



Purchases Report

March 2022

Table of Contents

Highlights

Long-Term Trends

Analysis of Quarterly Data

Analysis of Monthly Data

Appendix

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.

Copyright: Railway Tie Association, 2022.

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

The 12-month moving average of purchases' growth rate improved further in March compared to last month and continued its upward trend. Production, however, continued in its declining trend. Quarterly statistics showed production below its seasonal norm, near the first quartile, while purchases were at their seasonal median. This resulted in a further decrease of the Inventory-to-Sales ratio.

Long-Term Trends

Production decreased at a 13.9% annual rate.

Purchases grew at a 6.6% annual rate.

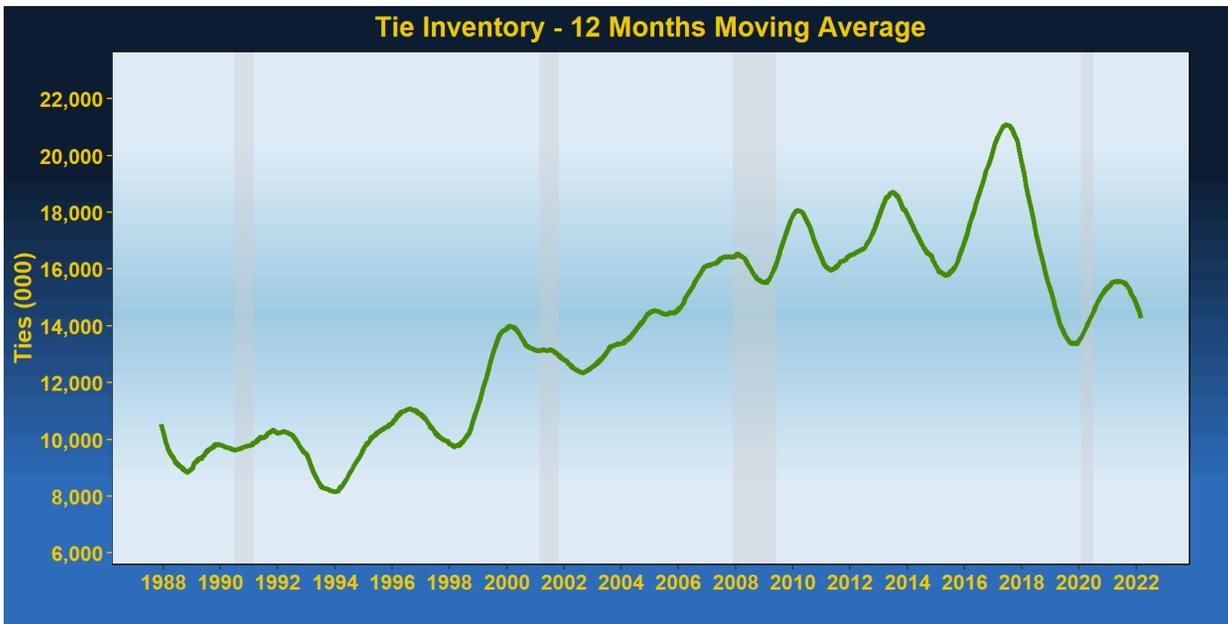
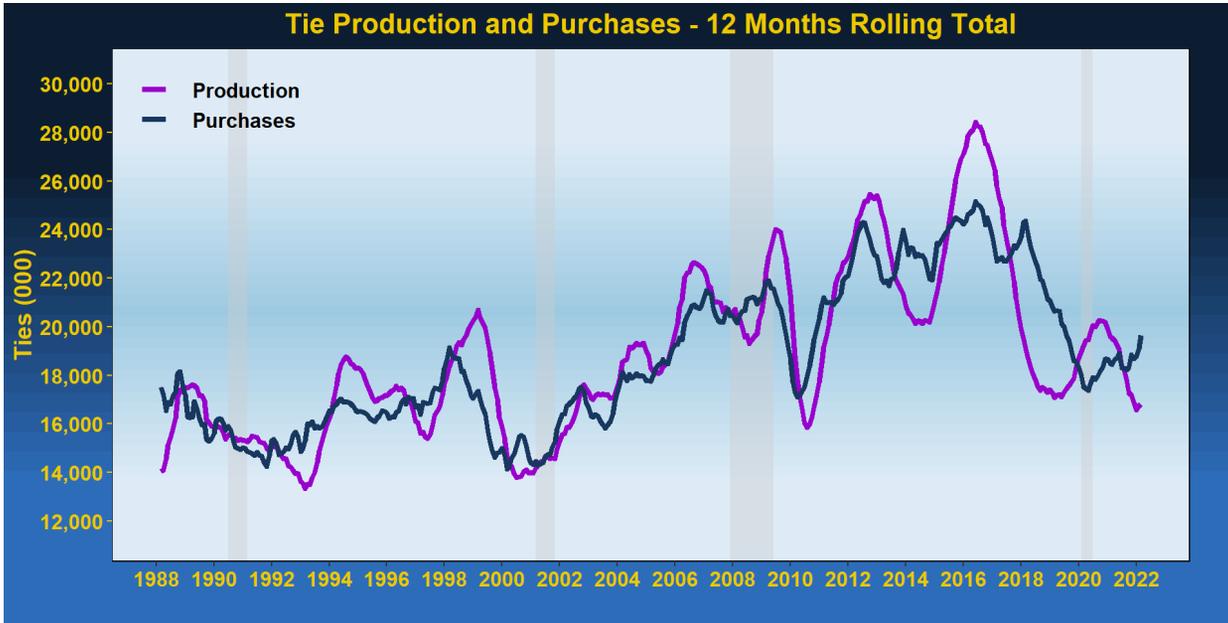
Inventory's 12 month moving average (12MMA) dropped by 8.1% from a year ago levels.

