

Project 1 6103

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Zheyue Wang

Content

Among 10 countries:

US, China, Russia, Germany, UK, France, Italy,
Saudi Arabia, S. Korea, Israel

The purpose of this project:

Part I. GDP VS Military expenditure

Part II. Overall military expenditure

1. absolute
2. percentages

Part III. Military per capita VS GDP per capita

1. absolute
2. percentage

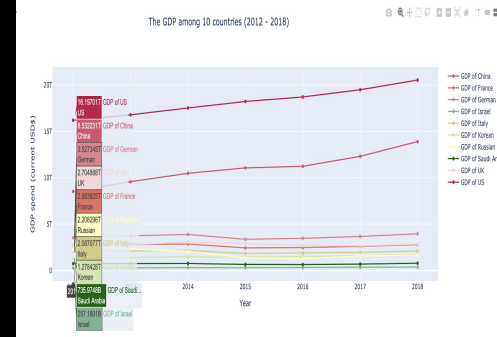
Part IV. The fastest growing countries in military spending

1. absolute
 2. percentage
-

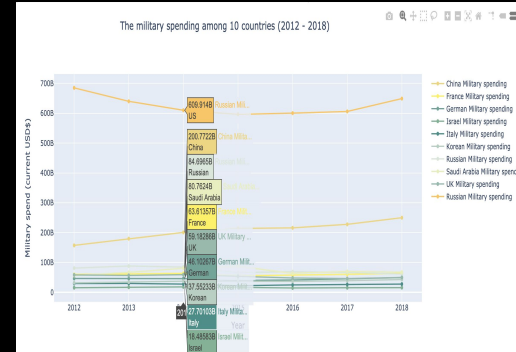
Part I

GDP VS Military expenditure

GDP

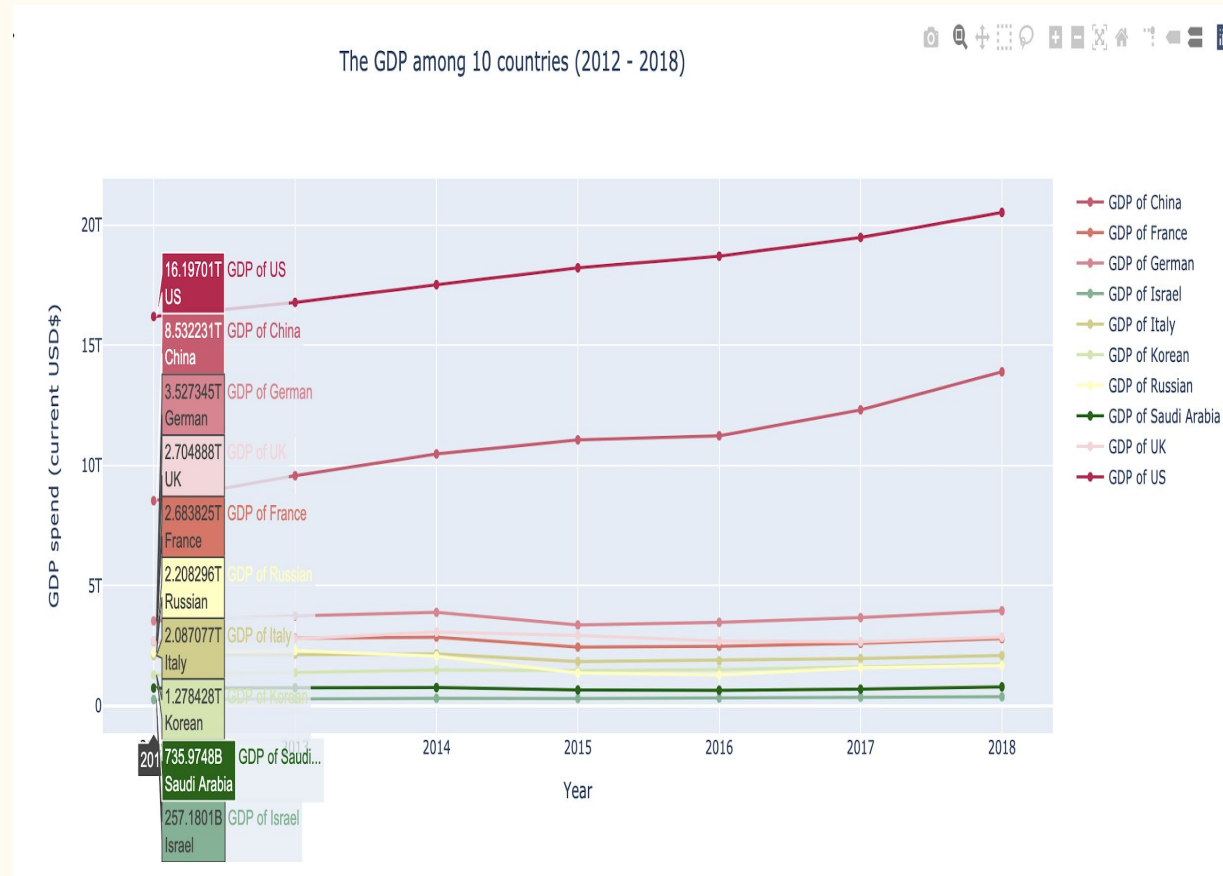


Military expenditure



GDP

- In general, the GDP of the United States and China showed an upward trend in seven years.
- Among the ten countries, the top two countries with the largest GDP are:
 - U.S
 - China
- For Saudi Arabia and Israel, GDP growth flat.
- From 2014 to 2015, the GDP of Germany, the UK, France, Russia, and Italy showed a downward trend.
