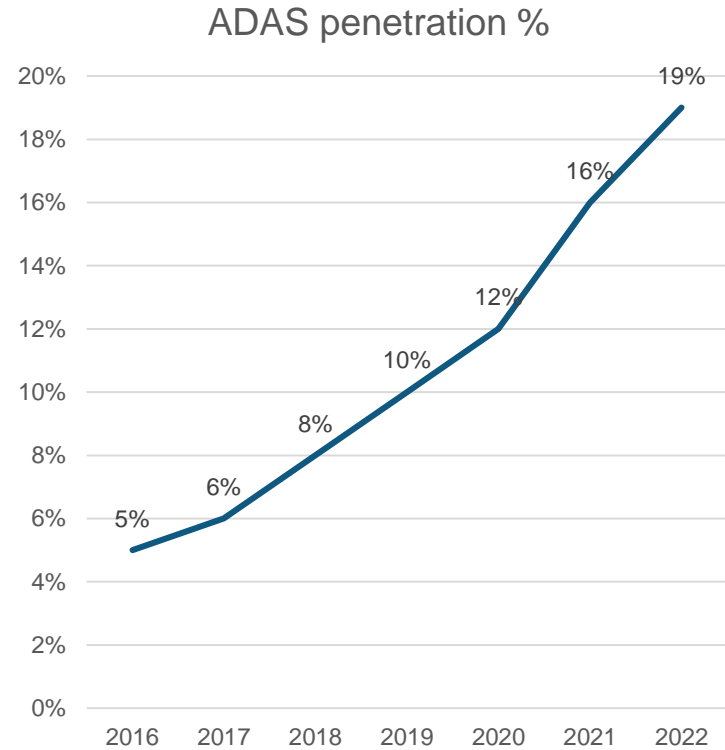
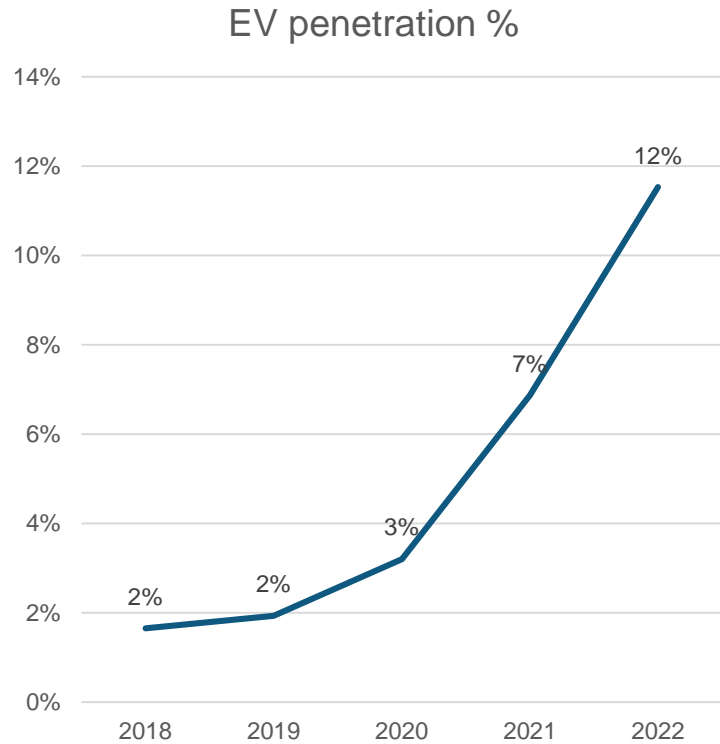
Automotive semiconductors