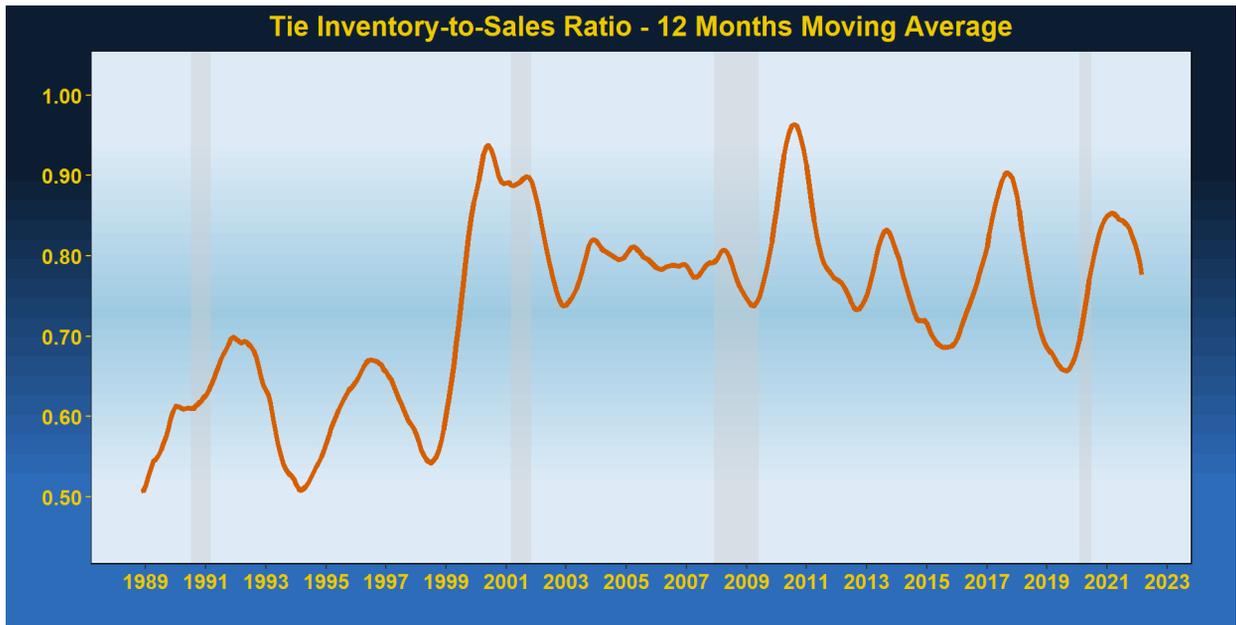
Inventory-to-Sales Ratio's 12MMA came down from 0.85 to 0.78.

Table of Annual Observations

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

Date	Production	Purchases	Inventory	ISR
March 2021	19,527	18,437	15,515	0.85
March 2022	16,804	19,655	14,263	0.78





Analysis of Quarterly Data

Production in Q1 grew by 3.8% from last quarter and dropped by 1.3% from a year ago.

For the same intervals, purchases dwindled by 1.6% and increased by 27.4% respectively.

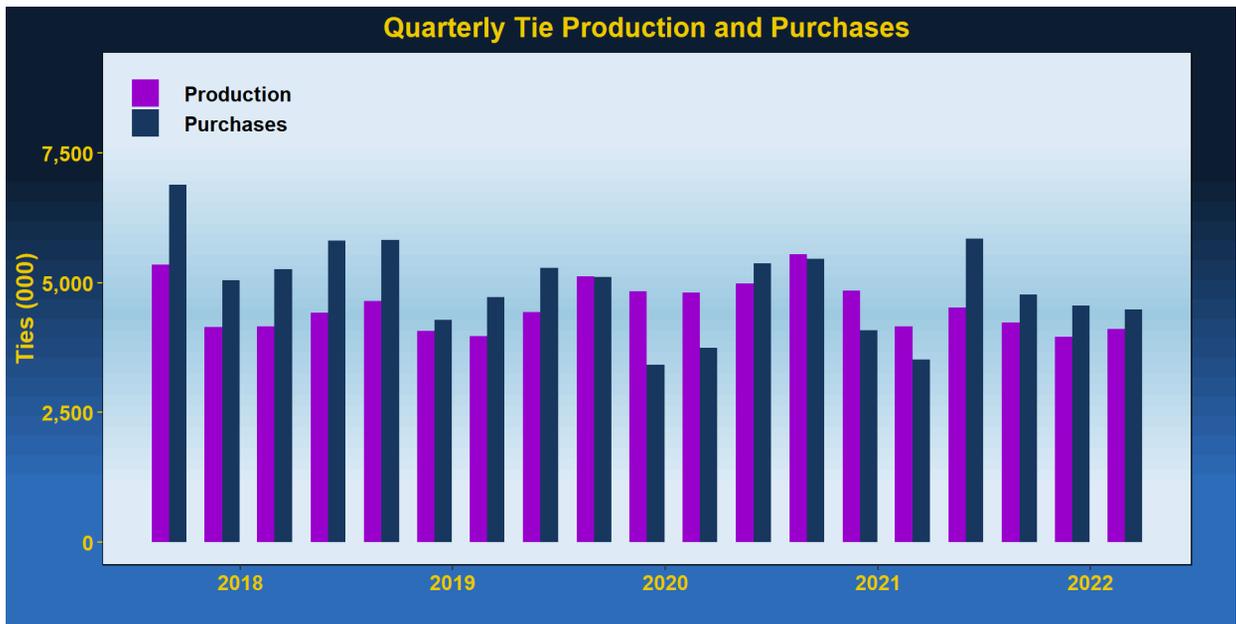
Inventory's 3MMA declined by 2.7% from last quarter and dwindled by 17.4% from a year ago levels.

