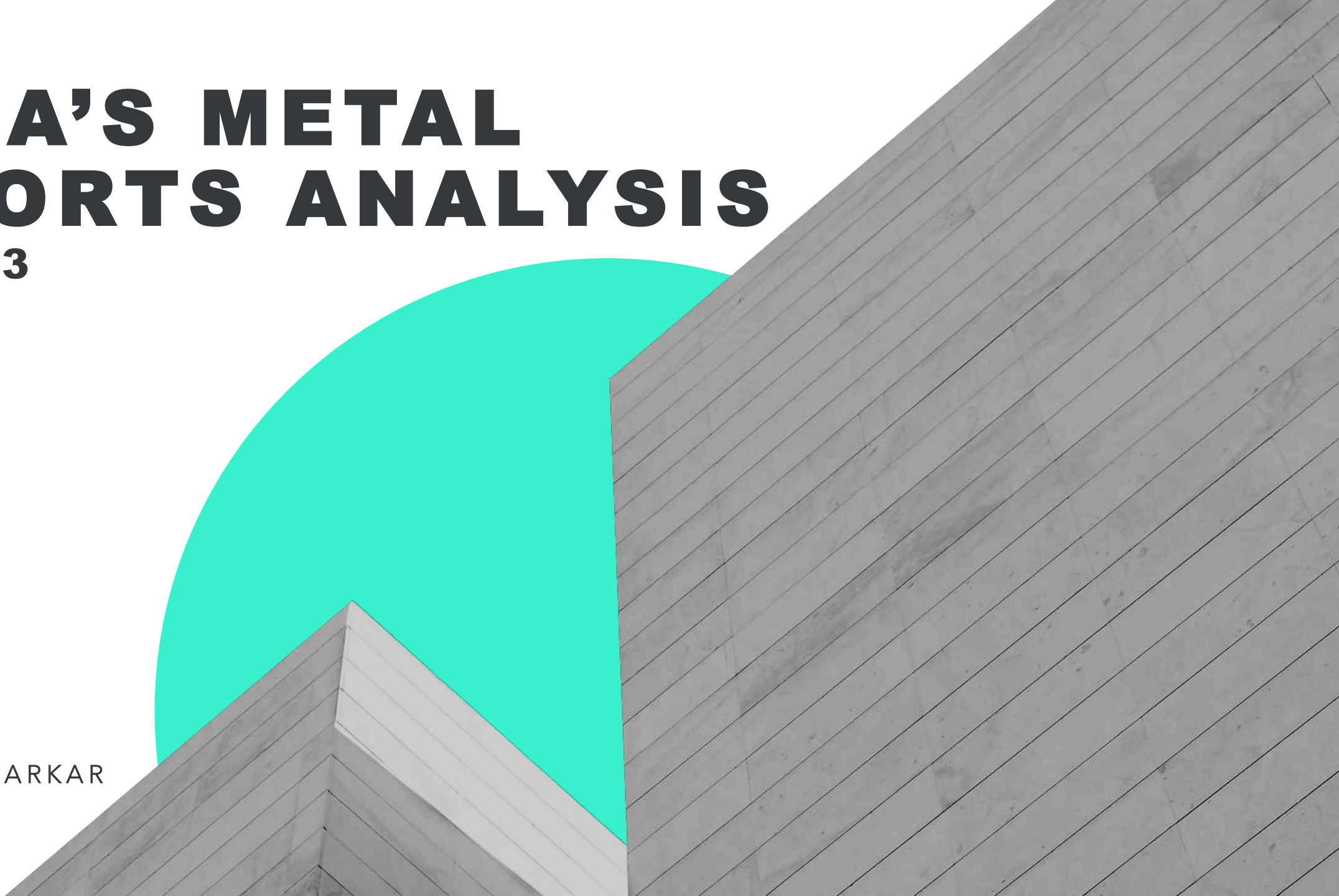


# **INDIA'S METAL EXPORTS ANALYSIS**

**2022-23**

LOBHAS NIVSARKAR



# EXECUTIVE SUMMARY



This is a self motivated Data Analysis project that aims to analyze the obtained data and generate visuals giving a better look at India's metal shipment patterns of FY 2022-23.

Visuals used, delve into the metal export trends and provide deeper insights into the regional demands on a global stage.

It shows a bigger picture of India's position as an exporter of heavy goods.

