

UKRAINE FOOD TRADE BALANCE-2019

The goal of this project is to have an accurate picture of Ukraine Trade Balance, for 2019 as the last year with data provided at FAOSTAT. This will be done by doing an exploratory analysis of Trade Balance products and country partners, both in quantities and monetary value.

Nevertheless, this project leaves an open door to develop a prescriptive model on future trade balance for Ukraine. Provided the present country situation, adjustments will need to be carried on in coming future for necessary products import and exports, as well as country partners and its contribution to Ukraine economic trade balance.

Data has been collected from <https://www.fao.org/faostat/en/#data>.

Find next some articles on Ukraine Trade Balance for a better understanding on the scope of the problem, not just with implications for Ukraine but also for the partner countries that mostly, and on a big percentage, depends on food exports from this country. Especially to be taken in consideration are the least developed countries, mainly African sub-Saharan countries, with high dependence on Ukraine and Russia food export. These countries will be affected by the consequences of war in both short and mid-term. A better framework on this scenario can be understand by reading next articles and reports:

- https://unctad.org/system/files/official-document/osginf2022d1_en.pdf
- <https://www.medicaldevice-network.com/special-focus/ukraine-russia-conflict-impact-trade/>
- [https://www.europarl.europa.eu/RegData/etudes/BRIE/2022/639321/EXPO_BRI\(2022\)639321_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2022/639321/EXPO_BRI(2022)639321_EN.pdf)
- <https://www.theguardian.com/food/2022/mar/09/ukraine-war-piles-pressure-on-global-food-system-already-in-crisis>
- <https://www.nytimes.com/2022/04/05/podcasts/the-daily/ukraine-russia-food-supply.html?showTranscript=1>

A few considerations about the FAOSTAT data. It is important to pay attention to the feature “Element”, where we will see if our data is for product import or export. Once we know this, next is to filter the partner country, product under “Item” feature, and value. This last is represented by tonnes for quantities, and 1000\$ for monetary value.

The exploratory analysis executed are:

1. Import products (quantities).
2. Import products (value).
3. Export products (quantities).
4. Export products (value).

For all the analysis we have followed the same report structure:

- Filtering element to analyze import (quantity and value) and export (quantity and value).
- Histogram, to visualize country partners.
- Histogram and Sunburst, to visualize top 20 import and export products, in both quantity and US\$ value. With partner country detail.
- Visualize trade balance with Russia, for both quantities and US\$ value.

Main conclusions from the exploratory analysis

Historically Ukraine had had a large trade deficit, mainly due to the different value of the goods that export (food and crops) and the products that the country needs to import (manufactured). Its main trade relationships are with CIS (Commonwealth of Independent States) countries, an association of states providing from the former Soviet Union. In recent years the country has

been trying to shift his trade structure towards strengthening cooperation with the European Union.

In addition to this, and in reference to this project data exploratory analysis, find next the main conclusions:

- Considering import quantities, the top five countries are: Russia, Poland, Turkey, Belarus and Indonesia.
- When looking at the main import products, potatoes is the number one product for Russia and Belarus, palm oil for Indonesia, fruits for Turkey, and pig meat and poultry meat for Poland.
- Considering import value, Poland and Russia lead this area. An important remark on the appearance of EU countries with manufactured import, such as Netherlands, Germany and Italy.
- Considering export quantities, main combinations of top products and partners are: China (corn and barley), Netherlands (corn), Spain (corn) and Turkey (corn and wheat). Corn and wheat are the main exported products from Ukraine.
- In terms of export value, main combinations of top products and partners are: China (corn), Netherlands (corn), Egypt (wheat and corn), India (sunflower oil) and Turkey (corn).
- As we can see there is certain correspondence in export top products between its quantity and its value. That is not the case when taking in consideration import top products. In this case we can see the appearance of manufactured goods and its impact on Ukraine trade deficit.