

## Medical Technology

## Red Sea disruptions unlikely to offset the medtech margin recovery

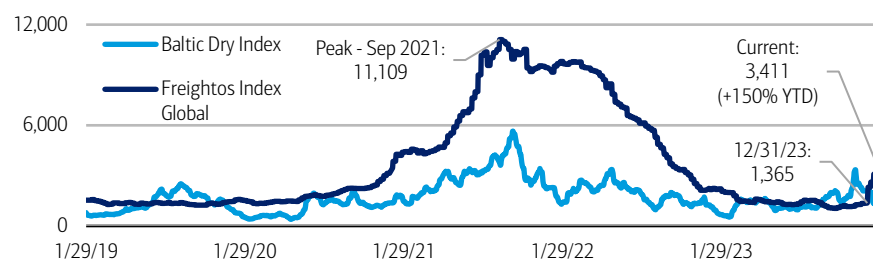
## Industry Overview

## Red Sea doesn't fully explain the medtech margin guides

Medtech 2024 revenue guides have been coming in above expectations but so far margins/EPS guides have been more in line (see [Medtech, HMOs, and 2024 guides](#)). We think companies are taking a conservative approach for now on margin guides (or baking in some potential M&A dilution). The only macro change has been the Red Sea disruptions. This factor seems small especially relative to the total margin recovery opportunity (medtech gross margins are 200-400bps below 2019 levels). There could be some secondary cost effects if the situation lingers but for now global shipping rates are still well below peak levels and BofA analysts think [peak disruptions are being seen now](#) (see report). Medtech shipping costs are 1-1.5% of total revenue and many companies have said they do not rely on the impacted shipping routes. However, if the situation does materially worsen, it would most likely be seen with BDX and BAX where shipping costs are 3-4% of revenue and both somewhat rely on the impacted routes. But these margin headwinds would likely only be in the ~10-20bps range. See inside for more on the Red Sea and medtech.

## Exhibit 1: Freightos Index Global and Baltic Dry Index – last 5 years

Global ocean freight rates, as measured by the Freightos Index Global, are up 150% YTD. The uptick in global freight costs is nowhere near the magnitude of that witnessed in 2021.



Source: Bloomberg.

BofA GLOBAL RESEARCH

## Exhibit 2: Shipping costs % Medtech Revenue

Disclosures in company filings suggest that shipping costs are a low-single-digit % of revenue

Ticker	Shipping costs (\$m)					Shipping costs % Revenue				
	'19	'20	'21	'22	'23	'19	'20	'21	'22	'23
BAX	324	325	381	493	--	2.9%	2.8%	3.0%	3.3%	--
BDX	511	551	641	751	733	3.0%	3.2%	3.4%	4.0%	3.8%
BSX	144	146	194	--	--	1.3%	1.5%	1.6%	--	--
CNMD	15	15	17	22	--	1.6%	1.7%	1.7%	2.1%	--
EMBC	12	12	--	--	--	1.1%	1.1%	--	--	--
EW	72	74	85	87	--	1.6%	1.7%	1.6%	1.6%	--
MDT	350	347	308	354	351	1.1%	1.2%	1.0%	1.1%	1.1%
PODD	10	10	11	13	--	1.3%	1.1%	1.0%	1.0%	--

Source: Company filings. \*Note: MDT also includes certain shipping and handling costs in COGS (amount not disclosed).

BofA GLOBAL RESEARCH

30 January 2024

Equity  
United States  
Medical Technology

**Travis Steed**  
Research Analyst  
BofAS  
+1 404 607 3251  
[travis.steed@bofa.com](mailto:travis.steed@bofa.com)

**Carolyn Huszagh**  
Research Analyst  
BofAS  
+1 312 259 7414  
[carolyn.huszagh@bofa.com](mailto:carolyn.huszagh@bofa.com)

**Craig Bijou**  
Research Analyst  
BofAS  
+1 646 855 2590  
[craig.bijou@bofa.com](mailto:craig.bijou@bofa.com)

**Stephanie Piazzola**  
Research Analyst  
BofAS  
+1 646 855 4568  
[stephanie.piazzola@bofa.com](mailto:stephanie.piazzola@bofa.com)

## Tickers mentioned

BDX = Becton Dickinson  
BAX = Baxter  
BSX = Boston Scientific  
CNMD = Conmed  
EMBC = Embecta  
EW = Edwards  
MDT = Medtronic  
PODD = Insulet

## Acronym glossary

M&A = mergers and acquisitions  
HMO = health maintenance organization  
YTD = year to date  
COGS = cost of goods sold

BofA Securities does and seeks to do business with issuers covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. Refer to important disclosures on page 8 to 10.

12652486

Timestamp: 30 January 2024 06:43AM EST

# Contents

No medtech company has called Red Sea out as a major concern yet when we've asked	3
Medtech manufacturing in Europe & Asia	3
Only BAX called it out back in Q1'21 Suez Canal crisis	4
Shipping costs % Revenue	5
Global ocean freight rates up +150% YTD	5
BofA Global, Shipping, & Transport teams on Red Sea conflict	6



## No medtech company has called Red Sea out as a major concern yet when we've asked

### Exhibit 3: Company commentary on Red Sea/Suez Canal from last week

Given ongoing conflict in the Red Sea, over the past week, we reached out to some of our companies under coverage. Of nine responses, five (ABT, BDX, SYK, TFX, ZBH) suggest minimal to no impact but actively monitoring the situation; and four (BSX, DXCM, GEHC, MDT) suggest no significant exposure.

