VISUALISING GROWTH

World Economic Outlook, IMF 2023

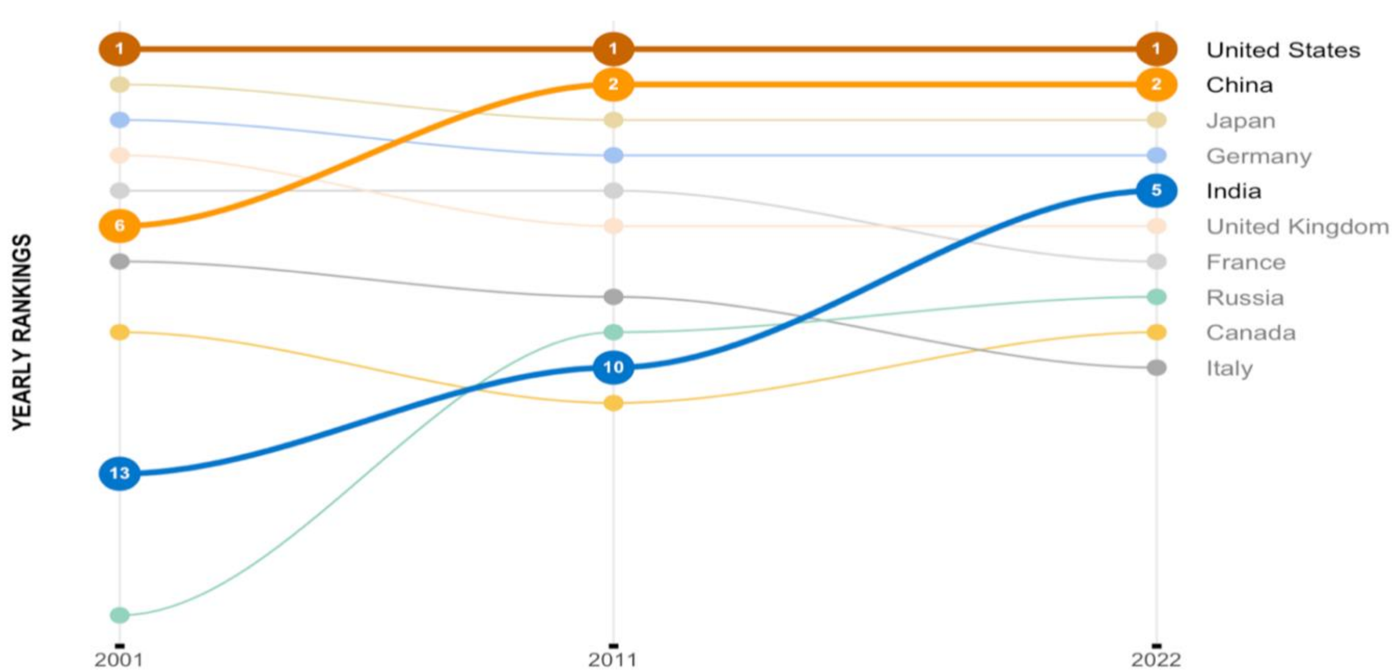
Data Definitions and Key words:

- GDP : Gross Domestic Product, measures the total value of goods and services produced in a country within a specific time frame, indicating its economic size and activity.
- Per-Capita GDP is the average economic output per person in a country, showing individual wealth on average, basically dividing GDP by population.
- Purchase Power Parity adjusts GDP for cost of living differences, reflecting real purchasing power across countries.
- Inflation is the increase in prices of goods and services over time, reducing the purchasing power of money.

Our focus is to get the reader intrigued in the global economy, particularly those readers that lack technical expertise but are curios on global economy. The data, we have, has inspired us to do a two part analysis - in one we analyze the top 10 countries and map them across various GDP metrics, while on the other, we try to understand the factors that helped propel their growth or lead to their stagnation. Top 10 countries contributed about 59% of the world market, so we focus on them in our analysis. United States consistently appears to have maintained its top position throughout the 21st century, while Asian powerhouses have shown a tremendous rise.

