



TPC Semiconductor Market Survey

July 12, 2021

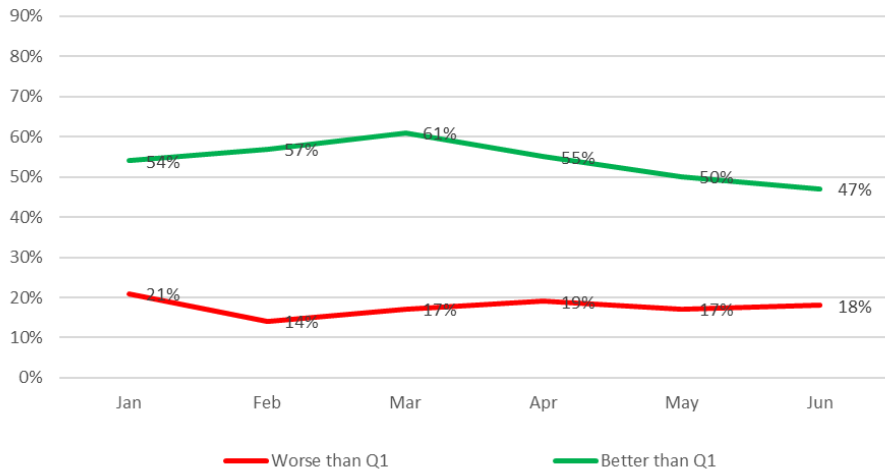
TPC June 2021 Survey Summary

*Survey Date: 7/2-7/5 Respondents: ~9,800 Location: Worldwide (~80% Asia) Who: Active Electronics Industry Professionals
Response Composition (multiple choices): Industrial 40%, Auto 21%, Comm 19%, Computing 20%, Mobile 31%, Data Ctr 17%, Other 16%*

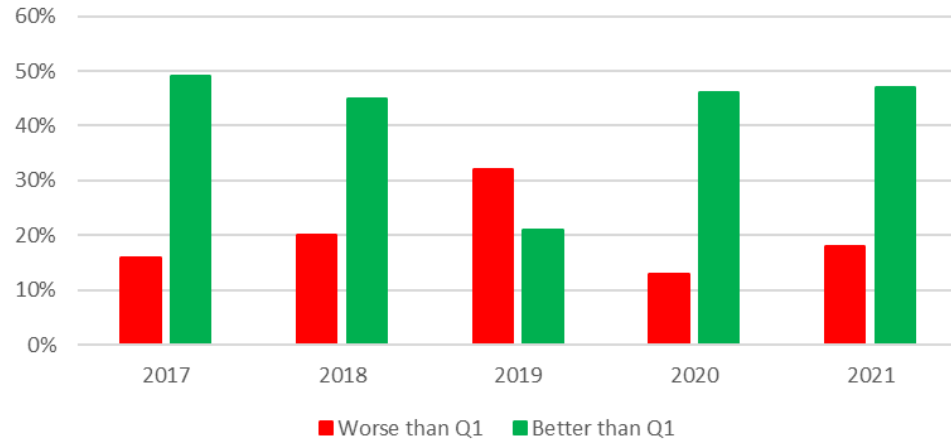
- We recently completed our monthly survey (~9,800 respondents) which saw decreases in both C2Q21 and C3Q21 growth; but continued improvement in seasonality expectations. The bookings outlook for C2Q and C3Q also continued to weaken. However, by far, the majority of responses still see growth in both C2Q and C3Q.
- Additionally, we believe the impact to the global electronic supply chain from the COVID lockdown in Malaysia is not fully digested in this data. Further, we believe shortages and lead times will get worse over the next couple of months with a likelihood of some end equipment production lines going down. Components such as discrete devices, passives, and power management IC's appear to be the most impacted.
- The survey showed a growth outlook for C2Q21 weakening vs. last month with 47% expecting q/q growth vs. 50% previously and 18% see it as weaker vs. 17% last month. The C3Q outlook decreased with 56% expecting q/q growth vs. 62% previously; while only 11% see it as weaker vs. 7% last month.
- The survey showed a slight weakening in bookings outlook for C2Q21 with 31% expecting improving bookings vs. C1Q compared to 33% last month; while 11% now expect weaker bookings vs. 8% last month. Bookings outlook for C3Q21 was also down as well with 15% expecting improving bookings vs. C2Q compared to 18% last month; while 24% now expect weaker bookings vs. 21% last month. For reference, general WW book to bills are still in the 1.10-1.25 range.
- Backlog cancellation expectations (slide 7) has shown increase in cancellations over the past 2 months but is still in the "average" range. Inventories (slide 9) has also shown a steady increase for C3Q.
- Availability of critical parts has reversed direction this month with most categories' availability improving slightly. Capacitors continue to be the most problematic area.
- Pricing has been on a trend of increasing due to tighter product availability, with C3Q responses indicating continued increases in pricing. We are seeing another round of price increases (especially in MCU's and PMIC's) by key Analog suppliers beginning July 1.
- We continue to see a significant shortage of supply that is being driven by demand (especially in the Auto and Mobile sectors). We believe this will remain strong throughout the year and into 1H22.

