

## GlobalFoundries

# Closer to trough, but recovery muted, FCF improving

Reiterate Rating: NEUTRAL | PO: 62.00 USD | Price: 54.66 USD

## Recovery pushed out, though cash flows on track

Q4 sales/pf-EPS 0%/10% better on LTA cancellation fee (\$79mn) and one-time tax credit benefit (\$46mn), but Q1 guides 14%/50% below on continued mobile/IoT/comms infra weaknesses. Overall, channel inventory remains elevated for longer and should impact GFS sales into 1H'24, before a potential recovery in 2H. Particularly, Comms Infra could remain weak on ongoing customer migration to leading-edge process nodes (TSMC), while GFS shifts focus to mature node auto and mobile applications. Despite the prolonged correction, auto could continue to grow YoY in CY24E on content gains, and mobile should return to YoY growth on mix shift toward more premium handsets (increased 5G adoption in second-tier devices). Moreover, utilization should start to recover from the current low-/mid-70% back to 80-90% range, paving way for a solid GM recovery throughout 2H'24/CY25E (every 5pts of utilization equals 2pts of GMs). Overall, we lower CY24/25E sales by -11%/-9% and pf-EPS by -39%/-34% to \$1.30/\$1.79 as the recovery is essentially pushed out. However, we highlight our CY24/25E FCF remain relatively healthy at \$1.2/\$1.0bn (vs. \$1.4/\$1.1bn prior). Reiterate Neutral and lower PO to \$62 from \$65 prior, now on 13x CY25E EV/EBITDA from 12x prior on nearing trough earnings, but still within the historical 7x-16x range.

## Likes: Cash flows, ITC, Mobile bottoming

(1) Despite the ongoing demand headwinds, GFS posted positive FCF for the third consecutive quarter in Q4 and expects further growth in CY24E. This is driven by a lower capex run-rate of \$700mn (vs. \$1.8bn/\$3.0bn in CY22/23). (2) GFS benefitted \$46mn from CHIPS Act investment tax credit (ITC) in CY23 and expects continued benefits throughout the life of the program. (3) Smart Mobile Devices should see its first YoY growth in Q1 on improving customer inventories/mix and easier comps.

## Risks: Utilization, gross margins, tax increases

(1) On continued high customer inventories, Q1 sales were guided to -18% QoQ. This should result in further lower utilization at low-/mid-70% in Q1, following low-/mid-80% range in CY23 and near-100% in CY22. Every 5 points of utilization translates to 2 points of gross margins. (2) On low Q1 utilization and volume bases, our CY24 GM estimate is now 26.3%, down 280bps YoY. Mobile/consumer inventory levels remain elevated and should pressure GMs throughout first half of CY24. (3) Following various benefits through CY23, taxes should increase to low-/mid-teens rate going forward.

Estimates (Dec) (US\$)	2022A	2023A	2024E	2025E	2026E
EPS	3.13	2.28	1.30	1.79	2.15
GAAP EPS	2.62	1.83	0.94	1.42	1.76
EPS Change (YoY)	NM	-27.2%	-43.0%	37.7%	20.1%
Consensus EPS (Bloomberg)			2.26	3.14	4.19
DPS	0	0	0	0	0
Valuation (Dec)					
P/E	17.8x	24.5x	42.9x	31.2x	26.0x
GAAP P/E	21.3x	30.5x	59.4x	39.3x	31.7x
EV / EBITDA*	10.4x	11.7x	14.4x	12.1x	10.9x
Free Cash Flow Yield*	-1.6%	1.0%	4.0%	3.3%	2.8%

\* For full definitions of *IQmethod*<sup>SM</sup> measures, see page 12.

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Timestamp: 13 February 2024 04:52PM EST

13 February 2024

### Equity

#### Key Changes

(US\$)	Previous	Current
Price Obj.	65.00	62.00
2024E Rev (m)	7,408.9	6,593.1
2025E Rev (m)	8,157.6	7,392.9
2026E Rev (m)	8,834.0	8,004.1
2024E EPS	2.12	1.30
2025E EPS	2.70	1.79
2026E EPS	3.10	2.15

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### Stock Data

Price	54.66 USD
Price Objective	62.00 USD
Date Established	13-Feb-2024
Investment Opinion	C-2-9
52-Week Range	48.12 USD - 72.50 USD
Mkt Val (mn) / Shares Out (mn)	30,238 USD / 553.2
Free Float	15.1%
Average Daily Value (mn)	83.25 USD
BofA Ticker / Exchange	GFS / NAS
Bloomberg / Reuters	GFS US / GFS.OQ
ROE (2024E)	6.6%
Net Dbt to Eqty (Dec-2023A)	-0.1%
ESGMeter™	NLA

**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".**

ASP – average selling price  
LTA – long-term agreement  
SoC – system on chip  
RF-SOI – Radio frequency silicon-on-insulator  
GFS – GlobalFoundries  
A&D – Aerospace & Defense  
QCOM – Qualcomm  
OEM – Original Equipment Manufacturer

# iQprofile<sup>SM</sup> GlobalFoundries

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

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Return on Capital Employed	9.7%	8.2%	4.9%	6.6%	7.5%
Return on Equity	19.2%	12.0%	6.6%	8.9%	9.9%
Operating Margin	89.4%	89.4%	86.6%	87.0%	87.5%
Free Cash Flow	(487)	321	1,231	1,028	879

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

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash Realization Ratio	1.5x	1.7x	2.7x	2.1x	2.0x
Asset Replacement Ratio	1.9x	1.2x	0.6x	0.8x	1.1x
Tax Rate	NM	NM	NM	NM	NM
Net Debt-to-Equity Ratio	1.6%	-0.1%	-11.5%	-19.6%	-24.9%
Interest Cover	19.8x	NA	NM	NA	NA

## Income Statement Data (Dec)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Sales	8,108	7,392	6,593	7,393	8,004
% Change	23.1%	-8.8%	-10.8%	12.1%	8.3%
Gross Profit	2,303	2,149	1,732	2,145	2,431
% Change	115.4%	-6.7%	-19.4%	23.9%	13.3%
EBITDA	3,096	2,763	2,237	2,662	2,944
% Change	68.0%	-10.8%	-19.0%	19.0%	10.6%
Net Interest & Other Income	(73)	0	(8)	0	0
<b>Net Income (Adjusted)</b>	<b>1,727</b>	<b>1,265</b>	<b>728</b>	<b>1,008</b>	<b>1,216</b>
<b>% Change</b>	<b>NM</b>	<b>-26.8%</b>	<b>-42.4%</b>	<b>38.4%</b>	<b>20.7%</b>

## Free Cash Flow Data (Dec)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Net Income from Cont Operations (GAAP)	1,447	1,018	525	799	996
Depreciation & Amortization	1,623	1,451	1,319	1,405	1,441
Change in Working Capital	(176)	(538)	(208)	(453)	(392)
Deferred Taxation Charge	NA	NA	NA	NA	NA
Other Adjustments, Net	(322)	194	321	386	435
Capital Expenditure	(3,059)	(1,804)	(725)	(1,109)	(1,601)
<b>Free Cash Flow</b>	<b>-487</b>	<b>321</b>	<b>1,231</b>	<b>1,028</b>	<b>879</b>
<b>% Change</b>	<b>NM</b>	<b>NM</b>	<b>283.6%</b>	<b>-16.5%</b>	<b>-14.5%</b>
Share / Issue Repurchase	0	0	0	0	0
Cost of Dividends Paid	0	0	0	0	0
Change in Debt	581	(259)	(9)	(9)	(9)

