

## Microchip

## Darkest before dawn, Q sales reset to CY19 levels

Reiterate Rating: BUY | PO: 100.00 USD | Price: 85.65 USD

## Maintain Buy as extreme actions set stage for 1H trough

FQ3 (Dec) inline with prior warning, but FQ1 (Mar) sales outlook of \$1.325bn (~25% QoQ, ~41% YoY) materially below \$1.67bn consensus. Microchip (MCHP) plans to cut salaries by 10-20%, and take 2-week each shutdowns in fabs in Mar/Jun Qs. The last time MCHP took similar extreme actions was during April CY20 (COVID-19 onset) and in CY09 (global financial crisis) that in hindsight marked a cyclical trough. Visibility is low right now, but per management it's now shipping below end-demand. No FQ2 (Jun) outlook was provided but we assume similar to peer TXN, MCHP quarterly sales get rewound back (and stabilizes) to CY19 quarterly levels, prior to when the industry benefitted from pricing hikes/shortages/take-or-pay contracts that in hindsight proved unsustainable. Overall we reduce FY24/25E pf-EPS by 7%/33% to \$4.93/\$3.22, implying CY24/25E pf-EPS cut by ~25%/~27% to \$4.03/\$4.50. Reiterate Buy, lowering our PO to \$100 from \$105 on 31x CY25 EV/FCF (vs. 24x prior), still in comparables range of 23x-41x.

## Likes: Pricing stable, FCF generation, higher buybacks

Per MCHP weakness is entirely unit related and mgmt does not expect any material changes in pricing n-t. Second, we note that despite the sharp downturn, management's cost discipline could keep FCF/sales >25%. Balance sheet leverage remains low (<2x), and provides enough headroom to support the stock with enhanced buybacks, as alluded to on the earnings call. Our updated model could potentially have MCHP most "de-risked" with now implied CY19-24E sales CAGR at +1.7%, even lower than TXN at +2.5% and ADI at +4.5%, see page 3 for more details.

## Risks: PSP strategy, no near-term recovery catalyst

MCHP's preferred supplier program (PSP) strategy is bound to come under criticism as being partially responsible for the sharp downturn in its business. In hindsight, long lead times, price hikes and take-or-pay contracts forced customers to overstock, and now there is a tough unwind ahead. Bookings remain weak, macro trends (esp. China/Asia demand) remain sluggish, and our assumption of flat JunQ sales could prove optimistic.

Estimates (Mar) (US\$)	2022A	2023A	2024E	2025E	2026E
EPS	4.61	6.02	4.93	3.22	4.14
GAAP EPS	2.27	4.02	3.45	1.82	2.62
EPS Change (YoY)	39.7%	30.6%	-18.1%	-34.7%	28.6%
Consensus EPS (Bloomberg)			5.23	4.54	5.34
DPS	0.97	1.34	1.79	2.29	3.00
Valuation (Mar)					
P/E	18.6x	14.2x	17.4x	26.6x	20.7x
GAAP P/E	37.7x	21.3x	24.8x	47.1x	32.7x
Dividend Yield	1.1%	1.6%	2.1%	2.7%	3.5%
EV / EBITDA*	17.0x	16.8x	19.6x	31.4x	24.1x
Free Cash Flow Yield*	5.1%	6.5%	6.1%	3.6%	3.8%

\* For full definitions of *IQmethod*<sup>SM</sup> measures, see page 15.

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02 February 2024

## Equity

## Key Changes

(US\$)	Previous	Current
Price Obj.	105.00	100.00
2024E Rev (m)	8,123.5	7,633.6
2025E Rev (m)	7,771.9	6,020.3
2026E Rev (m)	8,384.4	6,750.0
2024E EPS	5.36	4.93
2025E EPS	4.97	3.22
2026E EPS	5.72	4.14
2024E DPS	1.83	1.79

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## Stock Data

Price	85.65 USD
Price Objective	100.00 USD
Date Established	2-Feb-2024
Investment Opinion	B-1-7
52-Week Range	68.75 USD - 94.30 USD
Mrkt Val (mn) / Shares Out (mn)	48,409 USD / 565.2
Free Float	97.9%
Average Daily Value (mn)	423.08 USD
BoFA Ticker / Exchange	MCHP / NAS
Bloomberg / Reuters	MCHP US / MCHP.OQ
ROE (2024E)	39.5%
Net Dbt to Eqty (Mar-2023A)	95.3%
ESGMeter <sup>TM</sup>	High

ESGMeter is not indicative of a company's future stock price performance and is not an investment recommendation or rating. ESGMeter is independent of BoFA Global Research's equity investment rating, volatility risk rating, income rating, and price objective for that company. For full details, refer to "BoFA ESGMeter Methodology".

# iQprofile<sup>SM</sup> Microchip

## iQmethod<sup>SM</sup> – Bus Performance\*

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Return on Capital Employed	17.1%	20.7%	18.4%	12.1%	14.6%
Return on Equity	46.5%	54.1%	39.5%	23.4%	28.1%
Operating Margin	43.5%	46.9%	43.6%	37.4%	41.3%
Free Cash Flow	2,473	3,135	2,942	1,734	1,827

## iQmethod<sup>SM</sup> – Quality of Earnings\*

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash Realization Ratio	1.1x	1.1x	1.2x	1.1x	1.0x
Asset Replacement Ratio	0.3x	0.5x	0.4x	0.3x	0.3x
Tax Rate	13.3%	23.1%	19.2%	20.3%	20.3%
Net Debt-to-Equity Ratio	125.0%	95.3%	70.9%	63.2%	63.6%
Interest Cover	NA	NA	NA	NA	NA

## Income Statement Data (Mar)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Sales	6,821	8,439	7,634	6,020	6,750
% Change	25.4%	23.7%	-9.5%	-21.1%	12.1%
Gross Profit	4,484	5,725	5,025	3,819	4,477
% Change	31.3%	27.7%	-12.2%	-24.0%	17.2%
EBITDA	3,246	3,290	2,818	1,760	2,290
% Change	35.7%	1.3%	-14.3%	-37.6%	30.1%
Net Interest & Other Income	(221)	(198)	(196)	(248)	(260)
<b>Net Income (Adjusted)</b>	<b>2,609</b>	<b>3,355</b>	<b>2,703</b>	<b>1,743</b>	<b>2,192</b>
<b>% Change</b>	<b>46.2%</b>	<b>28.6%</b>	<b>-19.4%</b>	<b>-35.5%</b>	<b>25.7%</b>

## Free Cash Flow Data (Mar)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Net Income from Cont Operations (GAAP)	1,286	2,238	1,890	986	1,386
Depreciation & Amortization	1,144	1,001	785	766	785
Change in Working Capital	34	5	411	28	(245)
Deferred Taxation Charge	8	185	0	0	0
Other Adjustments, Net	372	192	156	153	171
Capital Expenditure	(370)	(486)	(300)	(199)	(270)
<b>Free Cash Flow</b>	<b>2,473</b>	<b>3,135</b>	<b>2,942</b>	<b>1,734</b>	<b>1,827</b>
<b>% Change</b>	<b>35.5%</b>	<b>26.8%</b>	<b>-6.1%</b>	<b>-41.1%</b>	<b>5.4%</b>
Share / Issue Repurchase	(355)	(768)	(729)	(793)	(1,278)
Cost of Dividends Paid	(504)	(706)	(923)	(714)	(652)
Change in Debt	(951)	(1,146)	(1,805)	0	0

## Balance Sheet Data (Mar)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash & Equivalents	317	234	600	807	684
Trade Receivables	1,073	1,305	1,020	1,162	1,208
Other Current Assets	1,063	1,530	1,552	1,374	1,439
Property, Plant & Equipment	968	1,178	1,302	1,696	1,987
Other Non-Current Assets	12,779	12,123	11,715	11,715	11,715
<b>Total Assets</b>	<b>16,200</b>	<b>16,370</b>	<b>16,190</b>	<b>16,753</b>	<b>17,033</b>
Short-Term Debt	0	1,398	1,662	1,662	1,662
Other Current Liabilities	1,399	1,720	1,576	1,585	1,719
Long-Term Debt	7,687	5,042	4,033	4,033	4,033
Other Non-Current Liabilities	1,218	1,696	1,736	1,736	1,736
<b>Total Liabilities</b>	<b>10,305</b>	<b>9,857</b>	<b>9,008</b>	<b>9,017</b>	<b>9,151</b>
<b>Total Equity</b>	<b>5,895</b>	<b>6,514</b>	<b>7,182</b>	<b>7,736</b>	<b>7,882</b>
<b>Total Equity &amp; Liabilities</b>	<b>16,200</b>	<b>16,370</b>	<b>16,190</b>	<b>16,753</b>	<b>17,033</b>

\* For full definitions of iQmethod<sup>SM</sup> measures, see page 15.