Q/Q Demand Growth Outlook

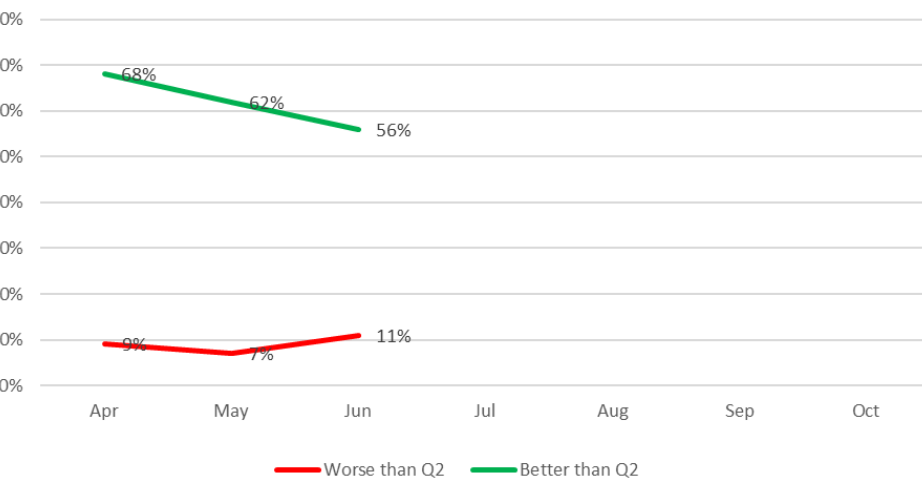
C2Q21 Growth Expectations



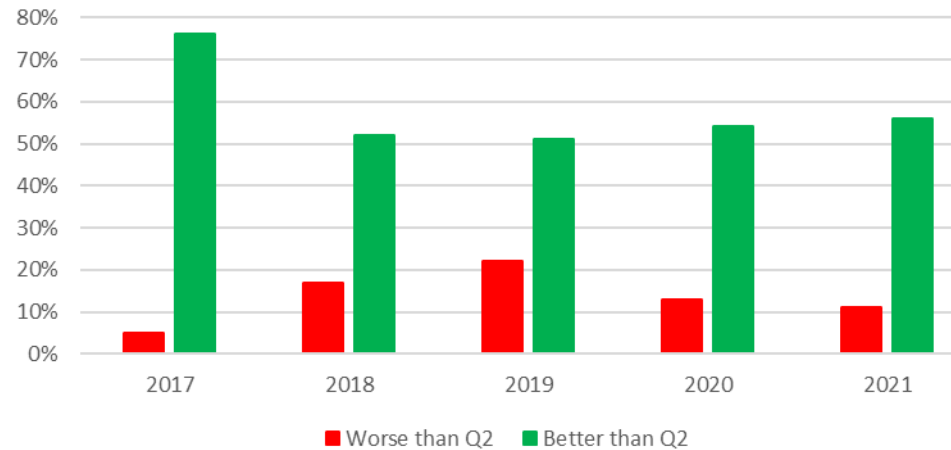
C2Q Growth Expectations vs. C1Q



C3Q21 Growth Expectations

