



# Purchases Report

August 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 was still declining in August, but the rate of decline slowed considerably again. In the same month, purchases continued in a modest upward trend. Analysis of monthly data showed production being somewhat short of the expectations. Purchases were substantially lower than expected, barely above their seasonal first quartile.

## Long-Term Trends

Production dwindled at a 6.3% annual rate.

Purchases grew at a 4.4% annual rate.

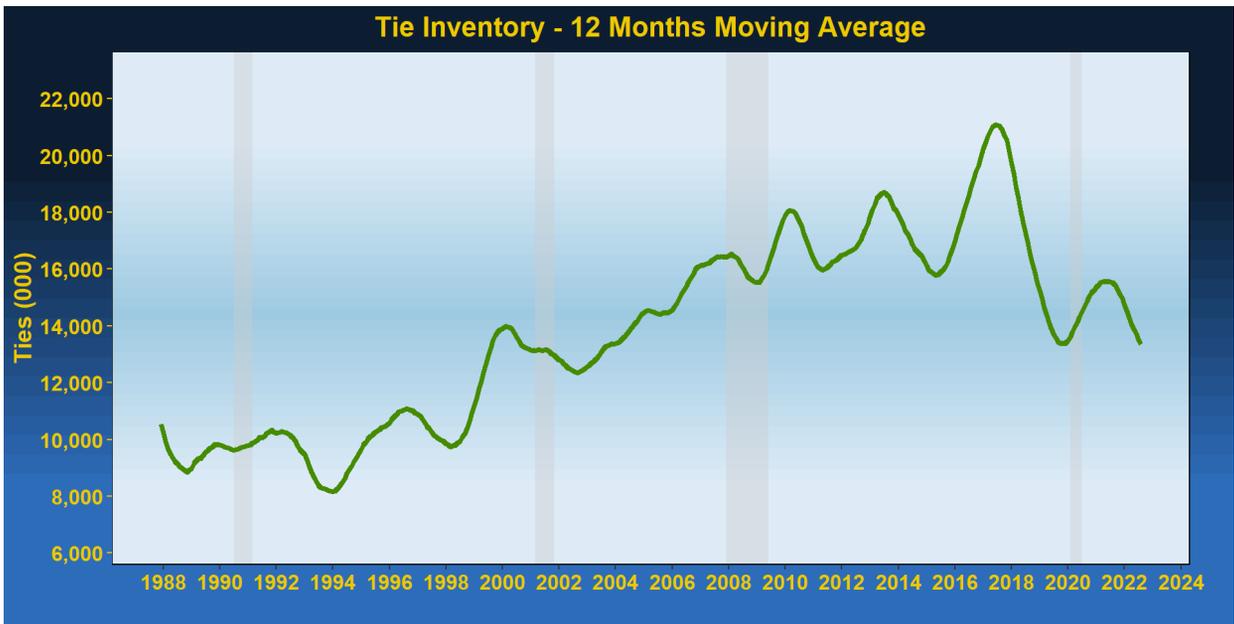
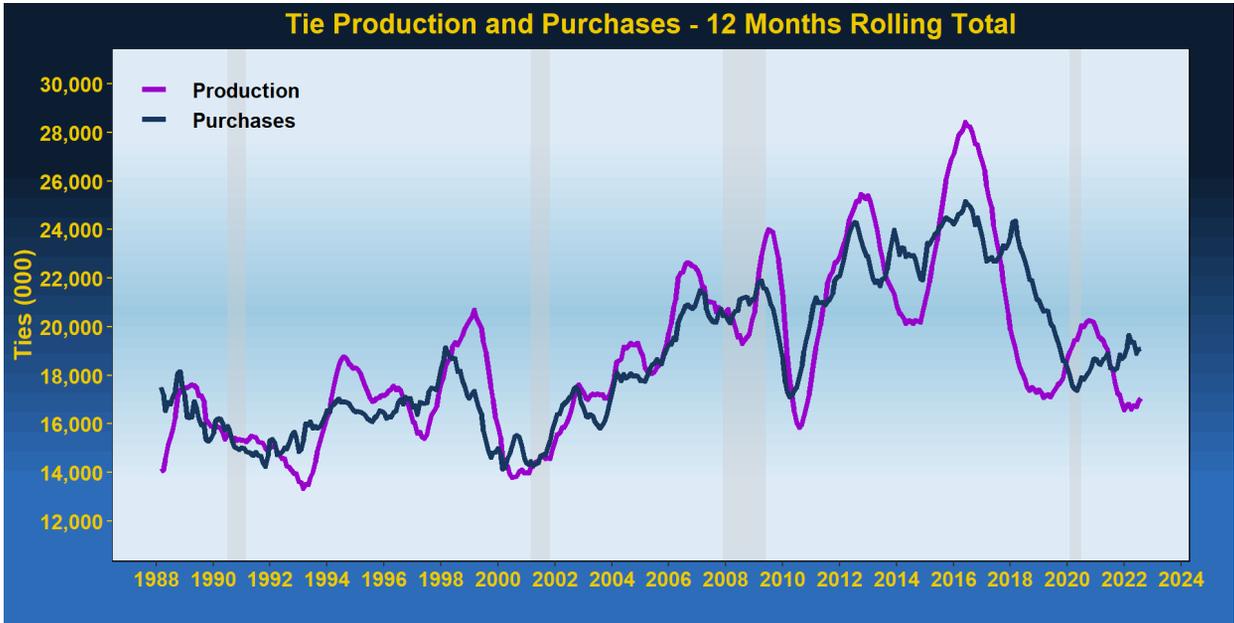
Inventory's 12 month moving average (12MMA) decreased by 14% from a year ago levels.

