Assignment 3

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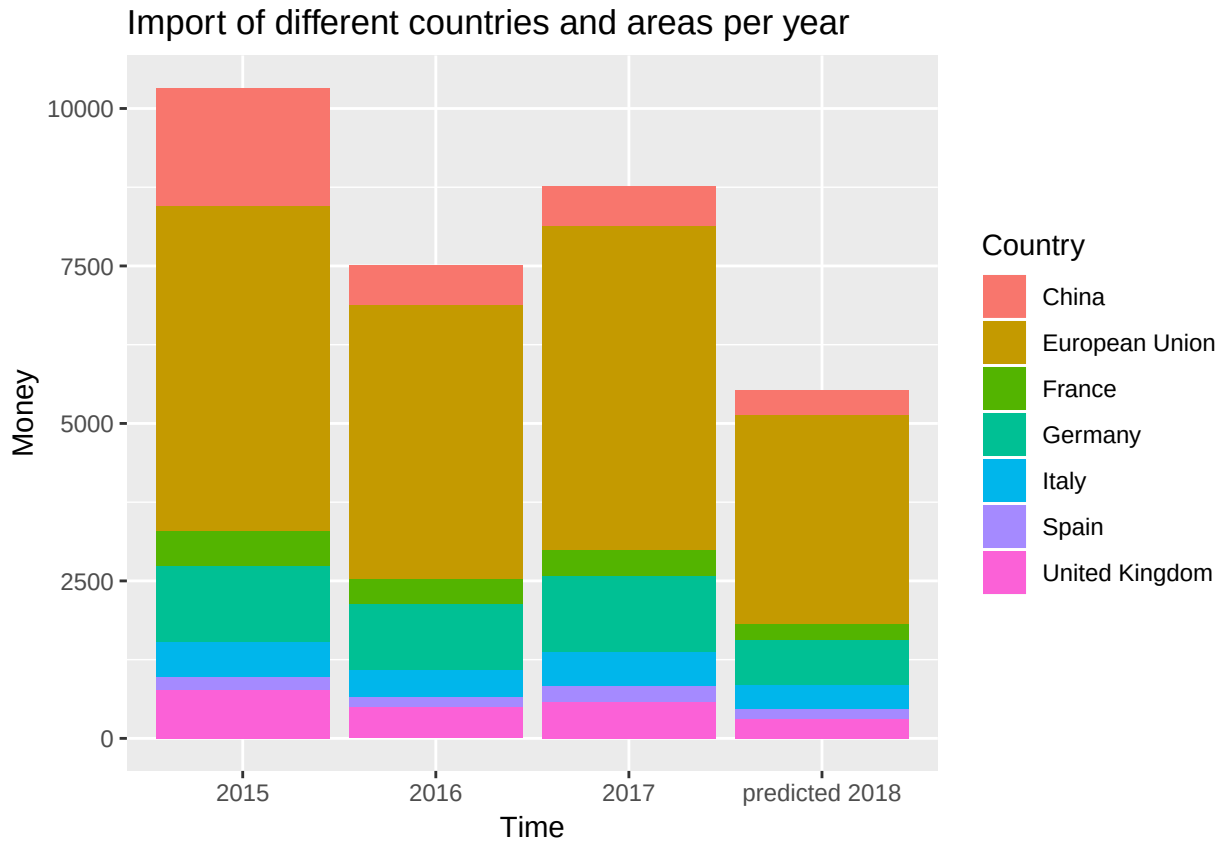
The following portiong is contributed by Yudi Mao

Iron&Steel import changes from major countries through 2015-2018

Data used is from data of import of the United States.(https://usatrade.census.gov/data)

Pic.1 Import throughout a year

We use average import per month to predict 2018.

