



Trade War: GDP vs GNP

Developing vs Developed countries

Gew-rae Kim, Ph.D.

Department of Finance, Ernest Trefz School of Business
University of Bridgeport, Bridgeport, CT

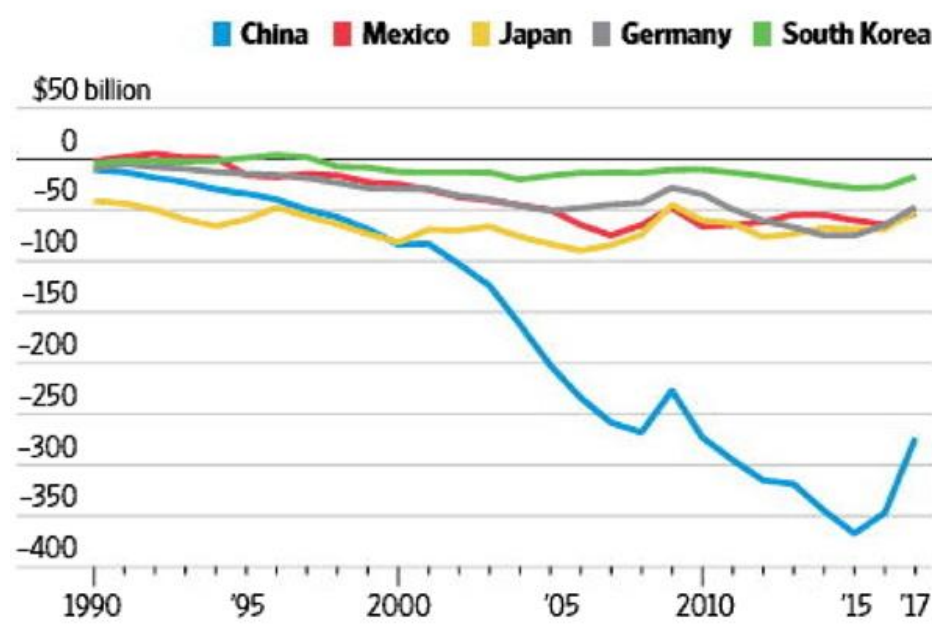
Abstract

GDP and GNP both try to measure the market value of all goods and services produced for final sale in an economy. The difference is how each term interprets what constitutes the economy. GDP refers to and measures the domestic levels of production in a country. It represents the monetary value of all goods and services produced within a nation's geographic borders over a specified period of time. GNP measures the levels of production of all the citizens or corporations from a particular country working or producing in any country. Therefore, it includes the compensation and investment income received by nationals working or investing abroad. More closed economy impact negatively more on GDP. We see how New Trade War impact to GDP and GNP on developed and developing countries differently.

US Trade and Deficit

China, Mexico, Japan, Germany, and South Korea

The U.S. merchandise trade deficit is much higher with China than with other major trading partners.