## Balance Sheet Data (Dec)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash & Equivalents	2,352	2,387	3,629	4,669	5,558
Trade Receivables	1,487	1,420	1,377	1,491	1,582
Other Current Assets	1,961	2,520	2,454	2,486	2,487
Property, Plant & Equipment	10,596	10,164	9,571	9,275	9,435
Other Non-Current Assets	1,445	1,553	1,533	1,513	1,493
<b>Total Assets</b>	<b>17,841</b>	<b>18,044</b>	<b>18,564</b>	<b>19,434</b>	<b>20,556</b>
Short-Term Debt	223	571	571	571	571
Other Current Liabilities	3,136	2,528	2,681	2,778	2,881
Long-Term Debt	2,288	1,801	1,801	1,801	1,801
Other Non-Current Liabilities	2,234	1,993	2,599	2,545	2,502
<b>Total Liabilities</b>	<b>7,881</b>	<b>6,893</b>	<b>7,652</b>	<b>7,695</b>	<b>7,755</b>
<b>Total Equity</b>	<b>9,960</b>	<b>11,151</b>	<b>10,911</b>	<b>11,739</b>	<b>12,801</b>
<b>Total Equity &amp; Liabilities</b>	<b>17,841</b>	<b>18,044</b>	<b>18,564</b>	<b>19,434</b>	<b>20,556</b>

\* For full definitions of iQmethod<sup>SM</sup> measures, see page 12.

## Company Sector

Semiconductors

## Company Description

GlobalFoundries is the fourth largest outsourced semiconductor manufacturer (aka foundry) and is the last remaining US-based pure-play foundry. GlobalFoundries manufactures complex, feature-rich integrated circuits addressing mission-critical applications in smart mobile device, personal computing, communication infrastructure & data center, home & industrial Internet of Things (IoT), and automotive markets.

## Investment Rationale

We rate GlobalFoundries Neutral. As the #1 US-based foundry with no Taiwan or China footprint, GlobalFoundries is uniquely positioned to benefit from growing focus on reshoring capacity, and has the ability to deliver specialized, lagging-edge processes with lower capital intensity vs. leading edge development. However, we note elevated smartphone, auto, and industrial inventories could impact utilization/revenue for the foreseeable future.

## Stock Data

Average Daily Volume 1,523,015

## Quarterly Earnings Estimates

	2023	2024
Q1	0.52A	0.23E
Q2	0.53A	0.24E
Q3	0.55A	0.39E
Q4	0.64A	0.44E

# Summary of model changes

## Exhibit 1: Summary of changes to Sales and EPS estimates

We tweak FY24/25E EPS by -39%/-34% to \$1.30/\$1.79

	Sales (\$mn)			Non-GAAP EPS		
	Old	NEW	delta	Old	NEW	delta
Mar-23	\$1,841	\$1,841	\$0	\$0.52	\$0.52	\$0.00
Jun-23	\$1,845	\$1,845	\$0	\$0.53	\$0.53	\$0.00
Sep-23	\$1,852	\$1,852	\$0	\$0.55	\$0.55	\$0.00
Dec-23	\$1,852	\$1,854	\$2	\$0.59	\$0.64	\$0.05
<b>FY23</b>	<b>\$7,390</b>	<b>\$7,392</b>	<b>\$2</b>	<b>\$2.21</b>	<b>\$2.28</b>	<b>\$0.06</b>
<b>YoY%</b>	<b>-8.9%</b>	<b>-8.8%</b>	<b>0.0%</b>	<b>-29.3%</b>	<b>-27.3%</b>	<b>2.7%</b>
Mar-24E	\$1,753	\$1,520	(\$233)	\$0.46	\$0.23	(\$0.23)
Jun-24E	\$1,811	\$1,539	(\$272)	\$0.50	\$0.24	(\$0.26)
Sep-24E	\$1,913	\$1,737	(\$176)	\$0.57	\$0.39	(\$0.18)
Dec-24E	\$1,932	\$1,798	(\$134)	\$0.59	\$0.44	(\$0.15)
<b>FY24E</b>	<b>\$7,409</b>	<b>\$6,593</b>	<b>(\$816)</b>	<b>\$2.12</b>	<b>\$1.30</b>	<b>(\$0.82)</b>
<b>YoY%</b>	<b>0.3%</b>	<b>-10.8%</b>	<b>-11.0%</b>	<b>-4.4%</b>	<b>-42.9%</b>	<b>-38.7%</b>
Mar-25E	\$1,969	\$1,744	(\$226)	\$0.62	\$0.39	(\$0.23)
Jun-25E	\$2,011	\$1,788	(\$223)	\$0.66	\$0.41	(\$0.24)
Sep-25E	\$2,062	\$1,915	(\$147)	\$0.70	\$0.49	(\$0.22)
Dec-25E	\$2,116	\$1,947	(\$169)	\$0.72	\$0.50	(\$0.22)
<b>FY25E</b>	<b>\$8,158</b>	<b>\$7,393</b>	<b>(\$765)</b>	<b>\$2.70</b>	<b>\$1.79</b>	<b>(\$0.91)</b>
<b>YoY%</b>	<b>10.1%</b>	<b>12.1%</b>	<b>-9.4%</b>	<b>27.7%</b>	<b>37.9%</b>	<b>-33.8%</b>

Source: BofA Global Research estimates, company reports

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# Q4 reported vs. expectations

