



TPC Semiconductor Market Survey

July 10, 2020

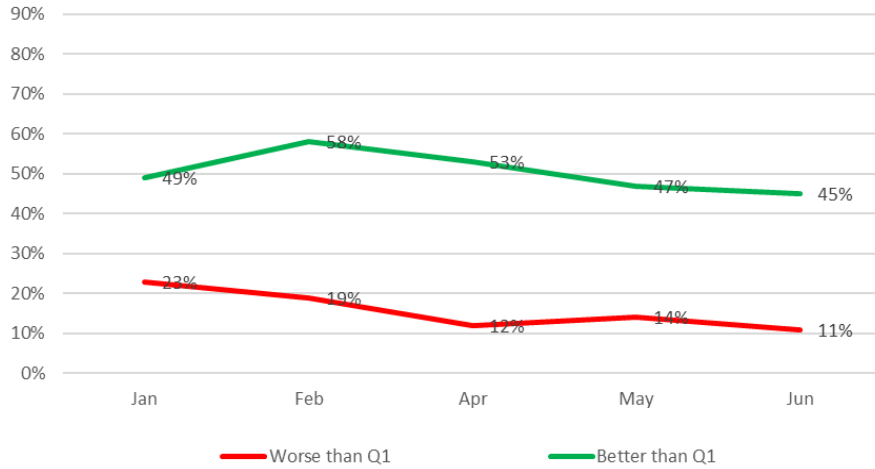
TPC July 2020 Survey Summary

*Survey Date: July 1-7 Respondents: ~10,600 Location: Worldwide (~80% Asia) Who: Active Electronics Industry Professionals
Response Composition (multiple choices): Industrial 45%, Auto 18%, Comm 20%, Computing 24%, Mobile 38%, Data Ctr 22%, Other 14%*

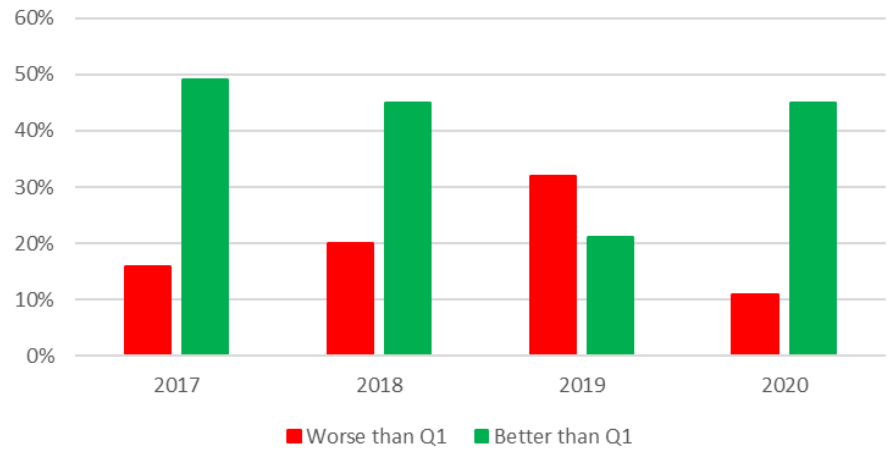
- We completed our monthly survey last weekend (~10,600 respondents) which saw continued weakening in C3Q growth expectations. In addition C3Q bookings expectations also continued to weaken.
- End customers have still been reluctant to cancel production to their manufactures instead pushing out production into future quarters but appear to be booking less for the near term during the past 30 days.
- The survey showed a growth outlook for C2Q20 about the same vs. last month with 45% expecting q/q growth vs. 47% previously and only 11% see it as weaker vs. 14% last month.
- The survey showed a growth outlook for C3Q20 weaker vs. last month with 54% expecting q/q growth vs. 59% previously and only 12% see it as weaker vs. 8% last month.
- The survey showed a weakening in bookings growth outlook for C3Q20 with 30% expecting improving bookings vs. C2Q compared to 33% last month. Now 18% expect weaker bookings vs. 13% last month.
- Backlog cancellation expectations (slide 6) shows a continued increase in cancellations over the last 2 months which we view as a leading negative indicator for C4Q.
- Availability of critical parts are now becoming less of a concern with lead-times shrinking slightly and inventories starting to increase slightly. Slide 7, which shows a more granular view of inventory by key components, showed improvements across most products in inventory and availability.