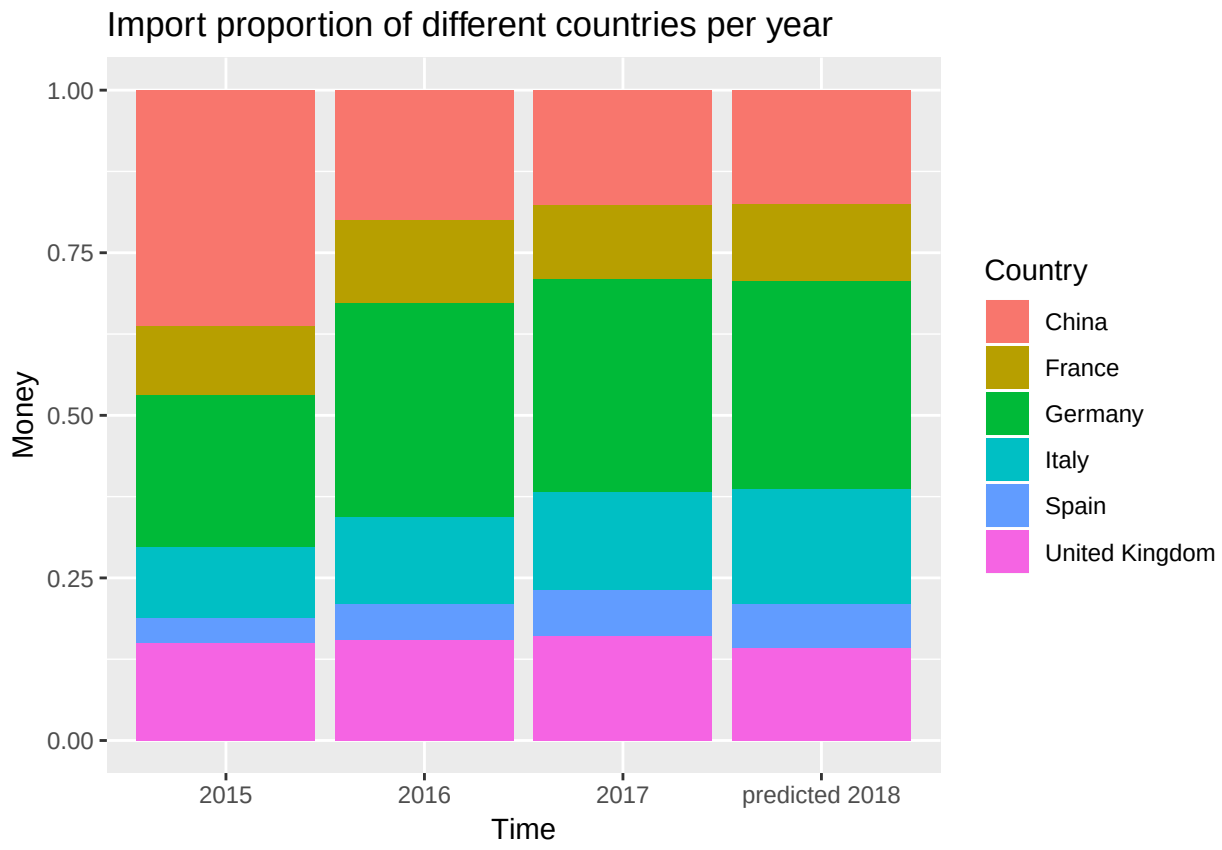


From this histogram, we can roughly conclude that iron&steel import from China decreased these years, especially 2016 compared to 2015. Import from European Union roughly remained the same level, although its predicted amount of 2018 will also decrease, but slightly.

However, we notice that the amount of iron&steel import from European Union is far larger than others, which makes other countries hard to intepret. Meanwhile, we have drawed conclusion between China and EU. Thus:

In next histogram, EU will be removed, and other countries will be showed in their proportion of import of the United States.