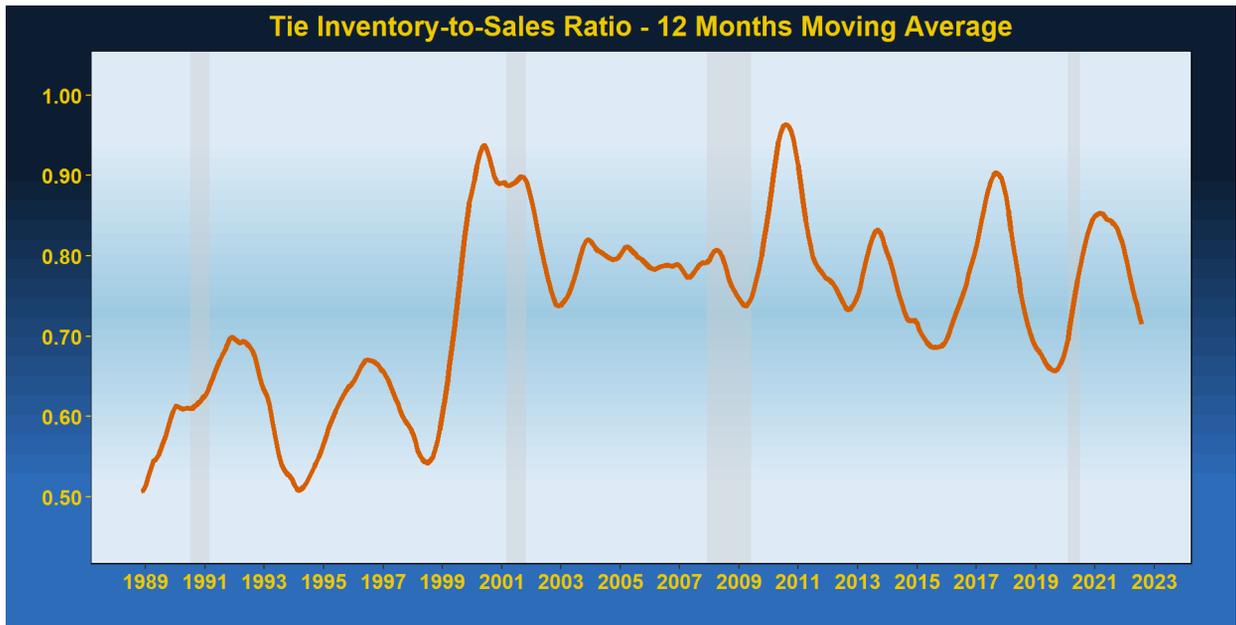
Inventory-to-Sales Ratio's 12MMA dwindled from 0.84 to 0.71.

### Table of Annual Observations

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

| Date        | Production | Purchases | Inventory | ISR  |
|-------------|------------|-----------|-----------|------|
| August 2021 | 18,190     | 18,279    | 15,529    | 0.84 |
| August 2022 | 17,044     | 19,084    | 13,361    | 0.71 |





## Analysis of Quarterly Data

Production in Q2 advanced by 7.7% from last quarter and came down by 2.3% from a year ago.

For the same intervals, purchases rose by 13.8% and decreased by 12.8% respectively.

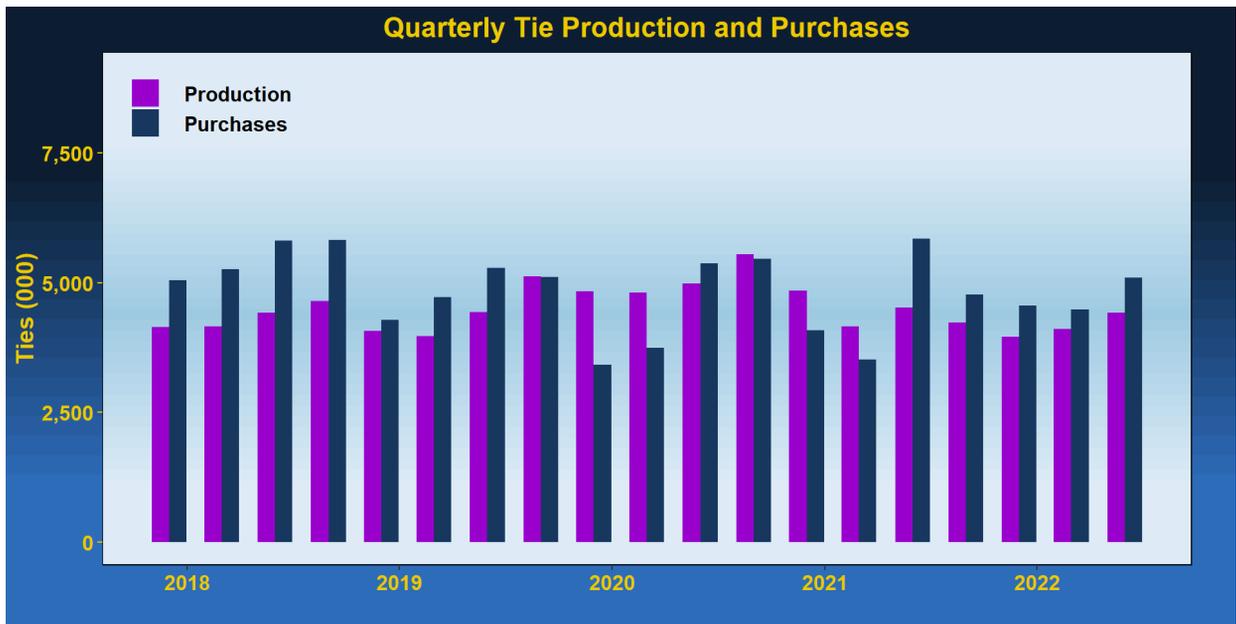
Inventory's 3MMA decreased by 5% from last quarter and came down by 14.6% from a year ago levels.

