

# **IE6600 Computation and Visualization SEC 01 Fall 2024**

## **Makeup Assignment**

### **Analyzing USA Export and Import in 2021**

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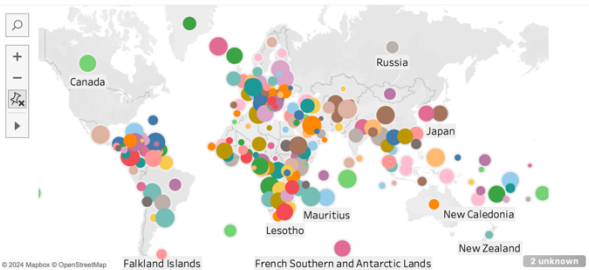
**Submission Date: 30 November 2024**

**- Report**

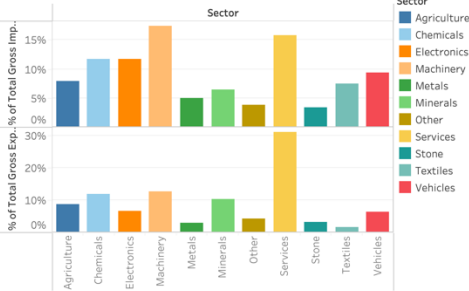
**- Tableau Visualization**

# Tableau Visualizations

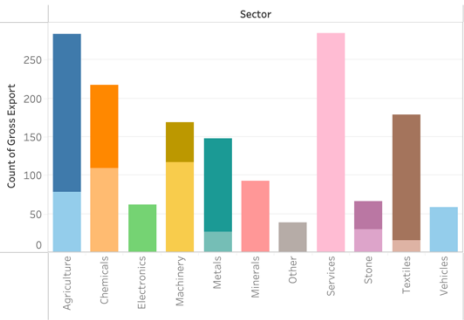
Analyzing USA Imports and Exports in 2021  
Geographical representation of Trading Partners



