

Blue Line Capital

Inflation, Growth and Central Banks Driving Macro & Micro

info@BlueLineCapLLC.com

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Macro Dynamics



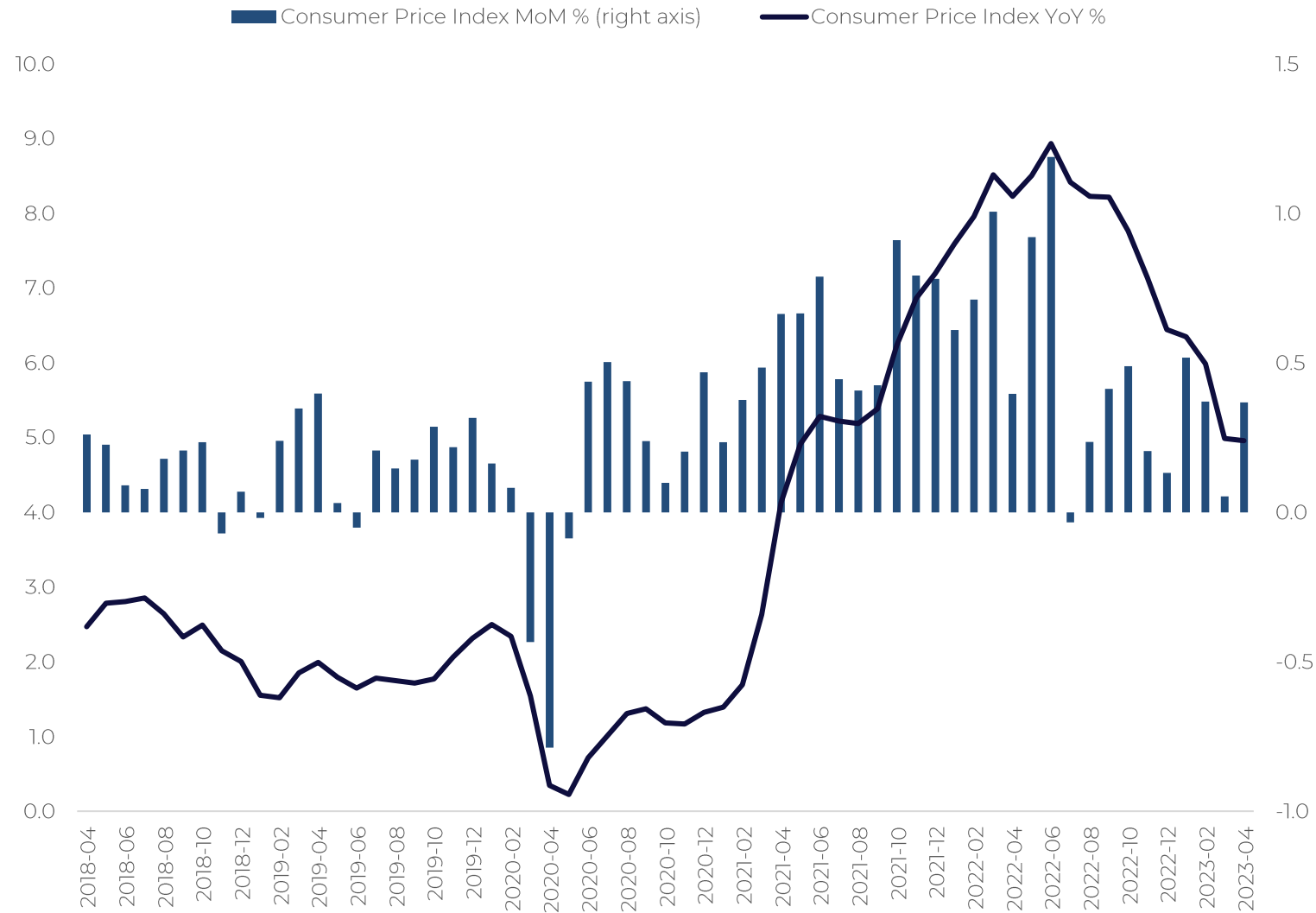
Inflation

Growth

Central Banks

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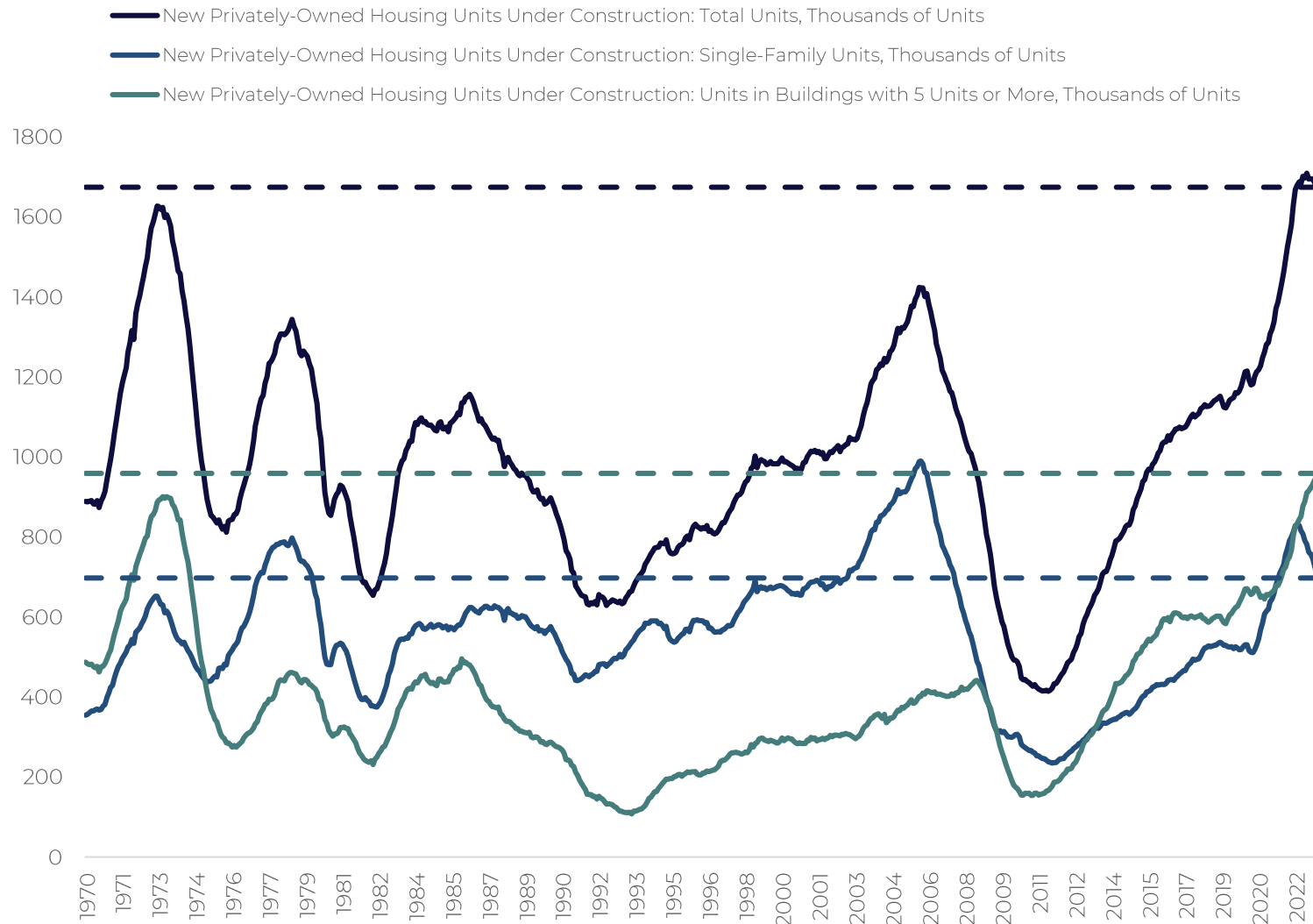
CPI At 5% In April



- CPI stayed roughly flat on a year-over-year basis at 5%
- On a monthly basis, consumer prices increased by 0.4%, driven by an increase in energy prices.
- Shelter remains the largest upward contributor.

Sources: FRED, Blue Line Capital, Blue Line Futures

More Housing Supply On The Way

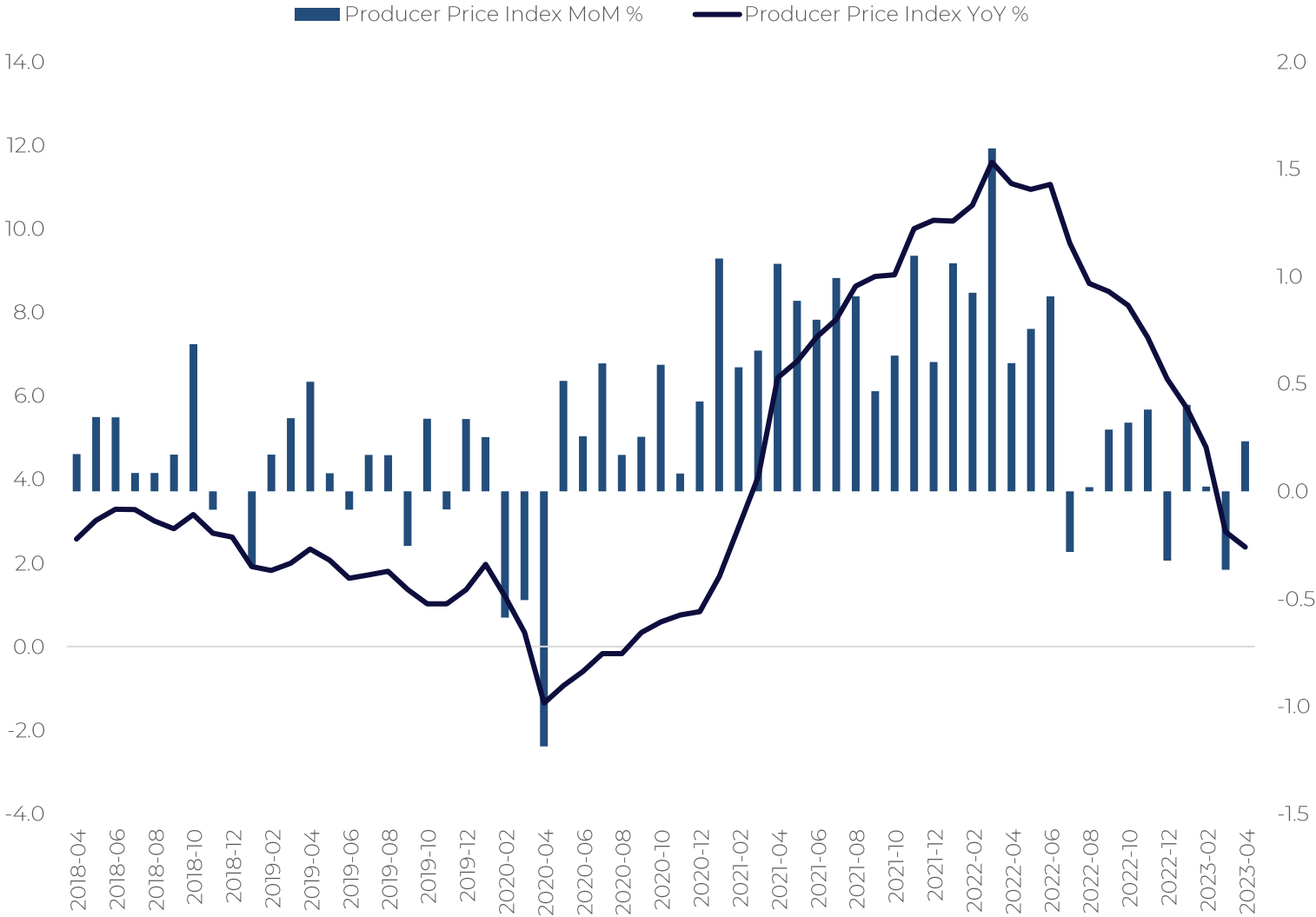


- New privately-owned housing units under construction at all-time-highs.
- First-time home buyer generation will seek new supply.
- The housing market has been remarkably robust despite higher mortgage rates as existing inventory has been extraordinarily low.

Sources: FRED, Blue Line Capital, Blue Line Futures

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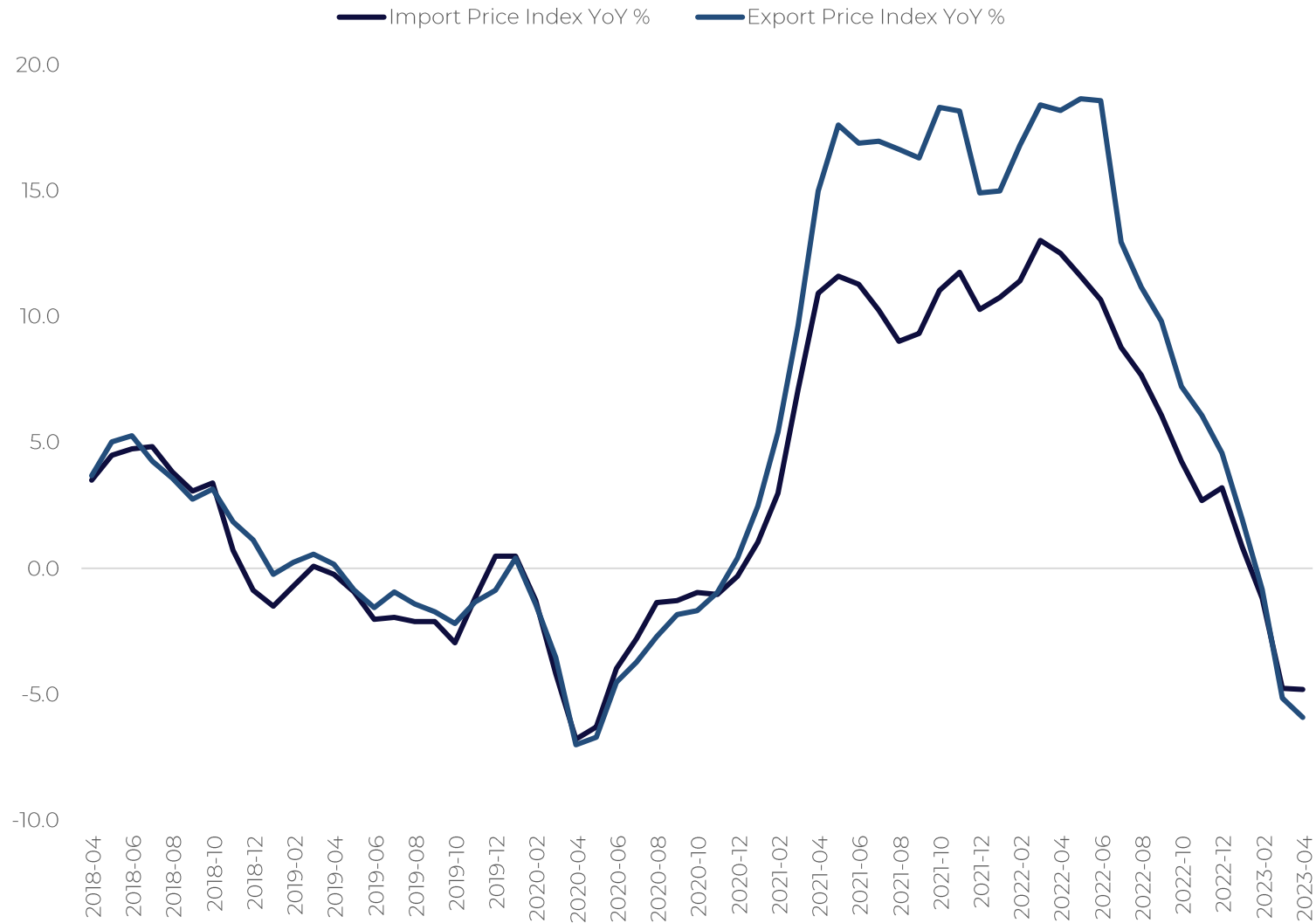
PPI Decelerated To 2.4% In April



- Despite a month-over-month increase of +0.2%, year-over-year PPI decelerated to 2.4% in April compared to 2.8% in March.