Ticker	Comment(s) from last week
ABT	some increased shipping charges but not at a material level
BDX	"BD is closely monitoring the Houthis attacks on vessels crossing through key Red Sea shipping lanes. Like many global companies, <b>BD relies on the flow of goods through these shipping lanes</b> to deliver critical healthcare products around the world. We have BD teams in place who are <b>actively engaged in risk mitigation efforts and scenario planning to help minimize potential impacts</b> to our customers should these activities persist or worsen."
BSX	<b>"the majority of our supply chain shipping lanes are done via commercial flight.</b> One of the opportunities we're exploring to reduce that cost is shipping by boat, but the majority is still air"
DXCM	"Our supply chain works well, and <b>we do not have significant supply chain exposure to the Red Sea.</b> As always, our team monitors all geopolitical developments and will work to adapt as necessary if anything comes up."
GEHC	"We do <b>very little shipping volume by sea in this part of the region.</b> "
MDT	"Our operations are continuing without impact to product supply. We <b>do not have a significant reliance on the shipping route through the Red Sea.</b> "
SYK	<b>"Nothing to note here,</b> but we will continue to monitor."
TFX	<b>"we have been able to re-route our shipping to mitigate any issues</b> associated with moving product through the Red Sea/Suez Canal. Keep in mind, that we are shipping lightweight plastic devices (and no heavy capital equipment), so <b>have options as to how we move product from our manufacturing locations to our distribution centers"</b>
ZBH	<b>"We aren't seeing an impact from the conflict in the Red Sea</b> but will certainly update the Street if that changes materially"

Source: Company filings, BofA Global Research

BofA GLOBAL RESEARCH

## Medtech manufacturing in Europe & Asia

The Suez Canal is a major shipping lane between Europe and Asia. Based on 2019 data from Egypt's Suez Canal Authority, on tons of cargo by shipping direction and to/from country, we think shipments to/from certain European and Asian countries may be more impacted by Suez Canal disruption than others. Given those countries and based on filings, we think ABT, BAX, BDX, BLCO, BSX, COO, DXCM, EMBC, EW, GEHC, ITGR, MDT, SYK, TFX and ZBH potentially have mfg. facilities in those most-impacted countries.

### Exhibit 4: Location of manufacturing facilities by company

Based on company filings, we think ABT, BAX, BDX, BLCO, BSX, COO, DXCM, EMBC, EW, GEHC, ITGR, MDT, SYK, TFX and ZBH (15 of our 32 companies under coverage) potentially have mfg. facilities in those European and Asian countries that are likely most impacted by Suez Canal disruption.

Ticker	Comments from company filings
<b>LIKELY to have mfg. facilities in those most-impacted European and Asian countries</b>	
ABT	"88 mfg. facilities in more than 25 countries" including at least US, <b>China</b> , Ireland, Germany, <b>Spain</b>
BAX	"principal mfg. facilities ... Puerto Rico, Canada, Colombia, Costa Rica, Mexico, Dominican Republic, US, <b>India, China</b> , Australia, <b>Singapore</b> , Philippines, Thailand, Japan, Ireland, Italy, Germany, Belgium, <b>UK</b> , Sweden, Malta, France, <b>Spain</b> , Switzerland, Israel, Tunisia, <b>Saudi Arabia</b> "
BDX	"BD has mfg. operations outside the US in Bosnia and Herzegovina, Brazil, Canada, <b>China</b> , Dominican Republic, France, Germany, Hungary, <b>India</b> , Ireland, Israel, Italy, Japan, <b>Malaysia</b> , Mexico, the <b>Netherlands, Singapore, Spain</b> , and the <b>United Kingdom</b> "
BLCO	"We own several mfg. facilities throughout the US. We also own or have an interest in mfg. plants or other properties outside the US, including in Mexico, and certain countries in Europe, the Middle East, Asia and South America." "Principal [mfg.] properties ... [US], Ireland, <b>China</b> , France, Italy"
BSX	"15 principal mfg. facilities, including eight in the U.S. and Puerto Rico, three in Ireland, two in Costa Rica, one in <b>Malaysia</b> , and one in Brazil"
COO	"CooperVision's major mfg. and distribution facilities are located in Belgium, Costa Rica, Hungary, Puerto Rico, the United Kingdom and the US" "CooperSurgical's major mfg., cryostorage and distribution facilities are located in Costa Rica, the <b>Netherlands</b> , the <b>United Kingdom</b> and the US"
DXCM	"Our products are manufactured at certain facilities ... the majority of our operations are conducted at facilities located in San Diego, California, Mesa, Arizona and, beginning in 2023, Penang <b>Malaysia.</b> "
EMBC	"Embecka has three mfg. facilities located in Ireland, the US, and <b>China</b> "
EW	"mfg. facilities in various geographies around the world. ... [TAVR, TMTT, and SH] products primarily in the [US], <b>Singapore</b> , Costa Rica, and Ireland ... Critical Care products primarily in the Dominican Republic and Puerto Rico"
GEHC	"17 mfg. facilities located in the US and 26 located [OUS], including in <b>China, India, Israel</b> , Mexico, Brazil, Austria, Denmark, France, Germany, Ireland, the <b>Netherlands</b> , Norway, Sweden, Finland, South Korea, and Japan"
ITGR	"2022, <b>we operated 17 facilities in the U.S., six in Europe, three in Mexico, two in Asia</b> , one in the Dominican Republic, one in South America, and one in Israel. ... mfg. and RD&E space worldwide"
MDT	"the Company's largest mfg. facilities by location: [US], Puerto Rico, Mexico, <b>China</b> , Ireland, Dominican Republic, Switzerland, France, Italy"
SYK	"principal mfg. and distribution facilities in the US ... [and] in <b>China</b> , France, Germany, Ireland, Mexico, the <b>Netherlands</b> , Switzerland and <b>Turkiye</b> "
TFX	"approximately 90 properties consisting of mfg. plants, engineering and research centers, distribution warehouses, offices and other facilities. ... Our major [mfg.] facilities ... [ <b>Malaysia</b> , Mexico, US, Czech Republic, Germany, Ireland]"

**Exhibit 4: Location of manufacturing facilities by company**

Based on company filings, we think ABT, BAX, BDX, BLCO, BSX, COO, DXCM, EMBC, EW, GEHC, ITGR, MDT, SYK, TFX and ZBH (15 of our 32 companies under coverage) potentially have mfg. facilities in those European and Asian countries that are likely most impacted by Suez Canal disruption.

