



Purchases Report

September 2020

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Important notes:

As of November 2016, unless explicitly specified otherwise, RTA uses 3-month moving average for reporting on inventory (including historical data), hence, affecting calculated values of purchases and Inventory-to-Sales Ratio. In this way, any exaggerations that might be manifest in monthly purchases data, due to regular inventory counts by members, are not emphasized.

Highlighted areas in the graphs represent time of recessions.

Explanation about how to read box plots and histograms can be found in the Appendix section.

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Disclaimer: The data and report presented herein are based solely on RTA member monthly reports on production and inventory. Occasionally, members send corrections to previously submitted data. If and when these corrections are received they are incorporated at that time. Users of this report should note while all care is taken to accurately compile the data submitted by member companies, that no warranty is made as to the accuracy of any RTA member reports.

Highlights

In September, the twelve-month moving average of production, inventory and the inventory-to-sales ratio all maintained their upward trends. Purchases continued their declining trend; however, the rate improved by 8.3% from April's lows and 0.9% from last month. On quarterly bases, production was above its median while purchases were slightly below. Similar outcomes were observed considering monthly statistics. ISR remained flat and inventory levels increased marginally.

Long-Term Trends

Production advanced at a 14.8% annual rate.

Purchases dropped at a 7.3% annual rate.

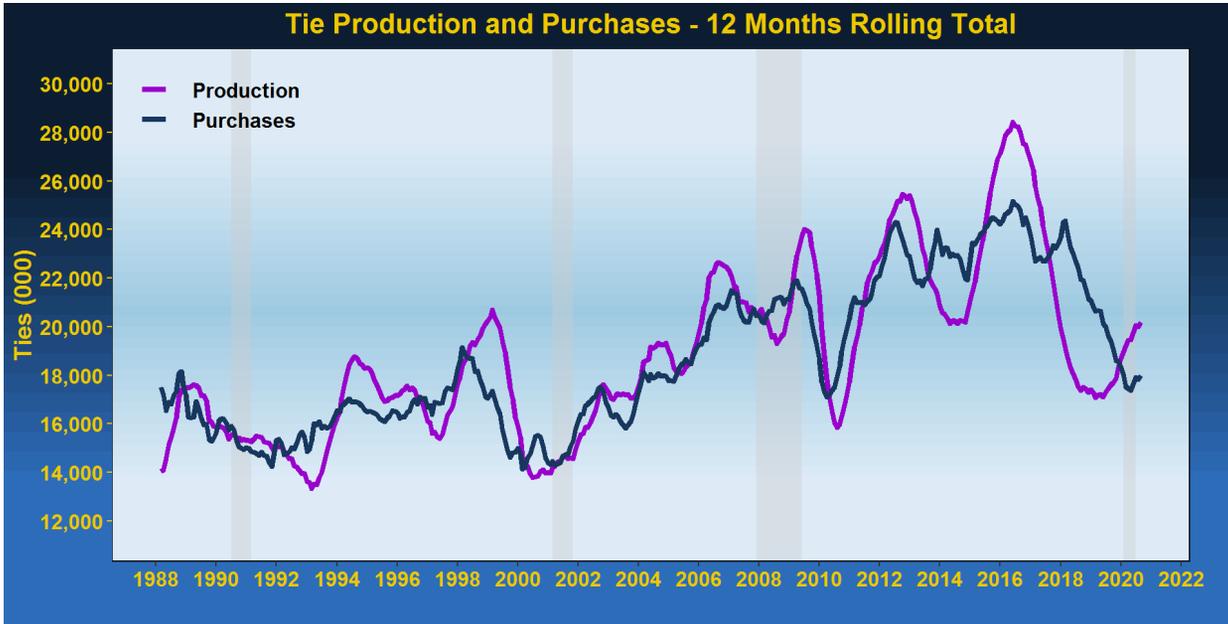
Inventory's 12 month moving average (12MMA) advanced by 10.6% from year ago levels.

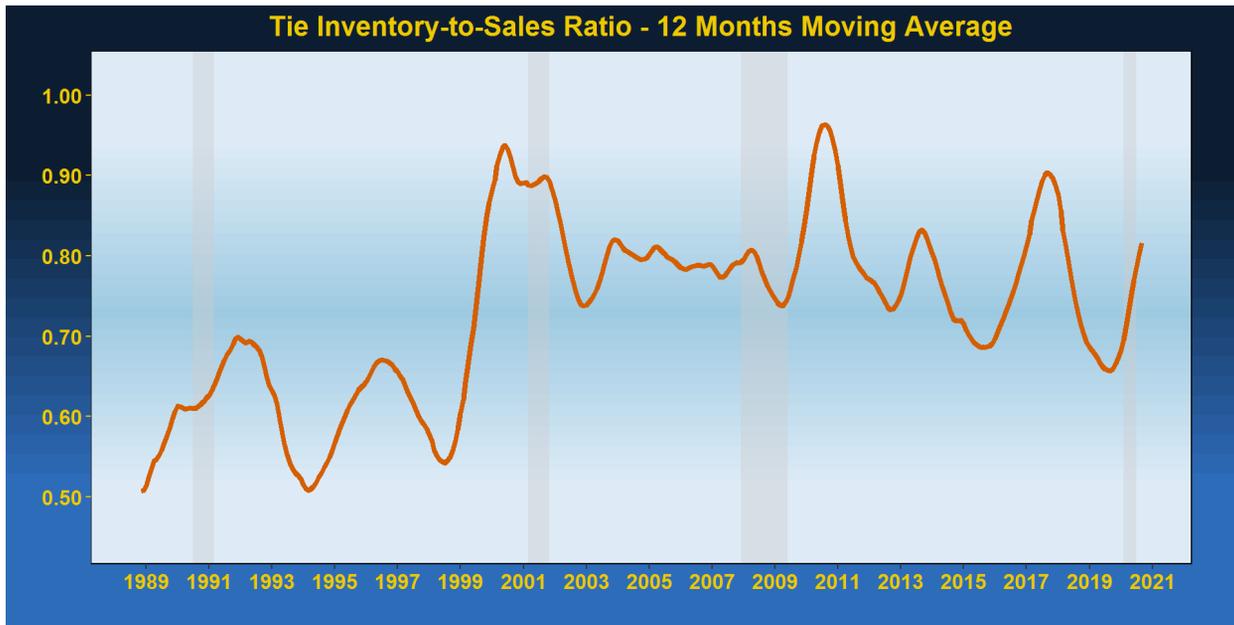
Inventory-to-Sales Ratio's 12MMA grew from 0.66 to 0.82.