Q/Q Demand Growth Outlook

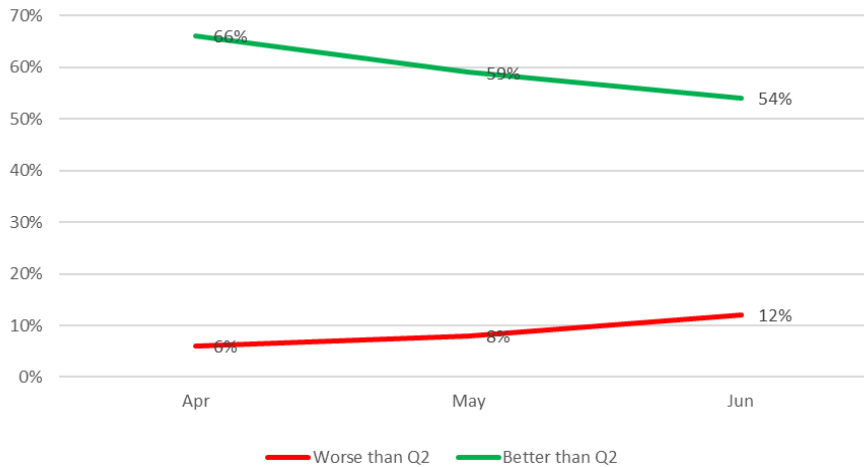
C2Q20 Growth Expectations



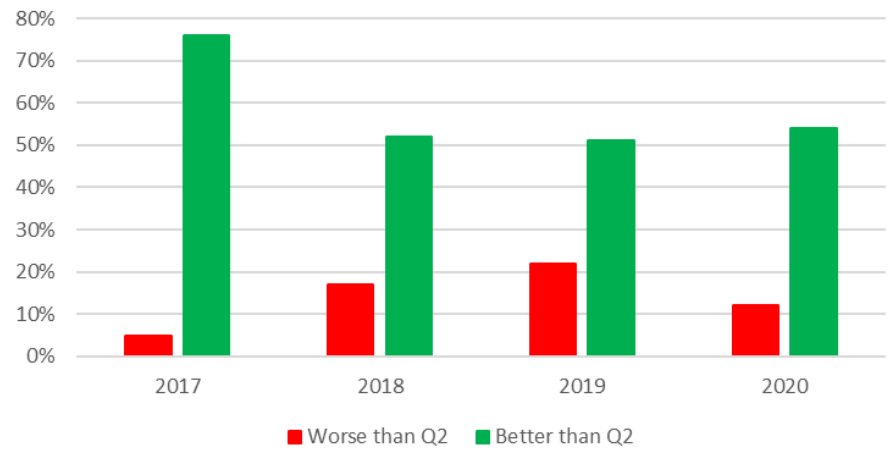
C2Q Growth Expectations vs. C1Q



3Q Growth Expectations

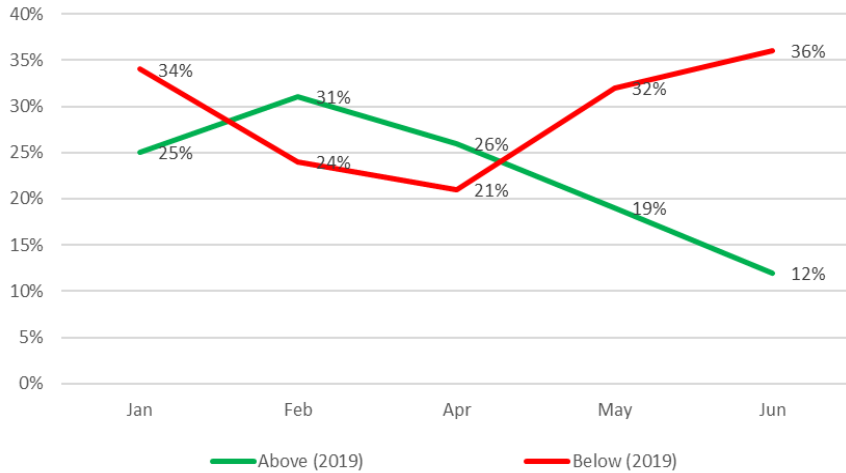


