



Purchases Report

November 2022

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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

The twelve months rolling total of production started an upward trend in November. For the same month, the twelve months rolling total of purchases started a downward trend. Analysis of monthly data showed production and purchases were close to their expected seasonal values.

Long-Term Trends

Production expanded at a 2.8% annual rate.

Purchases dwindled at a 1.8% annual rate.

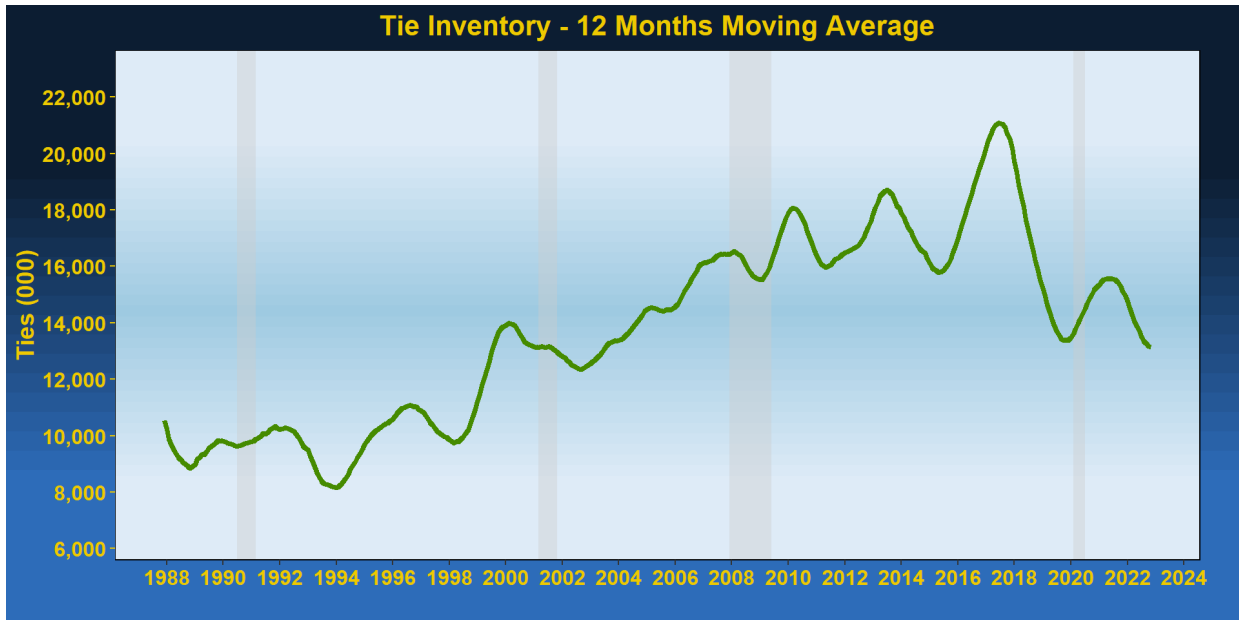
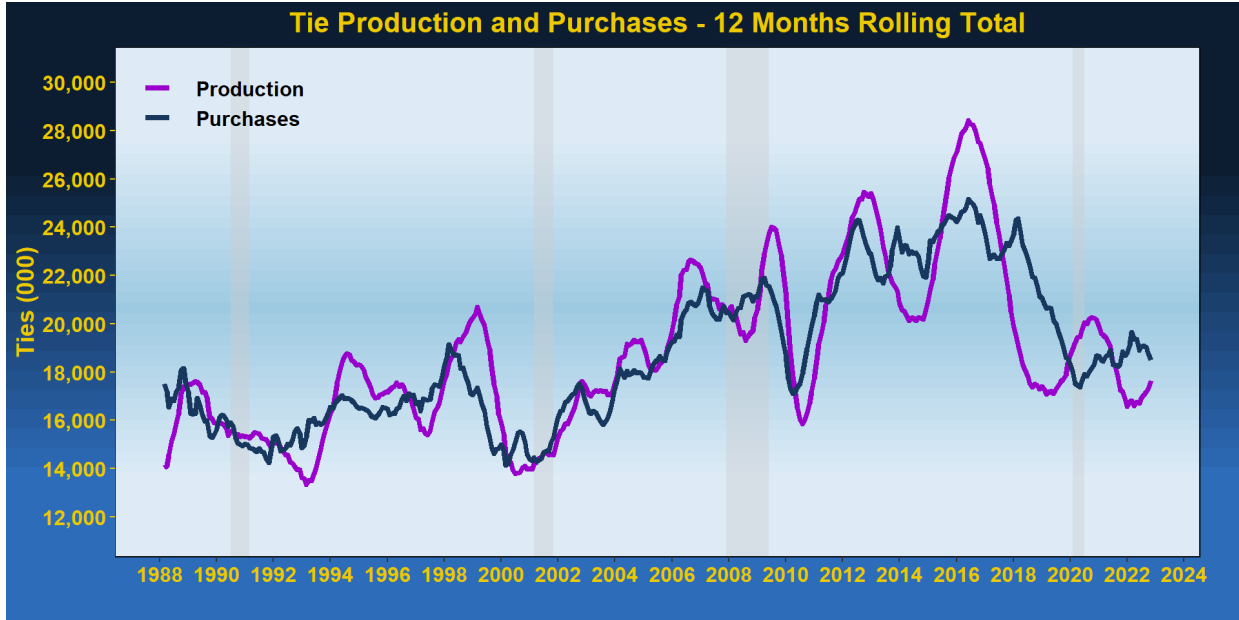
Inventory's 12 month moving average (12MMA) declined by 13% from a year ago levels.