Table of Annual Observations

Production and Purchases are 12 months rolling totals, Inventory and ISR are 12MMA

Date	Production	Purchases	Inventory	ISR
September 2019	17,577	19,409	13,432	0.66
September 2020	20,180	18,000	14,862	0.82





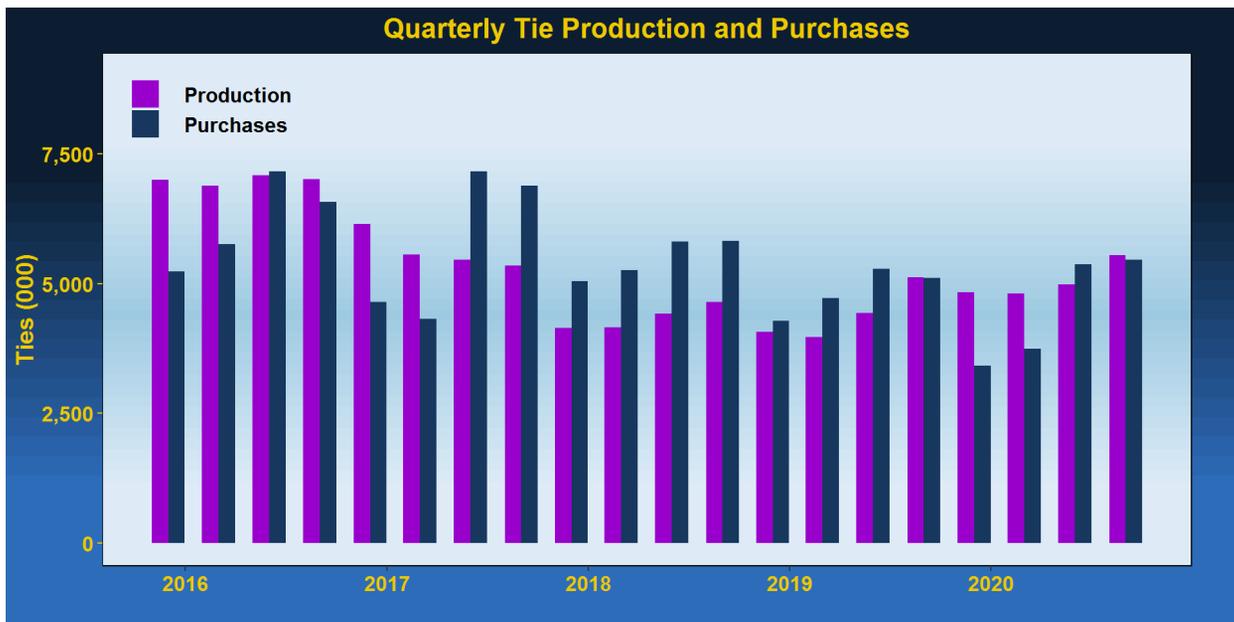
Analysis of Quarterly Data

Production in Q3 advanced by 11.2% from last quarter and rose by 8.4% from year ago. For the same intervals, purchases expanded by 1.5% and advanced by 6.8% respectively. Inventory's 3MMA expanded by 0.6% from last quarter and grew by 17% from year ago levels. From Q4 2019 to Q1 2020, the 3MMA of Inventory-to-Sales Ratio dropped from 0.86 to 0.83. Year ago, the ratio was 0.64.

