Trading Analysis in Turkey

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Goals

Our goal is to achieve logical results by using monthly import and export data between 2013 and 2020 by visualizing and analyzing their distribution by cities for Turkey. In addition, we aimed to reach the balance between export and import figures.

About Trading Data Set

We have 7 different variables in our main data set:

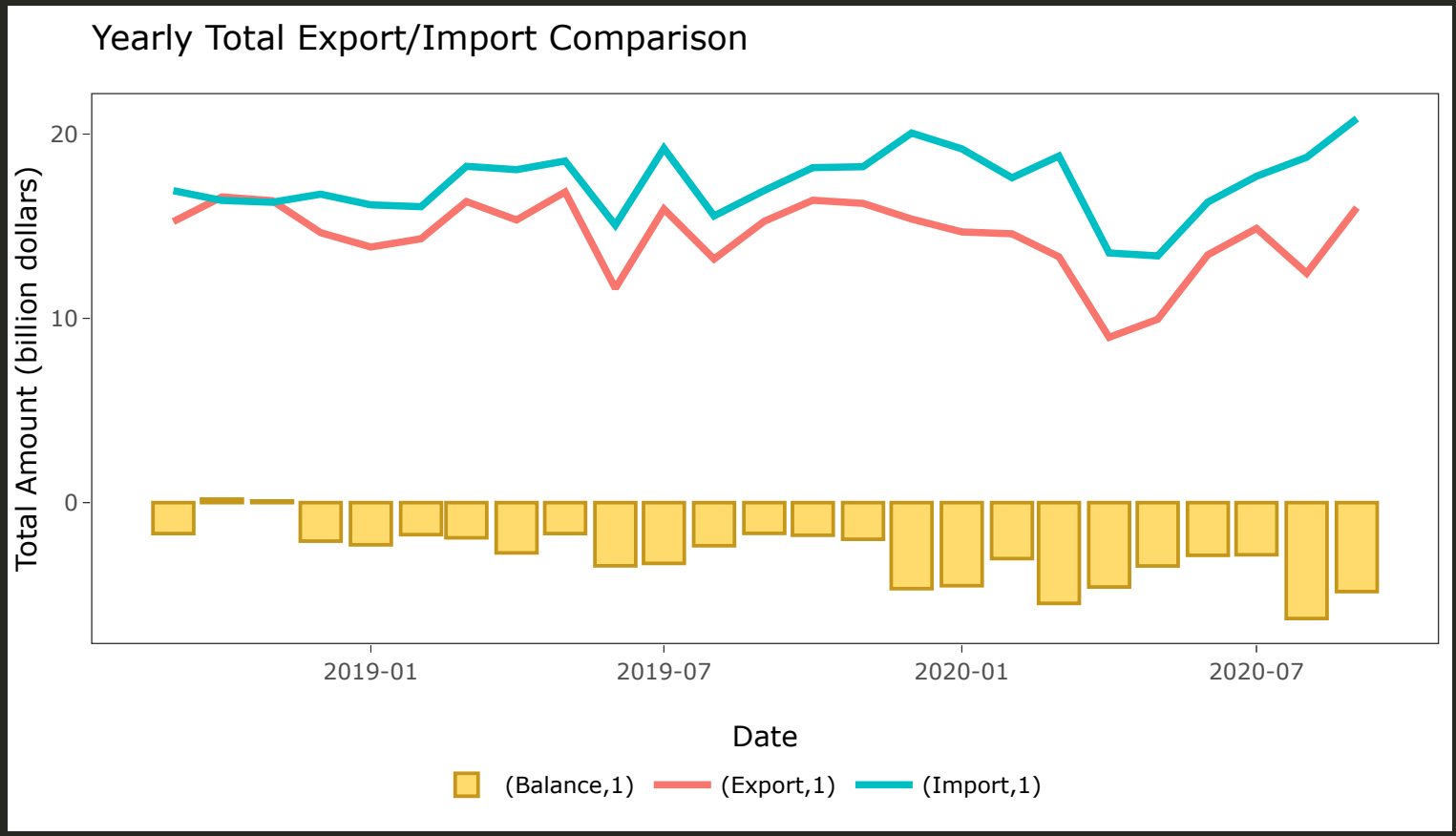
- `Year`: Trading Year.
- `Month`: Trading Month.
- `City`: City Name.
- `TradingType`: Type of the Trading. Export or Import.
- `AmountUSD`: Trading amount in USD.
- `AmountEUR`: Trading amount in EUR.
- `AmountTL`: Trading amount in TL.

