

A glowing blue microchip is centered on a circuit board. The chip has a grid of small squares on its surface and is surrounded by intricate circuitry. The entire scene is bathed in a blue light, giving it a futuristic and technological appearance.

# **TPC Semiconductor Market Survey**

**November/December 2023**

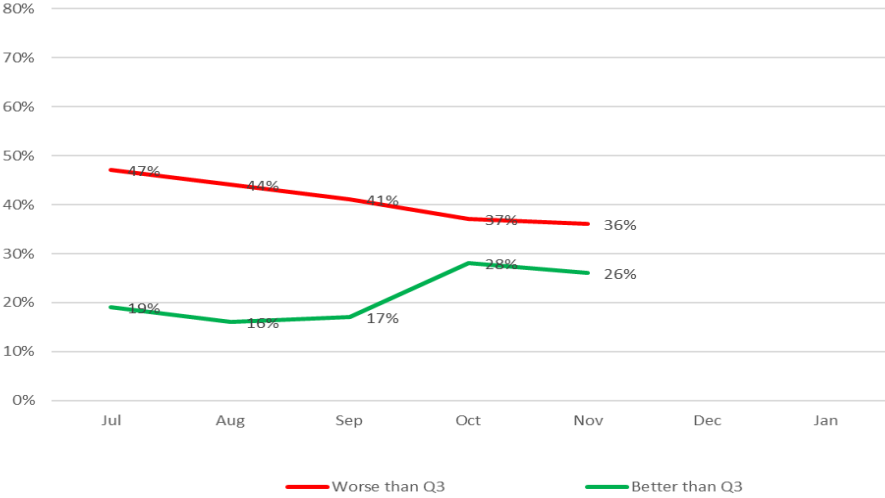
# TPC November/December 2023 Survey Summary

*Survey Date: 12/10-13 Respondents: ~6,700 Location: Worldwide (~80% Asia) Who: Active Electronics Industry Professionals  
Response Composition (multiple choices): Industrial 39%, Auto 23%, Comm 20%, Computing 19%, Mobile 27%, Data Ctr 20%, Other 17%*

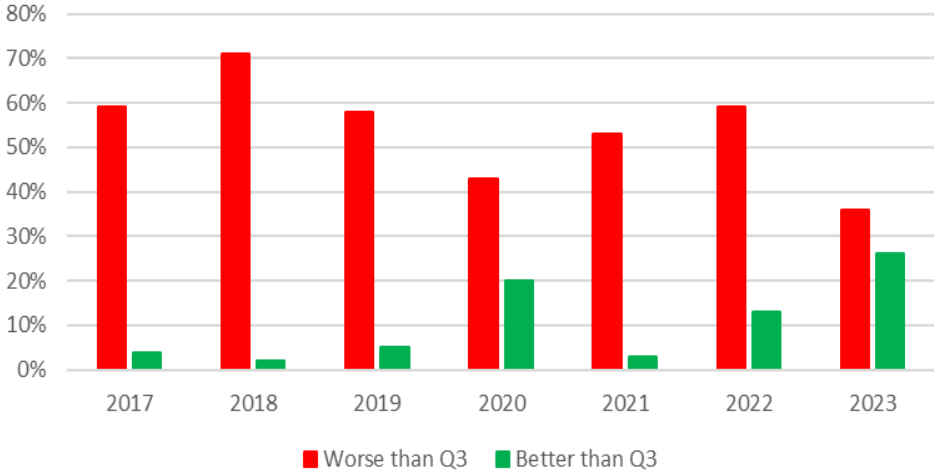
- We recently completed our monthly survey (~6,700 respondents) which saw little change for C4Q's outlook, but a slight decrease in C1Q24's outlook. The bookings for both C4Q and C1Q showed improvements.
- Inventory levels for high demand parts remained little changed, except for DRAM which showed a decrease in availability.
- We continue to believe these results are indications of the supply chain being at the bottom and inventories are beginning to become normalized. However, end demand remains on the anemic side.
- The survey showed C4Q23 little change vs. last month with 26% seeing the quarter being better than C3Q compared to 28% previously; while 36% see it as worse vs. 37% last month.
- The survey showed C1Q24 slightly weaker change vs. last month with 14% seeing the quarter being better than C4Q compared to 18% previously; while 55% see it as worse vs. 53% last month.
- The backlog cancellation expectations (slide 7) remained below the "positive" indicator showing continued bias towards reducing backlog exposure.
- Key product inventory and availability (slide 9) remained roughly the same across all key products and remains at nominal levels. Of note is the decreasing trend in DRAM availability over the last couple of months.
- Both C4Q and C1Q inventory growth outlook trend (slide 9) showed net inventories growing.