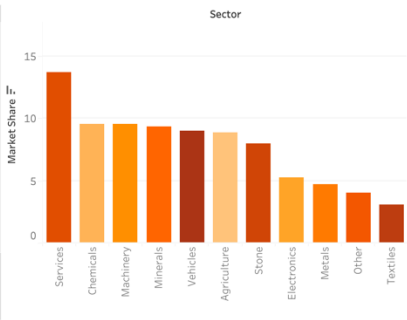
Trade Flow Breakdown by Sector



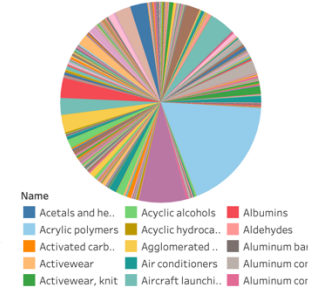
Stacked Bar: Gross Export vs. Share



Sector-Wise Market Share



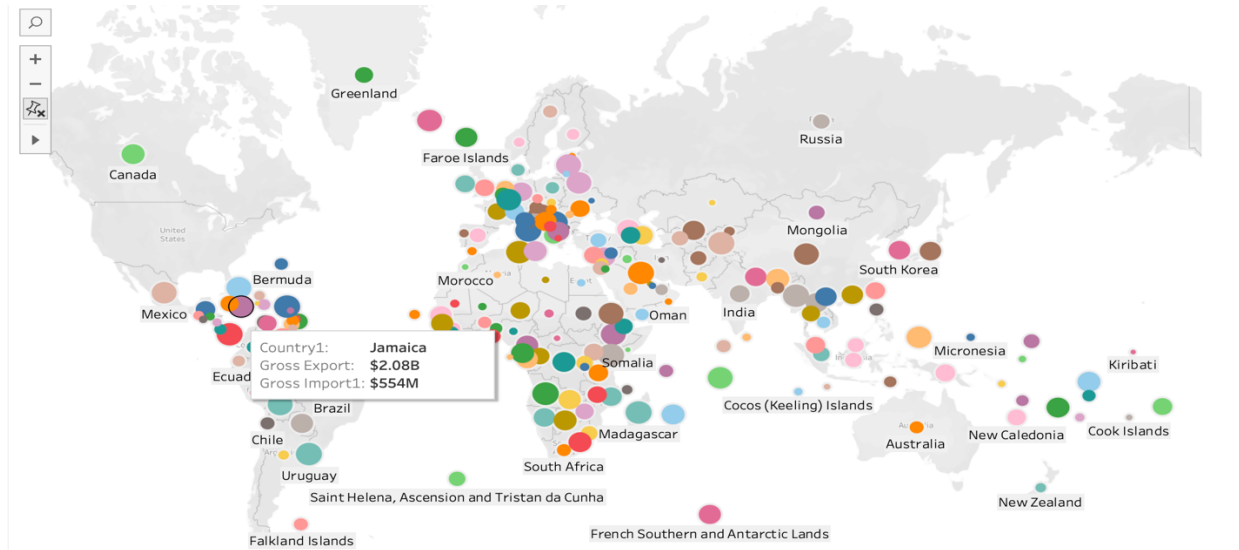
Piechart: Industry Gross Export



# Report

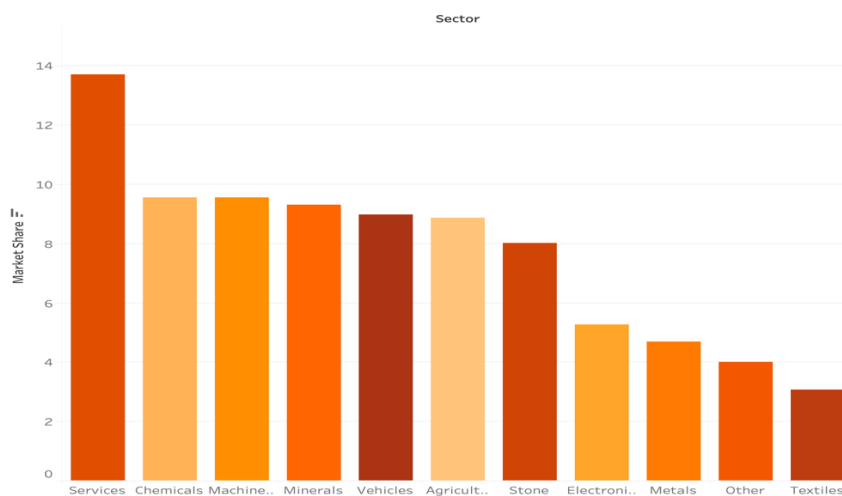
The above Tableau represents Analysis of USA Export and Import 2021.

## 1) Geographical representation of Trading Partners



The geographical representation of trading partners in this map shows a detailed view of the USA's global trade network in 2021, telling the gross exports and imports of individual countries. The size and color of the markers show the scale of trade, which helps to easily identify major trading hubs like India, Oman, and Mexico. Large markers like Canada, China shows that they have a lead among other countries and are main hub for USA trade flows. Likewise, smaller region like Africa shows the growth in trade relation

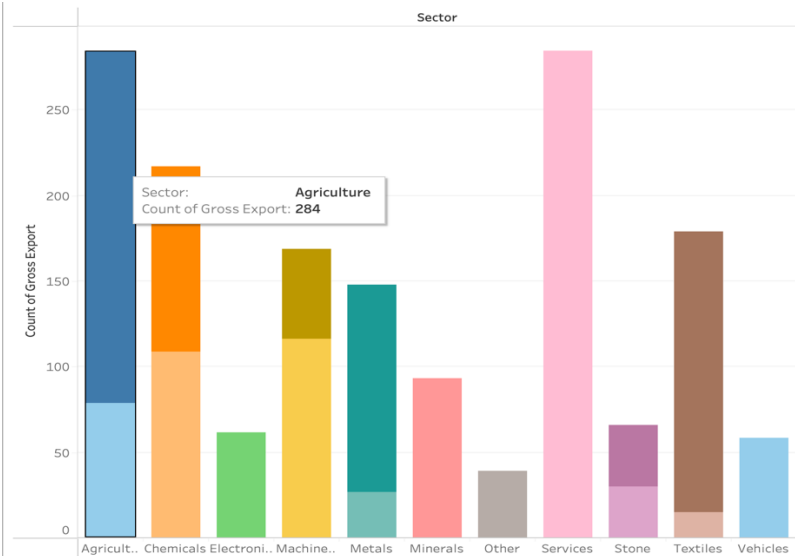
## 2) Sector- wise Market share



The above bar chart represents sector wise market share. The sector which are included are Services, Chemicals, Machinery, Textiles, Agriculture. The services sector is at the peak

