海通國際 HAITONG

AI ROI系列报告（一）
被高估的恐慌，四重验证回报改善

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核心结论

在近期市场对AI叙事再次产生担忧的背景下，结合供需两端，我们认为本轮AI投入在短中期仍具有可持续性。

1）量化层面：我们将ARR vs. 算力折旧作为AI泡沫观察重点指标。2026年，大模型收入 (2,065亿美金)可覆盖算力折旧(2,060亿美金)，**当前无需担忧硬件基础设施折旧压力下的AI商业化出口，未来重点观测二者增速剪刀差。**根据我们测算，AI相关折旧2027/2028年增速分别为97%/59%，ARR增速需持续高于该水平方能覆盖投入成本。

2）模型层面：对Tokens指数的担忧是短期噪音，模型收入转化效率持续改善

ARR 加速放量，Anthropic 已在2Q26 率先逼近盈亏平衡

3）云厂CapEx：投入的健康回报清晰可见，无需过度担忧CapEx的持续投入

以当年 Capex 对应次年增量云收入衡量边际资本效率，CSP 投入回报已得到验证

4）大厂资产负债表：杠杆稳健，28-30E 偿债指标稳步改善

海外大厂资产负债表保持健康，未来2-3年资产负债率普遍改善

综上，ARR vs.算力折旧、模型收入转化、Capex回报与资产负债表四重验证下，本轮AI投入均体现充足可持续性。我们认为，短期事件性冲击被高估，持续看好AI相关板块。

注：大模型收入=ARR（年度经常性收入）；算力折旧=去除传统CapEx后的AI CapEx，并按5年期折旧累计值
模型层面：以“次年AI头部模型厂商增量ARR/当年云厂商CapEx”观察
云层面：以“次年头部云厂商增量收入/当年云厂商CapEx”观察

1. 近期市场对潜在AI泡沫再次产生担忧

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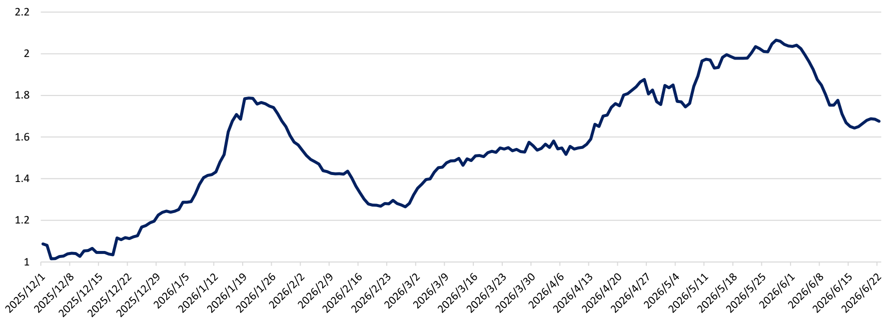
- **7月1号，Meta被报正在筹建云业务出售冗余算力：**市场一方面视其为Capex找到出口的利好，另一方面也引发既然有算力可外租、是否印证Capex过度扩张的担忧；叠加7月2日扎克伯格在内部会议承认AI agent进展慢于预期，进一步放大这一疑虑
- **OAI考虑打响价格战且可能推迟上市：**2026年6月，OpenAI据多家媒体报道正考虑大幅降低AI定价，以应对Anthropic等竞争对手的压力，被视为AI定价战即将打响的信号；而且据纽约时报报道，OpenAI上市可能推迟至27年
- **Token maxxing让企业成本压力骤增：**海外科技公司此前流行的"Token maxxing"（最大化AI token消耗量）已出现明显停止或调整迹象，转向更注重实际ROI和成果产出，市场解读为高Token消耗并未带来预期价值，企业成本压力凸显
- **Silicon Data Token指数显著下滑：**Silicon Data LLM Token Expenditure Index 2026年6 月出现明显回落，前沿模型使用量增长边际放缓
- **Google等云厂面临短期现金流困局：**Google因AI CapEx大幅增加，2026年2Q自由现金流预计将下降接近零甚至面临转负风险，再次引发市场对Hyperscaler 现金流压力的忧虑