C3Q Growth Expectations vs. C2Q

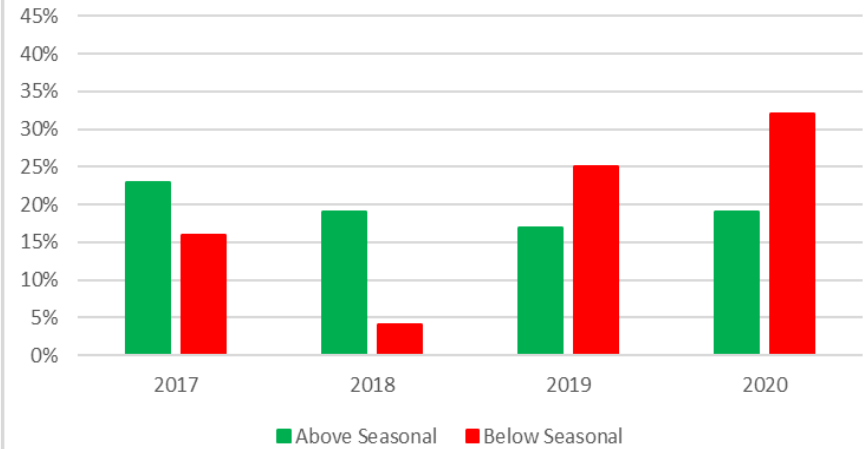


Q/Q Seasonality Expectations

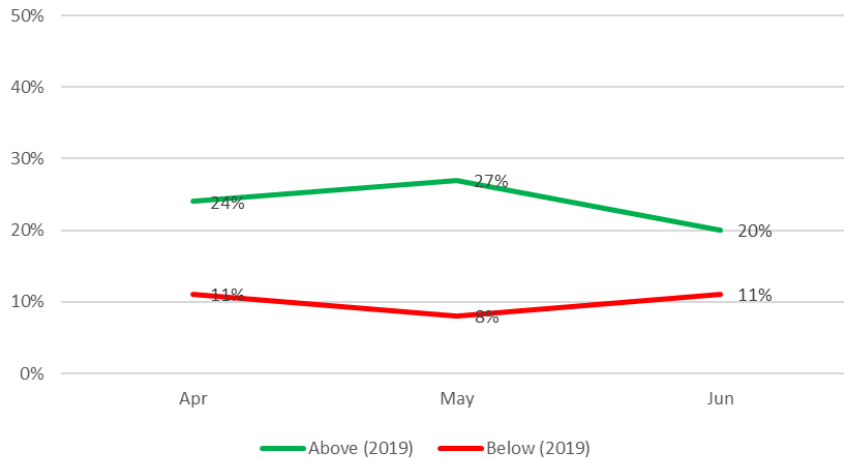
C2Q Seasonality Expectations



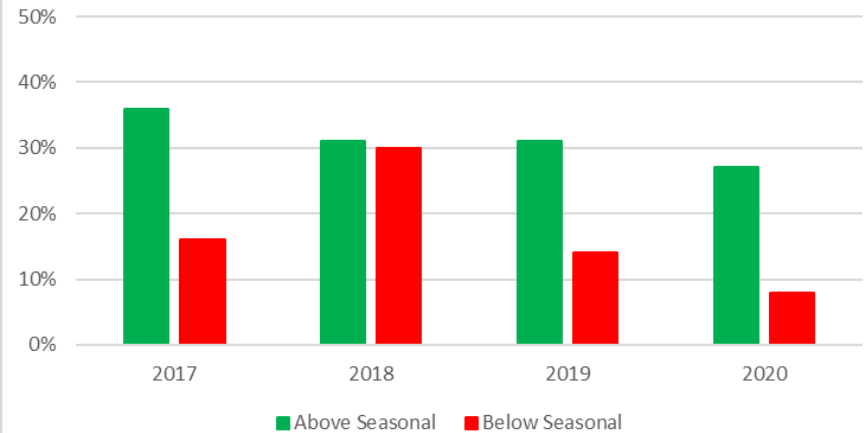