From Q4 2021 to Q1 2022, the 3MMA of Inventory-to-Sales Ratio decreased from 0.76 to 0.71. One year ago, the ratio was 0.87.

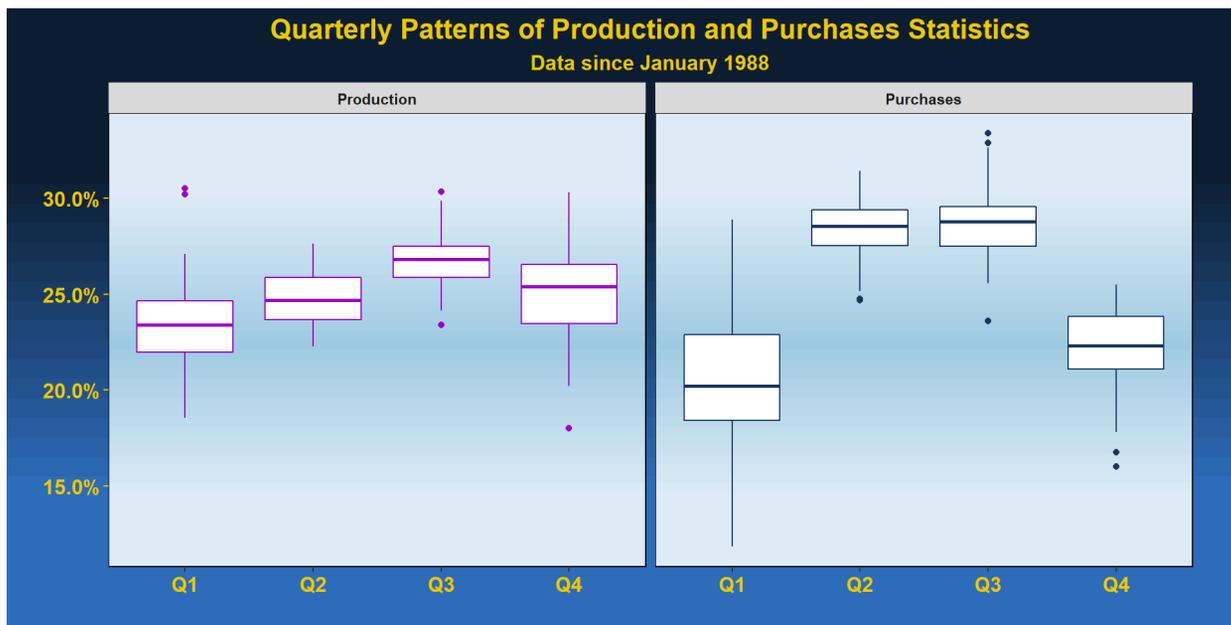
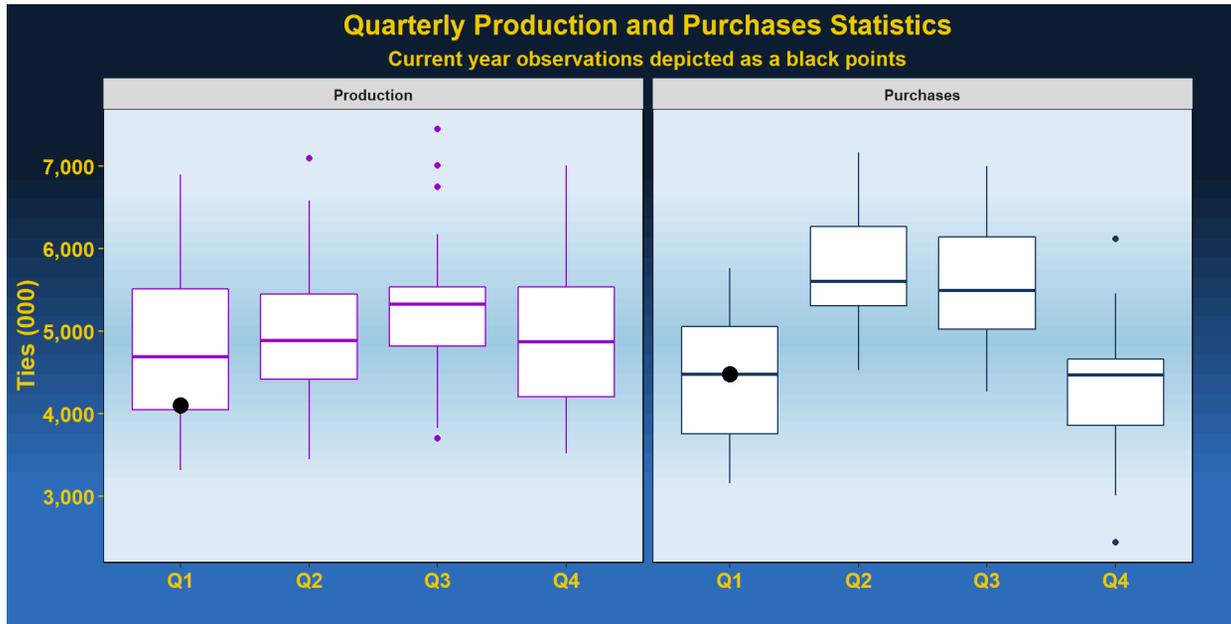
Table of Quarterly Observations

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

Date	Production	Purchases	Inventory	ISR
March 2021	4,154	3,517	16,393	0.87
December 2021	3,952	4,552	13,921	0.76
March 2022	4,102	4,480	13,543	0.71



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 rose by 15.6% from last month and rose by 5.5% from a year ago.