Silicon Data 大模型token消耗指数06/26后显著下滑



Source: BBG, WSJ, Silicon Data LLM Token Expenditure Index, HTI

2. ARR追平折旧，AI回报拐点已至

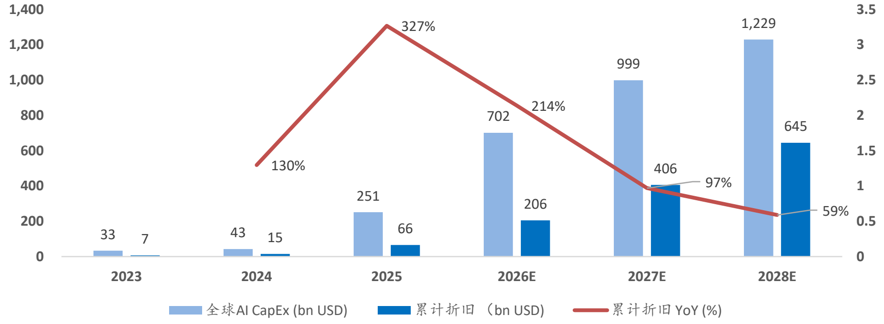
全球模型ARR仍在持续加速

(USD bn)				
Overseas model year-end ARR	**2023**	**2024**	**2025**	**2026E**
OpenAI	2.0	5.5	21.4	42.6
Anthropic	0.9	1.0	9.0	109.8
Gemini	n.m.	5.0	15.0	37.5
xAI	n.m.	0.1	0.5	1.8
Mistral	n.m.	0.1	0.4	1.2
Cohere	n.m.	0.0	0.2	0.6
Overseas Total	**2.9**	**11.7**	**46.5**	**193.5**

(USD bn)				
Domestic model year-end ARR	**2023**	**2024**	**2025**	**2026E**
Alibaba	n.m.	0.0	0.1	4.6
ByteDance	n.m.	0.0	0.2	4.0
Moonshot AI	n.m.	n.m.	0.0	0.9
Kling	n.m.	n.m.	0.2	0.8
DeepSeek	n.m.	n.m.	0.0	0.2
Zhipu	n.m.	0.0	0.3	1.5
Minimax	n.m.	0.0	0.1	1.0
Domestic Total	**0.0**	**0.1**	**1.0**	**13.0**
Total ARR	**2.9**	**11.8**	**47.5**	**206.5**
YoY		310.4%	303.3%	334.7%

注：Google/Alibaba/ByteDance 24/25年ARR使用实际收入估算

27/28年全球AI CapEx导致的累计折旧增速放缓，ARR需至少追上折旧速度

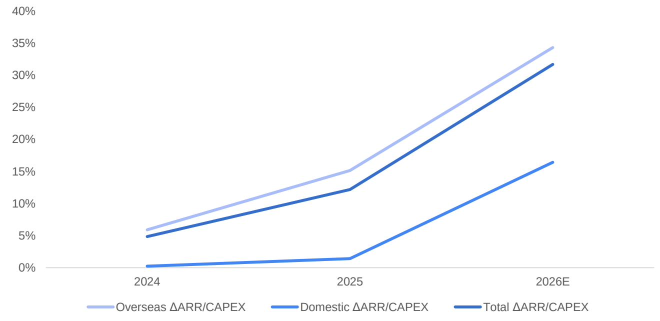


- **2026E全球模型ARR首次与AI Capex累计折旧打平**，说明行业收入已经能够覆盖算力投资的折旧成本
- **2027E累计折旧增速降至97%**，按5年期折旧口径，ARR只需同步增长即可持续覆盖折旧
- **当前全球ARR增速仍维持300%以上，远超折旧追赶线**，AI Capex回报担忧可以缓解

2. 模型ARR/云厂CAPEX持续改善

- **全球整体模型ARR/CAPEX呈现持续改善趋势**，但仍处于商业化早期阶段，收入兑现滞后于资本开支；
- **海外ROI领先国内**，得益于模型起步较早，企业级AI编程商业化得到验证，Claude Code、Cursor等AI原生应用落地拉动ARR爆发；
- **国内ROI稳步提升**，受到模型能力逐步追赶国际、模型商业化未完全铺开、低价开源模型生态主导影响。