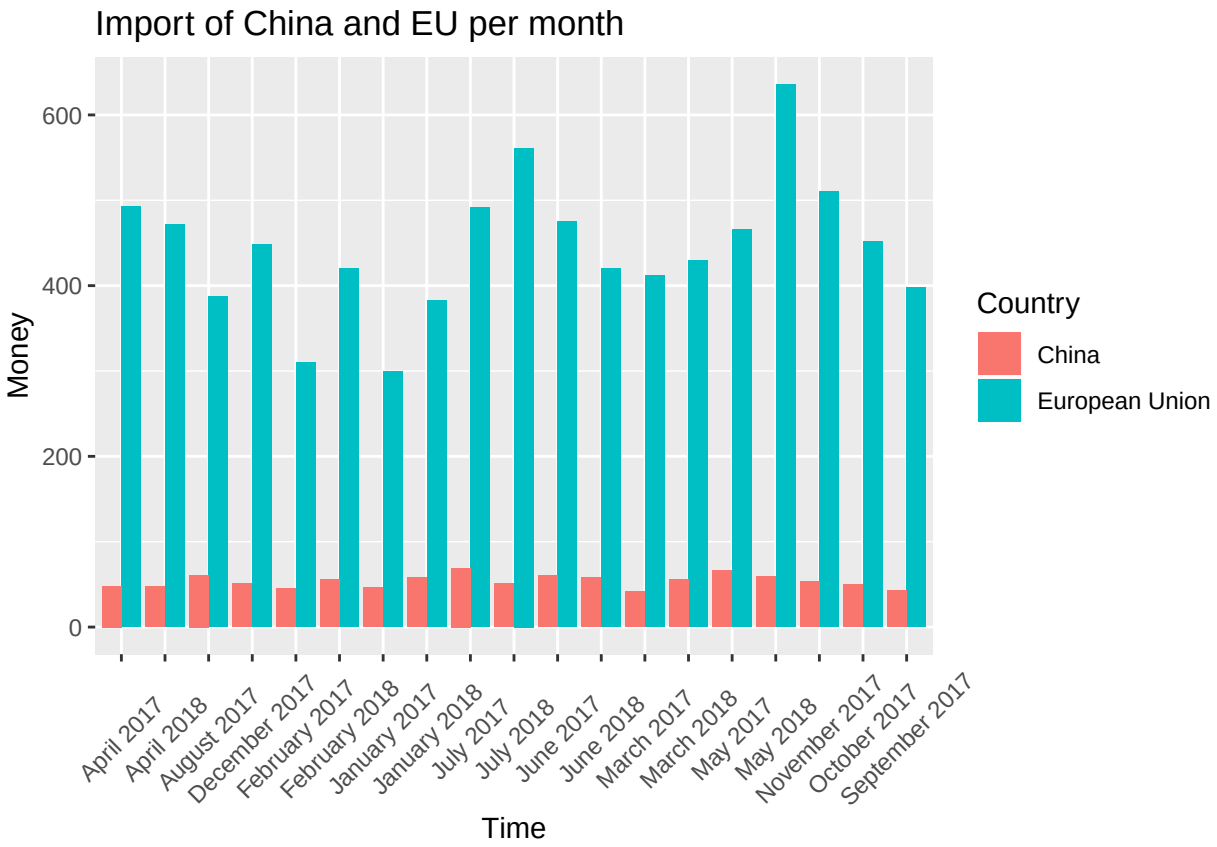
Pic.2 Proportion of each country (European Union excluded)



In pic.2, we can roughly conclude that inport from China decreased from 2015-2017, while inport from Germany and Italy increased. Other countries roughly remained the same level.

Pic.3 Line chart of inport per month of China and European Union through 2017-2018

In this picture, we will only use data of China and EU, but more precise from yearly data to monthly data.



Roughly, both import from China and EU per month fluctuated among 2017-2018.