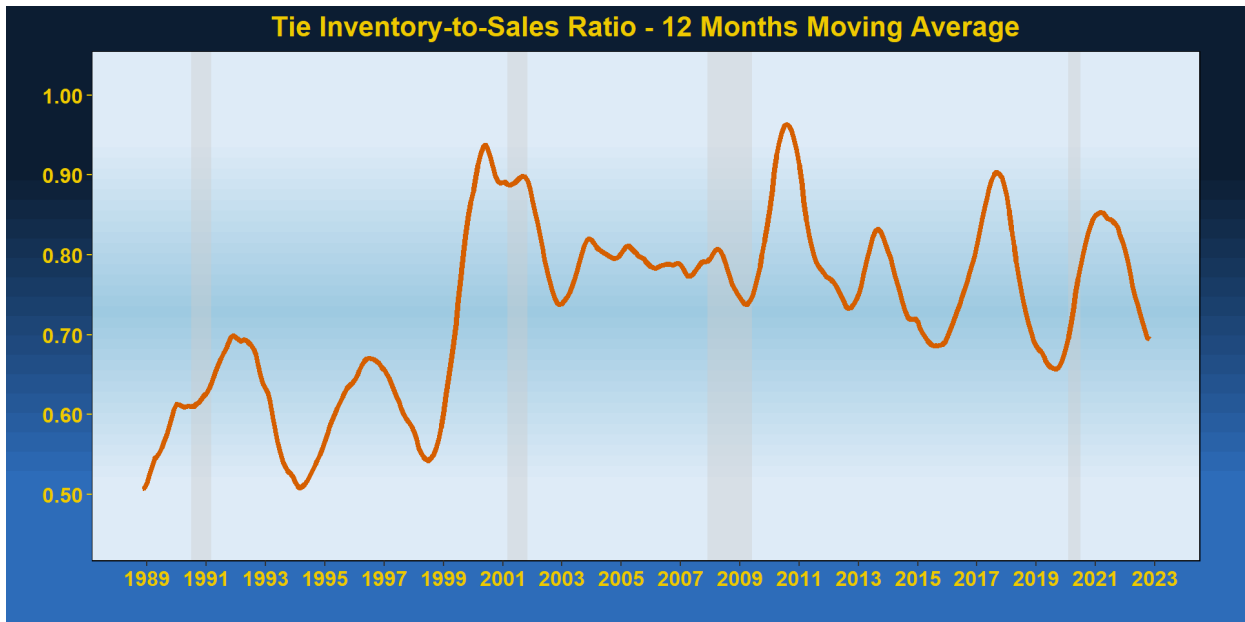
Inventory-to-Sales Ratio's 12MMA fell from 0.82 to 0.69.

Table of Annual Observations

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

Date	Production	Purchases	Inventory	ISR
November 2021	17,175	18,831	15,115	0.82
November 2022	17,652	18,483	13,153	0.69





Analysis of Quarterly Data

Production in Q3 expanded by 6.7% from last quarter and rose by 11.5% from a year ago.

For the same intervals, purchases declined by 4.3% and advanced by 2.1% respectively.

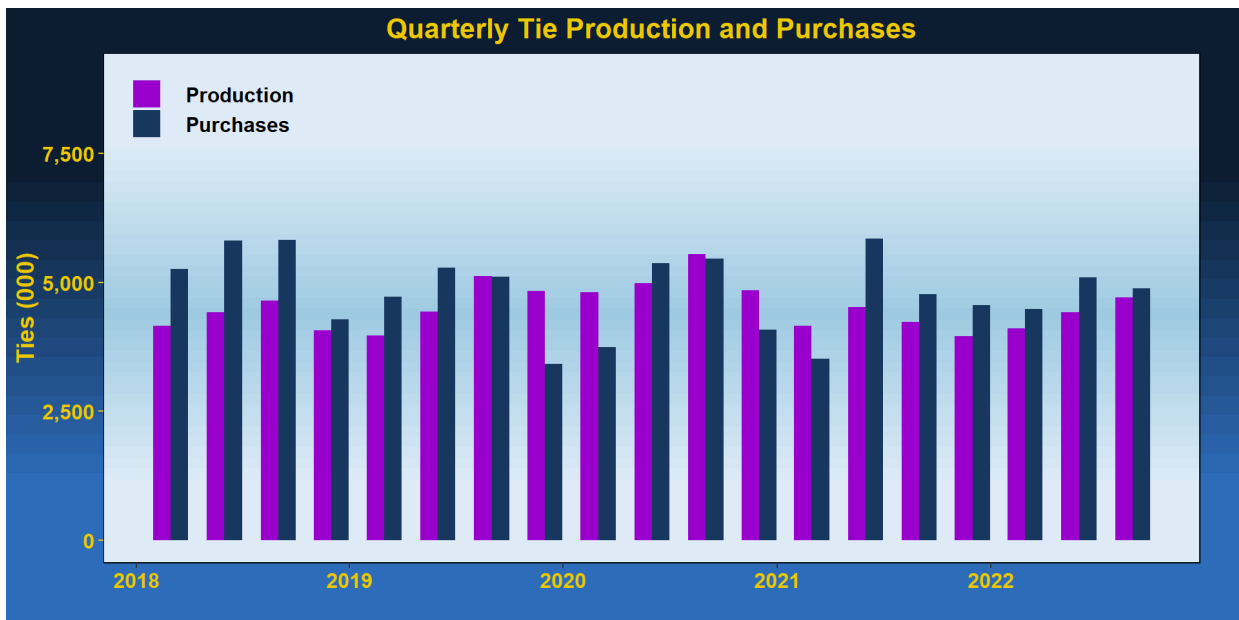
Inventory's 3MMA dwindled by 1.3% from last quarter and fell by 12.5% from a year ago levels.