## Company Sector

Electronics

## Company Description

Microchip is a specialized semiconductor supplier, whose products include 8/16/32bit MIPS based microcontroller (MCU), analog, flash memory, and memory licensing. MCHP's products are primarily used in industrial, auto and consumer applications.

## Investment Rationale

We rate MCHP Buy. We like MCHP's solid profitability/FCF generation, consistent execution with a track record of disciplined M&A, and stable/diversified core growth.

## Stock Data

Average Daily Volume 4,979,610

## Quarterly Earnings Estimates

	2023	2024
Q1	1.37A	1.64A
Q2	1.46A	1.62A
Q3	1.56A	1.08A
Q4	1.64A	0.57E

# Summary of model changes

## Exhibit 1: Summary of estimate changes

We lower CY24E sales/EPS estimates by 23%/37% to \$5.7bn/\$2.84

	Sales (\$mn)			Non-GAAP EPS (ex. SBC)		
	Old	NEW	delta	Old	NEW	delta
1Q24	\$2,289	\$2,289	\$0	\$1.64	\$1.64	\$0.00
2Q24	\$2,254	\$2,254	\$0	\$1.62	\$1.62	\$0.00
3Q24	\$1,860	\$1,766	(\$94)	\$1.09	\$1.08	(\$0.01)
4Q24E	\$1,721	\$1,325	(\$396)	\$0.93	\$0.57	(\$0.36)
<b>FY24E</b>	<b>\$8,123</b>	<b>\$7,634</b>	<b>(\$490)</b>	<b>\$5.29</b>	<b>\$4.93</b>	<b>(\$0.37)</b>
<b>YoY%</b>	<b>-3.7%</b>	<b>-9.5%</b>	<b>-6.0%</b>	<b>-12.0%</b>	<b>-18.1%</b>	<b>-7.0%</b>
1Q25E	\$1,807	\$1,325	(\$482)	\$1.03	\$0.56	(\$0.47)
2Q25E	\$1,969	\$1,479	(\$490)	\$1.24	\$0.75	(\$0.48)
3Q25E	\$2,008	\$1,616	(\$392)	\$1.30	\$0.96	(\$0.34)
4Q25E	\$1,988	\$1,600	(\$388)	\$1.25	\$0.95	(\$0.30)
<b>FY25E</b>	<b>\$7,772</b>	<b>\$6,020</b>	<b>(\$1,752)</b>	<b>\$4.81</b>	<b>\$3.22</b>	<b>(\$1.60)</b>
<b>YoY%</b>	<b>-4.3%</b>	<b>-21.1%</b>	<b>-22.5%</b>	<b>-9.1%</b>	<b>-34.7%</b>	<b>-33.2%</b>
<b>CY24E</b>	<b>\$7,504</b>	<b>\$5,745</b>	<b>(\$1,759)</b>	<b>\$4.50</b>	<b>\$2.84</b>	<b>(\$1.66)</b>
<b>YoY%</b>	<b>-13.1%</b>	<b>-32.7%</b>	<b>-23.4%</b>	<b>-25.0%</b>	<b>-52.6%</b>	<b>-36.9%</b>
<b>CY25E</b>	<b>\$8,240</b>	<b>\$6,634</b>	<b>(\$1,606)</b>	<b>\$5.34</b>	<b>\$4.03</b>	<b>(\$1.31)</b>
<b>YoY%</b>	<b>9.8%</b>	<b>15.5%</b>	<b>-19.5%</b>	<b>18.7%</b>	<b>41.9%</b>	<b>-24.5%</b>
<b>CY26E</b>	<b>\$8,820</b>	<b>\$7,100</b>	<b>(\$1,720)</b>	<b>\$6.13</b>	<b>\$4.50</b>	<b>(\$1.63)</b>
<b>YoY%</b>	<b>7.0%</b>	<b>7.0%</b>	<b>-19.5%</b>	<b>14.7%</b>	<b>11.6%</b>	<b>-26.5%</b>

Source: BofA Global Research estimates, company reports

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# DecQ reported vs expectations

## Exhibit 2: MCHP DecQ vs expectations summary

MCHP reported sales/pf EPS of \$1.7bn/\$1.08 which was slightly above Street estimates

	Dec-22	Sep-23	Dec-23						
			Guidance	Consensus	BofAe	Reported	Delta vs Consensus	QoQ	YoY
<b>Total Sales (Non-GAAP, \$mn)</b>	<b>\$2,169</b>	<b>\$2,254</b>	<b>\$1,860 (\$1,803 - \$1,916)</b>	<b>\$1,758</b>	<b>\$1,860</b>	<b>\$1,766</b>	<b>0.5%</b>	<b>-21.7%</b>	<b>-18.6%</b>
QoQ%	4.6%	-1.5%		-22.0%	-17.5%	-21.7%	0.5%		
Microcontrollers	1,221	1,285		1,001	1,055	989	-1.2%	-23.0%	-19.0%
Analog, interface and mixed signal products	607	631		502	524	441	-12.1%	-30.1%	-27.3%
Licensing, memory and other	341	338		297	281	335	13.1%	-0.8%	-1.5%
<b>Gross Margin % (Non-GAAP)</b>	<b>68.1%</b>	<b>68.1%</b>	<b>64.5% (64% - 65%)</b>	<b>64.3%</b>	<b>64.5%</b>	<b>63.8%</b>	<b>(53)</b>	<b>(431)</b>	<b>(435)</b>
Gross Profit (Non-GAAP)	1,478	1,535			1,200	1,126	-26.6%	-23.8%	
R&D (Non-GAAP)	261	269			258	242	-10.1%	-7.5%	
SG&A (Non-GAAP)	187	181			170	156	-13.8%	-16.3%	
Opex Total (Non-GAAP)	448	450	\$427.5 (\$422 - \$433)	398	427	398	0.0%	-11.6%	-11.2%
Op Inc (Non-GAAP)	1,030	1,085		\$732	772	728	-0.6%	-32.9%	-29.3%
<b>Op Margin % (Non-GAAP)</b>	<b>47.5%</b>	<b>48.1%</b>	<b>41.5% ( 40.7% - 42.3%)</b>	<b>41.7%</b>	<b>41.5%</b>	<b>41.2%</b>	<b>(43)</b>	<b>(688)</b>	<b>(624)</b>
Other income (GAAP)	(49)	(51)	\$52 (\$51 - \$53)		(53)	(45)	-12.3%	-8.7%	
Pretax Income (Non-GAAP)	980	1,036			720	683	-34.1%	-30.3%	
Pretax Income (GAAP)	762	834			528	484	-41.9%	-36.5%	
Tax expense (GAAP)	182	167	\$121.1 (\$107.8 - \$134.3)		121	65	-61.0%	-64.2%	
Tax rate (Non-GAAP)	11.9%	14.2%			14.2%	13.2%	-6.9%	11.1%	
Total Net Income (GAAP)	580	667			407	419	-37.1%	-27.8%	
Net Income (pf)	864	889	\$617.6 (\$592.8 - \$642.4)		618	593	-33.4%	-31.4%	
<b>Diluted EPS (pf, ex. SC)</b>	<b>\$1.56</b>	<b>\$1.62</b>	<b>\$1.13 (\$1.09 - \$1.17)</b>	<b>\$1.05</b>	<b>\$1.13</b>	<b>\$1.08</b>	<b>3.8%</b>	<b>-33.0%</b>	<b>-30.3%</b>
Diluted Shares (pf)	555	549			547	547	-0.5%	-1.6%	