当年云厂商CapEx对应次年头部模型公司增量ARR（2024-26E）



Incremental ARR/Cloud Capex (lag 1 year)	2024	2025	2026E
Overseas ΔARR/CAPEX	5.9%	15.2%	34.3%
Domestic ΔARR/CAPEX	0.2%	1.4%	16.4%
Total ΔARR/CAPEX	4.9%	12.2%	31.7%

海内外前沿大模型API定价对比（2026/6月）

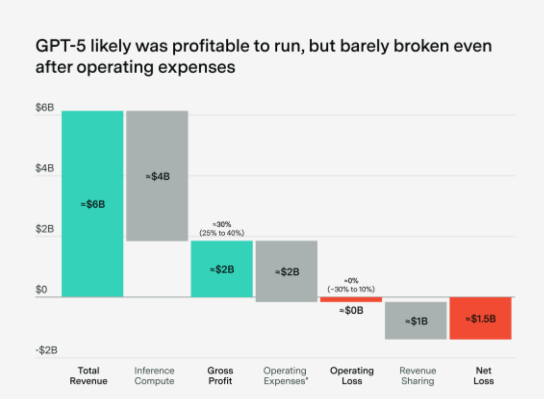
Region	Company	Model	Release	Input (US$/MTok)	Output (US$/MTok)
Overseas	Anthropic	**Claude Fable 5**	2026-06-09	10.00	50.00
		prev: Claude Opus 4.8	-	5.00	25.00
Overseas	OpenAI	**GPT-5.5**	2026-04-23	5.00	30.00
		prev: GPT-5.4	-	2.50	15.00
Overseas	Google	**Gemini 3.1 Pro**	2026-02-19	2.00	12.00
		prev: Gemini 3 Pro		2.00	12.00
Overseas	xAI	**Grok 4.3**	2026-04-30	1.25	2.50
		prev: Grok 4.2	-	1.25	2.50
China	Alibaba	**Qwen3.7-Max**	2026-05-22	2.50	7.50
		prev: Qwen3.5-Plus		0.40	2.40
China	Moonshot	**Kimi K2.6**	2026-04-20	0.95	4.00
		prev: Kimi K2.5	-	0.60	3.00
China	Zhipu	**GLM-5.1**	2026-03-27	0.88	3.53
		prev: GLM-5		0.59	2.65
China	ByteDance	**Doubao Seed 2.0 Pro**	2026-02-14	0.47	2.35
		prev: Doubao Seed 1.6		0.12	1.18
China	MiniMax	**MiniMax M3**	2026-06-01	0.31	1.24
		prev: MiniMax M2.7		0.31	1.24
China	DeepSeek	**DeepSeek V4-Pro**	2026-04-24	0.44	0.88
		prev: DeepSeek V3.2-Exp		0.29	0.44

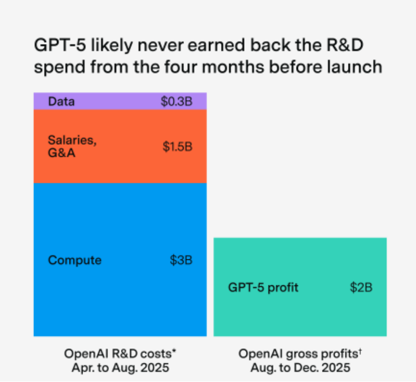
Source: BBG, Reuters, The Information, Epoch AI, FutureSearch, Presence AI, HTI