From Q2 2022 to Q3 2022, the 3MMA of Inventory-to-Sales Ratio dropped from 0.68 to 0.67. One year ago, the ratio was 0.8.

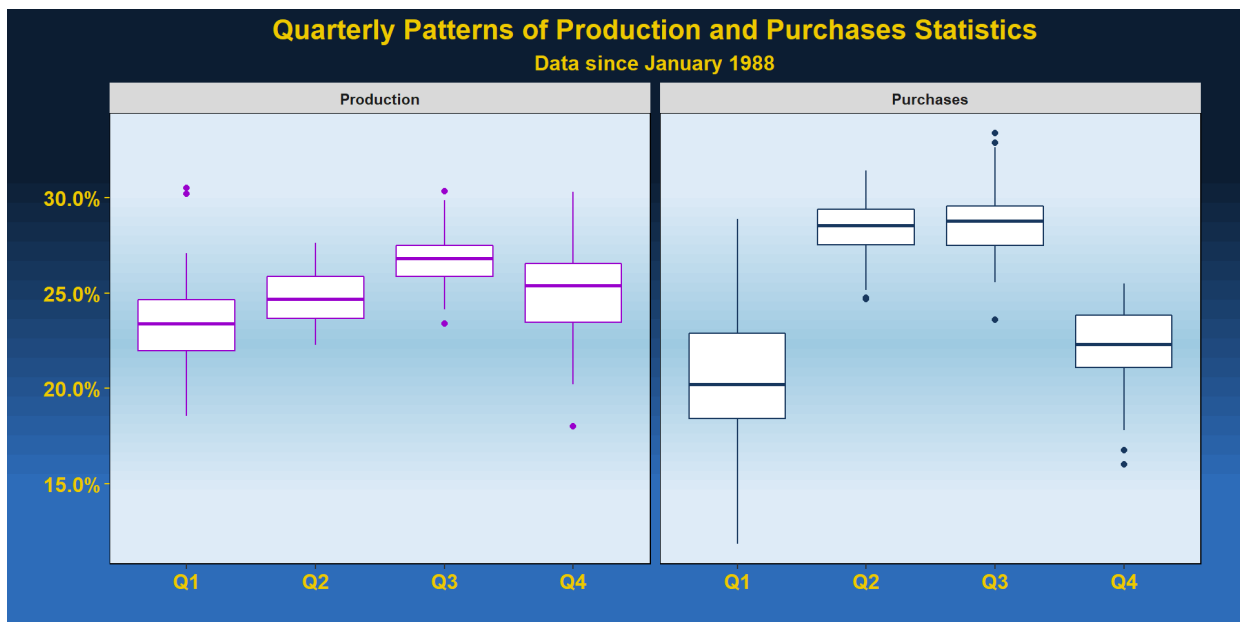
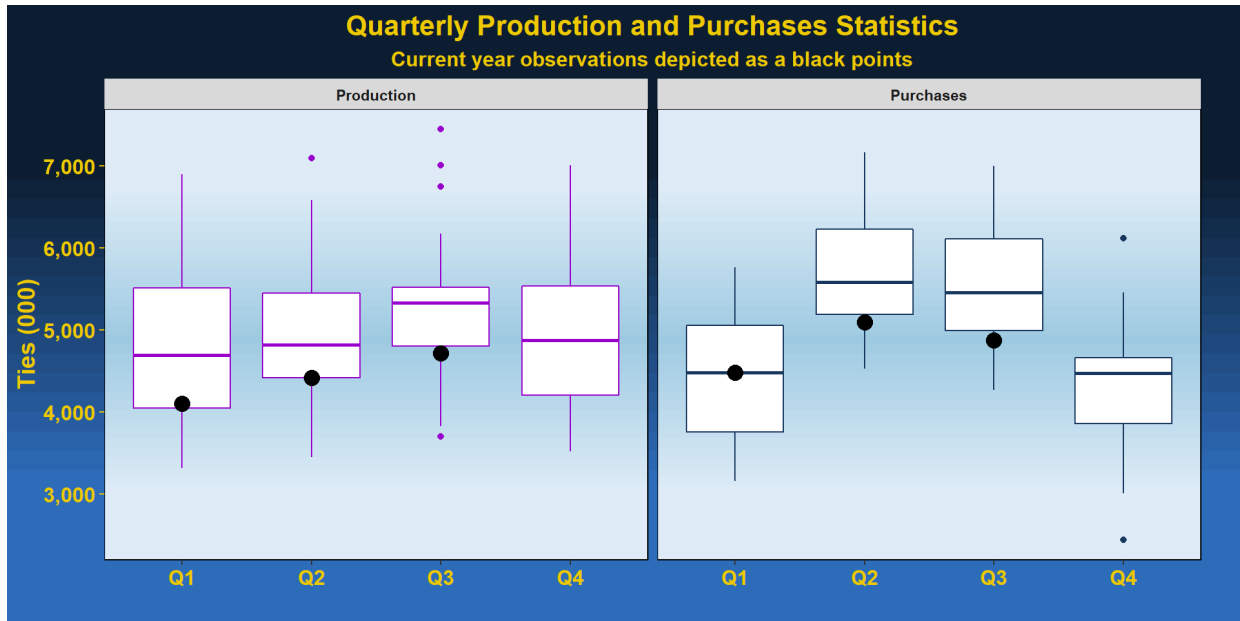
Table of Quarterly Observations

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

Date	Production	Purchases	Inventory	ISR
September 2021	4,229	4,776	14,521	0.80
June 2022	4,417	5,097	12,863	0.68
September 2022	4,713	4,878	12,699	0.67



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 5.6% from last month and rose by 25.3% from a year ago.