# C4Q23 Outlook

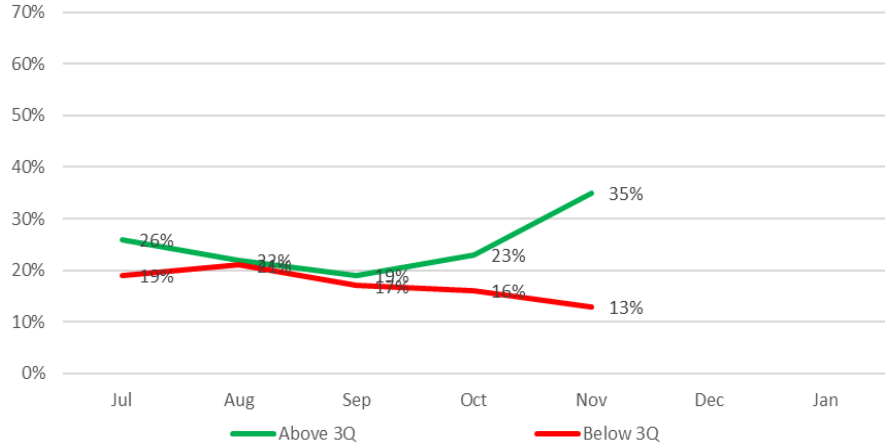
4Q23 Growth Expectations



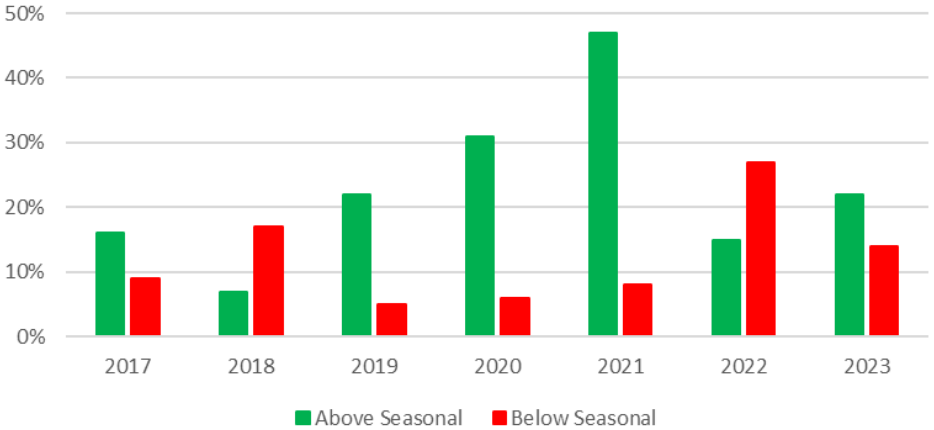
C4Q Growth Expectations



4Q23 Seasonality Expectations

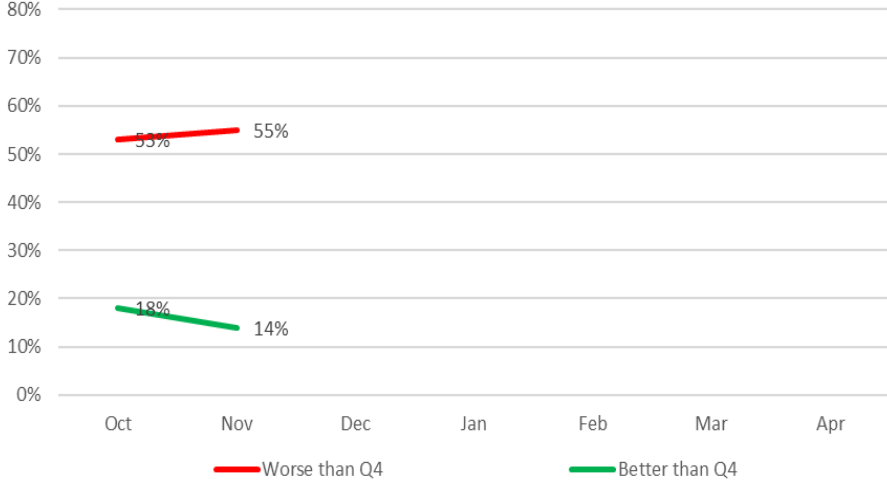


