



TPC Semiconductor Market Survey

April 29, 2020

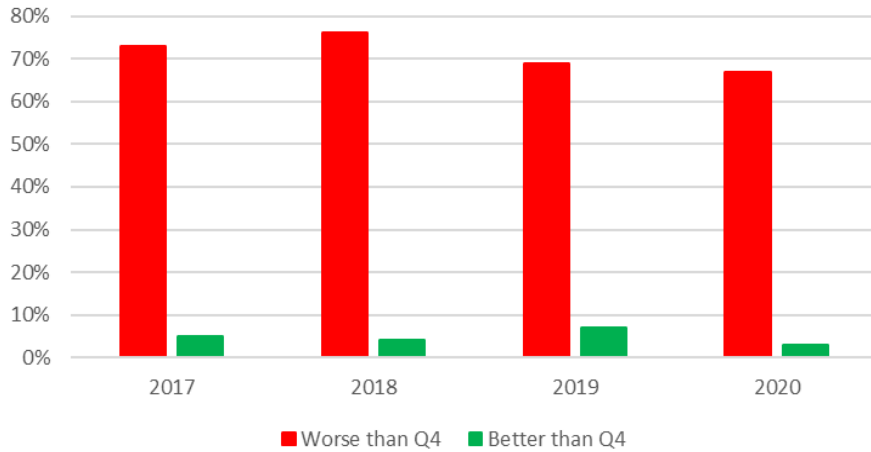
TPC April 2020 Survey Summary

*Survey Date: April 24-26 Respondents: ~8,500 Location: Worldwide (~80% Asia) Who: Active Electronics Industry Professionals
Response Composition (multiple choices): Industrial 41%, Auto 19%, Comm 22%, Computing 24%, Mobile 34%, Data Ctr 20%, Other 7%*

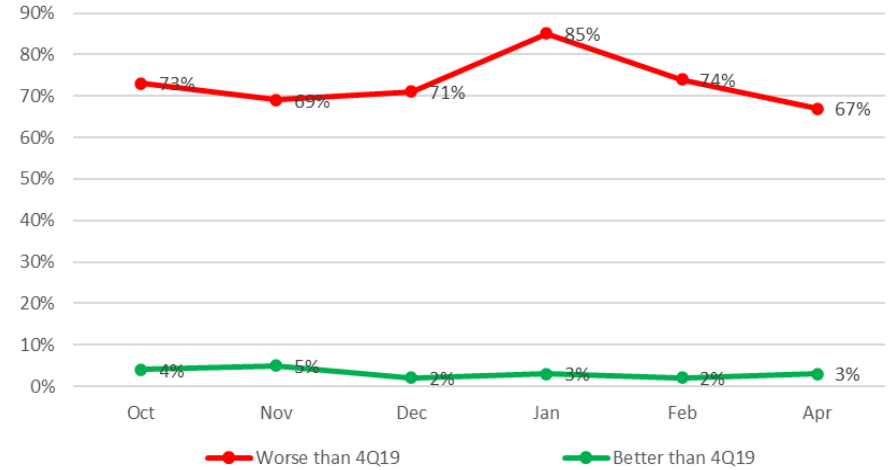
- We completed our monthly survey last weekend (~8,500 respondents) which showed little change in C2Q growth expectations. However, both C1Q and C2Q bookings expectations improved. We believe while this signals near term demand remaining OK and indicates an anticipation in better demand and ship rates moving into 2H.
- End customers have been reluctant to cancel production to their manufactures instead pushing out production into future qtrs.
- The survey showed a growth outlook for C2Q20 remaining generally the same as last month with 53% expecting q/q growth vs. 58% previously, but only 12% see it as weaker vs. 19% last month.
- The survey showed an improvement in bookings growth outlook for C2Q20 with 34% expecting improving bookings vs. C1Q compared to 18% last month. Only 11% expect weaker bookings.
- Backlog cancellation expectations (slide 6) shows a trend of decreasing cancellations over the last 3 months which we view as positive.
- Availability of critical parts are still a concern with lead-times extending and inventories remaining low. Slide 7, which shows a more granular view of inventory by key components, continued to show a marked decrease in inventory and availability (especially DRAM & Passives) as we believe we are headed towards longer component lead-times and allocation is some instances.

