



TPC Semiconductor Market Survey

December 14, 2020

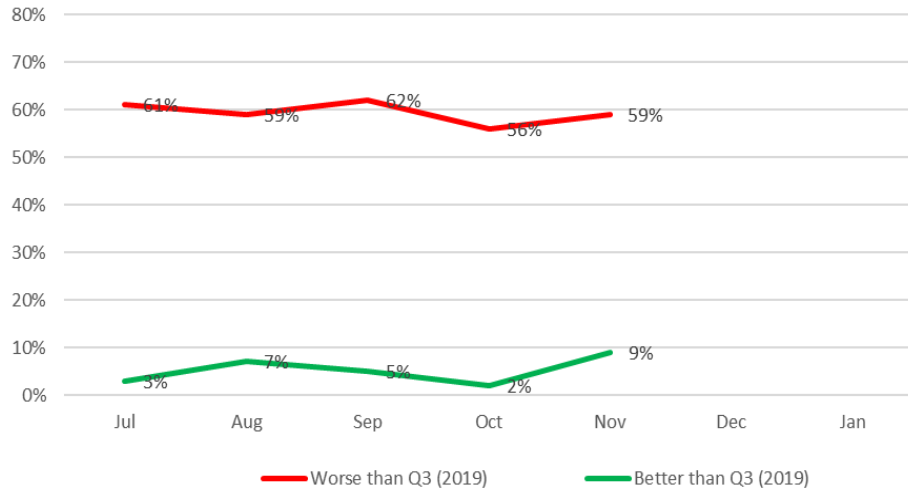
TPC November 2020 Survey Summary

*Survey Date: 12/4-6 Respondents: ~10,700 Location: Worldwide (~80% Asia) Who: Active Electronics Industry Professionals
Response Composition (multiple choices): Industrial 40%, Auto 22%, Comm 18%, Computing 23%, Mobile 31%, Data Ctr 17%, Other 15%*

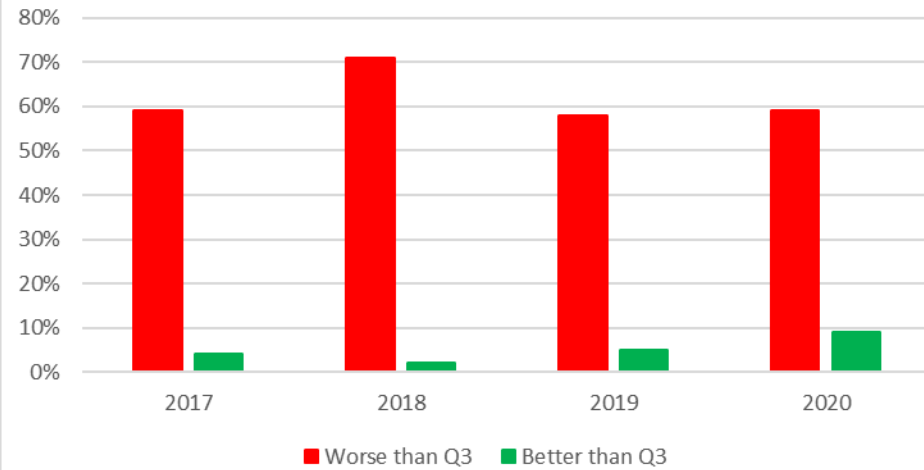
- We recently completed our monthly survey (~10,700 respondents) which saw slight improvement in C4Q growth expectations while showing slight weakening in C1Q expectations. Additionally, the bookings outlook for C4Q also weakened slightly, while C1Q's bookings outlook improved slightly.
- End customers have still been reluctant to reduce inventory levels and appear to be booking slightly more for delivery in C1Q due to product availability getting tighter.
- The survey showed a growth outlook for C4Q20 slightly improved vs. last month with 9% expecting q/q growth vs. 2% previously and 59% see it as weaker vs. 54% last month. The C1Q outlook weakened slightly with 61% seeing things weaker vs. 59% last month, while only 6% expected improvement vs. 12% last month.
- The survey showed improvement in bookings for C3Q20 with 33% expecting improving bookings vs. C2Q compared to 29% last month, and 20% now expect weaker bookings vs. 25% last month. C4Q20 bookings were also slightly improved with 7% seeing improving bookings vs. 4% last month.
- Backlog cancellation expectations (slide 6) did weaken slightly, but not significantly and remains more neutral over the last ~6 months.
- Availability of critical parts continues to improve and in most cases are at or below normal levels. Slide 7, which shows a more granular view of inventory by key components, showed improvements across most products in inventory and availability.
- We would characterize pricing as starting to increase in some areas due to tighter product availability.