C2Q Seasonality Expectations



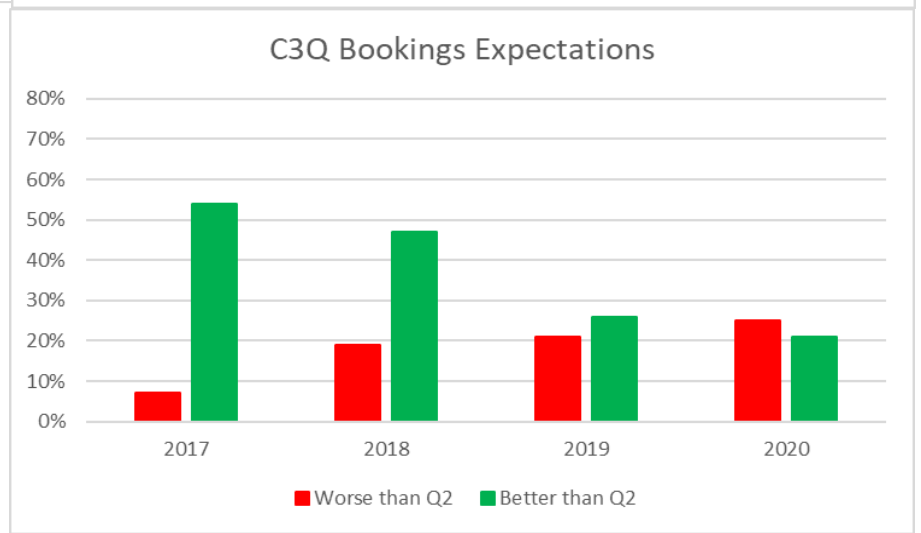
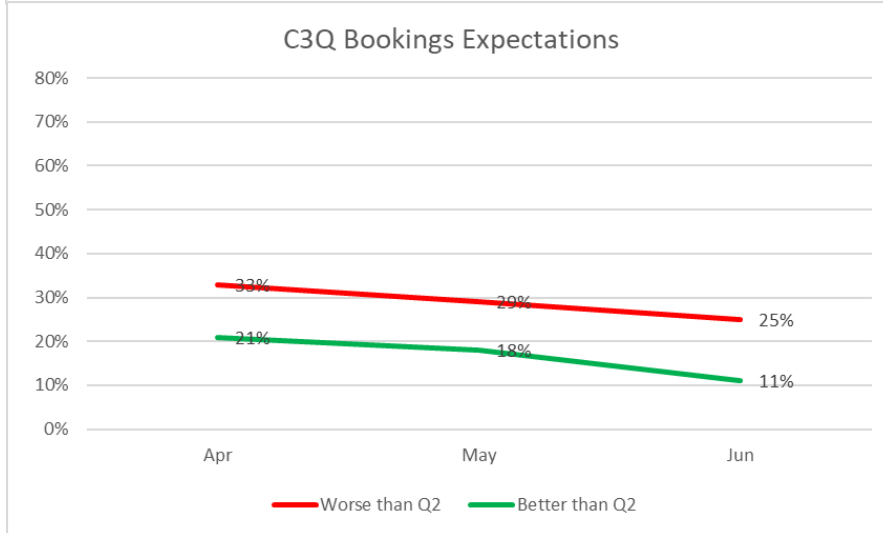
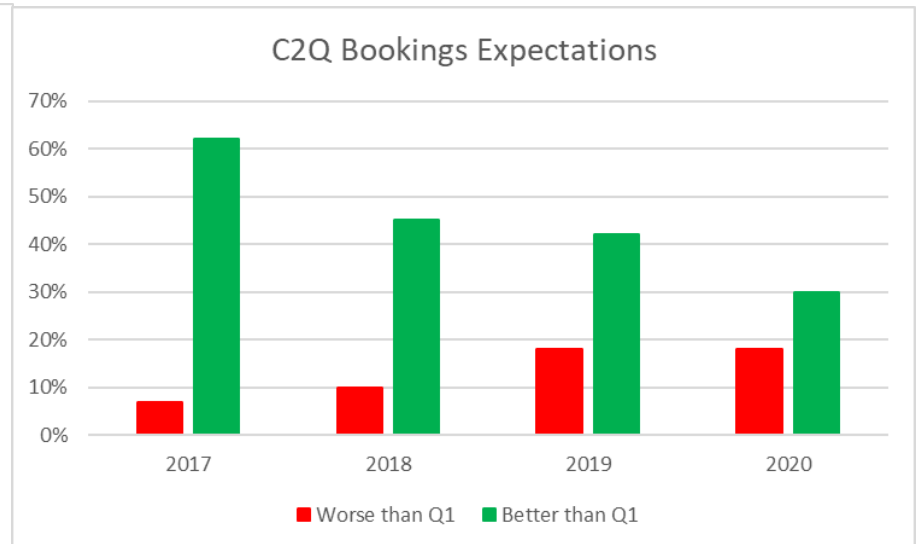
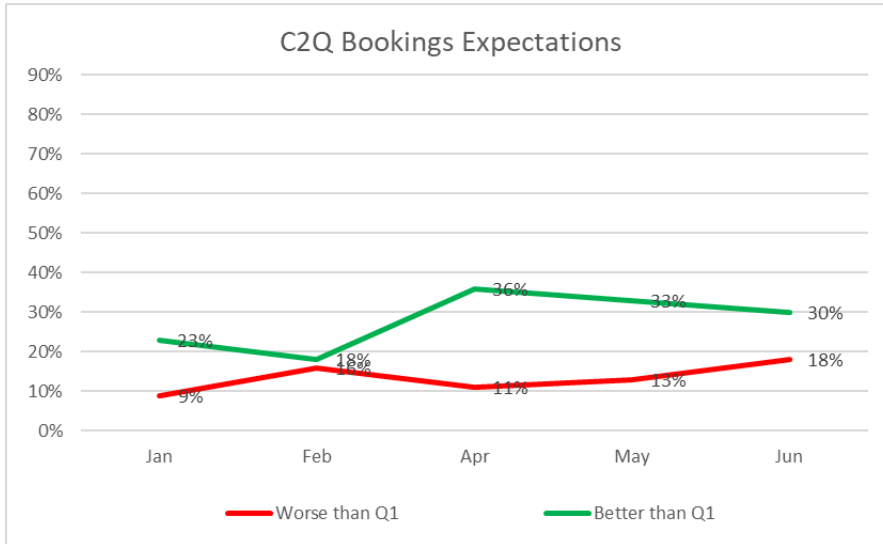
3Q Seasonality Expectations