C1Q20 & C2Q20 Growth Outlook

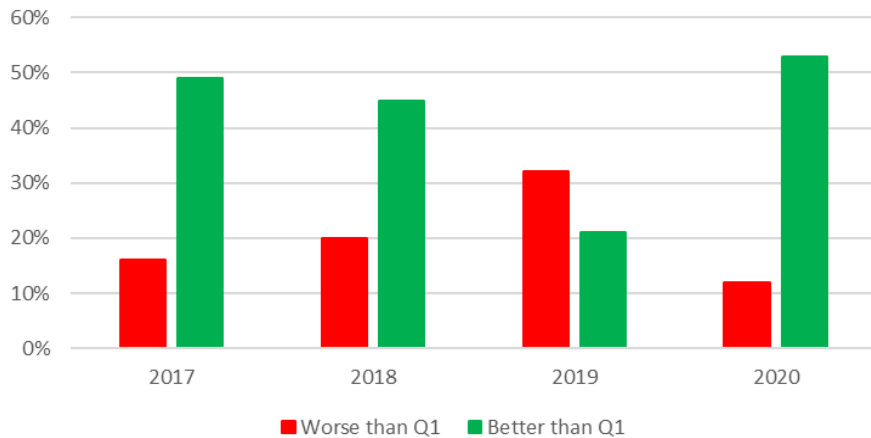
C1Q Growth Expectations vs. C4Q



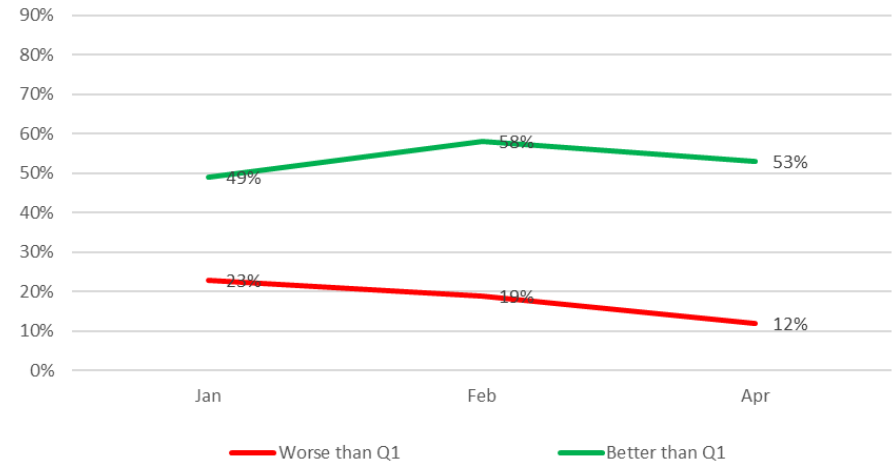
C1Q20 Growth Expectations



C2Q Growth Expectations vs. C1Q

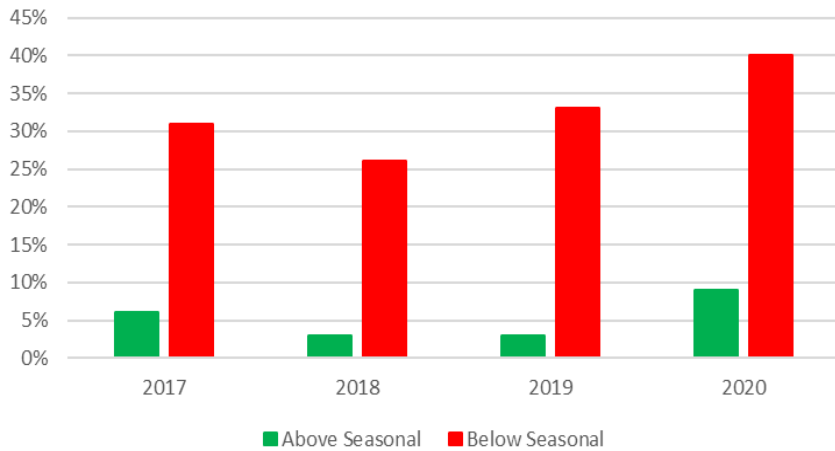