# CONTENTS

- INTRODUCTION
- METHODOLOGY
- RESULTS
- INSIGHTS & INFERENCES
- CONCLUSION



# INTRODUCTION

The Metal Exports analysis is based on visual representations and basic statistical operations applied on the dataset to allow effective representations.

Emphasis points:

- Demanding metals & their products
- India's large scale export markets
- Metal industry capacity
- Revenue - volume pattern

# METHODOLOGY

## Data Extraction:

- Downloaded data and stored locally.
- Raw csv file loaded on Pandas data frame.
- Tools : Python methods & functions | JupyterNotebook

## Data Pre-processing:

- Wrangling operations done
- Duplicates, NULLs, inconsistencies and noise removed.
- Unnecessary columns deleted
- Tools : Python libraries & functions | JupyterNotebook

# METHODOLOGY

## Data Organization:

- Dataset organized and structured.
- Ground level rearrangements carried out.
- Dataset tailored and cleaned for operations.
- Tools : SQL, Excel, PowerQuery Editor

## Visualization:

- Analytical results were visualized.
- Analysis conducted on different segments of dataset.
- Parameter and attribute-wise comparison is done.
- Tools : JupyterNotebook | Python Visual libraries | Power BI

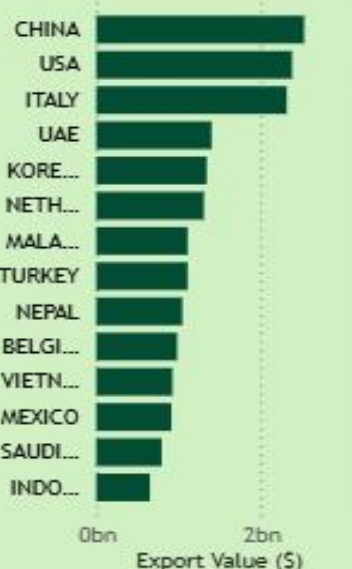


# DASHBOARD

COMMODITY ■ ALUMINIUM & PRODUCTS ■ COPPER & PRODUCTS ■ IRON & STEEL ■ IRON ORE ■ NICKEL & PRODUCTS ■ ZINC & PRODUCTS

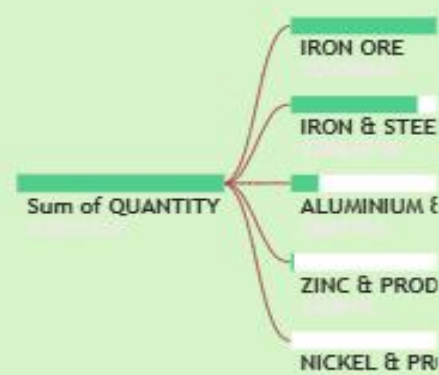


## EXPORT MARKETS



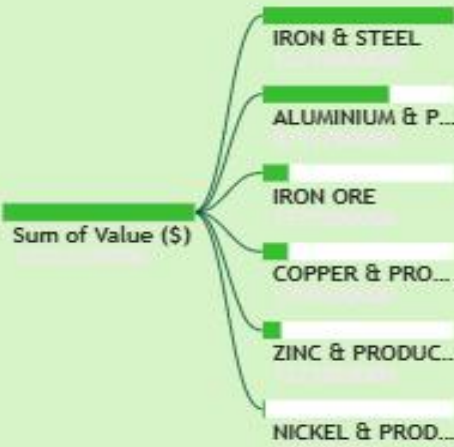
## VOLUME COMPARISON

COMMODITY



## VALUE COMPARISON

COMMODITY



## NET EXPORT QUANTITY



## NET EXPORT VALUE

27bn

## METAL DEMANDS

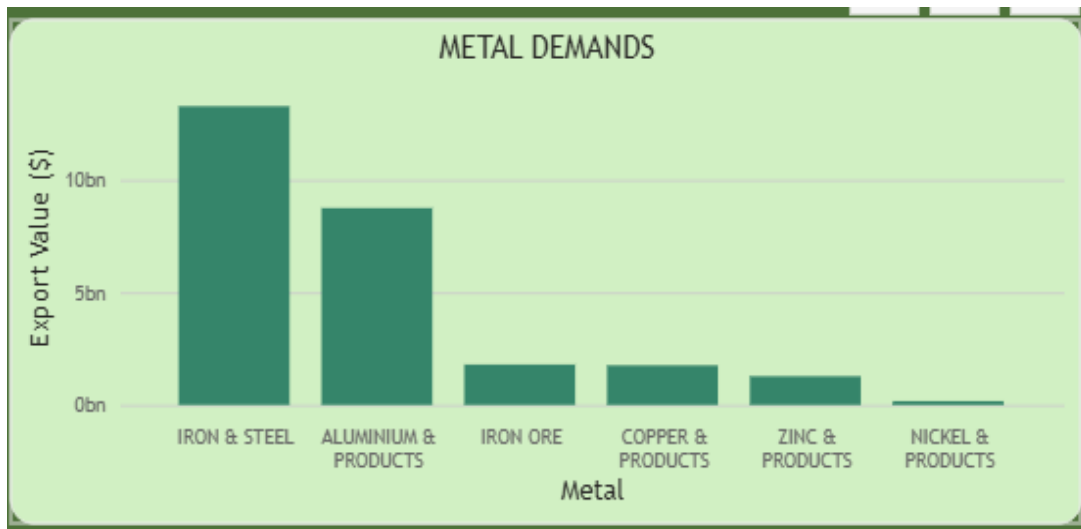
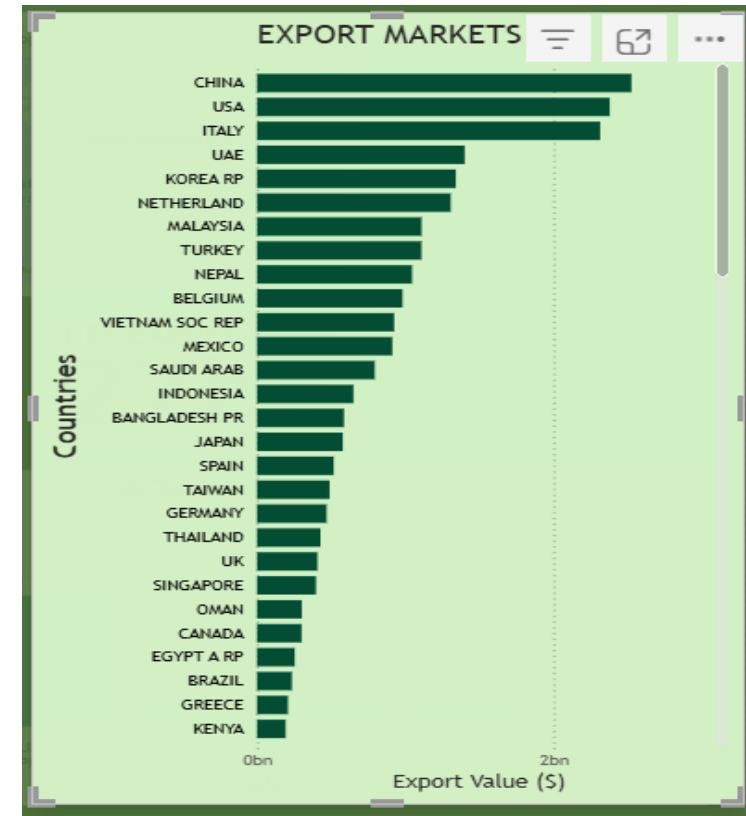


# RESULTS

## Demanding Markets

Country-wise sales values compared.

China stands on top of India's metals & metal products import list at nearly \$2.51bn; followed by USA, Italy, UAE at over \$2.2bn.



## Metal-wise importance

Sales valuation of different metals were tallied.

Iron & Steel products dominated the exports at nearly \$14bn followed by Aluminium & products at around \$9bn.