C3Q Seasonality Expectations

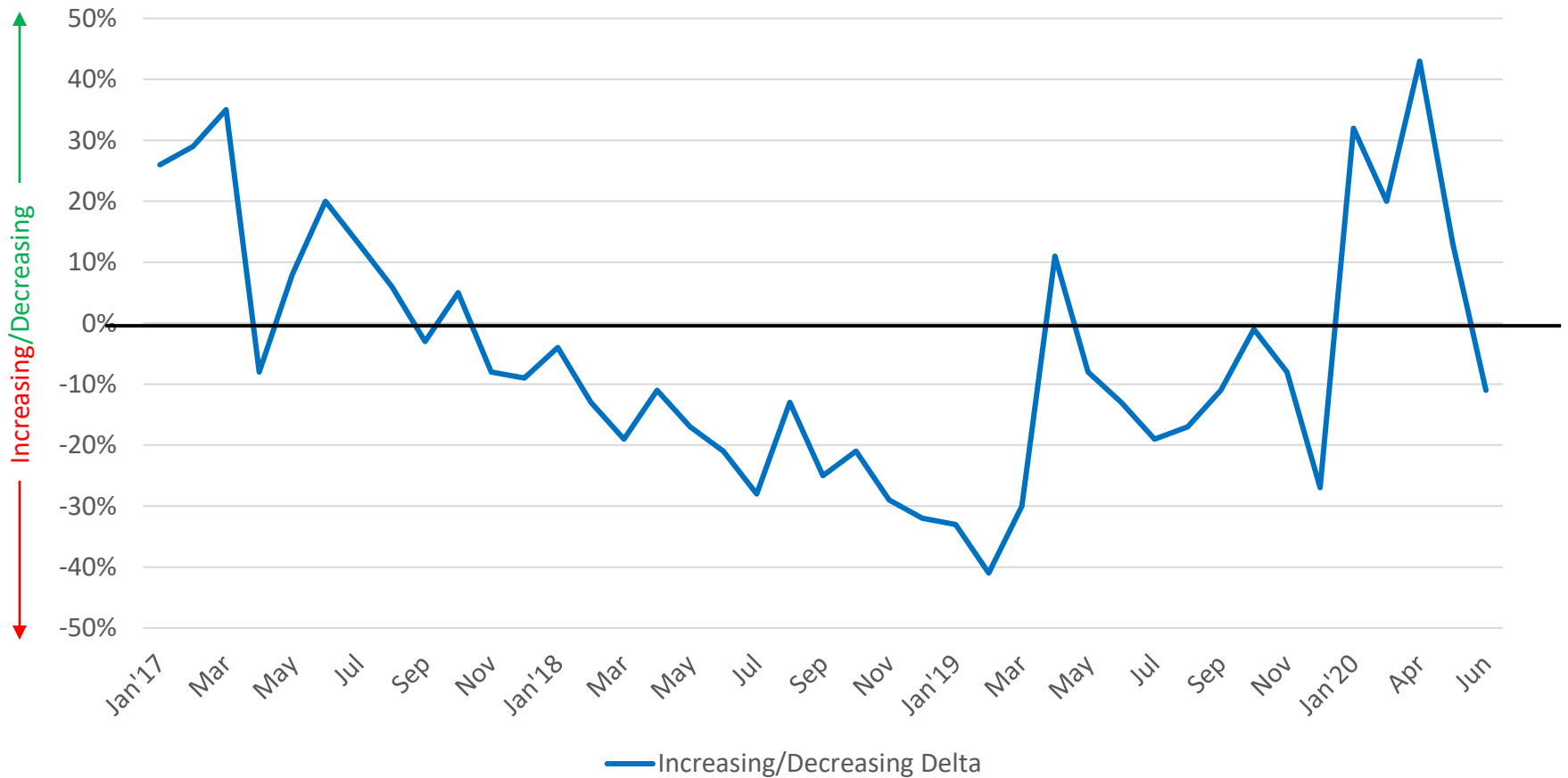


Q/Q Bookings Growth Expectations