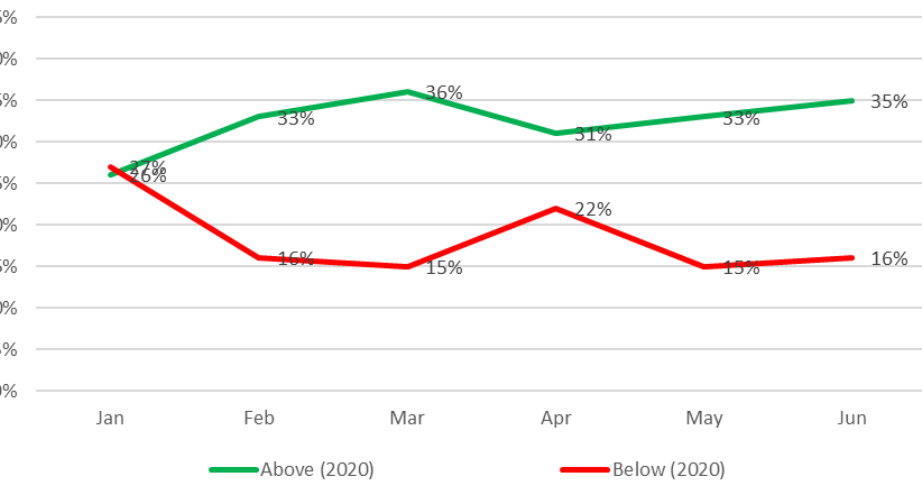


C3Q Growth Expectations vs. C2Q

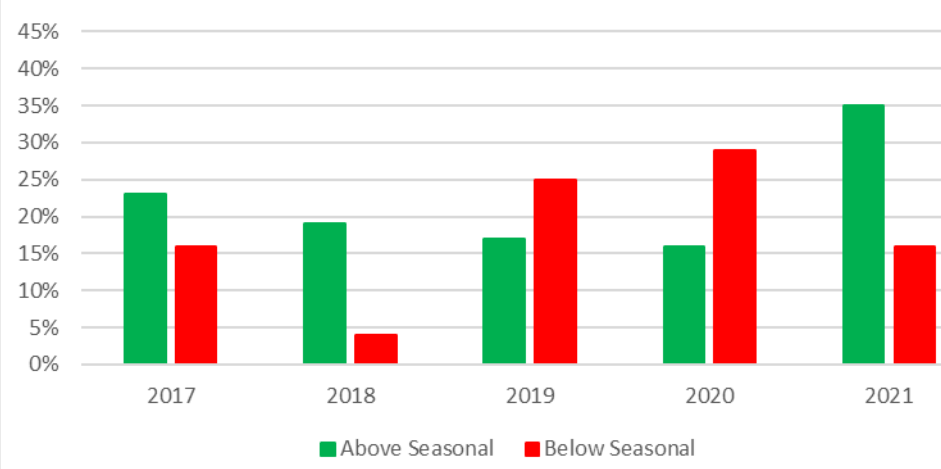


Q/Q Seasonality Expectations

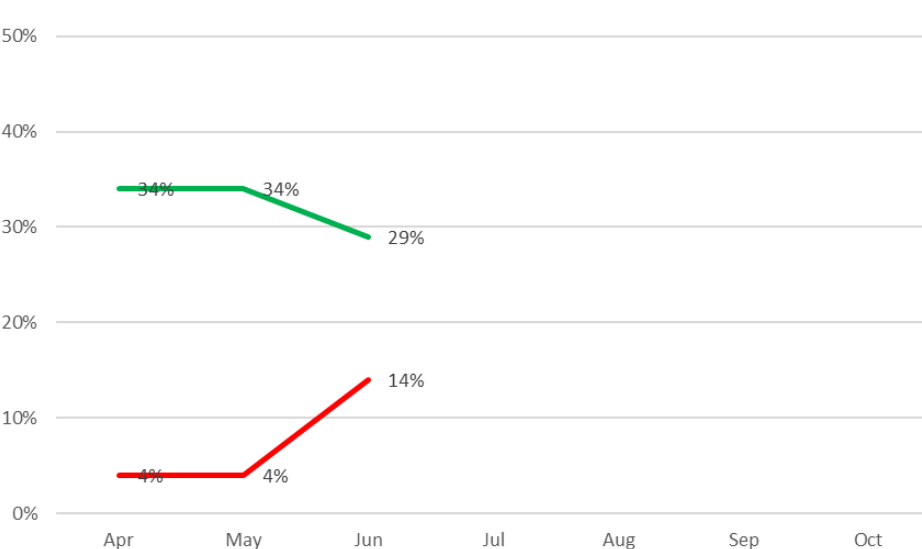
C2Q21 Seasonality Expectations