<b>Ticker</b>	<b>Comments from company filings</b>
ZBH	"approximately 25 mfg. locations in the U.S. and internationally. Our most significant locations outside of the U.S. are in Switzerland, Ireland, <b>the U.K., China</b> , and Puerto Rico. ... warehouses in the U.S. and the <b>Netherlands</b> to be able to efficiently distribute our products to customers in the U.S. and EMEA"
<b>UNLIKELY to have mfg. facilities in those most-impacted European and Asian countries</b>	
AXNX	"We rely on third parties for the manufacture of our products ... solely on Contura International A/S as a single source supplier to manufacture Bulkamid"
CNMD	"mfg. facilities are located in Utica, NY, Largo, FL and Chihuahua, Mexico. Lithia Springs, GA and Brussels, Belgium are our principal distribution centers"
FNA	"leverage multiple third-party mfg. relationships ... we also maintain offices domestically in Michigan and New Jersey and internationally in Ireland, South Africa, Australia, Finland, Germany, Italy and the U.K."
GMED	"research and mfg. facilities in Massachusetts, Pennsylvania and Texas ... <b>own distribution centers in ... Netherlands</b> to support our international operations. We maintain a distribution warehouse, along with sales and administrative offices in thirteen additional countries, all of which are leased"
IART	"have key mfg. and research facilities located in [the US], Puerto Rico, France, Germany, Ireland and Switzerland. Our instrument procurement operations are located in Germany. Our <b>primary distribution centers</b> are located in Kentucky, Nevada, Australia, Belgium, Canada, Italy, Japan, and <b>China</b> ."
INSP	"We rely on third-party suppliers to manufacture our Inspire system and its components"
ISRG	"We manufacture our systems at our facilities in Sunnyvale, California, Durham, North Carolina and, as of 2022, Peachtree Corners, Georgia. We manufacture our instruments at our facilities in Sunnyvale, California and Mexicali, Mexico. We also have mfg. at multiple sites in Germany"
NARI	"We have a facility located in Irvine, California, where we manufacture, assemble, inspect, test, package and ship our solutions. We currently produce all of our solutions at this facility, and we do not have additional facilities"
NVRO	"have historically relied exclusively on third-party manufacturers to manufacture and assemble ... We have recently established internal manufacturing capabilities at our facility in Costa Rica"
OM	"our employee base, operating facilities and infrastructure are centralized in Northern California"
PODD	"facility in Acton, MA, which houses both our headquarters and our U.S. mfg. .... 22 facilities in 10 countries consisting of approximately 300,000 square feet of <b>office, R&amp;D, and warehousing space</b> and other related facilities, primarily in North America, <b>Asia and Europe</b> ."
PRCT	"we have a sole mfg. facility located in Redwood City, California ... We are completing renovations of a new mfg. facility located in San Jose, California where we expect to move ... all of our mfg. operations over during 2023."
RXST	"manufacture, assemble, test, and ship our LAL and LDD, and various accessory products ... at our campus of four facilities and approximately 121,000 total square feet in Aliso Viejo, California."
SIBN	"We rely on third-party suppliers to manufacture and supply substantially all of our products"
SILK	"We have facilities located in Sunnyvale, California, and in Plymouth, Minnesota, where we currently assemble and package certain of our products, and inspect, release and ship all of our products."
SWAV	"The mfg. of our IVL catheters is principally done at our facilities in Santa Clara, California, except that a portion of demand for certain catheters is manufactured by a third-party contract manufacturer in Costa Rica ... in Costa Rica, where we are in the process of building a new mfg. facility."
TNDM	"Substantially all of our operations are currently conducted at leased facilities, including our mfg. processes ... [leased facilities:] general office, mfg. and warehouse space located on Barnes Canyon Road in San Diego, California"

Source: Company filings, BofA Global Research

BofA GLOBAL RESEARCH

**Only BAX called it out back in Q1'21 Suez Canal crisis**

We went back to see what companies said out of the Suez Canal crisis in Q1'21, when the canal was blocked for roughly one week when a container ship ran aground. We include what we found, which yielded results for BAX only, below.

**Exhibit 5: Company commentary on Q1'21 Suez Canal crisis**

On BAX's Q1'21 EPS call, BAX raised full-year mfg. and supply chain cost estimates by ~\$70m, which BAX attributed second-most to the Suez Canal crisis.

<b>Ticker</b>	<b>Company commentary on Suez Canal / Red Sea last week</b>
BAX 5/25/21	"Q1 of the year was this severe movement that we saw in certain input prices and freight cost ... we had to actually raise our mfg. and supply chain costs about \$70m on a full-year basis ... now, the price has been kind of trundling along. We haven't seen further severe increases since the end of the quarter" <b>"the \$70m of incremental cost that we saw ... resin costs were pressured is because some of the deep [Texas] freeze ... And I think some of our freight costs were impacted negatively by the Suez Canal situation</b> that emerged. Again, I think that was another factor that came into play impacting freight cost and shipping cost. ... <b>those things together and the recent hack definitely impacted some fuel prices in the US ... put all of those things together and that \$70m"</b>
8/12/21	<b>"shocks that led to the inflationary factors that occurred in Q1 and put pressure all the way through Q2, notably the Suez Canal</b> , the freeze in the South and in Texas put severe pressure on resin suppliers ... good news is, we have a lot of improvement opportunities in mfg. The team is incredibly focused on driving these."
2021 ESG report	"The temporary obstruction of the <b>Suez Canal in 2021 significantly delayed ocean shipments between Europe and Asia</b> and impacted global supply chains. As Baxter worked to mitigate supply disruptions for our customers and patients, we shipped more than 1,200 metric tons of products by rail instead of air between Europe and China."

Source: Company filings

BofA GLOBAL RESEARCH

## Shipping costs % Revenue

Below we summarize shipping costs, that are included in SG&A, as a % of revenue as disclosed in company filings. Disclosures suggest that shipping costs included in SG&A are a low-single-digit % of revenue.

### Exhibit 6: Shipping costs % Revenue

Eight of our companies have disclosed annual shipping costs since 2019. For companies with higher capital equipment sales, shipping costs are higher as % revenue.