The following portiong is contributed by Longhao Chen

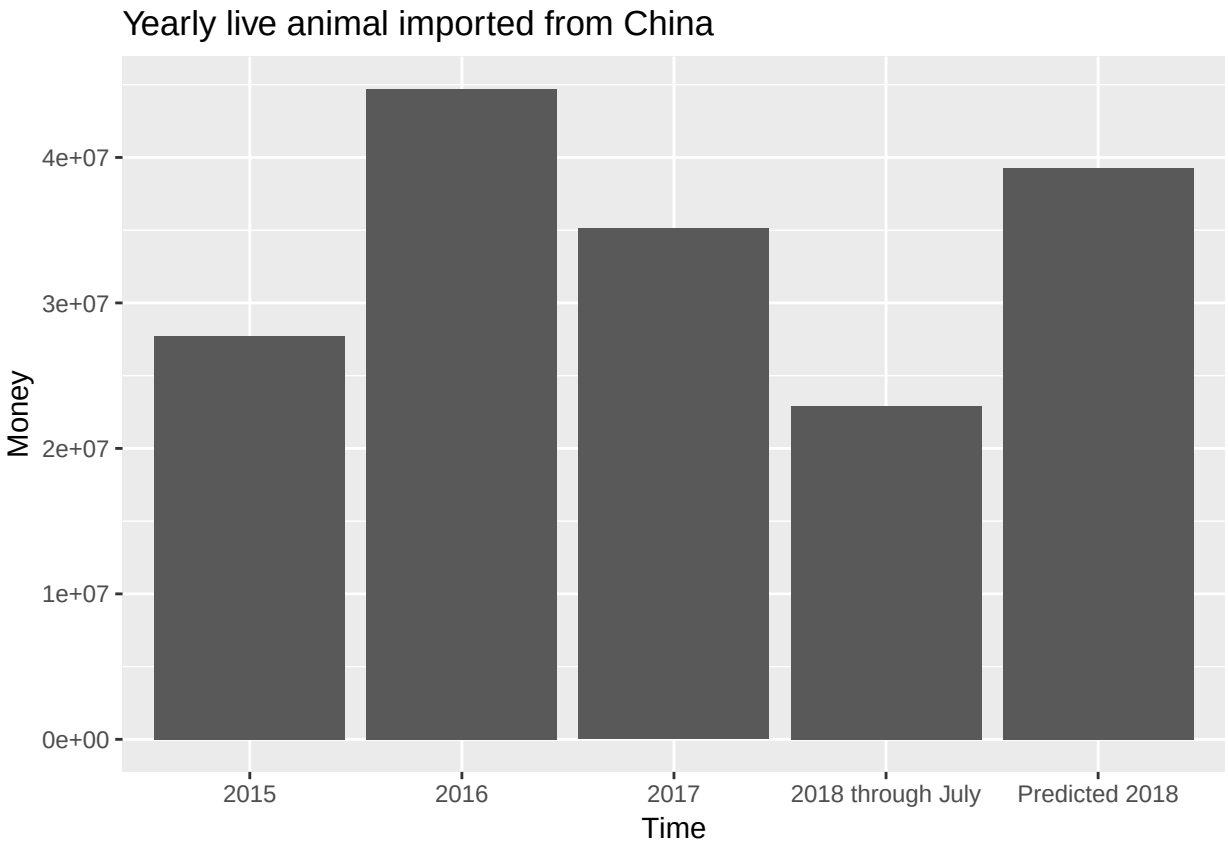
Data (how you generated it)