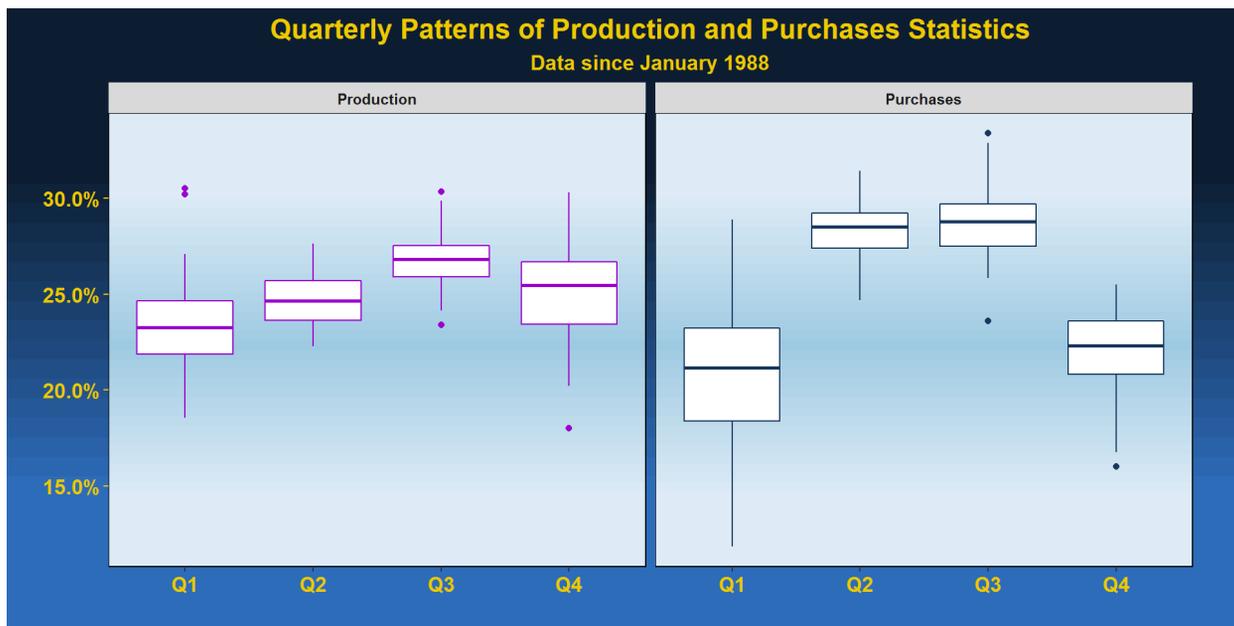
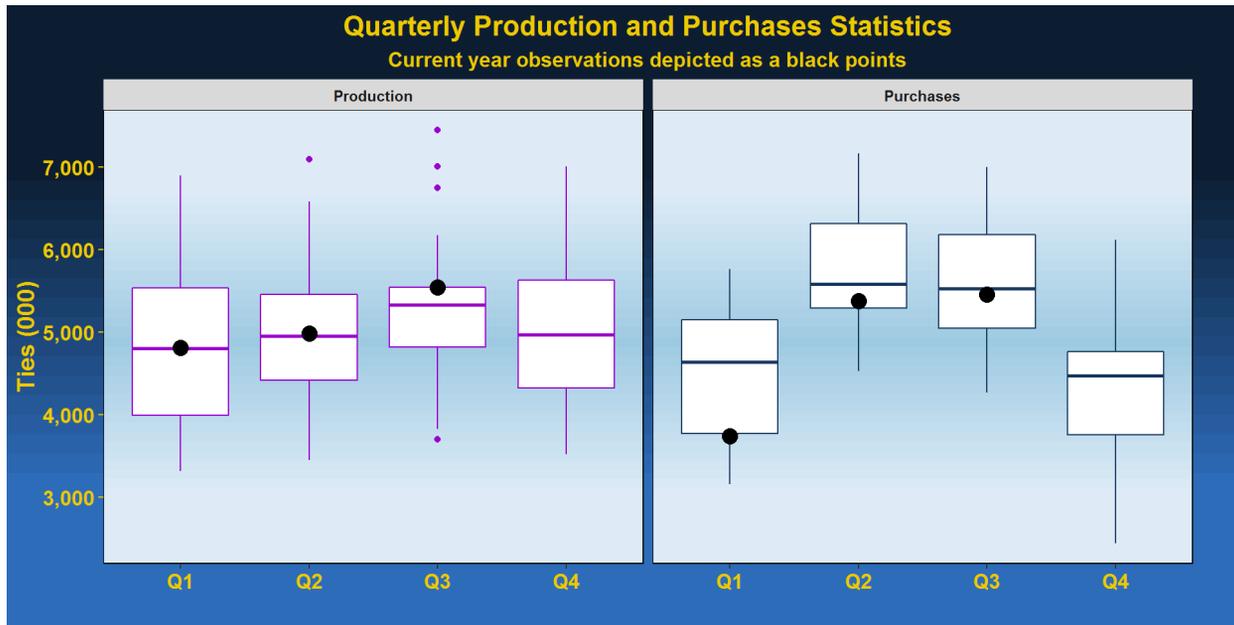
Table of Quarterly Observations

Production and Purchases Quarterly Sum, Inventory and ISR - 3MMA

Date	Production	Purchases	Inventory	ISR
September 2019	5,117	5,112	12,819	0.64
June 2020	4,986	5,377	14,913	0.86
September 2020	5,546	5,460	14,999	0.83



Quarterly pattern of production and purchases uses data from January 2000. The top graph shows data analysis within each quarter. It shows the median, upper quartile and lower quartile boundary (a more detailed explanation is available in the Appendix section). It also displays what the production and purchases were in each quarter of reporting year represented by black points in relation to quarterly statistical values. The second graph shows the contribution of each quarter to the total annual production and purchases.



Analysis of Monthly Data

Production increased by 2.2% from last month and advanced by 10.3% from year ago.