2. 模型商业模式盈利能力逐渐验证，to-B模式占优

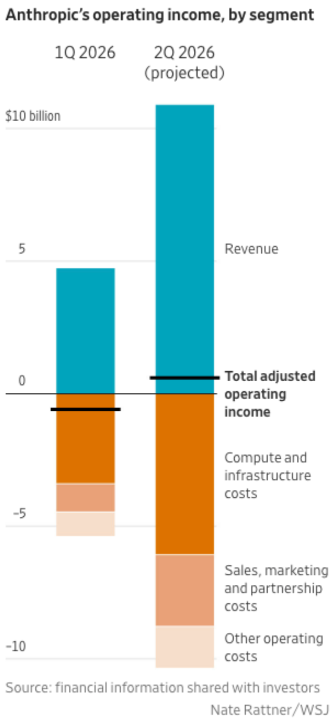
- 当前头部大模型厂商普遍处于收入保持高速增长、持续加大研发和算力投入的阶段，训推成本随ARR快速上升；
- **Anthropic开始接近盈亏平衡：** 根据《华尔街日报》披露的内部预测，Anthropic 在2026年第二季度得益于每美元收入的算力成本从71美分降至56美分，有望实现约 5.59亿美元的季度经营利润，成为少数实现短期盈利的前沿大模型公司。
- **商业模式或成为公司层面盈利关键：** Anthropic 采取企业优先策略，80-85%的收入来自高单价、粘性强的企业客户，收入质量高、成本可控，盈利路径清晰；OpenAI消费者订阅占比更高，获客和推理成本降低仍需时间。

OpenAI GPT-5 盈利模式目前弱于Anthropic





Anthropic 预计2Q26实现短期经营利润



Source: Epoch AI, WSJ, HTI

3. GPU的快速迭代&高价值占比，导致CapEx居高不下

2030年四家超大规模平台的总CapEx预计接近1万亿美元

AI CapEx (mn USD)	2025	2026	2027E	2028E	2029E	2030E
Amazon	131,819	201,375	230,178	244,438	251,737	265,497
Microsoft	64,551	117,057	184,414	199,374	232,783	241,158
Alphabet	91,447	186,524	249,290	268,125	278,759	285,976
Meta	69,691	134,890	160,254	173,228	185,981	196,481
Total	357,508	639,846	824,135	885,165	949,260	989,112
YoY	64.5%	79.0%	28.8%	7.4%	7.2%	4.2%

150MW （IT load）AI数据中心成本构成：GPU&存储占比约60%；寿命约3.5-5年，需要频繁迭代

资产类别	价格(mnUSD)	占比	折旧年限(N)	残值率(S)
土地 & 建筑	630	10.0%	20	5%
电力 & 液冷	1,170	18.6%	7	0%
服务器 & 存储设备	3,750	59.5%	3.5	0%
其他 IT 设备（交换机等）	750	11.9%	7	0%
总价	6,300			

150MW （IT load）传统数据中心成本构成：CPU&存储占成本约40%；寿命约6-8年，不需要频繁迭代

资产类别	价格(mnUSD)	占比	折旧年限(N)	残值率(S)
土地 & 建筑	630	16.6%	20	5%
电力 & 风冷	1,170	30.8%	7	0%
服务器 & 存储设备	1,500	39.5%	6	0%
其他 IT 设备（交换机等）	500	13.2%	7	0%
总价	3,800			

Source: VA, Dgtlinfra, HTI

3. 但云收入增量验证CapEx投入，实际ROI会更高

每1美金CapEx对应的云收入增量%					
CSPs	2024	2025	2026E	2027E	2028E
AMZN	39.8%	31.9%	37.0%	30.5%	31.0%
MSFT	54.4%	44.5%	49.7%	36.4%	29.6%
GOOGL	34.9%	32.7%	45.9%	30.7%	27.2%
ORCL	52.1%	75.2%	51.1%	45.0%	49.0%
BABA	8.4%	36.3%	46.6%	48.3%	49.3%
NeoCloud					
CRWV	57.3%	37.0%	73.9%	37.6%	37.9%
NBIS	12.8%	50.3%	71.4%	37.7%	43.3%
IREN	-2.3%	2.7%	9.8%	61.0%	30.9%

每1美金CapEx对应的云收入增量% (5年生命周期)					
CSPs	2024	2025	2026E	2027E	2028E
AMZN	199.1%	159.4%	185.1%	152.7%	155.0%
MSFT	271.9%	222.5%	248.3%	182.0%	147.8%
GOOGL	174.7%	163.7%	229.3%	153.4%	136.1%
ORCL	260.4%	376.0%	255.7%	224.8%	244.9%
BABA	41.9%	181.6%	233.2%	241.5%	246.3%
NeoCloud					
CRWV	286.5%	184.8%	369.3%	187.9%	170.4%
NBIS	64.1%	251.4%	357.1%	169.6%	216.7%
IREN	-11.3%	13.3%	49.2%	305.1%	154.4%