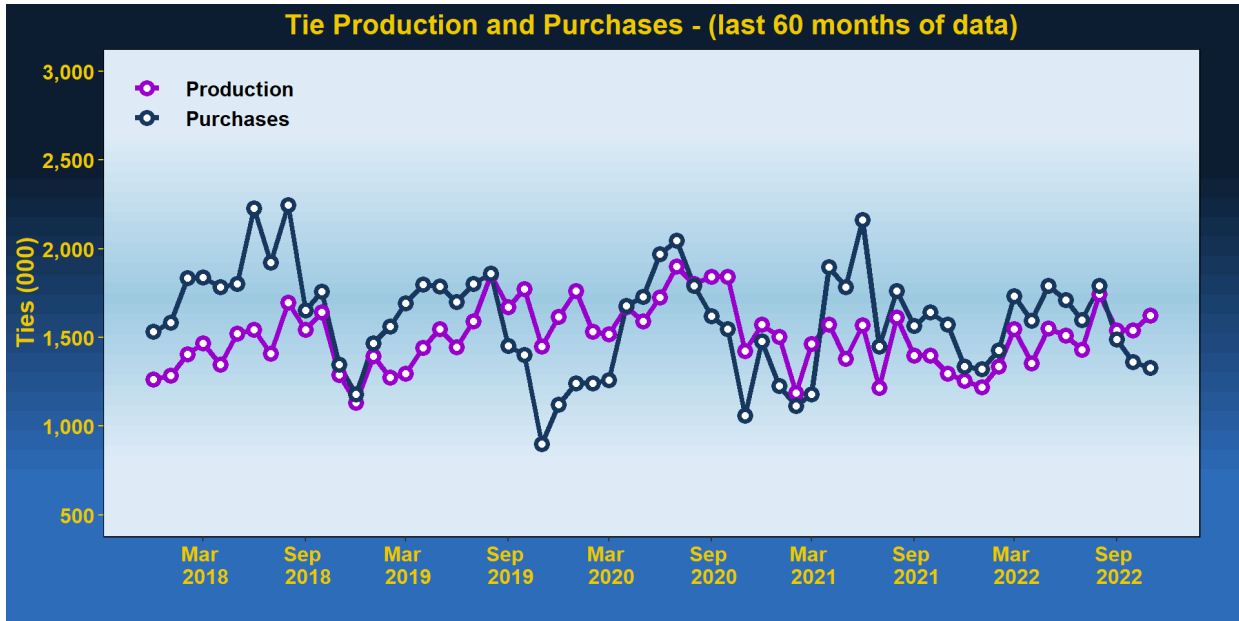
For the same time intervals, purchases dropped by 2.5% and came down by 15.5% respectively.

Inventory levels advanced by 2.3% from last month and came down by 5.9% from a year ago levels.

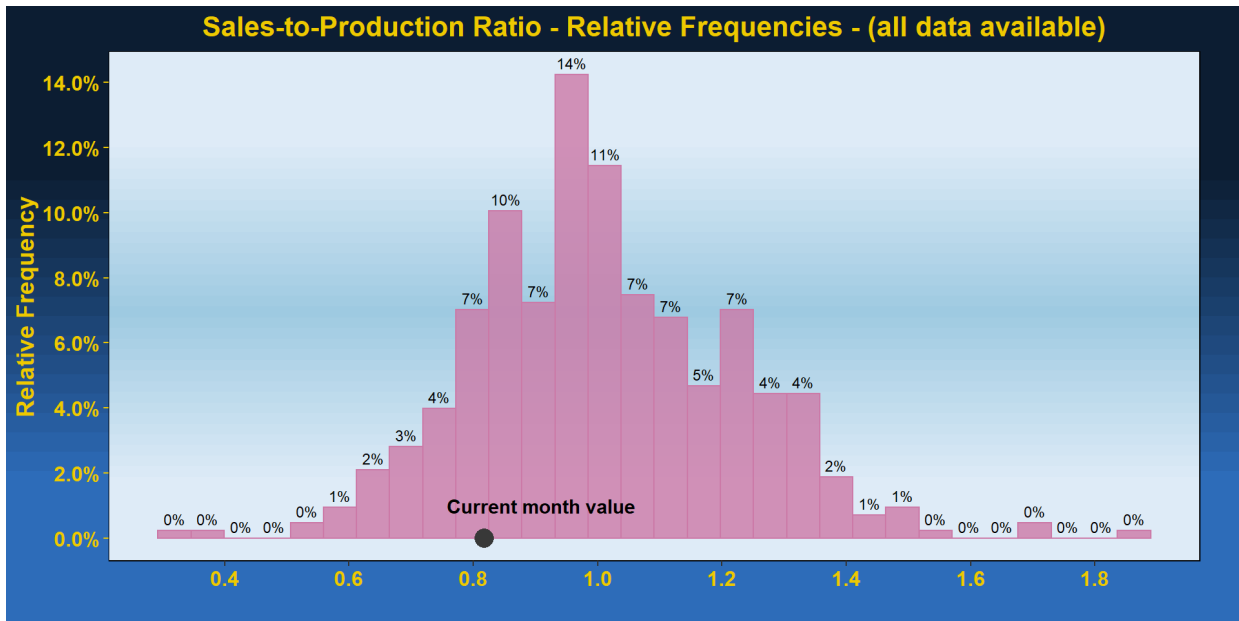
From month ago, the Inventory-to-Sales Ratio increased from 0.69 to 0.71, and from year ago the ratio dropped from 0.74.