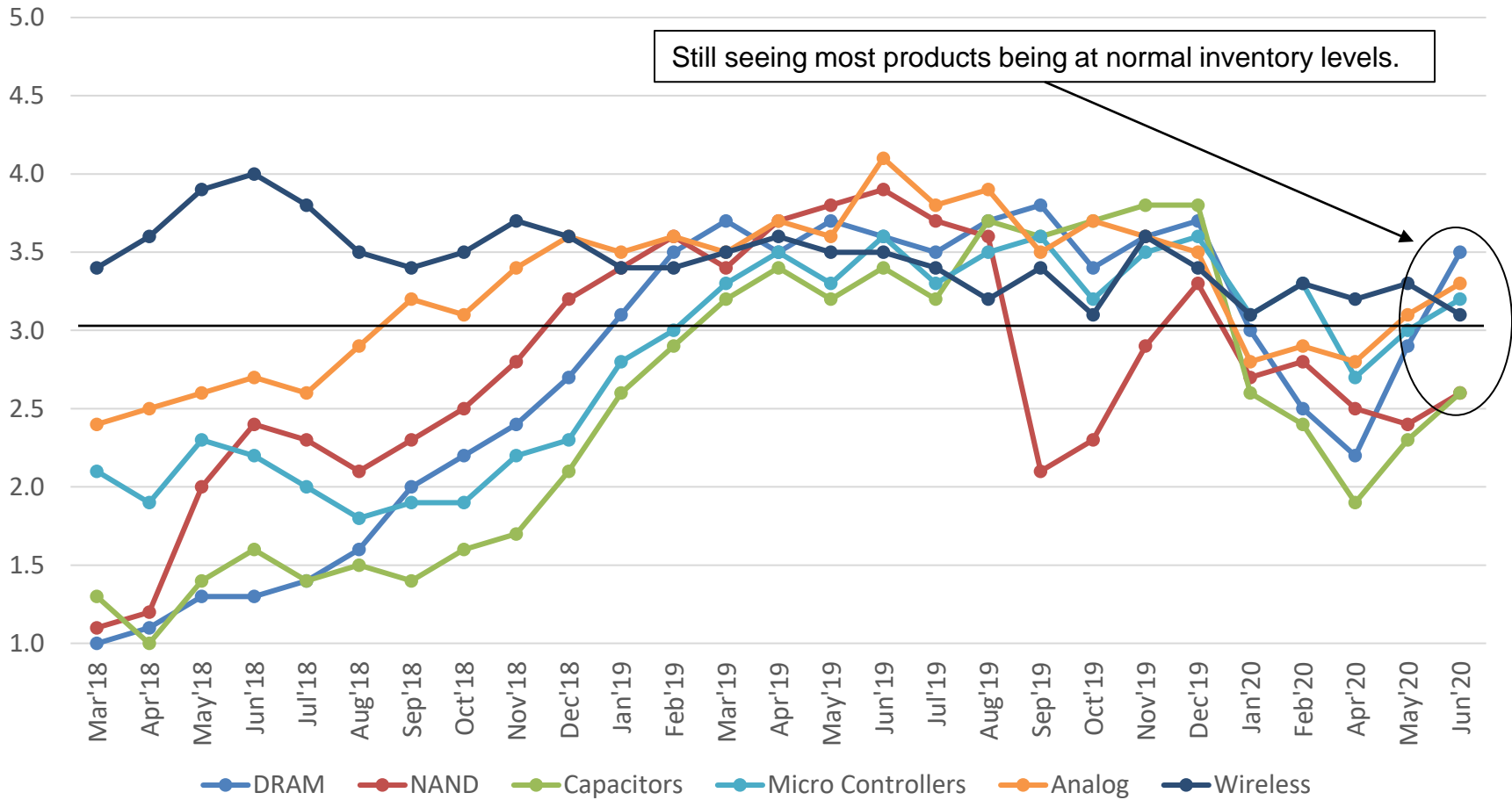
Backlog Order Cancellations vs. 30 Days Ago