计算原理：以当年CapEx对应次年增量云收入（lag 1年）衡量边际资本效率，假设GPU使用寿命为5年，所有上表数据乘5得到下表。

•计算仅纳入云收入增量，实际CapEx赋能范围远不止于此：

•GOOGL：AI驱动搜索广告优化、Gemini训练及推理

•MSFT：Copilot全线产品赋能、OpenAI合作算力投入

•Amazon：大模型训练、AI驱动电商/广告变现提效

•NeoCloud在28年后成为第二选择：
CoreWeave，IREN，Nebius这类新云的回报在28年显著降低，主要因为大厂CSPs的自建中心已完善，从成本和稳定性的维度，NeoCloud已不具吸引力

Source: VA,HTI

3. 大厂现金流拐点在28年显现

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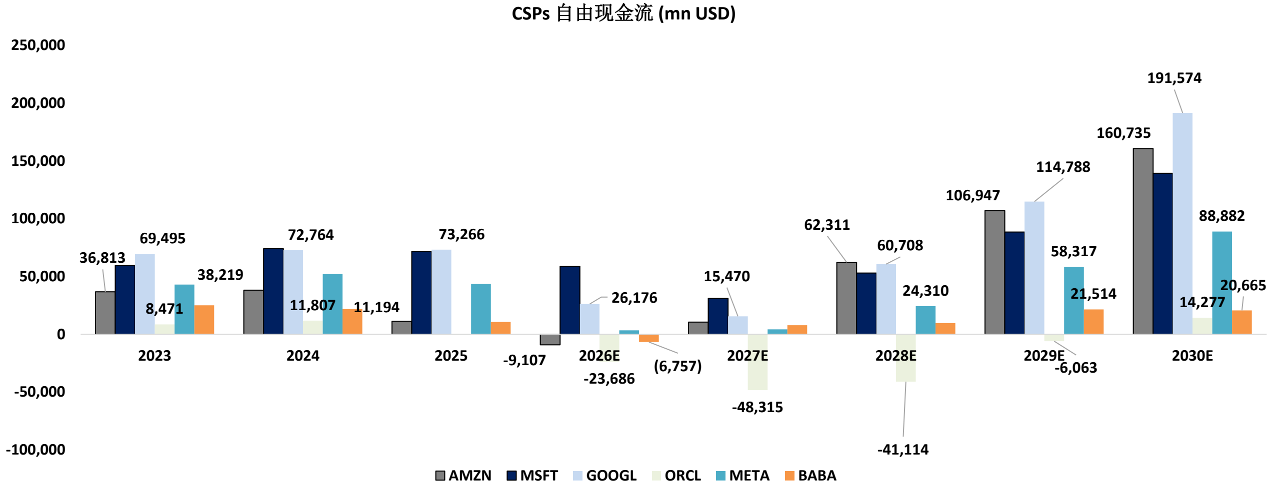
大厂自由现金流26-27年承压，28年AI数据中心放量后，FCF开始反弹



当前Capex增速远高于OCF增速,FCF短期转负,2028年后剪刀差有望逐步收窄。背后有三重逻辑:

1）经营性现金流(OCF)增速扩张: 云业务通过规模效应改善自身利润率，同时带动集团整体的利润率提升，逐步提振OCF的增速;

2）Capex具有前置性： 北美数据中心从动工到投产周期较长,通常需2年左右，投入在前收入在后，二者天然错配;

3）硬件涨价倒逼Capex二次上修：近期存储等关键物料缺货推升价格，导致原定Capex预算被动再次上调; 且长协锁量不锁价：CSPs须预留充足Capex预算以对冲后续涨价，因此当前的量存在一定冗余。

Source: VA,HTI

3. CSPs大厂负债率稳定，利息保障倍数改善，资产负债表仍健康

大厂标普评级均在投资级以上

公司	代码	S&P 评级	S&P 展望	S&P 最近动作（日期/原因）
Microsoft	MSFT	AAA	稳定	AAA长期维持
Alphabet	GOOGL	AA+	稳定	AA+自2017-02起稳定
Amazon	AMZN	AA	稳定	维持AA、稳定
Meta	META	AA-	稳定	AA-自2022-08起稳定
Oracle	ORCL	BBB	负面	BBB（2022 Cerner举债后下调），展望转负面2025-07-02；capex三倍增、FOF转负
Alibaba	BABA	A+	稳定	A+长期维持、展望稳定