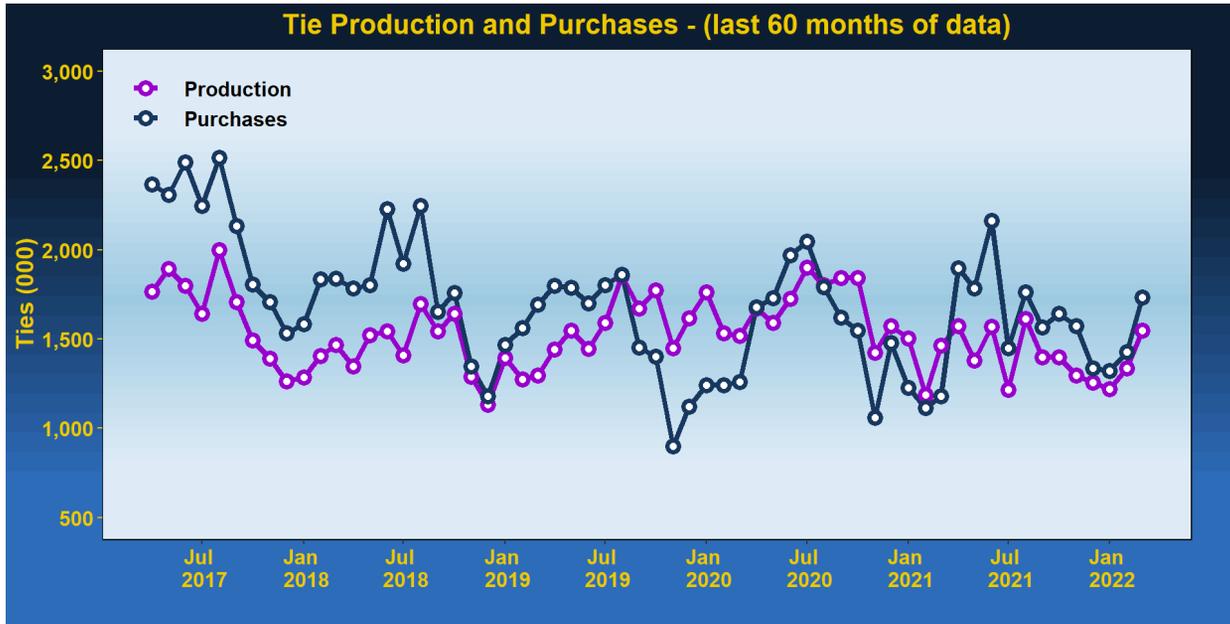
For the same time intervals, purchases advanced by 21.4% and grew by 47% respectively.

Inventory levels dwindled by 1.4% from last month and fell by 17.4% from a year ago levels.

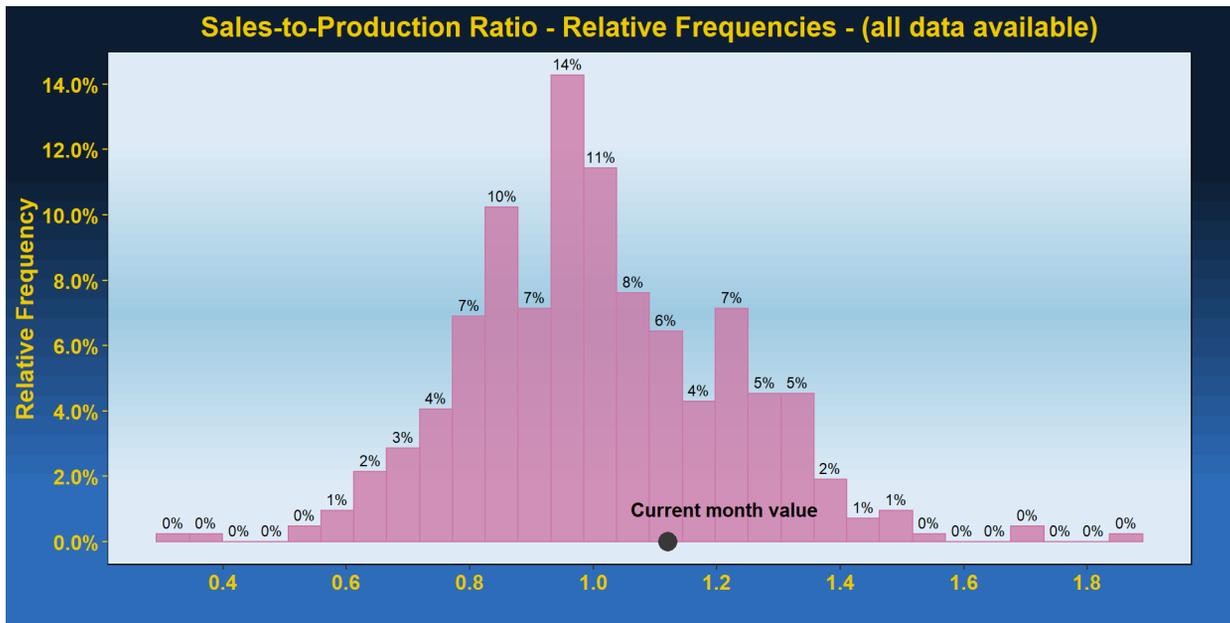
From month ago, the Inventory-to-Sales Ratio dropped from 0.72 to 0.69, and from year ago, the ratio declined from 0.89.