Underappreciated niche of the chips
industry

Auto semis revenue growth accelerated in last 3 years

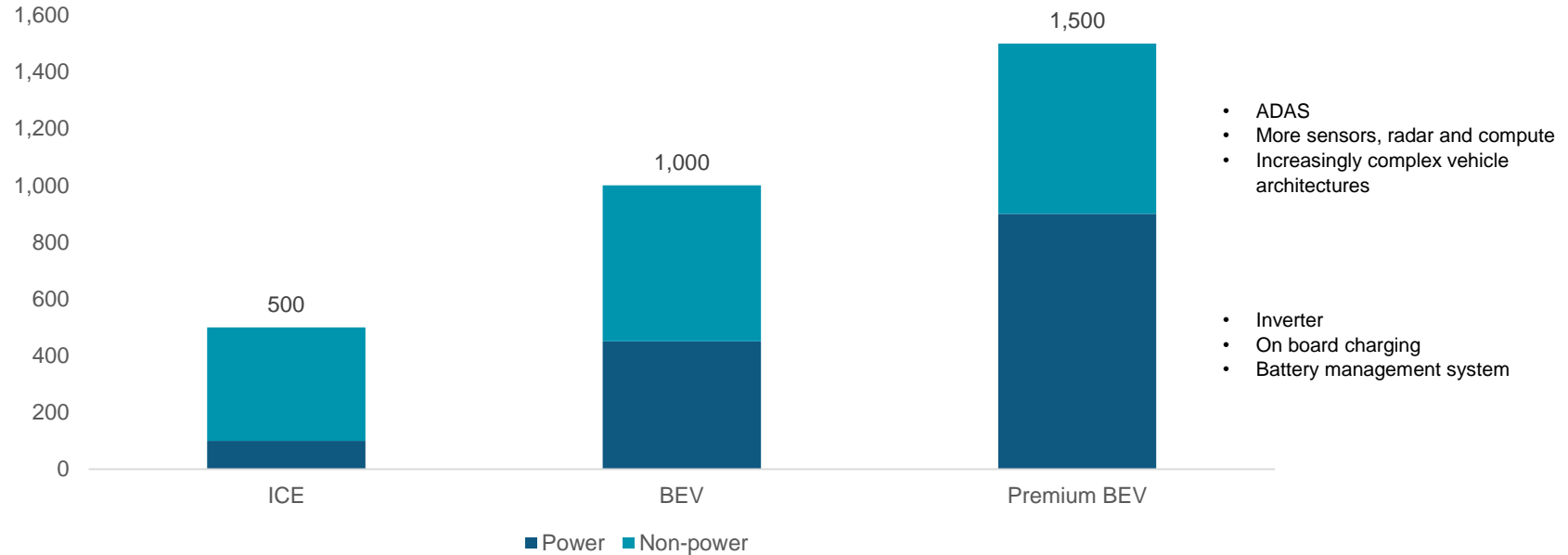


