

Semiconductors

Broadcom 2Q24 earnings surged on Al power and VMware integration

Broadcom (AVGO US, NR) delivered a robust financial performance in 2Q24. Quarterly revenue and non-GAAP net profit were US\$12.5bn and US\$5.4bn respectively, beating Bloomberg consensus by 4% and 2%. Al remained the spotlight with revenue topping US\$3.1bn in 2Q24, up 280% YoY and 35% QoQ. Al sales exposure expanded to 25% of total sales, equivalent to 43% of total semiconductor solutions segment sales. On the other hand, non-Al revenue is expected to see modest recovery in 2H24. Mgmt. raised its FY24 revenue guidance by US\$1bn to US\$51bn, mainly driven by higher AI outlook, and lifted EBITDA margin forecast by 1% to 61%. The Company gave a very conservative guidance for full-year Al revenue. The market is expecting another beat-and-raise quarter in 3Q. Mgmt. also announced a 10-for-1 stock split after market close on 12 July 2024. Overall, Broadcom's 2Q results confirmed Al growth momentum, especially in networking, which boosts our confidence in Al networking supply chain. We believe networking suppliers, including Innolight (300308 CH, BUY), should continue to benefit from the robust AI growth.

■ Al revenue soars as the new growth engine for Semiconductor Solutions. Semiconductor segment revenue was up by 6% YoY but down 3% QoQ. Al revenue saw an increase of US\$800mn in 2Q, while non-Al sales slid further. However, mgmt. expects modest recovery in 2H24. 53% of the segment sales in 2Q24 was from networking, which improved by 44% YoY. Al-revenue also hit an all-time high of US\$3.1bn in 2Q, which offset weakness in traditional data center and enterprise networking. Despite the mgmt.'s upward revision of the Al sales guidance to US\$11bn, investors may find the figure conservative. Driven by Al, the mgmt. raised their growth guidance on networking segment from prev. 35% YoY to 40% YoY in FY24. Rest of the semi businesses still encounter cyclical headwinds, with Wireless / Server Storage / Broadband / Industrial sales guided to be flat / down 20% / down high-30% / down double-digit on a full-year basis.

Besides, Broadcom's AI revenue mix has been shifting with growing emphasis on networking as AI data center infrastructure investments expanded worldwide. AI accelerators used to dominate the revenue stream with 80% contribution. In 2Q24, 2/3 of AI revenue came from accelerators with 1/3 from networking, while this ratio is expected to shift towards 60-40 split by the end of 2024, further highlighting the growing importance of networking solutions in supporting AI workloads and the integration of AI accelerators.

- Infrastructure software segment grew by 175% YoY and 16% QoQ to US\$5.3bn, including VMware's contribution of US\$2.7bn. Excluding this contribution, Broadcom's software segment showed organic growth of ~34% YoY and ~5% QoQ. Broadcom's acquisition has proven to be successful as VMware products are transitioning to subscription licensing model. VMware is accelerating towards a US\$4bn quarterly run-rate according to the management.
- We remain positive on Al supply chain, especially for those Ethernet solutions providers. According to the company, seven of the largest eight Al clusters use Ethernet solutions powered by Broadcom. The mgmt. also expects all megascale GPU deployments to be on Ethernet in 2025. Maintain BUY on Innolight, and other beneficiaries in Al networking category include Marvell (MRVL US, NR), Arista (ANET US, NR), SMCI (SMCI US, NR), and TSMC (TSM US, NR), etc.

OUTPERFORM (Maintain)

Semiconductors Sector

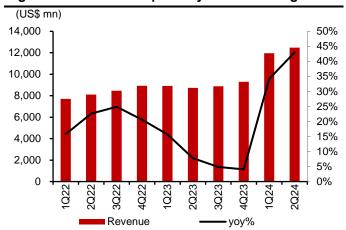
Lily YANG, Ph.D (852) 3916 3716 lilyyang@cmbi.com.hk

Kevin ZHANG (852) 3761 8727 kevinzhang@cmbi.com.hk

Related reports:

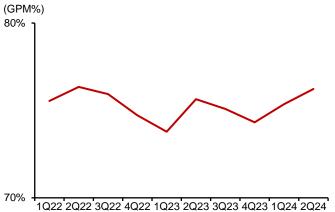
- Semi Marvell FY1Q25 earnings: Harnessing the AI revenue (<u>link</u>)
- 2. Nvidia: To keep growing for longer (link)
- Semi Global SME investment set to accelerate on tech advancements, China localization; Initiate Naura w/ BUY (link)
- InnoLight (300308 CH) 1Q24 results set stage for accelerated growth in 2024 – 24 Apr 2024 (link)
- Semi Semi Nvidia GTC 2024: A quick take – 20 Mar 2024 (link)
- Semi Nvidia continues to impress – 22 Feb 2024 (link)
- 7. Semi Hyperscalers' FY23 results review 7 Feb 2024 (link)
- Innolight (300308 CH) True beneficiary in AI value chain – 26 Jan 2024 (link)
- 9. Semi Market outlook on optical transceivers 26 Jan 2024 (<u>link</u>)
- Thematic investing and megatrends: Al sales exposure reality check, by the number – 12 Jan 2024 (link)
- 11. CES 2024 wrap up 10 Jan 2024
- Synopsys eyes on Ansys: a potential software giant in the making – 10 Jan 2024 (link)
- Domestic Al chip makers accelerating their push as Nvidia's alternatives – 14 Dec 2023 (link)
- Al supply chain will continue riding the tailwind as Nvidia confirmed growth of data center into 2025 – 23 Nov 2023 (link)
- Hyperscalers to deploy more custom AI chips to optimize & integrate AI infrastructure for maximized performance – 17 Nov 2023 (link)
- Will Humane's Al-powered screenless device become the successor to smartphones? – 14 Nov 2023 (link)

Figure 1: Broadcom's quarterly revenue and growth



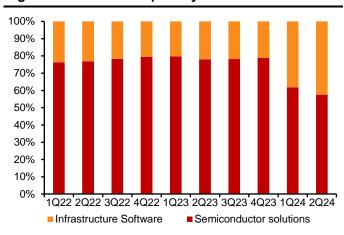
Source: Company data, CMBIGM estimates

Figure 3: Broadcom's quarterly non-GAAP GPM



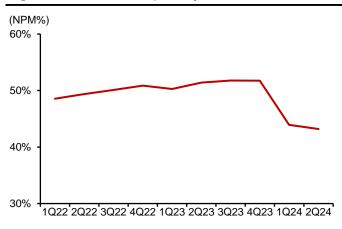
Source: Company data, CMBIGM estimates

Figure 2: Broadcom's quaterly revenue breakdown



Source: Company data, CMBIGM estimates

Figure 4: Broadcom's quaterly non-GAAP NPM



Source: Company data, CMBIGM estimates

Figure 5: Broadcom's quarterly results

Quarter results (non-GAAP)										
US\$ mn	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24	2Q24
Revenue	7,706	8,103	8,464	8,930	8,915	8,733	8,876	9,295	11,961	12,487
YoY	15.8%	22.6%	24.9%	20.6%	15.7%	7.8%	4.9%	4.1%	34.2%	43.0%
QoQ	4.0%	5.2%	4.5%	5.5%	-0.2%	-2.0%	1.6%	4.7%	28.7%	4.4%
Gross Profit	5,821	6,186	6,427	6,673	6,578	6,606	6,665	6,908	9,014	9,518
GPM	75.5%	76.3%	75.9%	74.7%	73.8%	75.6%	75.1%	74.3%	75.4%	76.2%
Net profit	3,741	4,000	4,241	4,544	4,483	4,489	4,596	4,810	5,254	5,394
YoY	25.8%	34.2%	35.8%	29.8%	19.8%	12.2%	8.4%	5.9%	17.2%	20.2%
QoQ	6.9%	6.9%	6.0%	7.1%	-1.3%	0.1%	2.4%	4.7%	9.2%	2.7%
NPM	48.5%	49.4%	50.1%	50.9%	50.3%	51.4%	51.8%	51.7%	43.9%	43.2%
EPS (USD)	8.39	9.07	9.73	10.45	10.33	10.34	10.54	11.06	10.99	10.96
YoY	27.0%	37.0%	39.8%	33.7%	23.1%	14.0%	8.4%	5.9%	6.4%	6.0%
QoQ	7.3%	8.1%	7.2%	7.4%	-1.1%	0.1%	1.9%	4.9%	-0.6%	-0.3%