From Q4 2021 to Q1 2022, the 3MMA of Inventory-to-Sales Ratio declined from 0.71 to 0.68. One year ago, the ratio was 0.83.

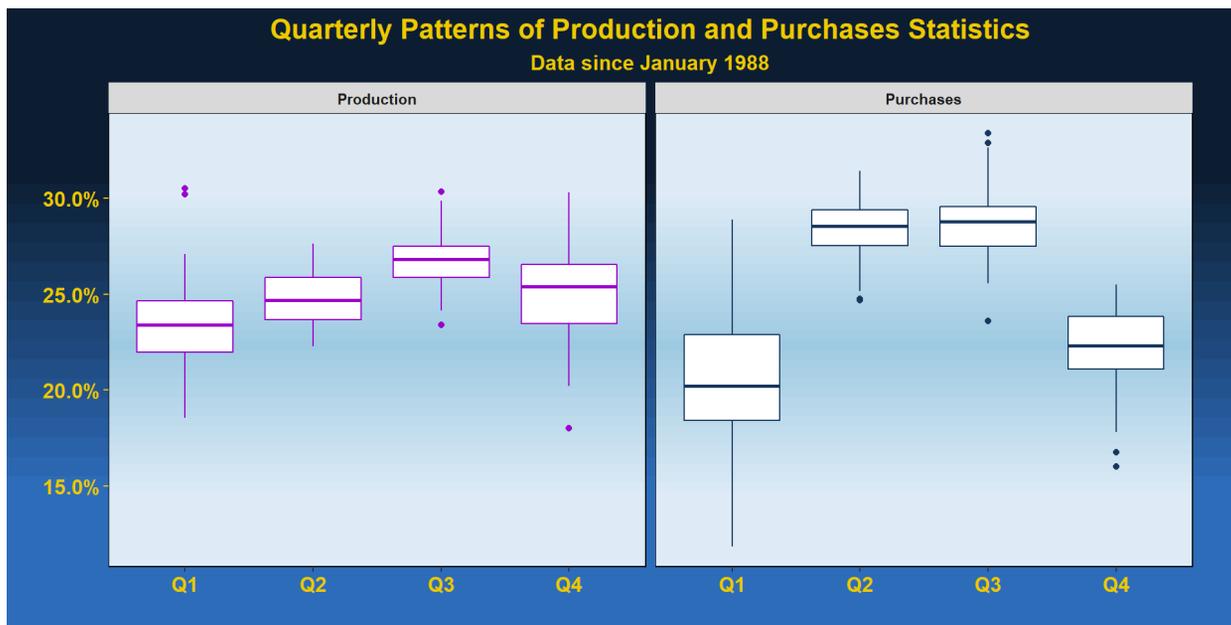
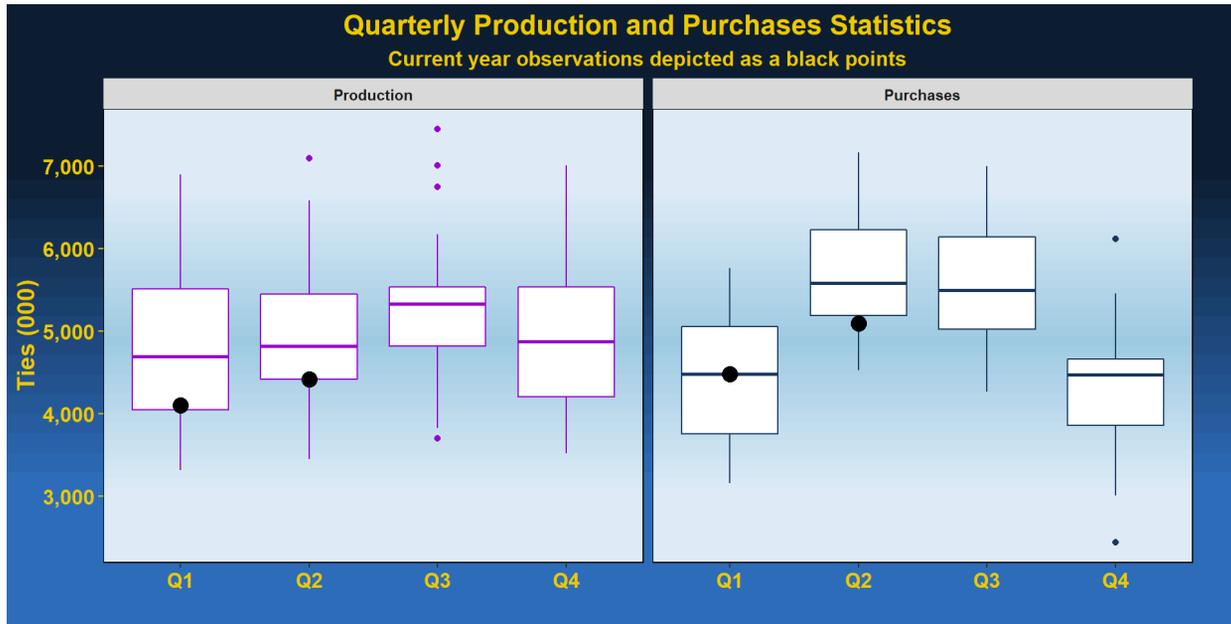
### **Table of Quarterly Observations**