Q/Q Demand Growth Outlook

4Q Growth Expectations



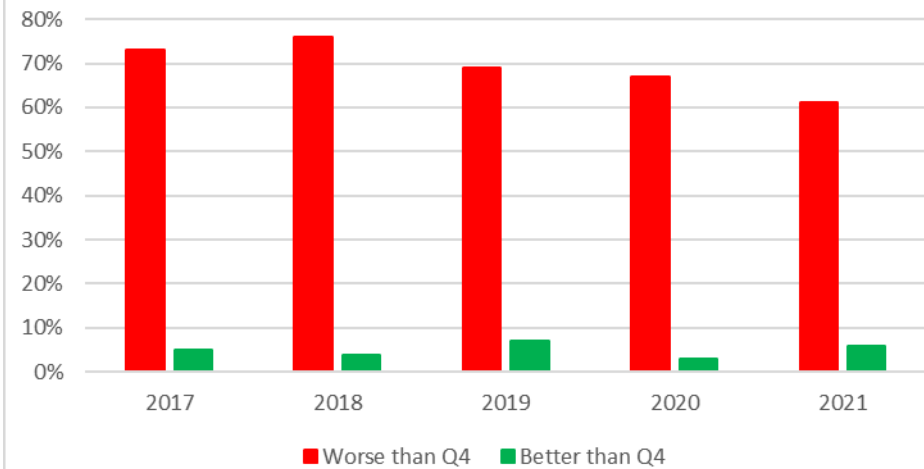
C4Q Growth Expectations vs. C3Q



C1Q21 Growth Expectations

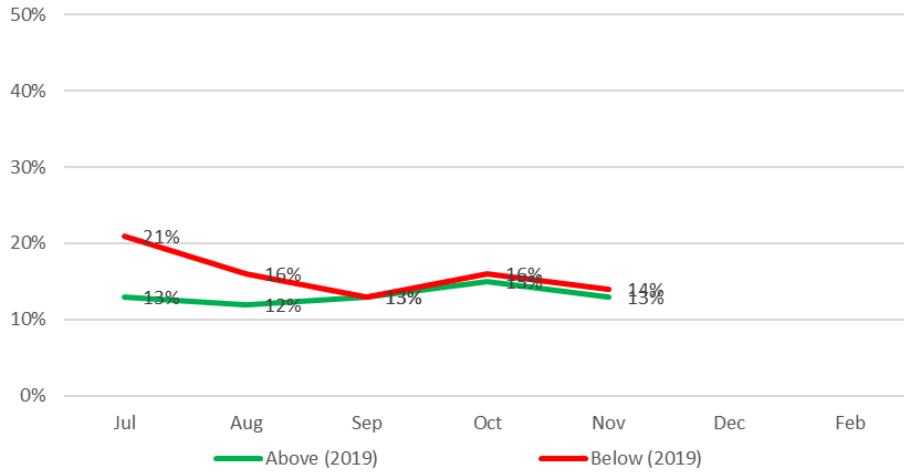