Sources: FRED, Blue Line Capital, Blue Line Futures

Import & Export Prices In Outright Deflation

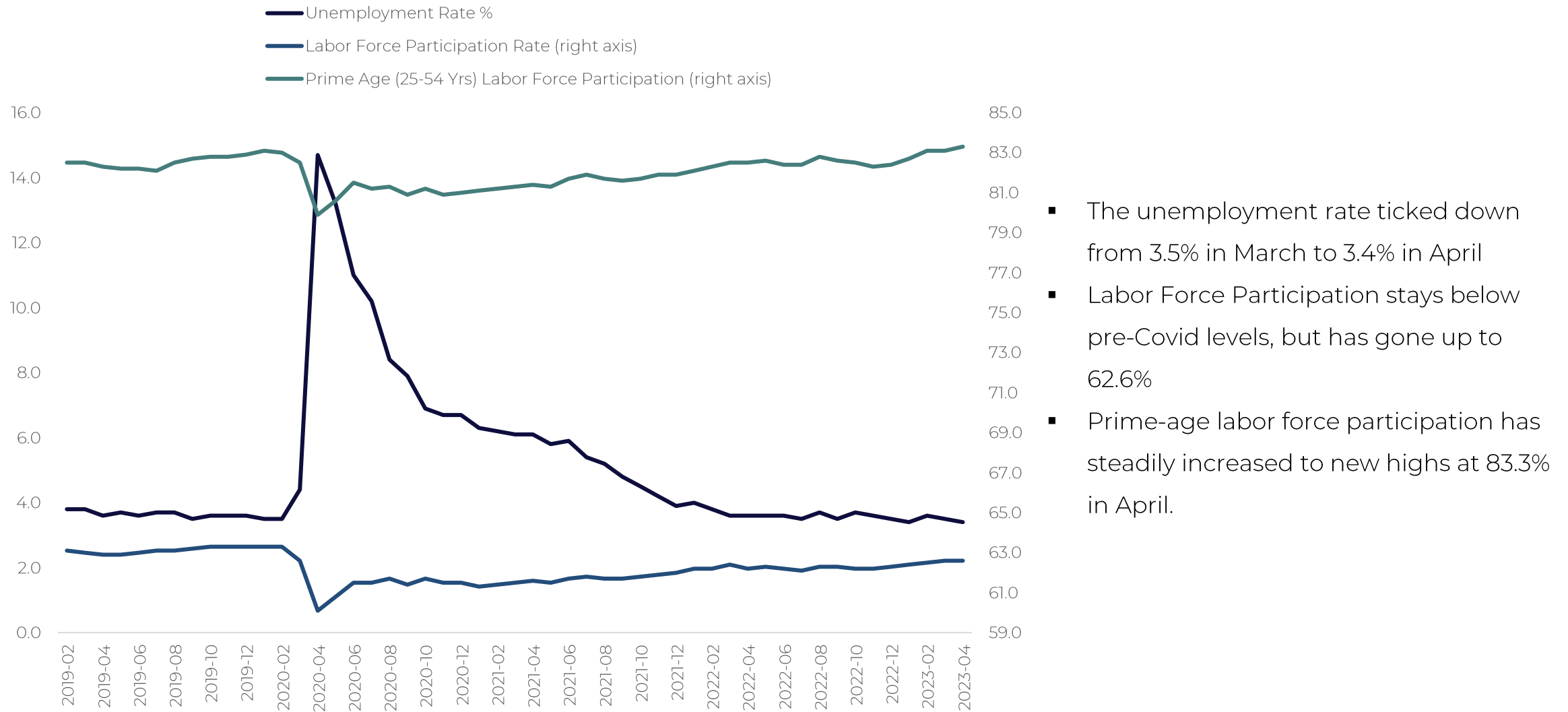


- Import prices at -4.8% YoY in April after -4.8% in March.
- Export prices decelerated further to -5.9% in April compared to -5.2% in March.

Sources: FRED, Blue Line Capital, Blue Line Futures

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The Job Market Is Loosening Slightly But Remains Robust



- The unemployment rate ticked down from 3.5% in March to 3.4% in April
- Labor Force Participation stays below pre-Covid levels, but has gone up to 62.6%
- Prime-age labor force participation has steadily increased to new highs at 83.3% in April.

Sources: FRED, Blue Line Capital, Blue Line Futures

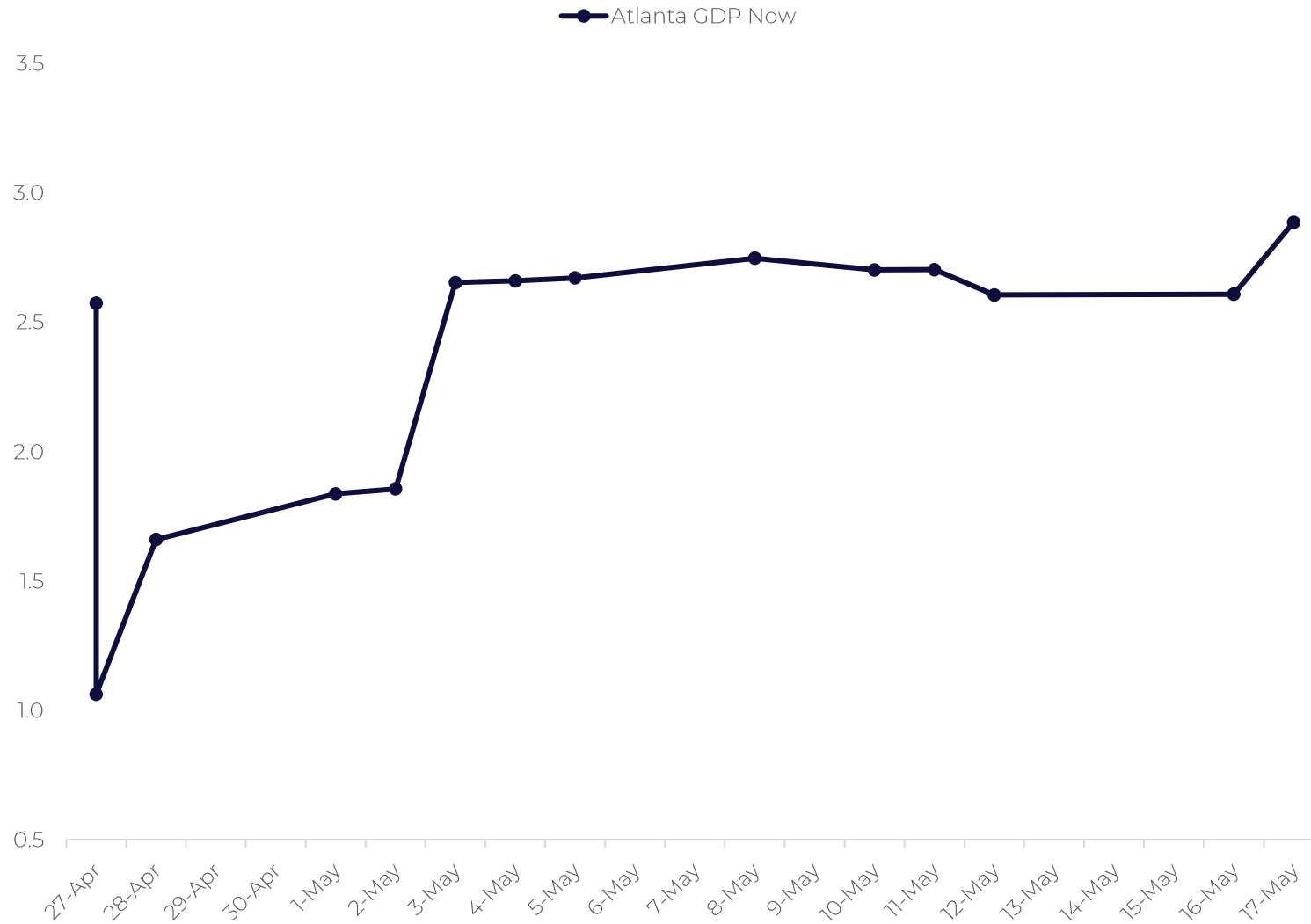
Initial Claims



- Initial Claims have come down from 264,000 a week ago to 242,000 last week, although higher than initially thought after the Department of Labor’s seasonal adjustment.
- 4-Week Average Initial Claims ticked down slightly to 244k.

Sources: FRED, Blue Line Capital, Blue Line Futures

Atlanta GDP Now Showing 2.9% Growth In Q1



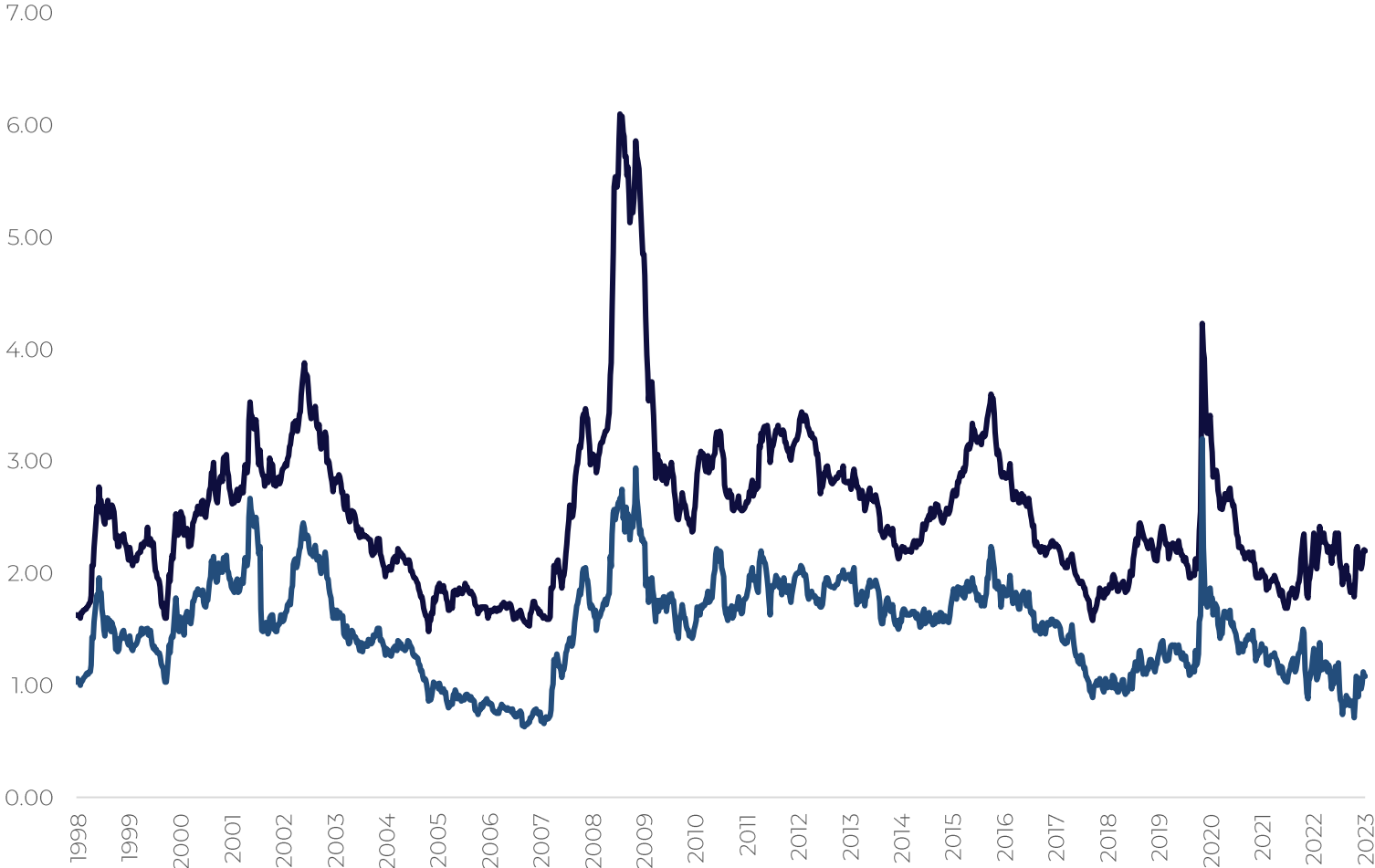
- Atlanta GDP Now at 2.9% despite central bank tightening.

Sources: Atlanta Fed, Blue Line Capital, Blue Line Futures

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Credit Spreads Have Been Extremely Contained

— Moody's Seasoned Baa Corporate Yield - 10-Year Treasury Yield
— Moody's Seasoned Aaa Corporate Yield - 10-Year Treasury Yield

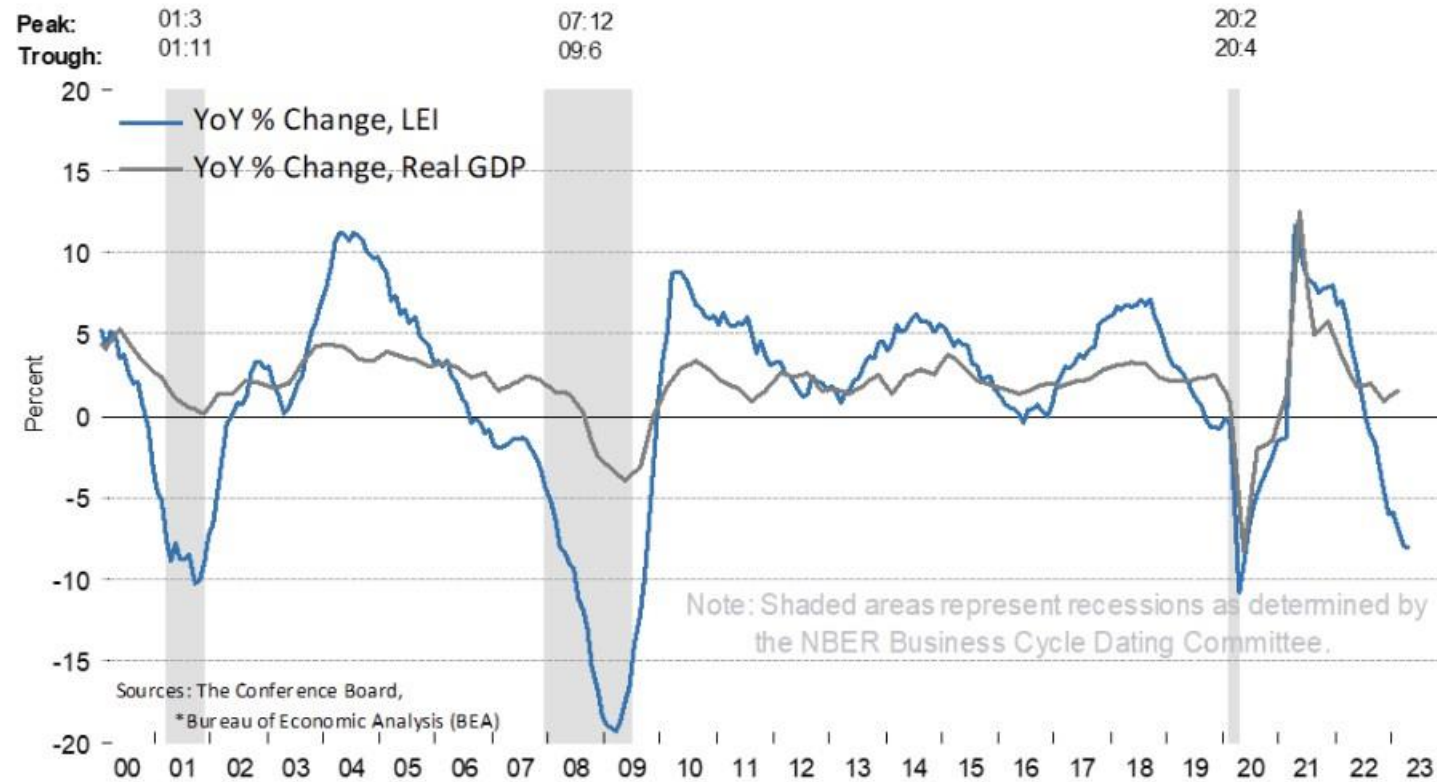


- Credit Spreads have remained extremely contained, although higher on an absolute basis.