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

| Date       | Production | Purchases | Inventory | ISR  |
|------------|------------|-----------|-----------|------|
| June 2021  | 4,521      | 5,846     | 15,068    | 0.83 |
| March 2022 | 4,102      | 4,480     | 13,543    | 0.71 |
| June 2022  | 4,417      | 5,097     | 12,863    | 0.68 |



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 expanded by 21.9% from last month and advanced by 8% from a year ago.

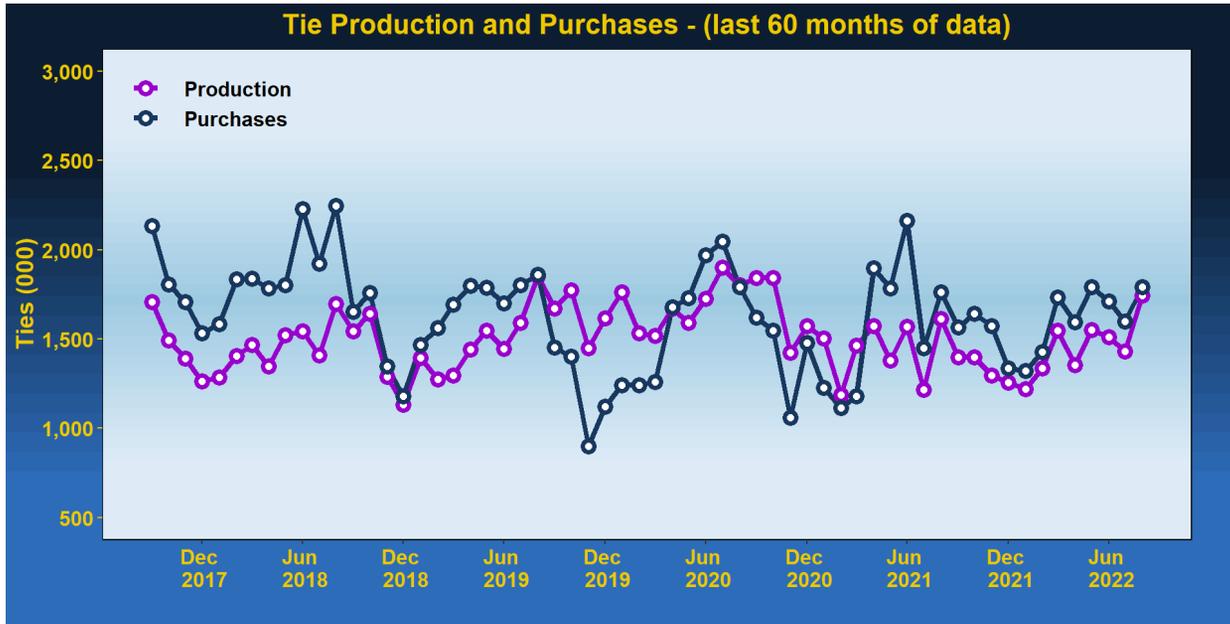
For the same time intervals, purchases grew by 12.2% and rose by 1.6% respectively.

Inventory levels fell by 0.4% from last month and declined by 13.9% from a year ago levels.