Source: BofA Global Research estimates, company report, Bloomberg

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# MarQ guidance vs expectations

**Table 1: MCHP MarQ guidance vs expectations summary**

MCHP guided sales well below Street

	Dec-23	Mar-24E			
	Reported	BofAe	Cons	Guidance	New BofAe
<b>Total Sales (Non-GAAP, \$mn)</b>	<b>\$1,766</b>	<b>\$1,721</b>	<b>\$1,667</b>	<b>\$1,325 (\$1,225 - \$1,425)</b>	<b>\$1,325</b>
QoQ%	-21.7%	-7.5%	-5.2%		-25.0%
Microcontrollers	989	976	942		712
Analog, interface and mixed signal products	441	485	472		322
Licensing, memory and other	335	260	287		291
<b>Gross Margin % (Non-GAAP)</b>	<b>63.8%</b>	<b>63.0%</b>	<b>63.2%</b>	<b>60.3% (59% - 61.6%)</b>	<b>60.3%</b>
Gross Profit (Non-GAAP)	1,126	1,084			799
R&D (Non-GAAP)	242	250			229
SG&A (Non-GAAP)	156	164			152
Opex Total (Non-GAAP)	398	415	415		381
Op Inc (Non-GAAP)	728	669	639		418
<b>Op Margin % (Non-GAAP)</b>	<b>41.2%</b>	<b>38.9%</b>	<b>38.4%</b>	<b>31.5% (28.3% - 34.7%)</b>	<b>31.5%</b>
Other income (GAAP)	(45)	(58)			(57.0)
Pretax Income (Non-GAAP)	683	611			361
Pretax Income (GAAP)	484	422			173
Tax expense (GAAP)	65	97		\$34.9 (\$17.4 - \$52.3)	35
Tax rate (Non-GAAP)	13.2%	14.2%			13.2%
Total Net Income (GAAP)	419	325			138.2
Net Income (pf)	593	525		\$313.1 (\$250.4 - \$375.8)	313.2
<b>Diluted EPS (pf, ex. SC)</b>	<b>\$1.08</b>	<b>\$0.96</b>	<b>\$0.92</b>	<b>\$0.57 (\$0.46 - \$0.68)</b>	<b>\$0.57</b>
Diluted Shares (pf)	547	545		546 (545.5 - 546.5)	546

Source: BofA Global Research estimates, company report, Bloomberg

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## Balance sheet, cash flow snapshot

**Exhibit 3: Summary Balance Sheet and cash flow snapshot**

Net cash per share was up QoQ. Inventory days were up

	Dec-22	Mar-23	Dec-22	Sep-23	Dec-23	QoQ%	YoY%
<b>Total Cash</b>	<b>\$289</b>	<b>\$234</b>	<b>\$289</b>	<b>\$257</b>	<b>\$281</b>	<b>9.5%</b>	<b>-2.7%</b>
ST Debt	\$0	\$1,398	\$0	\$1,661	\$1,662		
LT Debt	\$6,589	\$5,042	\$6,589	\$4,415	\$4,033		
Total Debt	\$6,589	\$6,440	\$6,589	\$6,076	\$5,695		
Net Cash	(\$6,300)	(\$6,206)	(\$6,300)	(\$5,819)	(\$5,414)		
<b>Net Cash/Share</b>	<b>(\$11.34)</b>	<b>(\$11.20)</b>	<b>(\$11.34)</b>	<b>(\$10.60)</b>	<b>(\$9.91)</b>		
DSO	49.3	53.2	49.3	68.9	72.1		
DPO	46.2	50.6	46.2	53.6	43.4		
<b>Inventory \$</b>	<b>\$1,165</b>	<b>\$1,325</b>	<b>\$1,165</b>	<b>\$1,331</b>	<b>\$1,311</b>	<b>-1.5%</b>	<b>12.5%</b>
Inventory Turns	2.4	2.2	2.4	2.2	2.0		
<b>Inventory Days</b>	<b>152.3</b>	<b>169.5</b>	<b>152.3</b>	<b>167.1</b>	<b>185.3</b>	<b>18.2</b>	<b>0.2</b>
Cash Conversion days	155.3	172.0	155.3	182.4	214.0		
<b>Cash Flow from Ops</b>	<b>\$1,278</b>	<b>\$710</b>	<b>\$1,278</b>	<b>\$616</b>	<b>\$853</b>	<b>38.5%</b>	<b>-33.2%</b>
Capex	(\$141)	(\$113)	(\$141)	(\$74)	(\$60)		
<b>Free cash flow</b>	<b>\$1,137</b>	<b>\$597</b>	<b>\$1,137</b>	<b>\$542</b>	<b>\$794</b>	<b>46.5%</b>	<b>-30.2%</b>
FCF as % of sales (ttm)	39.4%	37.1%	39.4%	34.1%	31.7%		

Source: BofA Global Research estimates, company reports

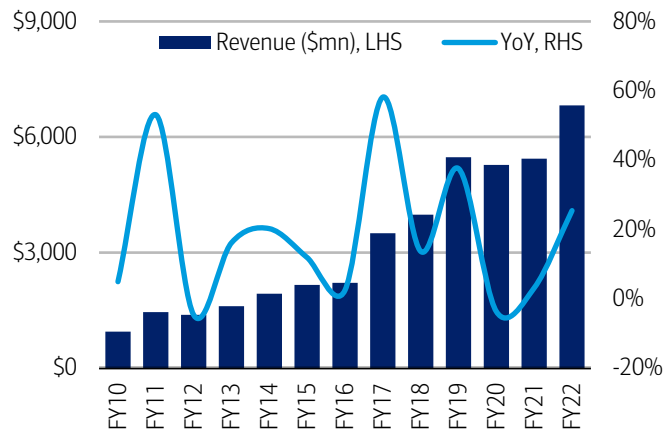
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# Key charts

**Chart 1: MCHP annual revenue and YoY growth**

Revenue likely troughing in 1H24E

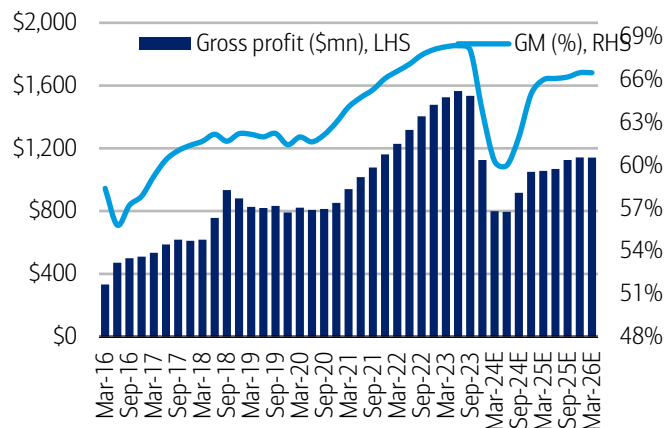


Source: BofA Global Research estimates, company reports

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**Chart 3: MCHP quarterly gross profit and gross margin**

Gross margin going to ~60%

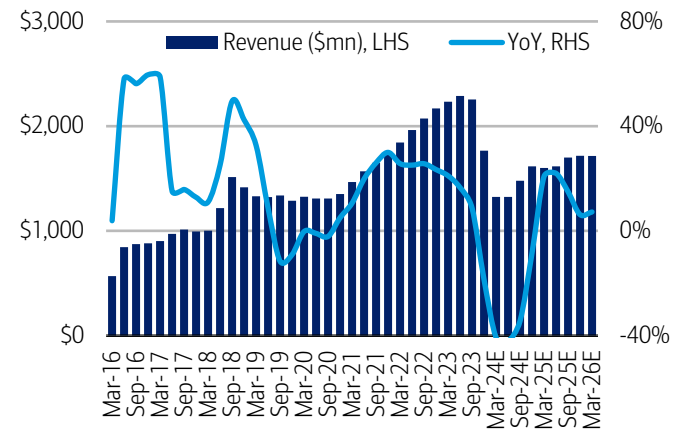


Source: BofA Global Research estimates, Company reports

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**Chart 2: MCHP quarterly revenue and YoY growth**

