
INTERNATIONAL
DEBT STATISTICS

Introduction

This project aims to Analyze international debt statistics and delve into the key aspects of international debt statistics, providing insights into definitions, trends, and the significance of such analysis in the global economy.

The world's debt situation has become more complicated in recent years. Many countries owe more money, and there are concerns about whether they can pay it back. The COVID-19 pandemic made things worse, causing governments to borrow even more money.

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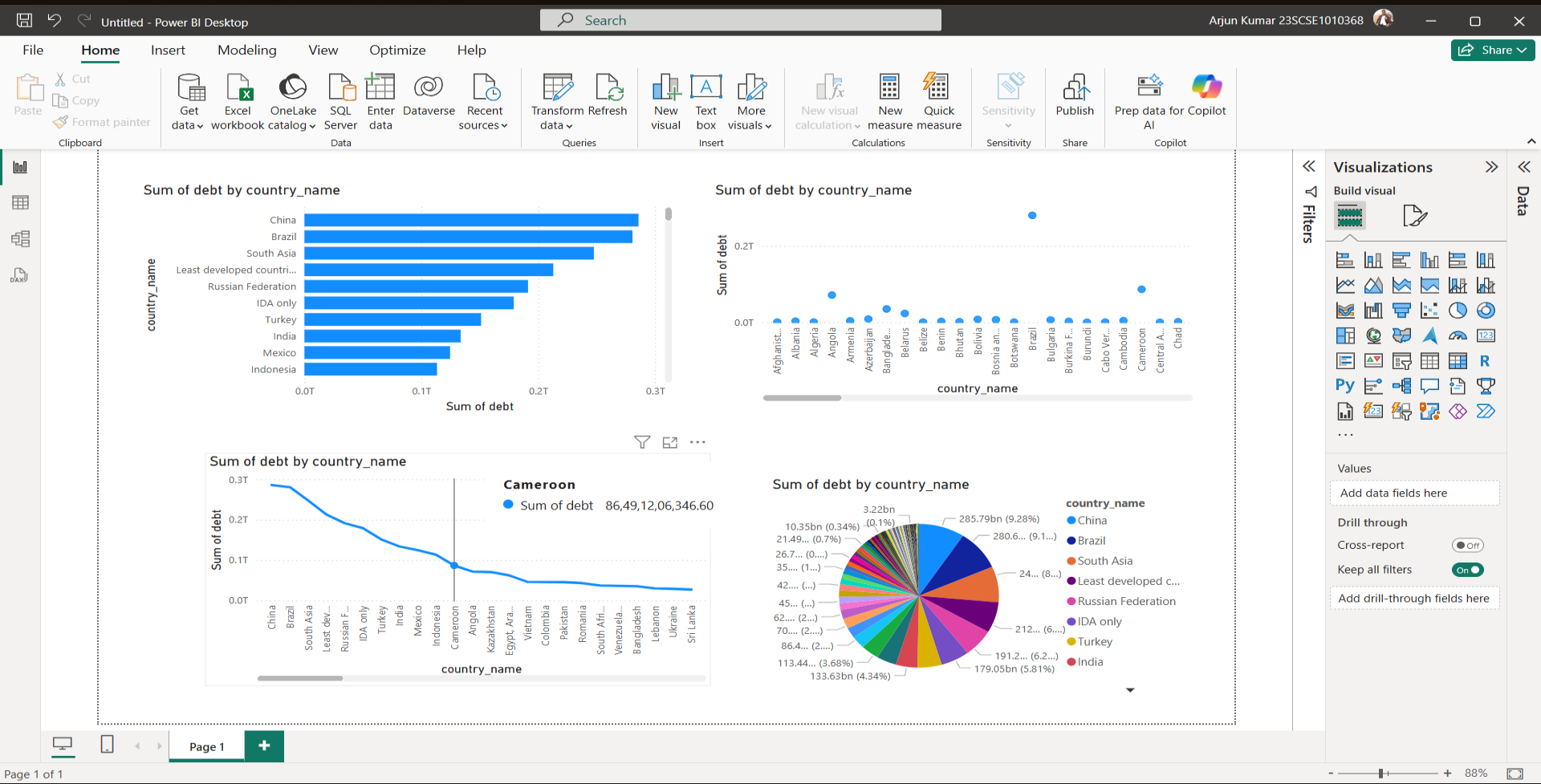
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Arjun Kumar 23SCSE1010368
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Copilot
Sum of debt by country_name
China
Brazil
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Russian Federation
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country_name
0.0T
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Sum of debt
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country_name
Sum of debt by country_name
3.22bn (0.1%)
285.79bn (9.28%)
280.6... (9.1...)
24... (8...)
212... (6....)
191.2... (6.2...)
179.05bn (5.81%)
133.63bn (4.34%)
113.44... (3.68%)
86.4... (2....)
70.... (2....)
62.... (2....)
45... (...)
42.... (...)
35.... (1...)
26.7... (0....)
21.49... (0.7%)
10.35bn (0.34%)
country_name
China
Brazil
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Russian Federation
IDA only
Turkey
India
Filters
Visualizations
Build visual
Values
Add data fields here
Drill through
Cross-report
Off
Keep all filters
On
Add drill-through fields here
Data
Page 1
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88%