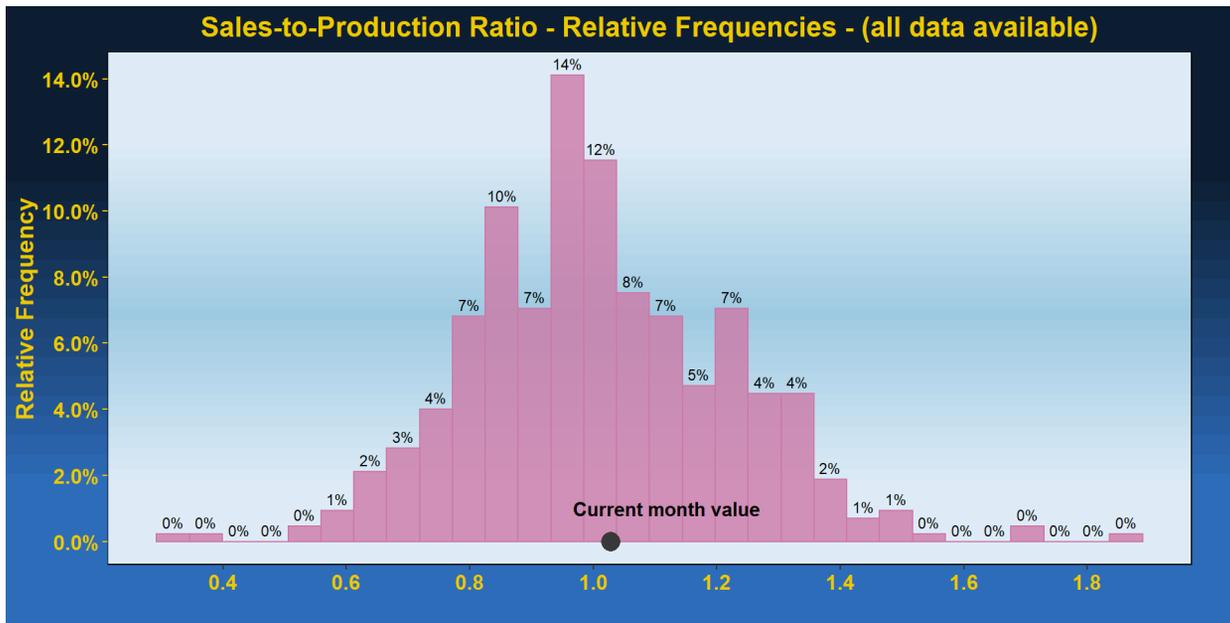
From month ago, the Inventory-to-Sales Ratio dropped from 0.67 to 0.66, and from year ago the ratio came down from 0.8.

**Table of Monthly Observations**

| Date        | Production | Purchases | Inventory | ISR  |
|-------------|------------|-----------|-----------|------|
| August 2021 | 1,613      | 1,763     | 14,687    | 0.80 |
| July 2022   | 1,430      | 1,598     | 12,695    | 0.67 |
| August 2022 | 1,743      | 1,792     | 12,646    | 0.66 |

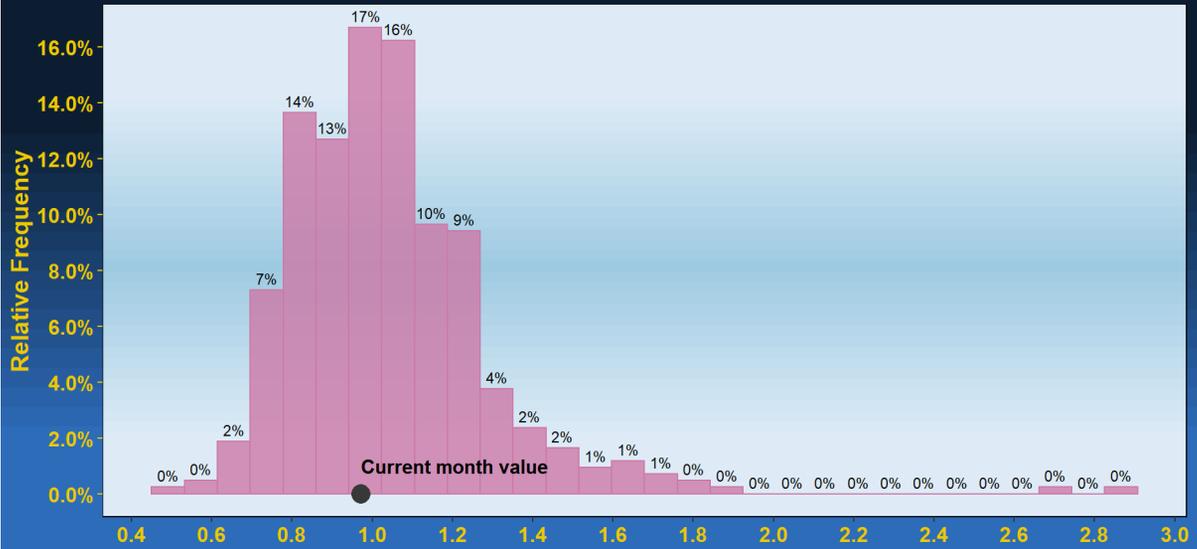


Sales-to-Production Ratio shows the replenishment/diminishment of inventory. Ratio above one signals diminishment and ratio below one replenishment of inventory stock.