Sources: Fred, Blue Line Capital, Blue Line Futures

Conference Board Leading Economic Indicator

The annual growth rate of the US LEI continued to decline signaling weak GDP growth ahead



Most components contributed negatively to the LEI

Sources: Conference Board, Blue Line Capital, Blue Line Futures

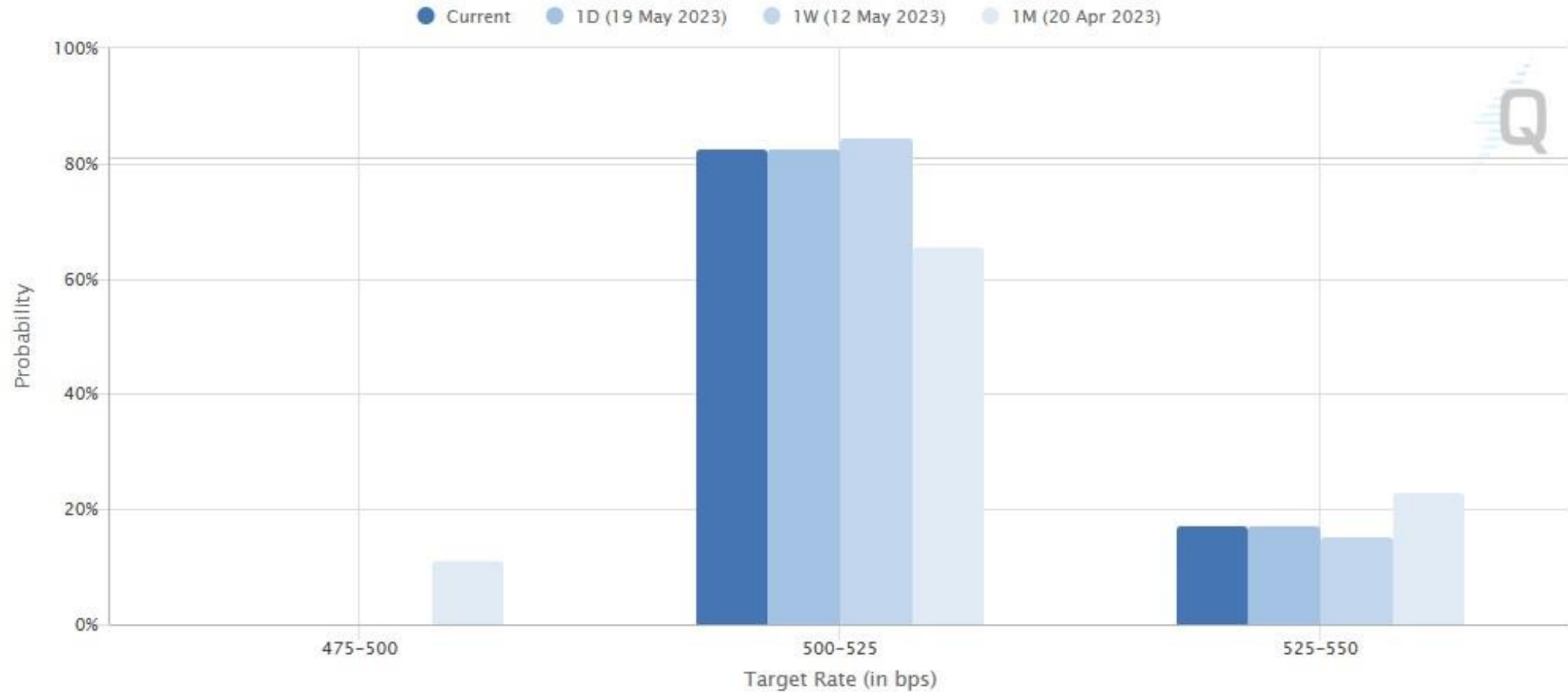
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June 14th Fed Funds Target Rate Probabilities

TARGET RATE PROBABILITIES FOR 14 JUN 2023 FED MEETING

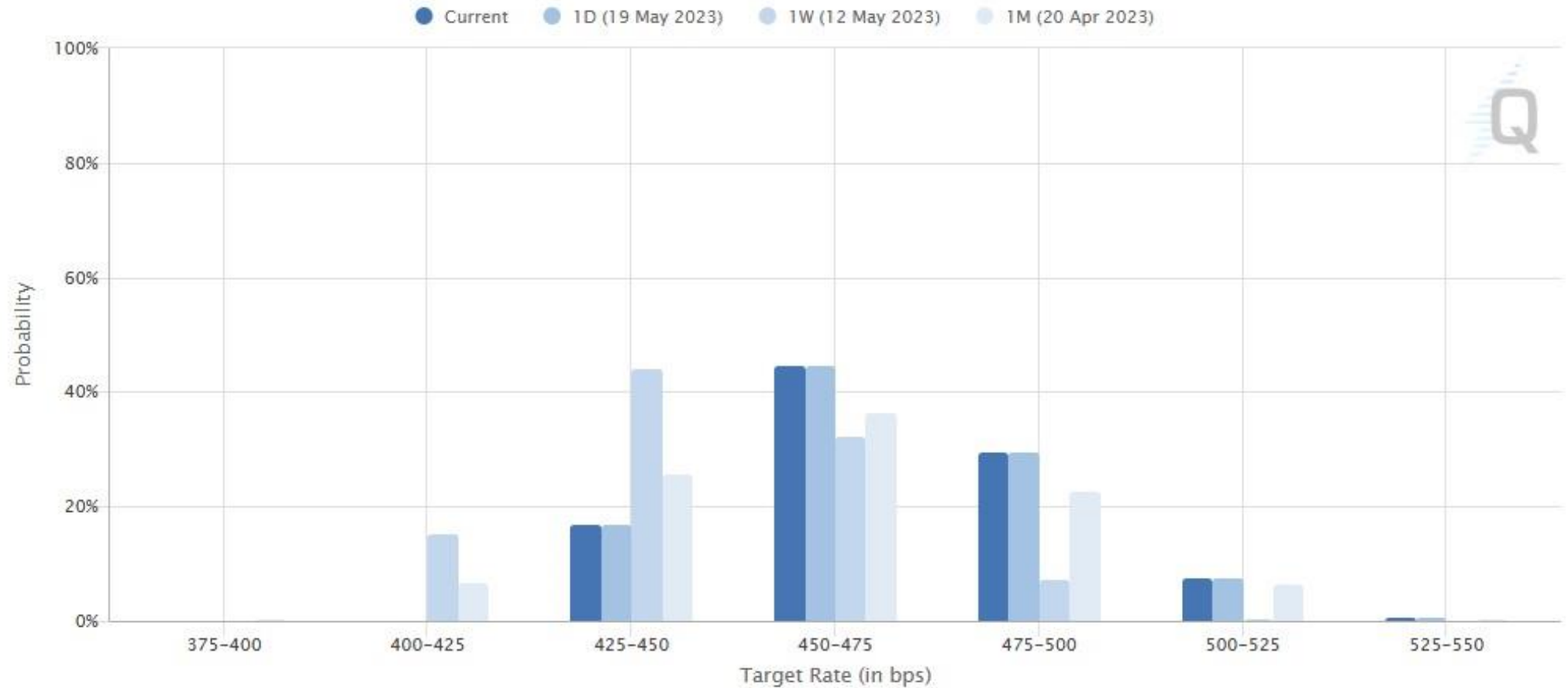


Sources: CME, Blue Line Capital, Blue Line Futures

5/20/2023

December 13th Fed Funds Target Rate Probabilities

TARGET RATE PROBABILITIES FOR 13 DEC 2023 FED MEETING



Sources: CME, Blue Line Capital, Blue Line Futures

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Cleveland Fed Inflation Nowcast At 4.13% CPI In May

INFLATION, YEAR-OVER-YEAR PERCENT CHANGE

Month	CPI	Core CPI	PCE	Core PCE	Updated
May 2023	4.13	5.34	3.85	4.65	05/19

Sources: Cleveland Fed, Blue Line Capital, Blue Line Futures

Equity Trends Research



Western Digital

Lam Research

Texas Instruments

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Western Digital

Semiconductor Storage Trends

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Western Digital Earnings Highlights & Stock Performance

Management Commentary From Q3 2023 Earnings Call

- Demand & China:** AS we look to the fiscal fourth quarter, in hard drives, overall demand will be impacted by ongoing inventory digestion at cloud customers and sustained decline in client. However, we are beginning to experience improved demand at certain customers in China. In Flash, we are seeing signs of stabilization and content increase per unit. PC OEMs have emerged from inventory digestion and are now shipping closer to end demand. Gaming will remain strong, while enterprise SSD for cloud applications will remain soft.
- CAPEX:** For fiscal year 2023, we project gross capital expenditures to be approximately \$2.2bn and cash capital expenditures to be approximately \$0.8 billion. The projected cash capital expenditures represent more than a 50% reduction from our forecast as we entered fiscal 2023 and approximately 35% reduction from fiscal year 2022.
- Margins:** Western Digital to delivery industry-leading gross margins across our HDD and Flash business despite the challenging and rapidly changing landscape.
- PC & Inventory:** PC OEM, we've been talking about now for 3-plus quarters, and I think we see them mainly shipping to true demand. I mean nobody is building inventory right now, but we think the inventory correction there is mostly behind us. Our channel business performed really well this past quarter, I think, above what our expectation was; the inventory is still very much in data center, and it's very lumpy.

	P/E	P/S	Market Cap/FCF	EV/EBITDA	P/B
NTM	-9.86	1.03	-9.64	39.86	NA
TTM	-17.35	0.86	69.96	23.44	1.06

*Levered FCF

Sources: Western Digital IR, TIKR, Blue Line Capital

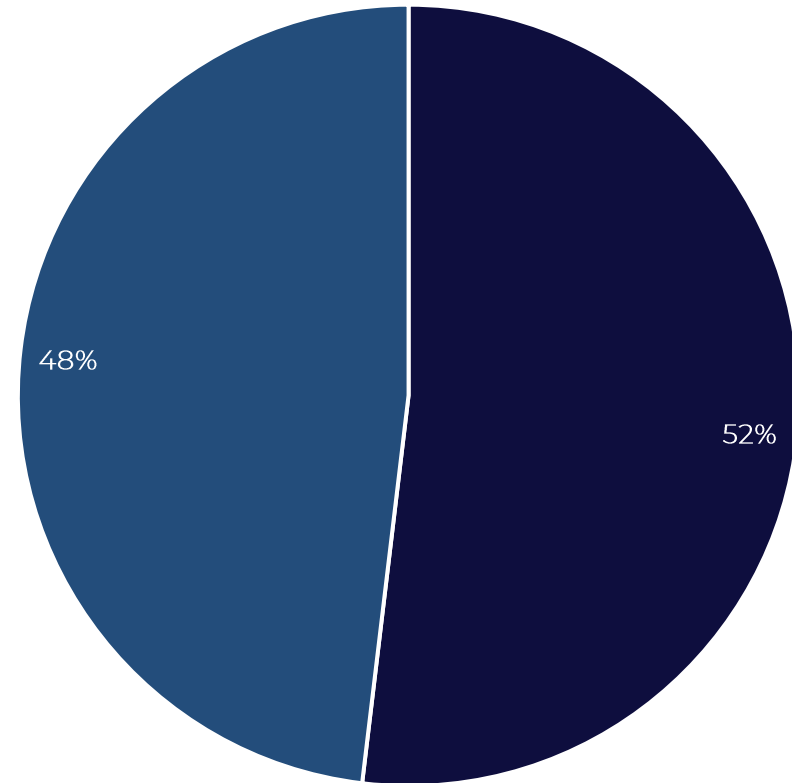
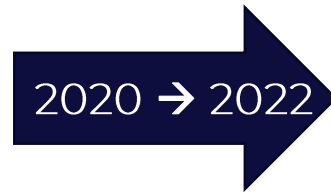
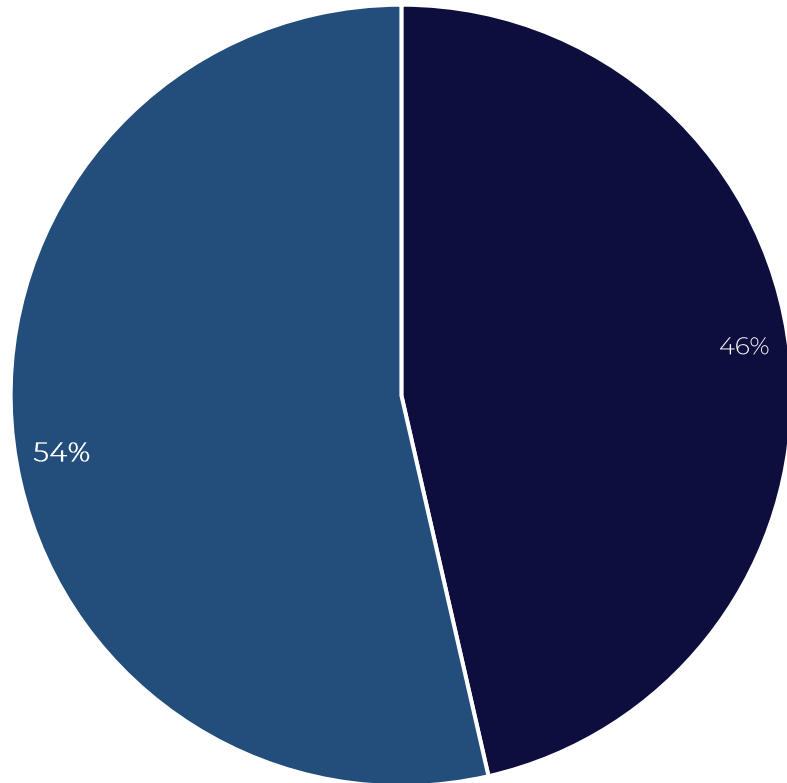
Quarterly Data



Revenue By Segment Evolution

■ Flash-Based Products (Flash) ■ Hard Disk Drives (HDD)