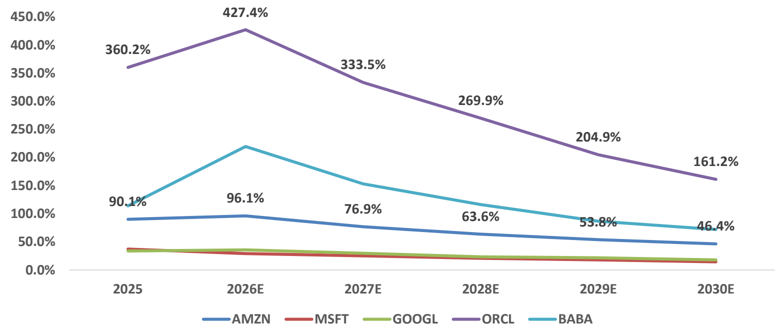
覆盖的科技龙头标普评级均为投资级，信用资质稳健

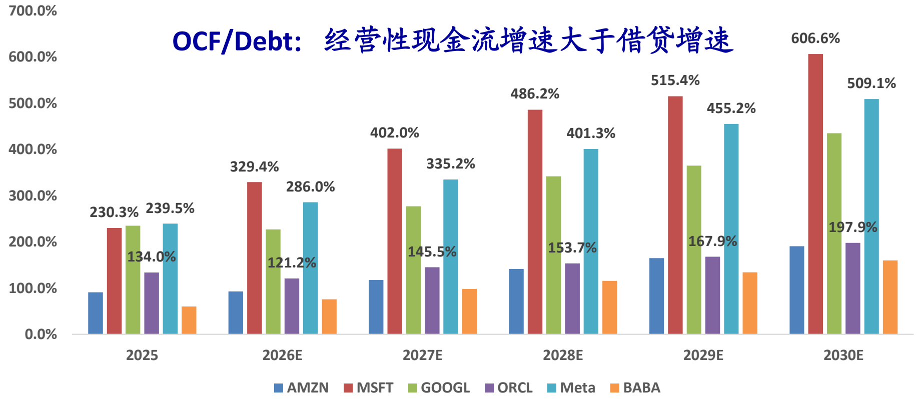
- 评级主要锚定 Debt/EBITDA、OCF/Debt 等杠杆与偿债指标
- 在 AI CapEx 上行背景下，需跟踪未来评级下调风险（ORCL 已转负面）