C4Q Seasonality Expectations

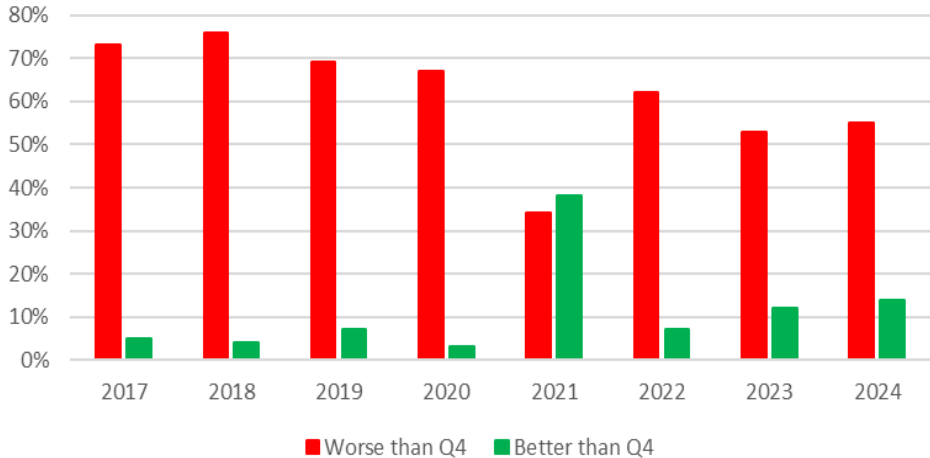


# C1Q24 Outlook

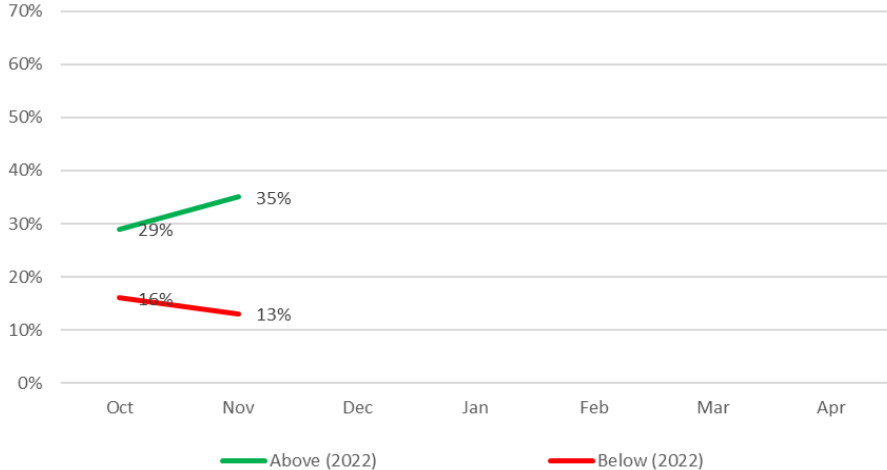
C1Q24 Growth Expectations



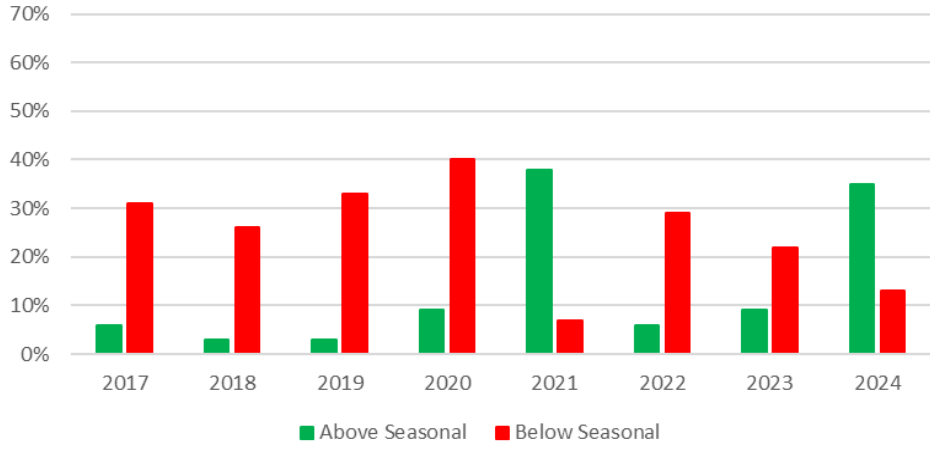