Ticker	Shipping costs (\$m)					Revenue (\$m)					Shipping costs % Revenue					Notes from company filings
	'19	'20	'21	'22	'23	'19	'20	'21	'22	'23	'19	'20	'21	'22	'23	
BAX	324	325	381	493	--	11,362	11,673	12,784	15,113	--	2.9%	2.8%	3.0%	3.3%	--	"shipping costs incurred to physically move product from our premises to the customer's premises are classified as SG&A expenses. ... \$ 493 million in 2022, \$ 381 million in 2021 and \$ 325 million in 2020 of shipping costs were classified in SG&A expenses."
BDX	511	551	641	751	733	17,290	17,117	19,131	18,870	19,372	3.0%	3.2%	3.4%	4.0%	3.8%	"shipping and handling costs to be contract fulfillment costs and records them within S&A expense. Shipping expense was \$733 million, \$751 million and \$641 million in 2023, 2022 and 2021, respectively"
BSX	144	146	194	--	--	10,735	9,913	11,888	--	--	1.3%	1.5%	1.6%	--	--	"shipping costs incurred after a customer obtains control of the good as a fulfillment cost and record in SG&A expenses ... Shipping costs were \$194 million in 2021, \$146 million in 2020 and \$144 million in 2019."
EMBC	12	12	--	--	--	1,109	1,086	--	--	--	1.1%	1.1%	--	--	--	"shipping and handling costs to be contract fulfillment costs and records them within S&A expense. Shipping expense was \$12 million in both 2020 and 2019."
EW	72	74	85	87	--	4,348	4,386	5,233	5,382	--	1.6%	1.7%	1.6%	1.6%	--	"2022, 2021, and 2020, shipping costs of \$87.4 million, \$85.3 million, and \$74.0 million, respectively, were included in SG&A expenses."
PODD	10	10	11	13	--	738	904	1,099	1,305	--	1.3%	1.1%	1.0%	1.0%	--	"shipping and handling costs are included in SG&A expenses and were \$12.8 million, \$10.5 million, and \$10.1 million for the years ended December 31, 2022, 2021, and 2020, respectively"
MDT	350	347	308	354	351	30,557	28,913	30,117	31,686	31,227	1.1%	1.2%	1.0%	1.1%	1.1%	"shipping and handling costs incurred to physically move product from the Company's premises to the customer's premises are recognized in SG&A expense ... and were \$351 million, \$354 million, and \$308 million in fiscal years 2023, 2022, and 2021, respectively"
CNMD	15	15	17	22	--	955	862	1,011	1,045	--	1.6%	1.7%	1.7%	2.1%	--	"shipping and handling costs included in SG&A were \$21.7 million, \$17.0 million and \$14.6 million for 2022, 2021 and 2020, respectively"

Source: Company filings. \*Note: MDT also includes certain shipping and handling costs in COGS (amount not disclosed).

BofA GLOBAL RESEARCH

## Global ocean freight rates up +150% YTD

### Exhibit 7: Freightos Index Global and Baltic Dry Index – last 5 years

Global ocean freight rates, as measured by the Freightos Index Global, are up 150% YTD. The uptick in global freight costs driven by the Red Sea conflict is nowhere near the magnitude of that witnessed in 2021.



Source: Bloomberg

BofA GLOBAL RESEARCH

# BofA Global, Shipping, & Transport teams on Red Sea conflict

Our Global, Shipping, and Transport teams have published numerous reports on the Red Sea conflict. We include select quotes and links to the relevant notes below.

## On the Red Sea conflict ...

“attacks against a number of container ships in the Red Sea since mid-December, with particularly stepped-up escalation since early January”

“base case is for tensions to remain confined around the Red Sea area”

“sustained Red Sea Houthi attacks could disrupt shipping costs and supply chains in Europe, Asia and the US”

“base case ... disruptions linger in 1H24 ... peak disruptions are being seen now, with a gradual fade later”

## On potential disruption ...

“nearly 15% of global seaborne trade passes through the Red Sea”

“container looks most disrupted ... tanker and bulk less impacted”

“Container breakdown by commodity: Furniture, Household & Goods ... almost 30%”

“air cargo demand is not seeing a clear boost from Red Sea disruptions for now”

“the uptick in global freight costs driven by the Red Sea conflict is nowhere near the magnitude of that witnessed in 2021” (Ex. 7)

“supply chains have mostly normalized and are not nearly as stretched as during the pandemic”

## Additional detail ...

“increased shipping costs may pressure consumer prices in destination countries, while potentially hurting export volumes on the margin for exporters”

“Europe may be most directly impacted by higher freight costs ... the US may also see some smaller price pressures ... from Asia to both East and West coasts”

“for trade volumes, while we believe supply chains are significantly more resilient than following the pandemic, increased costs could lead to somewhat lower export volumes ... Asia is the region of origin where cargo is most directly affected”

“given the uncertainty about the evolution of the situation in the Red Sea, we prefer to focus on the shorter-term impact and focus on the one-quarter-ahead gauge”

“shipping lanes for US trade in goods is less at risk from Red Sea trade disruptions”

## Select BofA Global Research Reports on the Red Sea conflict

Title: Subtitle	Primary Author	Date Published
<a href="#">Global Watch: A Sea of Red</a>	Jean-Michel Saliba	25 January 2024
<a href="#">Global Economic Viewpoint: Global rate cuts lost at (Red) Sea?</a>	Jean-Michel Saliba	12 January 2024
<a href="#">Shipping - Global: Supply chains, interrupted</a>	Nathan Gee, CFA	01 January 2024
<a href="#">Shipping - Global: Building Red Sea tail risks</a>	Nathan Gee, CFA	18 December 2023
<a href="#">Transport Tracker: Issue #1103, week ending Dec. 13, 2023; Focus on FedEx margins as cost cut ramps</a>	Ken Hoexter	13 December 2023

**Exhibit 8: Large cap gross margins and operating margins (green is consensus)**

On average, the Street is modeling 25bps of gross margin expansion in 2024, including -30bps decline in Q1'24. On average, the Street is modeling 62bps of operating margin expansion in 2024, including -4bps decline in Q1'24.