Countries ranked by GDP size

Source: IMF's World Economic Outlook, Oct 2023

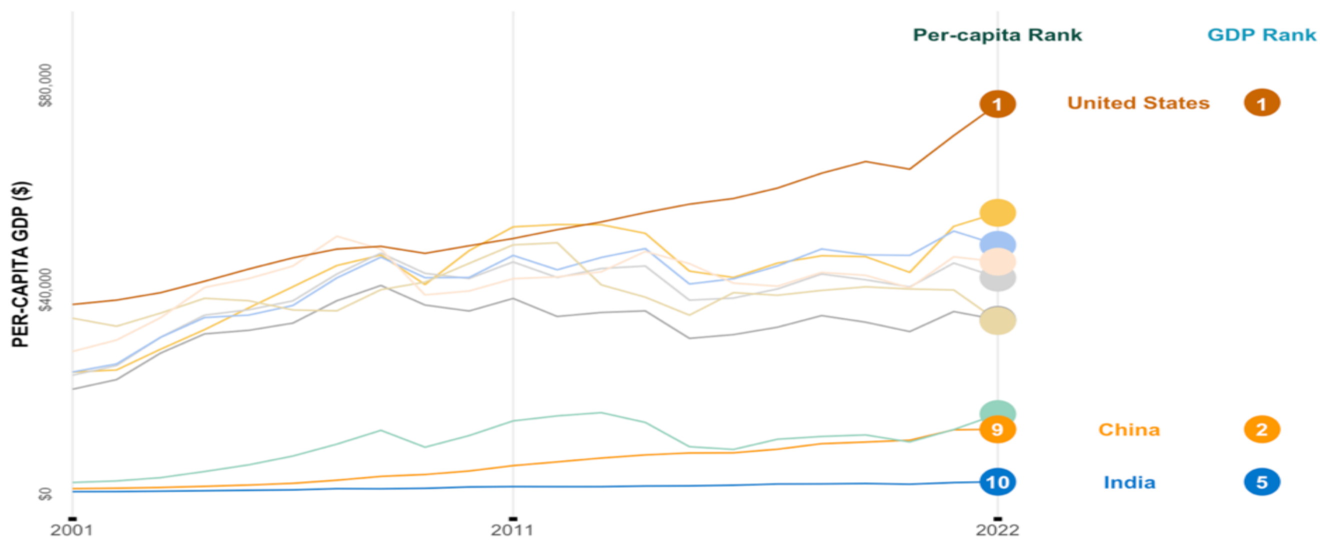


But countries have the different population sizes, so to gain a clearer understanding, it is beneficial to explore in terms of per capita. When we plot them by per capita income, the dynamics change noticeably. Although

China and India were ranked 2nd and 5th based on GDP, their positions shift to 9th and 10th in per capita income. This difference underscores a significant shift in relative economic performance when evaluating GDP, population, and per capita income.

Tracking top 10 countries on per-capita GDP, A comparison among peers

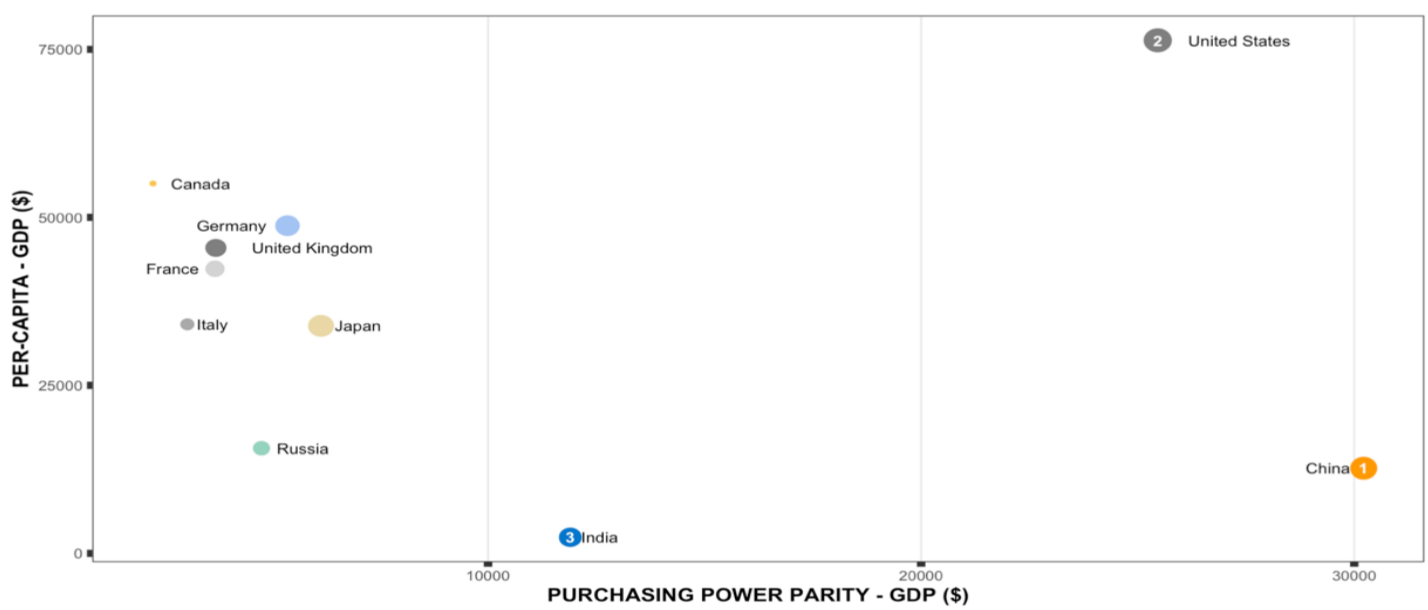
Source: IMF's World Economic Outlook, Oct 2023