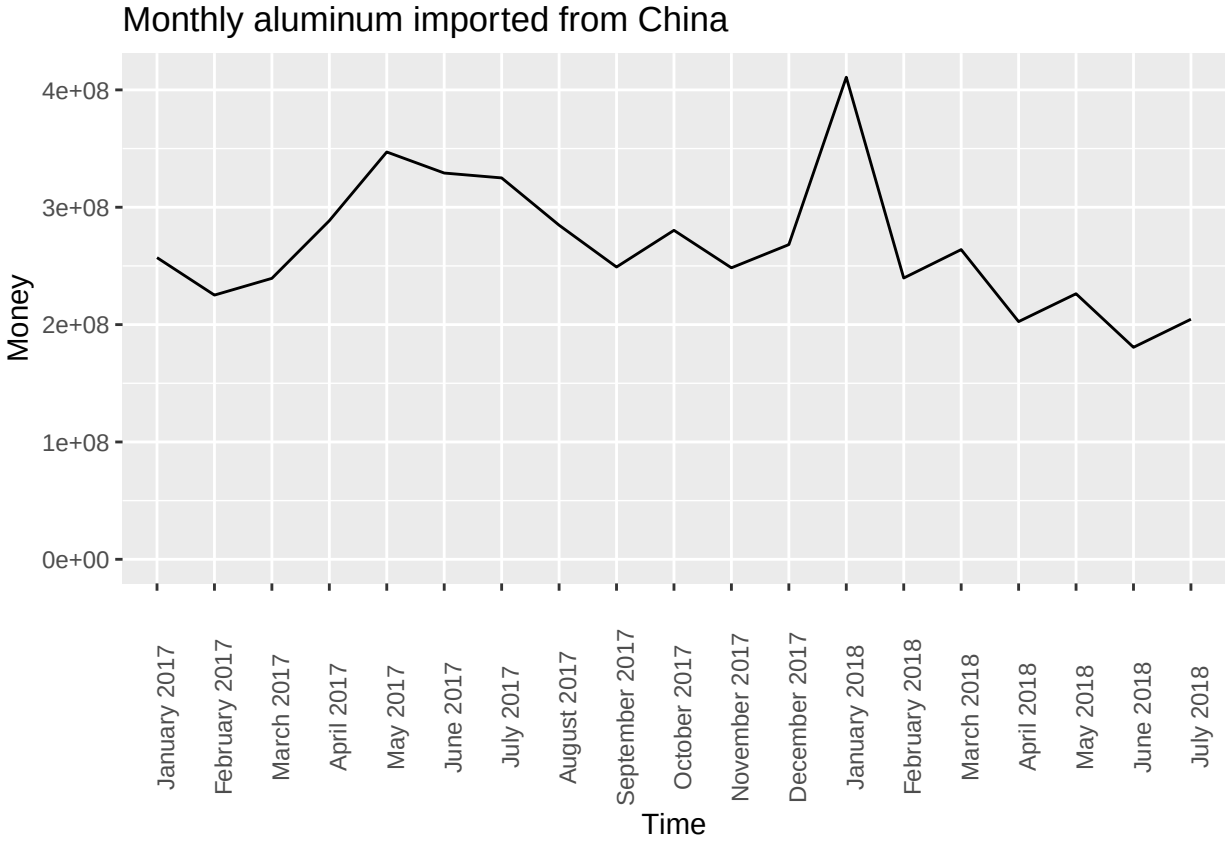
The method I generate the data is to first find the raw data from this website

https://www.census.gov/foreign-trade/index.html

Then, I registered an account and selected the data that most interests me. Then I downloaded the data into my local computer and load it into RStudio. After some manipulation, I subset the data to a smaller size and name them liveanimalchina and aluminum.

Visualization and Discussion





I am personally interested the impact of tariffs between China and U.S.A so I take two commodities, one is live animal and another one aluminum as examples. The first plot reveals the imported live animal in dollars from 2015 to 2018 until July. Notice that I add another bar called predicted 2018, which is generated by value of 2018 through July * 12/7. This is based on an assumption that whole year around value of aluminum is spreaded out on each month.

What we can see from this graph is there is not huge impact on live animal based on the value of predicted 2018. However, it is likely that U.S.A will not import much live animal in the winter of 2018, which will causes the actual value to NOT match the predicted value.

The second graph zooms in for the monthly imported value of alluminum from Jan 2017 to July 2018. From this graph, we do see a decreasing value of imported alluminum in June 2018 and July 2018 compared to June 2017 and July 2017. This could be an indication of the tariffs.

Conslusion

The impact of tariffs towards the imported commodities China is starting to accumulate. However, it has different impacts towards different commodities. For aluminum, tariffs definately changes the trade between China and U.S.A. However, it is too not eacy to predict the impact on live animal.