C1Q Growth Expectations vs. C4Q



C1Q24 Seasonality Expectations

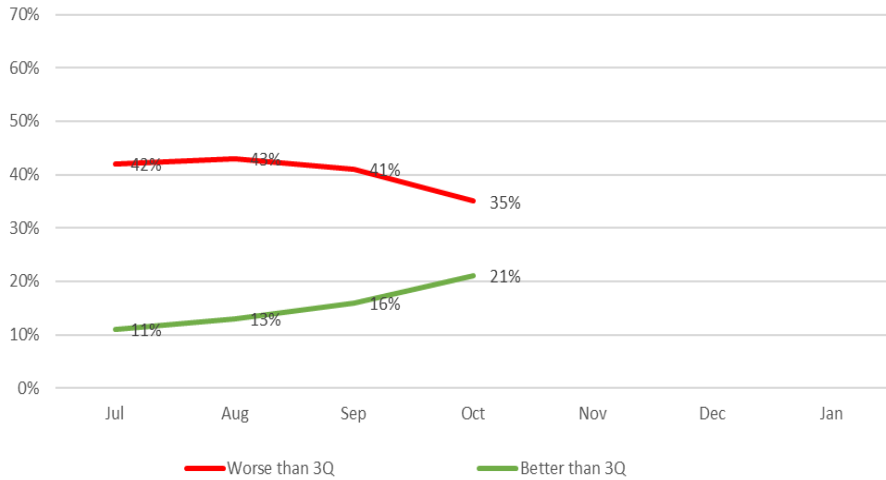


C1Q Seasonality Expectations

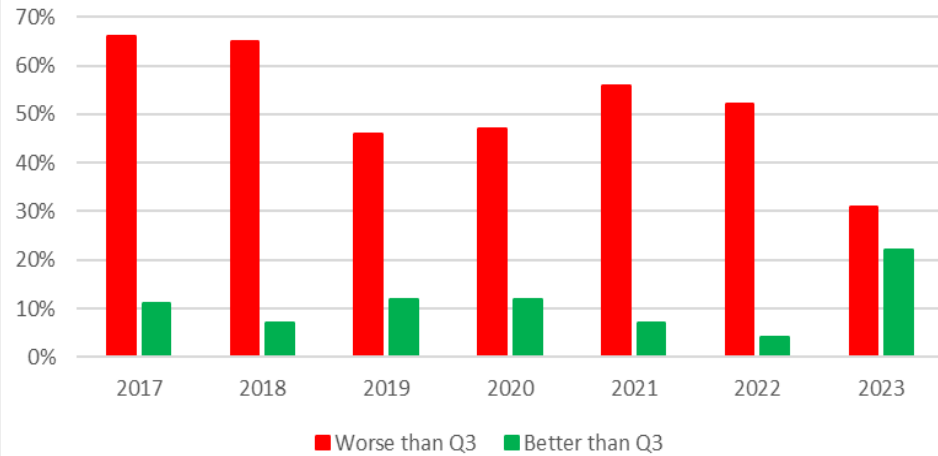


# Bookings Outlook

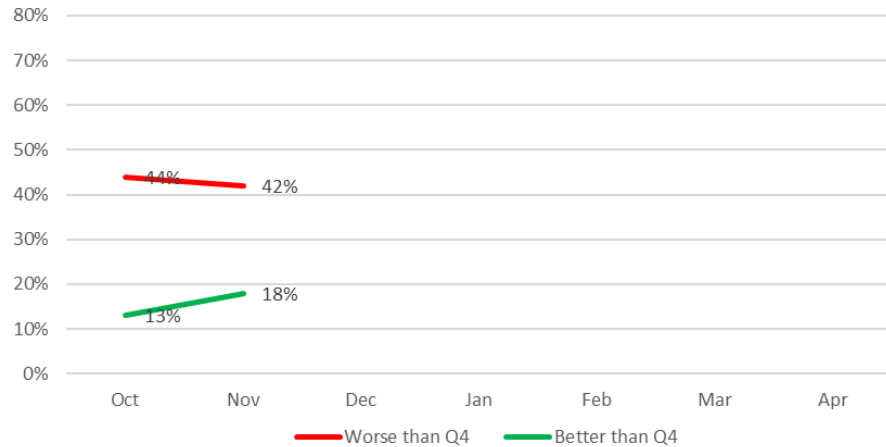