This was driven by increased penetration of EV and ADAS

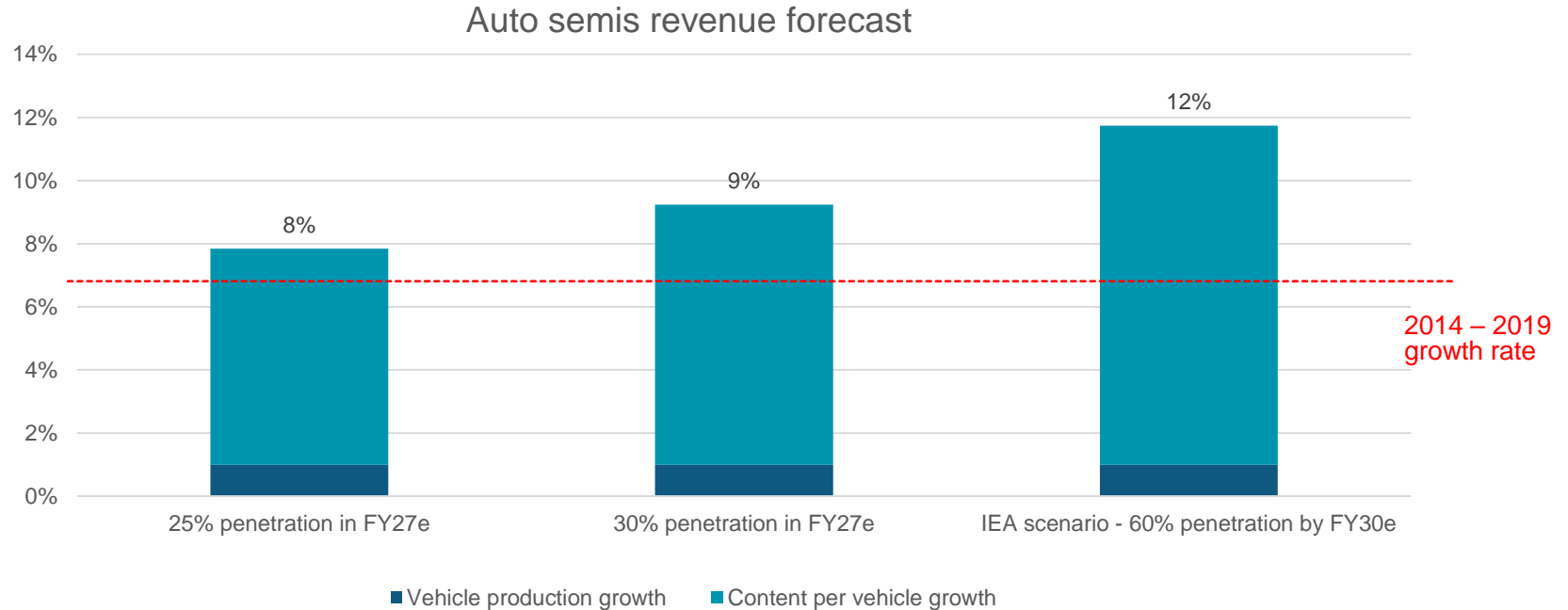


There's 2-3 x more chips in an EV vs ICE

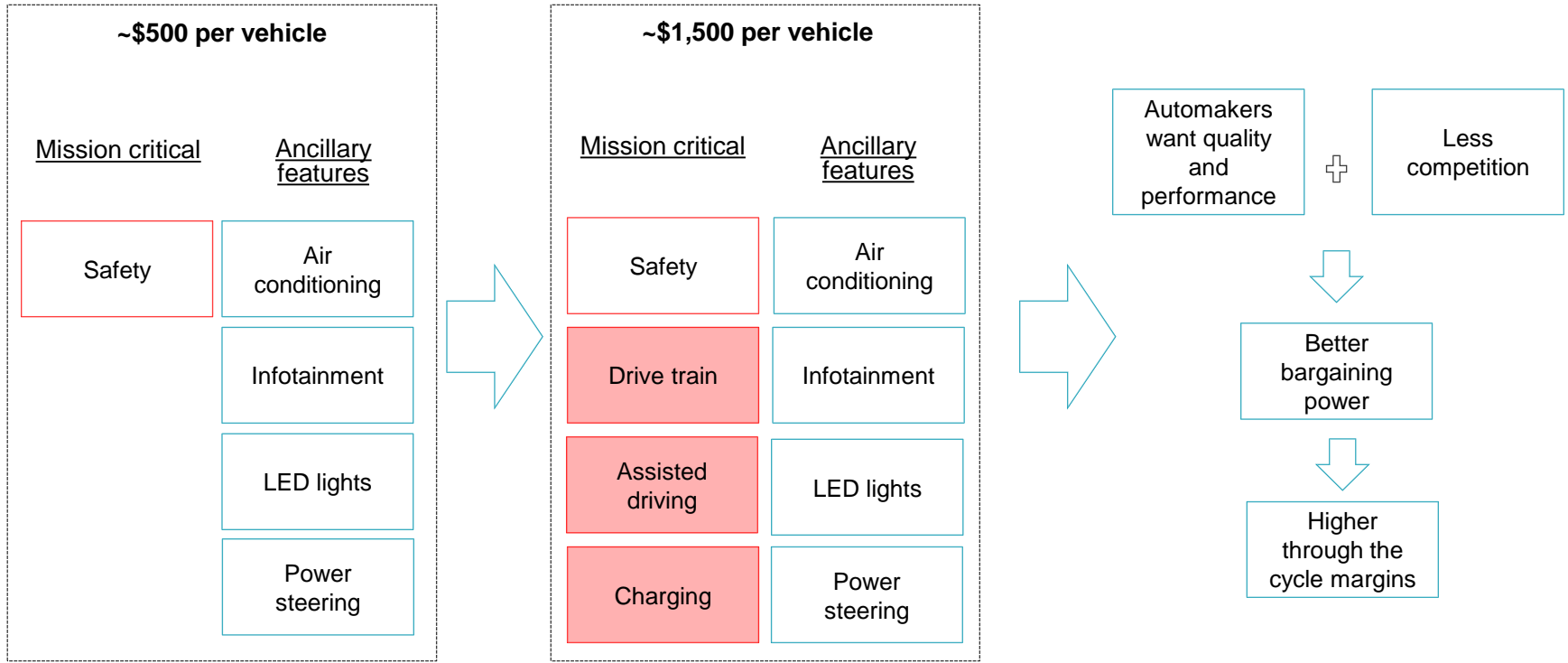