But then this also raises another intuitive question - do people living in each country spend equal income on buying things? Aren't costs different for different products? So do they really need to be in the same per capita income group? let's see how inflation played out in these countries. Each country's inflation rates vary, reflecting distinct cost-of-living situations. So, how do we adjust for that? This brings us to the Purchasing Power Parity (PPP), which adjusts the earlier metrics to accomodate for unique living conditions in each country.

Standings on Purchase Power Parity Terms, 2022

Source: IMF's World Economic Outlook, Oct 2023



It becomes evident from the graph above that China has experienced a significant ascent in terms of rankings, surpassing United States. This not only suggests a notable shift in purchasing power dynamics, but also solidifies China's emergence as a key player in the global economic landscape. At the end of the day, economies exist to serve people, and if per capita purchasing power parity adjusted GDP is what takes that into account, shouldn't it be the metric that is used the most? This is the question that we would like to leave our users with. The diverse results raise a fundamental question: What drove this growth? How healthy is this growth? These questions can only be answered when we compare the growth with changes in imports, exports, employment metrics, government spending, borrowings, and expenditure. Analyzing that reveals some interesting trends:

- Canada: Despite significant successes at start of 21st century, its growth plateaued in the middle, while its imports growth outstripping exports throughout thereby causing a sustained current account deficits. Though government revenue and expenditure kept in track with each other, a steep spike in expenditure is visible as a response to pandemic stimulus. Employment rates have also plateaued during this period, with unemployment peaking in 2019.

- China: Chinese trade (both imports and exports) grew 10 fold in this period, a sign of its economy performing on all cylinders. Government expenditure started to surpass revenues over the past 5 years or so and the gap keeps increasing as China tries to fuel the next stage of its growth engine. Current Account surplus is a favorable factor that can cushion some of this increases in expenditure.

- France: GDP growth plateaued around the end of 2000's but government expenditure kept growing faster than its revenues, which remains a challenge. Imports growth is in tandem to Exports, but imports slightly has an upper-hand - this is also visible in the current account deficits that the country is piling up since 2009. Employment remains steady and unemployment is at an all-time low

- Germany: Germany prides itself for the fiscal discipline it has among its European peers, that is clearly visible in the significant current account surpluses that the country had all throughout the 21st century. However, the pandemic influenced government expenditure despite the steady rise in revenues saw its current account surplus in 2022 fell significantly to its lowest since 2005, but the country has a healthy employment metrics.

- Italy: Trade grew only 40% over 24 year period, contrast that to China's 10 fold growth, hence despite Italy having a current account surplus sees its economy stagnating and GDP numbers capture the decline. The government expenditure gap with revenues rose significantly over the past few years, which might add another negative factor to its growth prospects.

- India: Indian growth rate spike is also visible in its overall trade growth which grew 6 fold over the past two decades. A high expenditure which keeps widening the expenditure and revenue gap shows in the finances of the country. Current Account Balance remains in deficit territory for most of the years, except for a few.

- Japan: Japan's GDP fell from a $6.7 Trillion in 2012 to $4.2 trillion in 2022, despite a two fold increase in trade, exports growing relatively faster than imports and a healthy employment metrics and robust current account surpluses that the country is having. The gap between Expenditure and Revenue reduced pre-pandemic years, but it rose sharply again in 2021 & 2022. Russia: Russia has the complex story of these all countries, its GDP grew and fell couple of times in this period, imports grew 3 times while exports grew only 2 times - thereby becoming a import dependent country. Government finances have more or less aligned to each other despite some spikes in expenditure. Unemployment rate seems to be coming down steadily which is a good sign.

- United Kingdom: Lack of robust trade growth(only 50% in 2 years) is shown in the state of economy as well as the growth stagnates and current account deficits get accumulated, but there seems to be no check on government expenditure as it grew to its highest as a response to pandemic while its revenues remained steady. No inflection is seen either in its employment metrics.

- United States: On GDP, imports, exports, the country has seen steady growth retaining its position as number one country in terms of real GDP, but the consistent high government expenditure can be risk factor for its future growth. The current account that hit $1 trillion in 2022 should be another concerning factor to watch out for.