## Exhibit 2: Summary of Q4 reported numbers vs. expectations

GFS reported DecQ sales 0% ahead of consensus and EPS was 6c ahead

	Dec-22	Sep-23	Dec-23							
			Guidance	Consensus	BofA	Reported	Delta vs. Cons. (%)	Delta vs. Cons. (\$)	QoQ	YoY
<b>Sales (\$mn, Non-GAAP)</b>	<b>\$2,101</b>	<b>\$1,852</b>	<b>\$1850</b>	<b>\$1,851</b>	<b>\$1,852</b>	<b>\$1,854</b>	<b>0.2%</b>	<b>\$3</b>	<b>0.1%</b>	<b>-11.8%</b>
QoQ%	1.3%	0.4%		-0.1%	0.0%	0.1%				
YoY%	13.8%	-10.7%			-11.8%	-11.8%				
Wafer Shipments (000s)	580	575		584	565	552	-5.4%	(32)	-4.0%	-4.8%
Revenue Per Wafer (\$)	\$4,114	\$3,572		\$2,822	\$2,920	\$3,694	30.9%	\$872	3.4%	-10.2%
Automotive	\$115	\$303		\$313	\$309	\$318	1.7%	\$5	5.0%	176.5%
Comms Infrastructure and Data Center	\$386	\$156		\$150	\$153	\$144	-3.8%	(\$6)	-7.7%	-62.7%
Personal Computing	\$531	\$408		\$41	\$52	\$406	883.1%	\$365	-0.5%	-23.5%
Home and Industrial IoT	\$115	\$37		\$375	\$367	\$84	-77.6%	(\$291)	127.0%	-27.0%
Smart Mobile Devices	\$416	\$371		\$769	\$767	\$322	-58.1%	(\$447)	-13.2%	-22.6%
Other & NWR	\$823	\$779		\$204	\$204	\$765	275.6%	\$561	-1.8%	-7.0%
<b>Gross Margin % (Non-GAAP)</b>	<b>30.1%</b>	<b>29.2%</b>	<b>28.3%</b>	<b>28.3%</b>	<b>28.3%</b>	<b>29.0%</b>	<b>71</b>		<b>(25)</b>	<b>(116)</b>
Gross Profit (Non-GAAP)	\$633	\$541	<b>\$523</b>		524	\$537			-0.7%	-15.2%
R&D	\$110	\$108			103	\$105			-2.8%	-4.5%
SG&A	\$130	\$143			126	\$87			-39.2%	-33.1%
Opex Total (Non-GAAP)	\$208	\$219		\$171	167	\$154	-9.8%	(\$17)	-29.7%	-26.0%
Op Inc (Non-GAAP)	\$425	\$322	<b>\$358</b>	<b>\$352</b>	357	\$383	8.7%	\$31	18.9%	-9.9%
<b>Op Margin % (Non-GAAP)</b>	<b>20.2%</b>	<b>17.4%</b>	<b>19.3%</b>	<b>19.0%</b>	<b>19.3%</b>	<b>20.7%</b>	<b>163</b>		<b>327</b>	<b>43</b>
Pretax Income (Non-GAAP)	\$813	\$304			347	379			24.7%	-53.4%
Tax expense (Non-GAAP)	(\$13)	\$4			(21)	(23)			-675.0%	NA
Tax rate (Non-GAAP)	1.6%	-1.3%			6.0%	6.1%			738	NA
Net Income (Non-GAAP)	\$800	\$308	<b>\$327</b>		326	\$356			15.6%	-55.5%
<b>Diluted EPS (Non-GAAP)</b>	<b>\$1.44</b>	<b>\$0.55</b>	<b>\$0.585</b>	<b>\$0.58</b>	<b>\$0.59</b>	<b>\$0.64</b>	<b>9.6%</b>	<b>\$0.06</b>	<b>15.4%</b>	<b>-55.7%</b>
Diluted Shares	554	556	557		557	557			0.2%	0.5%
<b>Adjusted EBITDA</b>	<b>821</b>	<b>667</b>		<b>732</b>	<b>732</b>	<b>773</b>			<b>15.9%</b>	<b>-5.8%</b>

Source: BofA Global Research estimates, company reports, Bloomberg

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# Q1 guidance vs. expectations

## Exhibit 3: Summary of Q1 guidance vs. expectations

GFS guided MarQ sales \$163mn/14% below Street, with EPS guided 23c below

	Dec-23			Mar-24E	
	Reported	BofA	Cons	Guidance	New BofA
<b>Sales (\$mn)</b>	<b>\$1,854</b>	<b>\$1,753</b>	<b>\$1,763</b>	<b>\$1520 (\$1500-\$1540)</b>	<b>\$1,520</b>
QoQ%	0.1%	-5.3%	-4.8%		-18.0%
	-11.8%	-4.8%			-17.4%
Wafer Shipments (000s)	552	530	559		366
Revenue Per Wafer (\$)	\$3,694	\$2,920	\$2,812		\$3,694
Automotive	\$318	\$300	\$312		\$270
Comms Infrastructure and Data Center	\$144	\$150	\$149		\$108
Personal Computing	\$406	\$53	\$39		\$256
Home and Industrial IoT	\$84	\$358	\$352		\$0
Smart Mobile Devices	\$322	\$687	\$721		\$0
Other & NWR	\$765	\$206	\$202		\$719
<b>Gross Margin % (Non-GAAP)</b>	<b>29.0%</b>	<b>28.0%</b>	<b>27.2%</b>	<b>24.0%</b>	<b>24.0%</b>
Gross Profit (Non-GAAP)	\$537	491		<b>\$365 (\$345-\$385)</b>	\$365
R&D	\$105	104			\$114
SG&A	\$87	127			\$141
Opex Total (Non-GAAP)	\$154	198	\$204		\$215
Op Inc (Non-GAAP)	\$383	293	\$276	<b>\$150 (\$120-\$180)</b>	\$150
<b>Op Margin % (Non-GAAP)</b>	<b>20.7%</b>	<b>16.7%</b>	<b>15.7%</b>	<b>9.9%</b>	<b>9.9%</b>
Pretax Income (Non-GAAP)	\$379	296			142
Tax expense (Non-GAAP)	(\$23)	(39)			(14)
Tax rate (Non-GAAP)	6.1%	13.0%			10.0%
Net Income (Non-GAAP)	\$356	258		<b>\$128 (\$100-\$156)</b>	\$128
<b>Diluted EPS (Non-GAAP)</b>	<b>\$0.64</b>	<b>\$0.46</b>	<b>\$0.46</b>	<b>\$0.23 (\$0.18-\$0.28)</b>	<b>\$0.23</b>
Diluted Shares	557	558		561	561
<b>Adjusted EBITDA</b>	<b>773</b>	<b>623</b>	<b>658</b>		<b>472</b>

Source: BofA Global Research estimates, company reports, Bloomberg

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# Balance sheet, cash flow snapshot

## Exhibit 4: Summary of Balance Sheet and Cash Flow Statement

GFS net cash position increased QoQ; Inventory dollars decreased and days decreased QoQ

	Dec-22	Mar-23	Jun-23	Sep-23	Dec-23	QoQ%	YoY%
Total Cash	\$2,352	\$2,256	\$1,832	\$1,880	\$2,387		
ST Debt	\$223	\$205	\$221	\$199	\$571		
LT Debt	\$2,288	\$2,310	\$2,208	\$2,181	\$1,801		
Total Debt	\$2,511	\$2,515	\$2,429	\$2,380	\$2,372		
Net Cash	(\$159)	(\$259)	(\$597)	(\$500)	\$15		
<b>Net Cash/Share</b>	<b>(\$0.29)</b>	<b>(\$0.47)</b>	<b>(\$1.07)</b>	<b>(\$0.90)</b>	<b>\$0.03</b>	<b>103.0%</b>	<b>109.4%</b>
DSO	64.4	64.1	60.8	69.0	69.7		
DPO	-	-	-	-	-		
<b>Inventory \$</b>	<b>\$1,339</b>	<b>\$1,423</b>	<b>\$1,504</b>	<b>\$1,509</b>	<b>\$1,487</b>	<b>-1.5%</b>	<b>11.1%</b>
<b>Inventory Days</b>	<b>82.4</b>	<b>97.7</b>	<b>104.2</b>	<b>103.8</b>	<b>101.8</b>	<b>-1.9%</b>	<b>23.6%</b>
Cash Conversion days	146.8	161.7	165.0	172.8	171.5		
<b>Cash Flow from Ops</b>	<b>\$491</b>	<b>\$479</b>	<b>\$546</b>	<b>\$416</b>	<b>\$684</b>	<b>64.4%</b>	<b>39.3%</b>
Capex	(\$991)	(\$853)	(\$400)	(\$323)	(\$228)		
<b>Free cash flow</b>	<b>(\$500)</b>	<b>(\$374)</b>	<b>\$146</b>	<b>\$93</b>	<b>\$456</b>	<b>390.3%</b>	<b>191.2%</b>
FCF as % of sales (ttm)	-23.8%	-20.3%	7.9%	5.0%	24.6%		