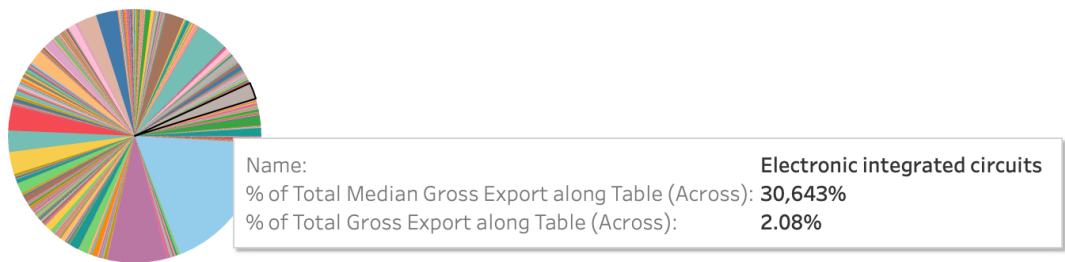
with 13.71% market share, contributing \$795B in exports and \$550B in imports. The other sectors like Chemicals, Machinery, and Minerals follow, while Textiles and Metals have the lowest shares, showing opportunities for improvement.

3) Stacked Bar: Gross Export vs share



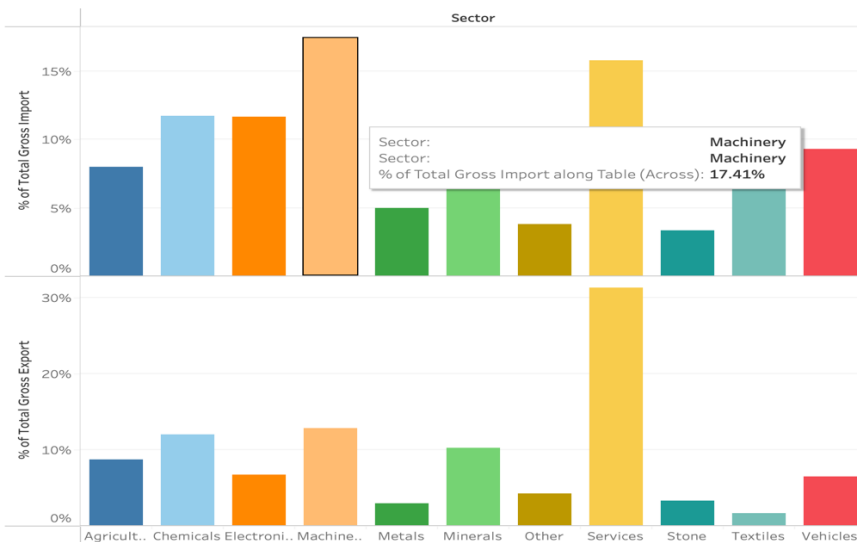
The above stacked bar chart represents the count of Gross export and sum of share in all the sector. The service sector is at the peak and stands out as the top contributor, showing importance role in exports. Sectors such as Chemicals, Textiles, and Vehicles contribute moderately, indicating steady growth opportunities. On the other hand, Metals, Stone, and Minerals exhibit relatively lower export counts, suggesting areas for potential improvement.

4) Pie chart: Industry Gross Export



The above pie chart represents the contribution of various industries to gross exports. ICT (Information and Communication Technology) is the largest contributor with 18.24% of total gross exports. The remaining industries like Electronics integrated circuits, Silver, Petroleum gasses have the smaller portions, showing a diverse but uneven distribution of exportation. Other industries, with smaller shares, present opportunities for growth and potential investments to achieve a more balanced export distribution.

## 5) Trade Flow breakdown by Sector



The above comparison of 2 bar chart represents the total percent of gross import and export with all the sectors like Agriculture, Metals, Textiles. First, the Majority (17.14%) of gross import of Machinery shows that it has maximum hold in importing and majority (32.21%) of gross export of Services shows that it has a great hold in export. The minority with just 3.36% of gross import of stone and minority with just 1.65% of gross export of textiles shows that this sector didn't has a great hold in trade flow. The other sectors like Electronics, Minerals, Vehicle shows improvement in upcoming years.