- There is a gap between the GDP of the United States and China, and the GDP of China and Germany.



Each line represents the GDP of a country. This line graph ranks 10 countries by their GDP

Military Expenditure

- The United States and China spend far more on their armed forces than the other eight countries.
- Among the 10 countries, the United States still has the highest military expenditure.
- Israel has the lowest military expenditure.
- From 2012 to 2014, the United States military expenditure has been on a downward trend.
- In general, the military expenditure of a rest eight countries has been developing steadily.

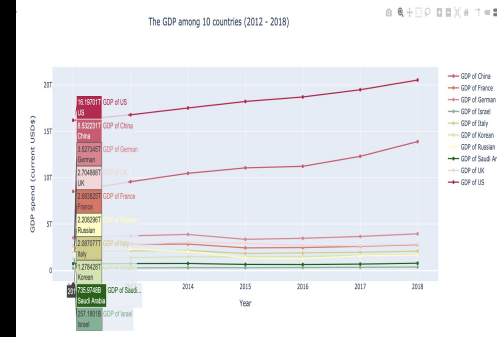


Conclusion

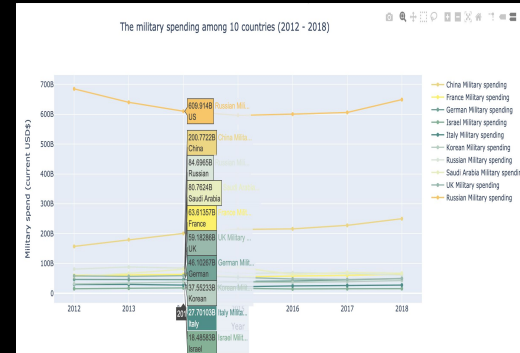
In general:

The United States and China are the top two countries in both GDP and military expenditure

GDP



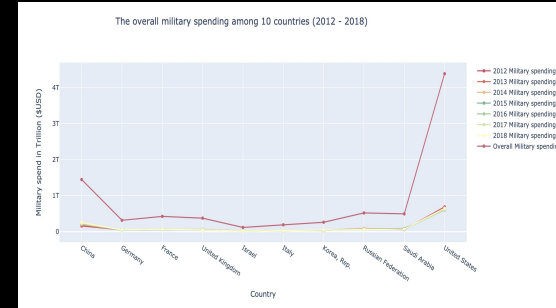
Military expenditure



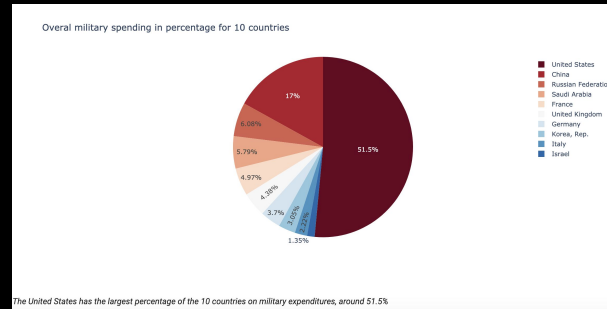
Part II:

Overall military expenditure among 10 countries

By absolute value

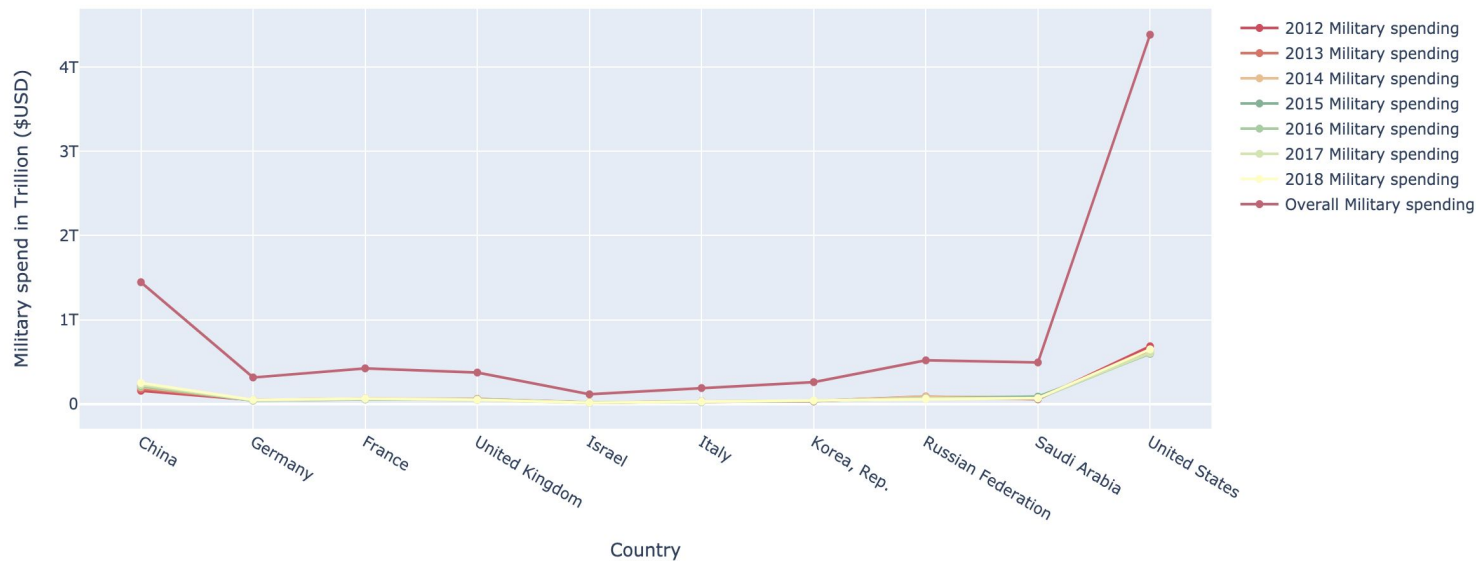


By percentage



By absolute value

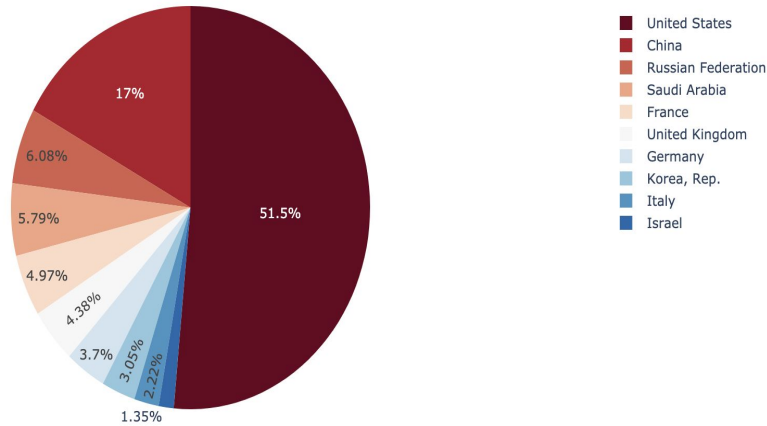
The overall military spending among 10 countries (2012 - 2018)



Among the total ten countries, the United States is the highest country for overall military spending.

By percentage

Overall military spending in percentage for 10 countries



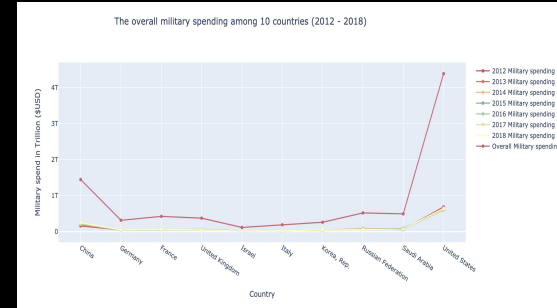
The United States has the largest percentage of the 10 countries on military expenditures, around 51.5%

- The United States has the largest percentage of the ten countries on military expenditures.
- The military expenditure of China is the second-highest among the rest of the countries.
- The military expenditure of the rest of the eight countries is below 10%.

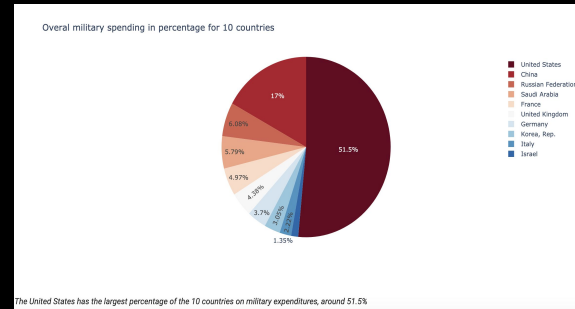
Conclusion:

Compare the absolute value and the percentage, the United States is the most highest country on military expenditure among 10 countries.