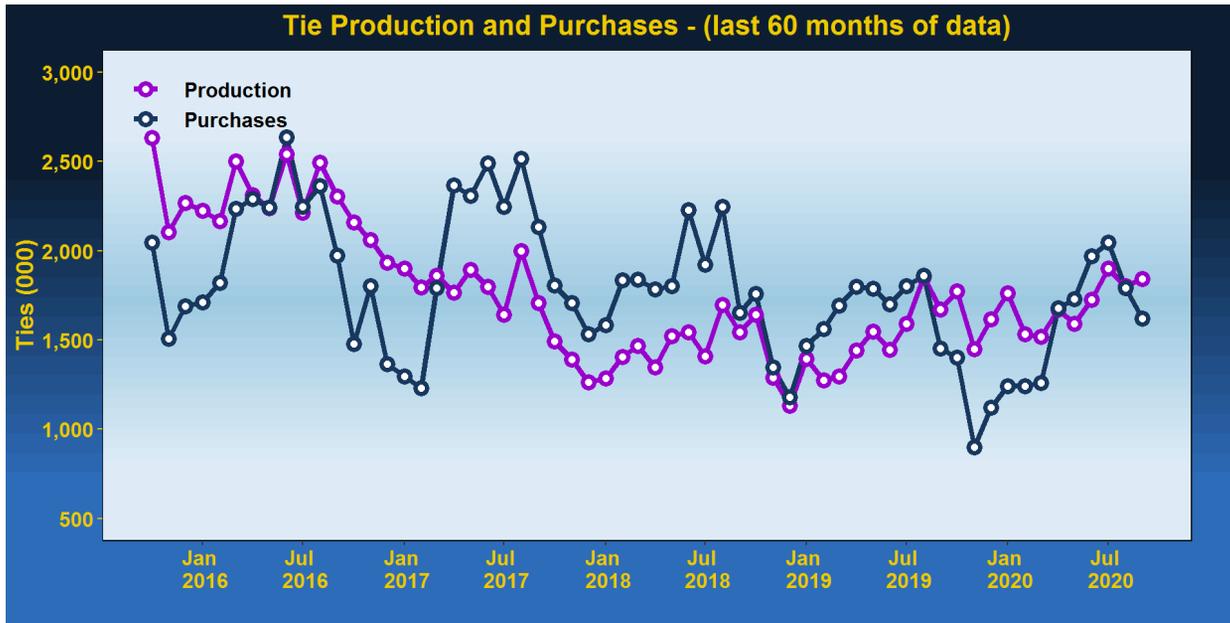
For the same time intervals, purchases dropped by 9.6% and expanded by 11.7% respectively.

Inventory levels rose by 1.5% from last month and expanded by 17% from year ago levels.

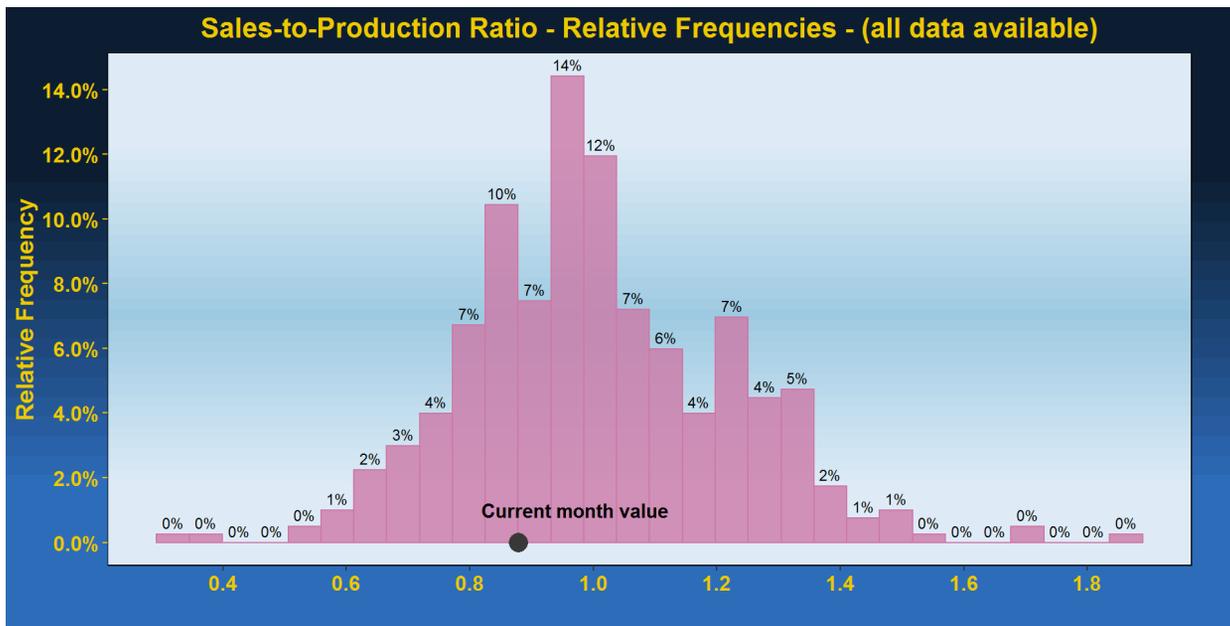
The Inventory-to-Sales Ratio remained flat at 0.83 from month ago, and from year ago, the ratio expanded from 0.66.