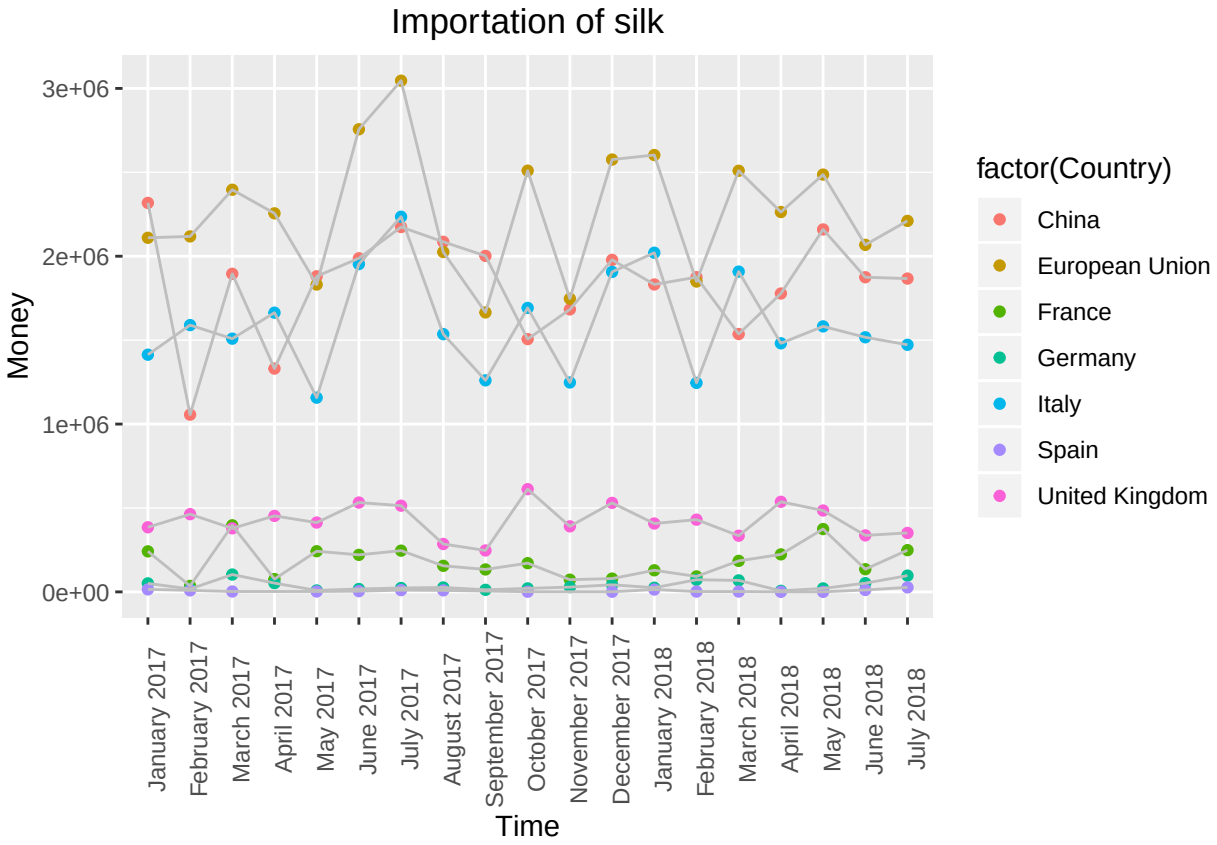
The following portiong is contributed by Tianying Xu