Quarterly revenue to decline over the next several months

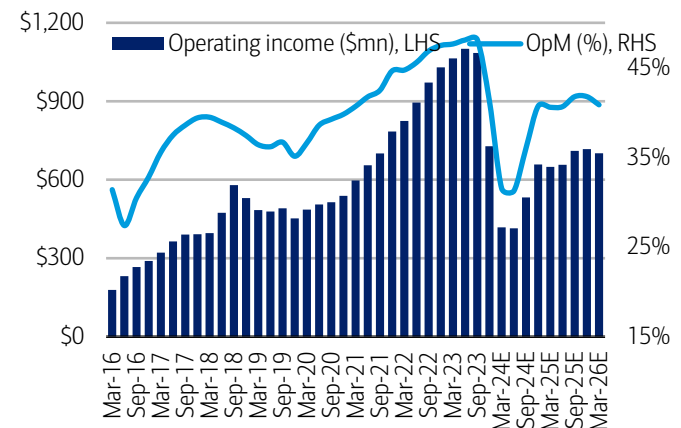


Source: BofA Global Research estimates, Company reports

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**Chart 4: MCHP quarterly operating income and operating margin**

MCHP operating margin at 41% in DecQ

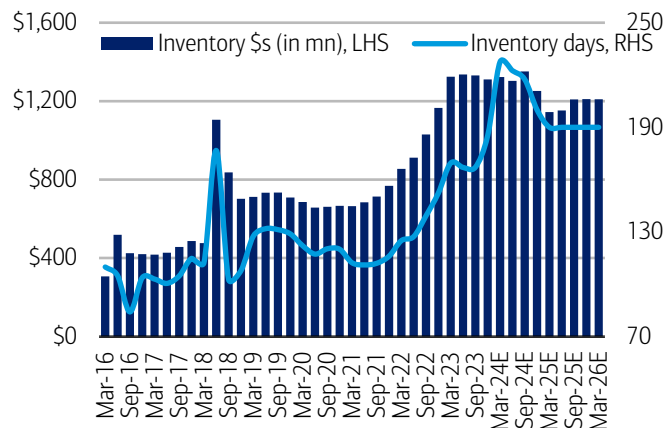


Source: BofA Global Research estimates, Company reports

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**Chart 5: MCHP inventory dollars and days trends**

Inventory days increased QoQ

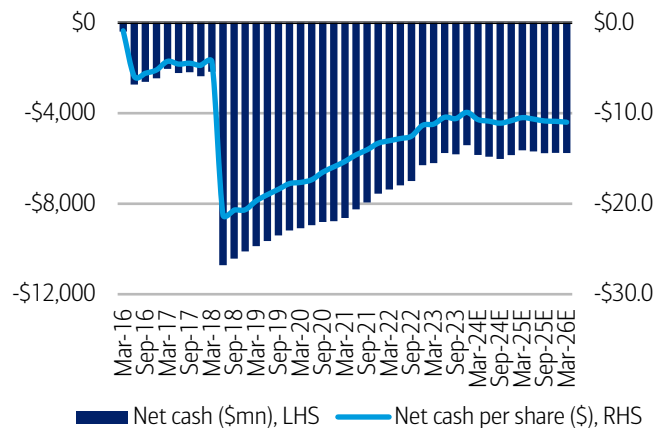


Source: BofA Global Research estimates, Company reports

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**Chart 6: MCHP quarterly net cash and net cash per share**

Net cash trends higher

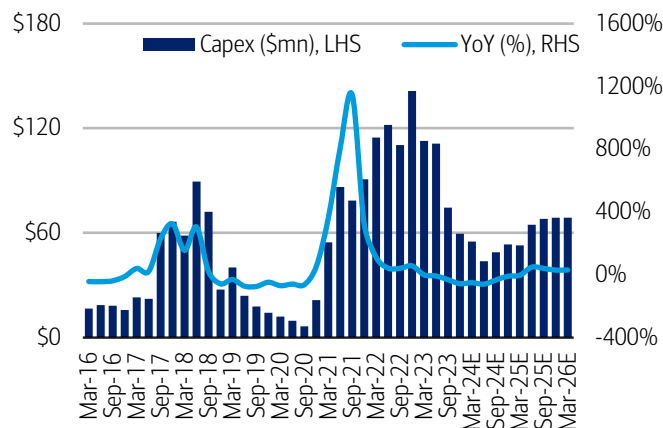


Source: BofA Global Research estimates, Company reports

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**Chart 7: MCHP quarterly capex and YoY growth**

Quarterly capex falls as internal capacity buildout pauses

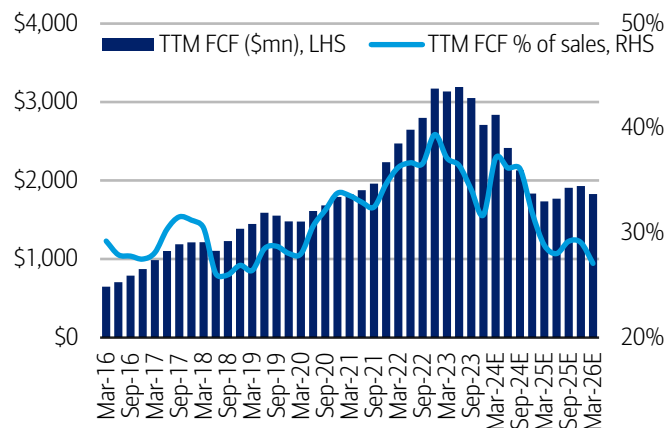


Source: BofA Global Research estimates, Company reports

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**Chart 8: MCHP TTM FCF and TTM FCF as a % of sales**

GMs and OpMs impacted by weaker outlook



Source: BofA Global Research estimates, Company reports

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**Exhibit 4: Diversified sales CAGR '19-'24E**

MCHP potentially more de-risked vs peers

Diversified sales growth '19-'24E	CY19	CY20	CY21	CY22	CY23	CY24E	19-'24E CAGR
MCHP sales (\$mn)	\$5,278	\$5,298	\$6,444	\$8,050	\$8,541	\$5,745	1.7%
YoY (%)	5.1%	0.4%	21.6%	24.9%	6.1%	-32.7%	
TXN Sales (\$mn)	\$13,166	\$13,456	\$17,099	\$18,620	\$16,408	\$14,891	2.5%
YoY (%)	-8.3%	2.2%	27.1%	8.9%	-11.9%	-9.2%	
ADI sales (\$mn)	\$7,937	\$8,213	\$10,062	\$12,579	\$11,556	\$9,894	4.5%
YoY (%)	-7.2%	1.8%	44.1%	49.0%	-8.1%	-14.4%	
Total (\$mn)	\$26,380	\$26,967	\$33,605	\$39,249	\$36,505	\$30,530	3.0%
YoY (%)		2.2%	24.6%	16.8%	-7.0%	-16.4%	

Source: BofA Global Research estimates, company reports

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**Exhibit 5: MCHP – Income statement (\$mn)**