Table of Monthly Observations

Date	Production	Purchases	Inventory	ISR
September 2019	1,671	1,451	12,819	0.66
August 2020	1,803	1,793	14,776	0.83
September 2020	1,844	1,620	14,999	0.83

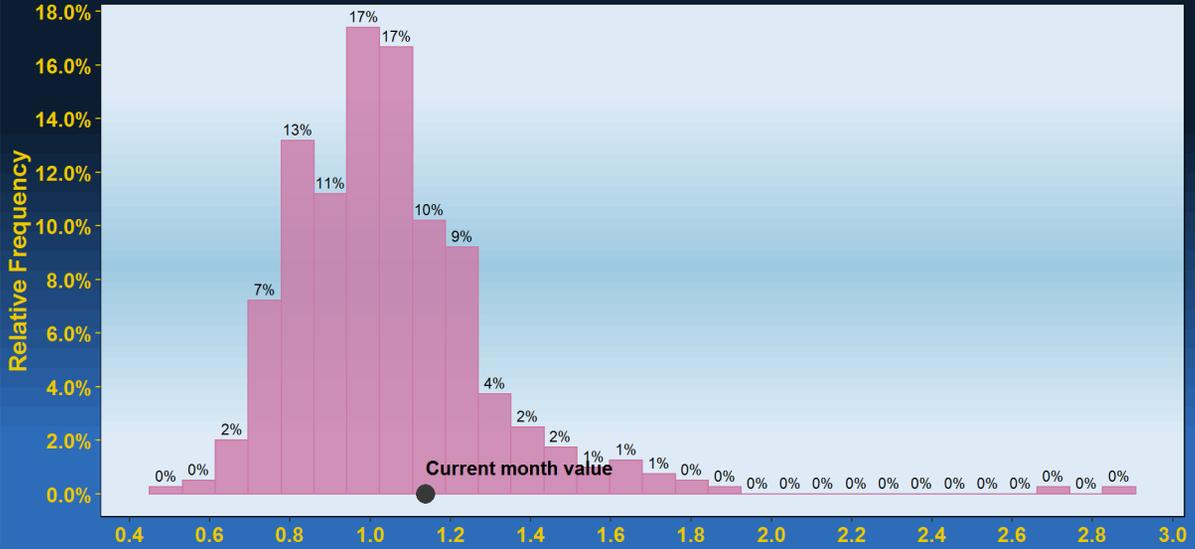


Sales-to-Production Ratio shows the replenishment/diminishment of inventory. Ratio above one signals diminishment and ratio below one replenishment of inventory stock.



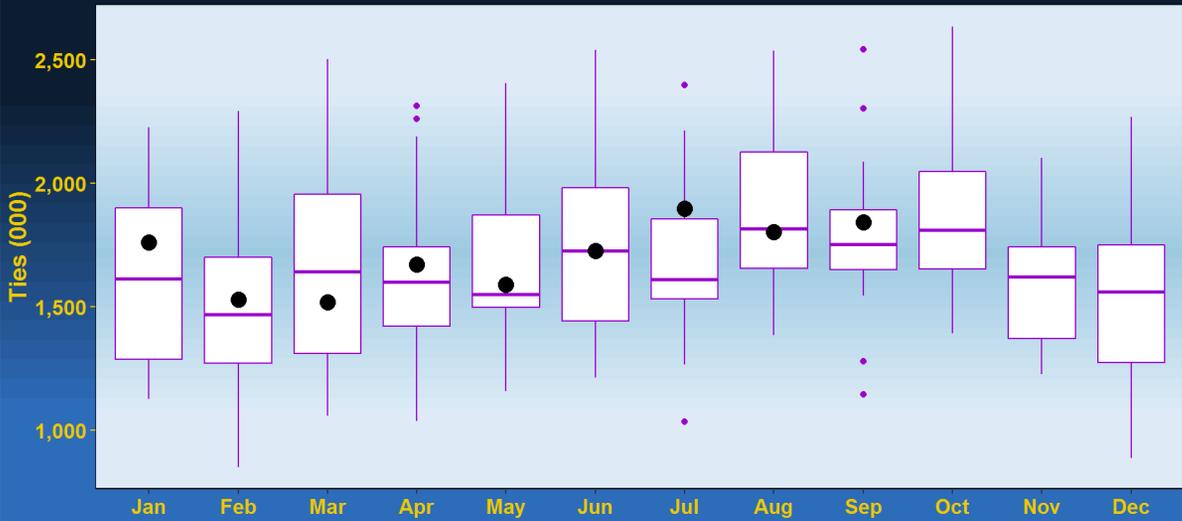
The following graph tells the same story as the graph above, just the ratio is reversed - Production-to-Sales Ratio.