Table of Monthly Observations

Date	Production	Purchases	Inventory	ISR
November 2021	1,297	1,572	14,001	0.74
October 2022	1,538	1,363	12,874	0.69
November 2022	1,625	1,329	13,170	0.71

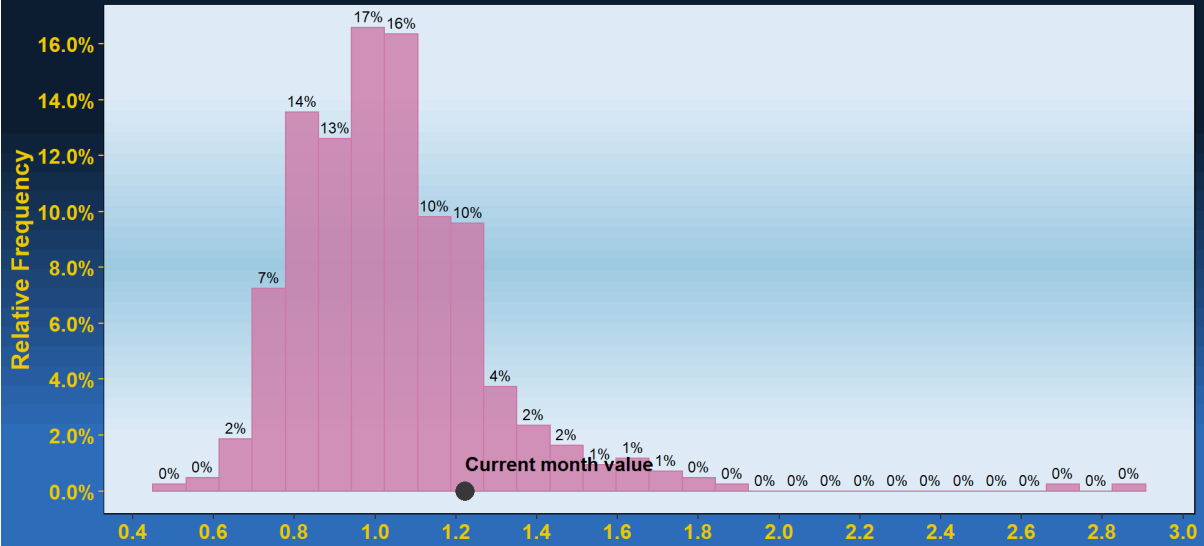


Sales-to-Production Ratio shows the replenishment/diminishment of inventory. Ratio above one signals diminishment and ratio below one replenishment of inventory stock.



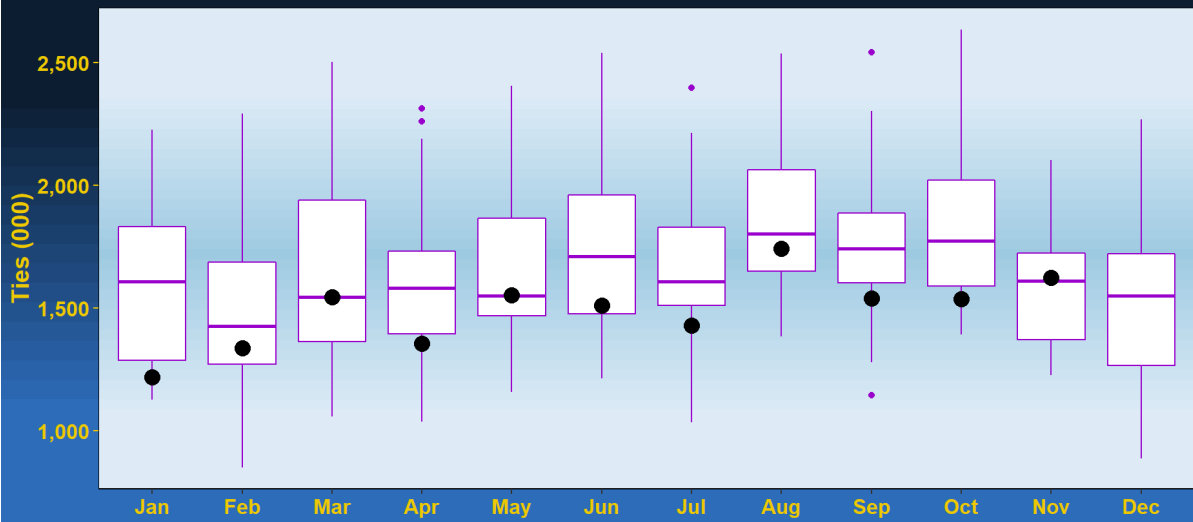
The following graph tells the same story as the graph above, just the ratio is reversed - Production-to-Sales Ratio.

