DataSalmon™

DataSalmon Index Methodology
2019

Table

Introduction

For the calculation of the SalmonEx Index, are used information of prices in volume of salmon exported from Chile to the United States Brazil and China.

Shipments of salmon exported are classified in the following products: TRIM C, TRIM D and TRIM E which are exported to the U.S. and H/ON exported to Brazil and China

For exports to the United States considers the following calibers:

Size	Description
C2-3	From 2 to 3 pounds
C3-4	From 3 to 4 pounds
C4-5	From 4 to 5 pounds
Other	Anyone not in the categories above

For exports to Brazil are considered the following calibers:

Size	Description
C8-10	From 8 to 10 pounds
C10-12	From 10 to 12 pounds
C12-14	From 12 to 14 pounds
C14-16	From 14 to 16 pounds
C16-18	From 16 to18 pounds
Other	Anyone not in the categories above

For exports to China are considered the following calibers:

Size	Description
C5-6	From 5 to 6 kilos
C6-up	From 6 up kilos
Other	Anyone not in the categories above

Finally, DataSalmon price index is calculated weekly, based on exports of the corresponding week.

Calculation of Prices

To calculate prices for each destination, product and category, are taken all exports recorded in the week and calculate the average price per pound. That is, for the product t with a caliber d, we consider n exports of c_i quantities and p_i prices in USD. Then the average price $p_{t,d}$, and the total quantity exported $c_{t,d}$ are:

$$c_{t,d} = \sum_{i=1}^{n} c_i$$

$$p_{t,d} = \frac{\sum_{i=1}^{n} p_i \, c_i}{c_{t,d}}$$

If for a product t exists a caliber type d for which there were no exports in the week, prices are taken from the previous week to interpolate the missing values with the nearby calibers. That is, if d_x is the caliber missing, d_- and d_+ are the nearbiest calibers with price (d_- is a smaller caliber and d_+ is a larger caliber), taking p'_{t,d_-}, p'_{t,d_+} and p'_{t,d_x} as prices last week, the price for the caliber d_x will be:

$$p_{t,dx} = \frac{(\grave{p}_{t,dx} + p_{t,d_-} - \grave{p}_{t,d_-}) + (\grave{p}_{t,dx} + p_{t,d_+} - \grave{p}_{t,d_+}))}{2}$$

In the case that there is only one caliber close to dX, we use only the available price data without taking average:

$$p_{t,dx} = \grave{p}_{t,dx} + p_{t,d_-} - \grave{p}_{t,d_-}$$
$$p_{t,dx} = \grave{p}_{t,dx} + p_{t,d_+} - \grave{p}_{t,d_+}$$

If there exists a product t^*, for which there are no exports during the week. Then, for every caliber d, the price for product $t^*$is calculated as:

$$p_{t^*,d} = \grave{p}_{t^*,d} + \Delta$$

Where Δ is the average price change with respect to the previous week , which is calculated as follows:

$$\Delta = \frac{\sum_t \sum_d (p_{t,d} - p_{t,d}) c_{t,d}}{\sum_t \sum_d c_{t,d}}$$

Where $p_{t,d}$ are the current week prices. They are calculated using the methodology described in section 1.1, $\grave{p}_{t,d}$ are the previous week prices and $c_{t,d}$are the quantities exported in the current week. The sum of exported products t for the week does not include t^*. We divide by $\sum_t \sum_d c_{t,d}$in order to obtain an average price change.

Price Deployment Calculation

1. For exports to Brazil the price deployment is the price of the C10-12 caliber.

2. For exports to USA, we considered for a caliber d the amount of TRIM D exported last year c_d. Using the TRIM D product Price p_d, of the week for caliber d, the deployment price p_d, p_{usa} is calculated as follows:

$$p_{usa} = \frac{\sum_d p_d \, c_d}{\sum_d c_d}$$

3. For exports to China the price deployment is the price of the C6-up caliber.