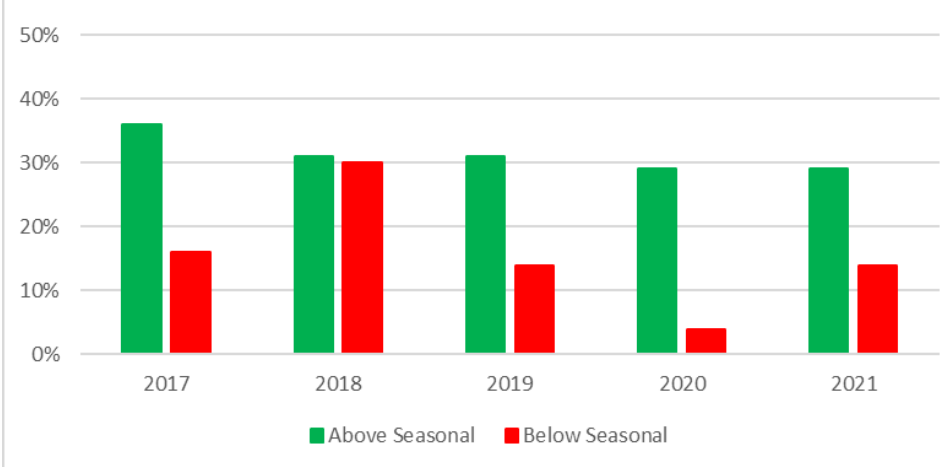
C2Q Seasonality Expectations



3Q21 Seasonality Expectations

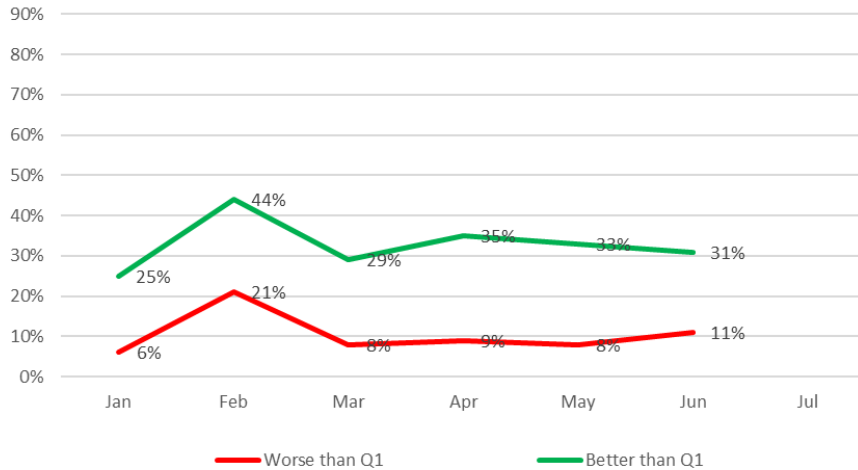


C3Q Seasonality Expectations

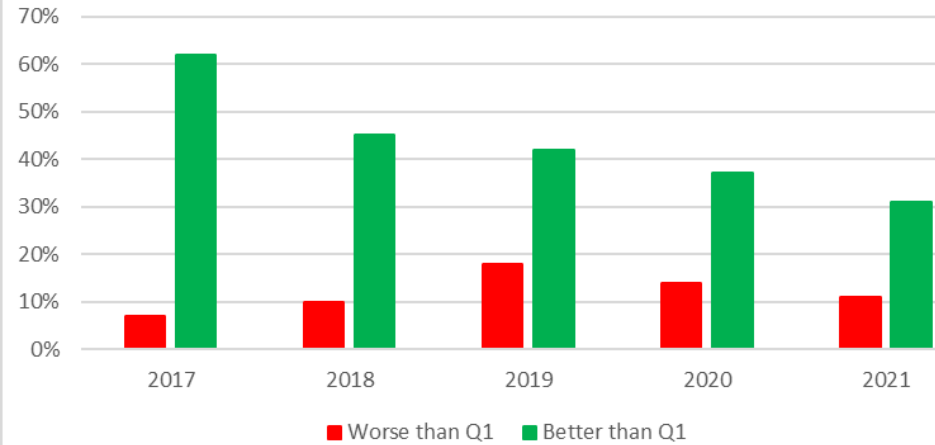