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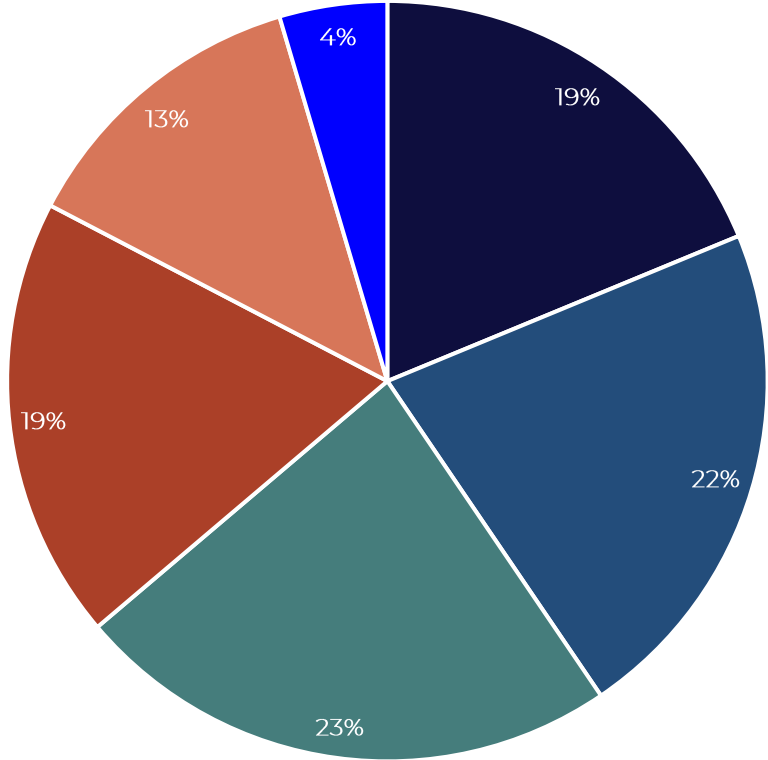


Sources: CapitalIQ, Blue Line Capital, Blue Line Futures

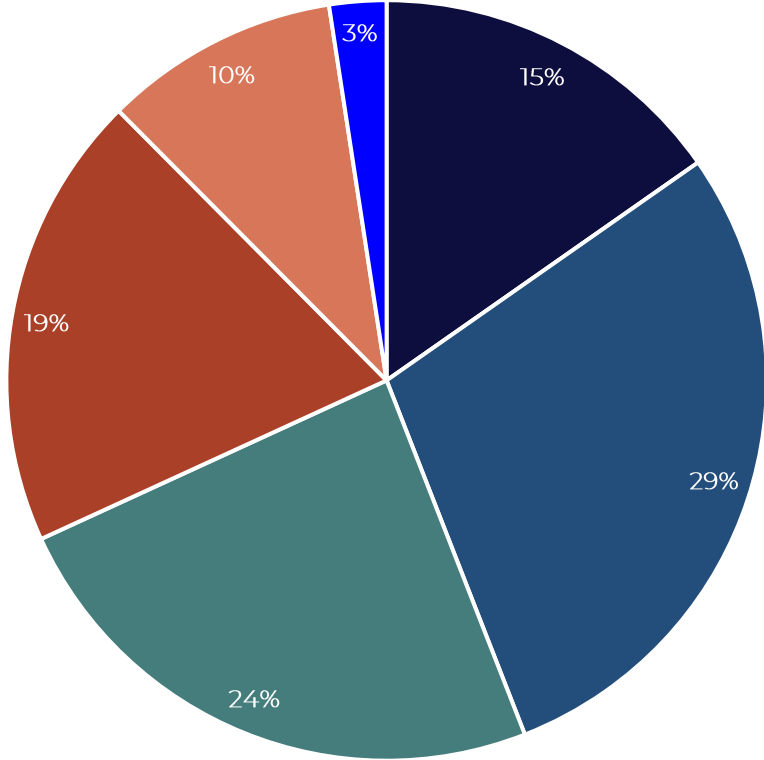
5/20/2023 Blue Line Capital maintains no position in Western Digital.

Revenue By Geography Evolution

- Europe, Middle East and Africa
- United States
- China
- Hong Kong
- Rest of Asia
- Other

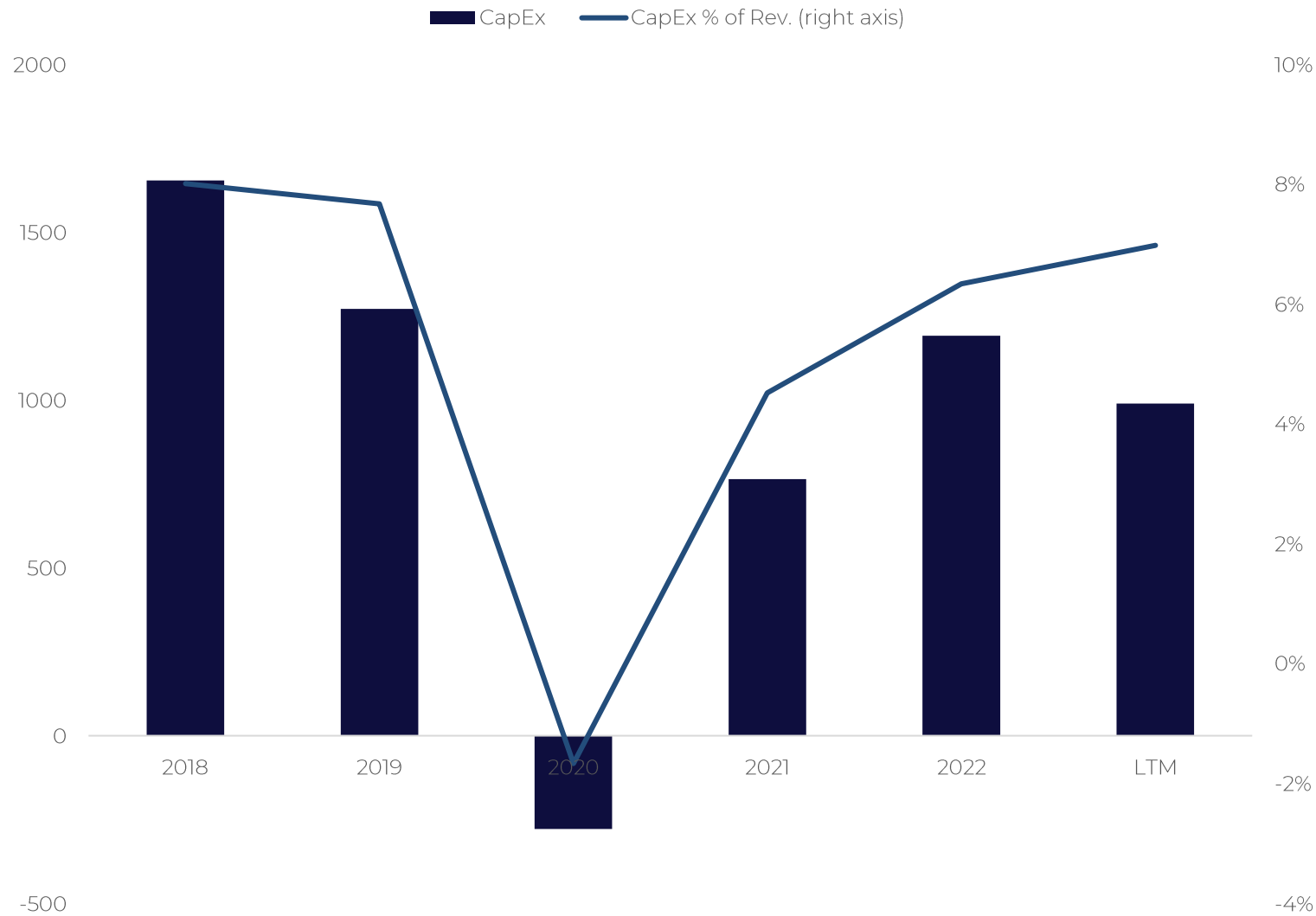


- Europe, Middle East and Africa
- United States
- China
- Hong Kong
- Rest of Asia
- Other



Sources: CapitalIQ, Blue Line Capital, Blue Line Futures

CapEx Trending Lower



- No clear trend in CapEx for Lam Research while the company refers to underinvestment in memory.

Sources: CapitalIQ, Blue Line Capital, Blue Line Futures

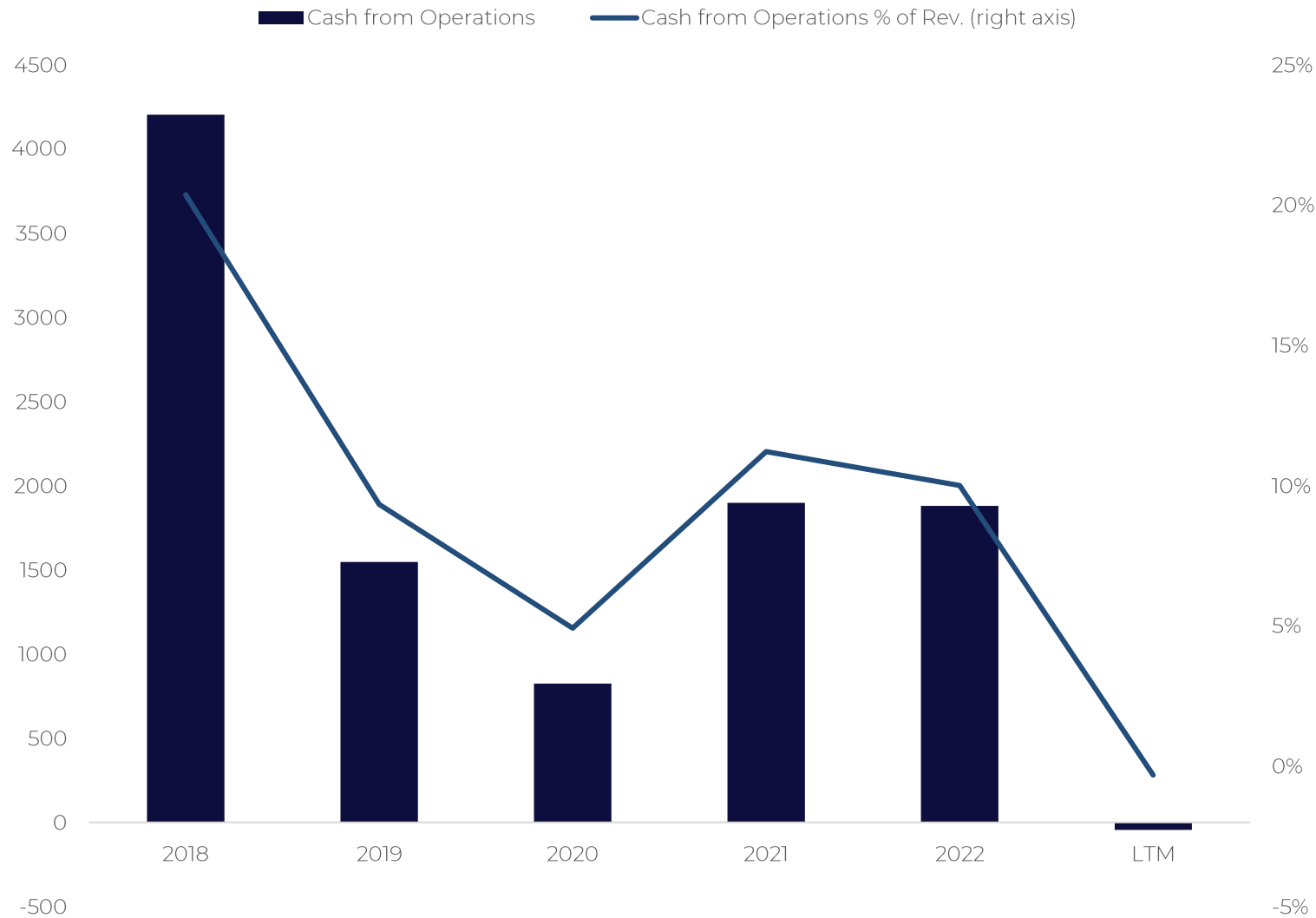
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Blue Line Capital maintains no position in Western Digital.

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Cash From Operations Paint A Meager Picture



- With an increase in Accounts Payable and Inventory compared to a year ago, Cash from Operations has declined significantly → no reason to over-extrapolate, however.

Sources: CapitalIQ, Blue Line Capital, Blue Line Futures

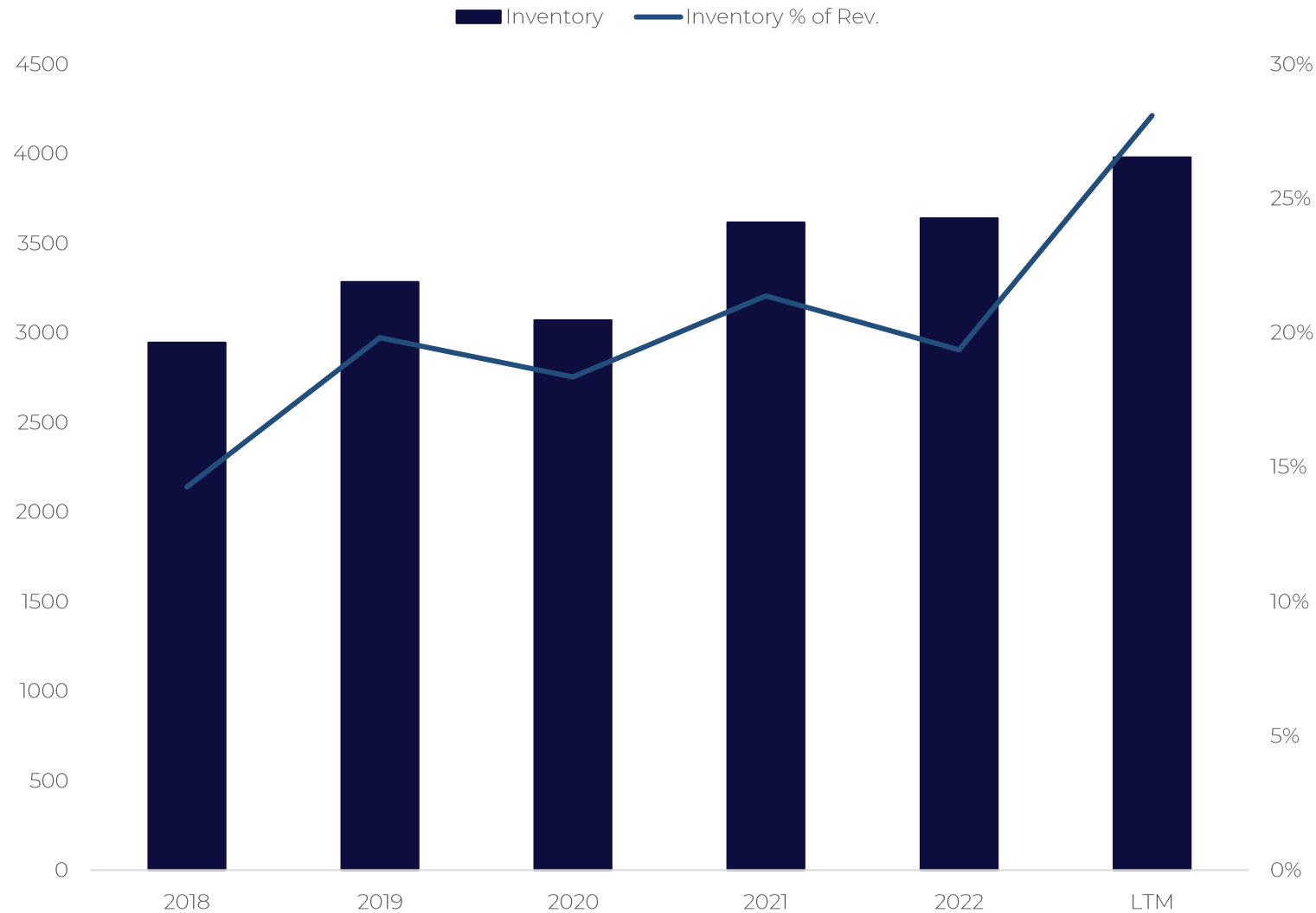
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Blue Line Capital maintains no position in Western Digital.

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Western Digital's Inventory Building



- Inventory levels have increased from \$3.07bn in 2020 to ~\$3.98bn over the last twelve months.
 - The increase is also playing out on a relative basis, as inventories have ticked up to 28% as a percentage of revenue.

