Proposal

Each year, trillions of dollars worth of goods and services are traded globally. The wealth and power of nations depends on their ability to keep strong trade relations and export their goods on a global market. It is no surprise that there is an extensive volume of data collected in regards to global trading. However, this data is not always easily accessible and the task of gathering and interpreting the data can be a daunting task. The goal of our project is to make a visual representation of global trade that would increase the ease and efficiency of analyzing the massive amounts of data.

The visualization will be made by retrieving data from the UN Comtrade database, which includes an extensive breakdown of the goods and services imported and exported by each of the world’s nations. By using an interactive visualization, we can show the network of trade relations around the globe, with each country being a node which is linked by trade. A summary of a country’s imports and exports will be displayed on selection. This summary will focus on several key commodities, which will be categorized. This will ensure the user can get a sense of what is being traded without having to sift through the hundreds of sub-categorizations that the UN Comtrade database uses.

Furthermore, quantitative data of the values and volumes of trade will be included in the summary of each country. This data will be transformed from the database’s tables into a form that makes it easier for the user to consume, such as bar graphs and pie charts. The data will be accessed through an interactive map and categorical data filters, making it visually appealing and effective in displaying the trade data in an intuitive manner. This design will work with the searching capabilities of the tool, allowing the user to lookup, browse, locate, and explore specific countries or commodities.

Additionally, the visualization will include current trade data as well as data from previous years. There will be a focus on the years before and after major global events, such as the 2008 stock market crash. With these tools, the users will be able to see current trends in data as well as trends over time and how major events affected the world economies. Furthermore, the user will be able to make year to year comparisons of each country’s economy, and compare the economy of one country versus another’s. There will be the potential to derive new data by using the tool to compare multiple targets.

We will be considering the wants and use cases of several user groups when designing our visualization, and considering how our data will be displayed. The first group we will consider is those that will be using our visualization to gather data and produce inferences or have some other practical use for the visualization. These users may include International business professionals, political scientists, and those studying international business. By focusing on the clear and effective presentation of our data, we will be able to make our visualization particularly useful to this user group. Secondly, we also hope to target users that have a interest in the data we are using, but lack a practical purpose for it. Focusing on creating an elegant, intuitive interface will allow us to also focus on the needs of these users, while keeping our focus on our primary target group. By considering the specific needs of these users in the design phase, we hope to create a visualization that will also appeal to users that do not fall into our target groups, and who will be using our visualization for their own enjoyment.

The current scope of our project would be to focus on the trading information gathered on the G20 countries, including a few other nations of interest. This decision was made considering that these countries are the largest exporters and importers on the global market. A considerable amount of the world’s wealth is controlled by these nations, meaning they are of most interest. However, our goal is to increase the amount of nations we cover with the continuation of the project.