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



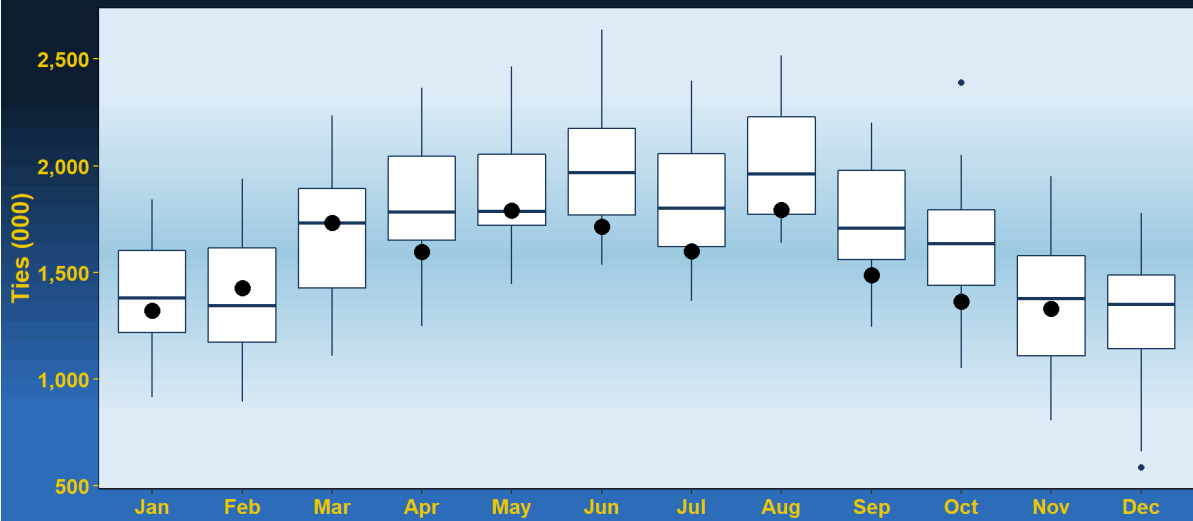
Monthly Production Statistics - (data since 2000)

Current year observations depicted as a black points



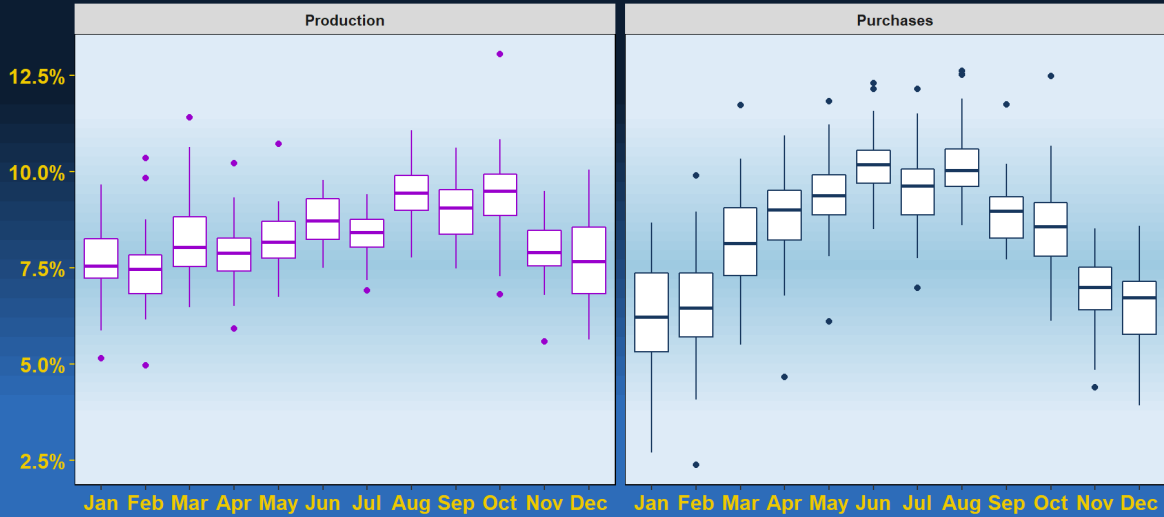
Monthly Purchases Statistics - (data since 2000)