C2Q20 Growth Expectations

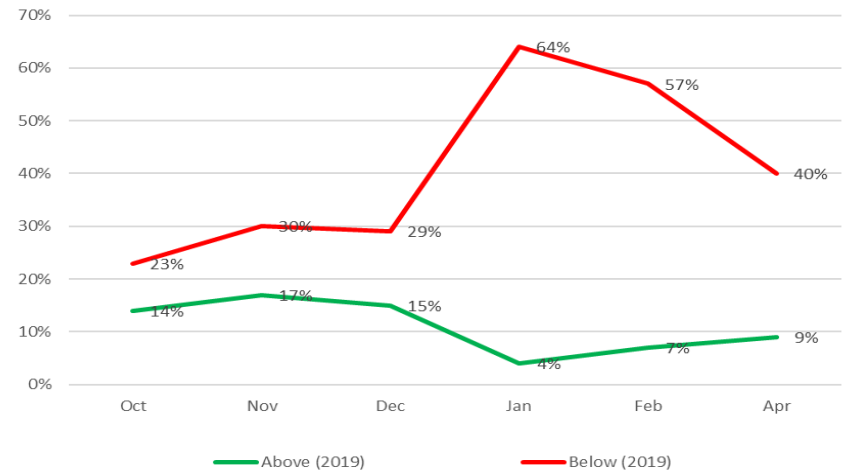


Q/Q Seasonality Expectations

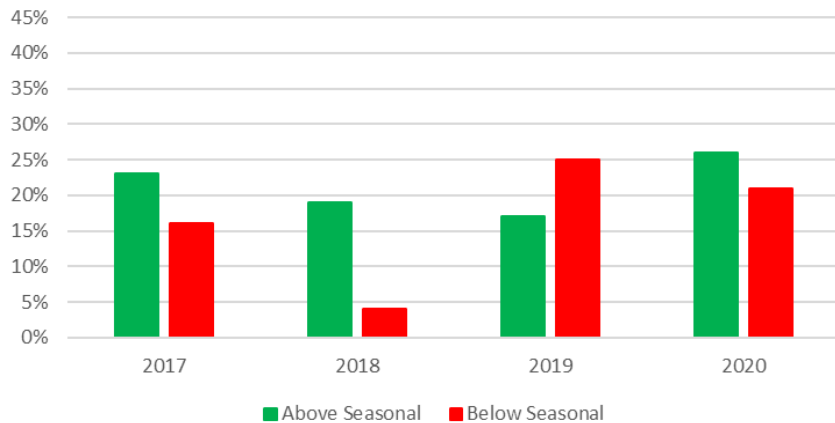
C1Q Seasonality Expectations



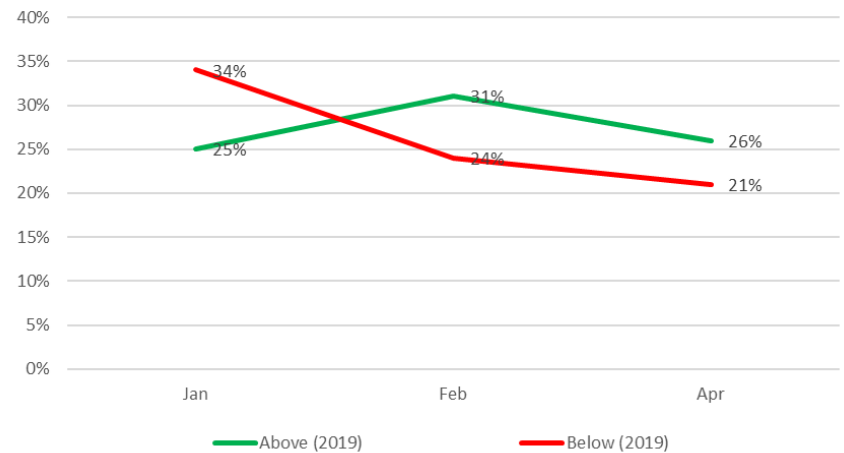