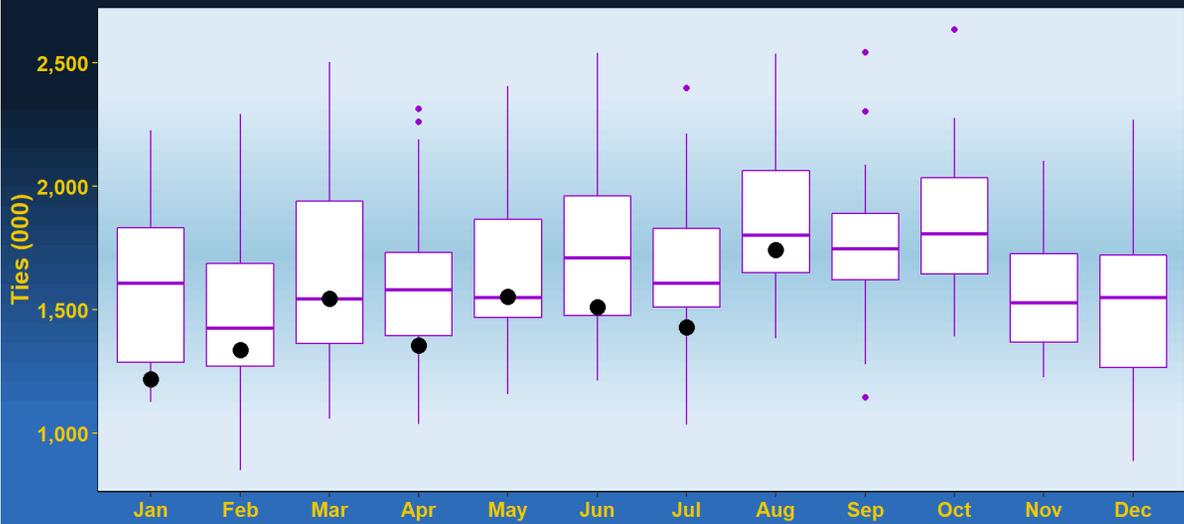
The following graph tells the same story as the graph above, just the ratio is reversed - Production-to-Sales Ratio.

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



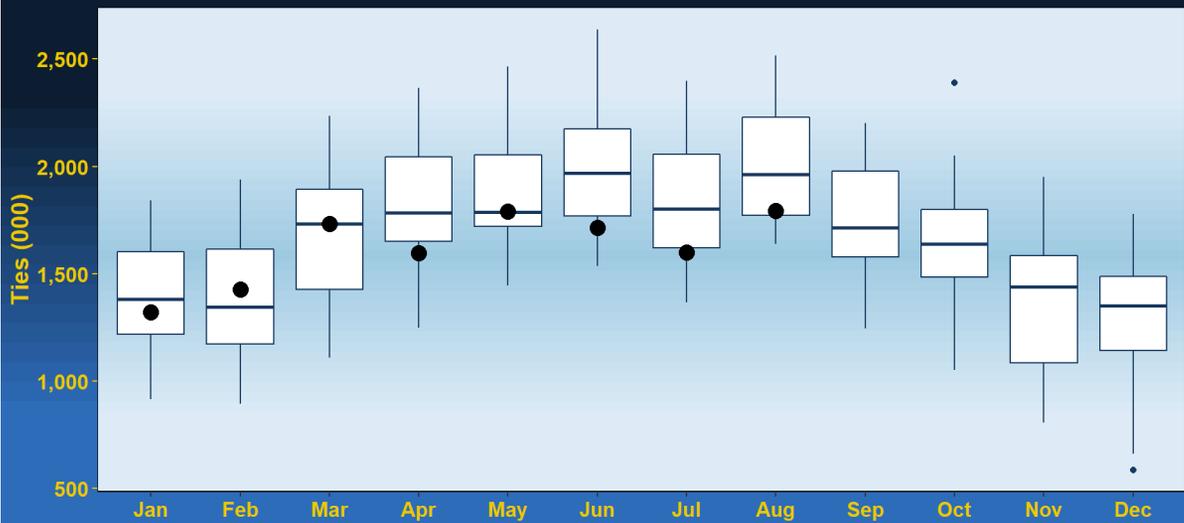
### Monthly Production Statistics - (data since 2000)

Current year observations depicted as a black points



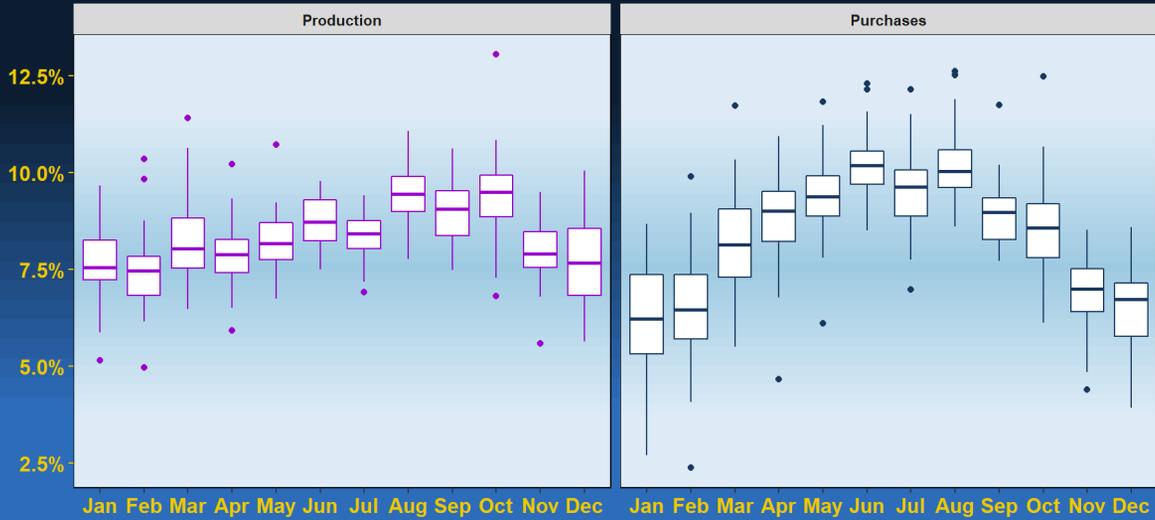
### Monthly Purchases Statistics - (data since 2000)