By absolute value



By percentage

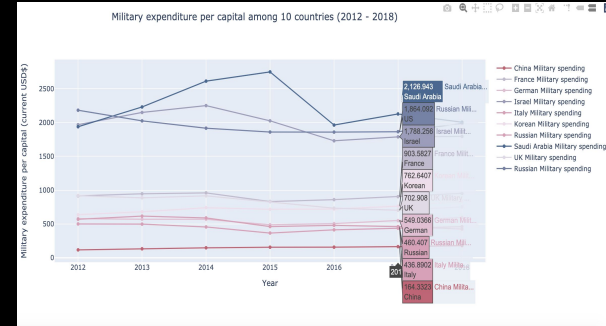


Part III:

Military per capita VS GDP per capita.:

1. By absolute value

Military per capita

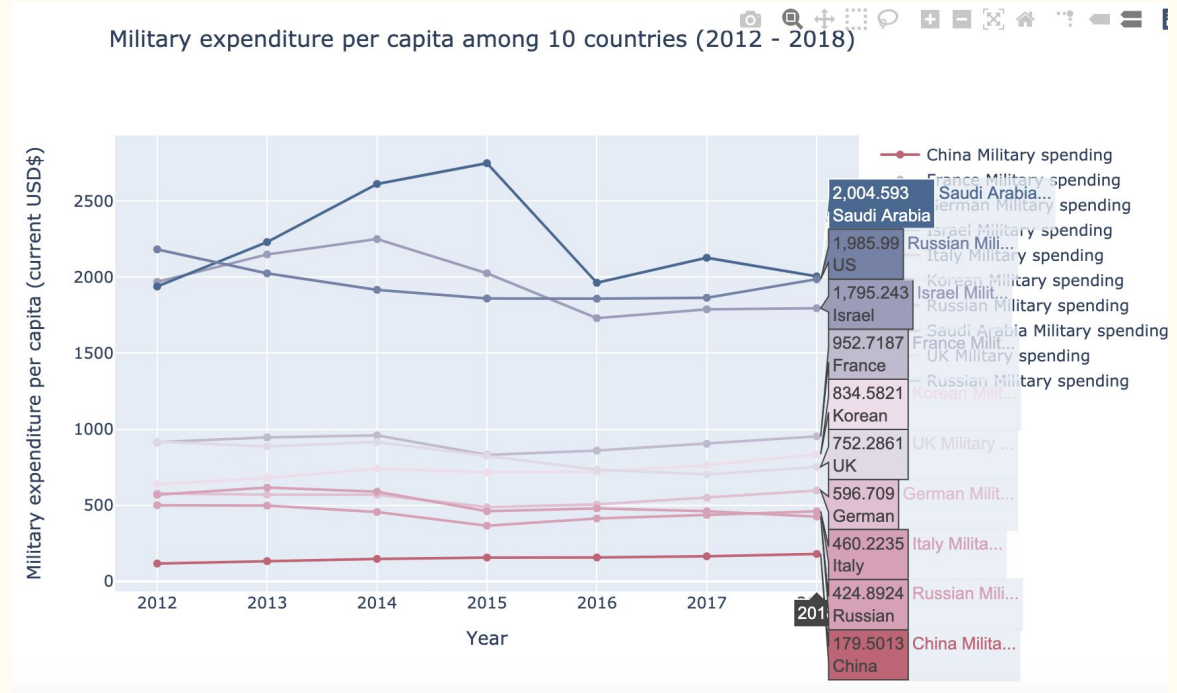


GDP per capita



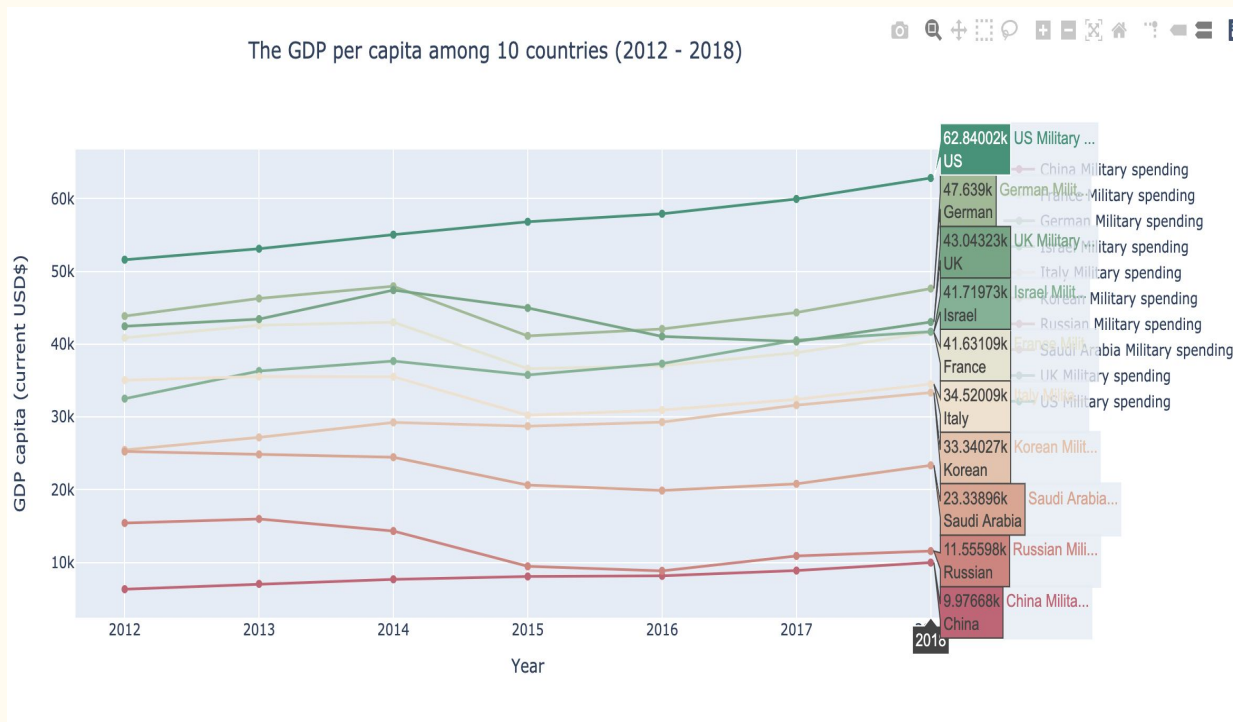
Military per capita

- Saudi Arabia has the highest military expenditure per capita among ten countries.
- From 2014 to 2015, Saudi Arabia's military expenditure per capita increased rapidly and dropped sharply from 2015 to 2016.
- There is a large gap between the top three military expenditures per capita and the rest of the countries.