C1Q20 Seasonality Expectations



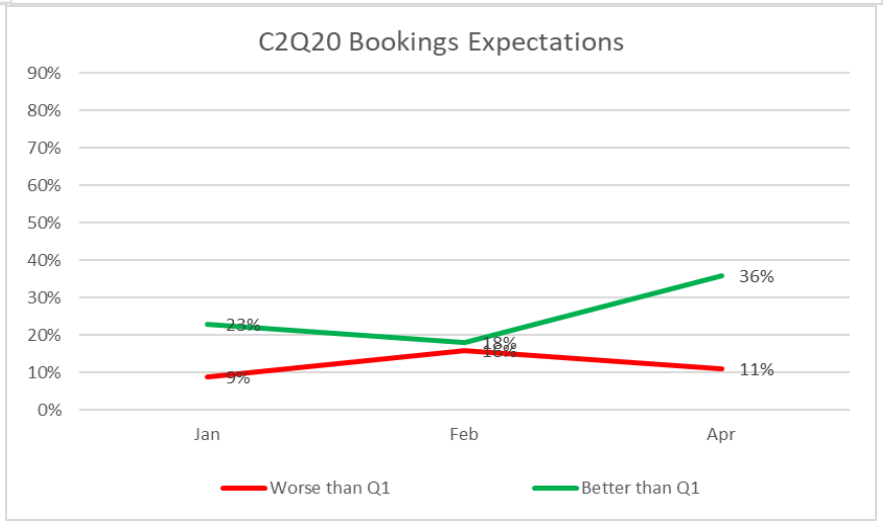
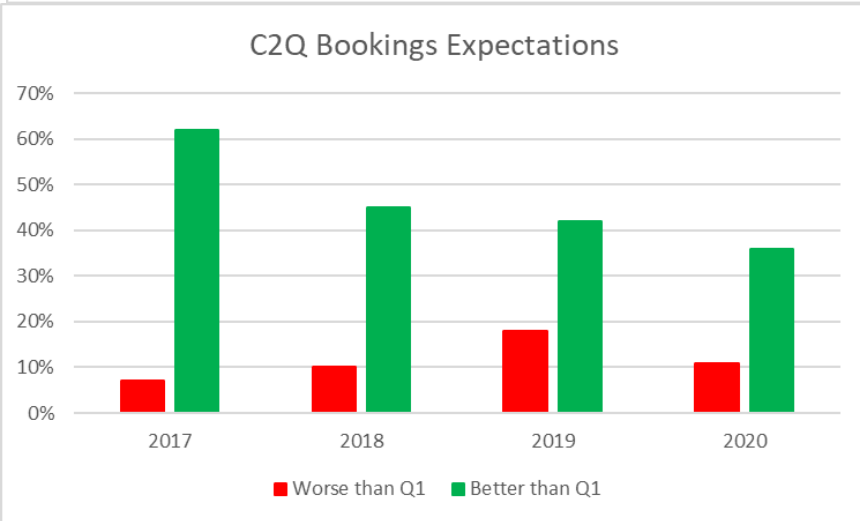
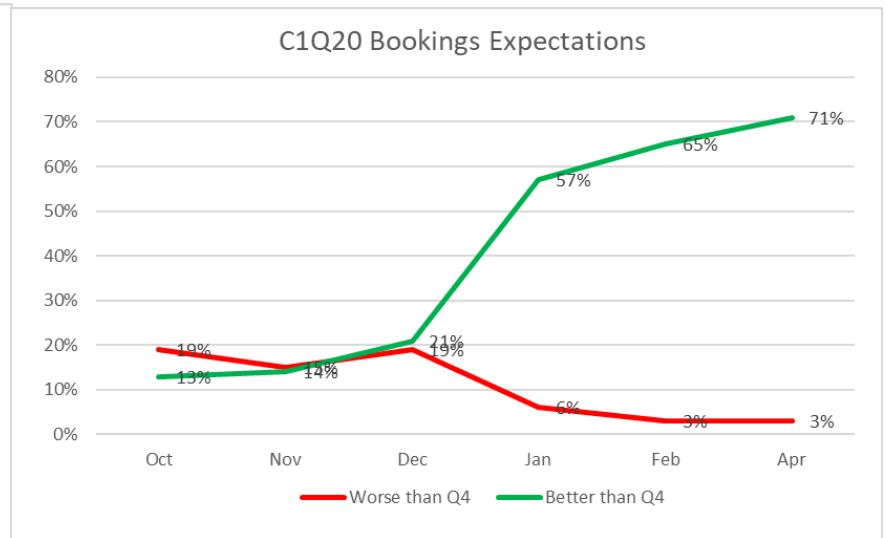
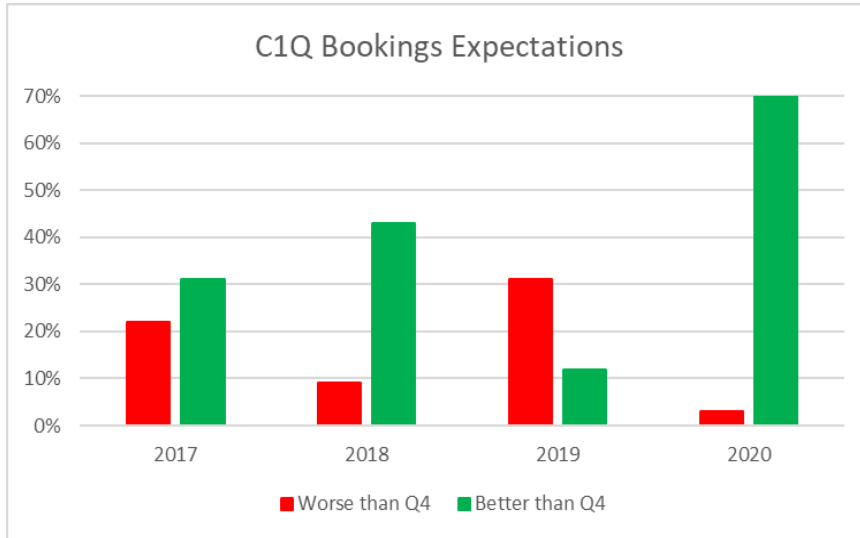
C2Q Seasonality Expectations