	Gross Margin										Y/Y Expansion / Contraction										
	2019	2020	2021	2022	1Q23	2Q23	3Q23A	4Q23E	2023E	1Q24E	2Q24E	3Q24E	4Q24E	2024E	1Q24E	2Q24E	3Q24E	4Q24E	2024E	2025E	
ABT	59.2%	57.6%	58.0%	56.9%	55.9%	55.4%	55.1%	55.9%	55.5%	55.9%	56.0%	56.2%	56.8%	56.3%	-1bps	65bps	111bps	92bps	74bps	56.7%	47bps
BAX	44.9%	42.4%	43.3%	43.0%	41.2%	40.4%	41.7%	42.4%	41.3%	41.3%	41.5%	41.9%	42.5%	41.8%	7bps	111bps	17bps	7bps	44bps	42.3%	49bps
BDX	NA	NA	52.2%	53.4%	54.2%	52.6%	52.6%	49.5%	52.3%	51.9%	53.1%	53.8%	49.5%	52.1%	-234bps	46bps	116bps	-4bps	-19bps	NA	NA
BSX	72.4%	67.1%	70.3%	70.5%	70.5%	71.9%	70.2%	70.4%	70.7%	70.7%	71.2%	70.9%	71.2%	71.0%	22bps	-77bps	77bps	80bps	25bps	71.2%	25bps
COO	67.2%	66.9%	67.7%	65.9%	67.1%	66.1%	66.7%	66.1%	66.5%	66.5%	66.4%	66.7%	66.3%	66.5%	-60bps	26bps	1bps	20bps	-3bps	NA	NA
GEHC	40.3%	40.2%	41.6%	40.1%	40.9%	41.1%	41.0%	41.0%	40.6%	40.7%	41.0%	41.0%	41.1%	41.1%	-16bps	-18bps	3bps	8bps	44bps	41.5%	43bps
MDT	69.5%	64.3%	68.7%	67.2%	65.9%	66.4%	65.9%	65.2%	65.9%	65.2%	65.7%	65.9%	65.7%	65.6%	-64bps	-70bps	-9bps	42bps	-25bps	66.1%	51bps
SYK	65.9%	63.8%	65.9%	63.1%	63.2%	63.9%	64.7%	64.5%	64.0%	64.1%	64.4%	64.8%	65.0%	64.5%	98bps	59bps	5bps	49bps	47bps	65.0%	46bps
TFX	58.1%	56.7%	59.4%	59.2%	59.4%	59.0%	59.4%	59.5%	59.3%	59.9%	60.0%	60.2%	60.3%	60.1%	53bps	99bps	79bps	77bps	81bps	61.0%	88bps
ZBH	73.0%	71.1%	71.4%	71.2%	72.8%	72.0%	70.9%	72.3%	72.0%	71.8%	71.8%	71.4%	72.3%	71.8%	-104bps	-21bps	54bps	1bps	-16bps	72.0%	17bps
Average	61.2%	58.9%	59.8%	59.0%	59.1%	58.9%	58.8%	58.7%	58.8%	58.8%	59.1%	59.3%	59.1%	59.1%	-30bps	22bps	45bps	37bps	25bps	59.5%	41bps
EW	76.2%	75.5%	76.3%	80.1%	77.5%	77.7%	76.4%	76.8%	77.1%	77.0%	76.9%	77.0%	77.1%	77.0%	-50bps	-72bps	58bps	38bps	-7bps	77.2%	17bps
ISRG	71.7%	68.4%	71.2%	69.2%	67.2%	68.5%	68.8%	68.0%	68.3%	67.3%	67.5%	67.6%	67.5%	67.5%	8bps	-102bps	-127bps	-44bps	-82bps	68.0%	47bps
Average	63.5%	61.3%	63.1%	62.4%	62.0%	62.0%	61.9%	62.0%	61.9%	61.9%	62.0%	62.1%	62.3%	62.1%	-10bps	0bps	24bps	34bps	16bps	62.1%	-1bps
	Operating Margin										Y/Y Expansion / Contraction										
	2019	2020	2021	2022	1Q23	2Q23	3Q23A	4Q23E	2023E	1Q24E	2Q24E	3Q24E	4Q24E	2024E	1Q24E	2Q24E	3Q24E	4Q24E	2024E	2025E	
ABT	22.3%	23.1%	26.3%	25.7%	21.1%	21.7%	22.5%	23.5%	22.6%	19.8%	21.8%	23.0%	24.8%	22.9%	-129bps	10bps	59bps	124bps	35bps	23.7%	77bps
BAX	18.7%	18.0%	18.8%	17.1%	13.8%	13.2%	15.2%	16.6%	13.8%	13.3%	14.5%	15.5%	17.0%	15.1%	-49bps	131bps	23bps	40bps	125bps	15.9%	82bps
BDX	NA	NA	20.4%	22.4%	22.7%	23.0%	25.4%	19.6%	22.7%	22.9%	25.3%	27.4%	22.0%	24.4%	21bps	233bps	198bps	235bps	172bps	25.1%	68bps
BSX	26.1%	19.3%	25.3%	25.6%	25.5%	26.8%	26.1%	26.5%	26.0%	25.8%	26.4%	26.6%	27.4%	26.7%	23bps	-40bps	56bps	89bps	68bps	27.5%	81bps
COO	27.3%	23.6%	25.7%	23.2%	23.6%	23.9%	24.4%	23.3%	23.8%	23.5%	24.2%	24.8%	24.1%	24.2%	-17bps	31bps	39bps	83bps	34bps	25.1%	98bps
GEHC	14.6%	16.6%	17.4%	14.0%	14.0%	14.4%	14.8%	16.1%	15.1%	15.0%	15.5%	15.7%	16.4%	15.7%	95bps	110bps	87bps	35bps	59bps	16.5%	77bps
MDT	29.5%	20.4%	28.0%	26.5%	29.4%	24.8%	25.2%	25.0%	26.1%	27.5%	24.1%	24.9%	25.3%	25.5%	-187bps	-69bps	-24bps	34bps	-62bps	26.1%	65bps
SYK	26.3%	24.4%	25.6%	23.8%	21.1%	24.3%	23.4%	27.4%	24.2%	22.9%	24.9%	24.5%	27.5%	25.0%	188bps	54bps	110bps	8bps	85bps	25.8%	81bps
TFX	25.8%	24.9%	28.0%	27.0%	25.8%	26.6%	27.6%	25.7%	26.3%	26.2%	26.9%	27.3%	27.2%	27.0%	48bps	38bps	-23bps	152bps	64bps	28.0%	103bps
ZBH	29.6%	25.0%	26.9%	27.3%	28.4%	27.5%	26.4%	30.5%	28.3%	28.1%	28.1%	27.6%	30.6%	28.7%	-35bps	62bps	116bps	8bps	41bps	29.2%	48bps
Average	24.4%	21.7%	24.2%	23.3%	22.5%	22.6%	23.1%	23.4%	22.9%	22.5%	23.2%	23.7%	24.2%	23.5%	-4bps	56bps	64bps	81bps	62bps	24.3%	78bps
EW	30.3%	30.1%	30.5%	33.4%	29.7%	29.4%	28.5%	29.8%	29.3%	29.6%	29.5%	29.5%	29.9%	29.8%	-14bps	11bps	100bps	9bps	50bps	30.4%	64bps
ISRG	39.9%	34.8%	40.5%	34.5%	31.5%	35.2%	35.8%	32.2%	34.0%	31.4%	33.0%	33.3%	32.7%	32.7%	-8bps	-212bps	-250bps	50bps	-129bps	33.8%	110bps
Average	26.4%	23.7%	26.6%	25.3%	24.0%	24.3%	24.5%	25.2%	24.5%	23.9%	24.5%	24.8%	25.7%	24.8%	-8bps	12bps	27bps	57bps	34bps	25.6%	80bps

Source: Bloomberg, BofA Global Research. \*ABT and ISRG Q4'23 are actuals. BDX, COO and MDT adjusted to CY basis.