Table of Monthly Observations

Date	Production	Purchases	Inventory	ISR
March 2021	1,465	1,179	16,393	0.89
February 2022	1,337	1,427	13,730	0.72
March 2022	1,545	1,733	13,543	0.69

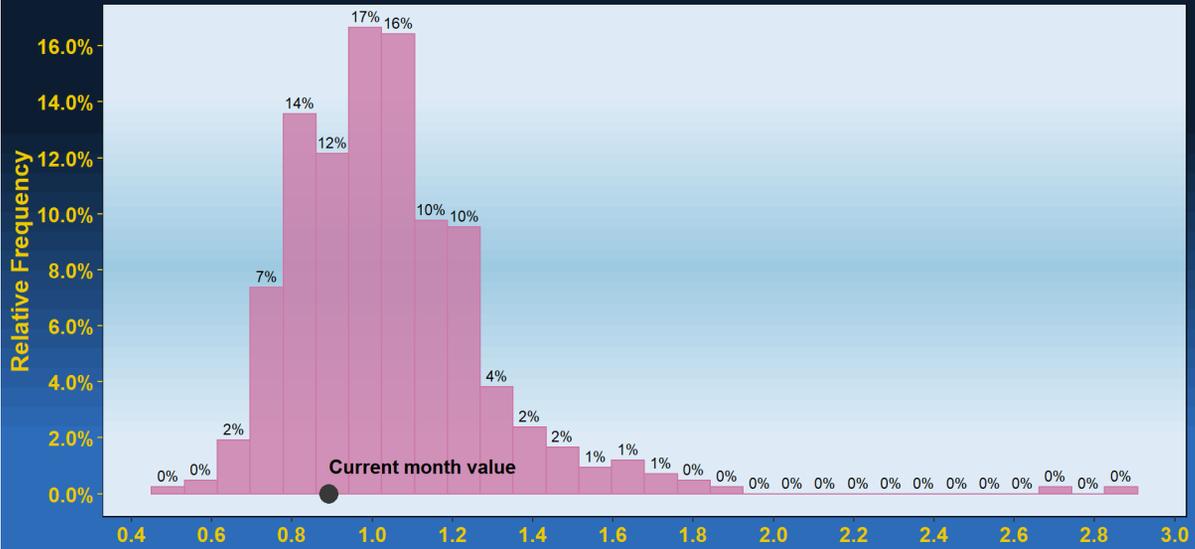


Sales-to-Production Ratio shows the replenishment/diminishment of inventory. Ratio above one signals diminishment and ratio below one replenishment of inventory stock.



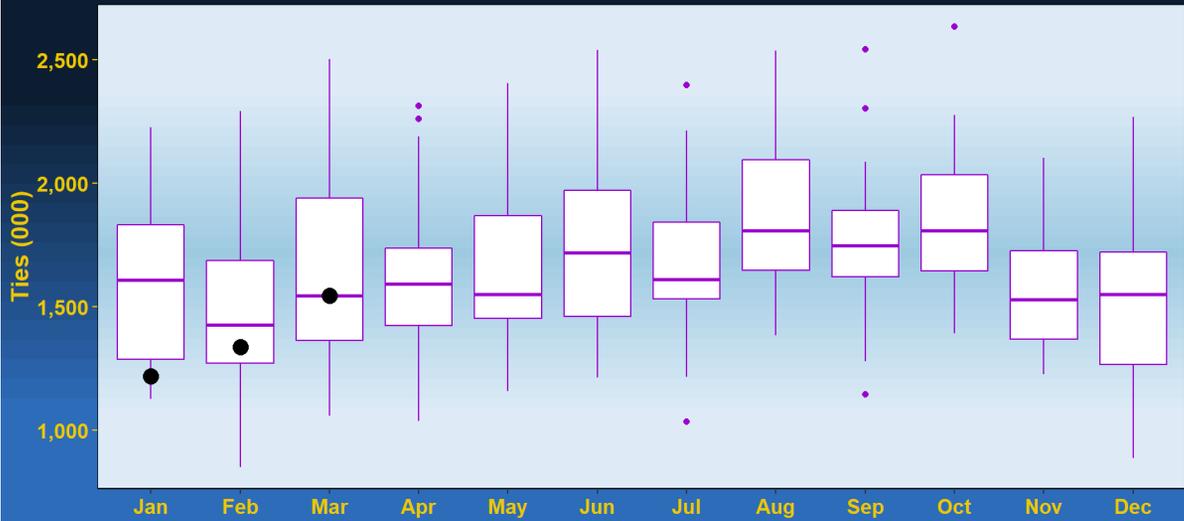
The following graph tells the same story as the graph above, just the ratio is reversed - Production-to-Sales Ratio.

