SALMONEX INDEX METHODOLOGY

2012

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Introduction

For the calculation of the SalmonEx Index, we use both price and quantity of pounds of salmon exported to the United States and Brazil from Chile.

Shipments of exported salmon are classified acoording to the following types of cuts: TRIM C, TRIM D and TRIM E which are exported to the United States, and H/ON which is only exported to Brazil.

When exporting to the United States the following calibers are considered:

Caliber	Description
C2-3	From 2 to 3 pounds
C3-4	From 3 to 4 pounds
C4-5	From 4 to 5 pounds
Other	Anything which doesn´t belong to the previous categories

When exporting to Brazil the following calibers are considered:

Caliber	Description
C8-10	From 8 to 10 pounds
C10-12	From 10 to 12 pounds
C10-12	From 12 to 14 pounds
C14-16	From 14 to 16 pounds
C16-18	From 16 to 18 pounds
Other	Anything which doesn´t belong to the previous categories

Finally, the SalmonEX price index is calculated with weekly frequency, based on the corresponding week´s exports.

Calculation of Prices

To calculate prices for each destination and product, we take all recorded exports for the week and then calculate the average price per pound. For product t with a caliber d, we consider n exports of c_i quantities and p_i prices each in USD. Then the total quantity exported $c_{t,d}$ and the average price $p_{t,d}$ 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 there exists a caliber type d for which there were no exports in the week, the missing values are interpolated from the previous week prices and nearby calibers. For missing caliber d_X, d_- and d_+ represent the nearest calibers with price information (d_- is the nearest caliber smaller than d_X and d_+ are the nearest caliber larger than d_X). The prices of the previous week are represented as p'_{t,d_-}, p'_{t,d_+} and p'_{t,d_X}, with which the interpolated price for missing caliber d_X is:

$$p_{t,d_X} = \frac{(p'_{t,d_X} + p_{t,d_-} - p'_{t,d_-}) + (p'_{t,d_X} + p_{t,d_+} - p'_{t,d_+})}{2}$$

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

$$p_{t,d_X} = p'_{t,d_X} + p_{t,d_+} - p'_{t,d_+}$$

$$p_{t,d_X} = p'_{t,d_X} + p_{t,d_-} - p'_{t,d_-}$$

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

$$p_{\bar{t},d} = p'_{\bar{t},d} + \Delta$$

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´s prices. They are calculated using the methodology described in section 1.1, $p'_{t,d}$ 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 $\bar{t}$. We divide by $\sum_t \sum_d c_{t,d}$ in order to obtain an average price change.

Deployment Price Calculation

For exports to Brazil the deployment price corresponds to the C10-12 caliber price.

For exports to the United States, we consider for any caliber d the amount of TRIM D exported the previous year c_d. Using the TRIM D product price p_d of the week for caliber d, the deployment price p_{USA} is calculated as follows:

$$p_{\mathrm{USA}} = \frac{\sum_d p_d c_d}{\sum_d c_d}$$