Auto semi content per vehicle US\$



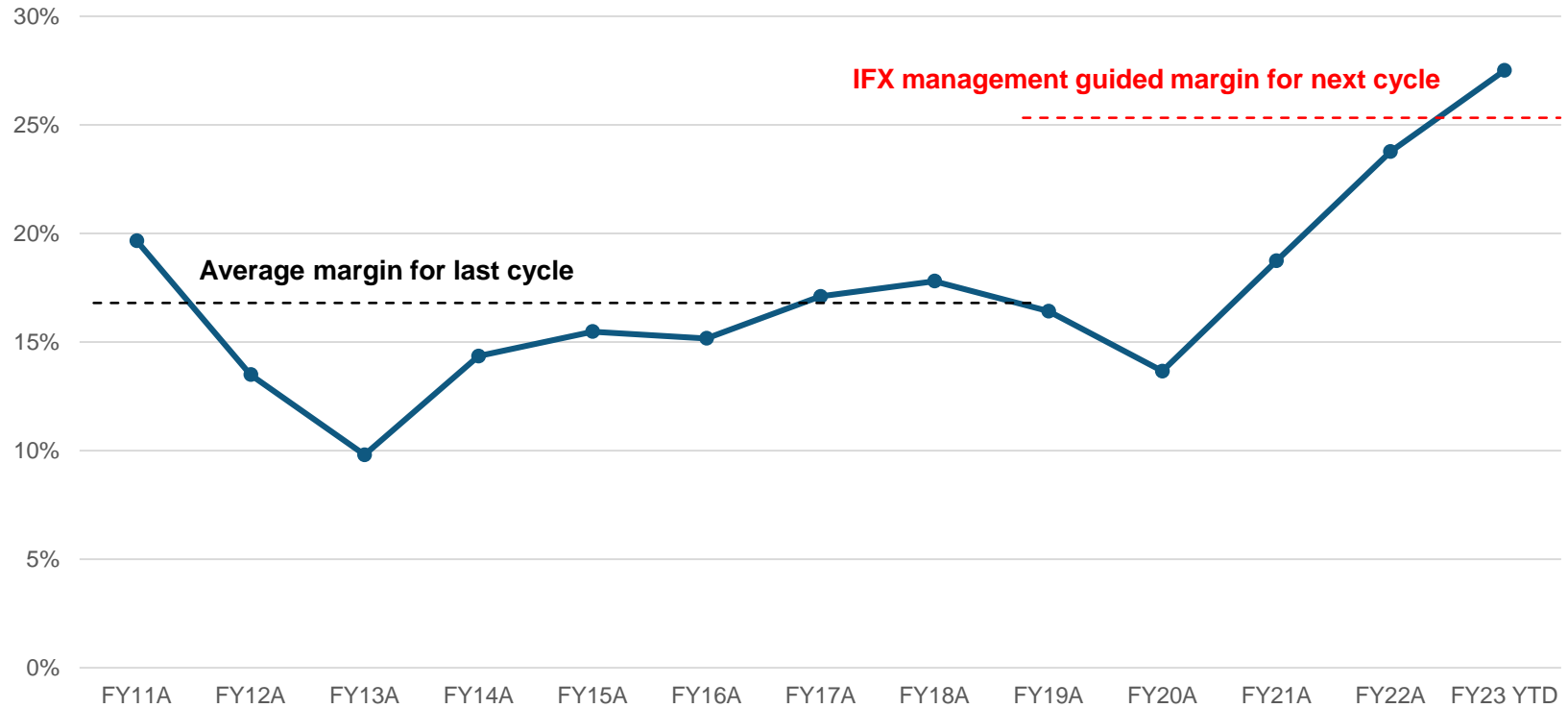
ICE to EV transition to drive faster revenue growth...