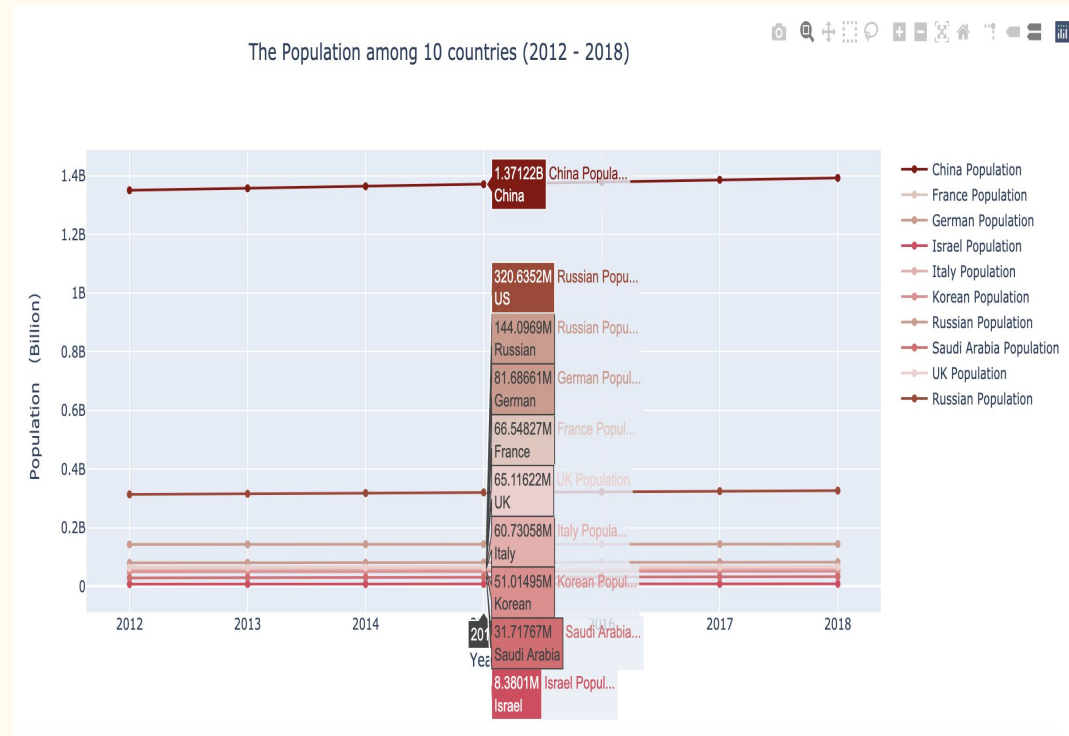
GDP per capita

- The United States has the highest GDP per capita among the ten countries.
- By contrast, China has the lowest GDP per capita among the ten countries.
- From 2014 to 2015, the GDP per capita of all countries except China and the United States showed a downward trend. After 2016, the GDP per capita began to rise.



Population

- China has the largest population among the ten countries.
- There is a big gap between the population of China and that of the U.S.
- The remaining countries have relatively small populations.