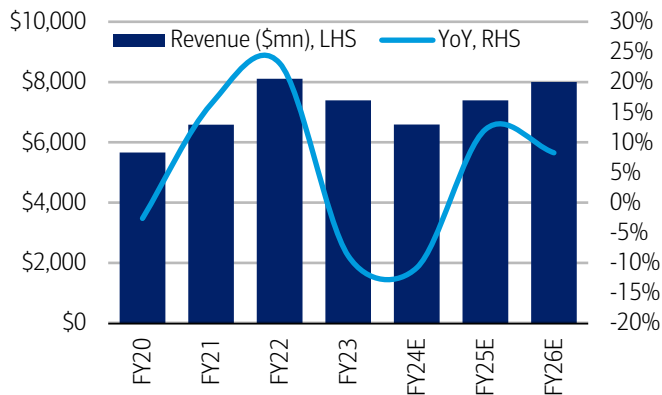
Source: BofA Global Research estimates, company reports

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# Key charts

## Exhibit 5: GFS annual revenue and YoY growth

We see revenue growing towards \$8bn by 2026E

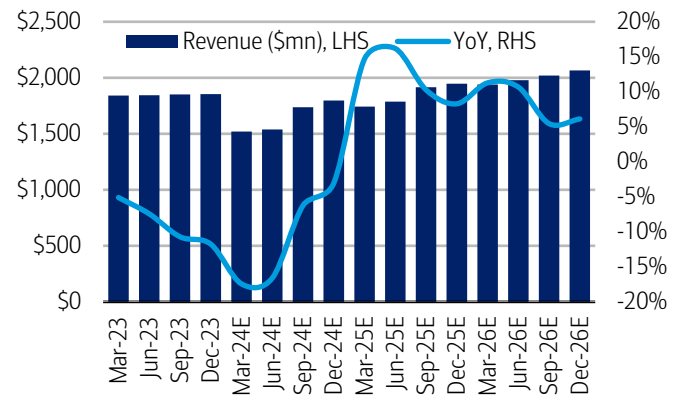


Source: BofA Global Research estimates, company reports

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## Exhibit 6: GFS quarterly revenue and YoY growth

We see consistent 5-10%+ quarterly YoY revenue growth

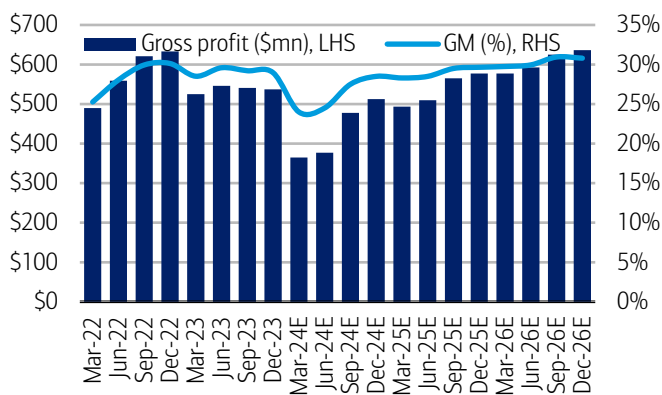


Source: BofA Global Research estimates, company reports

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## Exhibit 7: GFS quarterly gross profit and gross margin %

We see path towards 30%+ gross margins by 2026E

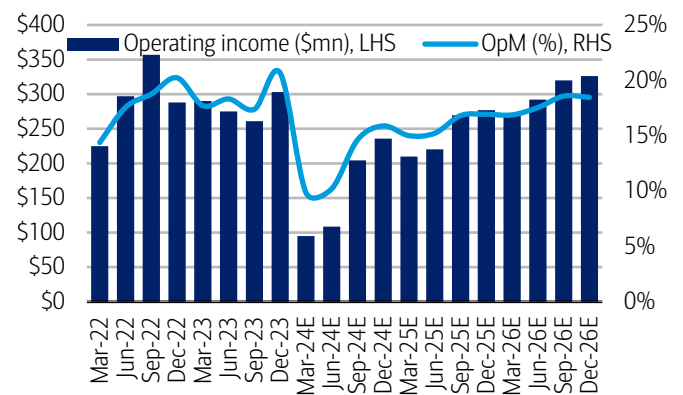


Source: BofA Global Research estimates, company reports

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## Exhibit 8: GFS quarterly operating income and operating margin %

We see path towards 20% OpMs by 2026E

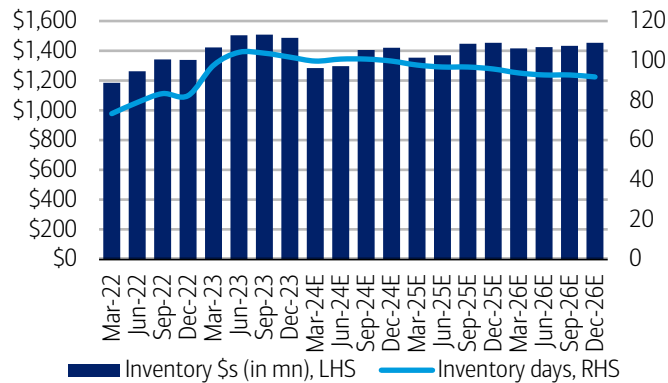


Source: BofA Global Research estimates, company reports

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**Exhibit 9: GFS inventory dollars and days**

We expect inventory days to remain in the 70-100 days range

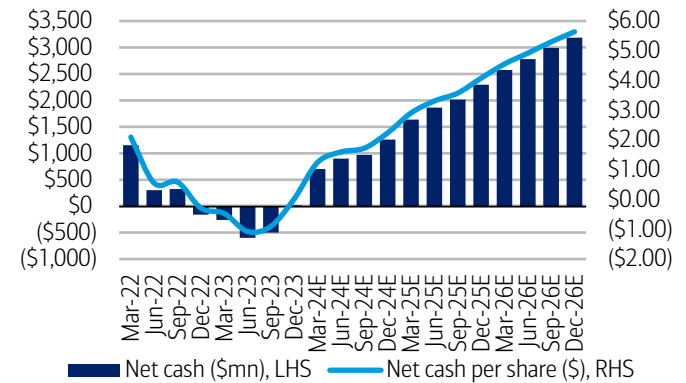


Source: BofA Global Research estimates, company reports

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**Exhibit 10: GFS net cash and net cash per share**