Q/Q Bookings Growth Expectations

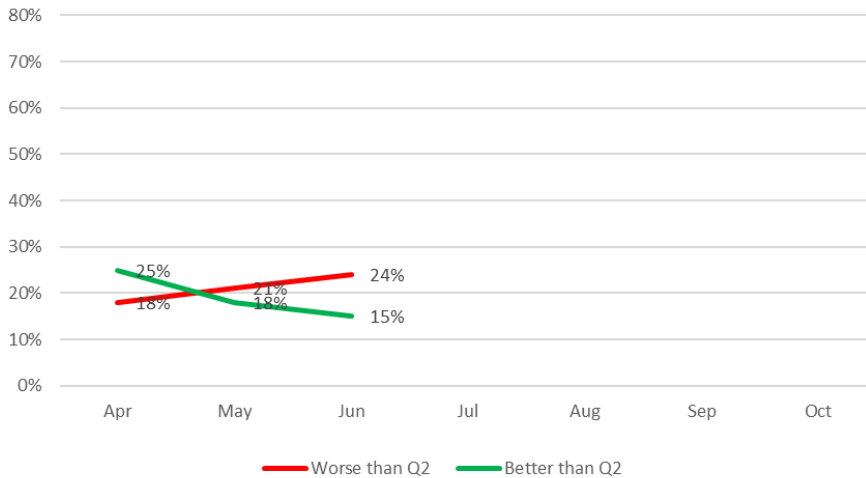
C2Q21 Bookings Expectations



C2Q Bookings Expectations



C3Q21 Bookings Expectations

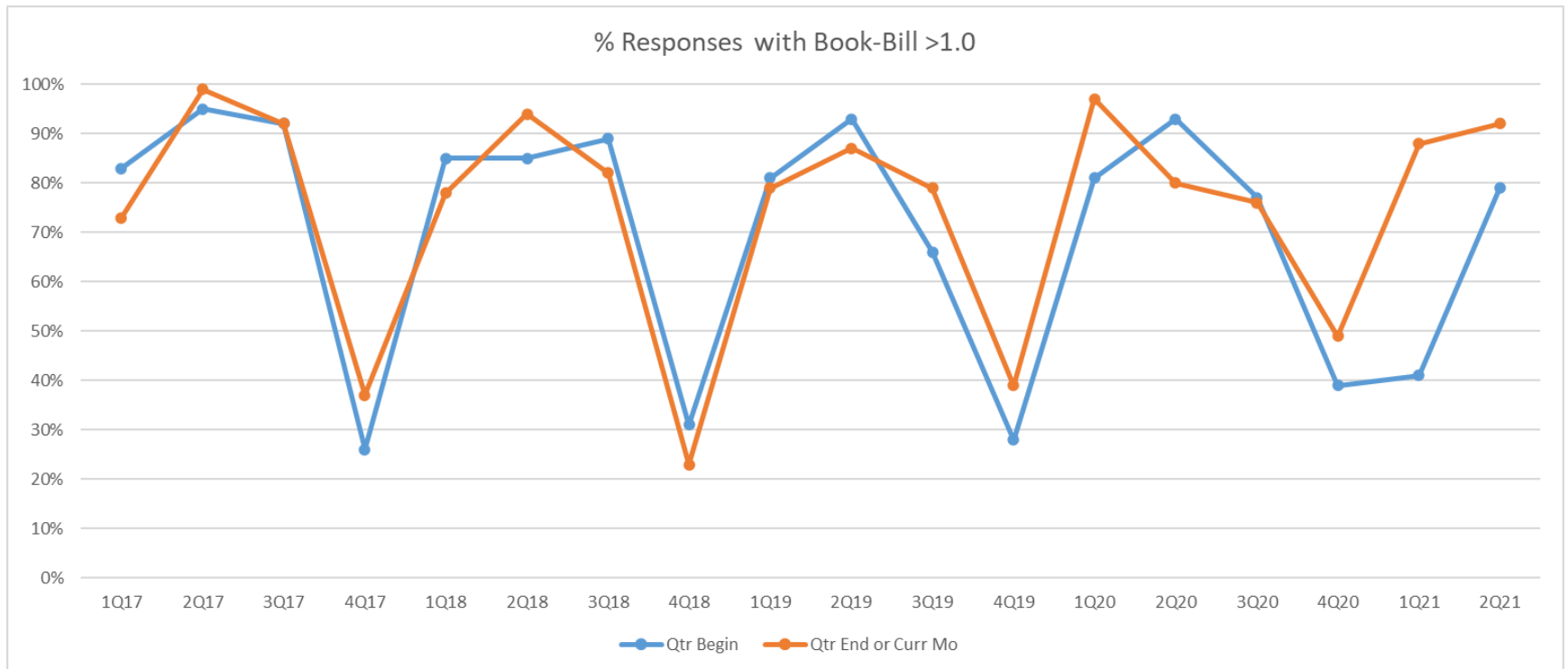