MCHP reported sales in DecQ of \$1.76bn, slightly above Consensus estimates

FY (March)	1Q23	2Q23	3Q23	4Q23	1Q24	2Q24	3Q24	4Q24E	1Q25E	2Q25E	3Q25E	4Q25E	FY22	FY23	FY24E	CY22	CY23	CY24E
P&L Model (\$mn)	Jun-22	Sep-22	Dec-22	Mar-23	Jun-23	Sep-23	Dec-23	Mar-24E	Jun-24E	Sep-24E	Dec-24E	Mar-25E	Mar-22	Mar-23	Mar-24E	Dec-22	Dec-23	Dec-24E
Total Sales	\$1,964	\$2,073	\$2,169	\$2,233	\$2,289	\$2,254	\$1,766	\$1,325	\$1,325	\$1,479	\$1,616	\$1,600	\$6,821	\$8,439	\$7,634	\$8,050	\$8,541	\$5,745
Dist. rev. recognition adj.																		
Total Sales (Non-GAAP)	\$1,964	\$2,073	\$2,169	\$2,233	\$2,289	\$2,254	\$1,766	\$1,325	\$1,325	\$1,479	\$1,616	\$1,600	\$6,821	\$8,439	\$7,634	\$8,050	\$8,541	\$5,745
QoQ%	6.5%	5.6%	4.6%	2.9%	2.5%	-1.5%	-21.7%	-25.0%		11.6%	9.3%	-1.0%						
YoY%	25.1%	25.7%	23.4%	21.1%	16.6%	8.7%	-18.6%	-40.7%	-42.1%	-34.4%	-8.5%	20.8%	25.4%	23.7%	-9.5%	24.9%	6.1%	-32.7%
Cost of Sales	654	675	698	713	730	727	646	531	535	567	571	550	2371	2741	2633	2651	2816	2203
Gross Profit (GAAP)	1310	1398	1471	1519	1558	1527	1120	794	791	912	1045	1051	4450	5698	5000	5399	5725	3542
Gross Profit (Non-GAAP)	1318	1404	1478	1525	1565	1535	1126	799	795	917	1051	1056	4484	5725	5025	5428	5751	3561
R&D (GAAP)	269	269	282	298	299	293	266	248	248	252	261	270	989	1118	1105	1079	1155	1009
R&D (Non-GAAP)	249	249	261	276	275	269	242	229	229	232	239	248	890	1034	1015	995	1062	929
SG&A (GAAP)	189	202	203	204	204	197	172	164	164	166	169	173	719	798	736	781	776	662
SG&A (Non-GAAP)	174	184	187	186	189	181	156	152	152	152	154	159	628	731	679	712	713	610
Amort of acquired intangible	168	168	167	167	152	151	151	151	151	151	151	151	863	670	606	718	622	605
Special (income) charges	(17)	4	7	2	2	2	1	1	1	1	1	1	30	(4)	6	3	7	4
Total Opex (GAAP)	609	643	659	671	655	642	591	564	564	571	582	596	2600	2582	2452	2582	2560	2281
Total Opex (Non-GAAP)	423	433	448	462	465	450	398	381	381	384	393	407	1519	1765	1694	1707	1775	1539
Operating Income (GAAP)	701	755	812	848	903	885	529	230	226	341	463	455	1850	3116	2548	2818	3166	1261
Operating Income (Non-GAAP)	895	971	1030	1064	1100	1085	728	418	414	533	658	649	2965	3960	3331	3721	3977	2022
Losses on equity method inv.																		
Other income (expense), net	(55)	(56)	(49)	(46)	(55)	(51)	(45)	(57)	(62)	(62)	(62)	(62)	(367)	(206)	(208)	(230)	(198)	(243)
Pre-Tax Income (GAAP)	647	699	762	802	848	834	484	173	164	279	401	393	1483	2910	2340	2587	2968	1018
Convertible debt non-cash int.																		
Pre-Tax Income (Non-GAAP)	847	918	980	1018	1055	1036	683	361	352	471	596	587	2745	3762	3135	3519	3792	1779
Income tax provision (GAAP)	139	153	182	198	182	167	65	35	33	57	81	80	197	672	449	516	612	206
Net Income (GAAP)	507	546	580	604	666	667	419	138	131	223	320	313	1286	2238	1890	2072	2356	812
Net Income (Non-GAAP)	767	814	864	908	905	889	593	313	305	408	517	510	2611	3353	2700	3210	3295	1544
EPS, diluted (GAAP)	\$0.90	\$0.98	\$1.04	\$1.09	\$1.21	\$1.21	\$0.77	\$0.25	\$0.24	\$0.41	\$0.59	\$0.58	\$2.27	\$4.02	\$3.45	\$3.70	\$4.28	\$1.49
EPS, diluted (pf, ex SC)	\$1.37	\$1.46	\$1.56	\$1.64	\$1.64	\$1.62	\$1.08	\$0.57	\$0.56	\$0.75	\$0.96	\$0.95	\$4.61	\$6.02	\$4.93	\$5.73	\$5.99	\$2.84
Diluted shares (GAAP)	561.5	558.3	555.4	553.9	551.4	549.2	546.5	546.0	544.4	542.7	540.6	537.8	565.9	557.3	548.3	560.1	550.3	543.4
Diluted shares (Non-GAAP)	561.5	558.3	555.4	553.9	551.4	549.2	546.5	546.0	544.4	542.7	540.6	537.8	565.9	557.3	548.3	560.1	550.3	543.4
Dividends	\$0.28	\$0.33	\$0.35	\$0.38	\$0.41	\$0.44	\$0.45	\$0.48	\$0.52	\$0.55	\$0.59	\$0.63	\$0.97	\$1.34	\$1.79	\$1.23	\$1.69	\$2.14
<b>Margin Analysis (pf, ex. SC)</b>																		
Gross Margin %	67.1%	67.7%	68.1%	68.3%	68.4%	68.1%	63.8%	60.3%	60.0%	62.0%	65.0%	66.0%	65.7%	67.8%	65.8%	67.4%	67.3%	62.0%
R&D expense	12.7%	12.0%	12.0%	12.4%	12.0%	11.9%	13.7%	17.3%	17.3%	15.7%	14.8%	15.5%	13.1%	12.3%	13.3%	12.4%	12.4%	16.2%
SG&A expense	8.9%	8.9%	8.6%	8.3%	8.3%	8.0%	8.9%	11.4%	11.4%	10.3%	9.5%	9.9%	9.2%	8.7%	8.9%	8.8%	8.3%	10.6%
Opex	21.5%	20.9%	20.6%	20.7%	20.3%	20.0%	22.5%	28.8%	28.8%	26.0%	24.3%	25.4%	22.3%	20.9%	22.2%	21.2%	20.8%	26.8%
Operating Income %	45.6%	46.9%	47.5%	47.6%	48.1%	48.1%	41.2%	31.5%	31.2%	36.0%	40.7%	40.6%	43.5%	46.9%	43.6%	46.2%	46.6%	35.2%
Tax Rate	9.4%	11.2%	11.9%	10.8%	14.2%	14.2%	13.2%	13.2%	13.2%	13.2%	13.2%	13.2%	4.9%	10.9%	13.9%	8.8%	13.1%	13.2%
Net income	39.1%	39.3%	39.8%	40.7%	39.6%	39.4%	33.6%	23.6%	23.0%	27.6%	32.0%	31.9%	38.3%	39.7%	35.4%	39.9%	38.6%	26.9%

Source: BofA Global Research estimates, company reports

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All segments were weak in DecQ