Source: Company data, CMBIGM



Figure 6: Broadcom's quarterly revenue breakdown

Quarterly revenue breakdown										
US\$ mn	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24	2Q24
Networking	1,900	2,200	2,300	2,500	2,300	2,600	2,800	3,100	3,300	3,800
YoY	33.5%	42.6%	27.8%	31.6%	21.1%	18.2%	21.7%	24.0%	43.5%	46.2%
Wireless Communication	2,000	1,700	1,600	2,100	2,100	1,600	1,600	2,000	2,000	1,600
YoY	1.9%	3.7%	14.3%	16.7%	5.0%	-5.9%	0.0%	-4.8%	-4.8%	0.0%
Broadband	911	1,100	1,100	1,000	1,200	1,200	1,100	950	940	730
YoY	23.7%	26.8%	20.9%	14.7%	31.7%	9.1%	0.0%	-5.0%	-21.7%	-39.2%
Enterprise Storage	801	939	1,100	1,200	1,300	1,100	1,100	1,000	887	824
YoY	36.0%	62.3%	63.4%	47.2%	62.3%	17.1%	0.0%	-16.7%	-31.8%	-25.1%
Industrial & Other	260	289	523	291	206	308	341	276	263	234
YoY	32.6%	50.0%	119.9%	18.0%	-20.7%	6.4%	-34.9%	-5.3%	27.3%	-24.0%
Semiconductor solutions	5,873	6,229	6,624	7,092	7,107	6,808	6,941	7,326	7,390	7,188
YoY%	19.7%	29.2%	31.9%	25.9%	21.0%	9.3%	4.8%	3.3%	4.0%	5.6%
QoQ%	4.2%	6.1%	6.3%	7.1%	0.2%	-4.2%	2.0%	5.5%	0.9%	-2.7%
%	76%	77%	78%	79%	80%	78%	78%	79%	62%	58%
Infrastructure Software	1,833	1,874	1,840	1,838	1,808	1,925	1,935	1,969	4,571	5,300
YoY%	4.9%	4.7%	4.7%	3.7%	-1.4%	2.7%	5.2%	7.1%	152.8%	175.3%
QoQ%	3.4%	2.2%	-1.8%	-0.1%	-1.6%	6.5%	0.5%	1.8%	132.1%	15.9%
%	23.8%	23.1%	21.7%	20.6%	20.3%	22.0%	21.8%	21.2%	38.2%	42.4%
Revenue	7,706	8,103	8,464	8,930	8,915	8,733	8,876	9,295	11,961	12,487
YoY%	15.8%	22.6%	24.9%	20.6%	15.7%	7.8%	4.9%	4.1%	34.2%	43.0%
QoQ%	4.0%	5.2%	4.5%	5.5%	-0.2%	-2.0%	1.6%	4.7%	28.7%	4.4%

Source: Company data, CMBIGM



Disclosures & Disclaimers

Analyst Certification

The research analyst who is primary responsible for the content of this research report, in whole or in part, certifies that with respect to the securities or issuer that the analyst covered in this report: (1) all of the views expressed accurately reflect his or her personal views about the subject securities or issuer; and (2) no part of his or her compensation was, is, or will be, directly or indirectly, related to the specific views expressed by that analyst in this report.

Besides, the analyst confirms that neither the analyst nor his/her associates (as defined in the code of conduct issued by The Hong Kong Securities and Futures Commission) (1) have dealt in or traded in the stock(s) covered in this research report within 30 calendar days prior to the date of issue of this report; (2) will deal in or trade in the stock(s) covered in this research report 3 business days after the date of issue of this report; (3) serve as an officer of any of the Hong Kong listed companies covered in this report; and (4) have any financial interests in the Hong Kong listed companies covered in this report.

CMBIGM Ratings

BUY : Stock with potential return of over 15% over next 12 months HOLD Stock with potential return of +15% to -10% over next 12 months Stock with potential loss of over 10% over next 12 months

NOT RATED : Stock is not rated by CMBIGM

OUTPERFORM : Industry expected to outperform the relevant broad market benchmark over next 12 months MARKET-PERFORM : Industry expected to perform in-line with the relevant broad market benchmark over next 12 months UNDERPERFORM Industry expected to underperform the relevant broad market benchmark over next 12 months

CMB International Global Markets Limited

Address: 45/F, Champion Tower, 3 Garden Road, Hong Kong, Tel: (852) 3900 0888 Fax: (852) 3900 0800

CMB International Global Markets Limited ("CMBIGM") is a wholly owned subsidiary of CMB International Capital Corporation Limited (a wholly owned) subsidiary of China Merchants Bank)

Important Disclosures

There are risks involved in transacting in any securities. The information contained in this report may not be suitable for the purposes of all investors. CMBIGM does not provide individually tailored investment advice. This report has been prepared without regard to the individual investment objectives, financial position or special requirements. Past performance has no indication of future performance, and actual events may differ materially from that which is contained in the report. The value of, and returns from, any investments are uncertain and are not guaranteed and may fluctuate as a result of their dependence on the performance of underlying assets or other variable market factors. CMBIGM recommends that investors should independently evaluate particular investments and strategies, and encourages investors to consult with a professional financial advisor in order to make their own investment decisions.