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



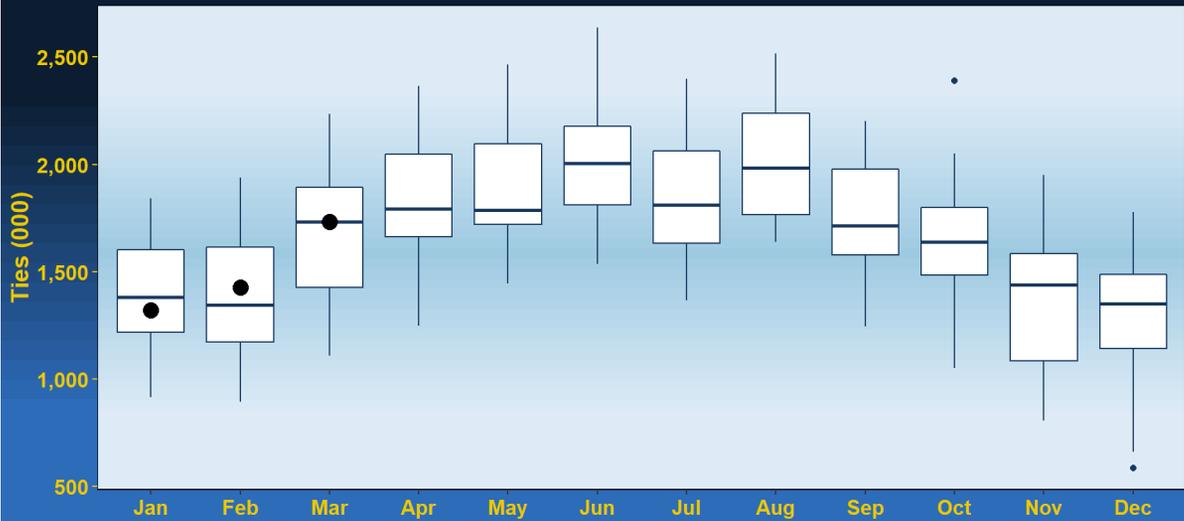
Monthly Production Statistics - (data since 2000)

Current year observations depicted as a black points



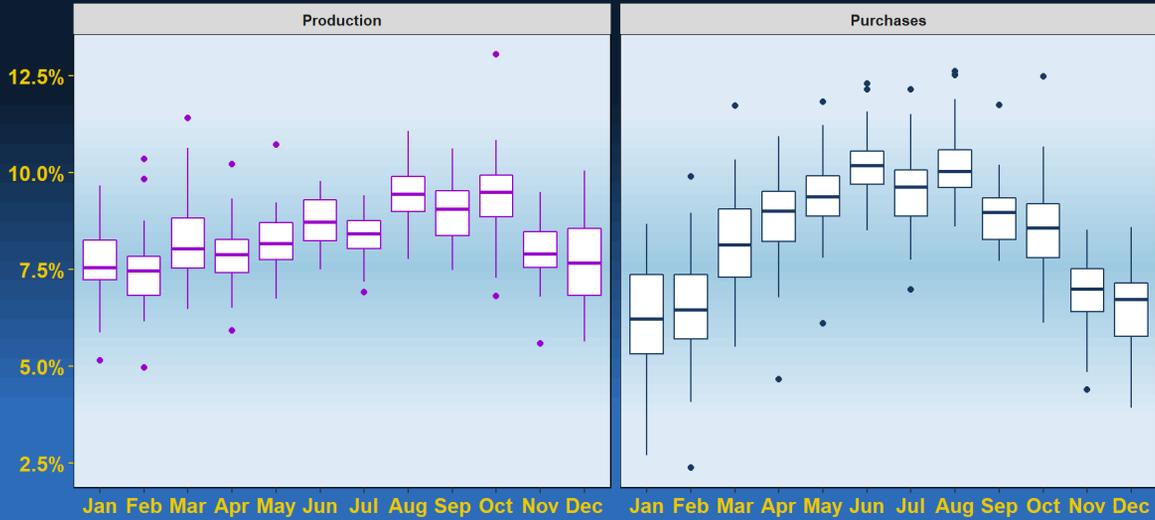
Monthly Purchases Statistics - (data since 2000)