### 4Q23 Bookings Expectations



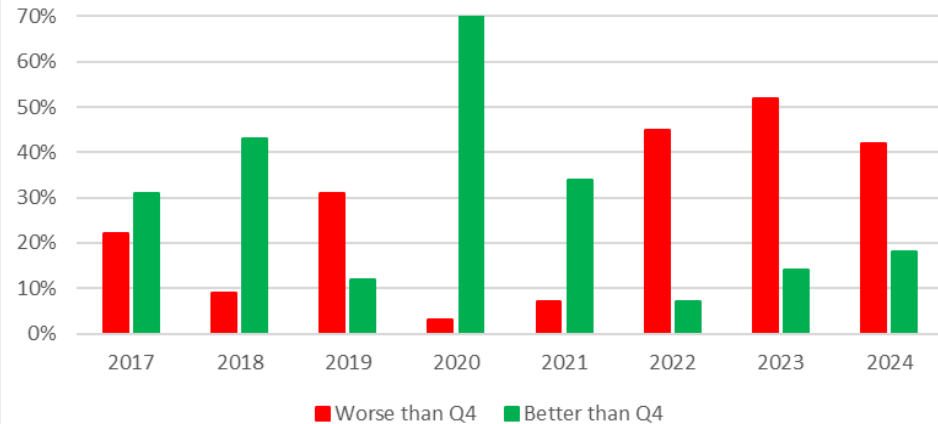
### C4Q Bookings Expectations



### C1Q24 Bookings Expectations

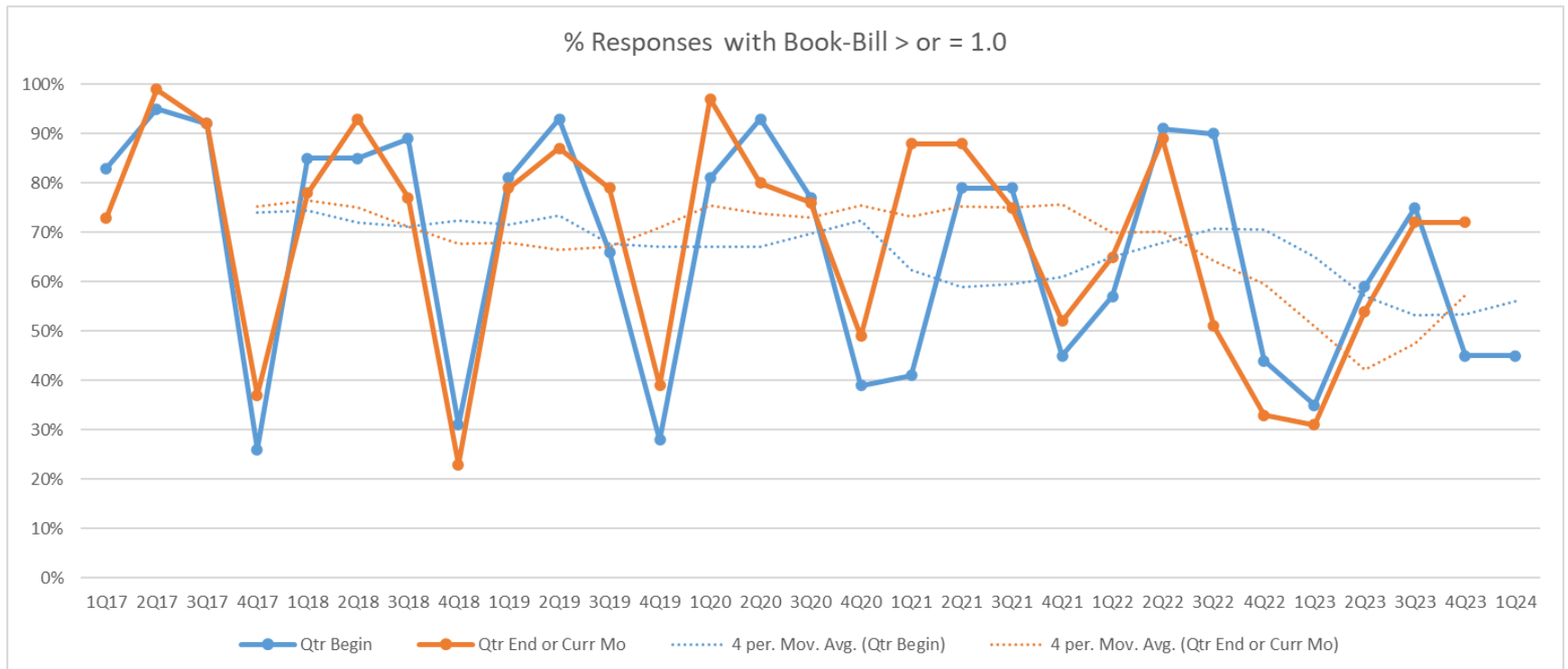