<b>FY (March)</b>	<b>1Q23</b>	<b>2Q23</b>	<b>3Q23</b>	<b>4Q23</b>	<b>1Q24</b>	<b>2Q24</b>	<b>3Q24</b>	<b>4Q24E</b>	<b>1Q25E</b>	<b>2Q25E</b>	<b>3Q25E</b>	<b>4Q25E</b>	<b>FY22</b>	<b>FY23</b>	<b>FY24E</b>	<b>CY22</b>	<b>CY23</b>	<b>CY24E</b>
<b>Segment Model (\$mn)</b>	<b>Jun-22</b>	<b>Sep-22</b>	<b>Dec-22</b>	<b>Mar-23</b>	<b>Jun-23</b>	<b>Sep-23</b>	<b>Dec-23</b>	<b>Mar-24E</b>	<b>Jun-24E</b>	<b>Sep-24E</b>	<b>Dec-24E</b>	<b>Mar-25E</b>	<b>Mar-22</b>	<b>Mar-23</b>	<b>Mar-24E</b>	<b>Dec-22</b>	<b>Dec-23</b>	<b>Dec-24E</b>
Microcontrollers	1063	1180	1221	1295	1305	1285	989	712	712	819	917	908	3815	4759	4290	4510	4873	3160
Analog, interface and mixed signal products	580	573	607	625	641	631	441	322	322	354	376	372	1939	2385	2036	2275	2339	1375
Licensing, memory and other	321	321	341	313	343	338	335	291	291	305	324	320	1067	1295	1308	1265	1329	1211
<b>Total Sales (GAAP)</b>	<b>1964</b>	<b>2073</b>	<b>2169</b>	<b>2233</b>	<b>2289</b>	<b>2254</b>	<b>1766</b>	<b>1325</b>	<b>1325</b>	<b>1479</b>	<b>1616</b>	<b>1600</b>	<b>6821</b>	<b>8439</b>	<b>7634</b>	<b>8050</b>	<b>8541</b>	<b>5745</b>
<b>QoQ%</b>																		
Microcontrollers	1.6%	11.0%	3.5%	6.0%	0.7%	-1.5%	-23.0%	-28.0%	0.0%	15.0%	12.0%	-1.0%						
Analog, interface and mixed signal products	12.5%	-1.3%	6.1%	2.9%	2.5%	-1.5%	-30.1%	-27.0%	0.0%	10.0%	6.0%	-1.0%						
FPGA & Other	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-6.0%	1.0%	10.0%	-2.0%	2.0%						
Licensing, memory and other	13.5%	0.2%	6.0%	-8.2%	9.8%	-1.5%	-0.8%	-13.3%	0.0%	5.0%	6.0%	-1.0%						
<b>Total Sales (GAAP)</b>	<b>6.5%</b>	<b>5.6%</b>	<b>4.6%</b>	<b>2.9%</b>	<b>2.5%</b>	<b>-1.5%</b>	<b>-21.7%</b>	<b>-25.0%</b>	<b>0.0%</b>	<b>11.6%</b>	<b>9.3%</b>	<b>-1.0%</b>						
<b>YoY%</b>																		
Microcontrollers	17.8%	31.9%	25.6%	23.8%	22.7%	8.9%	-19.0%	-45.0%	-45.4%	-36.3%	-7.3%	27.5%	28.8%	24.7%	-9.8%	25.8%	8.1%	-35.2%
Analog, interface and mixed signal products	34.2%	16.6%	21.4%	21.2%	10.5%	10.3%	-27.3%	-48.5%	-49.7%	-43.8%	-14.9%	15.4%	27.6%	23.0%	-14.6%	23.8%	2.8%	-41.2%
Licensing, memory and other	36.5%	21.3%	19.6%	10.6%	7.1%	5.3%	-1.5%	-6.9%	-15.3%	-9.7%	-3.5%	10.2%	60.9%	21.4%	1.0%	23.8%	5.1%	-8.9%
<b>Total Sales (GAAP)</b>	<b>25.1%</b>	<b>25.7%</b>	<b>23.4%</b>	<b>21.1%</b>	<b>16.6%</b>	<b>8.7%</b>	<b>-18.6%</b>	<b>-40.7%</b>	<b>-42.1%</b>	<b>-34.4%</b>	<b>-8.5%</b>	<b>20.8%</b>	<b>25.4%</b>	<b>23.7%</b>	<b>-9.5%</b>	<b>24.9%</b>	<b>6.1%</b>	<b>-32.7%</b>
<b>% of Sales</b>																		
Microcontrollers	54.1%	56.9%	56.3%	58.0%	57.0%	57.0%	56.0%	53.7%	53.7%	55.4%	56.7%	56.7%	55.9%	56.4%	56.2%	56.0%	57.1%	55.0%
Analog, interface and mixed signal products	29.5%	27.6%	28.0%	28.0%	28.0%	28.0%	25.0%	24.3%	24.3%	24.0%	23.2%	23.2%	28.4%	28.3%	26.7%	28.3%	27.4%	23.9%
Licensing, memory and other	16.3%	15.5%	15.7%	14.0%	15.0%	15.0%	19.0%	22.0%	22.0%	20.7%	20.0%	20.0%	15.6%	15.3%	17.1%	15.7%	15.6%	21.1%
<b>Total Sales (GAAP)</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Source: BofA Global Research estimates, company reports

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MCHP inventory days increased in DecQ

FY (March)	1Q23	2Q23	3Q23	4Q23	1Q24	2Q24	3Q24	4Q24E	1Q25E	2Q25E	3Q25E	4Q25E	FY22	FY23	FY24E	CY22	CY23	CY24E
Balance Sheet (\$mn)	Jun-22	Sep-22	Dec-22	Mar-23	Jun-23	Sep-23	Dec-23	Mar-24E	Jun-24E	Sep-24E	Dec-24E	Mar-25E	Mar-22	Mar-23	Mar-24E	Dec-22	Dec-23	Dec-24E
<b>ASSETS</b>																		
Cash and cash equivalents	377	305	289	234	271	257	281	(151)	(228)	(328)	(157)	56	317	234	(151)	289	281	(157)
Short-term investments	2	2											2					
Accounts receivable, net	1145	1133	1175	1305	1465	1706	1398	1020	991	1073	1173	1162	1073	1305	1020	1175	1398	1173
Inventories	912	1030	1165	1325	1336	1331	1311	1323	1303	1351	1252	1144	854	1325	1323	1165	1311	1252
Deferred tax assets																		
Other current assets	207	206	204	205	197	233	229	229	229	229	229	229	206	205	229	204	229	229
Total current assets	2643	2676	2834	3069	3270	3526	3220	2421	2296	2325	2497	2591	2453	3069	2421	2834	3220	2497
Property, plant & equipment, net	995	1088	1114	1178	1186	1207	1208	1302	1322	1417	1538	1696	968	1178	1302	1114	1208	1538
Long-term deferred tax assets	1522	1692	1630	1584	1584	1584	1500	1500	1500	1500	1500	1500	1797	1584	1500	1630	1500	1500
Goodwill	6674	6674	6674	6674	6674	6674	6674	6674	6674	6674	6674	6674	6674	6674	6674	6674	6674	6674
Intangible assets, net	4256	3705	3545	3545	3545	3545	3500	3500	3500	3500	3500	3500	4043	3545	3500	3545	3500	3500
Other assets	119	306	320	320	236	65	42	42	42	42	42	42	265	320	42	320	42	42
<b>Total assets</b>	<b>16208</b>	<b>16141</b>	<b>16116</b>	<b>16370</b>	<b>16495</b>	<b>16601</b>	<b>16143</b>	<b>15439</b>	<b>15333</b>	<b>15458</b>	<b>15751</b>	<b>16002</b>	<b>16200</b>	<b>16370</b>	<b>15439</b>	<b>16116</b>	<b>16143</b>	<b>15751</b>
<b>LIABILITIES AND SE</b>																		
Accounts Payable	482	380	355	397	497	428	308	253	255	270	272	262	482	397	253	355	308	272
Accrued Liabilities	1004	1160	1256	1324	1324	1324	1324	1324	1324	1324	1324	1324	917	1324	1324	1256	1324	1324
Short term debt		999		1398	1399	1661	1662	1662	1662	1662	1662	1662		1398	1662		1662	1662
Current maturities of capital lease																		
Deferred income on dist.																		
Total current liabilities	1485	2538	1611	3119	3220	3413	3293	3238	3240	3256	3258	3247	1399	3119	3238	1611	3293	3258
Junior convertible debentures																		
Long-term line of credit	7564	6305	6589	5042	4632	4415	4033	4033	4033	4033	4033	4033	7687	5042	4033	6589	4033	4033
Long-term borrowings, net																		
Long-term income tax payable	706	667	660	706	719	679	635	635	635	635	635	635	705	706	635	660	635	635
Pension accrual																		
Deferred tax liability	41	42	40	43	42	34	33	33	33	33	33	33	40	43	33	40	33	33
Other long-term liabilities	434	486	904	948	1050	1093	1068	1068	1068	1068	1068	1068	474	948	1068	904	1068	1068
Total Liabilities	10231	10038	9805	9857	9663	9633	9063	9008	9010	9025	9027	9017	10305	9857	9008	9805	9063	9027
Total stockholders' equity	5978	6103	6312	6514	6831	6969	7080	6431	6323	6432	6723	6985	5895	6514	6431	6312	7080	6723
<b>Liabilities and SE</b>	<b>16208</b>	<b>16141</b>	<b>16116</b>	<b>16370</b>	<b>16495</b>	<b>16601</b>	<b>16143</b>	<b>15439</b>	<b>15333</b>	<b>15458</b>	<b>15751</b>	<b>16002</b>	<b>16200</b>	<b>16370</b>	<b>15439</b>	<b>16116</b>	<b>16143</b>	<b>15751</b>
Total cash (incl. restricted cash)	377	305	289	234	271	257	281	(151)	(228)	(328)	(157)	56	317	234	(151)	289	281	(157)
Short-term debt		999		1398	1399	1661	1662	1662	1662	1662	1662	1662		1398	1662		1662	1662
Long-term debt	7564	6305	6589	5042	4632	4415	4033	4033	4033	4033	4033	4033	7687	5042	4033	6589	4033	4033
Total debt (incl. equity component)	7564	7304	6589	6440	6031	6076	5695	5695	5695	5695	5695	5695	7687	6440	5695	6589	5695	5695
Net Cash	(7187)	(6999)	(6300)	(6206)	(5760)	(5819)	(5414)	(5846)	(5924)	(6024)	(5853)	(5640)	(7370)	(6206)	(5846)	(6300)	(5414)	(5853)
<b>Net Cash per dil. share</b>	<b>(\$12.80)</b>	<b>(\$12.54)</b>	<b>(\$11.34)</b>	<b>(\$11.20)</b>	<b>(\$10.45)</b>	<b>(\$10.60)</b>	<b>(\$9.91)</b>	<b>(\$10.71)</b>	<b>(\$10.88)</b>	<b>(\$11.10)</b>	<b>(\$10.83)</b>	<b>(\$10.49)</b>	<b>(\$13.04)</b>	<b>(\$11.20)</b>	<b>(\$10.71)</b>	<b>(\$11.34)</b>	<b>(\$9.91)</b>	<b>(\$10.83)</b>
Book Value per dil. share	\$10.65	\$10.93	\$11.36	\$11.76	\$12.39	\$12.69	\$12.96	\$11.78	\$11.61	\$11.85	\$12.44	\$12.99	\$10.43	\$11.76	\$11.78	\$11.36	\$12.96	\$12.44
Tangible Book Value per dil. share	(\$8.82)	(\$7.66)	(\$7.03)	(\$6.69)	(\$6.14)	(\$5.92)	(\$5.66)	(\$6.85)	(\$7.07)	(\$6.89)	(\$6.38)	(\$5.93)	(\$8.53)	(\$6.69)	(\$6.85)	(\$7.03)	(\$5.66)	(\$6.38)