Current year observations depicted as a black points

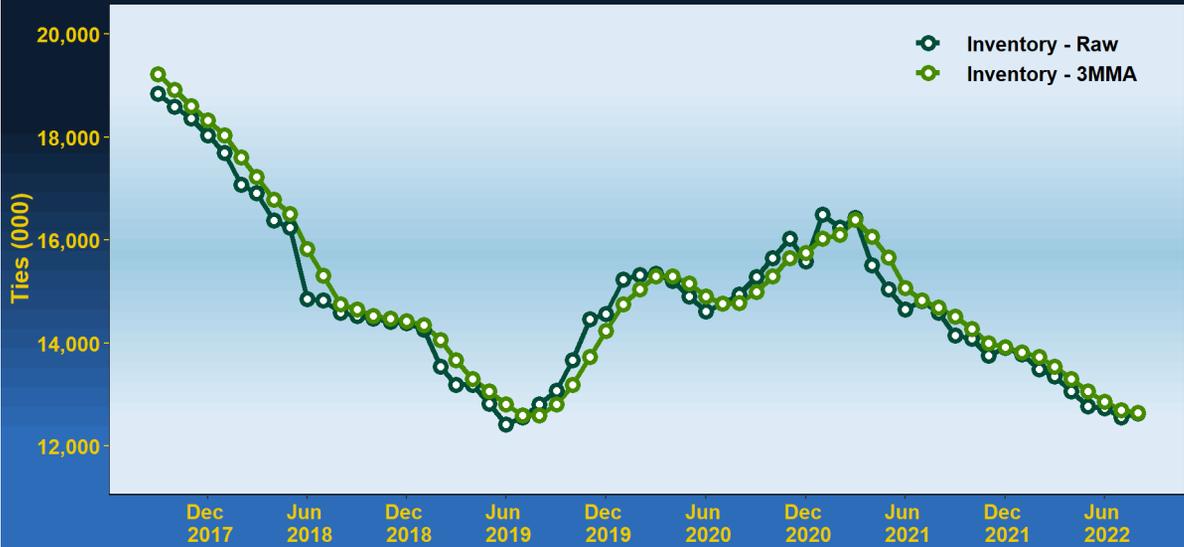


### Monthly Pattern of Production and Purchases Statistics - Percent of Annual Total

Data since January 1988



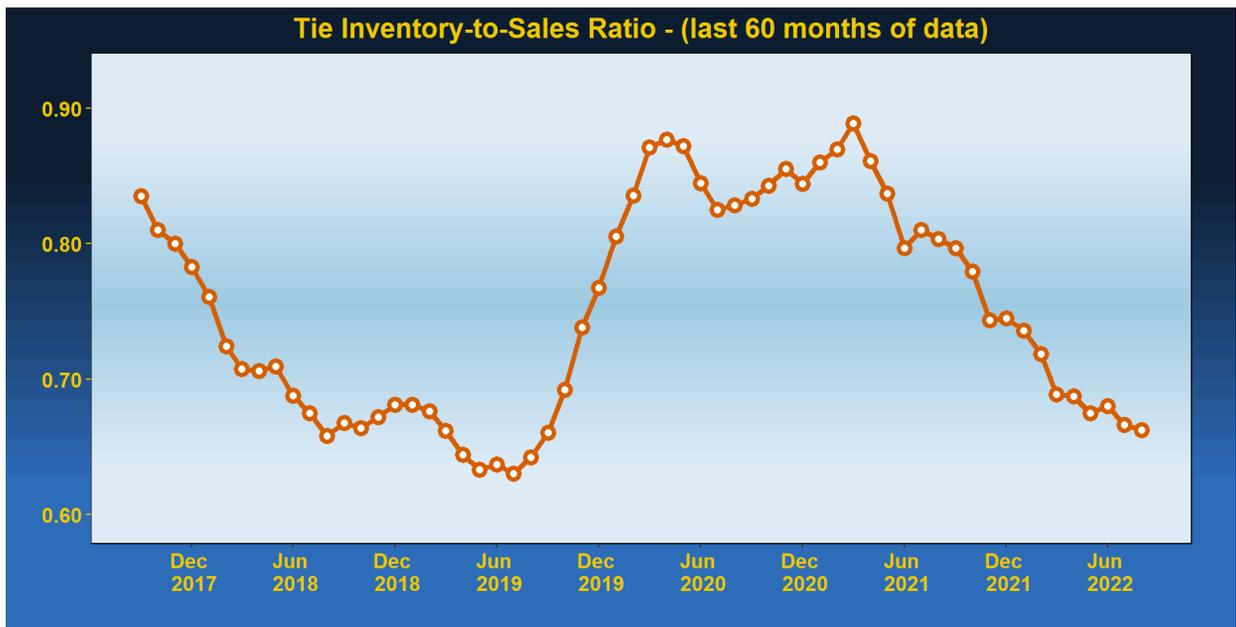
### Tie Inventory - Raw Monthly and 3MMA Data - (last 60 months of data)