We expect net cash to gradually improve

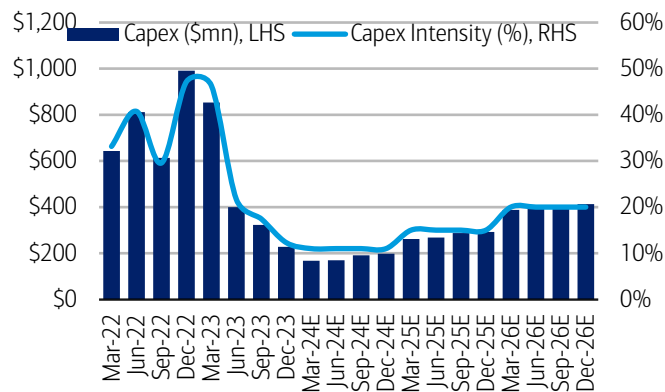


Source: BofA Global Research estimates, company reports

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**Exhibit 11: GFS quarterly capex and YoY growth**

We see a period of low capex investment in 2024/2025E

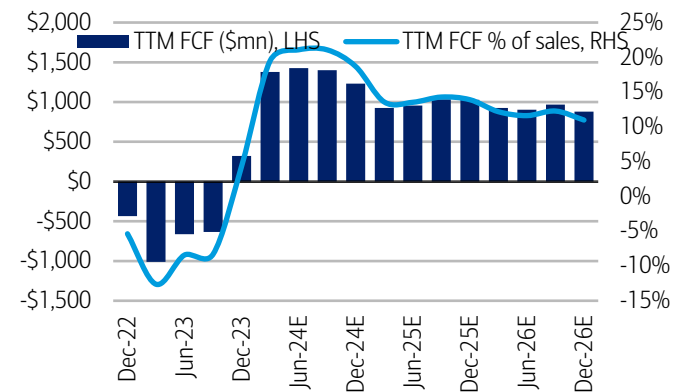


Source: BofA Global Research estimates, company reports

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**Exhibit 12: GFS TTM FCF and FCF as a % of sales**

We see long-term FCF margins approaching 10%+



Source: BofA Global Research estimates, company reports

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### Exhibit 13: GFS – Income Statement

GFS reported \$1.85bn in sales and 0.64c in EPS in DecQ

FY (December)	1Q23 Mar-23	2Q23 Jun-23	3Q23 Sep-23	4Q23 Dec-23	1Q24E Mar-24E	2Q24E Jun-24E	3Q24E Sep-24E	4Q24E Dec-24E	1Q25E Mar-25E	2Q25E Jun-25E	3Q25E Sep-25E	4Q25E Dec-25E	FY23 Dec-23	FY24E Dec-24	FY25E Dec-25
<b>Revenues (Adj.)</b>	<b>\$1,841</b>	<b>\$1,845</b>	<b>\$1,852</b>	<b>\$1,854</b>	<b>\$1,520</b>	<b>\$1,539</b>	<b>\$1,737</b>	<b>\$1,798</b>	<b>\$1,744</b>	<b>\$1,788</b>	<b>\$1,915</b>	<b>\$1,947</b>	<b>\$7,392</b>	<b>\$6,593</b>	<b>\$7,393</b>
QoQ	-12%	0%	0%	0%	-18%	1%	13%	4%	-3%	3%	7%	2%			
YoY	-5%	-7%	-11%	-12%	-17%	-17%	-6%	-3%	15%	16%	10%	8%	-9%	-11%	12%
Cost of Revenue	1,326	1,313	1,323	1,329	1,170	1,170	1,269	1,295	1,260	1,288	1,361	1,380	5,291	4,904	5,289
Gross Profit (GAAP)	515	532	529	525	350	369	468	502	484	500	554	566	2,101	1,689	2,104
Gross Profit (Non-GAAP)	525	546	541	537	365	377	478	512	493	509	565	577	2,149	1,732	2,145
R&D Expense	109	106	108	105	114	116	119	121	122	125	127	130	428	470	503
SG&A Expense	111	132	143	87	141	144	145	146	152	155	158	160	473	576	624
Total Opex (GAAP)	225	257	268	222	255	260	264	267	274	279	285	290	972	1,045	1,128
Total Opex (Non-GAAP)	199	208	219	154	215	220	224	227	232	237	243	248	780	885	960
Operating Income (GAAP)	290	275	261	303	95	109	204	236	210	220	269	277	1,129	643	977
Operating Income (Non-GAAP)	326	338	322	383	150	157	254	286	262	272	322	330	1,369	846	1,185
Interest Expense	1	-	3	(4)	(8)	-	-	-	-	-	-	-	-	(8)	-
Gain on Asset Sales & Other	(14)	(10)	(21)	-	-	-	-	-	-	-	-	-	(45)	-	-
Pretax Income (GAAP)	277	265	243	299	87	109	204	236	210	220	269	277	1,084	635	977
Pretax Income (Non-GAAP)	313	328	304	379	142	157	254	286	262	272	322	330	1,324	838	1,185
Net Income (GAAP)	254	237	249	278	73	88	169	196	171	179	221	227	1,018	525	799
Net Income (Non-GAAP)	290	297	308	356	128	137	218	246	222	231	274	280	1,265	728	1,008
Diluted EPS (GAAP)	\$0.46	\$0.43	\$0.45	\$0.50	\$0.13	\$0.16	\$0.30	\$0.35	\$0.30	\$0.32	\$0.39	\$0.40	\$1.83	\$0.94	\$1.42
<b>Diluted EPS (Non-GAAP)</b>	<b>\$0.52</b>	<b>\$0.53</b>	<b>\$0.55</b>	<b>\$0.64</b>	<b>\$0.23</b>	<b>\$0.24</b>	<b>\$0.39</b>	<b>\$0.44</b>	<b>\$0.39</b>	<b>\$0.41</b>	<b>\$0.49</b>	<b>\$0.50</b>	<b>\$2.28</b>	<b>\$1.30</b>	<b>\$1.79</b>
Diluted Shares (GAAP)	555	556	556	557	561	561	561	561	563	563	563	563	556	561	563
Diluted Shares (Non-GAAP)	555	556	556	557	561	561	561	561	563	563	563	563	556	561	563
<b>Margin Analysis (Non-GAAP)</b>															
<b>Gross Margin</b>	<b>28.5%</b>	<b>29.6%</b>	<b>29.2%</b>	<b>29.0%</b>	<b>24.0%</b>	<b>24.5%</b>	<b>27.5%</b>	<b>28.5%</b>	<b>28.3%</b>	<b>28.5%</b>	<b>29.5%</b>	<b>29.7%</b>	<b>29.1%</b>	<b>26.3%</b>	<b>29.0%</b>
R&D (GAAP)	5.9%	5.7%	5.8%	5.7%	7.5%	7.6%	6.8%	6.7%	7.0%	7.0%	6.6%	6.7%	5.8%	7.1%	6.8%
SG&A (GAAP)	6.0%	7.2%	7.7%	4.7%	9.3%	9.3%	8.4%	8.1%	8.7%	8.7%	8.2%	8.2%	6.4%	8.7%	8.4%
Opex	10.8%	11.3%	11.8%	8.3%	14.1%	14.3%	12.9%	12.6%	13.3%	13.3%	12.7%	12.7%	10.6%	13.4%	13.0%
<b>Operating Margin</b>	<b>17.7%</b>	<b>18.3%</b>	<b>17.4%</b>	<b>20.7%</b>	<b>9.9%</b>	<b>10.2%</b>	<b>14.6%</b>	<b>15.9%</b>	<b>15.0%</b>	<b>15.2%</b>	<b>16.8%</b>	<b>16.9%</b>	<b>18.5%</b>	<b>12.8%</b>	<b>16.0%</b>
Tax rate	7.3%	9.5%	(1.3%)	6.1%	10.0%	13.0%	14.0%	14.0%	15.0%	15.0%	15.0%	15.0%	4.5%	13.1%	15.0%
Net Income	15.8%	16.1%	16.6%	19.2%	8.4%	8.9%	12.6%	13.7%	12.8%	12.9%	14.3%	14.4%	17.1%	11.0%	13.6%