C2Q20 Seasonality Expectations

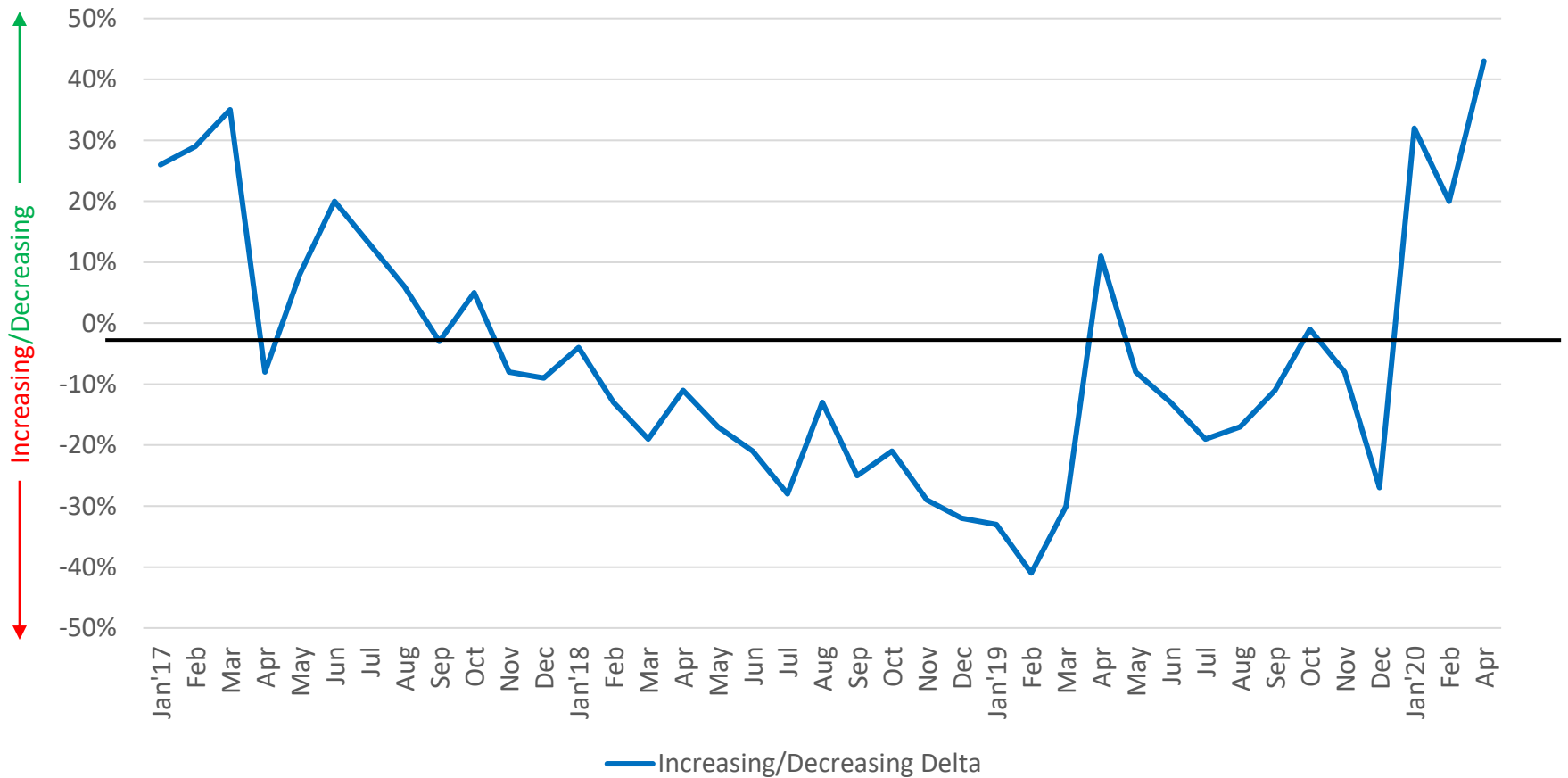


Q/Q Bookings Growth Expectations