Debt/EBITDA 杠杆下行、OCF/Debt 改善，偿债能力边际向好

- 评级下调风险有限，部分标的存在上调空间
- 对应融资成本下降、利息压力趋缓，利好市场信心

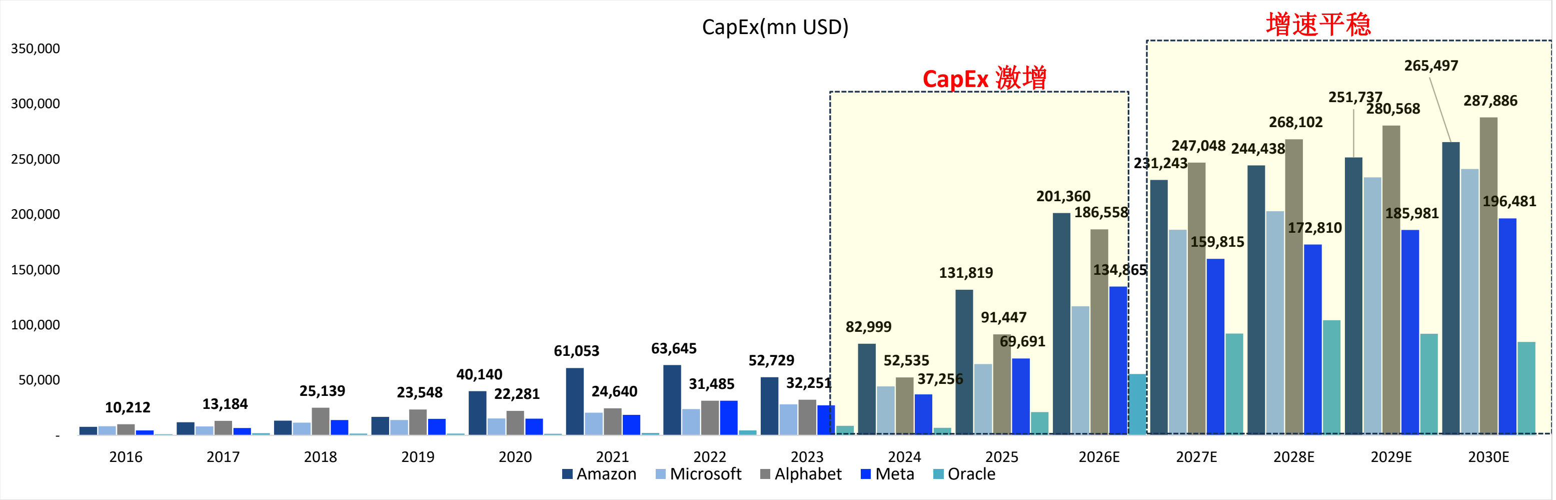
Debt/EBITDA比例显著改善





Source: VA,HTI

APPENDIX 1



大厂CapEx增速放缓，部分厂商在29-30年增速转负

CapEx (YoY)	2023	2024	2025	2026E	2027E	2028E	2029E	2030E
Amazon	-17.2%	57.4%	58.8%	52.8%	14.3%	6.2%	3.0%	5.5%
Microsoft	17.7%	58.2%	45.1%	81.3%	57.5%	8.1%	16.8%	3.6%
Alphabet	2.4%	62.9%	74.1%	104.0%	33.7%	7.6%	4.0%	2.6%
Meta	-14.0%	37.8%	87.1%	93.6%	18.8%	8.1%	7.4%	5.6%
Oracle	92.8%	-21.0%	209.0%	162.4%	65.9%	12.8%	-12.3%	-8.8%
BABA	-35.6%	-6.5%	167.9%	46.6%	64.8%	9.3%	-7.1%	-18.1%

Source: VA,HTI

APPENDIX 2

- 由于AI价值链横跨模型、云基础设施和企业应用多个环节，单一维度难以全面衡量AI商业闭环。因此，我们采用自上而下的多角度验证框架，观察AI投入回报改善趋势：

- **模型层面：以“次年AI头部模型厂商增量ARR/当年云厂商CapEx”观察**

- **云层面：以“次年头部云厂商增量收入/当年云厂商CapEx ”观察**

国内CapEx投入显著低于海外

(USD bn)				
Overseas cloud capex	**2023**	**2024**	**2025**	**2026E**
Amazon	52.7	83.0	131.8	201.4
Microsoft	28.1	44.5	64.6	116.9
Alphabet	32.3	52.5	91.4	186.6
Meta	27.3	37.3	69.7	134.9
Oracle	8.7	6.9	21.2	55.7
xAI	0.5	5.6	12.7	39.7
OpenAI			15.0	45.0
Anthropic			7.0	35.0
Coreweave			14.8	27.0
Total	**149.5**	**229.8**	**428.3**	**842.0**

(USD bn)				
Domestic cloud capex	**2023**	**2024**	**2025**	**2026E**
Baidu	1.6	1.2	1.8	1.8
Tencent	3.1	9.3	13.2	14.7
BABA	4.9	4.6	12.3	18.0
ByteDance	7.4	11.6	11.8	30.0
Telcos	8.8	16.3	18.4	26.9
Gov, enterprises & others	8.1	14.1	15.4	20.9
Total	**34.0**	**63.7**	**73.2**	**110.0**

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*在每个评级类别里投资银行客户所占的百分比。
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卖出，未来12-18个月内预期相对基准指数跌幅在10%以上，基准定义如下
各地股票基准指数：日本 – TOPIX, 韩国 – KOSPI, 台湾 – TAIEX, 印度 – Nifty100; 其他所有中国概念股 – MSCI China.

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