Current year observations depicted as a black points

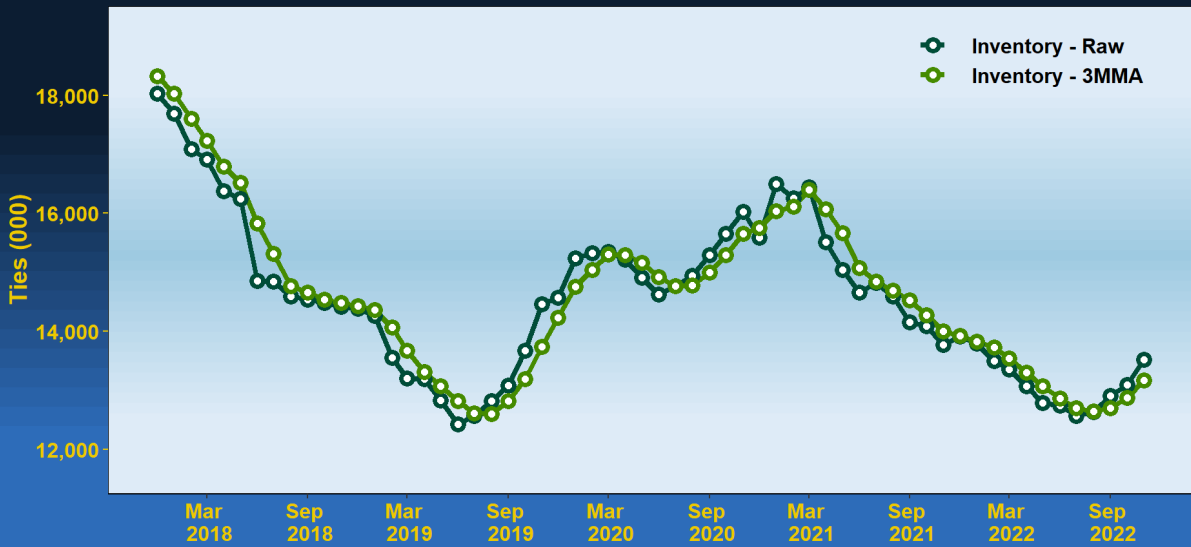


Monthly Pattern of Production and Purchases Statistics - Percent of Annual Total

Data since January 1988

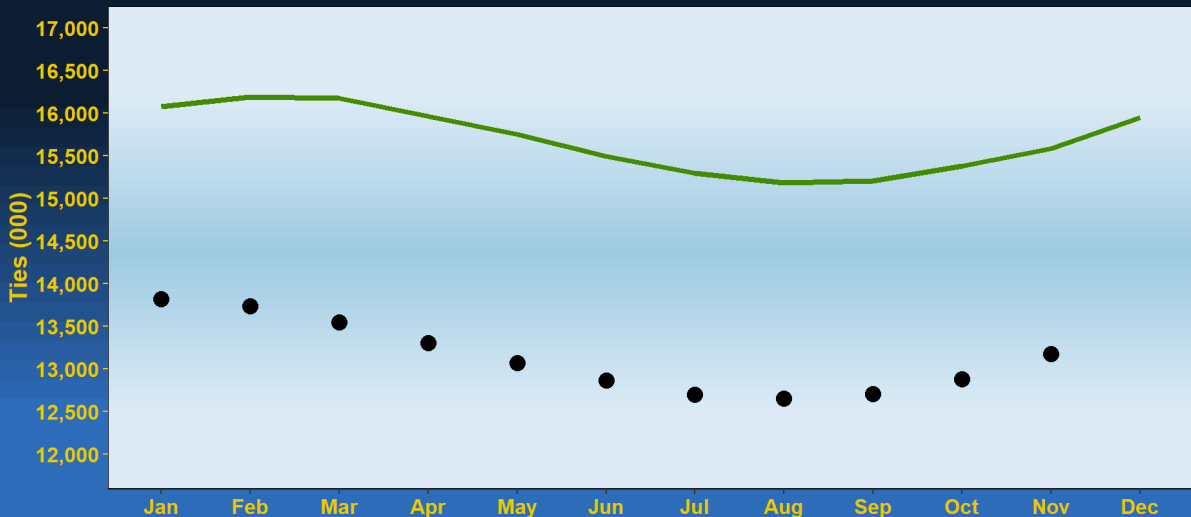


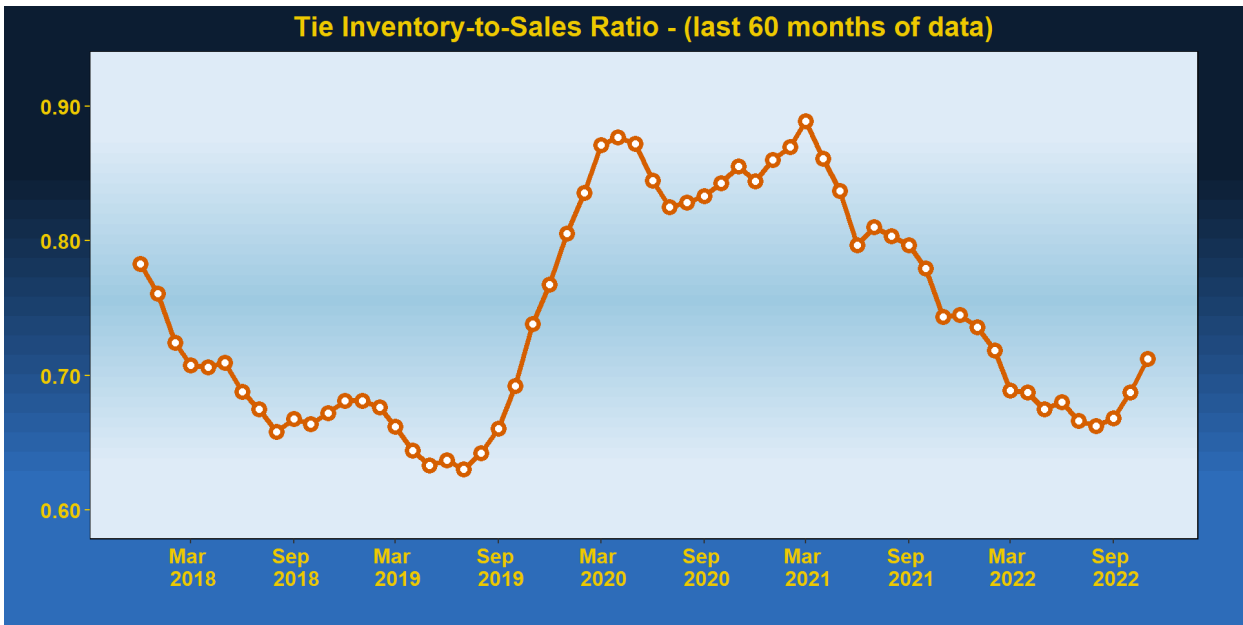
Tie Inventory - Raw Monthly and 3MMA Data - (last 60 months of data)