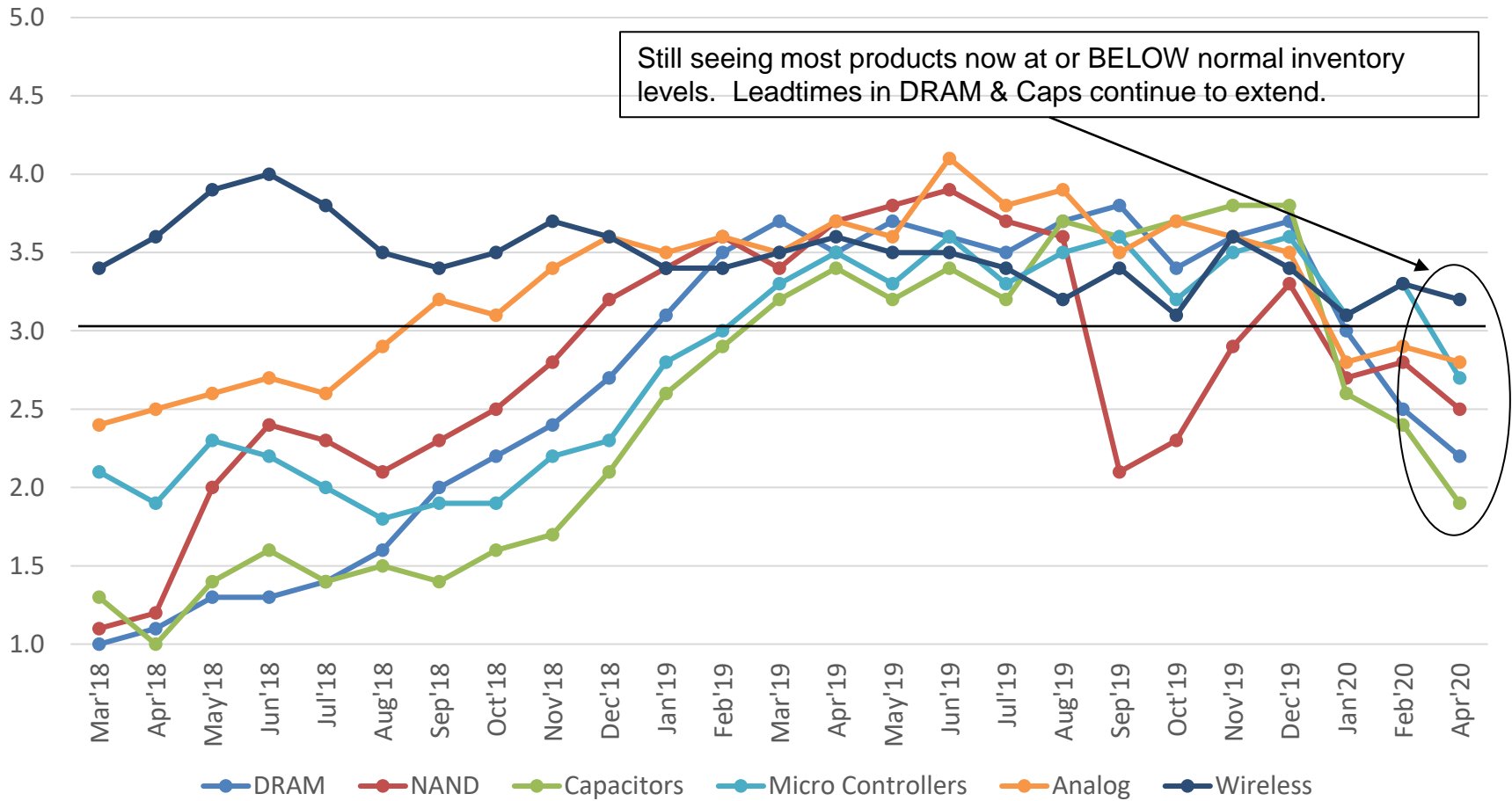
Backlog Order Cancellations vs. 30 Days Ago