Current year observations depicted as a black points

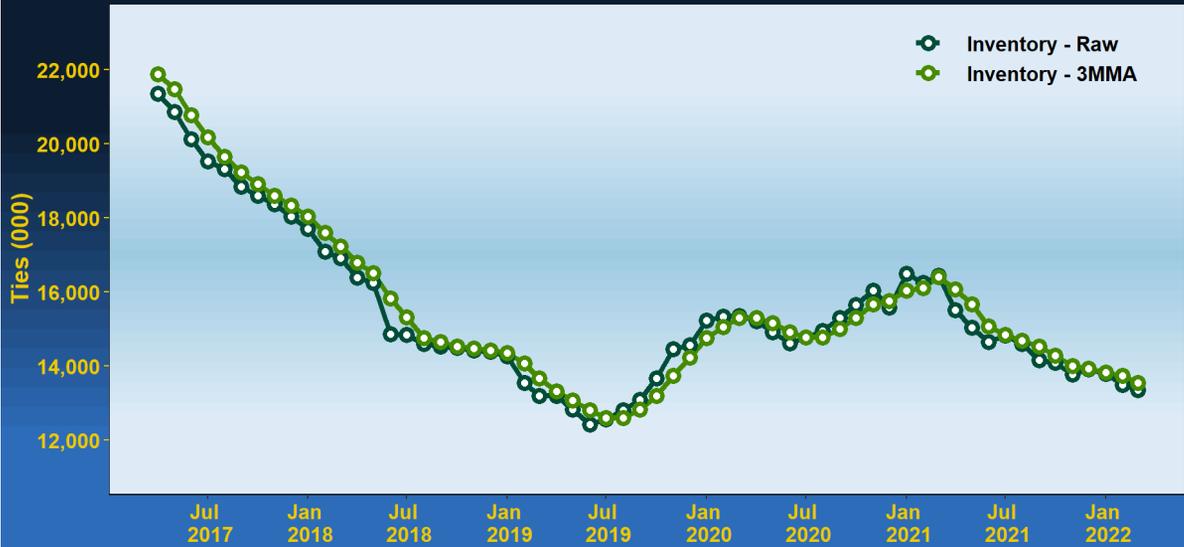


Monthly Pattern of Production and Purchases Statistics - Percent of Annual Total

Data since January 1988

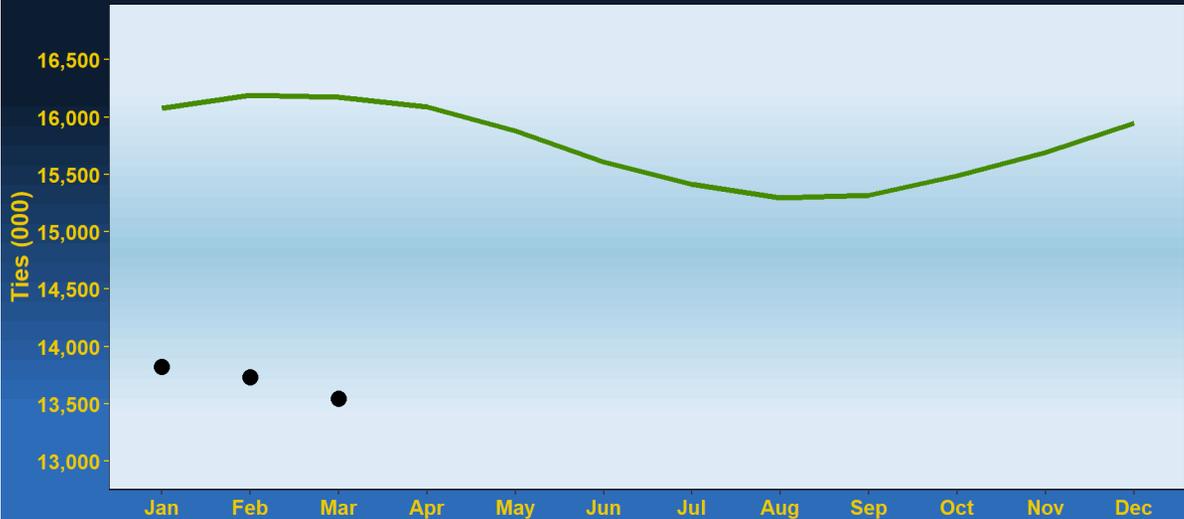


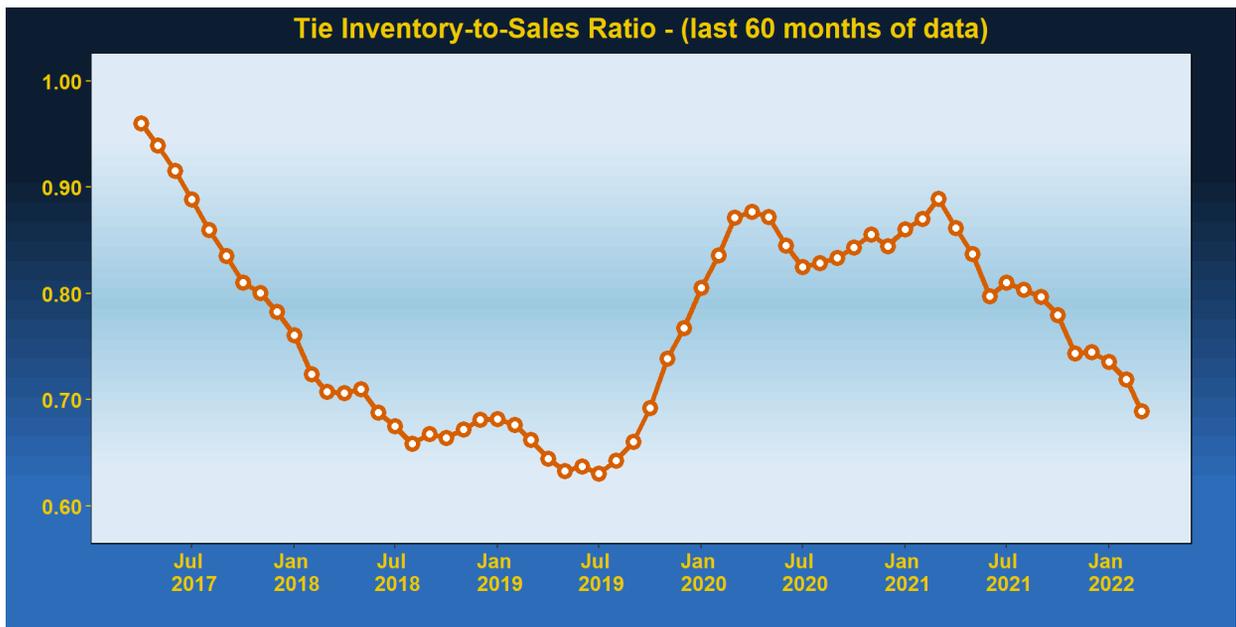
Tie Inventory - Raw Monthly and 3MMA Data - (last 60 months of data)