Sources: CapitalIQ, Blue Line Capital, Blue Line Futures

Western Digital Expectations & Returns

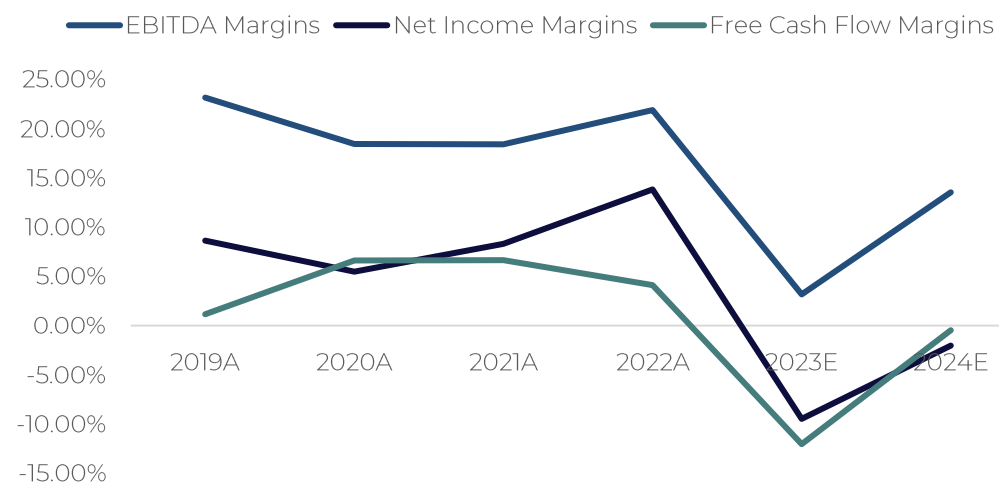
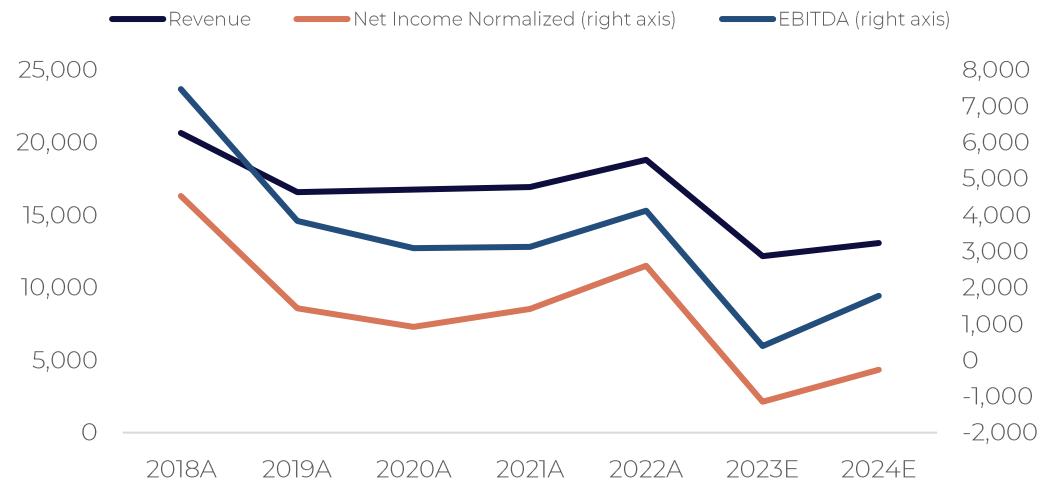
Return Ratios Compared To 2019

Return ratios have mostly worsened as margins have deteriorated since 2019.

		LTM	2019
Return Ratios	RoA	-0.20%	0.50%
	RoC	-0.40%	1.10%
	RoE	-5.60%	-7.00%
Margins	Gross Profit Margin	21.50%	22.60%
	EBITDA Margin	5.50%	12.30%
	Net Income Margin	-4.90%	-4.60%
	Levered Free Cash Flow Margin	1.20%	5.40%
Asset Turnover	Asset Turnover	0.56	0.63
	Fixed Asset Turnover	3.66	5.58
	Receivables Turnover	7.19	9.74
	Working Capital Turnover	4.4	3.56
Solvency	Total Debt/Equity	59.00%	106.20%
	Total Debt/Capital	37.10%	51.50%
	EBITDA/Interest Expense	2.82	4.34
	(EBITDA - Capex)/Interest Expense	-0.48	2.47

Sources: Western Digital IR, TIKR, Blue Line Capital

Revenue and Net Income Estimates



Western Digital Valuation Vs. Peers

	EV/EBITDA	NTM P/E	Past 3M Return	Past 6m Return	Past 12m Return
Western Digital (WDC)	39.86	-9.86	-8%	1%	-19%
Texas Instruments (TXN)	16.67	22.46	-3%	-6%	-4%
Lam Research (LRCX)	18.67	25.12	20%	24%	24%
Seagate Technology (STX)	16.8	44.67	-9%	12%	-19%
Hewlett Packard Enterprises (HPE)	5.56	7.37	-10%	-8%	-1%
Micron Technology (MU)	13.89	-21.41	13%	11%	12%
Qualcomm (QCOM)	9.44	12.58	-15%	-15%	-26%
Median	16.67	12.58	-8%	1%	-4%
Mean	17.27	11.56	-2%	3%	-5%

Sources: TIKR, Google Finance, Blue Line Capital

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Blue Line Capital maintains no position in Western Digital.

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Western Digital Chart



TradingView

Sources: Trading View, Blue Line Capital



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Blue Line Capital maintains no position in Western Digital.

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Lam Research



Wafer Fabrication Equipment &
Services

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Lam Research Earnings Highlights & Stock Performance

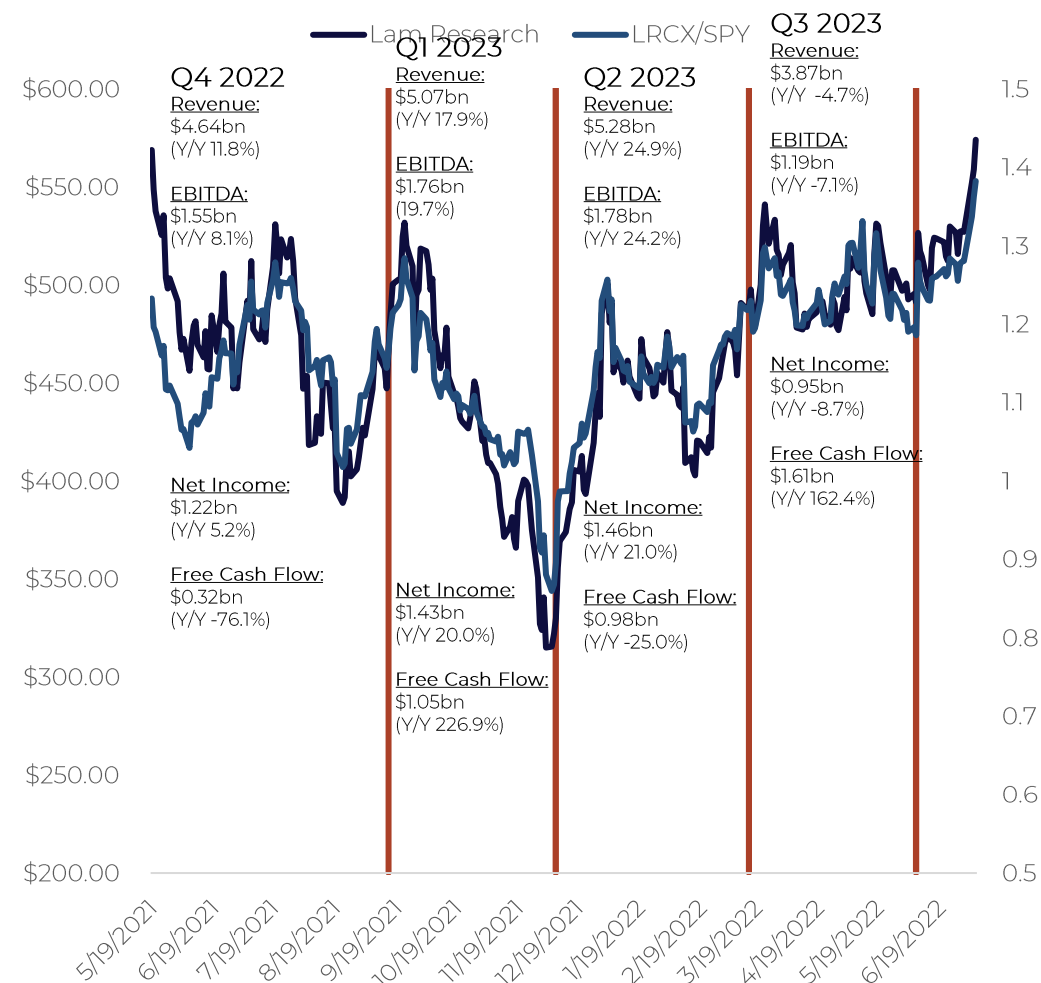
Management Commentary From Q3 2023 Earnings Call

- Memory Spending:** Memory spending in 2023 is at a historic low as a percentage of total WFE. We believe this level of investment is unsustainable to support long-term growth in bit demand, especially considering the data-intensive applications, such as AI, are still in the early stages of adoption and can have approximately 3x the DRAM and 8x the storage content of a regular server. In addition, advances in memory architectures, such as DDR5, are driving process technology evolution and larger die sizes.
- Memory:** Lam's established leadership in memory positions us to outperform and as we benefit not only from investments in new tools for capacity but also from technology upgrades to our large installed base of tools.
- Revenue Mix:** The percentage of systems revenue in memory was 32%, which is a decline from the prior quarter level of 50%. I would mention this is the lowest level of memory concentration for us in a decade. Within memory, the NAND segment represented 23% of our systems revenue, down from the December quarter level of 39%. And DRAM decreased sequentially, coming in at only 9% of systems revenue compared with 11% in the December quarter. With the current weakness in memory investments, we anticipate a further decline in both NAND and DRAM revenue in the June quarter.
- Korea & China:** Korea and China were at the top of the list, with each coming in at 22% of the total. The Korea region had a slightly higher concentration in the March quarter.

	P/E	P/S	Market Cap/FCF	EV/EBITDA	P/B
NTM	25.12	5.82	19.2	18.67	NA
TTM	16.39	4.2	25.73	12.6	9.43
*Levered FCF					

Sources: Lam Research IR, TIKR, Blue Line Capital

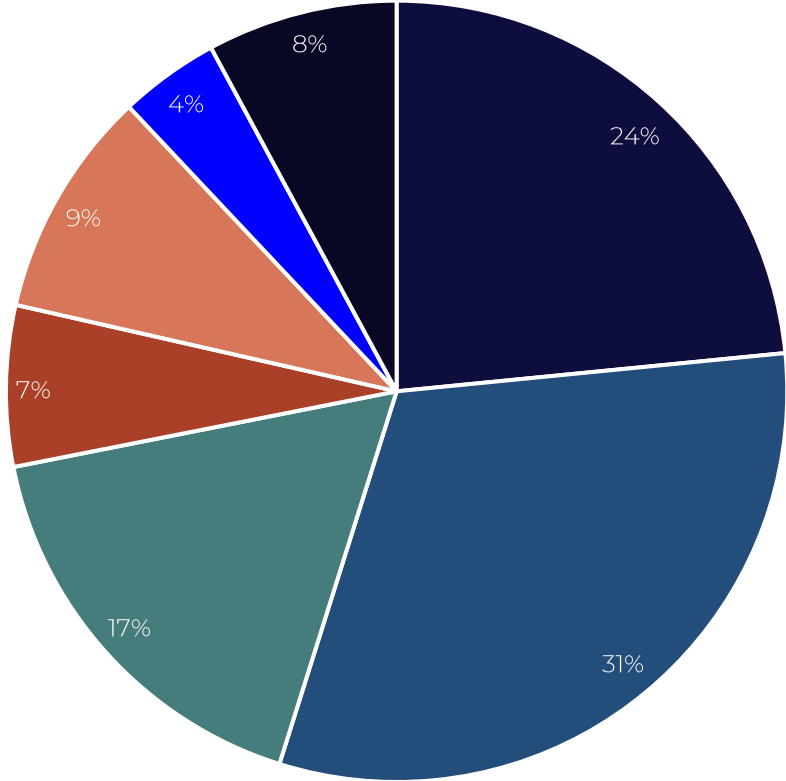
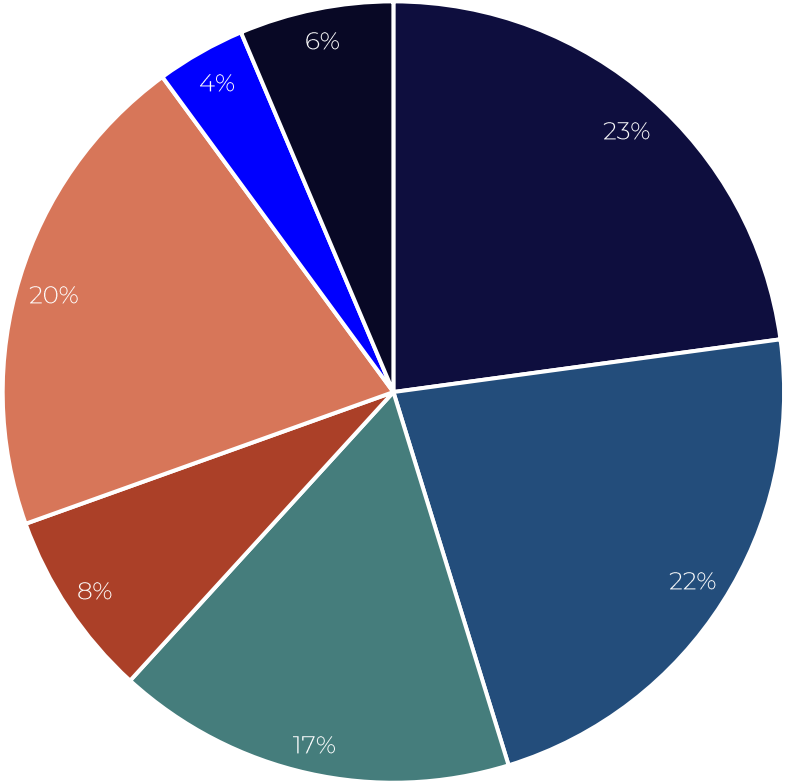
Quarterly Data