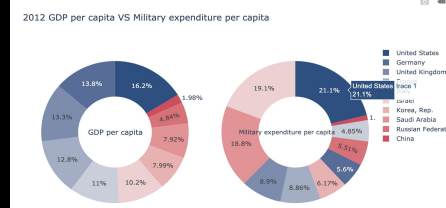


Part III:

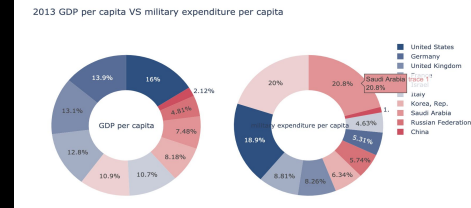
Military per capita VS GDP per capita.:

2. By percentage

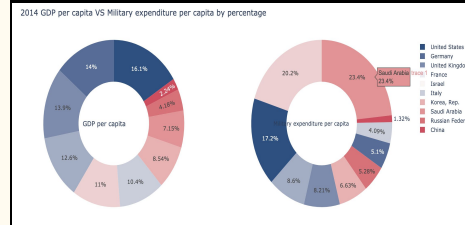
2012



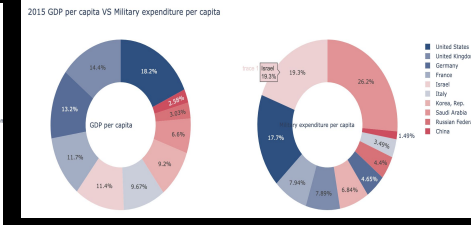
2013



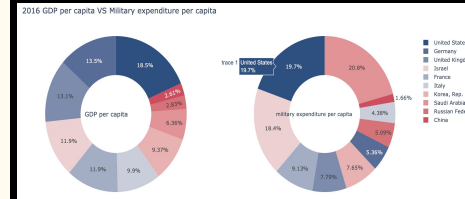
2014



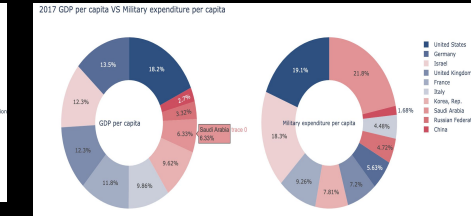
2015



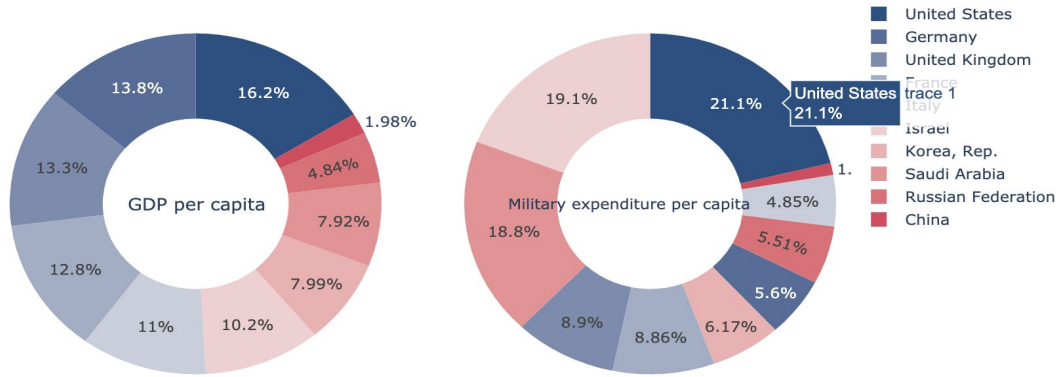
2016



2017



2012 GDP per capita VS Military expenditure per capita

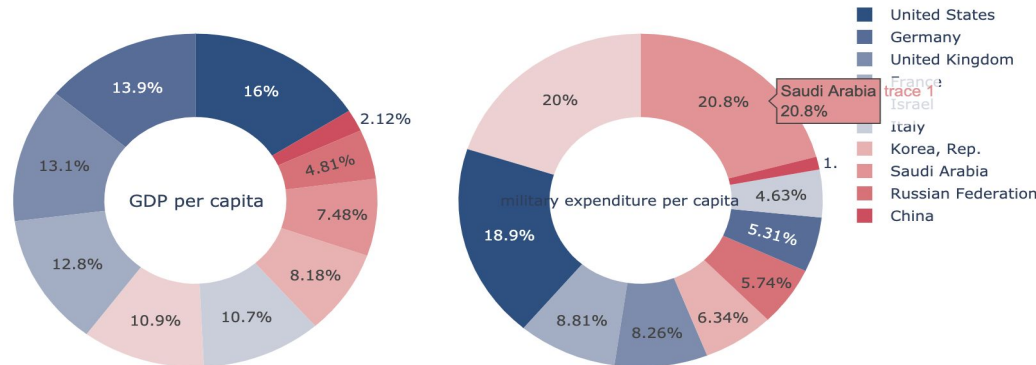


By percentage

Observed by horizontal:

- 2012: United States is the highest country in gdp per capita, as well as in military expenditure per capita.
- 2013: Saudi Arabia replace the United States becomes the highest country in military expenditure per capita.