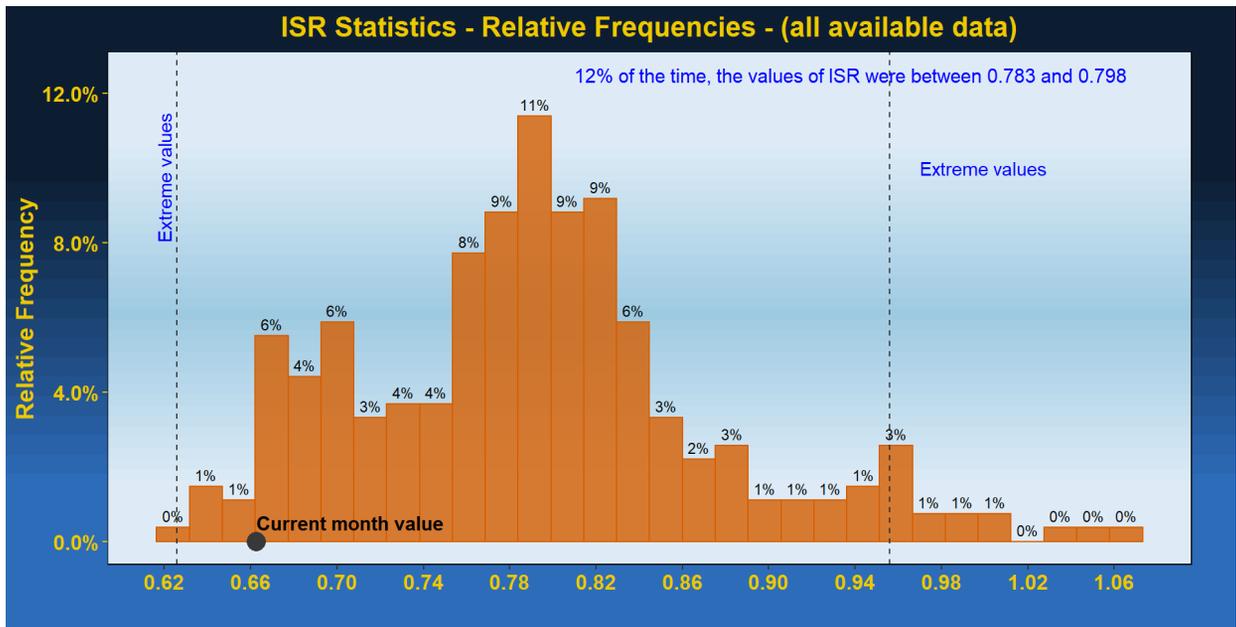
### Monthly Patterns of Inventory - (data since 2000)

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





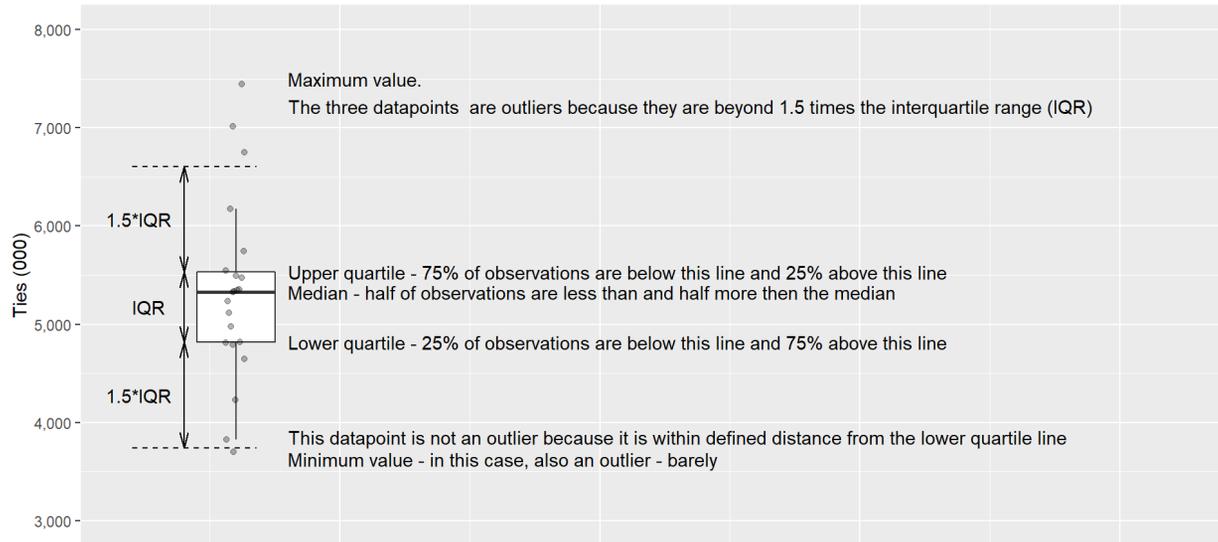
Inventory-to-Sales Ratio (ISR) histogram of relative frequencies shows the monthly ISR data distribution and the black point represents the value for the current reporting month.



# Appendix

## Box Plot Explained

Underlying data displayed as 'jittered' points



## Histogram of Relative Frequencies Explained