C1Q Growth Expectations vs. C4Q

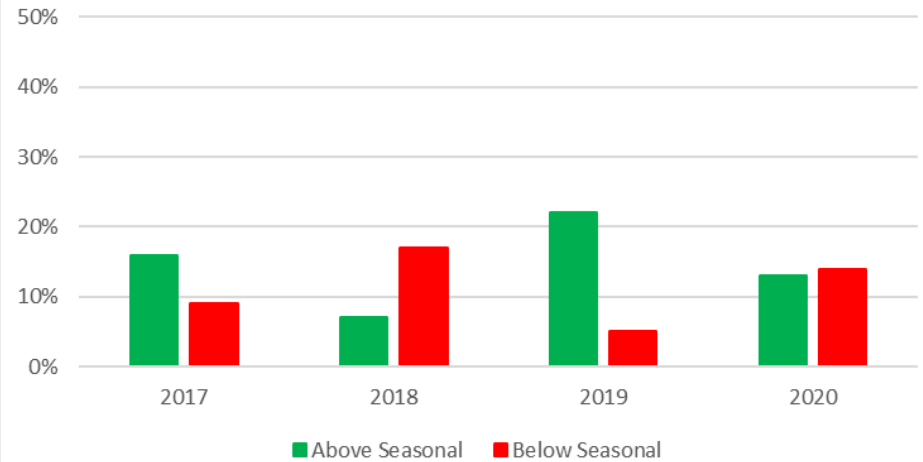


Q/Q Seasonality Expectations

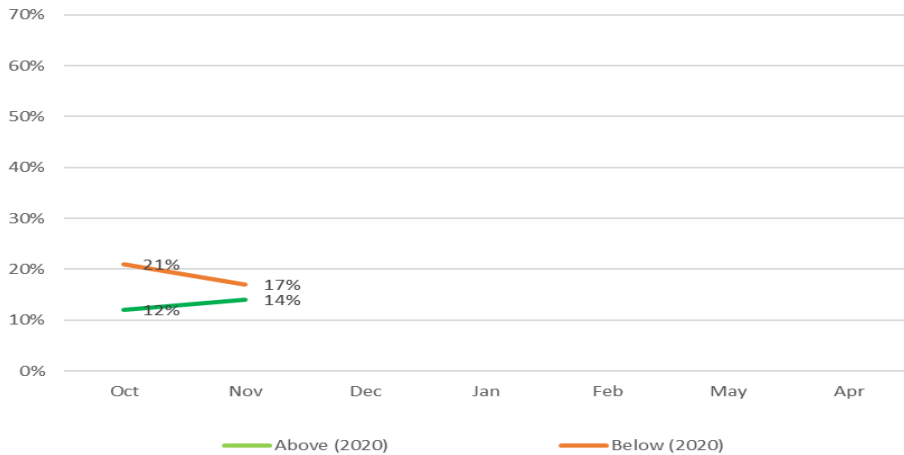
4Q Seasonality Expectations