Source: BofA Global Research estimates, company reports

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**Exhibit 14: GFS – Segment Model**

We expect revenue growth to be led by automotive sales growth

	1Q23	2Q23	3Q23	4Q23	1Q24E	2Q24E	3Q24E	4Q24E	1Q25E	2Q25E	3Q25E	4Q25E	FY23	FY24E	FY25E
<b>FY (December)</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>Jun-25E</b>	<b>Sep-25E</b>	<b>Dec-25E</b>	<b>Dec-23</b>	<b>Dec-24</b>	<b>Dec-25</b>
Automotive	180	245	303	318	270	274	294	308	319	329	345	355	1,046	1,146	1,348
Comms Infrastructure and Data Center	352	211	156	144	108	103	118	130	123	124	128	129	863	458	504
Personal Computing	36	52	37	84	0	0	0	0	0	0	0	0	209	0	0
Home and Industrial IoT	344	358	371	322	0	0	0	0	0	0	0	0	1,395	0	0
Smart Mobile Devices	696	783	779	765	719	726	828	816	775	806	902	911	3,023	3,089	3,394
Other & NWR	233	196	206	221	167	167	180	189	189	185	189	195	856	703	759
<b>Total Revenue</b>	<b>1,841</b>	<b>1,845</b>	<b>1,852</b>	<b>1,854</b>	<b>1,520</b>	<b>1,539</b>	<b>1,737</b>	<b>1,798</b>	<b>1,744</b>	<b>1,788</b>	<b>1,915</b>	<b>1,947</b>	<b>7,392</b>	<b>6,593</b>	<b>7,393</b>
<b>QoQ Change %</b>															
Automotive															
Comms Infrastructure and Data Center															
Personal Computing															
Home and Industrial IoT															
Smart Mobile Devices															
Other & NWR															
<b>Total Revenue</b>															
<b>YoY Change %</b>															
Automotive													180%	10%	18%
Comms Infrastructure and Data Center													-39%	-47%	10%
Personal Computing													-30%	0%	0%
Home and Industrial IoT													-6%	0%	0%
Smart Mobile Devices													-19%	2%	10%
Other & NWR													6%	-18%	8%
<b>Total Revenue</b>													<b>-9%</b>	<b>-11%</b>	<b>12%</b>
<b>% of Sales</b>															
Automotive	10%	13%	16%	17%	18%	18%	17%	17%	18%	18%	18%	18%	14%	17%	18%
Comms Infrastructure and Data Center	19%	11%	8%	8%	7%	7%	7%	7%	7%	7%	7%	7%	12%	7%	7%
Personal Computing	2%	3%	2%	5%	0%	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%
Home and Industrial IoT	19%	19%	20%	17%	0%	0%	0%	0%	0%	0%	0%	0%	19%	0%	0%
Smart Mobile Devices	38%	42%	42%	41%	47%	47%	48%	45%	44%	45%	47%	47%	41%	47%	46%
Other & NWR	13%	11%	11%	12%	11%	11%	10%	11%	11%	10%	10%	10%	12%	11%	10%
<b>Total Revenue</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: BofA Global Research estimates, company reports

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## Exhibit 15: GFS – Balance Sheet