### C1Q Bookings Expectations



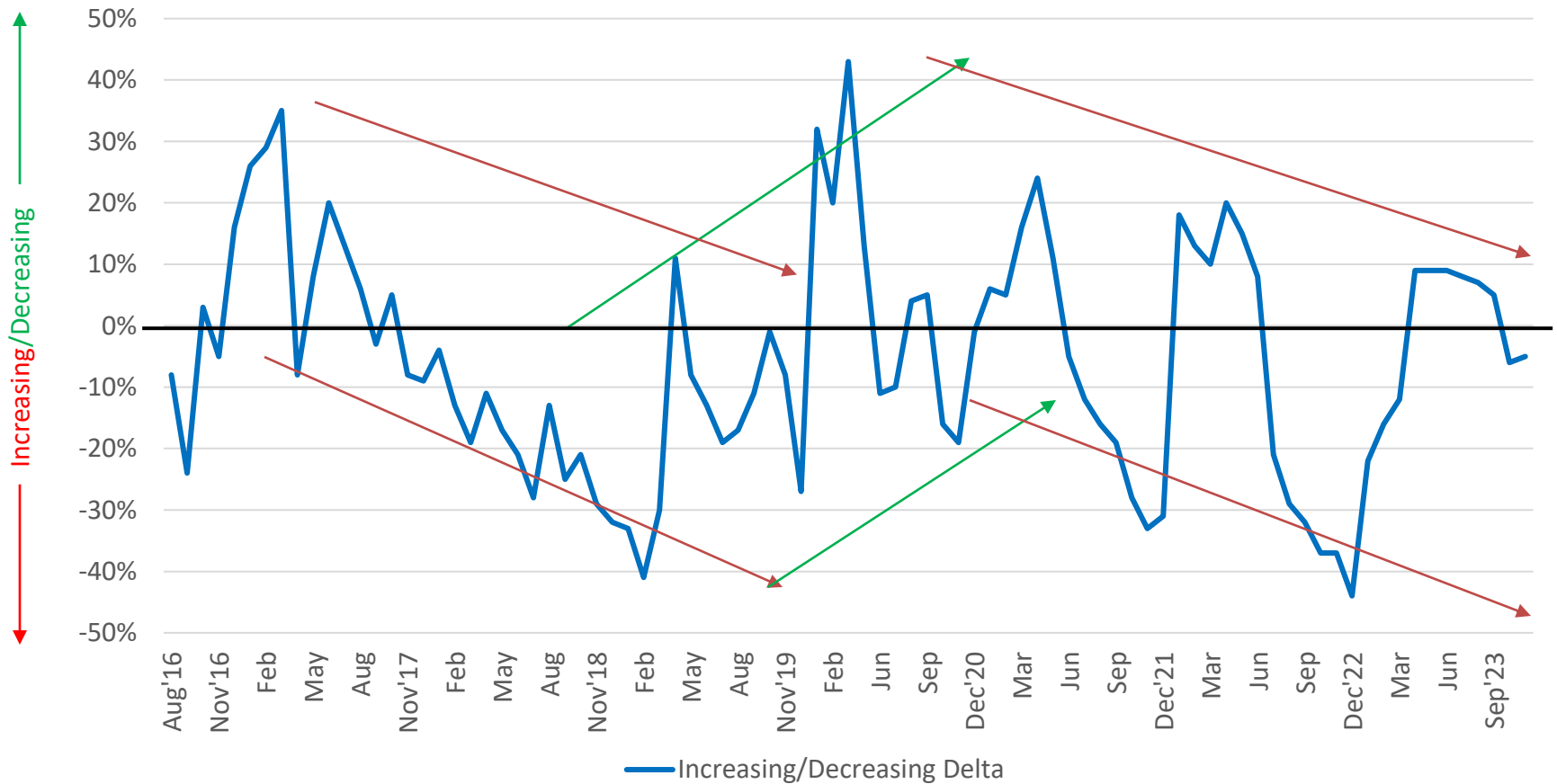
# Book to Bill History & Trends

(Calendar quarters)



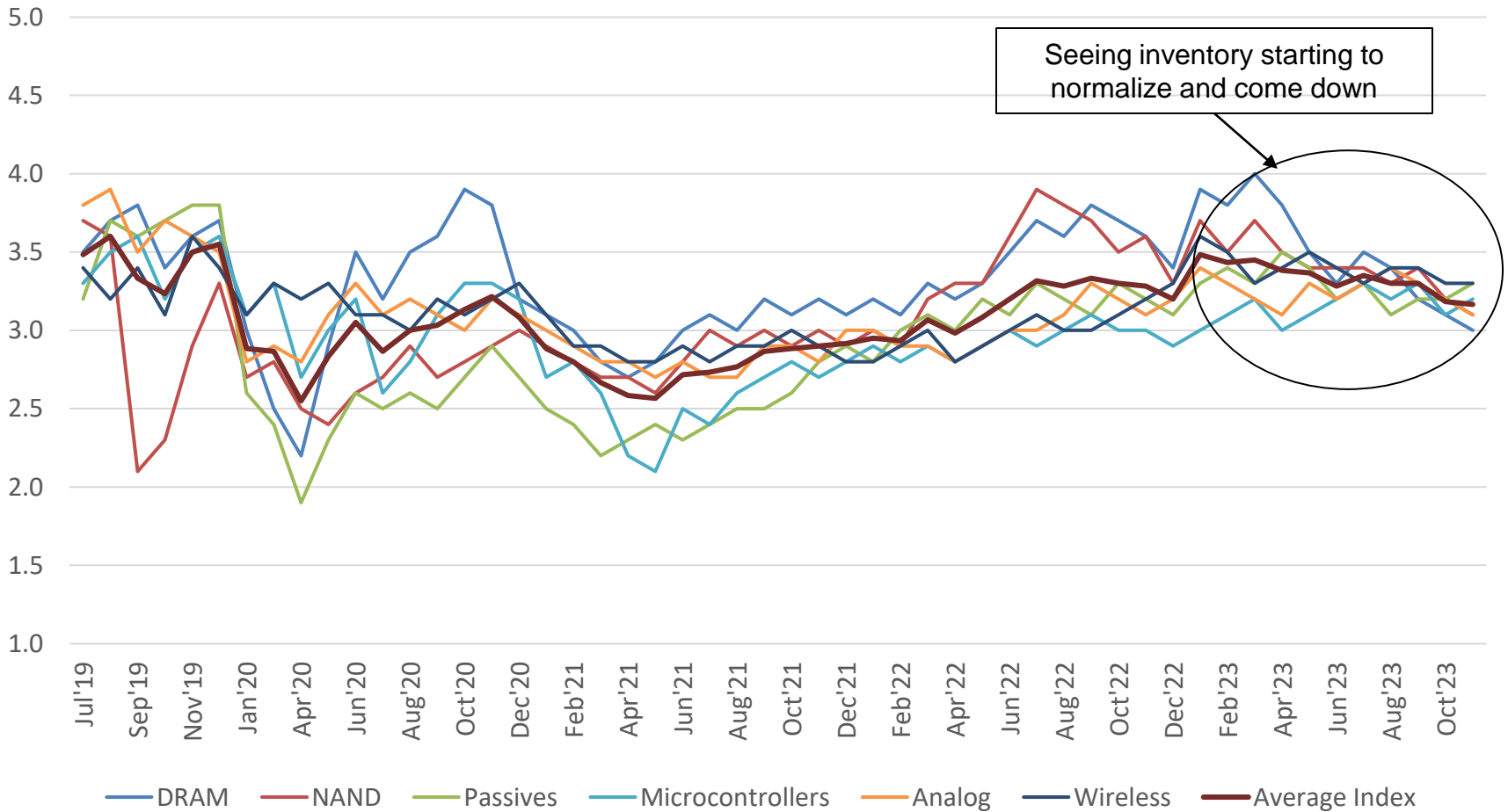
# Backlog Order Push Outs/Cancellations vs. 30 Days Ago