# Disclosures

## Important Disclosures

**FUNDAMENTAL EQUITY OPINION KEY:** Opinions include a Volatility Risk Rating, an Investment Rating and an Income Rating. **VOLATILITY RISK RATINGS**, indicators of potential price fluctuation, are: A - Low, B - Medium and C - High. **INVESTMENT RATINGS** reflect the analyst's assessment of both a stock's absolute total return potential as well as its attractiveness for investment relative to other stocks within its Coverage Cluster (defined below). Our investment ratings are: 1 - Buy stocks are expected to have a total return of at least 10% and are the most attractive stocks in the coverage cluster; 2 - Neutral stocks are expected to remain flat or increase in value and are less attractive than Buy rated stocks and 3 - Underperform stocks are the least attractive stocks in a coverage cluster. An investment rating of 6 (No Rating) indicates that a stock is no longer trading on the basis of fundamentals. Analysts assign investment ratings considering, among other things, the 0-12 month total return expectation for a stock and the firm's guidelines for ratings dispersions (shown in the table below). The current price objective for a stock should be referenced to better understand the total return expectation at any given time. The price objective reflects the analyst's view of the potential price appreciation (depreciation).

Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster <sup>R1</sup>
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

<sup>R1</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.

**INCOME RATINGS**, indicators of potential cash dividends, are: 7 - same/higher (dividend considered to be secure), 8 - same/lower (dividend not considered to be secure) and 9 - pays no cash dividend. *Coverage Cluster* is comprised of stocks covered by a single analyst or two or more analysts sharing a common industry, sector, region or other classification(s). A stock's coverage cluster is included in the most recent BofA Global Research report referencing the stock.

BofA Global Research personnel (including the analyst(s) responsible for this report) receive compensation based upon, among other factors, the overall profitability of Bank of America Corporation, including profits derived from investment banking. The analyst(s) responsible for this report may also receive compensation based upon, among other factors, the overall profitability of the Bank's sales and trading businesses relating to the class of securities or financial instruments for which such analyst is responsible.

## Other Important Disclosures

From time to time research analysts conduct site visits of covered issuers. BofA Global Research policies prohibit research analysts from accepting payment or reimbursement for travel expenses from the issuer for such visits.

Prices are indicative and for information purposes only. Except as otherwise stated in the report, for any recommendation in relation to an equity security, the price referenced is the publicly traded price of the security as of close of business on the day prior to the date of the report or, if the report is published during intraday trading, the price referenced is indicative of the traded price as of the date and time of the report and in relation to a debt security (including equity preferred and CDS), prices are indicative as of the date and time of the report and are from various sources including BofA Securities trading desks.

The date and time of completion of the production of any recommendation in this report shall be the date and time of dissemination of this report as recorded in the report timestamp.

Recipients who are not institutional investors or market professionals should seek the advice of their independent financial advisor before considering information in this report in connection with any investment decision, or for a necessary explanation of its contents.

Officers of BofAS or one or more of its affiliates (other than research analysts) may have a financial interest in securities of the issuer(s) or in related investments.

Refer to [BofA Global Research policies relating to conflicts of interest](#).

**"BofA Securities" includes BofA Securities, Inc. ("BofAS") and its affiliates. Investors should contact their BofA Securities representative or Merrill Global Wealth Management financial advisor if they have questions concerning this report or concerning the appropriateness of any investment idea described herein for such investor. "BofA Securities" is a global brand for BofA Global Research.**

### Information relating to Non-US affiliates of BofA Securities and Distribution of Affiliate Research Reports:

BofAS and/or Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S") may in the future distribute, information of the following non-US affiliates in the US (short name: legal name, regulator): Merrill Lynch (South Africa): Merrill Lynch South Africa (Pty) Ltd., regulated by The Financial Service Board; MLI (UK): Merrill Lynch International, regulated by the Financial Conduct Authority (FCA) and the Prudential Regulation Authority (PRA); BofASE (France): BofA Securities Europe SA is authorized by the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers (AMF). BofA Securities Europe SA ("BofASE") with registered address at 51, rue La Boétie, 75008 Paris is registered under no 842 602 690 RCS Paris. In accordance with the provisions of French Code Monétaire et Financier (Monetary and Financial Code), BofASE is an établissement de crédit et d'investissement (credit and investment institution) that is authorised and supervised by the European Central Bank and the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers. BofASE's share capital can be found at [www.bofam.com/BofASEdisclaimer](http://www.bofam.com/BofASEdisclaimer); BofA Europe (Milan): Bank of America Europe Designated Activity Company, Milan Branch, regulated by the Bank of Italy, the European Central Bank (ECB) and the Central Bank of Ireland (CBI); BofA Europe (Frankfurt): Bank of America Europe Designated Activity Company, Frankfurt Branch regulated by BaFin, the ECB and the CBI; BofA Europe (Madrid): Bank of America Europe Designated Activity Company, Sucursal en España, regulated by the Bank of Spain, the ECB and the CBI; Merrill Lynch (Australia): Merrill Lynch Equities (Australia) Limited, regulated by the Australian Securities and Investments Commission; Merrill Lynch (Hong Kong): Merrill Lynch (Asia Pacific) Limited, regulated by the Hong Kong Securities and Futures Commission (HKSF); Merrill Lynch (Singapore): Merrill Lynch (Singapore) Pte Ltd, regulated by the Monetary Authority of Singapore (MAS); Merrill Lynch (Canada): Merrill Lynch Canada Inc, regulated by the Canadian Investment Regulatory Organization; Merrill Lynch (Mexico): Merrill Lynch Mexico, SA de CV, Casa de Bolsa, regulated by the Comisión Nacional Bancaria y de Valores; Merrill Lynch (Argentina): Merrill Lynch Argentina SA, regulated by Comisión Nacional de Valores; BofAS Japan: BofA Securities Japan Co., Ltd., regulated by the Financial Services Agency; Merrill Lynch (Seoul): Merrill Lynch International, LLC Seoul Branch, regulated by the Financial Supervisory Service; Merrill Lynch (Taiwan): Merrill Lynch Securities (Taiwan) Ltd., regulated by the Securities and Futures Bureau; BofAS India: BofA Securities India Limited, regulated by the Securities and Exchange Board of India (SEBI); Merrill Lynch (Israel): Merrill Lynch Israel Limited, regulated by Israel Securities Authority; Merrill Lynch (DIFC): Merrill Lynch International (DIFC Branch), regulated by the Dubai Financial Services Authority (DFSA); Merrill Lynch (Brazil): Merrill Lynch S.A. Corretora de Títulos e Valores Mobiliários, regulated by Comissão de Valores Mobiliários; Merrill Lynch KSA Company: Merrill Lynch Kingdom of Saudi Arabia Company, regulated by the Capital Market Authority.