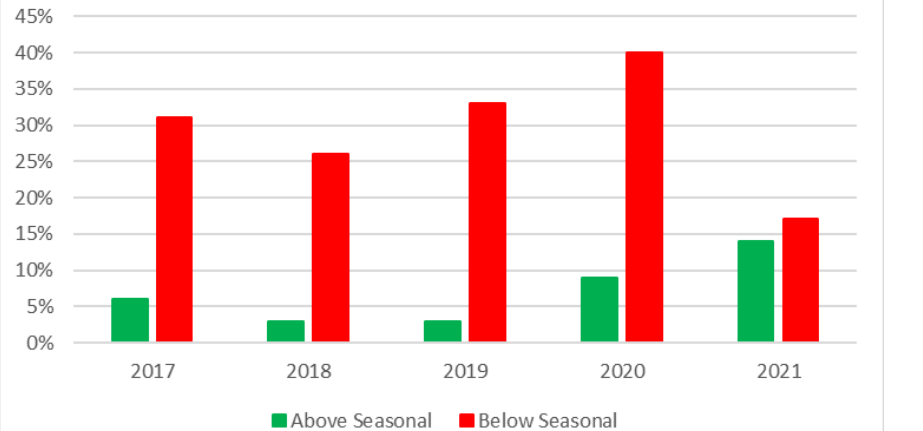
C4Q Seasonality Expectations



C1Q21 Seasonality Expectations

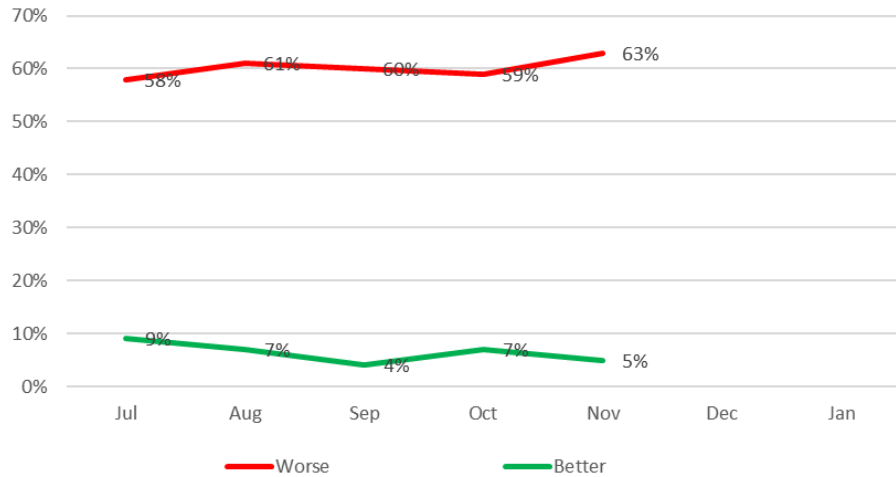


C1Q Seasonality Expectations

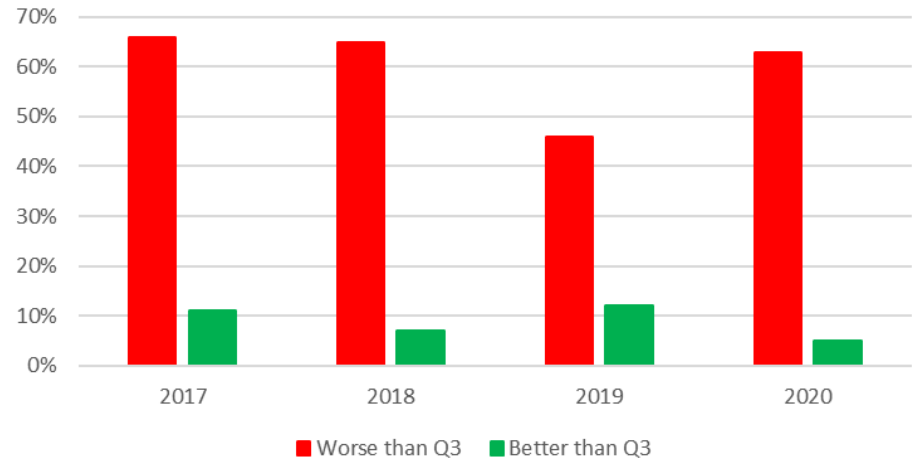