(Delta between increasing and decreasing cancellations – Higher % is more positive)



# Inventory Status

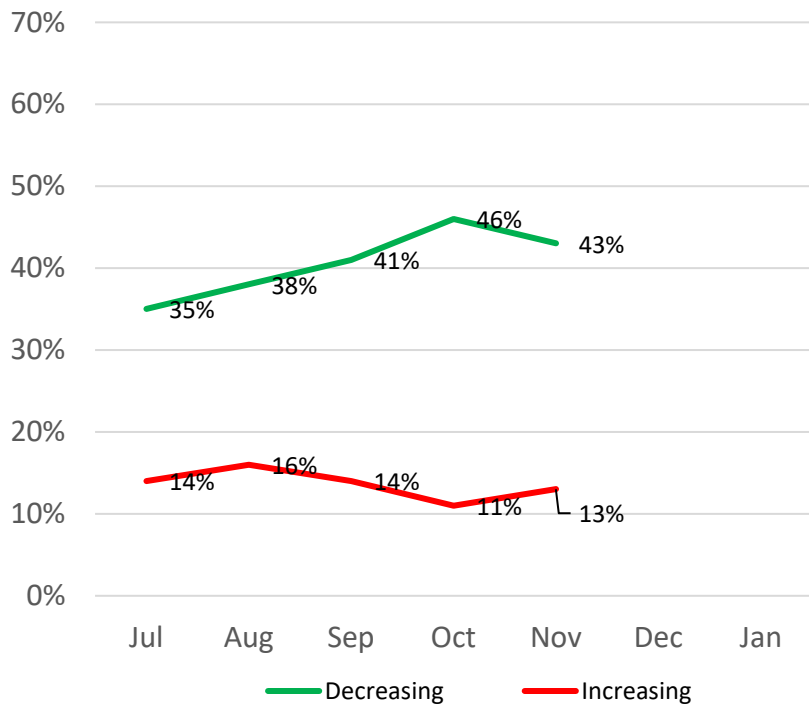
(Using a scale of 1 to 5 with 1 being extremely low inventory, 3 being the normal amount, and 5 being extremely high; how do you view inventory levels for the following products?)