Data Preprocess

- RData file was created for Trading, Population, Coordinates, Geospatial and Region data.
- Year and Month variables converted to a valid date format by merging and translating.
- City variables cleaned by separating string from City Codes.
- All Turkish characters are converted into English characters.
- Geospatial dataframe's city variable converted into English characters.

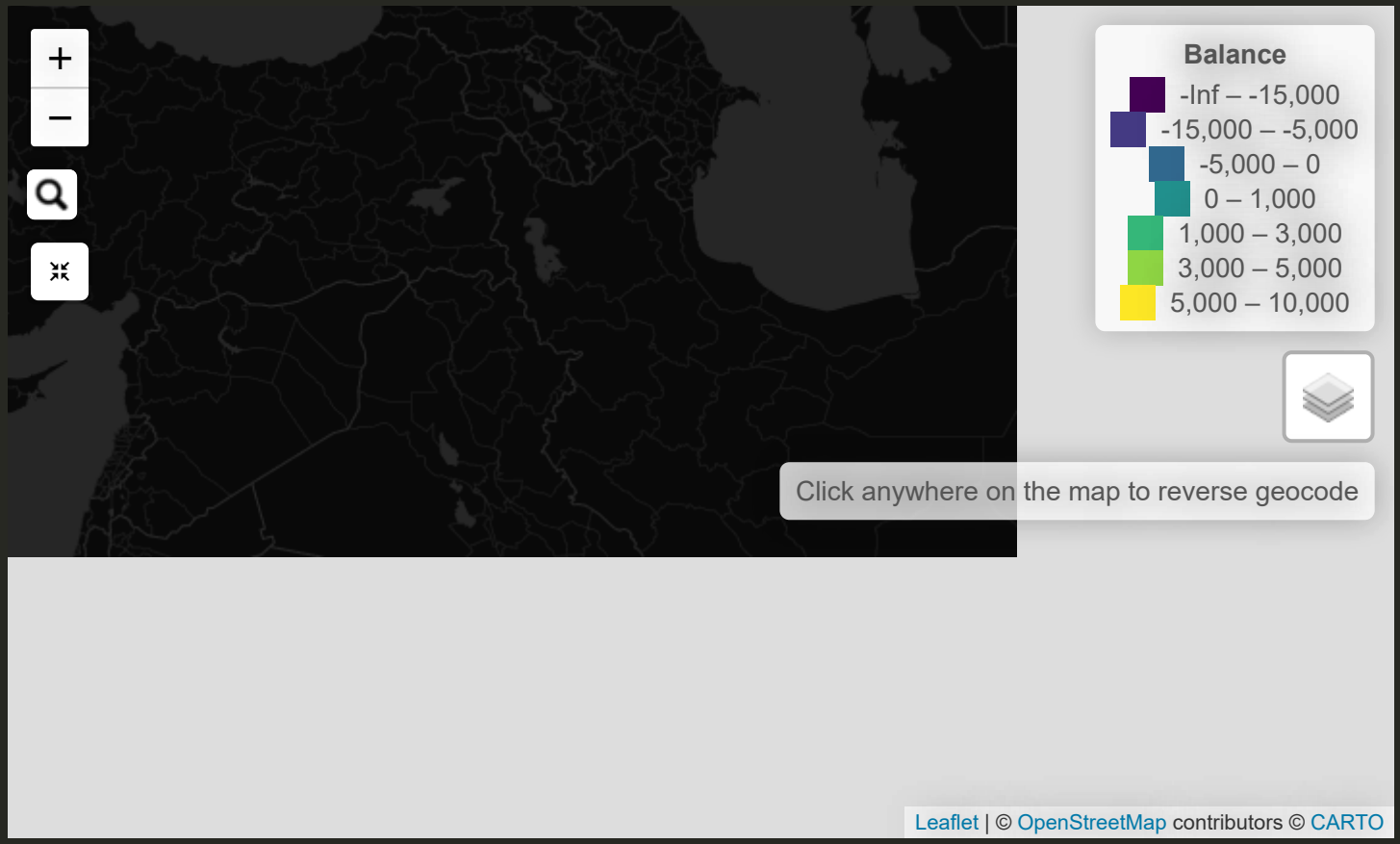
Line Graph

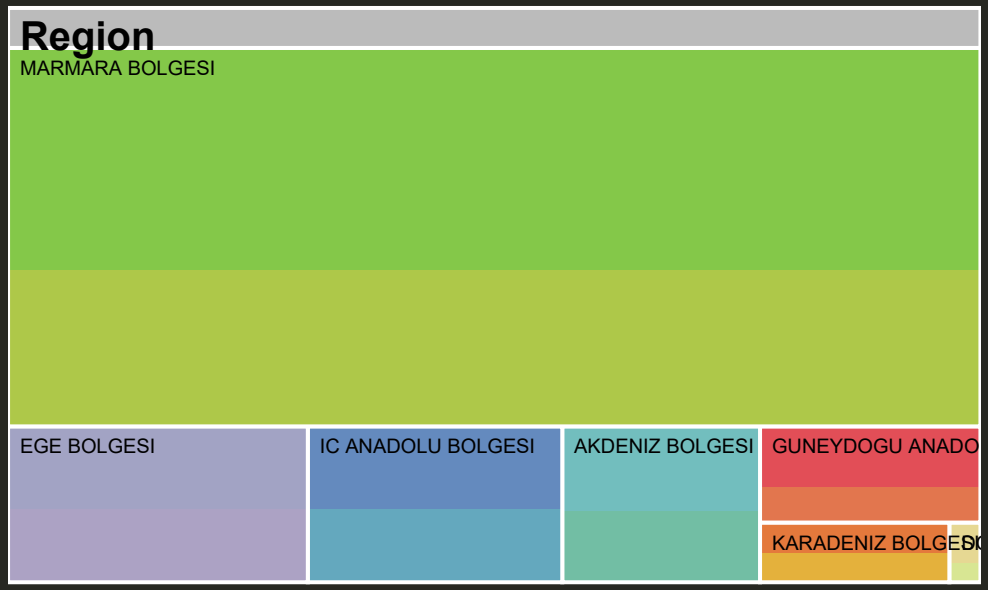
When we visualized the import and export figures by months of the last two years, we observed that the difference was at least in November 2018 and at most in August 2020. While the period with the highest import figures is September 2020, the period with the highest export figures is May 2019.


Yearly Total Export/Import Comparison
Total Amount (billion dollars)
20
10
0
2019-01
2019-07
2020-01
2020-07
Date
(Balance,1)
(Export,1)
(Import,1)

Mapping

We used the map method in order to examine the Import and Export figures according to the provinces in more detail. In this way, by clicking on the cities, you can better understand the distribution between Export and Import over the years and access its details.


Balance
-Inf – -15,000
-15,000 – -5,000
-5,000 – 0
0 – 1,000
1,000 – 3,000
3,000 – 5,000
5,000 – 10,000
Click anywhere on the map to reverse geocode
Leaflet | © OpenStreetMap contributors © CARTO


Region
MARMARA BOLGESI
EGE BOLGESI
IC ANADOLU BOLGESI
AKDENIZ BOLGESI
GUNEYDOGU ANADO
KARADENIZ BOLGESI

