

File-Wise Summary

1. GDP Analysis – Walkthrough

- **Growth Metric:** Shows overall GDP trends from 1960–2016.
 - **Growth Insight:** Global GDP grew more than **30x** in this period.
 - **Population Effect:** Global GDP per capita grew slower, roughly **5–6x**, because world population also rose sharply.
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2. GDP Analysis – GDP Growth of a Country

- **Growth Metric:** Annual GDP growth rate for individual countries.
 - **Growth Insight:**
 - **China:** Averaged ~9–10% annual growth since the 1980s.
 - **India:** Averaged ~6–7% growth post-1990s.
 - **US/Japan/Germany:** Slower ~2–3% annual growth.
 - **Population Effect:** In China & India, high population growth moderated per capita improvements, while in Japan/Germany, low population growth meant GDP growth translated directly into per capita gains.
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3. GDP Analysis – Compare GDP across Countries (Basic & Advanced)

- **Growth Metric:** Relative growth of economies compared.
 - **Growth Insight:**
 - The U.S. remained the largest economy, but China's GDP growth outpaced everyone after the 1990s.
 - Emerging economies (India, Brazil) show faster percentage growth compared to developed countries.
 - **Population Effect:** Growth rankings look different per capita — many smaller European nations rank higher in living standards.
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4. GDP Analysis – GDP Growth on Whole Dataset

- **Growth Metric:** Total global GDP growth.
- **Growth Insight:**
 - Steady growth with dips in **1970s (oil crisis)** and **2008–09 (financial crisis)**.

- By 2016, global GDP reached ~79 trillion USD.
 - **Population Effect:** Global GDP per capita grew slower, reflecting both economic expansion and population boom.
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5. GDP Analysis – Compare GDP Growth Comparison

- **Growth Metric:** Side-by-side growth rate comparison.
 - **Growth Insight:**
 - China's CAGR (1990–2016) > **9%**, India ~**6%**, U.S. ~**2%**, Japan <**1%**.
 - Shows stark differences in growth trajectories.
 - **Population Effect:** GDP per capita growth was much higher in China compared to India (due to faster population stabilization).
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6. GDP Analysis – Plotting Graphs Using Plotly

- **Growth Metric:** Interactive visualization of GDP growth trends.
 - **Growth Insight:** Lets you zoom into specific decades (e.g., Asian Tigers in 1990s, U.S. rebound post-2008).
 - **Population Effect:** Helps visualize the widening gap between total GDP and per capita GDP.
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7. GDP Analysis – Plotting Graphs in Bulk

- **Growth Metric:** Bulk growth charts for many countries.
 - **Growth Insight:** Quickly identifies which countries grew fastest vs. stagnated.
 - **Population Effect:** Small countries (Luxembourg, Singapore) show modest GDP but very high per capita GDP growth.
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Overall Growth Conclusion

- From **1960 to 2016**, world GDP increased ~30x, but GDP per capita only ~5–6x.
- **China and India:** high GDP growth, but population growth slowed per capita gains.
- **Developed economies:** slower GDP growth, but high GDP per capita sustained.
- **Crisis years (1970s, 2008–09)** show clear global dips in GDP growth.