C3Q Bookings Expectations



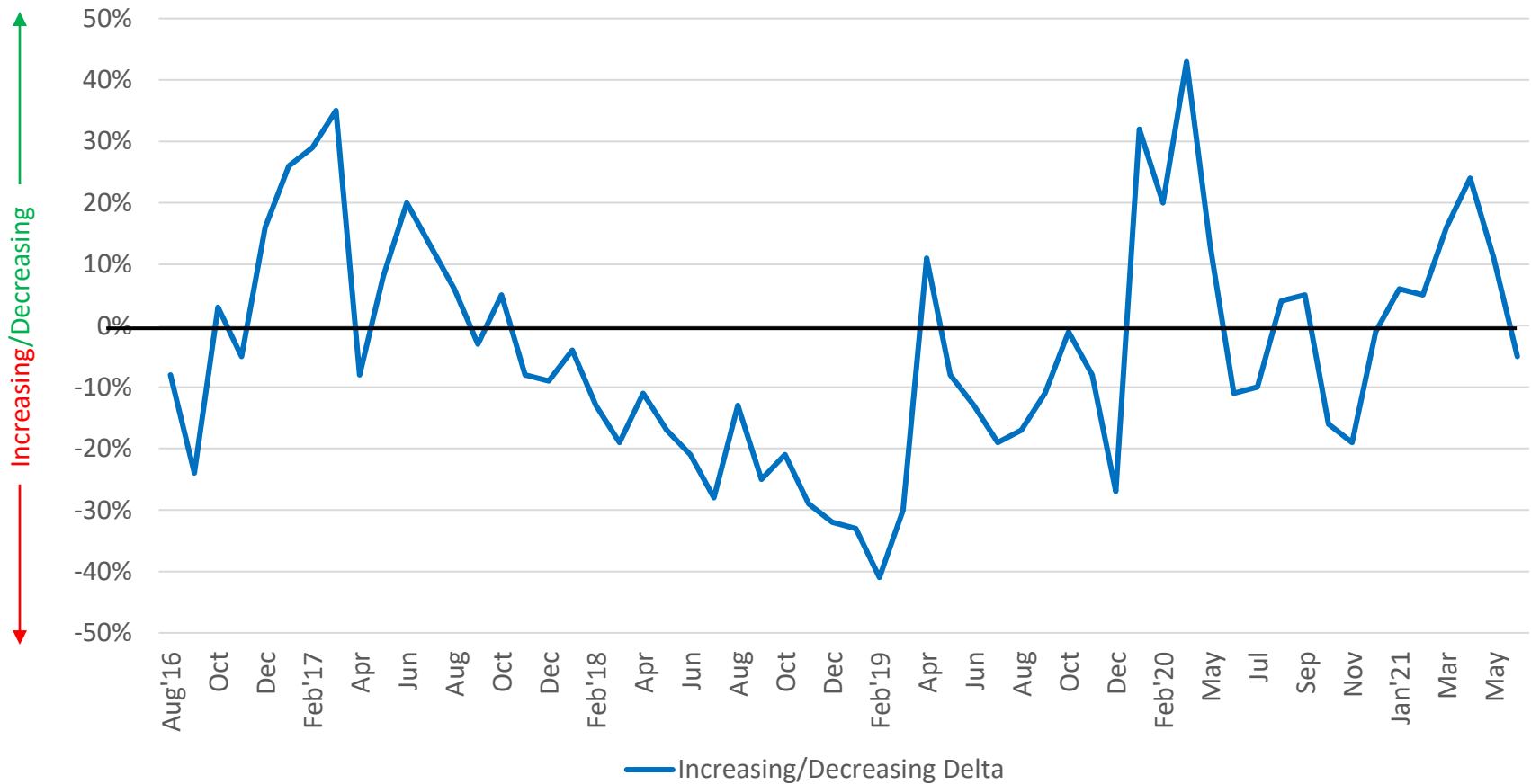
Book to Bill History & Trends

(Calendar quarters)



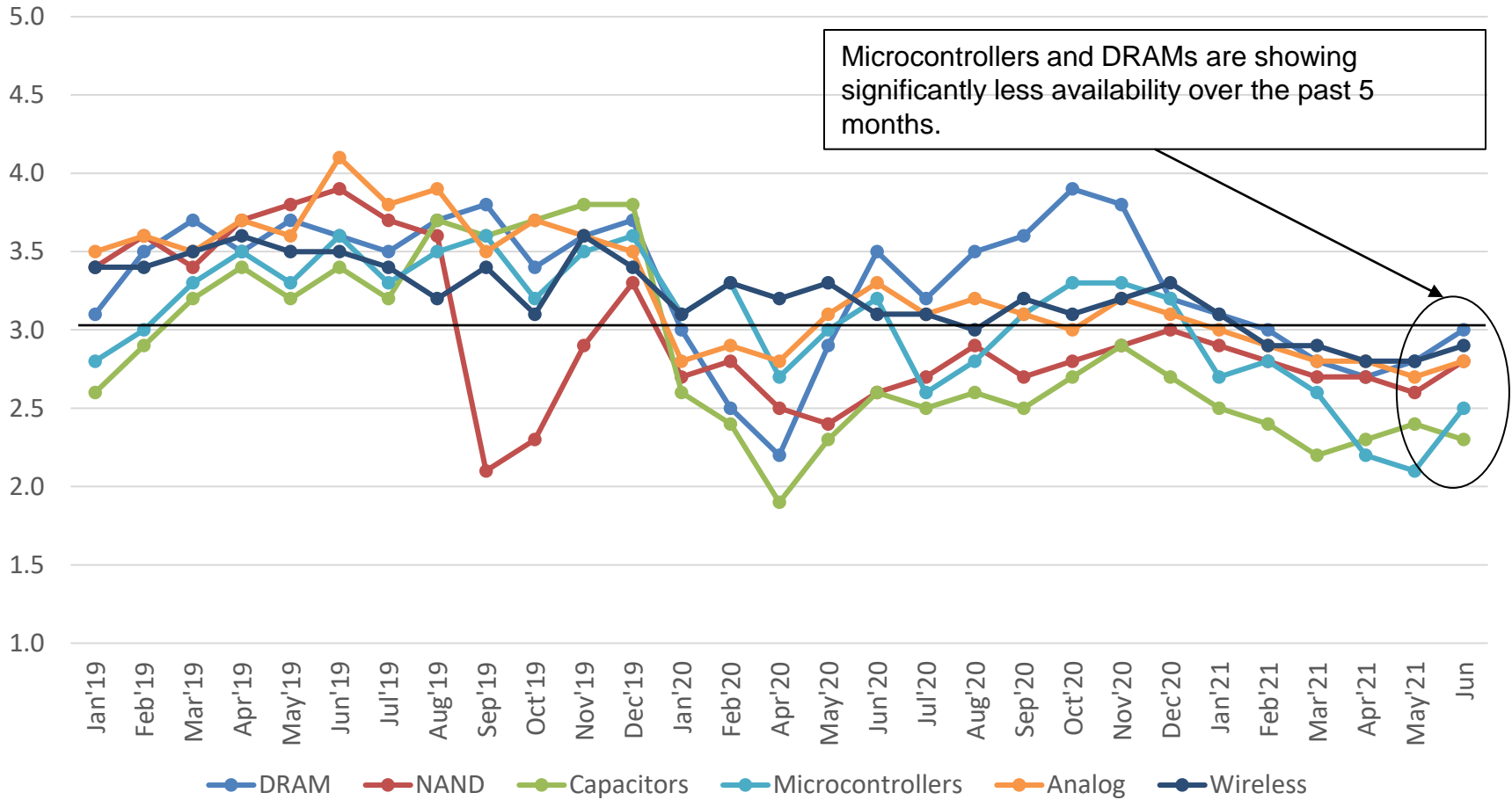
Backlog Order Cancellations vs. 30 Days Ago