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

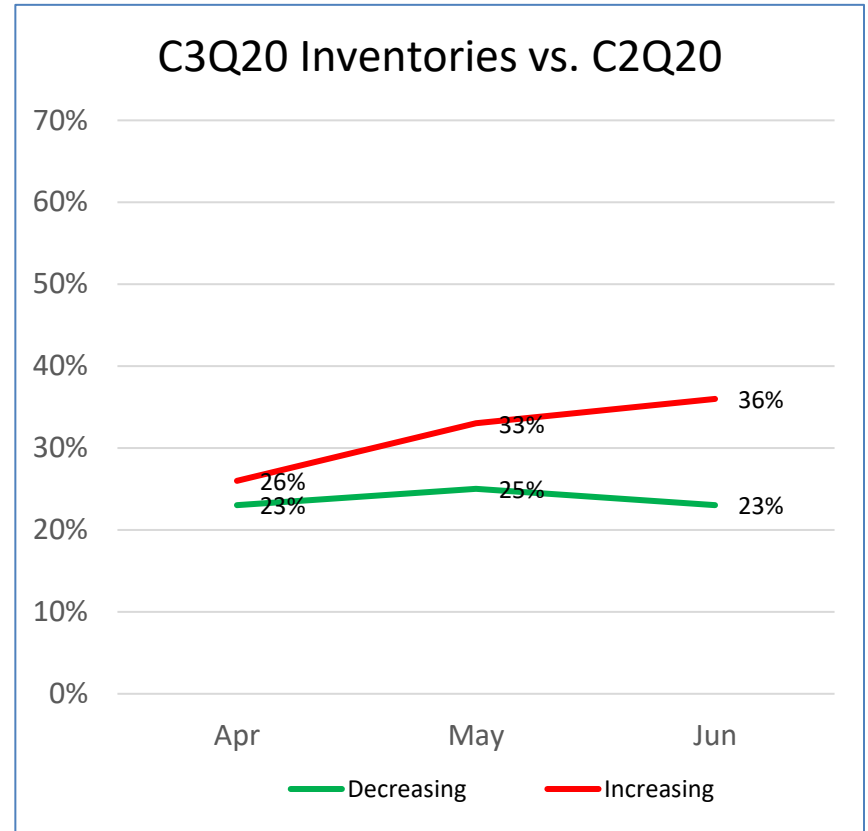
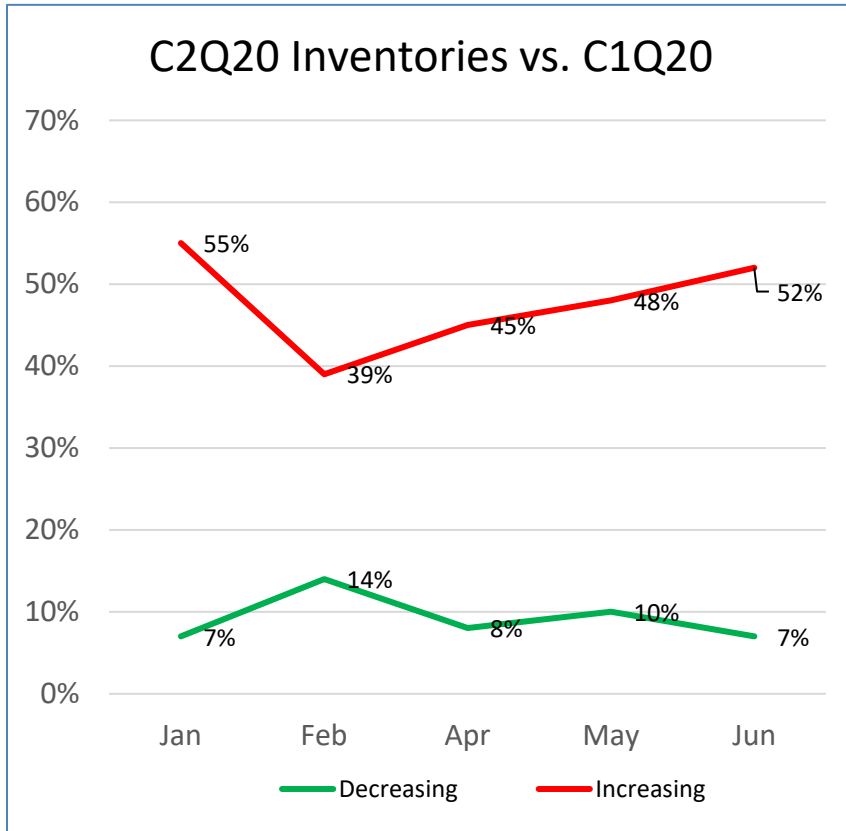