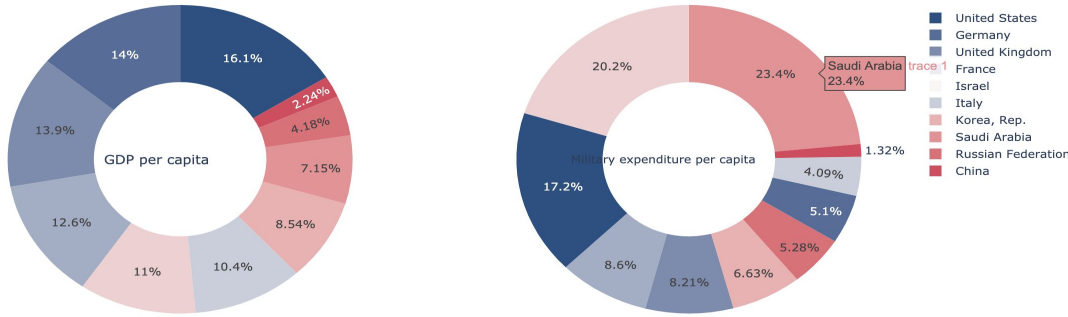
2013 GDP per capita VS military expenditure per capita



Observed by vertical:

- The United States stable at the top country in gdp per capita.
- The military expenditure per capital of Saudi Arabia increase faster.

2014 GDP per capita VS Military expenditure per capita by percentage



By percentage

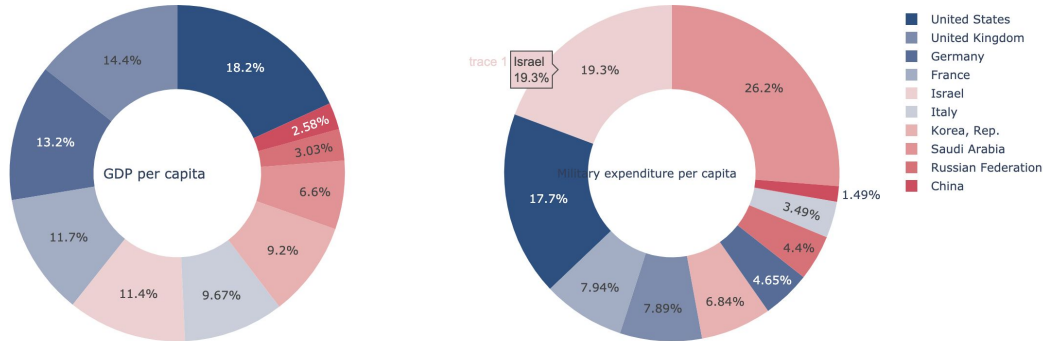
Observe horizontally:

- Although the gdp per capita of Saudi Arabia is not the top, the military expenditure per capita is the top among ten countries.
- Saudi Arabia spend most of money on military.

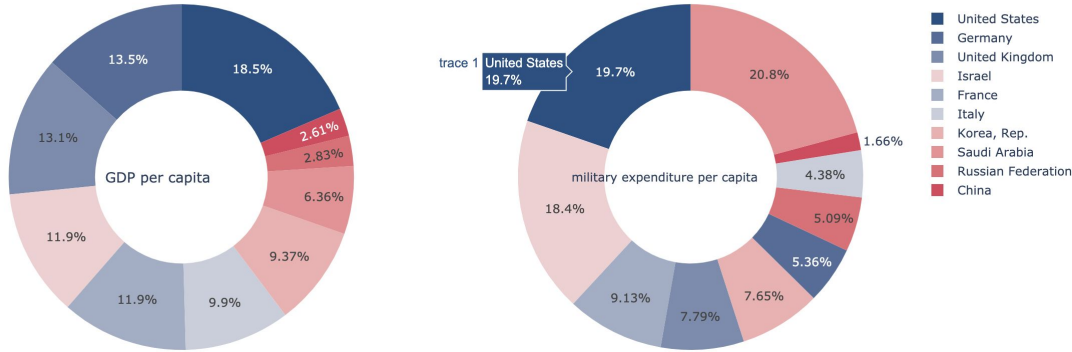
Observed vertiallyly:

- Military spending per capita of Saudi Arabia continue growing.
- Both gdp per capita and military per capita of China is the lowest among ten countries.