We expect an improvement in GFS' net cash position over time

FY (December)	1Q23 Mar-23	2Q23 Jun-23	3Q23 Sep-23	4Q23 Dec-23	1Q24E Mar-24E	2Q24E Jun-24E	3Q24E Sep-24E	4Q24E Dec-24E	1Q25E Mar-25E	2Q25E Jun-25E	3Q25E Sep-25E	4Q25E Dec-25E	FY23 Dec-23	FY24E Dec-24	FY25E Dec-25
<b>Assets</b>															
Cash and Cash Equivalents	2,256	1,832	1,880	2,387	3,073	3,270	3,340	3,629	4,010	4,237	4,386	4,669	2,387	3,629	4,669
Other Current Assets	653	955	1,014	1,033	1,033	1,033	1,033	1,033	1,033	1,033	1,033	1,033	1,033	1,033	1,033
Receivables, Prepayments and Other Assets	1,296	1,232	1,404	1,420	1,164	1,178	1,330	1,377	1,335	1,369	1,467	1,491	1,420	1,377	1,491
Inventories	1,423	1,504	1,509	1,487	1,284	1,296	1,405	1,421	1,354	1,370	1,448	1,453	1,487	1,421	1,453
<b>Total current assets</b>	<b>5,628</b>	<b>5,523</b>	<b>5,807</b>	<b>6,327</b>	<b>6,554</b>	<b>6,778</b>	<b>7,109</b>	<b>7,460</b>	<b>7,733</b>	<b>8,009</b>	<b>8,334</b>	<b>8,646</b>	<b>6,327</b>	<b>7,460</b>	<b>8,646</b>
Other Noncurrent Assets	1,087	1,258	1,192	1,312	1,312	1,312	1,312	1,312	1,312	1,312	1,312	1,312	1,312	1,312	1,312
Deferred Tax Assets	271	245	251	241	236	231	226	221	216	211	206	201	241	221	201
Property, Plant, and Equipment	10,829	10,789	10,594	10,164	10,027	9,889	9,732	9,571	9,501	9,429	9,353	9,275	10,164	9,571	9,275
Goodwill and Intangible Assets	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Assets</b>	<b>17,815</b>	<b>17,815</b>	<b>17,844</b>	<b>18,044</b>	<b>18,130</b>	<b>18,209</b>	<b>18,379</b>	<b>18,564</b>	<b>18,761</b>	<b>18,962</b>	<b>19,204</b>	<b>19,434</b>	<b>18,044</b>	<b>18,564</b>	<b>19,434</b>
<b>Liabilities &amp; Equity</b>															
Trade and Other Payables	0	0	0	0	39	64	84	85	125	156	179	182	0	85	182
Other Current Liabilities	2,690	2,569	2,549	2,528	2,528	2,528	2,528	2,528	2,528	2,528	2,528	2,528	2,528	2,528	2,528
Current Portion of Lease Obligation	0	0	0	0	68	68	68	68	68	68	68	68	0	68	68
Current Portion of Long-term Debt	205	221	199	571	571	571	571	571	571	571	571	571	571	571	571
<b>Total current liabilities</b>	<b>2,895</b>	<b>2,790</b>	<b>2,748</b>	<b>3,099</b>	<b>3,206</b>	<b>3,231</b>	<b>3,251</b>	<b>3,252</b>	<b>3,292</b>	<b>3,323</b>	<b>3,346</b>	<b>3,349</b>	<b>3,099</b>	<b>3,252</b>	<b>3,349</b>
Other Non-current liabilities	2,303	2,243	2,084	1,993	2,048	2,096	2,146	2,196	2,247	2,299	2,352	2,405	1,993	2,196	2,405
Noncurrent Deferred Revenue	0	0	0	0	-66	-132	-197	-263	-329	-395	-460	-526	0	-263	-526
Noncurrent Portion of Lease Obligation	0	0	0	0	666	666	666	666	666	666	666	666	0	666	666
Noncurrent Portion of Long-term Debt	2,310	2,208	2,181	1,801	1,801	1,801	1,801	1,801	1,801	1,801	1,801	1,801	1,801	1,801	1,801
<b>Total Liabilities</b>	<b>7,508</b>	<b>7,241</b>	<b>7,013</b>	<b>6,893</b>	<b>7,655</b>	<b>7,663</b>	<b>7,666</b>	<b>7,652</b>	<b>7,677</b>	<b>7,695</b>	<b>7,705</b>	<b>7,695</b>	<b>6,893</b>	<b>7,652</b>	<b>7,695</b>
Total Equity	10,307	10,574	10,831	11,151	10,475	10,546	10,713	10,911	11,084	11,267	11,499	11,739	11,151	10,911	11,739
<b>Total Liabilities and Shareholders' Equity</b>	<b>17,815</b>	<b>17,815</b>	<b>17,844</b>	<b>18,044</b>	<b>18,130</b>	<b>18,209</b>	<b>18,379</b>	<b>18,564</b>	<b>18,761</b>	<b>18,962</b>	<b>19,204</b>	<b>19,434</b>	<b>18,044</b>	<b>18,564</b>	<b>19,434</b>
<b>Cash and Liquidity Ratios</b>															
Total Cash	2,256	1,832	1,880	2,387	3,073	3,270	3,340	3,629	4,010	4,237	4,386	4,669	2,387	3,629	4,669
Short-term debt	205	221	199	571	571	571	571	571	571	571	571	571	571	571	571
Long-term debt	2,310	2,208	2,181	1,801	1,801	1,801	1,801	1,801	1,801	1,801	1,801	1,801	1,801	1,801	1,801
Total debt	2,515	2,429	2,380	2,372	2,372	2,372	2,372	2,372	2,372	2,372	2,372	2,372	2,372	2,372	2,372
Net Cash	(259)	(597)	(500)	15	701	898	968	1,257	1,638	1,865	2,014	2,297	15	1,257	2,297
<b>Net Cash/dil. share</b>	<b>(0.47)</b>	<b>(1.07)</b>	<b>(0.90)</b>	<b>0.03</b>	<b>1.25</b>	<b>1.60</b>	<b>1.73</b>	<b>2.24</b>	<b>2.91</b>	<b>3.31</b>	<b>3.58</b>	<b>4.08</b>	<b>0.03</b>	<b>2.24</b>	<b>4.08</b>
<b>Cash conversion ratios</b>															
Days Sales Outstanding (DSO)	64.1	60.8	69.0	69.7	69.7	69.7	69.7	69.7	69.7	69.7	69.7	69.7			
Payable Days (DPO)	0.0	0.0	0.0	0.0	3.0	5.0	6.0	6.0	9.0	11.0	12.0	12.0			
<b>Inventory Days (DIO)</b>	<b>97.7</b>	<b>104.2</b>	<b>103.8</b>	<b>101.8</b>	<b>99.8</b>	<b>100.8</b>	<b>100.8</b>	<b>99.8</b>	<b>97.8</b>	<b>96.8</b>	<b>96.8</b>	<b>95.8</b>			
Cash Conversion Days	161.7	165.0	172.8	171.5	172.5	175.5	176.5	175.5	176.5	177.5	178.5	177.5			

Source: BofA Global Research estimates, company reports

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**Exhibit 16: GFS – Statement of Cash Flow**

We expect a large capex decline in 2024E

<b>FY (December)</b>	<b>1Q23</b>	<b>2Q23</b>	<b>3Q23</b>	<b>4Q23</b>	<b>1Q24E</b>	<b>2Q24E</b>	<b>3Q24E</b>	<b>4Q24E</b>	<b>1Q25E</b>	<b>2Q25E</b>	<b>3Q25E</b>	<b>4Q25E</b>	<b>FY23</b>	<b>FY24E</b>	<b>FY25E</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>Jun-25E</b>	<b>Sep-25E</b>	<b>Dec-25E</b>	<b>Dec-23</b>	<b>Dec-24</b>	<b>Dec-25</b>
<b>Operating Activities</b>															
Net Income (Loss)	254	237	249	278	73	88	169	196	171	179	221	227	1,018	525	799
Depreciation & Amortization	343	340	366	402	304	308	347	360	331	340	364	370	1,451	1,319	1,405
Stock Compensation Expense	31	44	44	50	55	48	50	50	52	52	53	53	169	203	209
Gain on Sale of Assets	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finance Expense	(1)	0	(3)	4	8	0	0	0	0	0	0	0	0	8	0
Other Adjustments	35	(8)	(18)	(34)	14	20	36	40	39	41	48	49	(25)	110	178
Change in assets and liabilities:															
Change in working capital	(205)	(91)	(218)	(24)	498	(1)	(241)	(60)	147	(19)	(151)	(27)	(538)	195	(50)
Customer advance funding - receivables	0	0	0	0	6	6	6	6	6	6	6	6	0	25	25
Customer advance funding - payables	0	0	0	0	(72)	(72)	(72)	(72)	(72)	(72)	(72)	(72)	0	(288)	(288)
Interest Paid	0	0	0	0	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	0	(120)	(120)
Income Tax Paid	0	0	0	0	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	0	(20)	(20)
<b>Cash From Operations</b>	<b>479</b>	<b>546</b>	<b>416</b>	<b>684</b>	<b>851</b>	<b>363</b>	<b>259</b>	<b>484</b>	<b>639</b>	<b>492</b>	<b>434</b>	<b>572</b>	<b>2,125</b>	<b>1,957</b>	<b>2,137</b>
<b>Investing Activities</b>															
Purchase of Property, Plant, Equipment	(853)	(400)	(323)	(228)	(167)	(169)	(191)	(198)	(262)	(268)	(287)	(292)	(1,804)	(725)	(1,109)
Advances and Proceeds from Sale of Assets	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Adjustments	267	(488)	10	133	0	0	0	0	0	0	0	0	(78)	0	0
<b>Cash From Investing</b>	<b>(586)</b>	<b>(888)</b>	<b>(313)</b>	<b>(95)</b>	<b>(167)</b>	<b>(169)</b>	<b>(191)</b>	<b>(198)</b>	<b>(262)</b>	<b>(268)</b>	<b>(287)</b>	<b>(292)</b>	<b>(1,882)</b>	<b>(725)</b>	<b>(1,109)</b>
<b>Financing Activities</b>															
Proceeds/Repayment of Shareholder Loan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proceeds/Repayment of Debt	(30)	(87)	(54)	(88)	0	0	0	0	0	0	0	0	(259)	0	0
Repayment of Lease Obligation	0	0	0	0	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	0	(37)	(37)
Proceeds from Government Grant	0	0	0	0	7	7	7	7	7	7	7	7	0	28	28
Non-Controlling Interest & Other	40	5	1	1	0	0	0	0	0	0	0	0	47	0	0
IPO Proceeds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Cash From Financing</b>	<b>10</b>	<b>(82)</b>	<b>(53)</b>	<b>(87)</b>	<b>(2)</b>	<b>(2)</b>	<b>(2)</b>	<b>(2)</b>	<b>(2)</b>	<b>(2)</b>	<b>(2)</b>	<b>(2)</b>	<b>(212)</b>	<b>(9)</b>	<b>(9)</b>
Effect of Exchange Rate Changes	1	0	(2)	5	5	5	5	5	5	5	5	5	4	20	20
Net Change in Cash/Equ.	(96)	(424)	48	507	686	196	71	289	381	227	149	282	35	1,242	1,039
Cash/Equ. at beginning of period	2,352	2,256	1,832	1,880	2,387	3,073	3,270	3,340	3,629	4,010	4,237	4,386	2,285	2,320	3,562
<b>Cash/Equ. at end of period</b>	<b>2,256</b>	<b>1,832</b>	<b>1,880</b>	<b>2,387</b>	<b>3,073</b>	<b>3,270</b>	<b>3,340</b>	<b>3,629</b>	<b>4,010</b>	<b>4,237</b>	<b>4,386</b>	<b>4,669</b>	<b>2,320</b>	<b>3,562</b>	<b>4,602</b>
Free Cash Flow	(374)	146	93	456	684	193	68	286	378	224	147	280	321	1,231	1,028
TTM FCF	1,455	1,214	563	(436)	(1,011)	(662)	(635)	321	1,379	1,426	1,401	1,231			
<b>TTM FCF Margin</b>	<b>20.5%</b>	<b>16.2%</b>	<b>7.2%</b>	<b>(5.4%)</b>	<b>(12.6%)</b>	<b>(8.4%)</b>	<b>(8.3%)</b>	<b>4.3%</b>	<b>19.5%</b>	<b>21.1%</b>	<b>21.1%</b>	<b>18.7%</b>	<b>4.3%</b>	<b>18.7%</b>	<b>13.9%</b>