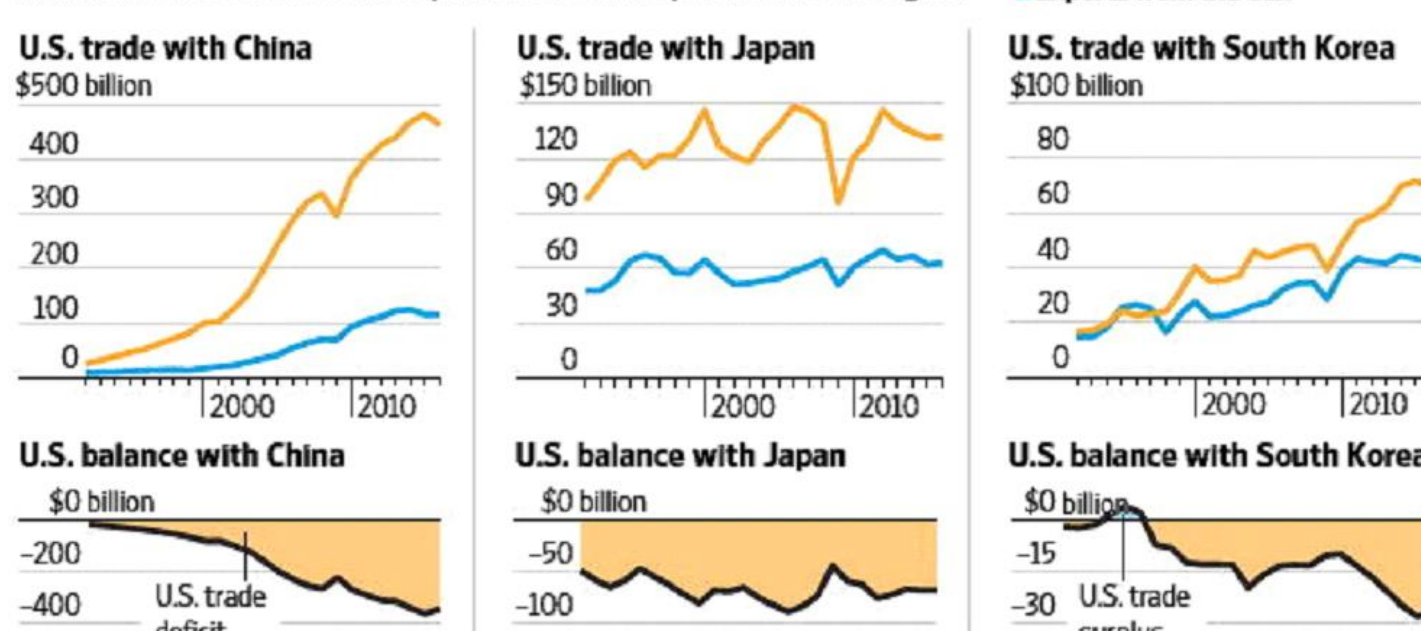


Note: Net including services trade deficit, not seasonally adjusted. 2017 figures through Sept. Source: United States Census Bureau THE WALL STREET JOURNAL.

China, Japan, and South Korea

US Trade Deficit with China, Japan, and South Korea. China and South Korea's exports to US increase rapidly, so does increase US Trade Deficit with these countries.

The president seeks to revamp U.S. trade ties in Asia to tackle American trade deficits. The top three U.S. trade partners in the region:



Source: U.S. Census Bureau THE WALL STREET JOURNAL.

G-Cubed Model

How much will Trade-war Tariff affect GDP negatively on all countries.

Table 2: GDP changes by Tariff Trade War in first year

| | Source of Trade War/Tariff Change | | | | | |
|----------------------|-----------------------------------|------|-------|------|-------|-------|
| | Global | USA | Japan | Euro | China | India |
| US | -1.3 | -0.3 | -0.1 | -0.3 | 0.0 | 0.0 |
| Japan | -1.7 | -0.4 | -0.6 | -0.1 | -0.1 | 0.0 |
| UK | -2.1 | -0.3 | 0.0 | -1.5 | 0.0 | 0.0 |
| Germany | -3.8 | -0.3 | 0.0 | -2.6 | 0.0 | 0.0 |
| Euro | -2.9 | -0.3 | 0.0 | -1.8 | 0.0 | 0.0 |
| Canada | -2.2 | -1.8 | 0.0 | -0.3 | 0.0 | 0.0 |
| Australia | -1.4 | -0.3 | -0.2 | -0.3 | -0.1 | 0.0 |
| China | 4.3 | -0.9 | -0.3 | -0.3 | -1.1 | 0.0 |
| India | -1.5 | -0.2 | 0.0 | -0.2 | 0.0 | -0.6 |
| Other Asia | -3.9 | -1.0 | -0.2 | -0.3 | -0.4 | 0.0 |
| Latin America | -1.6 | -1.3 | 0.0 | -0.3 | 0.0 | 0.0 |
| OPEC | -4.4 | -0.9 | -0.4 | -1.0 | -0.2 | -0.1 |

Notes: Source G-Cubed Model from McKibbin and Stoeckel (2009)