Q/Q Bookings Growth Expectations

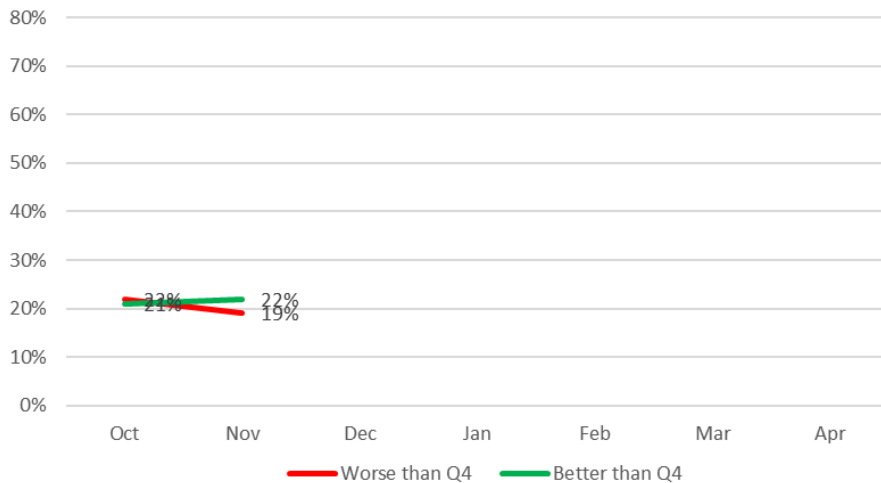
4Q Bookings Expectations



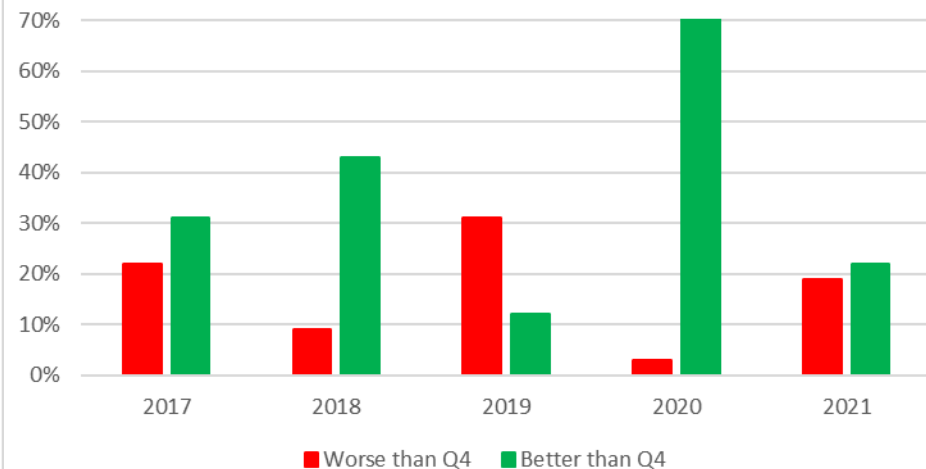
C4Q Bookings Expectations Seasonality