Revenue By Geography Evolution

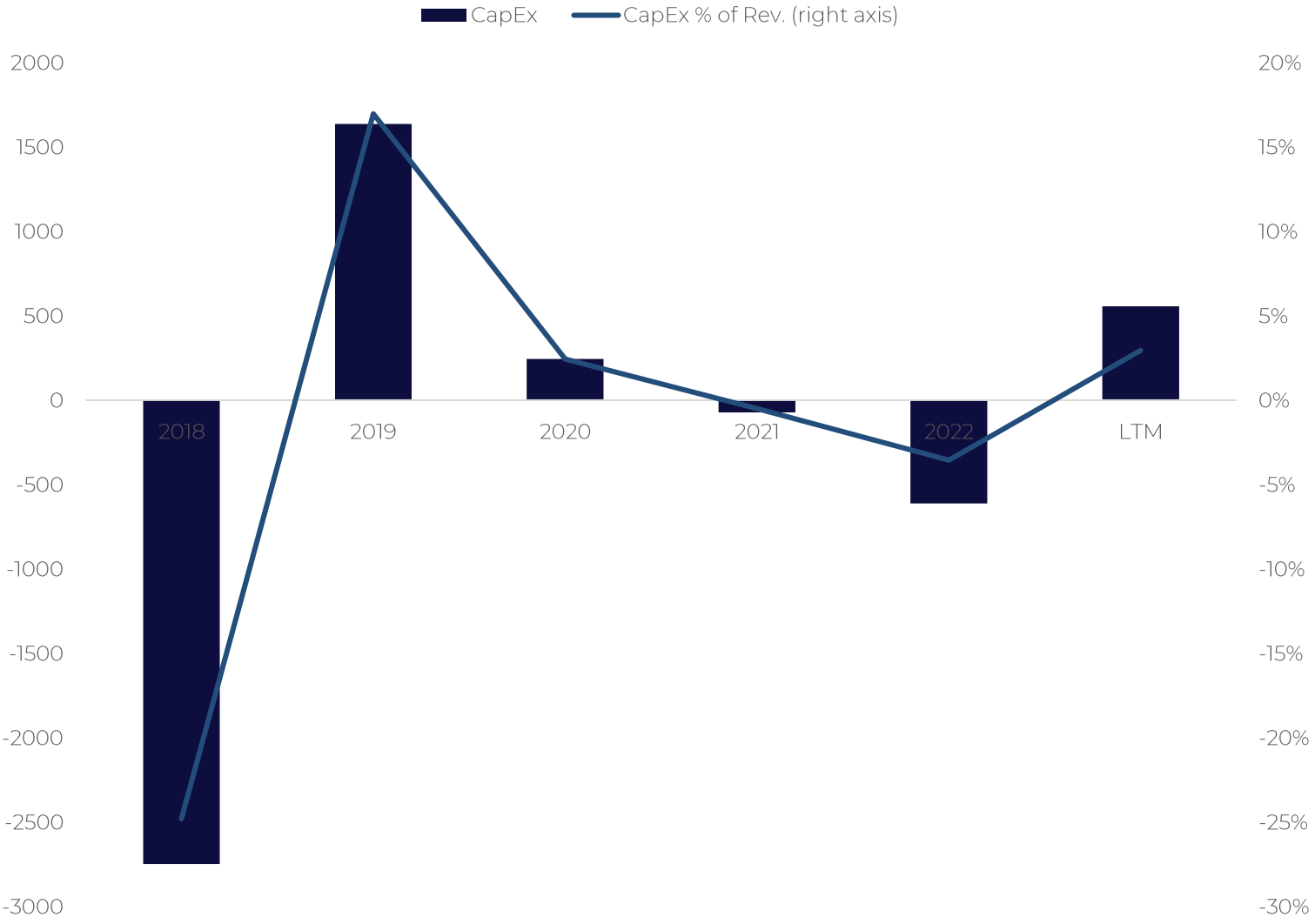
■ Korea
 ■ China
 ■ Taiwan
 ■ United States
■ Japan
 ■ Europe
 ■ Southeast Asia

■ Korea
 ■ China
 ■ Taiwan
 ■ United States
■ Japan
 ■ Europe
 ■ Southeast Asia



Sources: CapitalIQ, Blue Line Capital, Blue Line Futures

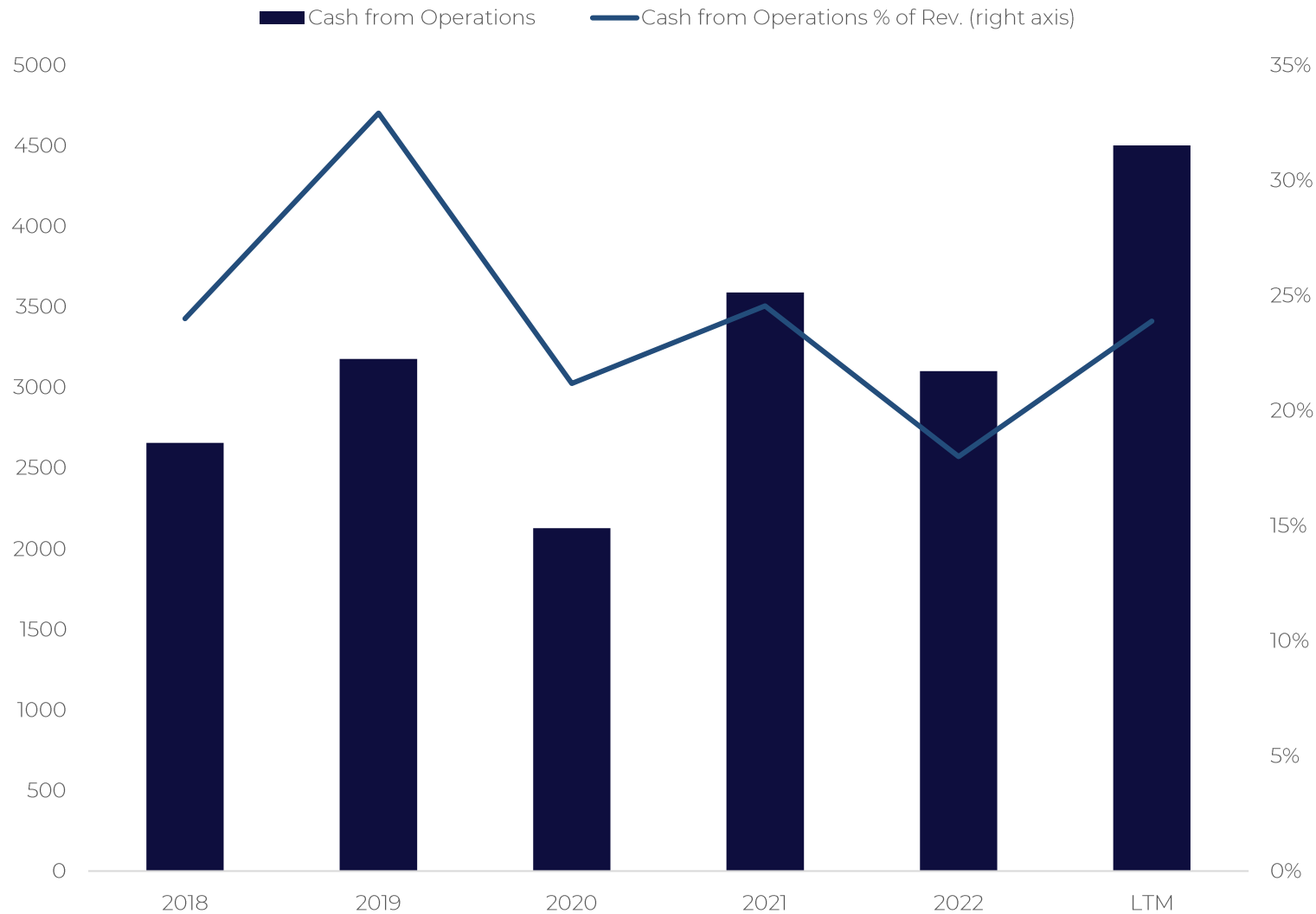
CapEx Is Choppy



- No clear trend in CapEx for Lam Research while the company refers to underinvestment in memory.

Sources: CapitalIQ, Blue Line Capital, Blue Line Futures

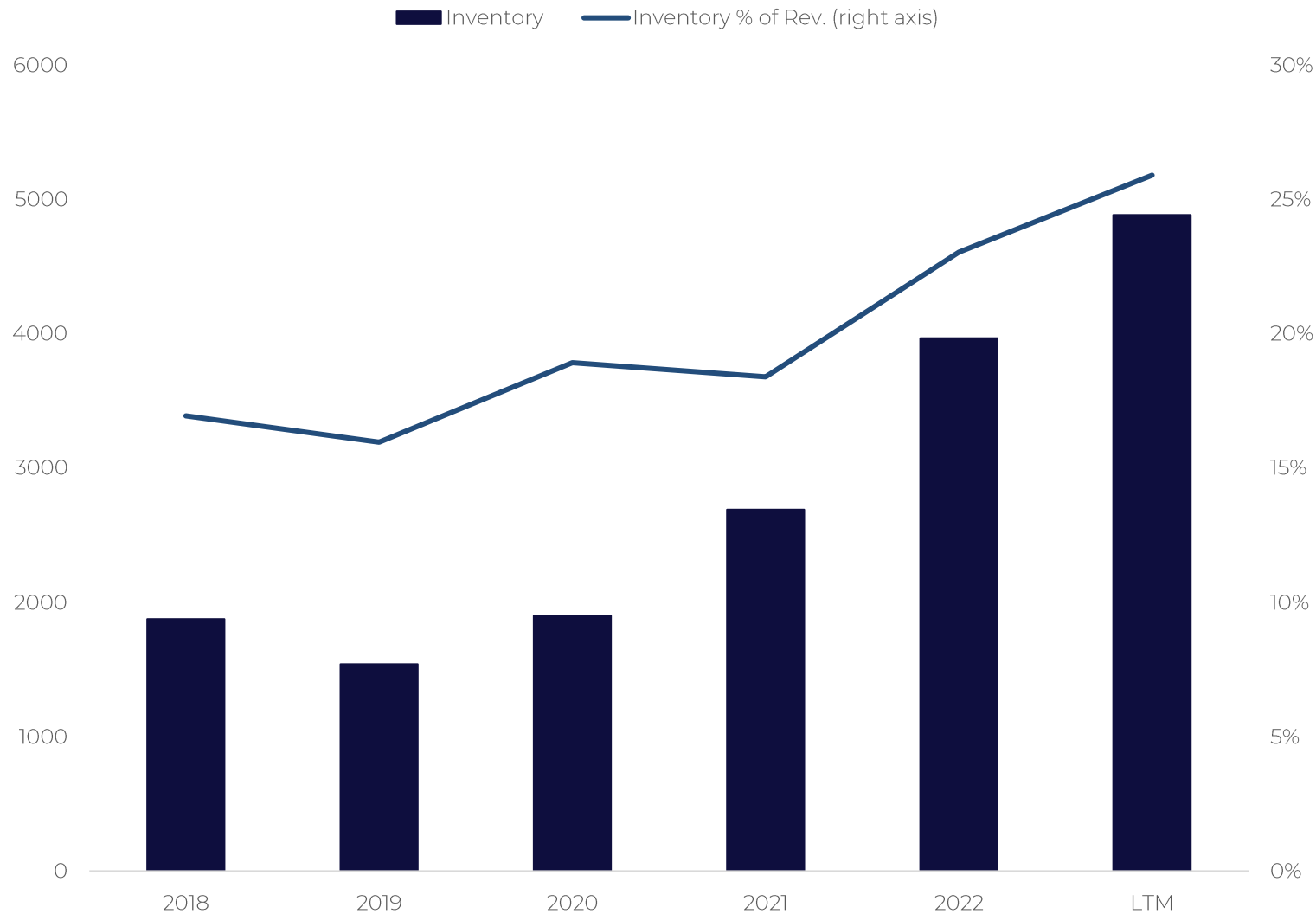
Cash From Operations Remains Strong



- Cash from Operations remains strong on an absolute and relative basis despite semiconductor industry headwinds.

Sources: CapitalIQ, Blue Line Capital, Blue Line Futures

Lam's Inventory Levels On The Rise



- Lam's inventories have climbed from \$1.54bn in 2019 to ~\$4.88bn over the last twelve months.
 - The inventory build is also reflected in inventories as a percentage of revenue, up to 26%

Sources: CapitalIQ, Blue Line Capital, Blue Line Futures

Lam Research Expectations & Returns

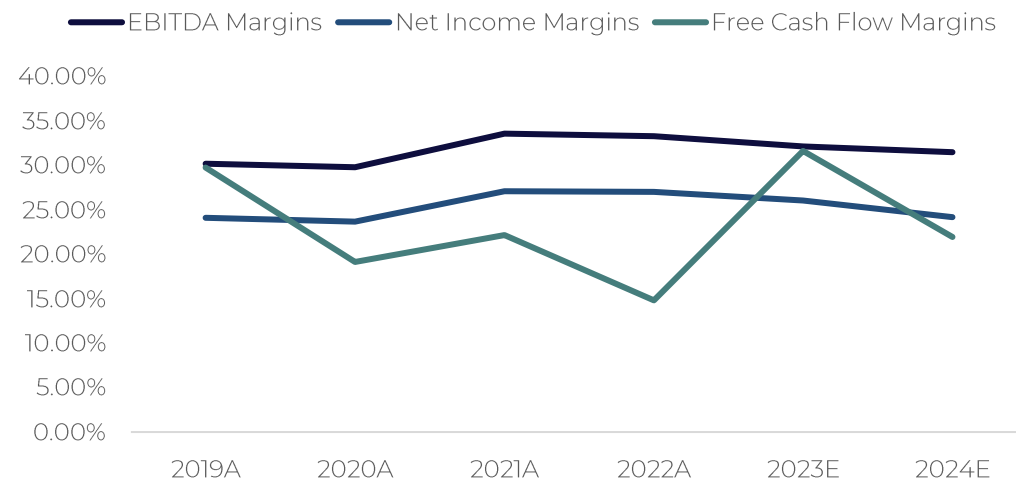
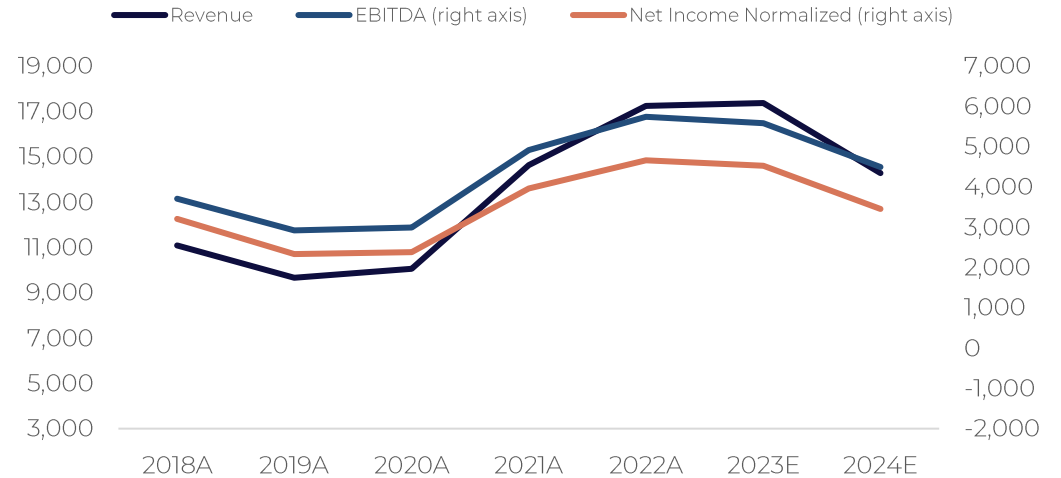
Return Ratios Compared To 2019

All return ratios and margins have improved since 2019.

		LTM	2019
Return Ratios	RoA	20.60%	12.60%
	RoC	44.00%	26.90%
	RoE	68.10%	39.20%
Margins	Gross Profit Margin	45.00%	45.10%
	EBITDA Margin	33.10%	28.70%
	Net Income Margin	26.10%	22.70%
	Levered Free Cash Flow Margin	16.30%	19.70%
Asset Turnover	Asset Turnover	0.98	0.8
	Fixed Asset Turnover	11.04	9.84
	Receivables Turnover	5.42	5.32
	Working Capital Turnover	2.03	1.56
Solvency	Total Debt/Equity	59.50%	96.20%
	Total Debt/Capital	37.30%	49.00%
	EBITDA/Interest Expense	35.32	23.66
	(EBITDA-Capex)/Interest Expense	32.38	21.07

Sources: Lam Research IR, TIKR, Blue Line Capital

Revenue, Net Income, and FCF Estimates



Lam Research Valuation Vs. Peers

	EV/EBITDA	NTM P/E	Past 3M Return	Past 6m Return	Past 12m Return
Lam Research (LRCX)	11.39	22.46	20%	24%	24%
Western Digital (WDC)	7.8	21.8	-8%	1%	-19%
Texas Instruments (TXN)	5	8.89	-3%	-6%	-4%
Seagate Technology (STX)	5.62	12.46	-9%	12%	-19%
Hewlett Packard Enterprises (HPE)	3.87	5.53	-10%	-8%	-1%
Micron Technology (MU)	4.94	8.46	13%	11%	12%
Qualcomm (QCOM)	6.6	18.97	-15%	-15%	-26%
Median	5.62	12.46	-8%	1%	-4%
Mean	6.46	14.08	-2%	3%	-5%

Sources: TIKR, Google Finance, Blue Line Capital

5/20/2023

Blue Line Capital no position in Lam Research.