GNP vs GDP

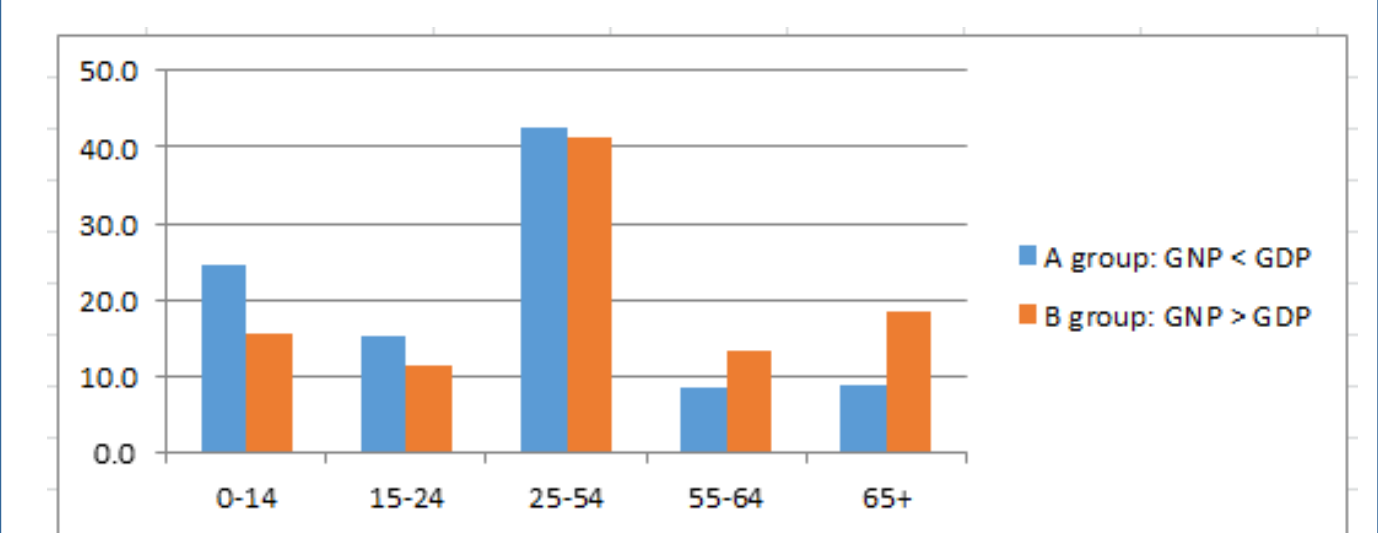
Developing vs Developed

| Developed | Developing |
|----------------|------------|
| Canada | China |
| Denmark | India |
| Finland | Brazil |
| France | Nigeria |
| Germany | Russia |
| Hong Kong | Mexico |
| Italy | Vietnam |
| Japan | Iran |
| Netherlands | Thailand |
| New Zealand | Kenya |
| South Korea | Argentina |
| Spain | Poland |
| Switzerland | Peru |
| Taiwan | Chile |
| United Kingdom | Portugal |
| United States | Greece |

Partial list of Developed and Developing countries. We define Emerging markets based on their economic growth, but there are other differences in their economic status, for example their GDP and GNP differences.

We observe that developed countries have more older population and emerging countries have more younger population. We define countries as Developed countries whose GNP is greater than GDP, Developing countries as GDP is bigger than GNP.