Reporting Parts

When we examined the Import and Export figures by years, we observed that the Marmara region is at the highest level every year.

Show 4 entries Search:

	City	Export	Pop	ExportPP
1	ISTANBUL	88827.64	15519267	5723.7
2	SAKARYA	5351.06	1029650	5196.97
3	KOCAELI	9917.08	1953035	5077.78
4	GAZIANTEP	7811.87	2069364	3775.01

Showing 1 to 4 of 10 entries Previous 1 2 3 Next

Above table gives 2019 Trading figures sorted by Export amount per Person for each city. First 5 cities have huge industry operations and their Export metrics are better than other cities.

Show 4 entries Search:

	City	Import	Pop	ImportPP
1	ISTANBUL	109280.93	15519267	7041.63
2	KOCAELI	8848.26	1953035	4530.52
3	CORUM	1656.63	530864	3120.62
4	KARABUK	742.76	248458	2989.49

Showing 1 to 4 of 10 entries Previous 1 2 3 Next

Above table gives 2019 Trading figures sorted by Import amount per Person for each city. Cities in the first five rows changed. Karabük and Çorum took their places here. Due to the low population Import per Person metric seems to be high.

Show 4 entries Search:

	City	Pop	BalancePP
1	KARABUK	248458	1448.91
2	ISTANBUL	15519267	1317.93
3	ZONGULDAK	596053	1296.21
4	YALOVA	270976	749.51

Showing 1 to 4 of 10 entries Previous 1 2 3 Next

Above table gives 2019 Trading figures sorted by Balance amount per Person for each city. Cities with low population have higher Balance per Person value. Some of these cities have bigger industry operations than their population size.

Thanks for Listening