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

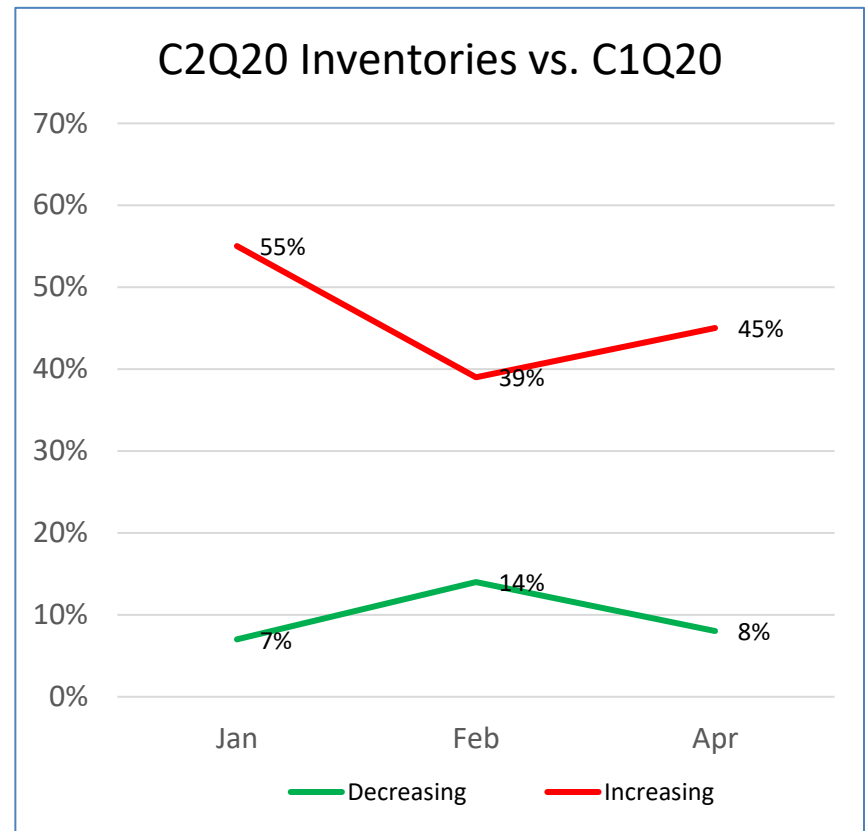
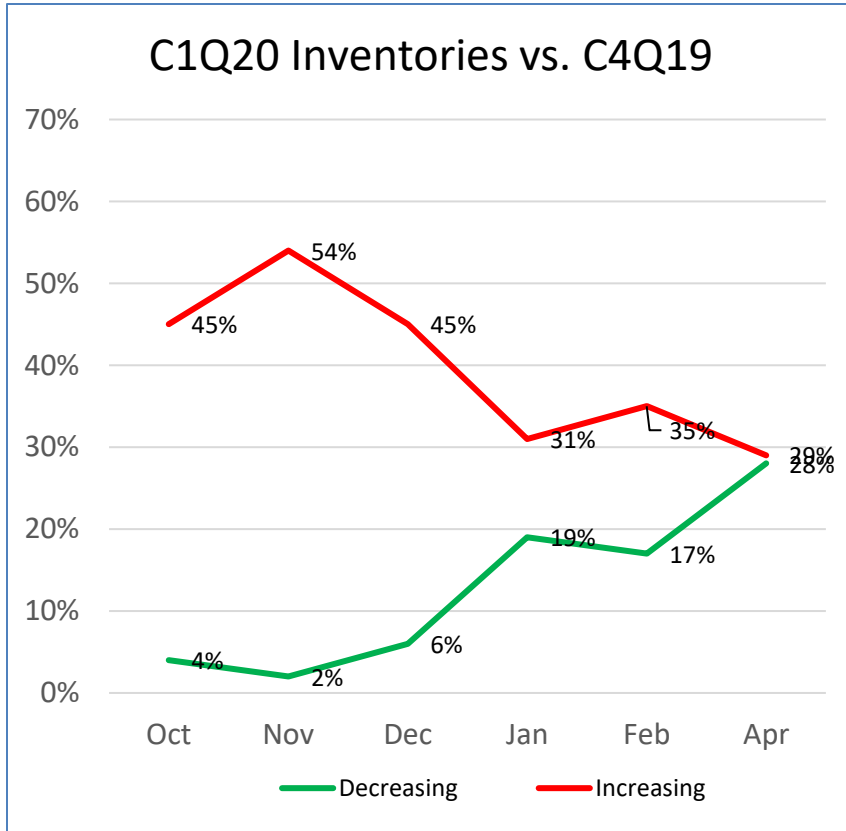