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



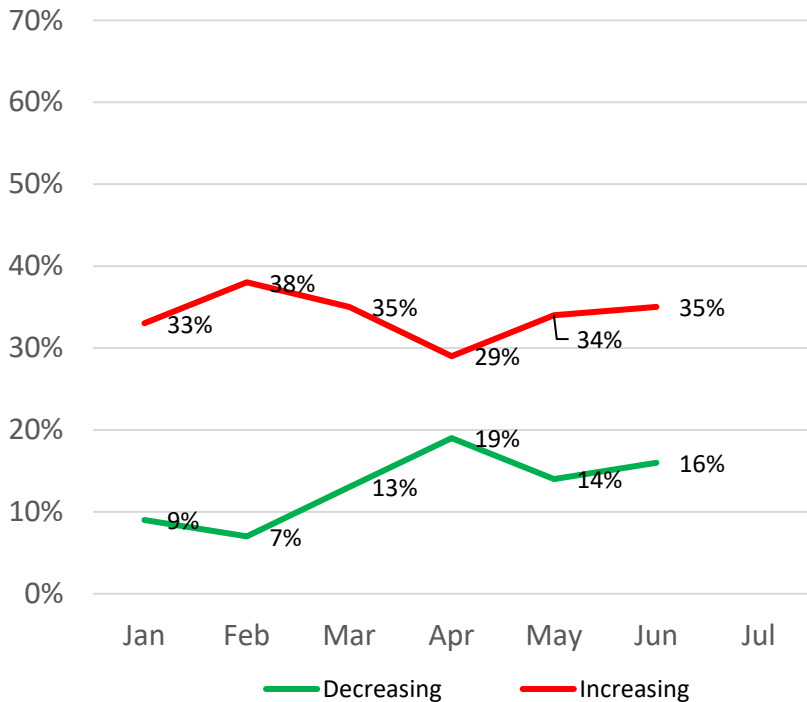
Inventory Status

(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?)