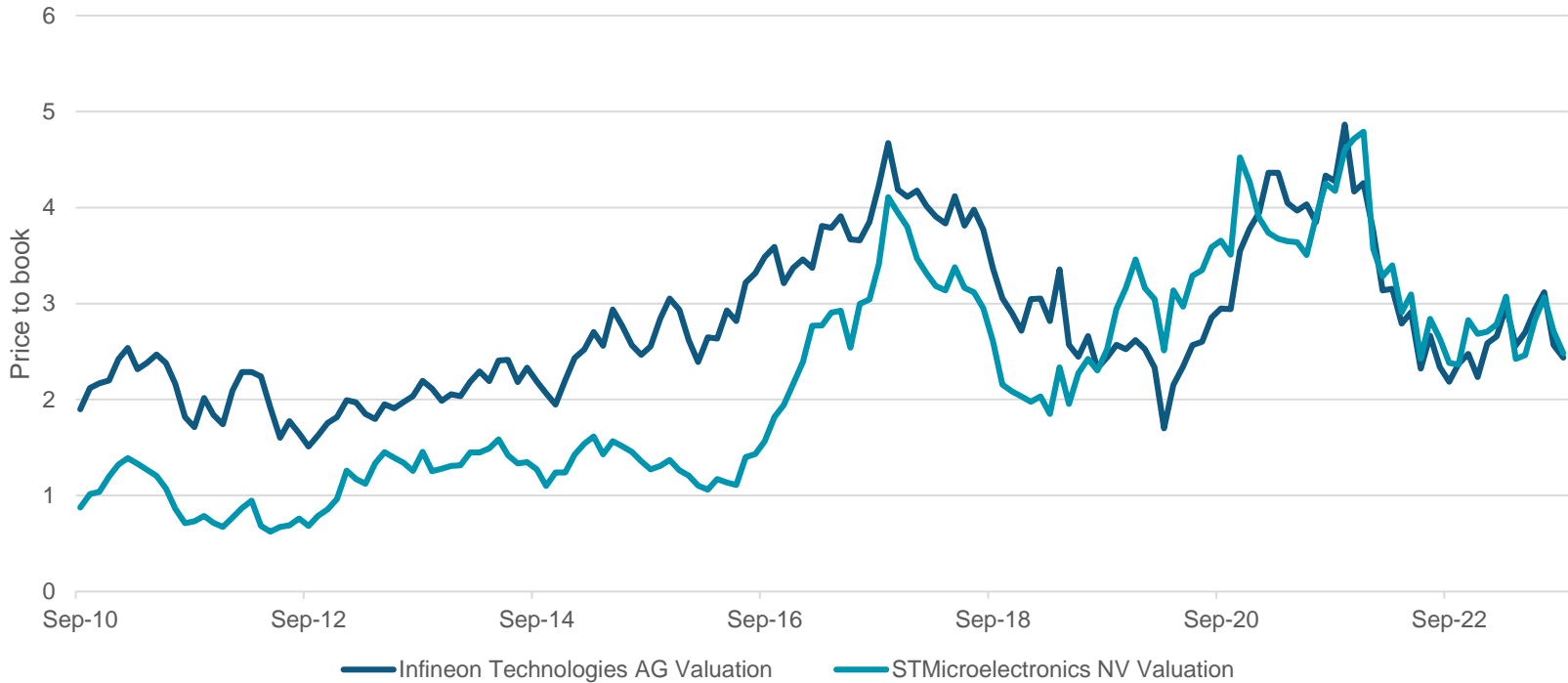
... and margins will likely be structurally higher vs history



Infineon segment EBIT margin



Stocks are trading in line with historical valuations



Positioning

Positioning	Examples	Fund position
Long auto semi cos in leading market positions with technology and/or cost leadership	Infineon, STMicro, NXP, Mobileye	~9%



In summary

1. We think the growth in electric vehicles and assisted driving will underpin **accelerated revenue growth for automotive semiconductors** for the medium to long-term;
2. We think automotive semiconductor manufacturers will be able to **earn better margins** as the semiconductors are used in mission critical applications where quality trumps price; and
3. We think the **market has not priced in this level of growth** given concerns over a coming recession.