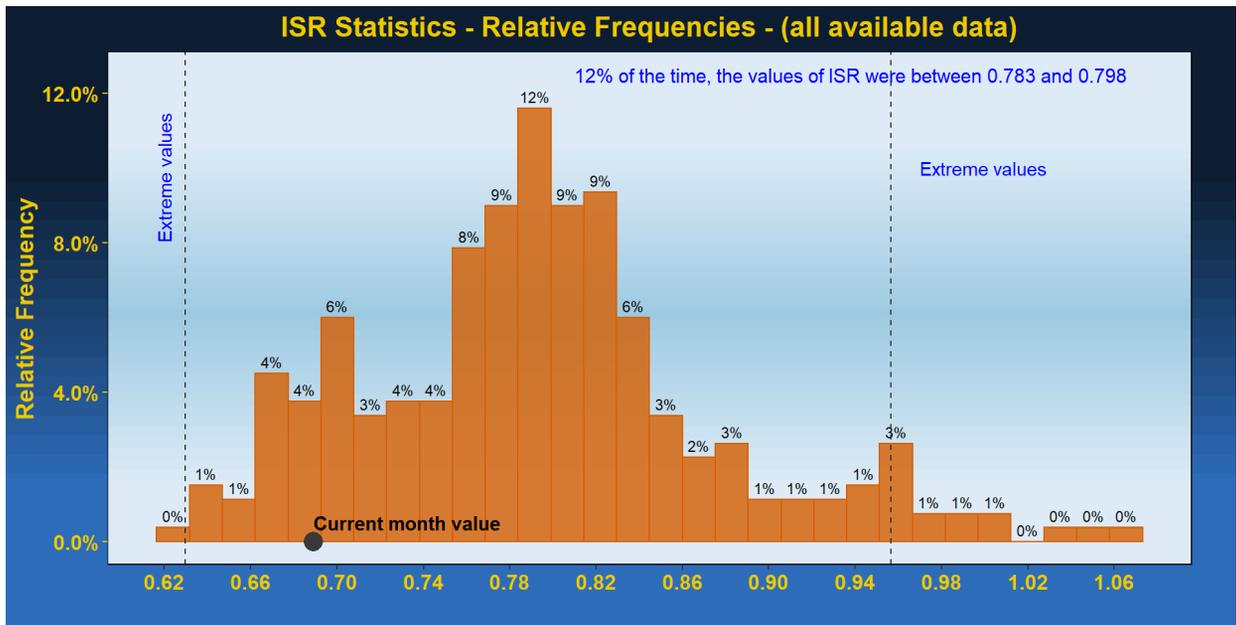
Monthly Patterns of Inventory - (data since 2000)

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





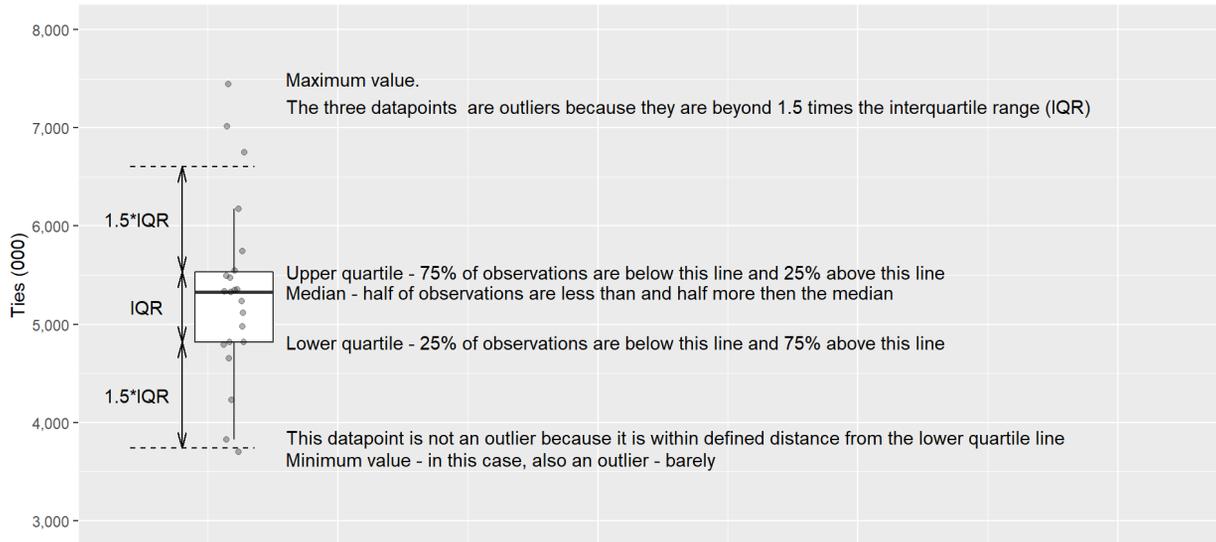
Inventory-to-Sales Ratio (ISR) histogram of relative frequencies shows the monthly ISR data distribution and the black point represents the value for the current reporting month.



Appendix

Box Plot Explained

Underlying data displayed as 'jittered' points



Histogram of Relative Frequencies Explained