1. The World Bank's international debt data

It's not that we humans only take debts to manage our necessities. A country may also take debt to manage its economy. For example, infrastructure spending is one costly ingredient required for a country's citizens to lead comfortable lives. The World Bank is the organization that provides debt to countries.

In this notebook, we are going to analyze international debt data collected by The World Bank. The dataset contains information about the amount of debt (in USD) owed by developing countries across several categories. We are going to find the answers to questions like:

- What is the total amount of debt that is owed by the countries listed in the dataset?
- Which country owns the maximum amount of debt and what does that amount look like?
- What is the average amount of debt owed by countries across different debt indicators?

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Markdown JupyterLab Python 3 (ipykernel)

the `international_debt` table. Also, we'll limit the output to the first ten rows to keep the output clean.

[1]:
```
%%sql
postgresql:///international_debt
   Select *
   FROM international_debt
   Limit 10;
```

```
UsageError: Cell magic `%%sql` not found.
```

2. Finding the number of distinct countries

From the first ten rows, we can see the amount of debt owed by *Afghanistan* in the different debt indicators. But we do not know the number of different countries we have on the table. There are repetitions in the country names because a country is most likely to have debt in more than one debt indicator.

Without a count of unique countries, we will not be able to perform our statistical analyses holistically. In this section, we are going to extract the number of unique countries present in the table.

[130]:
```
%%sql
postgresql:///international_debt
SELECT
   COUNT(DISTINCT(country_name)) AS total_distinct_countries
FROM international_debt;
```

1 rows affected.

[130]:

total_distinct_countries
124

➢ Overview

- International debt is money owed by countries to foreign creditors. It impacts economic policies and financial health. Forms include bonds, loans, and derivatives.
- This project aims to analyze international debt statistics to understand the global debt landscape, identify trends, and provide insights into the debt burden of various countries.
- The project will utilize publicly available data from reputable sources, such as the International Monetary Fund (IMF), the World Bank, and the Organization for Economic Co-operation and Development (OECD).

➢ Importance of analyzing debt statistics

- Analyzing international debt statistics is crucial for understanding financial stability and economic growth.
- It enables policymakers, researchers, and investors to assess risk levels, make informed decisions, and design effective strategies for debt management and economic recovery.