C1Q21 Bookings Expectations

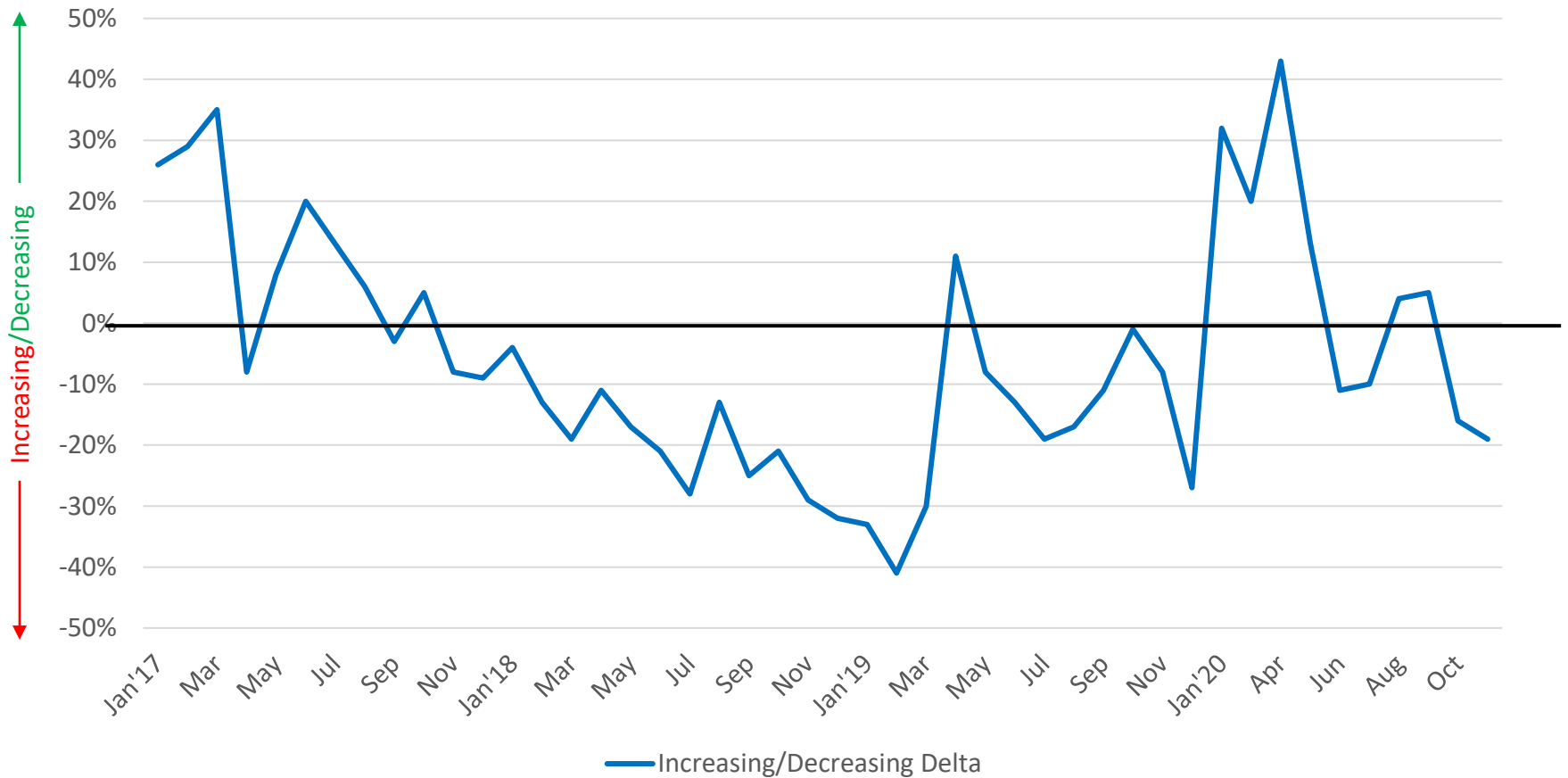


C1Q Bookings Expectations



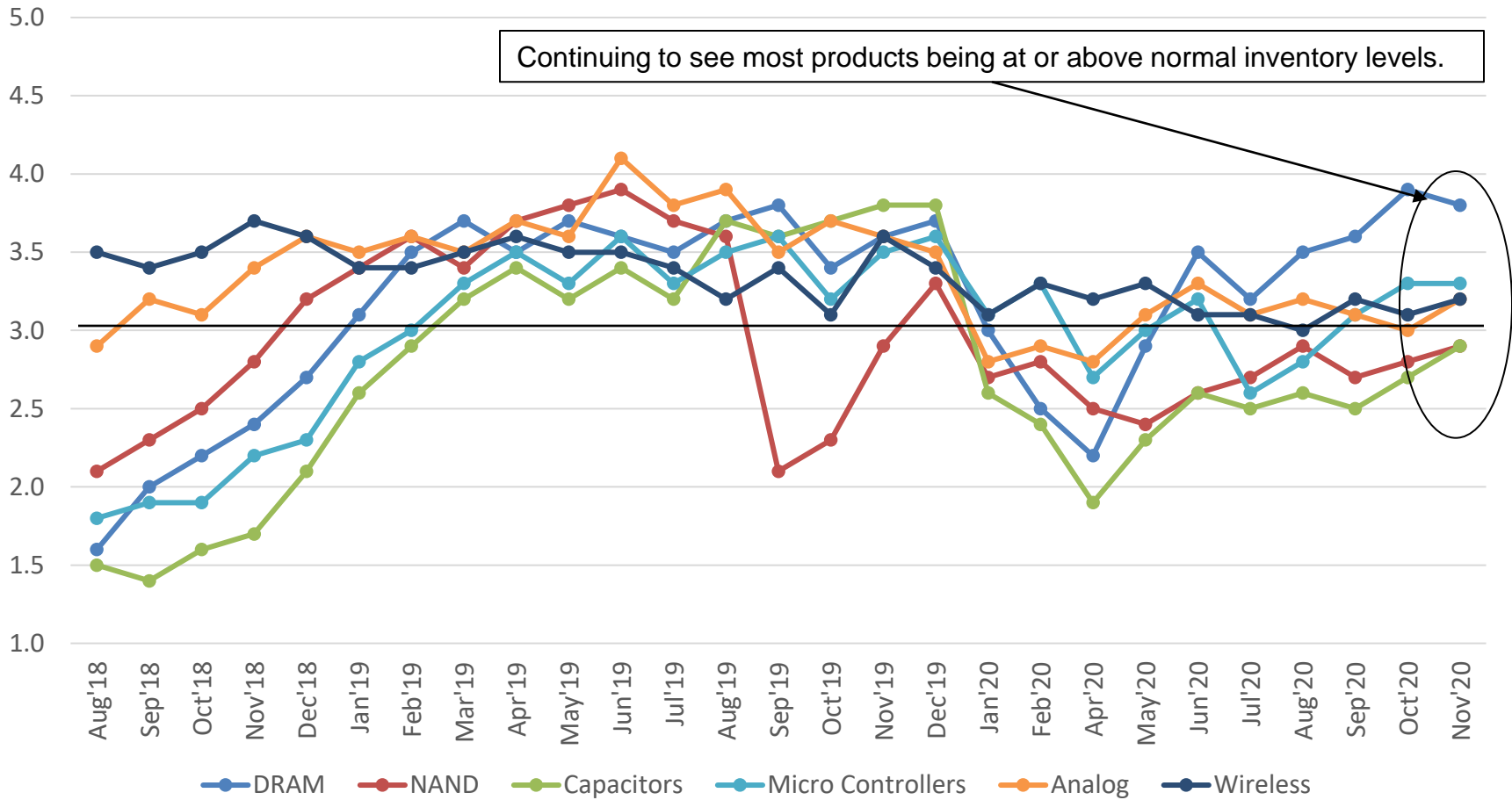
Backlog Order Cancellations vs. 30 Days Ago