Source: BofA Global Research estimates, company reports

BofA GLOBAL RESEARCH



## Price objective basis & risk

### GlobalFoundries (GFS)

Our PO of \$62 is based on 13x our CY25E EV/EBITDA , which is above Asian pure-play foundry peers at 4-8x but in line with US-based integrated design/manufacturing peers at 8-14x.

Downside risks to our PO are: (1) semi industry cyclicality where foundries are more impacted in down-cycle given high fixed cost structure, (2) execution on strategic repositioning which is critical to gross margin expansion and EPS growth, (3) large ownership concentration with Mubadala, which is wholly owned by the government of Abu Dhabi adds geopolitical and investor concentration risk.

## 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



## iQmethod<sup>SM</sup> Measures Definitions

### Business Performance

Return On Capital Employed

Return On Equity

Operating Margin

Earnings Growth

Free Cash Flow

### Quality of Earnings

Cash Realization Ratio

Asset Replacement Ratio

Tax Rate

Net Debt-To-Equity Ratio

Interest Cover

### Valuation Toolkit

Price / Earnings Ratio

Price / Book Value

Dividend Yield

Free Cash Flow Yield

Enterprise Value / Sales

EV / EBITDA

### Numerator

$\text{NOPAT} = (\text{EBIT} + \text{Interest Income}) \times (1 - \text{Tax Rate}) + \text{Goodwill Amortization}$

Net Income

Operating Profit

Expected 5 Year CAGR From Latest Actual

Cash Flow From Operations – Total Capex

### Numerator

Cash Flow From Operations

Capex

Tax Charge

Net Debt = Total Debt – Cash & Equivalents

EBIT

### Numerator

Current Share Price

Current Share Price

Annualised Declared Cash Dividend

Cash Flow From Operations – Total Capex

$\text{EV} = \text{Current Share Price} \times \text{Current Shares} + \text{Minority Equity} + \text{Net Debt} +$

Other LT Liabilities

Enterprise Value

### Denominator

$\text{Total Assets} - \text{Current Liabilities} + \text{ST Debt} + \text{Accumulated Goodwill}$

Amortization

Shareholders' Equity

Sales

N/A

N/A

### Denominator

Net Income

Depreciation

Pre-Tax Income

Total Equity

Interest Expense

### Denominator

Diluted Earnings Per Share (Basis As Specified)

Shareholders' Equity / Current Basic Shares

Current Share Price

$\text{Market Cap} = \text{Current Share Price} \times \text{Current Basic Shares}$

Sales

Basic EBIT + Depreciation + Amortization

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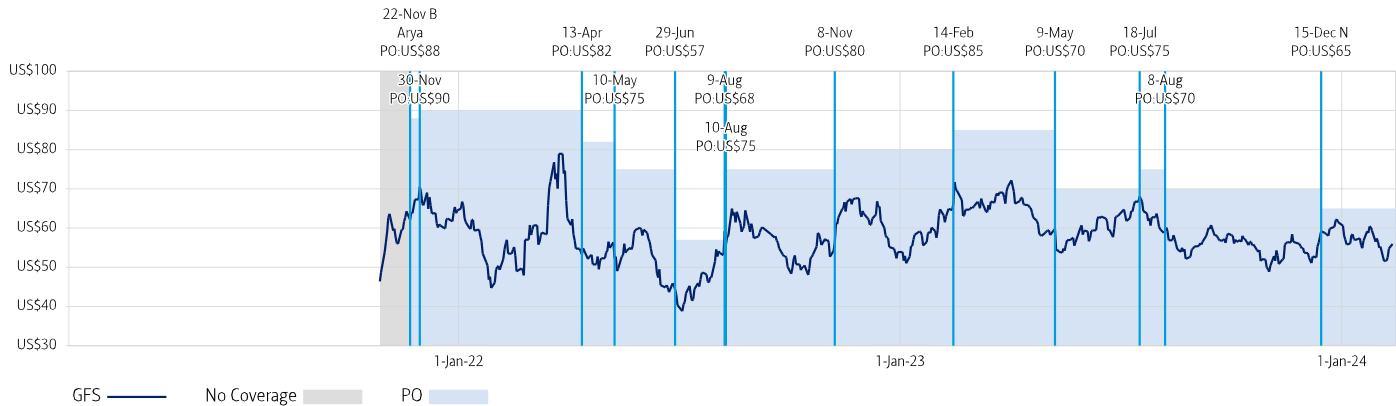
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## Important Disclosures

### GlobalFoundries (GFS) 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: Technology Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships <sup>R1</sup>	Count	Percent
Buy	215	53.09%	Buy	111	51.63%
Hold	97	23.95%	Hold	45	46.39%
Sell	93	22.96%	Sell	24	25.81%

### 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%

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