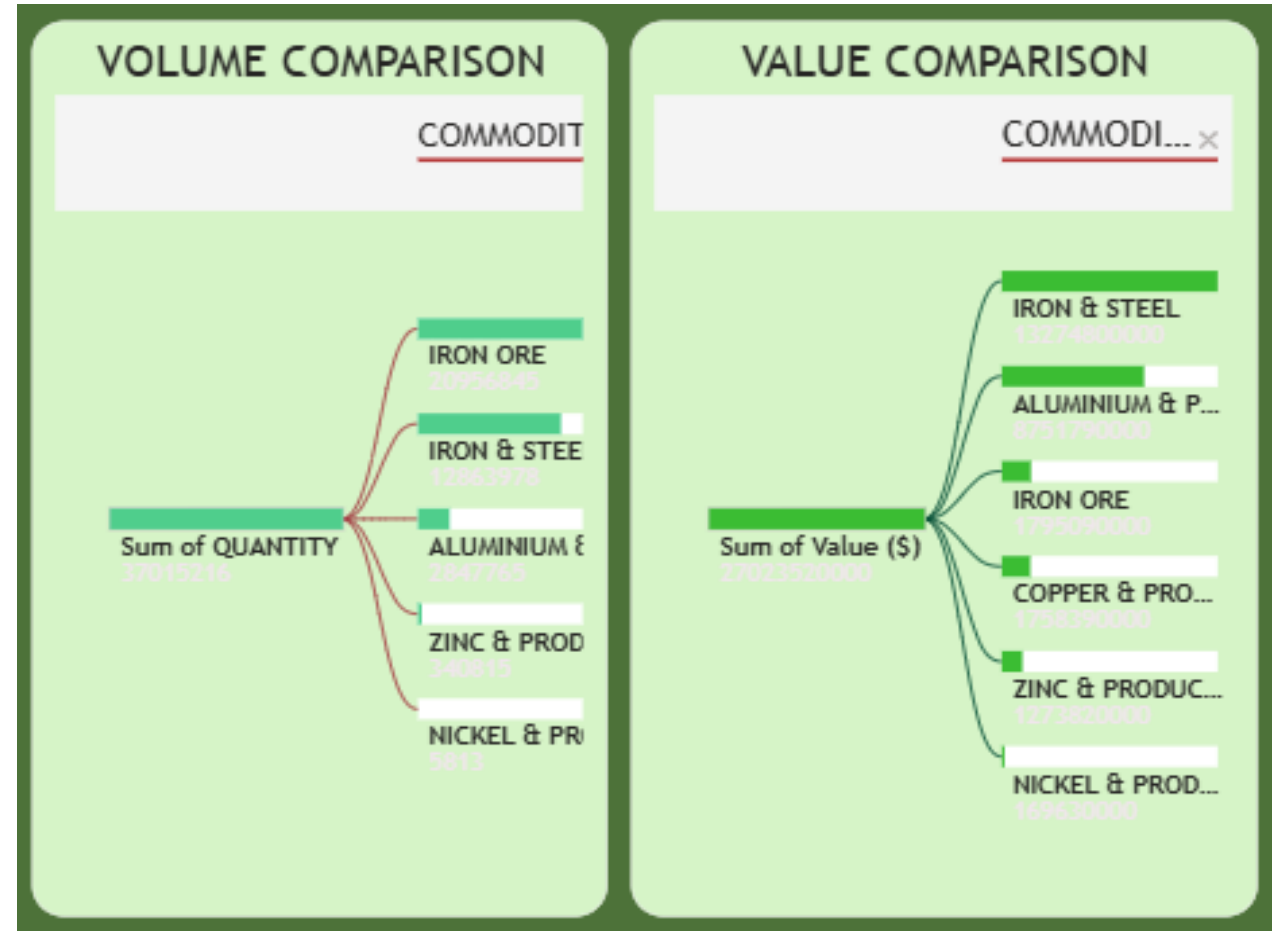
# RESULTS

## Quantity to Revenue Comparison

Exported metals quantites and net sales were compared.

Iron Ore stood out as the most exported while Iron & Steel products bagged the highest revenue generators stand.

Zinc, Nickel & Copper remain the underdogs of the export list in terms of both value and volume.



# INSIGHTS & INFERENCES

OBSERVATION	INSIGHT
China top importer of metals	<ul style="list-style-type: none"><li>• Heavy machinery and infrastructure development needs</li><li>• Cheap manufacturing hub fuelling high imports</li></ul>
USA leads Aluminium imports	<ul style="list-style-type: none"><li>• USA at peak of aircraft and lightweight vessel manufacturing causes increased aluminium demand.</li><li>• Boeing, Lockheed Martin, McDonnell Douglas etc. could be the lead buyers.</li></ul>
Iron & Steel and Iron ore products- the most exported	<ul style="list-style-type: none"><li>• India ranks among the top 5 countries rich with huge iron reserves.</li><li>• India possesses strong Iron &amp; Steel refining capacity. (eg: JSW Jindal Steel, Tata Steel, Vedanta Steel)</li></ul>

# CONCLUSION

India's export market although significantly diversified, the portfolio needs boost.

This requires bolstering the infrastructure capabilities and expanding the process.

Expansion can be achieved by involving private sector companies and encouraging their synchronized working with the government.

The private entities and PLIs can be attracted by making policies favourable for increasing the ease of doing business.





**THANK YOU**