Inventory Status

(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?)

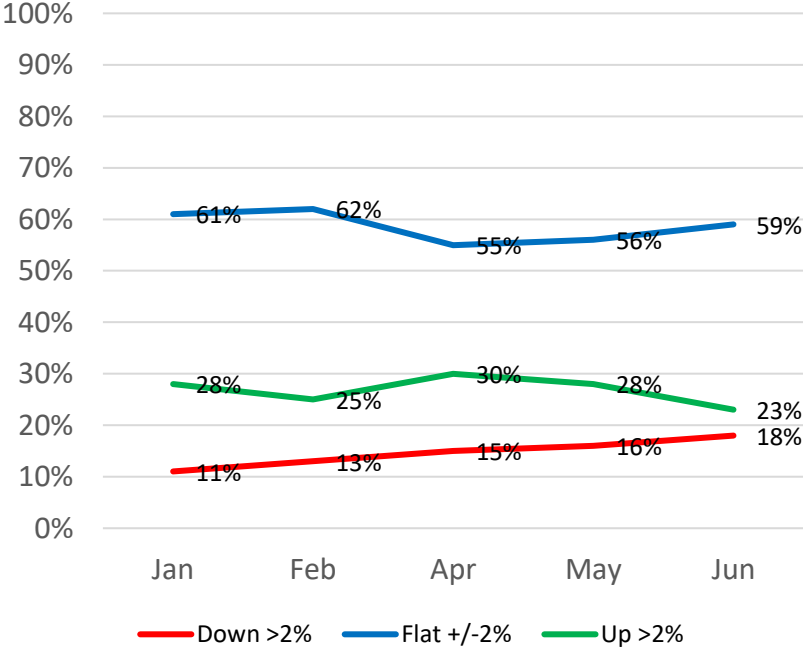


Q/Q Inventory Growth

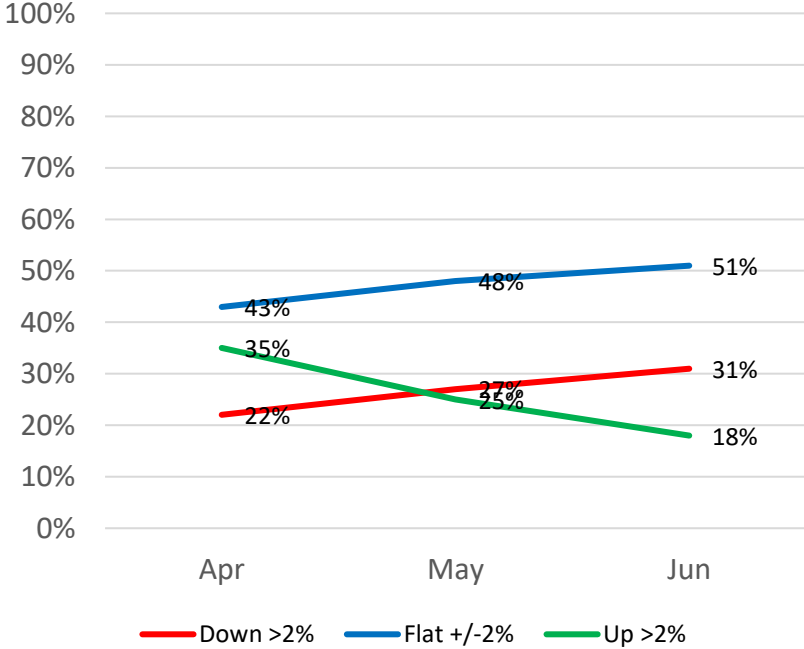


Q/Q Pricing Trends

C2Q20 Pricing vs. C1Q20



C3Q20 Pricing vs. C2Q20



Vertical Outlook

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