Inventory Status

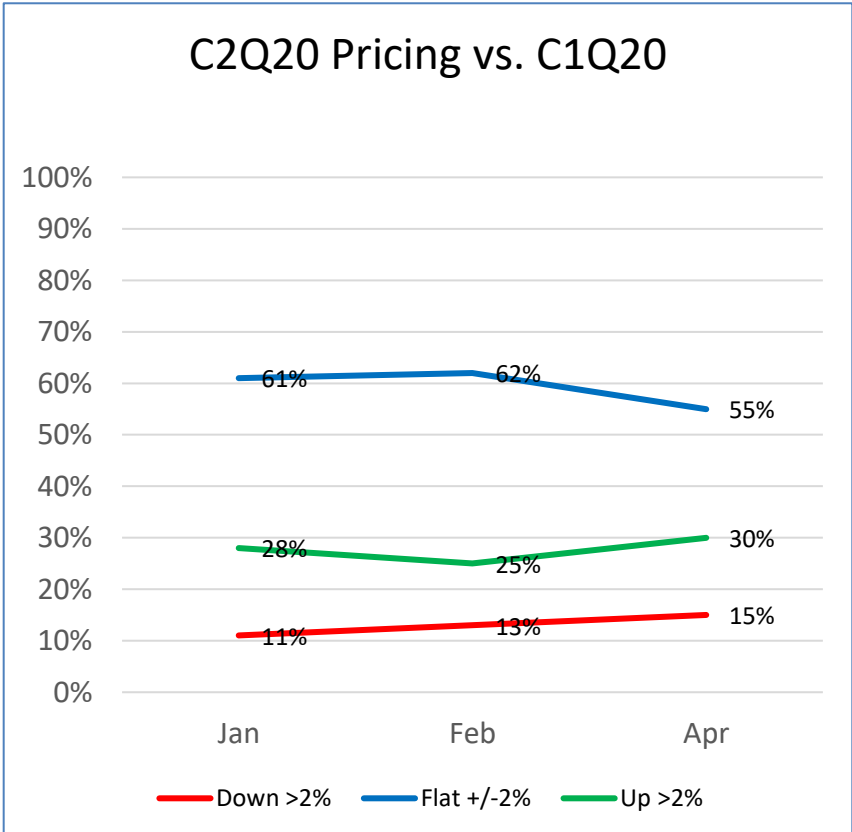
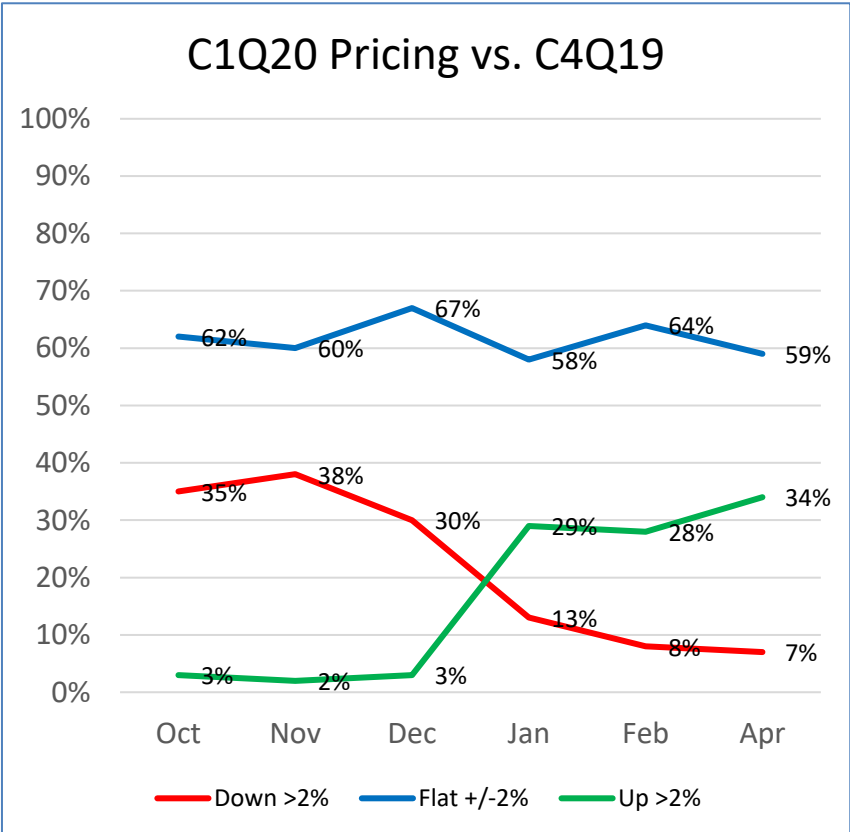
(Using a scale of 1 to 5 with 1 being extremely low inventory, 3 being the normal amount, and 5 being extremely high; how do you view inventory levels for the following products?)



Q/Q Inventory Growth



Q/Q Pricing Trends



Vertical Outlook

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