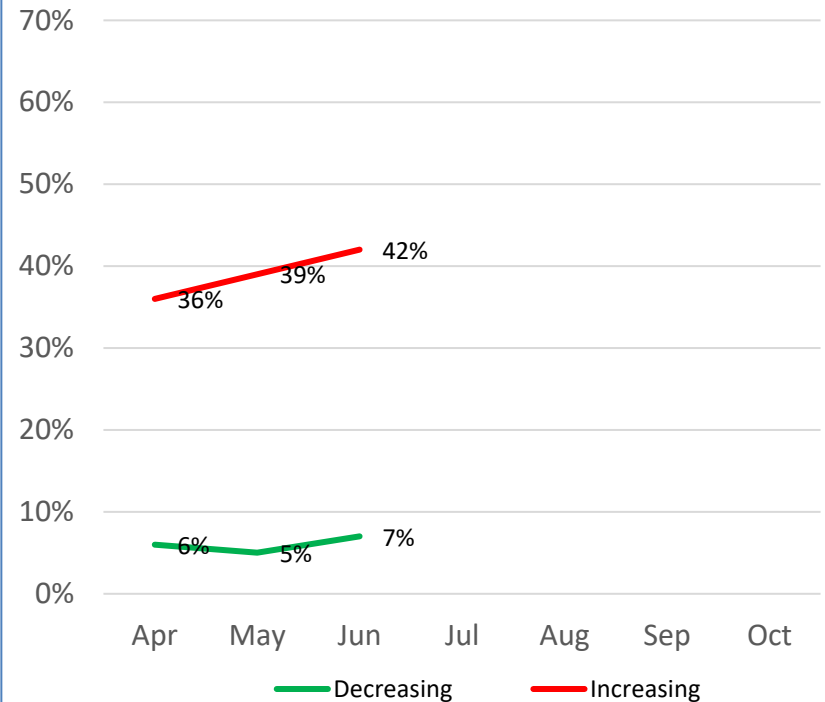


Q/Q Inventory Growth

C2Q21 Inventories vs. C1Q21

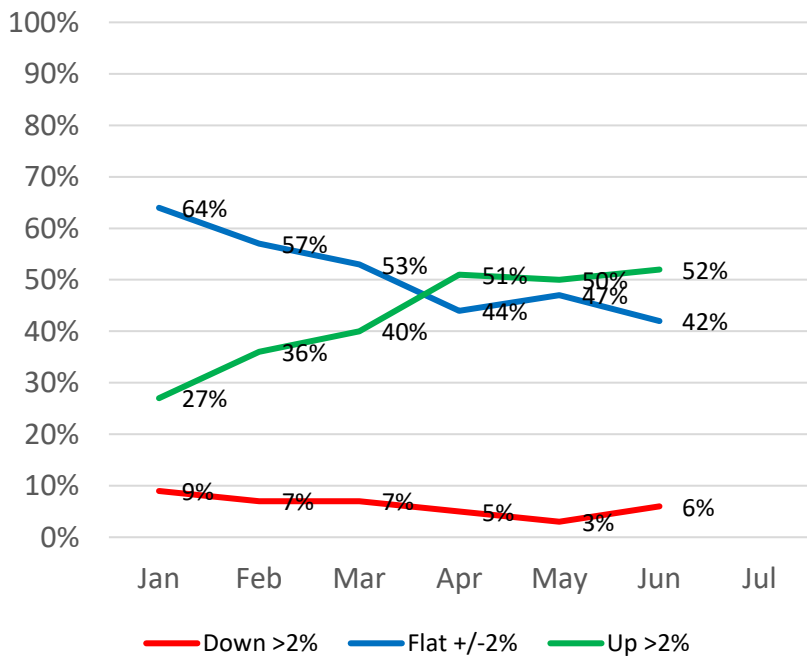


C3Q21 Inventories vs. C2Q21

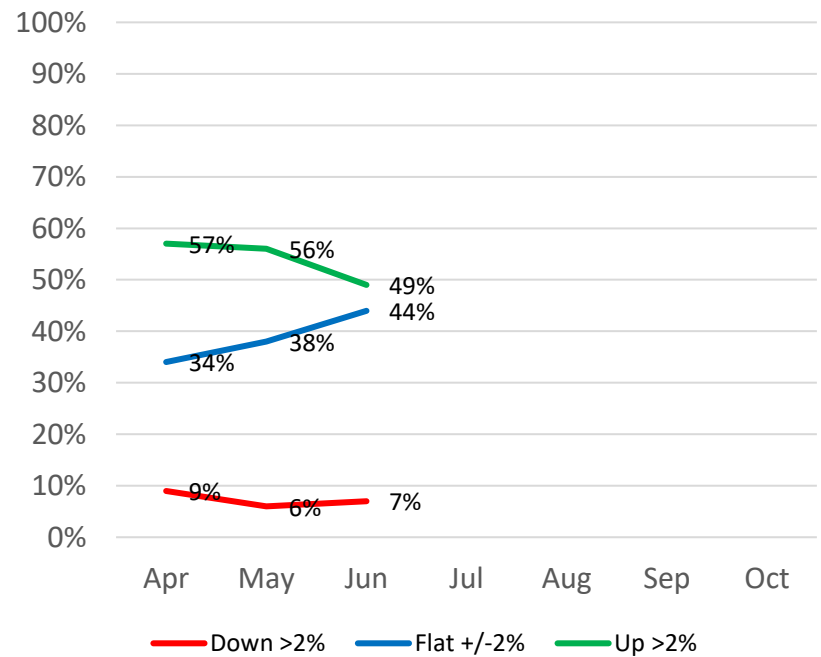


Q/Q Pricing Trends

C2Q21 Pricing vs. C1Q21



C3Q21 Pricing vs. C2Q21



Vertical Outlook

The outlook for Communications continues to be above previous years while Auto continues to erode