This report or any information contained herein, have been prepared by the CMBIGM, solely for the purpose of supplying information to the clients of CMBIGM or its affiliate(s) to whom it is distributed. This report is not and should not be construed as an offer or solicitation to buy or sell any security or any interest in securities or enter into any transaction. Neither CMBIGM nor any of its affiliates, shareholders, agents, consultants, directors, officers or employees shall be liable for any loss, damage or expense whatsoever, whether direct or consequential, incurred in relying on the information contained in this report. Anyone making use of the information contained in this report does so entirely at their own risk.

The information and contents contained in this report are based on the analyses and interpretations of information believed to be publicly available and reliable. CMBIGM has exerted every effort in its capacity to ensure, but not to guarantee, their accuracy, completeness, timeliness or correctness. CMBIGM provides the information, advices and forecasts on an "AS IS" basis. The information and contents are subject to change without notice. CMBIGM may issue other publications having information and/ or conclusions different from this report. These publications reflect different assumption, point-of-view and analytical methods when compiling. CMBIGM may make investment decisions or take proprietary positions that are inconsistent with the recommendations or views in this report.

CMBIGM may have a position, make markets or act as principal or engage in transactions in securities of companies referred to in this report for itself and/or on behalf of its clients from time to time. Investors should assume that CMBIGM does or seeks to have investment banking or other business relationships with the companies in this report. As a result, recipients should be aware that CMBIGM may have a conflict of interest that could affect the objectivity of this report and CMBIGM will not assume any responsibility in respect thereof. This report is for the use of intended recipients only and this publication, may not be reproduced, reprinted, sold, redistributed or published in whole or in part for any purpose without prior written consent of CMBIGM. Additional information on recommended securities is available upon request.

For recipients of this document in the United Kingdom

This report has been provided only to persons (I) falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended from time to time) ("The Order") or (II) are persons falling within Article 49(2) (a) to (d) ("High Net Worth Companies, Unincorporated Associations, etc.,) of the Order, and may not be provided to any other person without the prior written consent of CMBIGM.

For recipients of this document in the United States

CMBIGM is not a registered broker-dealer in the United States. As a result, CMBIGM is not subject to U.S. rules regarding the preparation of research reports and the independence of research analysts. The research analyst who is primary responsible for the content of this research report is not registered or qualified as a research analyst with the Financial Industry Regulatory Authority ("FINRA"). The analyst is not subject to applicable restrictions under FINRA Rules intended to ensure that the analyst is not affected by potential conflicts of interest that could bear upon the reliability of the research report. This report is intended for distribution in the United States solely to "major US institutional investors", as defined in Rule 15a-6 under the US, Securities Exchange Act of 1934, as amended, and may not be furnished to any other person in the United States. Each major US institutional investor that receives a copy of this report by its acceptance hereof represents and agrees that it shall not distribute or provide this report to any other person. Any U.S. recipient of this report wishing to effect any transaction to buy or sell securities based on the information provided in this report should do so only through a U.S.-registered broker-dealer.

For recipients of this document in Singapore

This report is distributed in Singapore by CMBI (Singapore) Pte. Limited (CMBISG) (Company Regn. No. 201731928D), an Exempt Financial Adviser as defined in the Financial Advisers Act (Cap. 110) of Singapore and regulated by the Monetary Authority of Singapore. CMBISG may distribute reports produced by its respective foreign entities, affiliates or other foreign research houses pursuant to an arrangement under Regulation 32C of the Financial Advisers Regulations. Where the report is distributed in Singapore to a person who is not an Accredited Investor, Expert Investor or an Institutional Investor, as defined in the Securities and Futures Act (Cap. 289) of Singapore, CMBISG accepts legal responsibility for the contents of the report to such persons only to the extent required by law. Singapore recipients should contact CMBISG at +65 6350 4400 for matters arising from, or in connection with the report.