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Lam Research Silver Chart

bill_blue_line published on TradingView.com, May 20, 2023 14:08 UTC-5



TradingView

Sources: Trading View, Blue Line Capital

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Texas Instruments



Analog Chip Trends

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Texas Instruments Highlights & Stock Performance

Management Commentary From Q1 2023 Earnings Call

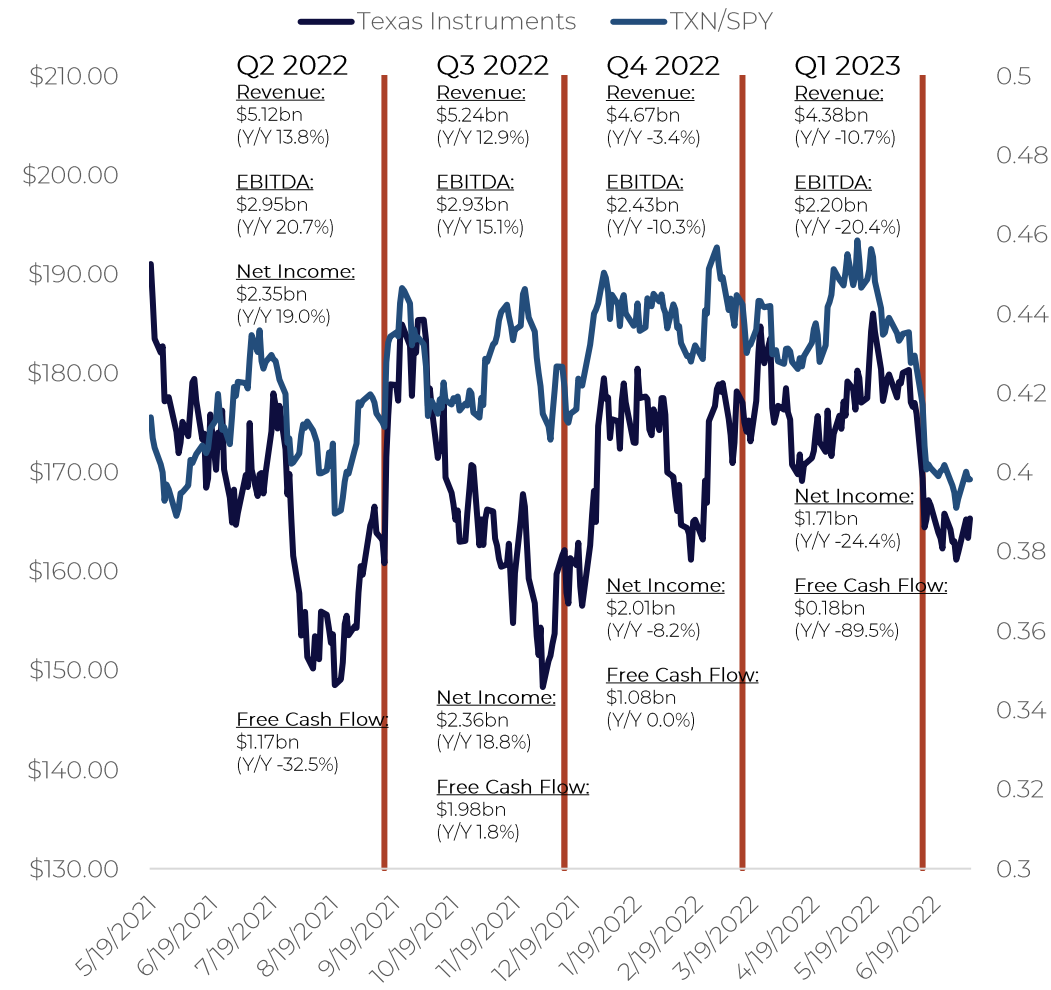
- **Customer Inventory Reduction:** As mentioned last quarter, a component of the weaker demand was inventory reductions by our customers, which we expect to continue in the second quarter.
- **Inventory:** Inventory dollars were up \$531 million from the prior quarter to \$3.3 billion. And days were 195, up 38 days sequentially.
- **CapEx:** As we shared on the call a couple of months ago, we expect CapEx to average \$5 billion per year for the next 4 years. That's just an average, so some years will be lower, especially at the beginning and other years will be higher. But our expectation continues to be \$5 billion per year. Those numbers – that \$5 billion is gross and the \$982 million, the one – close to \$1 billion that you just quoted for the quarter that's also gross.

	P/E	P/S	Market Cap/FCF	EV/EBITDA	P/B
NTM	22.46	8.51	41.17	16.67	NA
TTM	19.09	7.92	54.32	14.92	10.13

*Levered FCF

Sources: Texas Instruments IR, TIKR, Blue Line Capital

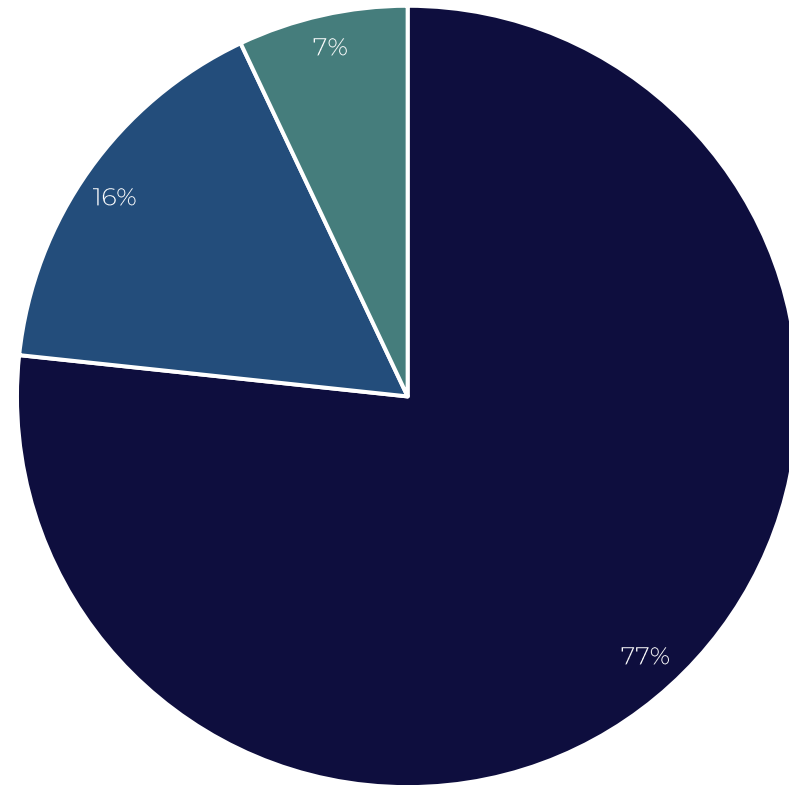
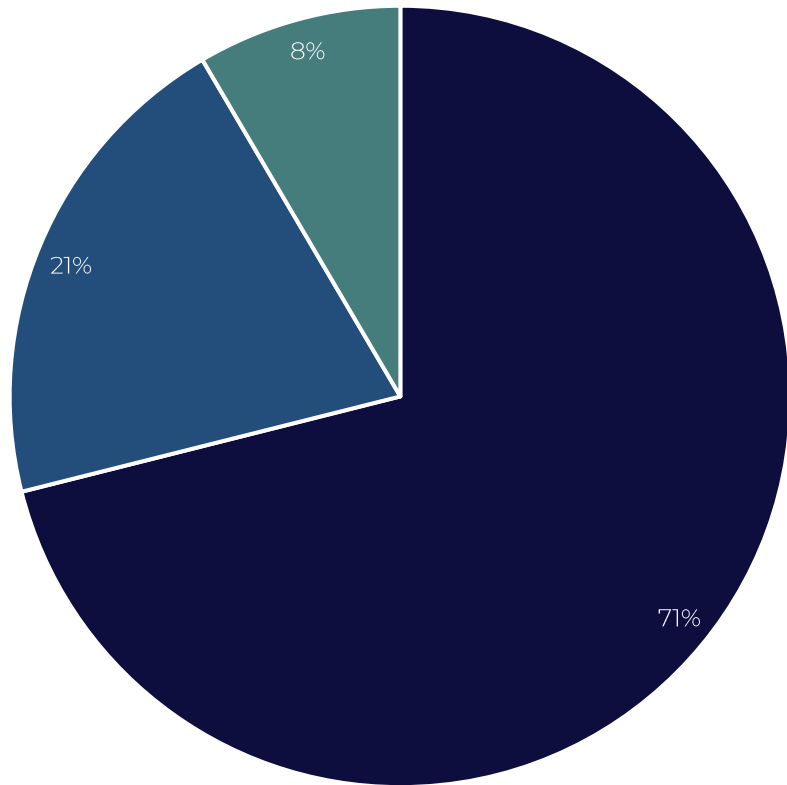
Quarterly Data



Revenue By Segment Evolution

■ Analog ■ Embedded Processing ■ Other

■ Analog ■ Embedded Processing ■ Other



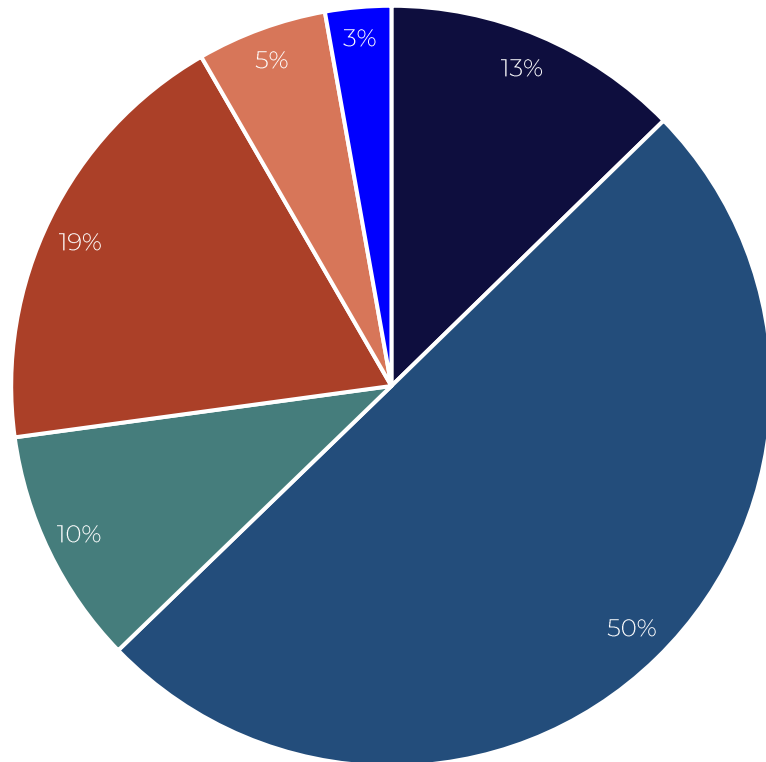
Sources: CapitalIQ, Blue Line Capital, Blue Line Futures

5/20/2023 Blue Line Capital maintains no position in Western Digital.

Revenue By Geography Evolution

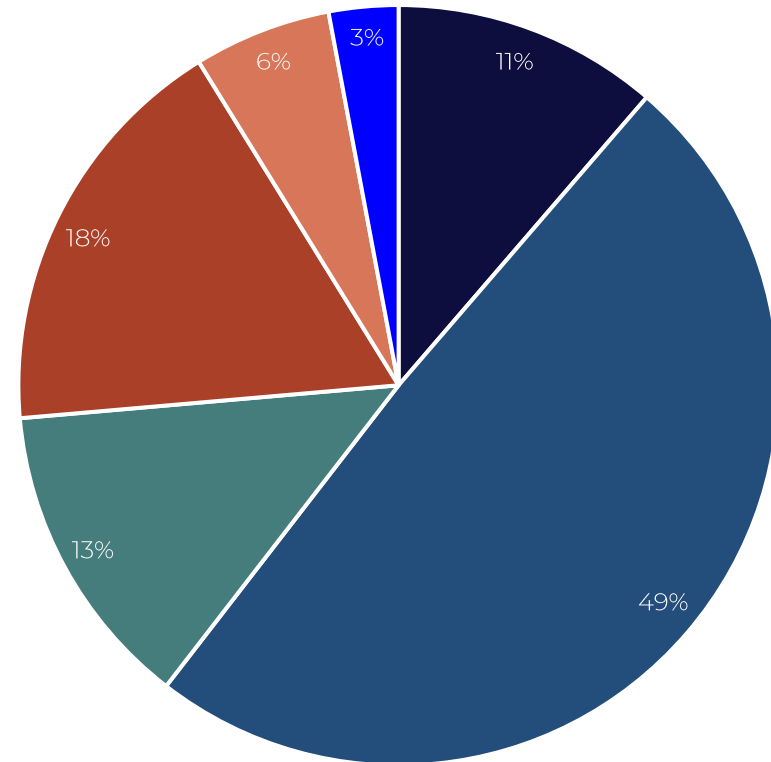
- United States
- Rest of Asia
- Japan

- China
- Europe, Middle East and Africa
- Rest of World



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Sources: CapitalIQ, Blue Line Capital, Blue Line Futures