Data

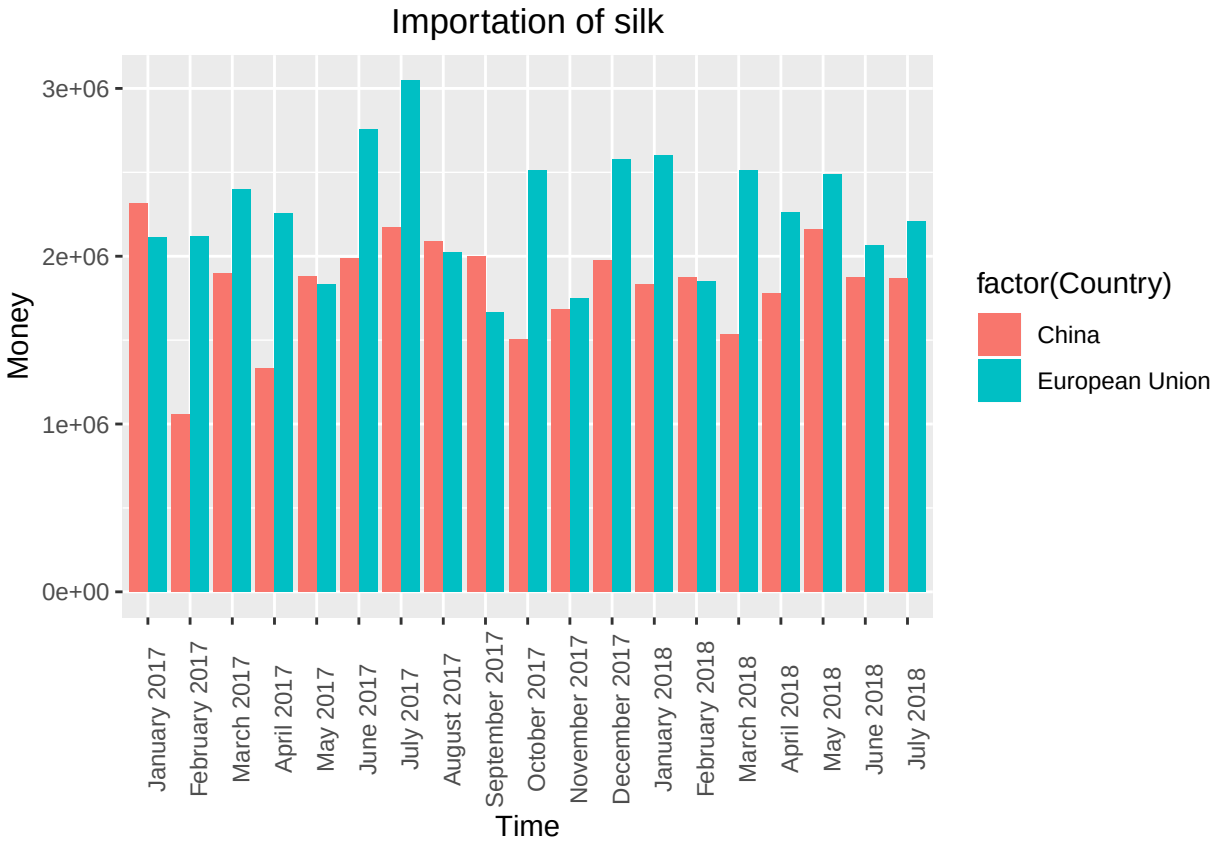
I am interested in importation of U.S. from other countries in the silk field. Thus, I filter the raw data to importation of silk only, then omit the NAs, finally filter data to only monthly amount.

Data visulization and analysis

For importation trend in the silk field, I would love to compare the importation amount of several countries to discover the whole trend.



This plot indicates importation of silk from several countries from January 2017 to July 2018. From this plot, we could see that there are patterns in importation of China, European Union and Italy, and the amount of these countries are large. Also, Italy has the similar trend with European Union because Italy is a big part of importation from European Union. For France, Germany, Spain and United Kingdom, the amount is relatively small. Thus, I will choose China and European Union to do a deeper analysis.



This bar plot describe the importation of Chine and European Union during January 2017 to July 2018. From this plot, we could see that on average, importation from Europre Union is slightly higher than from China. Also, when importation from China decreases, importation from European Union increases, like the cases in Feburary 2017, June 2017, July 2017, October 2017 and March 2018. Although importation from China decreases in March 2018, it increases later, which may not be affected by the tariffs.