Source: BofA Global Research estimates, company reports

BofA GLOBAL RESEARCH





MCHP holds strong FCF margins

<b>FY (March)</b>	<b>1Q23</b>	<b>2Q23</b>	<b>3Q23</b>	<b>4Q23</b>	<b>1Q24</b>	<b>2Q24</b>	<b>3Q24</b>	<b>4Q24E</b>	<b>1Q25E</b>	<b>2Q25E</b>	<b>3Q25E</b>	<b>4Q25E</b>	<b>FY22</b>	<b>FY23</b>	<b>FY24E</b>	<b>CY22</b>	<b>CY23</b>	<b>CY24E</b>
<b>Cash Flow Model (\$mn)</b>	<b>Jun-23</b>	<b>Sep-22</b>	<b>Dec-22</b>	<b>Mar-23</b>	<b>Jun-23</b>	<b>Sep-23</b>	<b>Dec-23</b>	<b>Mar-24E</b>	<b>Jun-24E</b>	<b>Sep-24E</b>	<b>Dec-24E</b>	<b>Mar-25E</b>	<b>Mar-22</b>	<b>Mar-23</b>	<b>Mar-24E</b>	<b>Dec-22</b>	<b>Dec-23</b>	<b>Dec-24E</b>
Net income	507	546	580	604	666	667	419	138	131	223	320	313	1286	2238	1890	2072	2356	812
Depreciation and Amortization	259	252	244	246	202	198	198	187	187	191	194	194	1144	1001	785	1048	845	758
Deferred income taxes	75	57	54										8	185		187		
Share-based compensation	41	41	44	45	38	45	25	34	34	38	41	41	210	172	142	174	153	146
Amortization of debt discount	2	2	2										45	5		15		
Amortization of debt issuance costs	2	2	2										12	7		9		
Losses on equity method investments																		
Impairment of intangible assets			1.4										3.0	1.4		4.4		
Amortization of available-for-sale investments																		
Increase in accounts receivable	(72.4)	11.8	(41.8)	(54.3)	(159.7)	(241.2)	308.1	378.0	29.1	(82.3)	(100.1)	11.7	(74.9)	(156.7)	285.2	(244.9)	(147.1)	224.8
(Increase) decrease in inventories	(65.0)	(125.2)	(134.6)	(123.4)	(11.5)	5.5	19.8	(11.6)	19.4	(47.9)	99.2	107.8	(177.8)	(448.2)	2.2	(397.6)	(109.6)	59.1
Increase in deferred income on shipments to distributors																		
Increase in accounts payable and accrued liabilities	152.4	(8.1)	81.2	(7.9)	100.5	69.4	(120.4)	54.9	(1.9)	(15.4)	(2.1)	10.3	192.7	217.6	104.4	344.4	41.6	35.5
Change in other assets and liabilities	(67.2)	14.6	444.6		51.7	(35.7)	3.3						94.2	392.0	19.3	431.0	19.3	
<b>Net cash provided by operating activities</b>	<b>840.4</b>	<b>793.2</b>	<b>1277.9</b>	<b>709.5</b>	<b>993.2</b>	<b>616.2</b>	<b>853.3</b>	<b>779.7</b>	<b>397.9</b>	<b>305.1</b>	<b>552.2</b>	<b>677.7</b>	<b>2842.7</b>	<b>3621.0</b>	<b>3242.4</b>	<b>3659.2</b>	<b>3172.2</b>	<b>2035.0</b>
Purchases of available-for-sale investments																		
Sales and maturities of available-for-sale investments																		
Business acquisitions, net of cash acquired																		
Investments in other assets	(32)	(21)	(23)										(122)	(76)		(106)		
Proceeds from sale of assets	0												14	0		2		
Capital expenditures	(122)	(110)	(141)	(113)	(111)	(74)	(60)	(55)	(44)	(49)	(53)	(53)	(370)	(486)	(300)	(488)	(358)	(201)
<b>Net cash from investing</b>	<b>(154)</b>	<b>(131)</b>	<b>(164)</b>	<b>(113)</b>	<b>(111)</b>	<b>(74)</b>	<b>(60)</b>	<b>(55)</b>	<b>(44)</b>	<b>(49)</b>	<b>(53)</b>	<b>(53)</b>	<b>(478)</b>	<b>(561)</b>	<b>(300)</b>	<b>(591)</b>	<b>(358)</b>	<b>(201)</b>
Repayments of revolving loan under previous credit facility																		
Proceeds from borrowings on revolving loan																		
Payment of cash dividend	(153)	(166)	(180)	(206)	(209)	(223)	(237)	(254)	(272)	(177)	(128)	(137)	(504)	(706)	(923)	(640)	(875)	(831)
Proceeds from sale of common stock	13	24	17										71	54		78		
Tax payments related to shares withheld for vested RSUs	(19)	(21)	(17)	(17)	(17)	(17)	(17)	(17)	(5)	(5)	(5)	(5)	(84)	(74)	(68)	(75)	(68)	(32)
Capital lease payments	(0)	(0)	(0)										(1)	(1)		(1)		
<b>Net cash from financing</b>	<b>(627)</b>	<b>(735)</b>	<b>(1130)</b>	<b>(373)</b>	<b>(1817)</b>	<b>(622)</b>	<b>(761)</b>	<b>(406)</b>	<b>(431)</b>	<b>(357)</b>	<b>(328)</b>	<b>(412)</b>	<b>(2328)</b>	<b>(2865)</b>	<b>(3606)</b>	<b>(3092)</b>	<b>(3573)</b>	<b>(1522)</b>
FX																		
<b>Net (decrease) increase in cash</b>	<b>60</b>	<b>(72)</b>	<b>(16)</b>	<b>224</b>	<b>(935)</b>	<b>(80)</b>	<b>33</b>	<b>319</b>	<b>(77)</b>	<b>(100)</b>	<b>171</b>	<b>213</b>	<b>37</b>	<b>195</b>	<b>(663)</b>	<b>(25)</b>	<b>(759)</b>	<b>313</b>
Free Cash Flow (FCF)	719	683	1137	597	776	542	794	725	354	256	499	625	2473	3135	2942	3171	2815	1834
FCF/share	\$1.28	\$1.22	\$2.05	\$1.08	\$1.41	\$0.99	\$1.45	\$1.33	\$0.65	\$0.47	\$0.92	\$1.16	\$4.37	\$5.63	\$5.37	\$5.66	\$5.12	\$3.38

Source: BofA Global Research estimates, company reports

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## Price objective basis & risk

### Microchip (MCHP)

We assign a \$100 PO based on 31x our 2025E EV/FCF. This is in line with the comparable peers trading at 23x-41x range and justified due to MCHP's mix of growth, execution, profitability, and leverage, which is in line with/quickly approaching analog peers.