This information has been approved for publication and is distributed in the United Kingdom (UK) to professional clients and eligible counterparties (as each is defined in the rules of the FCA and the PRA) by MLI (UK), which is authorized by the PRA and regulated by the FCA and the PRA - details about the extent of our regulation by the FCA and PRA are available from us on request; has been approved for publication and is distributed in the European Economic Area (EEA) by BofASE (France), which is authorized by the ACPR and regulated by the ACPR and the AMF; has been considered and distributed in Japan by BofAS Japan, a registered securities dealer under the Financial Instruments and Exchange Act in Japan, or its permitted affiliates; is issued and distributed in Hong Kong by Merrill Lynch (Hong Kong) which is regulated by HKSF; is issued and distributed in Taiwan by Merrill Lynch (Taiwan); is issued and distributed in India by BofAS India; and is issued and distributed in Singapore to institutional investors and/or accredited investors (each as defined under the Financial Advisers Regulations) by Merrill Lynch (Singapore) (Company Registration No 198602883D). Merrill Lynch (Singapore) is regulated by MAS. Merrill Lynch Equities (Australia) Limited (ABN 65 006 276 795), AFS License 235132 (MLEA) distributes this information in Australia only to 'Wholesale' clients as defined by s.761G of the Corporations Act 2001. With the exception of Bank of America N.A., Australia Branch, neither MLEA nor any of





its affiliates involved in preparing this information is an Authorised Deposit-Taking Institution under the Banking Act 1959 nor regulated by the Australian Prudential Regulation Authority. No approval is required for publication or distribution of this information in Brazil and its local distribution is by Merrill Lynch (Brazil) in accordance with applicable regulations. Merrill Lynch (DIFC) is authorized and regulated by the DFSA. Information prepared and issued by Merrill Lynch (DIFC) is done so in accordance with the requirements of the DFSA conduct of business rules. BofA Europe (Frankfurt) distributes this information in Germany and is regulated by BaFin, the ECB and the CBL. BofA Securities entities, including BofA Europe and BofASE (France), may outsource/delegate the marketing and/or provision of certain research services or aspects of research services to other branches or members of the BofA Securities group. You may be contacted by a different BofA Securities entity acting for and on behalf of your service provider where permitted by applicable law. This does not change your service provider. Please refer to the [Electronic Communications Disclaimers](#) for further information.

This information has been prepared and issued by BofAS and/or one or more of its non-US affiliates. The author(s) of this information may not be licensed to carry on regulated activities in your jurisdiction and, if not licensed, do not hold themselves out as being able to do so. BofAS and/or MLPF&S is the distributor of this information in the US and accepts full responsibility for information distributed to BofAS and/or MLPF&S clients in the US by its non-US affiliates. Any US person receiving this information and wishing to effect any transaction in any security discussed herein should do so through BofAS and/or MLPF&S and not such foreign affiliates. Hong Kong recipients of this information should contact Merrill Lynch (Asia Pacific) Limited in respect of any matters relating to dealing in securities or provision of specific advice on securities or any other matters arising from, or in connection with, this information. Singapore recipients of this information should contact Merrill Lynch (Singapore) Pte Ltd in respect of any matters arising from, or in connection with, this information. For clients that are not accredited investors, expert investors or institutional investors Merrill Lynch (Singapore) Pte Ltd accepts full responsibility for the contents of this information distributed to such clients in Singapore.

#### General Investment Related Disclosures:

Taiwan Readers: Neither the information nor any opinion expressed herein constitutes an offer or a solicitation of an offer to transact in any securities or other financial instrument. No part of this report may be used or reproduced or quoted in any manner whatsoever in Taiwan by the press or any other person without the express written consent of BofA Securities.

This document provides general information only, and has been prepared for, and is intended for general distribution to, BofA Securities clients. Neither the information nor any opinion expressed constitutes an offer or an invitation to make an offer, to buy or sell any securities or other financial instrument or any derivative related to such securities or instruments (e.g., options, futures, warrants, and contracts for differences). This document is not intended to provide personal investment advice and it does not take into account the specific investment objectives, financial situation and the particular needs of, and is not directed to, any specific person(s). This document and its content do not constitute, and should not be considered to constitute, investment advice for purposes of ERISA, the US tax code, the Investment Advisers Act or otherwise. Investors should seek financial advice regarding the appropriateness of investing in financial instruments and implementing investment strategies discussed or recommended in this document and should understand that statements regarding future prospects may not be realized. Any decision to purchase or subscribe for securities in any offering must be based solely on existing public information on such security or the information in the prospectus or other offering document issued in connection with such offering, and not on this document.

Securities and other financial instruments referred to herein, or recommended, offered or sold by BofA Securities, are not insured by the Federal Deposit Insurance Corporation and are not deposits or other obligations of any insured depository institution (including, Bank of America, N.A.). Investments in general and, derivatives, in particular, involve numerous risks, including, among others, market risk, counterparty default risk and liquidity risk. No security, financial instrument or derivative is suitable for all investors. Digital assets are extremely speculative, volatile and are largely unregulated. In some cases, securities and other financial instruments may be difficult to value or sell and reliable information about the value or risks related to the security or financial instrument may be difficult to obtain. Investors should note that income from such securities and other financial instruments, if any, may fluctuate and that price or value of such securities and instruments may rise or fall and, in some cases, investors may lose their entire principal investment. Past performance is not necessarily a guide to future performance. Levels and basis for taxation may change.