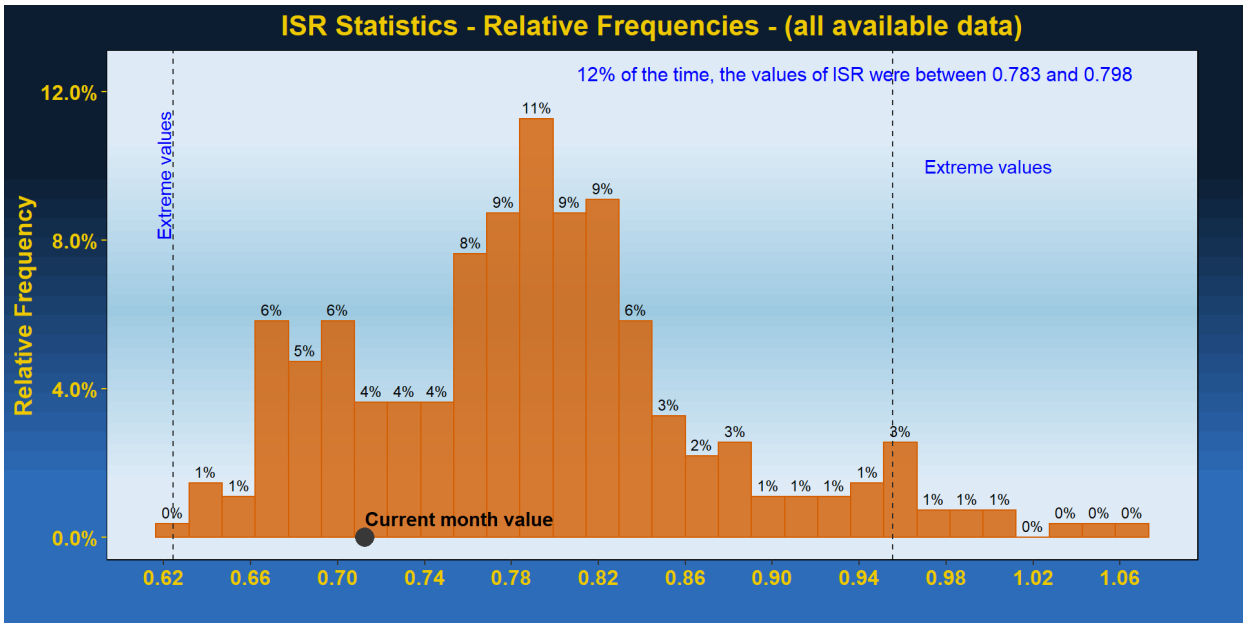
Monthly Patterns of Inventory - (data since 2000)

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





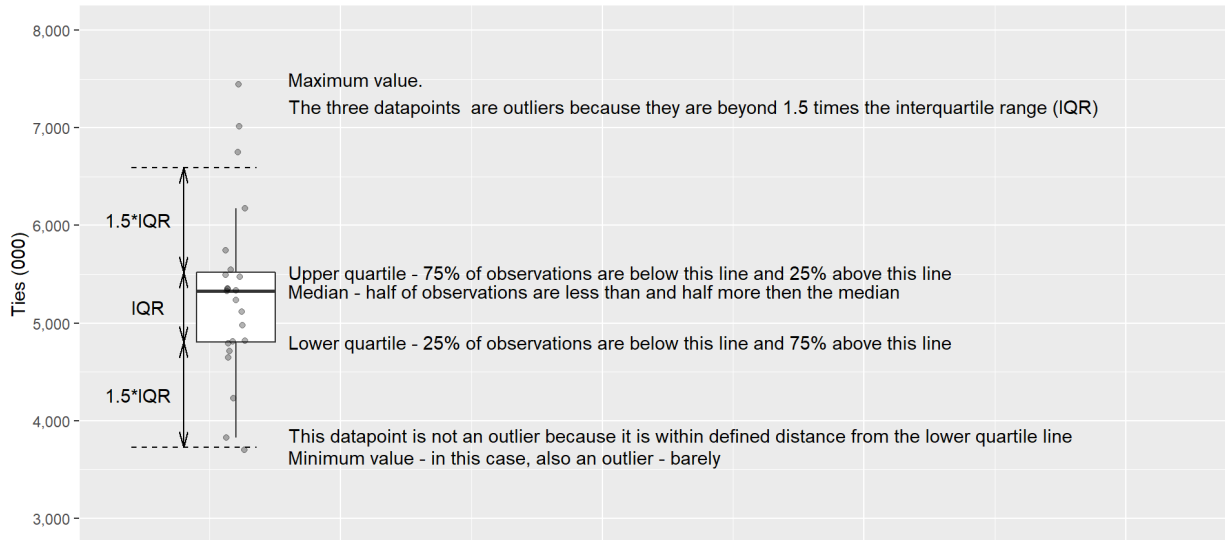
Inventory-to-Sales Ratio (ISR) histogram of relative frequencies shows the monthly ISR data distribution and the black point represents the value for the current reporting month.



Appendix

Box Plot Explained

Underlying data displayed as 'jittered' points



Histogram of Relative Frequencies Explained