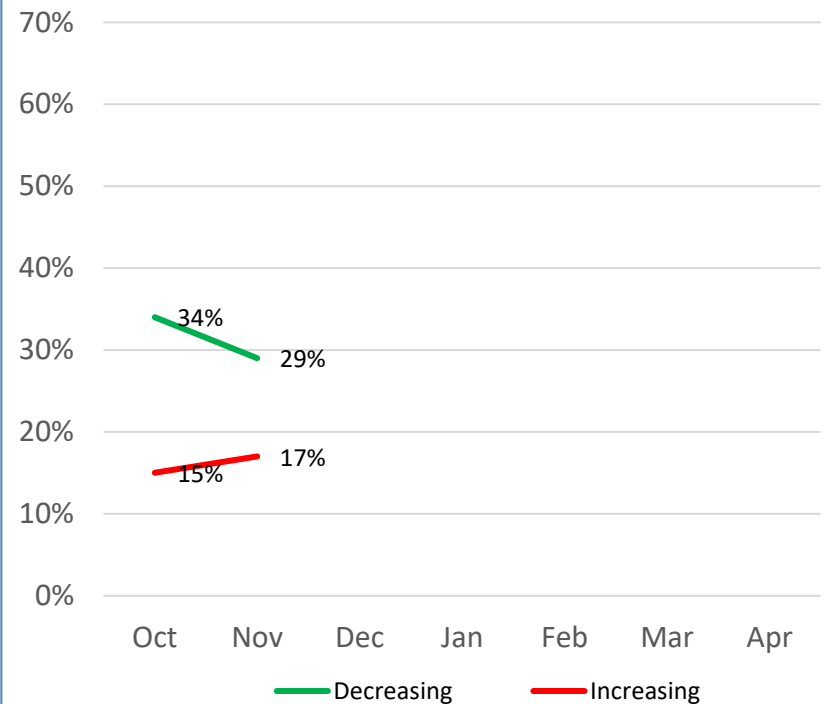


# Q/Q Inventory Growth

## C4Q23 Inventories vs. C3Q23

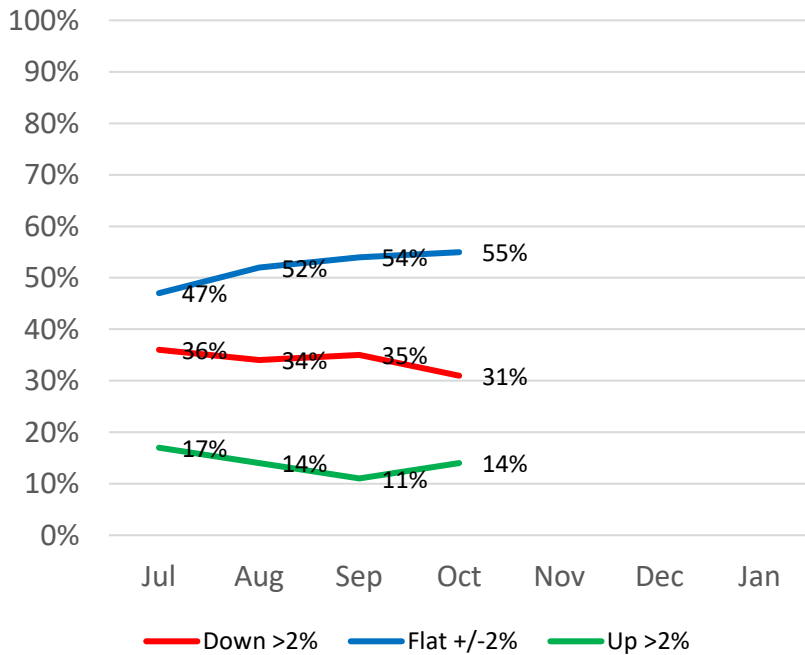


## C1Q24 Inventories vs. C4Q23

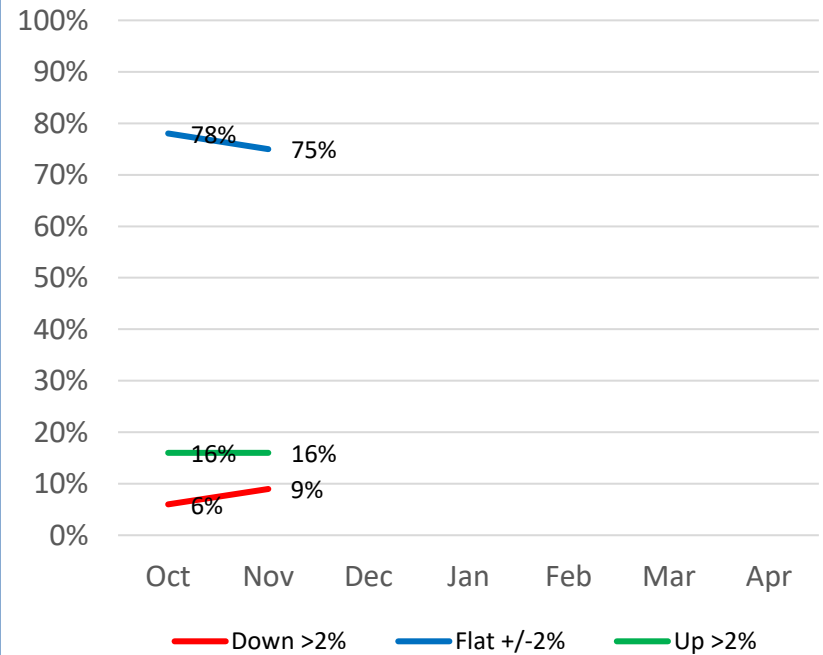


# Q/Q Pricing Trends

## C4Q23 Pricing vs. C3Q23



## C1Q24 Pricing vs. C4Q23



# Vertical Outlook