Production-to-Sales Ratio - Relative Frequencies - (all data available)



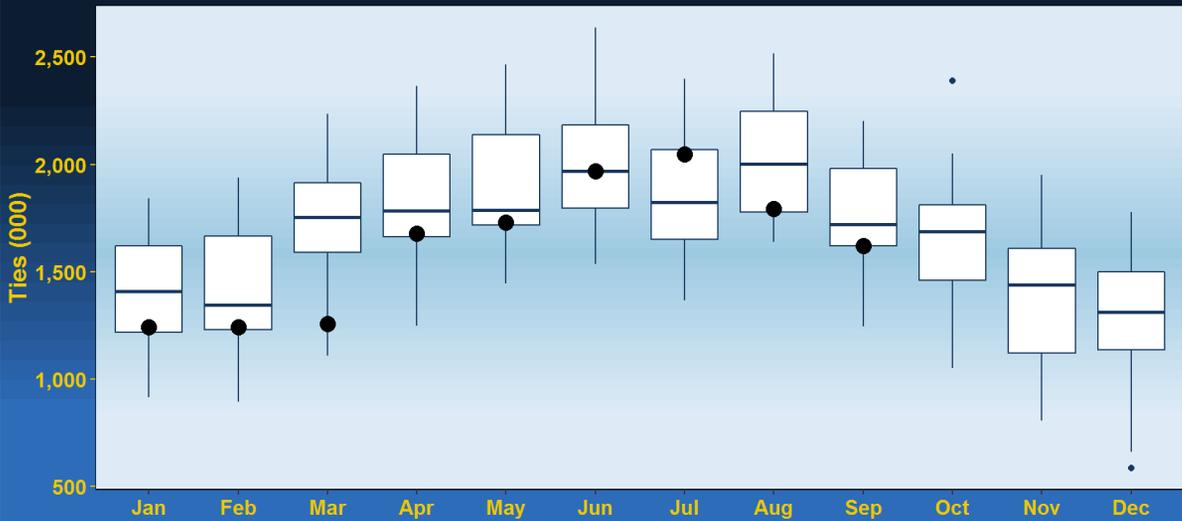
Monthly Production Statistics - (data since 2000)

Current year observations depicted as a black points



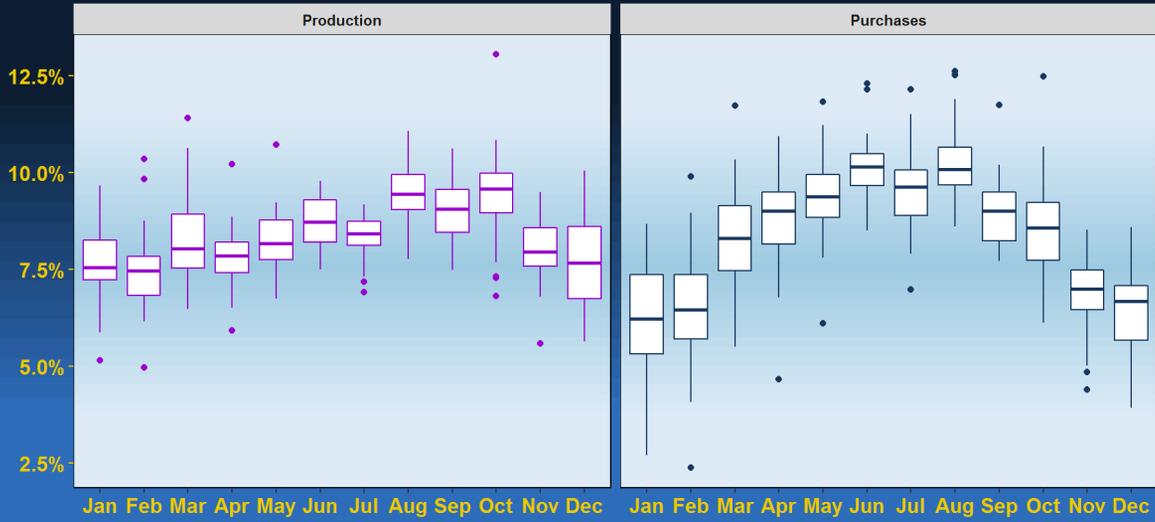
Monthly Purchases Statistics - (data since 2000)