Conclusion

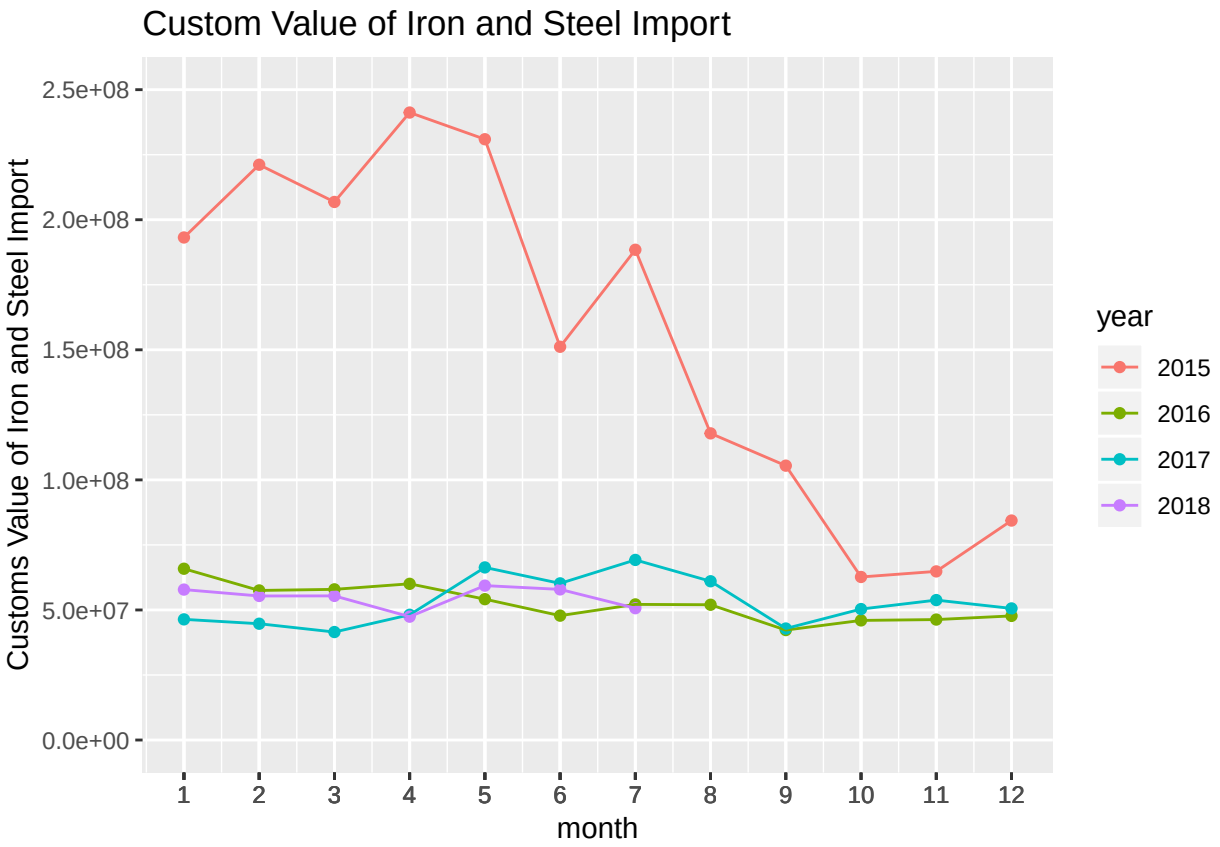
China and European union are the main source of silk to U.S. among these selected countries, and they are of similar amount every month. Also, there is not clear evidence in the silk field that tariffs affect the amount of importation.

The following portiong is contributed by Angela Zhai

Data

Data is from USA Trade Census.(https://usatrade.census.gov/data)

The data I used for plot is custom value of iron and steel importation from China in continuous 4 years(2015 to 2018).



Conclusion

From the plot above, we can tell that trade war has no significant influence on the metal field, or has not yet. Obviously, irons and steels importation value from China in 2015 is extremely high, and some reports also indicated this phenomenon.