Upside risks to our PO: FCF returns that are the upper end of the peer group, but not fully reflected in the company's multiple which trades at a discount to peers, inflecting/greater FCF growth going forward as MCHP deleverages its balance sheet and accelerates returns to shareholders. Downside risks to our PO: macro headwinds related to trade/COVID-19, increased competition capping any market share gains, tougher compares, GMs approaching the upper end of historical range and long term model

## Analyst Certification

I, Vivek Arya, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

### US - Semiconductors and Semiconductor Capital Equipment Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
<b>BUY</b>				
	Advanced Micro Devices, Inc	AMD	AMD US	Vivek Arya
	Analog Devices Inc.	ADI	ADI US	Vivek Arya
	Applied Materials, Inc.	AMAT	AMAT US	Vivek Arya
	Arm Holdings	ARM	ARM US	Vivek Arya
	Broadcom Inc	AVGO	AVGO US	Vivek Arya
	Cadence	CDNS	CDNS US	Vivek Arya
	Camtek	CAMT	CAMT US	Vivek Arya
	KLA Corporation	KLAC	KLAC US	Vivek Arya
	Lam Research Corp.	LRCX	LRCX US	Vivek Arya
	M/A-Com	MTSI	MTSI US	Vivek Arya
	Marvell Technology Group Ltd.	MRVL	MRVL US	Vivek Arya
	Microchip	MCHP	MCHP US	Vivek Arya
	Micron Technology, Inc	MU	MU US	Vivek Arya
	Nova	NVMI	NVMI US	Vivek Arya
	NVIDIA Corporation	NVDA	NVDA US	Vivek Arya
	NXP Semiconductors NV	NXPI	NXPI US	Vivek Arya
	onsemi	ON	ON US	Vivek Arya
	Synopsys	SNPS	SNPS US	Vivek Arya
<b>NEUTRAL</b>				
	Advanced Energy Industries	AEIS	AEIS US	Duksan Jang
	Allegro MicroSystems	ALGM	ALGM US	Blake Friedman
	Axcelis Technologies	ACLS	ACLS US	Duksan Jang
	Coherent Corp	COHR	COHR US	Vivek Arya
	GlobalFoundries	GFS	GFS US	Vivek Arya
	Intel	INTC	INTC US	Vivek Arya
	Lattice Semiconductor	LSCC	LSCC US	Blake Friedman
	Texas Instruments Inc.	TXN	TXN US	Vivek Arya
<b>UNDERPERFORM</b>				
	Ambarella	AMBA	AMBA US	Vivek Arya
	Credo Technology	CRDO	CRDO US	Vivek Arya
	Lumentum Holdings	LITE	LITE US	Vivek Arya
	Qorvo Inc.	QRVO	QRVO US	Vivek Arya
	Skyworks Solutions, Inc.	SWKS	SWKS US	Vivek Arya
	Teradyne	TER	TER US	Vivek Arya
	Wolfspeed Inc	WOLF	WOLF US	Vivek Arya

## US - Semiconductors and Semiconductor Capital Equipment Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
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**iQmethod<sup>SM</sup> Measures Definitions****Business Performance**

Return On Capital Employed

Return On Equity

Operating Margin

Earnings Growth

Free Cash Flow

**Numerator**

NOPAT = (EBIT + Interest Income) × (1 – Tax Rate) + Goodwill Amortization

Net Income

Operating Profit

Expected 5 Year CAGR From Latest Actual

Cash Flow From Operations – Total Capex

**Denominator**

Total Assets – Current Liabilities + ST Debt + Accumulated Goodwill

Amortization

Shareholders' Equity

Sales

N/A

N/A

**Quality of Earnings**

Cash Realization Ratio

Asset Replacement Ratio

Tax Rate

Net Debt-To-Equity Ratio

Interest Cover

**Numerator**

Cash Flow From Operations

Capex

Tax Charge

Net Debt = Total Debt – Cash &amp; Equivalents

EBIT

**Denominator**

Net Income

Depreciation

Pre-Tax Income

Total Equity

Interest Expense

**Valuation Toolkit**

Price / Earnings Ratio

Price / Book Value

Dividend Yield

Free Cash Flow Yield

Enterprise Value / Sales

**Numerator**

Current Share Price

Current Share Price

Annualised Declared Cash Dividend

Cash Flow From Operations – Total Capex

EV = Current Share Price × Current Shares + Minority Equity + Net Debt +

Other LT Liabilities

Enterprise Value

**Denominator**

Diluted Earnings Per Share (Basis As Specified)

Shareholders' Equity / Current Basic Shares

Current Share Price

Market Cap = Current Share Price × Current Basic Shares

Sales

Basic EBIT + Depreciation + Amortization

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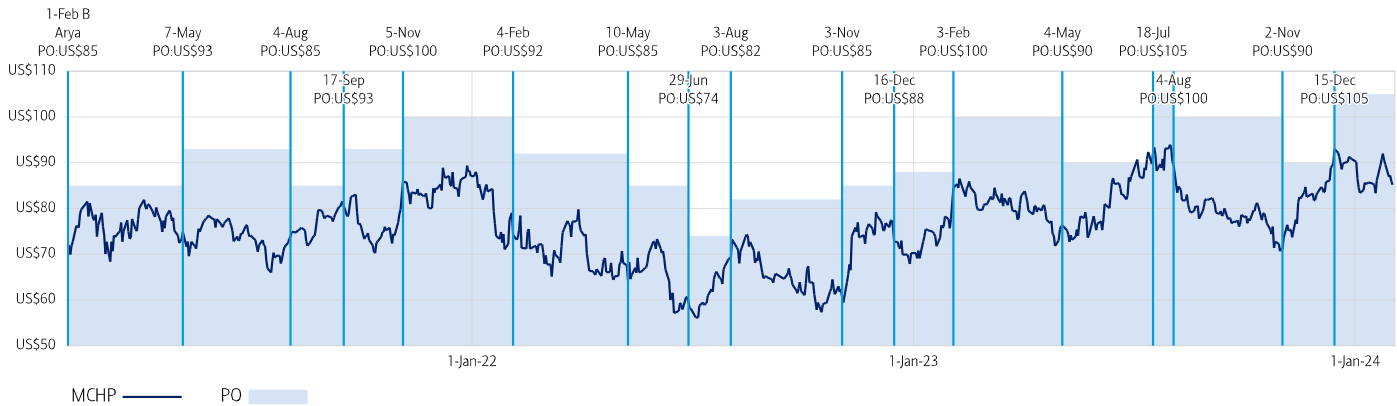
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# Disclosures

## Important Disclosures

### Microchip (MCHP) Price Chart



B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

The Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey shading indicates the security is not covered. Chart is current as of a date no more than one trading day prior to the date of the report.

### Equity Investment Rating Distribution: Electronics Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships <sup>R1</sup>	Count	Percent
Buy	32	54.24%	Buy	13	40.63%
Hold	11	18.64%	Hold	3	27.27%
Sell	16	27.12%	Sell	4	25.00%

### Equity Investment Rating Distribution: Global Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships <sup>R1</sup>	Count	Percent
Buy	1895	53.62%	Buy	1083	57.15%
Hold	832	23.54%	Hold	454	54.57%
Sell	807	22.84%	Sell	383	47.46%

<sup>R1</sup> Issuers that were investment banking clients of BofA Securities or one of its affiliates within the past 12 months. For purposes of this Investment Rating Distribution, the coverage universe includes only stocks. A stock rated Neutral is included as a Hold, and a stock rated Underperform is included as a Sell.

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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster <sup>R2</sup>
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

<sup>R2</sup> Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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