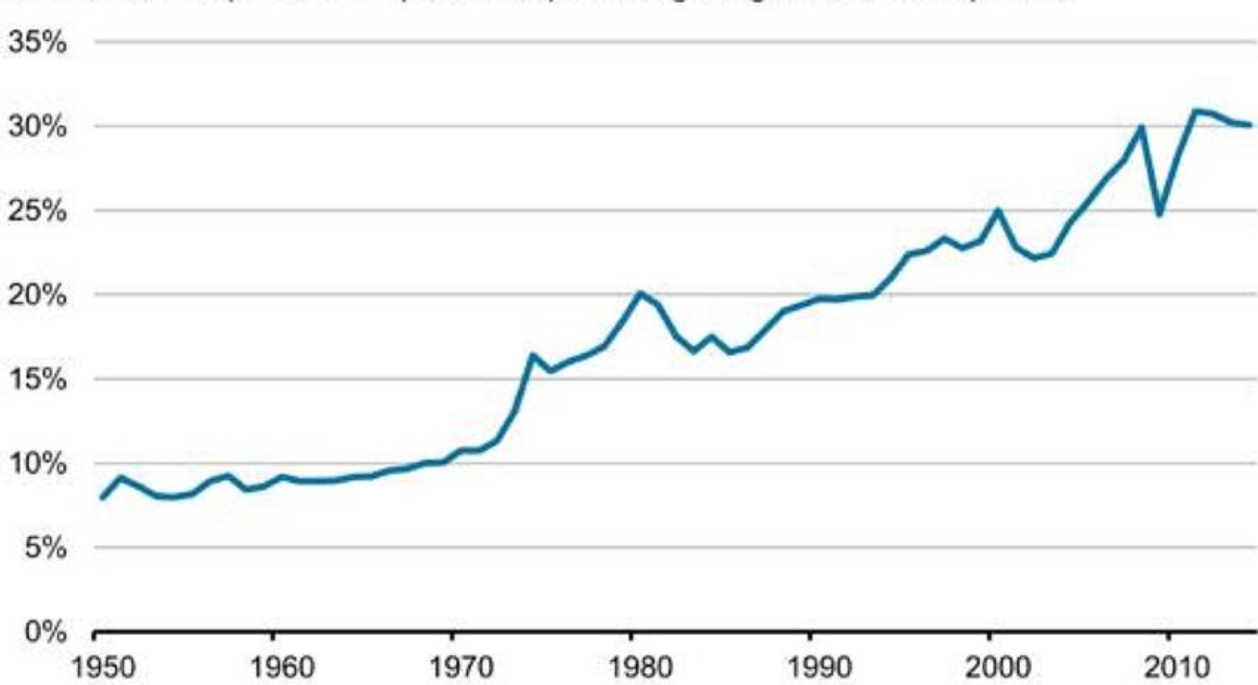
| GDP < > GNP | Age | | | | |
|------------------------------|------|-------|-------|-------|------|
| | 0-14 | 15-24 | 25-54 | 55-64 | 65+ |
| A group: GNP < GDP | 24.5 | 15.4 | 42.5 | 8.6 | 9.0 |
| B group: GNP > GDP | 15.5 | 11.5 | 41.2 | 13.2 | 18.6 |



US Going Global

US Exports and Imports per GDP Grows and Stabilized.

Sum of U.S. exports and imports as a percentage of gross domestic product



Source: Commerce Department | WSJ.com

Global Export and GDP

The globalization of the past four decades brought with it a boom in global trade, but since the 2008 financial crisis trade has suffered as countries begin to look inward.