Current year observations depicted as a black points

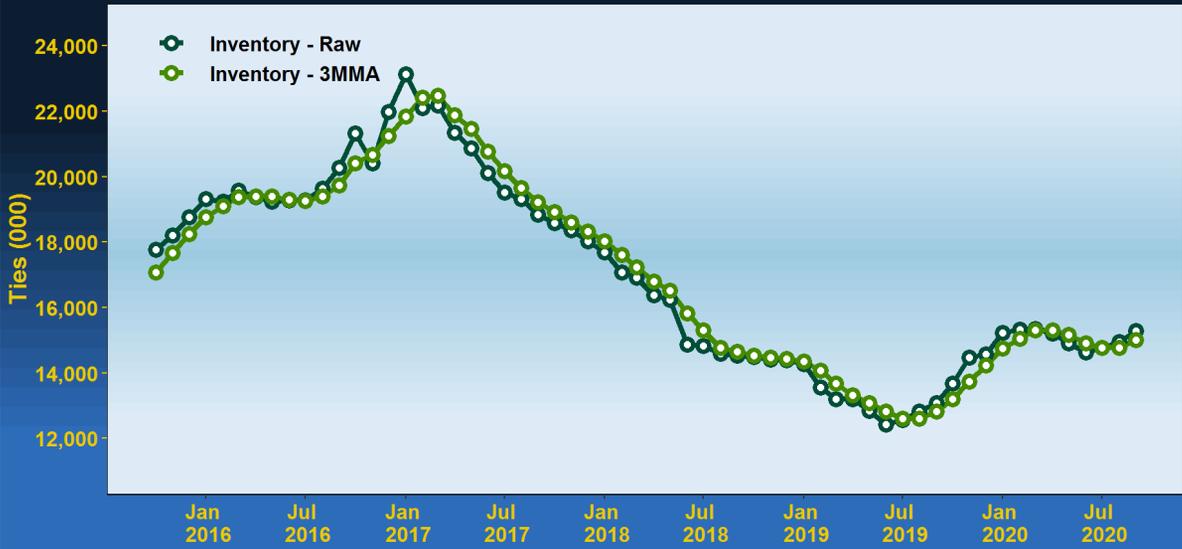


Monthly Pattern of Production and Purchases Statistics - Percent of Annual Total

Data since January 1988

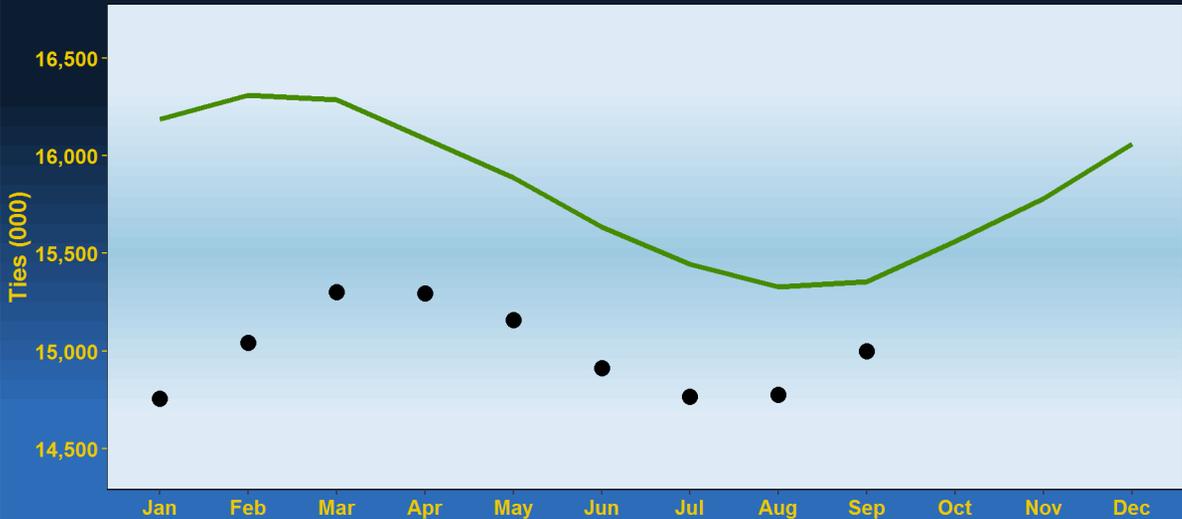


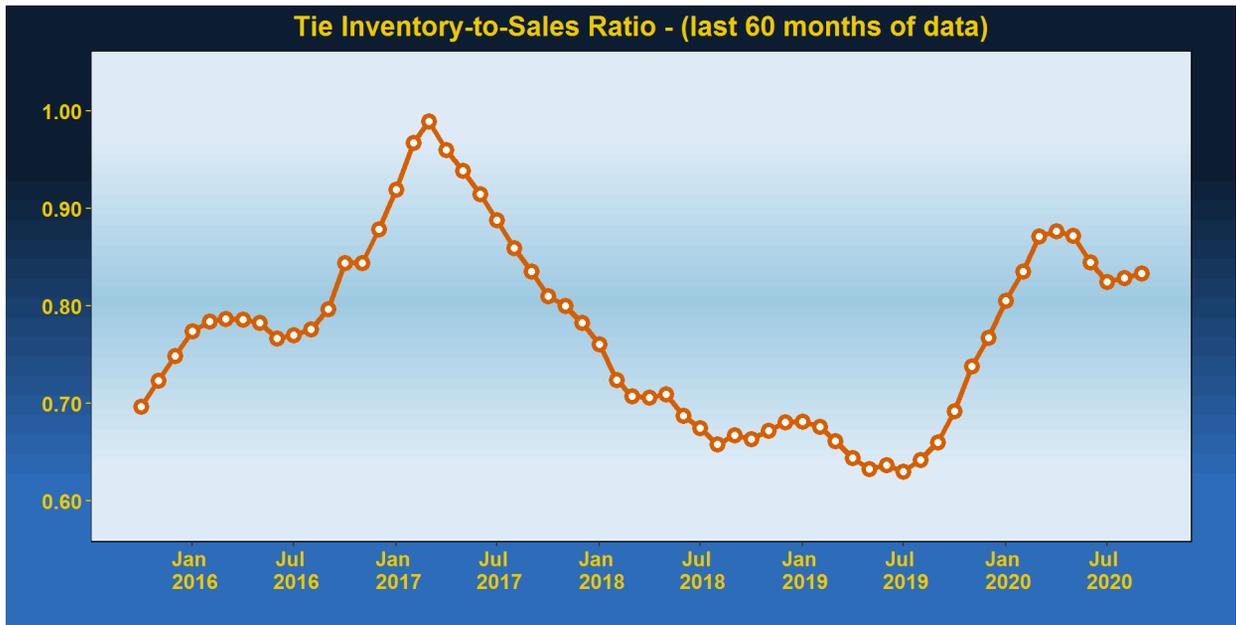
Tie Inventory - Raw Monthly and 3MMA Data - (last 60 months of data)