The Investment Specialist team is here to help



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We're here to help: in-depth quarterly reports & The Journal

THE PLATINUM TRUST QUARTERLY REPORT 30 SEPTEMBER 2023 1

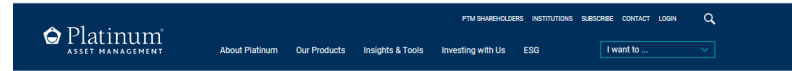
Platinum International Technology Fund



Jimmy Su
Portfolio Manager

Overview

- The Fund was down less than 1% in the past quarter whereas the technology benchmark fell over 3%. Key contributors to performance include Universal Music Group, Black Knight, Soitec and Bookings.
- In the generative AI (genAI) space we look for companies where these new technologies will drive new avenues for profitable revenue growth and strengthens the company's competitive position. We're also focussed on companies that can capture value by charging for these products. One example is Adobe, the digital experiences business with a dominant position in creative software. Its Firefly genAI product is embedded within its apps and Adobe is working to monetise this genAI product. As with most software products, Firefly's incremental margins should be relatively high.
- Current market conditions feel a lot like 2021, in that one needs to move down the quality and risk spectrum to find half-decent returns. However, instead of chasing those short-term returns, the team has been patient. On the long side, we are spending time identifying a list of quality businesses we would like to own at the right price. We recently returned from a research trip to the US with a list of prospects worthy of further investigation.



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The Journal

Funds in Focus: Platinum International Fund

BY ANDREW CLIFFORD, CLAY SMOLINSKI AND NIK DVORNAK 20 SEP 2023

In our latest Funds in Focus adviser webinar series, the portfolio managers for the Platinum International Fund, Andrew Clifford, Clay Smolinski and Nik Dvornak, discuss why the Fund is a truly global portfolio that is quite unique and where they are finding exciting opportunities around the world. They also provide an update on the Fund's portfolio positioning and

Watch now



Recent articles

Funds in Focus: Platinum Asia Fund

BY ANDREW CLIFFORD AND KIRI HIRA 07 SEP 2023

In our fifth Funds in Focus adviser webinar series for 2023, two of the portfolio managers for the Platinum Asia Fund, Andrew Clifford and Kiri Hira, discuss the exciting opportunities they are continuing to find in Asia. Challen...

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Video - Platinum's Back on the Road

BY PLATINUM ASSET MANAGEMENT 29 AUG 2023

Our investment team is back on the road, meeting with companies and visiting factories, tech hubs, luxury stores and science labs, to name a few, all over the world, from India to Norway, in search of new investment opportunities...

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Q&A

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Thank you

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Appendix

Our (optimistic) estimate of AI demand in 3 years' time

Potential sources of demand in FY26e	Application revenue in 3 years' time	CSPs revenue in 3 years' time
SaaS vendor	\$50bn -> SaaS market globally \$800bn, assume 30% ARPU uplift and 25% penetration	\$5bn -> CSPs revenue typically 10% of SaaS revenue
Consumer app	\$12bn revenue -> assume ~10x increase from ChatGPT like apps	\$3bn -> CSPs revenue ~25% of consumer app revenue
Search	\$36bn -> assume AI is ~20% of search volumes	\$18bn -> CSPs revenue ~50% of search revenue
Enterprise model training	\$15bn -> Models cost \$5mn to train, 500 companies in US, Europe, and China train 2 models per year	\$10bn -> ~75% pass through, ~\$5bn goes to consultants
AI companies	-	\$8bn -> assume funding into this space 3x to \$15bn , 50% is spent on GPU capacity, remainder on opex
Total	~\$110bn	~\$45bn



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