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

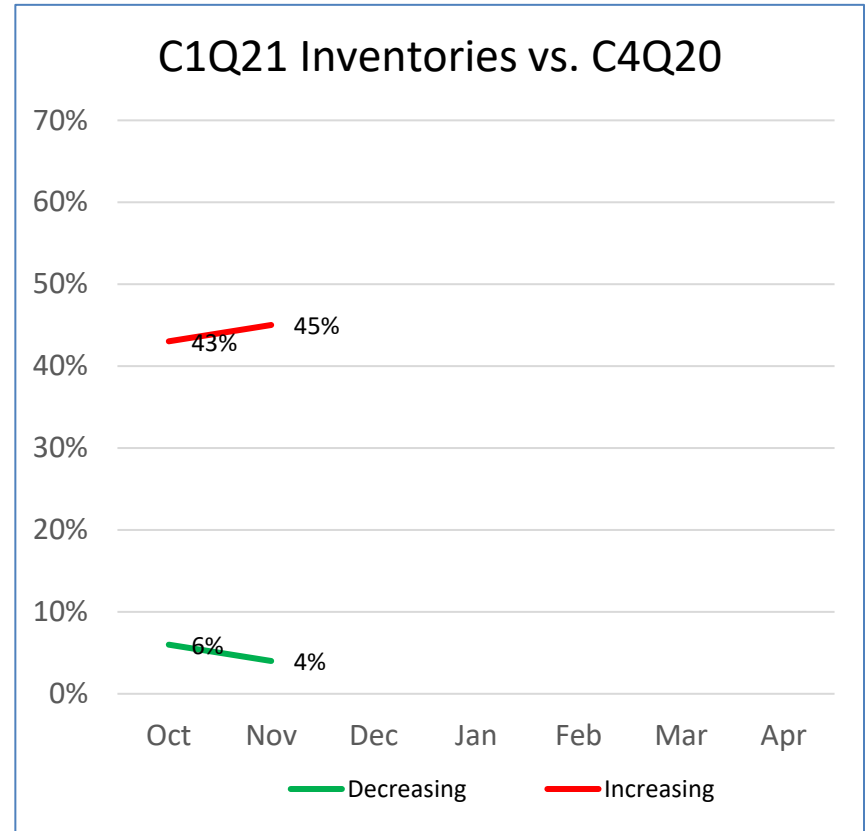
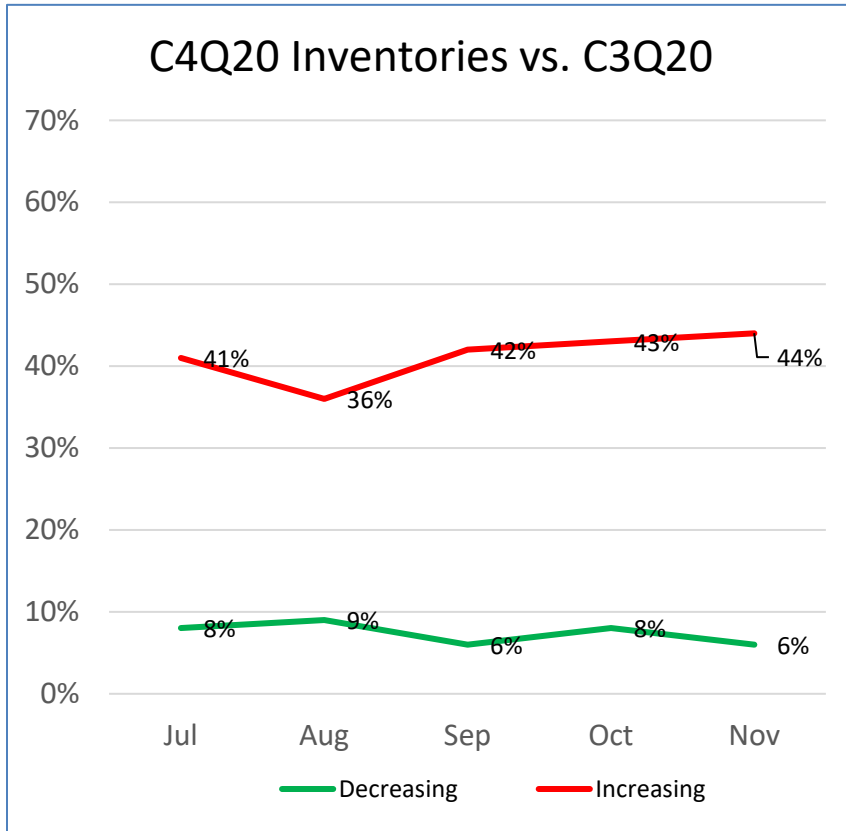


Inventory Status

(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?)