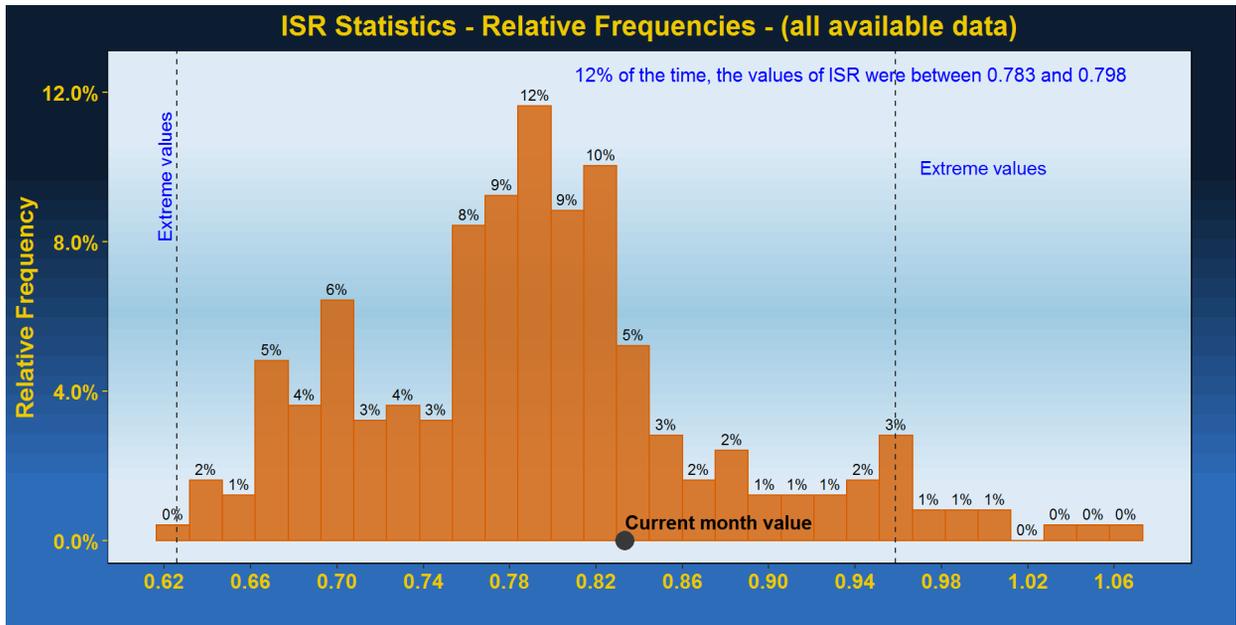
Monthly Patterns of Inventory - (data since 2000)

Monthly average depicted with solid green line, current year observations depicted as a black points



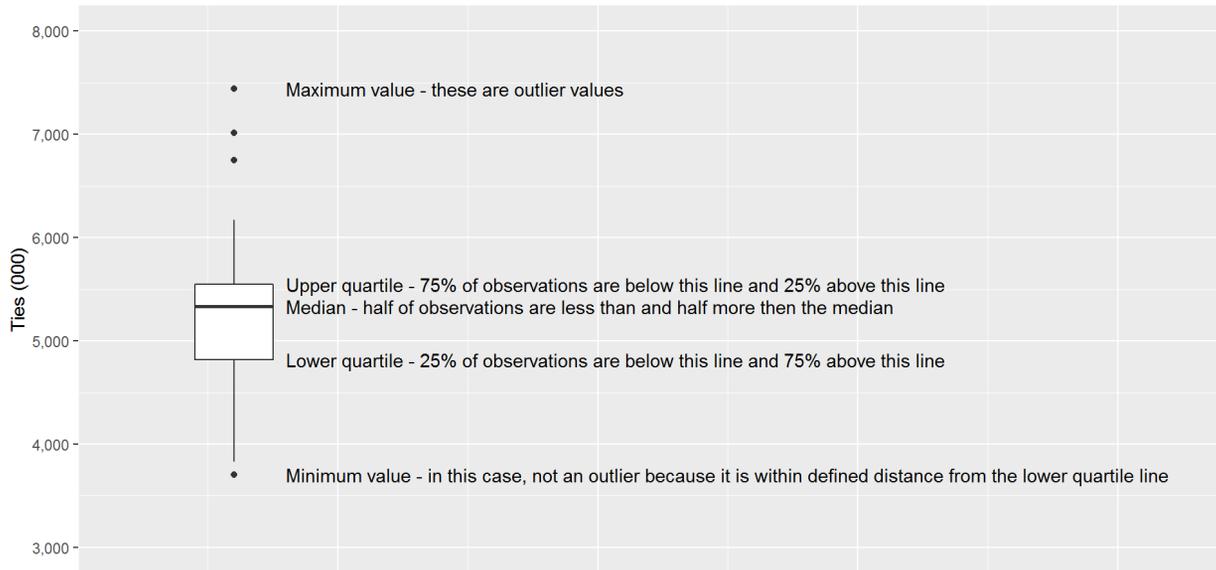


Inventory-to-Sales Ratio (ISR) histogram of relative frequencies shows the monthly ISR data distribution and the black point represents the value for the current reporting month.



Appendix

Box Plot Explained



Histogram of Relative Frequencies Explained