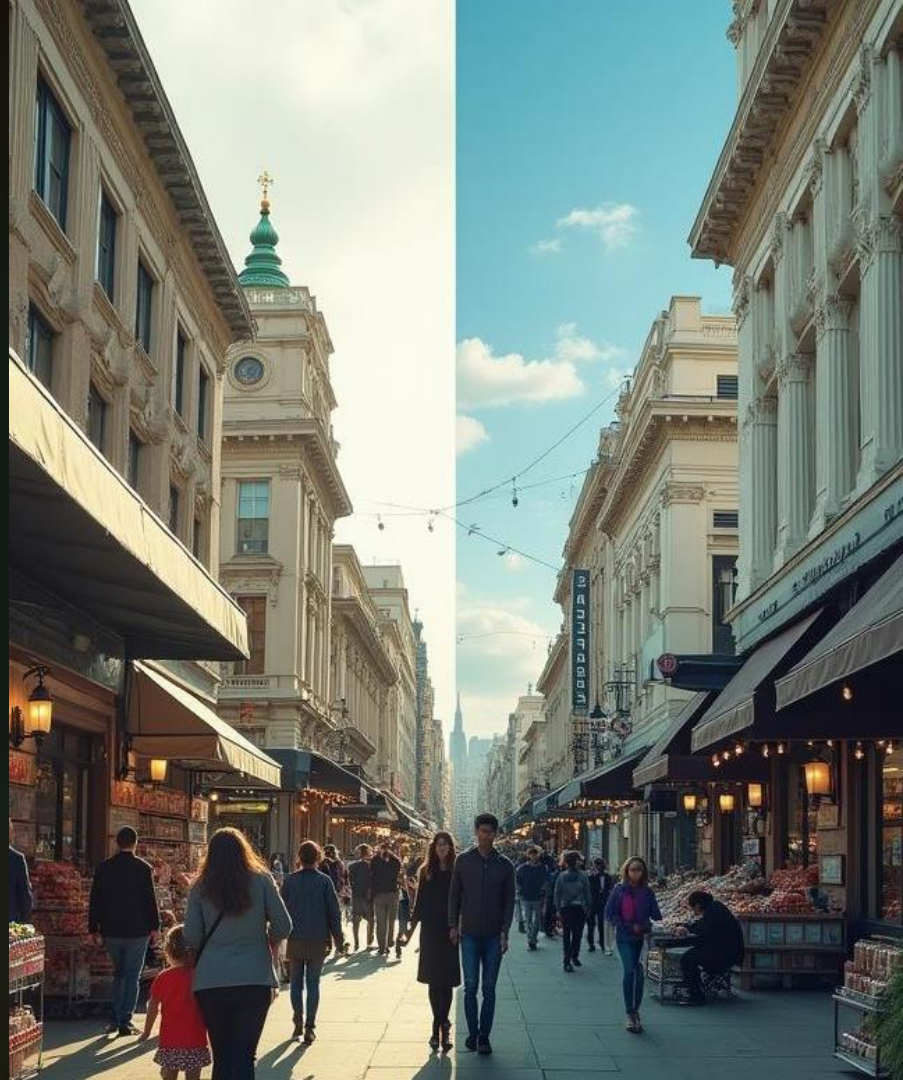
Debt Types

Public vs. private debt

Public debt owed by the government , it typically carries lower interest rate and is considered less risky whereas Private debt owed by individuals or businesses , generally it has higher interest rate and it is associated more risky . Public debt finances goods and services whereas private is used for personal or business expenses .

External vs. domestic debt

External debt owed to foreign lenders , denominated in foreign currency and usually subject to higher interest rates whereas Domestic Debt is owed to local citizens or institutions , denominated in local currency and tends to have lower interest rates along with reduced exchange rate risk .



➢ Some tools used to analyze international debt statistics

1. Debt-to-GDP Ratio : Compares a country's debt to its GDP.
2. Debt Service Ratio : Measures the percentage of exports used to service debt.
3. Current Account Balance : Tracks a country's trade balance and foreign investment.
4. Seaborn: Enhanced statistical visualizations with aesthetic themes.
5. Plotly: Interactive and animated visualizations.
   Pandas: Data manipulation and analysis.
6. Jupyter Notebook : Interactive development environment to run code and display results.
7. Power BI : For creating interactive dashboards and additional visualization options.
8. GitHub : Version control and project sharing.

Conclusions

In summary, international debt statistics provide invaluable insights into the complexities of global finance.

With rising debt levels and various debt forms, continuous analysis is vital for informed policymaking and international cooperation.

Understanding these dynamics helps in addressing potential risks and enhancing economic stability globally.

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Thank you