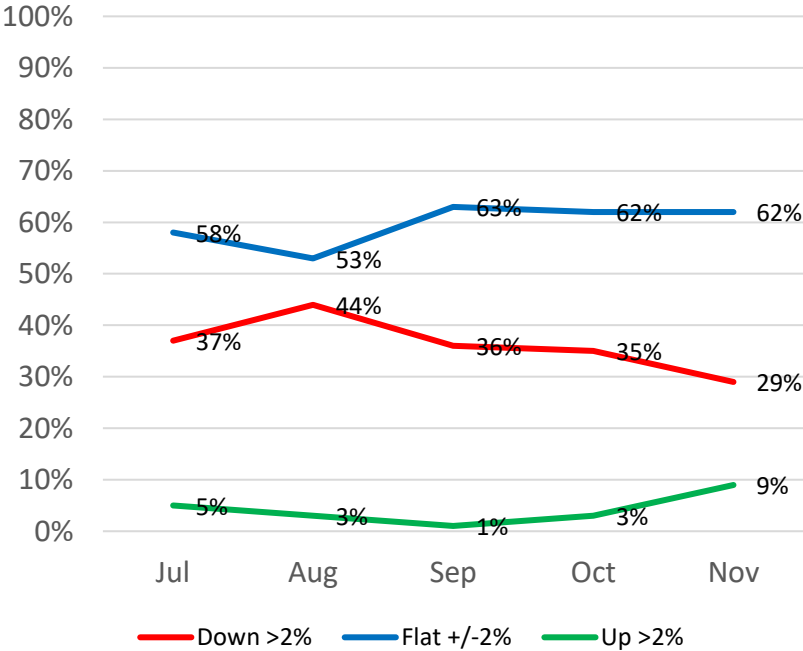


Q/Q Inventory Growth

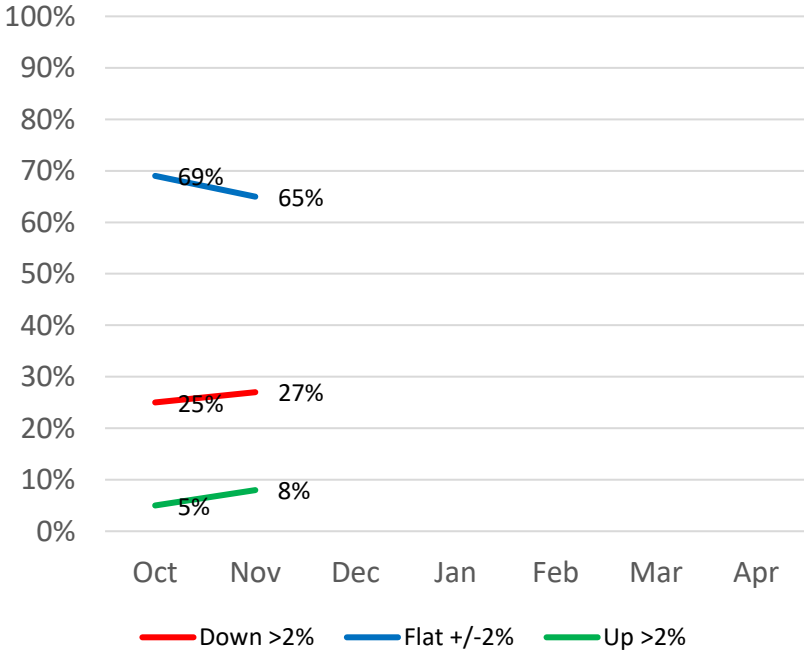


Q/Q Pricing Trends

C4Q20 Pricing vs. C3Q20



C3Q20 Pricing vs. C2Q20



Vertical Outlook

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