Total annual exports as a percentage of world GDP

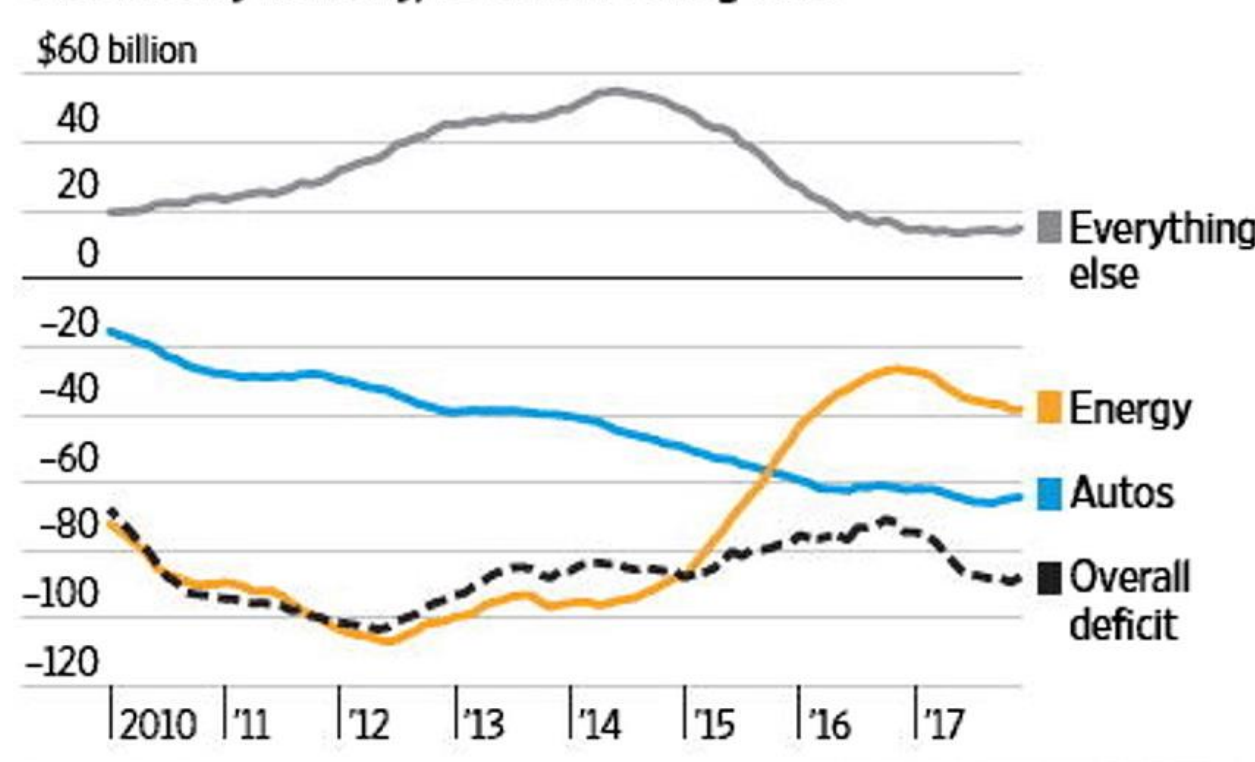


Source: Oxford Economics

THE WALL STREET JOURNAL

As shown below, US has increasing Trade Deficit with Labor intensive Auto industry in NAFTA countries.

U.S. trade surplus/deficit with Nafta countries by industry, 12-month rolling total

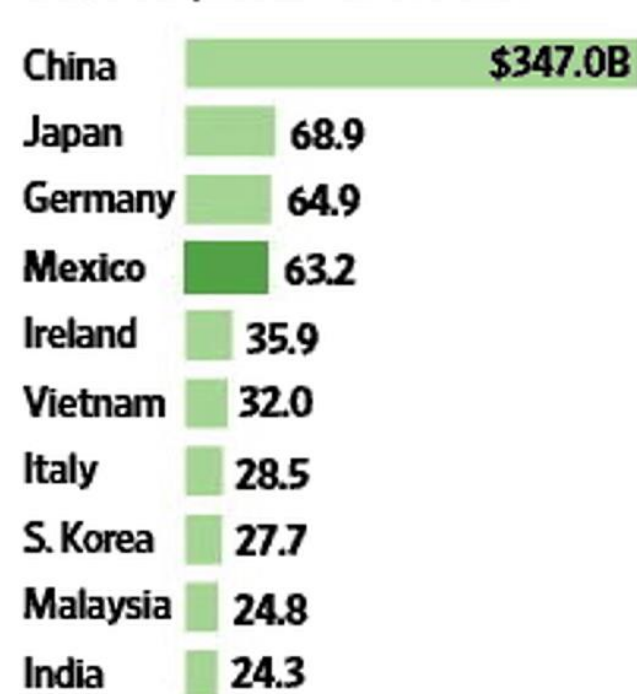


Source: Panjiva THE WALL STREET JOURNAL.

GDP, GNP of Large Surplus

What will be the impact on GDP and GNP of Largest Trade Surpluses versus the US will be examined.

These nations run the largest trade surpluses vs. the U.S.



Source: U.S. Census Bureau

CONCLUSION

We found Developed countries have bigger GNP than GDP, and Emerging countries have higher GDP than GNP. This is mainly emerging countries invite foreign capital for economic development. Surprisingly, advanced countries have significantly bigger older population percentage, but working age (25 - 54) group has almost the same population percentage as developing countries. So current Trade War will have more negative impact to these developing countries.