This report may contain a short-term trading idea or recommendation, which highlights a specific near-term catalyst or event impacting the issuer or the market that is anticipated to have a short-term price impact on the equity securities of the issuer. Short-term trading ideas and recommendations are different from and do not affect a stock's fundamental equity rating, which reflects both a longer term total return expectation and attractiveness for investment relative to other stocks within its Coverage Cluster. Short-term trading ideas and recommendations may be more or less positive than a stock's fundamental equity rating.

BofA Securities is aware that the implementation of the ideas expressed in this report may depend upon an investor's ability to "short" securities or other financial instruments and that such action may be limited by regulations prohibiting or restricting "shortselling" in many jurisdictions. Investors are urged to seek advice regarding the applicability of such regulations prior to executing any short idea contained in this report.

Foreign currency rates of exchange may adversely affect the value, price or income of any security or financial instrument mentioned herein. Investors in such securities and instruments, including ADRs, effectively assume currency risk.

BofAS or one of its affiliates is a regular issuer of traded financial instruments linked to securities that may have been recommended in this report. BofAS or one of its affiliates may, at any time, hold a trading position (long or short) in the securities and financial instruments discussed in this report.

BofA Securities, through business units other than BofA Global Research, may have issued and may in the future issue trading ideas or recommendations that are inconsistent with, and reach different conclusions from, the information presented herein. Such ideas or recommendations may reflect different time frames, assumptions, views and analytical methods of the persons who prepared them, and BofA Securities is under no obligation to ensure that such other trading ideas or recommendations are brought to the attention of any recipient of this information.

In the event that the recipient received this information pursuant to a contract between the recipient and BofAS for the provision of research services for a separate fee, and in connection therewith BofAS may be deemed to be acting as an investment adviser, such status relates, if at all, solely to the person with whom BofAS has contracted directly and does not extend beyond the delivery of this report (unless otherwise agreed specifically in writing by BofAS). If such recipient uses the services of BofAS in connection with the sale or purchase of a security referred to herein, BofAS may act as principal for its own account or as agent for another person. BofAS is and continues to act solely as a broker-dealer in connection with the execution of any transactions, including transactions in any securities referred to herein.

#### Copyright and General Information:

Copyright 2024 Bank of America Corporation. All rights reserved. iQdatabase® is a registered service mark of Bank of America Corporation. This information is prepared for the use of BofA Securities clients and may not be redistributed, retransmitted or disclosed, in whole or in part, or in any form or manner, without the express written consent of BofA Securities. BofA Global Research information is distributed simultaneously to internal and client websites and other portals by BofA Securities and is not publicly-available material. Any unauthorized use or disclosure is prohibited. Receipt and review of this information constitutes your agreement not to redistribute, retransmit, or disclose to others the contents, opinions, conclusion, or information contained herein (including any investment recommendations, estimates or price targets) without first obtaining express permission from an authorized officer of BofA Securities.

Materials prepared by BofA Global Research personnel are based on public information. Facts and views presented in this material have not been reviewed by, and may not reflect information known to, professionals in other business areas of BofA Securities, including investment banking personnel. BofA Securities has established information barriers between BofA Global Research and certain business groups. As a result, BofA Securities does not disclose certain client relationships with, or compensation received from, such issuers. To the extent this material discusses any legal proceeding or issues, it has not been prepared as nor is it intended to express any legal conclusion, opinion or advice. Investors should consult their own legal advisers as to issues of law relating to the subject matter of this material. BofA Global Research personnel's knowledge of legal proceedings in which any BofA Securities entity and/or its directors, officers and employees may be plaintiffs, defendants, co-defendants or co-plaintiffs with or involving issuers mentioned in this material is based on public information. Facts and views presented in this material that relate to any such proceedings have not been reviewed by, discussed with, and may not reflect information known to, professionals in other business areas of BofA Securities in connection with the legal proceedings or matters relevant to such proceedings.

This information has been prepared independently of any issuer of securities mentioned herein and not in connection with any proposed offering of securities or as agent of any issuer of any securities. None of BofAS any of its affiliates or their research analysts has any authority whatsoever to make any representation or warranty on behalf of the issuer(s). BofA Global Research policy prohibits research personnel from disclosing a recommendation, investment rating, or investment thesis for review by an issuer prior to the publication of a research report containing such rating, recommendation or investment thesis.

Any information relating to the tax status of financial instruments discussed herein is not intended to provide tax advice or to be used by anyone to provide tax advice. Investors are urged to seek tax advice based on their particular circumstances from an independent tax professional.

The information herein (other than disclosure information relating to BofA Securities and its affiliates) was obtained from various sources and we do not guarantee its accuracy. This information may contain links to third-party websites. BofA Securities is not responsible for the content of any third-party website or any linked content contained in a third-party website. Content contained on such third-party websites is not part of this information and is not incorporated by reference. The inclusion of a link does not imply any endorsement by or any affiliation with BofA Securities. Access to any third-party website is at your own risk, and you should always review the terms and privacy policies at third-party websites before submitting any personal information to them. BofA Securities is not responsible for such terms and privacy policies and expressly disclaims any liability for them.



All opinions, projections and estimates constitute the judgment of the author as of the date of publication and are subject to change without notice. Prices also are subject to change without notice. BofA Securities is under no obligation to update this information and BofA Securities ability to publish information on the subject issuer(s) in the future is subject to applicable quiet periods. You should therefore assume that BofA Securities will not update any fact, circumstance or opinion contained herein. Certain outstanding reports or investment opinions relating to securities, financial instruments and/or issuers may no longer be current. Always refer to the most recent research report relating to an issuer prior to making an investment decision.

In some cases, an issuer may be classified as Restricted or may be Under Review or Extended Review. In each case, investors should consider any investment opinion relating to such issuer (or its security and/or financial instruments) to be suspended or withdrawn and should not rely on the analyses and investment opinion(s) pertaining to such issuer (or its securities and/or financial instruments) nor should the analyses or opinion(s) be considered a solicitation of any kind. Sales persons and financial advisors affiliated with BofAS or any of its affiliates may not solicit purchases of securities or financial instruments that are Restricted or Under Review and may only solicit securities under Extended Review in accordance with firm policies. Neither BofA Securities nor any officer or employee of BofA Securities accepts any liability whatsoever for any direct, indirect or consequential damages or losses arising from any use of this information.