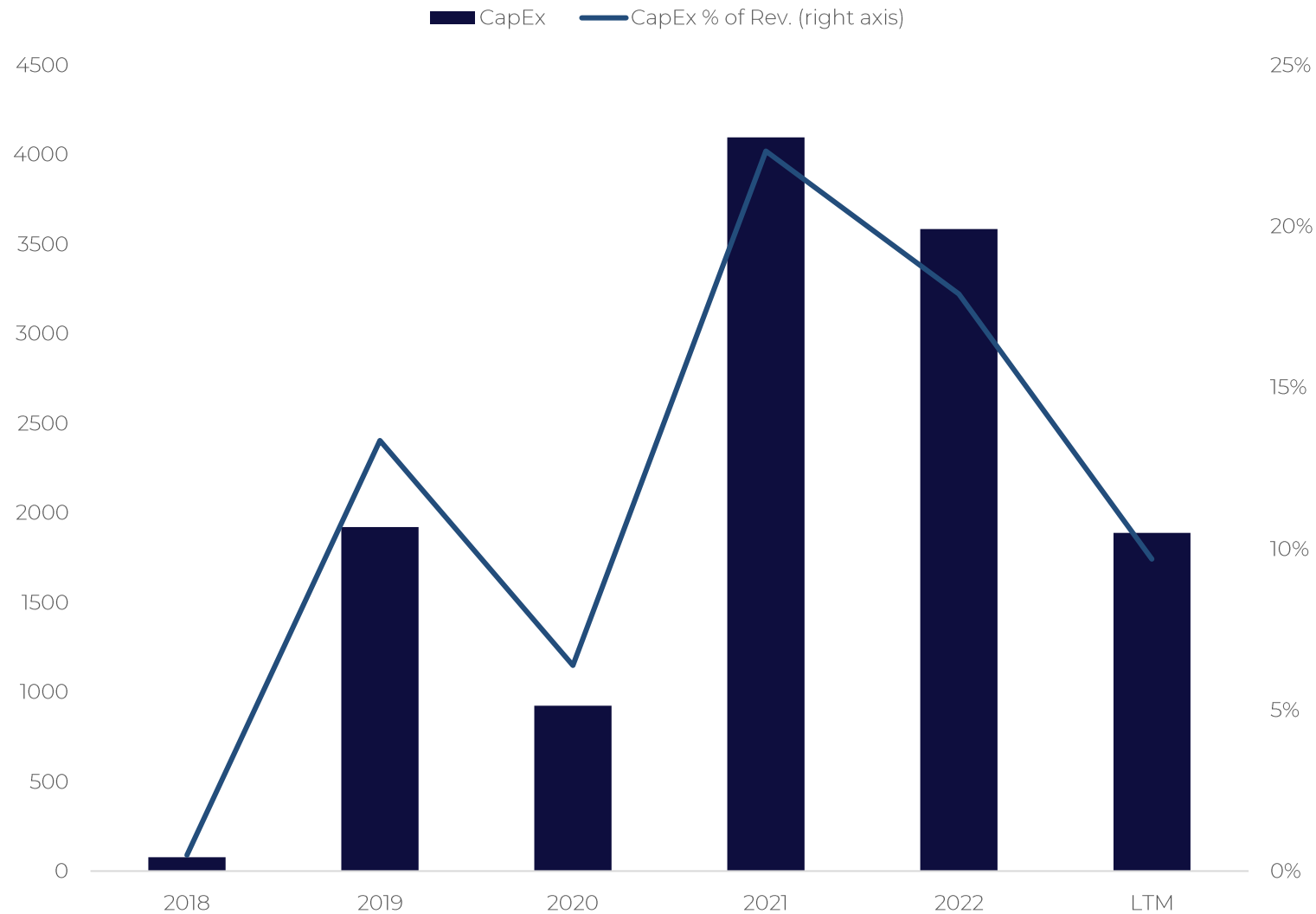
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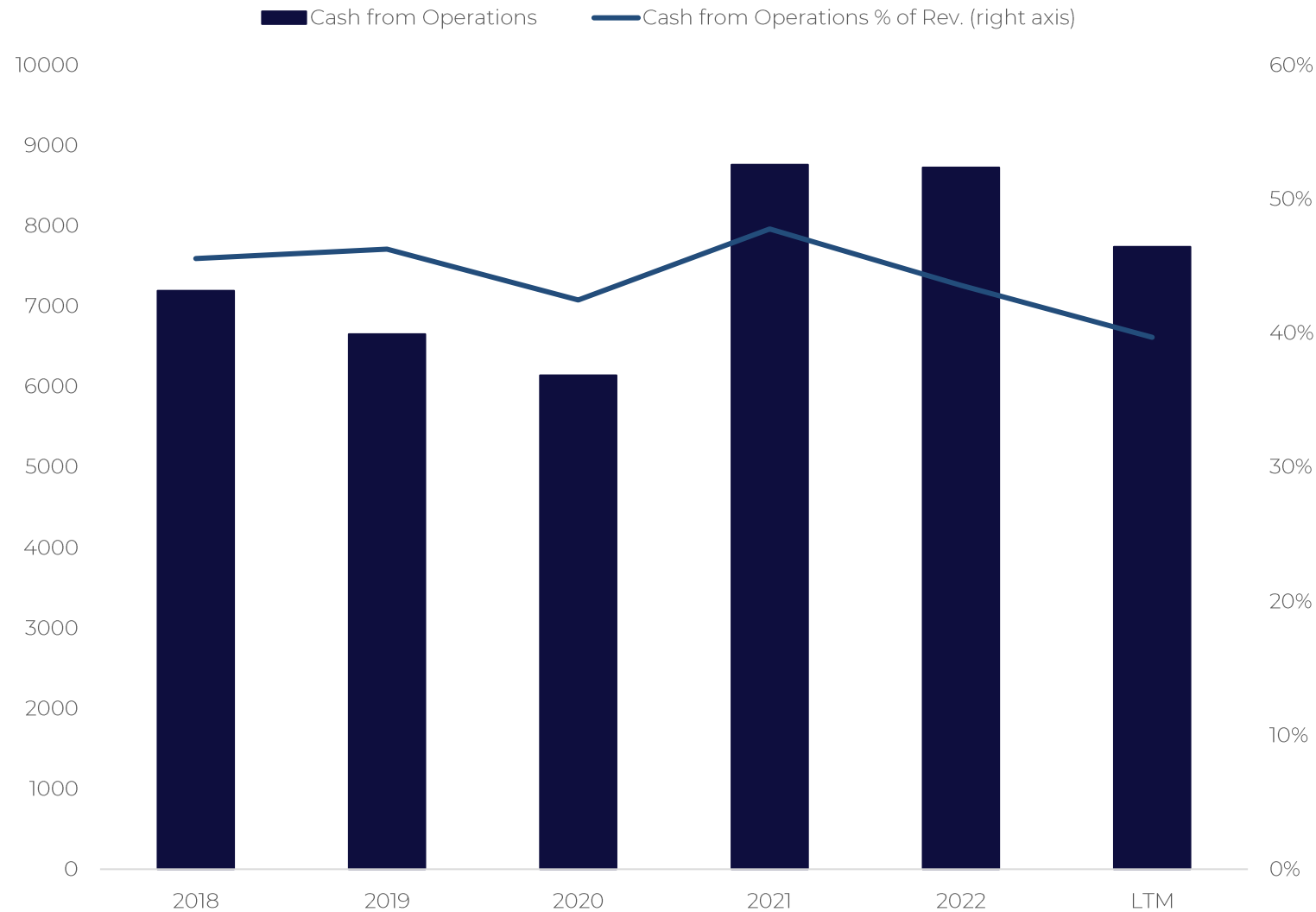
CapEx Trending Lower



- As customers have tried to manage their inventory, Texas Instruments' CapEx has come down from \$4bn+ on an annual basis to below \$2bn over the last twelve months.
 - Simultaneously, CapEx as a percentage of revenue has come down from 22% in 2021 to 10% over the last twelve months.

Sources: CapitalIQ, Blue Line Capital, Blue Line Futures

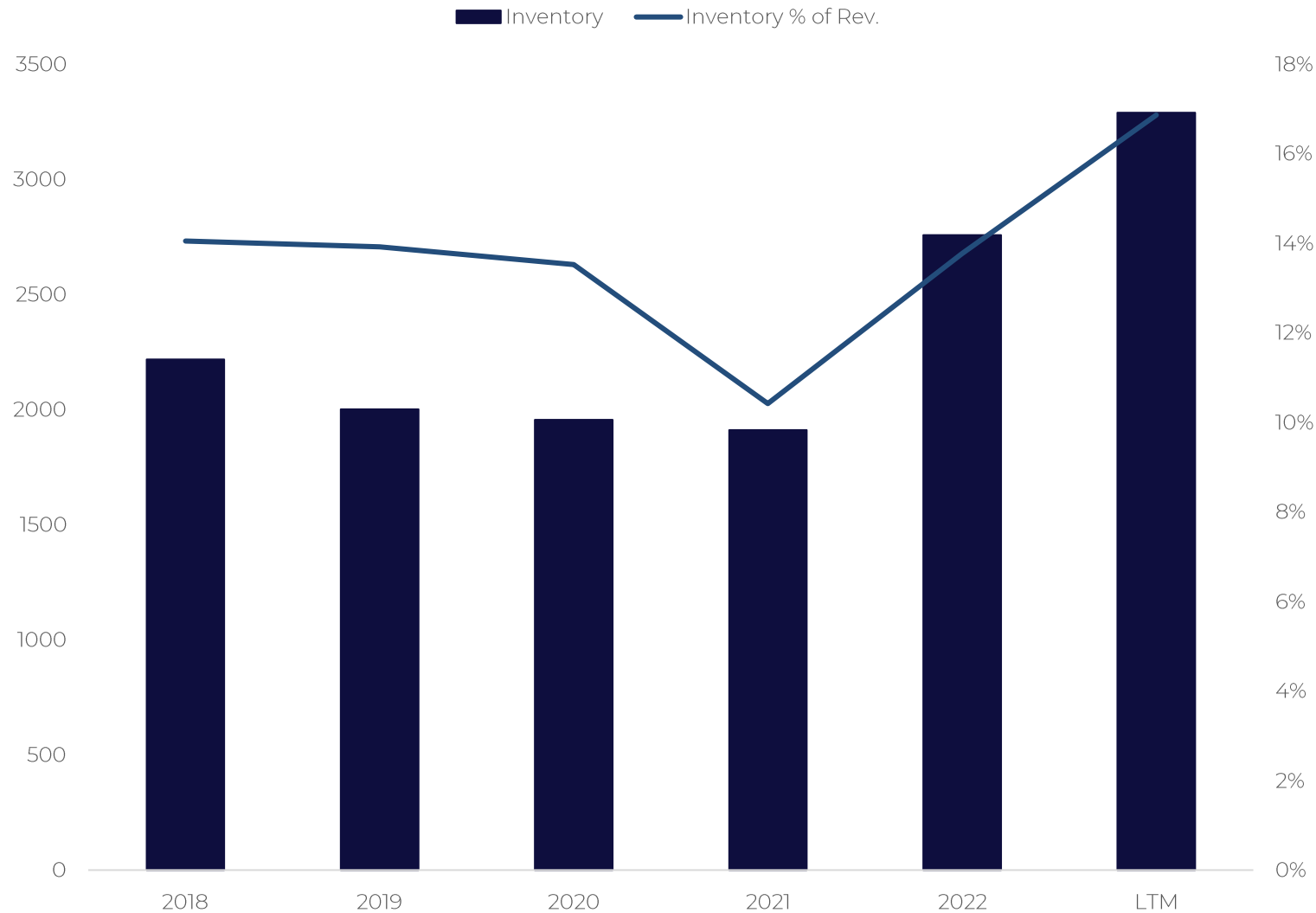
Cash From Operations Compression



- Texas Instruments' cash from operations has come down from ~\$8.76bn in 2021 to \$7.74bn over the last twelve month period.
 - Over the same time from, cash from operations as a percentage of revenue has come down from 48% in 2021 to 40%.

Sources: CapitalIQ, Blue Line Capital, Blue Line Futures

Texas Instruments' Inventories Rising



- Texas Instruments' inventory has gone up from \$1.91bn in 2021 to \$3.29bn over the last twelve months.
 - As a percentage of revenue, inventory has gone up from 10% to 17%.

Sources: CapitalIQ, Blue Line Capital, Blue Line Futures

Texas Instruments Expectations & Returns

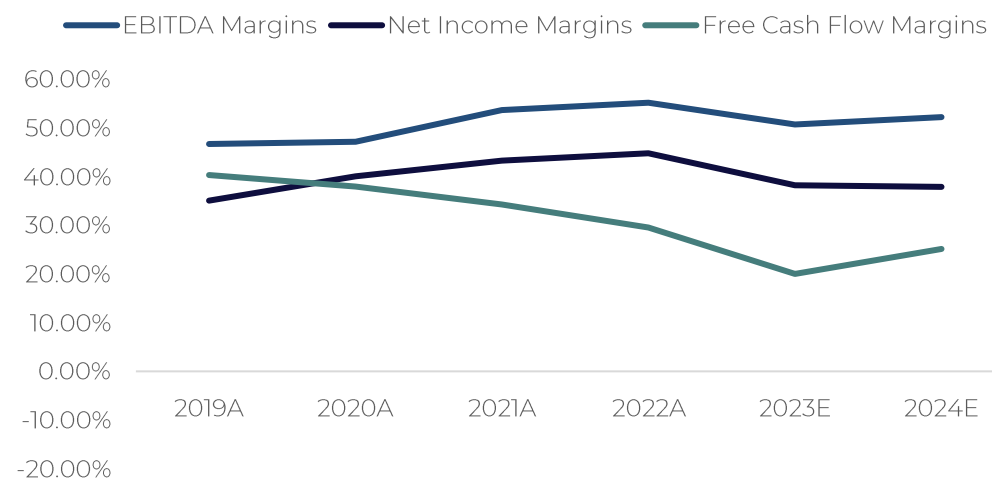
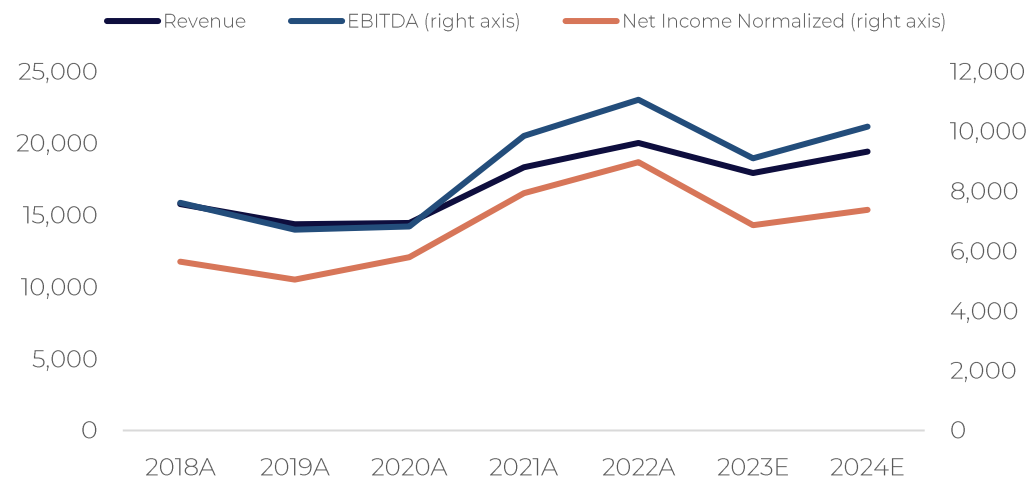
Return Ratios Compared To 2019

Returns and margins have improved across the board from 2019 levels.

		LTM	2019
Return Ratios	RoA	21.60%	20.20%
	RoC	36.90%	37.60%
	RoE	56.40%	55.70%
Margins	Gross Profit Margin	67.60%	63.70%
	EBITDA Margin	53.30%	46.40%
	Net Income Margin	42.30%	34.90%
	Levered Free Cash Flow Margin	14.60%	29.10%
Asset Turnover	Asset Turnover	0.67	0.8
	Fixed Asset Turnover	2.98	4.22
	Inventory Turnover	2.36	2.47
	Working Capital Turnover	1.61	2.17
Solvency	Total Debt/Equity	66.40%	68.90%
	Total Debt/Capital	39.80%	40.60%
	EBITDA/Interest Expense	45.66	39.91
	(EBITDA-Capex)/Interest Expense	31.16	34.93

Sources: Texas Instruments IR, TIKR, Blue Line Capital

Revenue, Net Income, and FCF Estimates



Texas Instruments Vs. Peers

	NTM EV/EBITDA	NTM P/E	Past 3M Return	Past 6m Return	Past 12m Return
Texas Instruments (TXN)	16.67	22.46	-3%	-6%	-4%
Western Digital (WDC)	39.86	-9.86	-8%	1%	-19%
Lam Research (LRCX)	18.67	25.12	20%	24%	24%
Seagate Technology (STX)	16.8	44.67	-9%	12%	-19%
Hewlett Packard	5.56	7.37	NA	NA	NA
Micron Technology (MU)	13.89	-21.41	13%	11%	12%
Qualcomm (QCOM)	9.44	12.58	-15%	-15%	-26%
Median	16.67	12.58	-5%	6%	-12%
Mean	17.27	11.56	0%	5%	-5%

Sources: TIKR, Google Finance, Blue Line Capital

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Blue Line Capital maintains no position in Texas Instruments.

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Texas Instruments Chart

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Sources: Trading View, Blue Line Capital

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