2015 GDP per capita VS Military expenditure per capita



2016 GDP per capita VS Military expenditure per capita

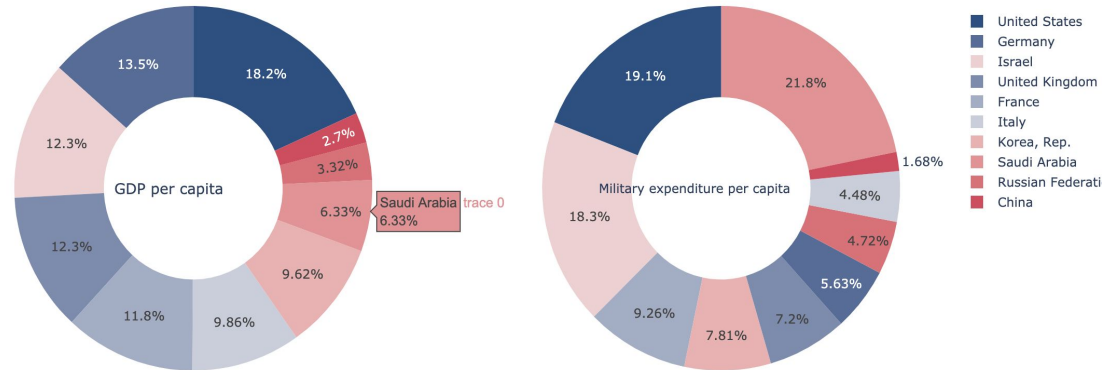


By percentage

Observe horizontally:

- The military expenditure of the United States increased.
- Top three countries of military spending per capita is Saudi Arabia, the United States, and Israel.

2017 GDP per capita VS Military expenditure per capita



Observe vertically:

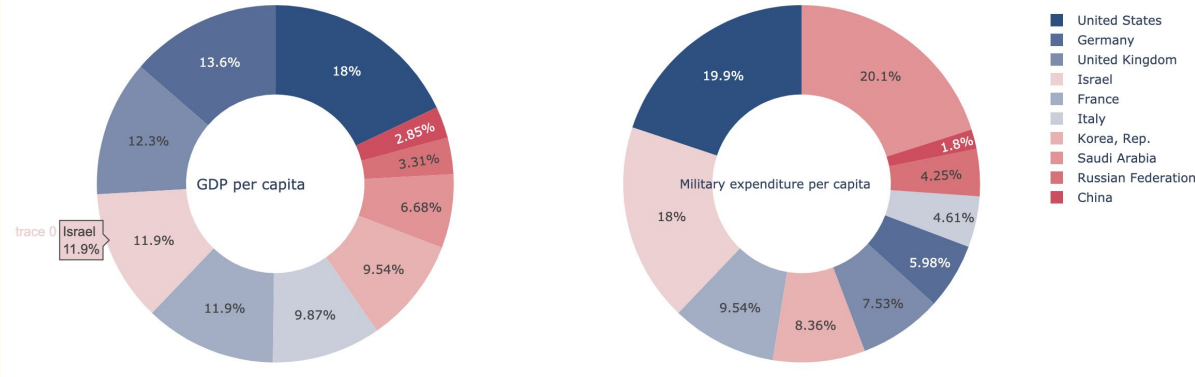
- The gdp per capital of Israel is continue growing.

By percentage

Up to 2018:

- Saudi Arabia is still the top country of military expenditure per capita.
- For both gdp per capita and military spending per capita, China is still the lowest country among ten countries.

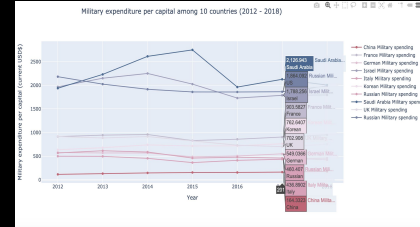
2018 GDP per capital VS Military expenditure per capita



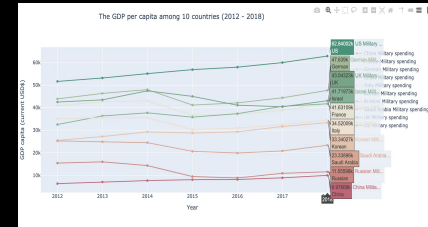
Conclusion:

- Compare the Military per capita and GDP per capita: Saudi Arabia is the highest country in military expenditure per capita, and the United States is the highest country in GDP per capita.
- By contrast, China has low military per capita as well as GDP per capita.
- One of the reason is that:
- China has large population, even the overall GDP and military spending is higher. By contrast, Saudi Arabia has small population.
- Although the United States also has a large population, the population is not as many as China.

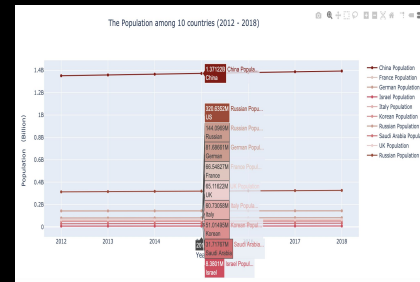
Military expenditure per capita



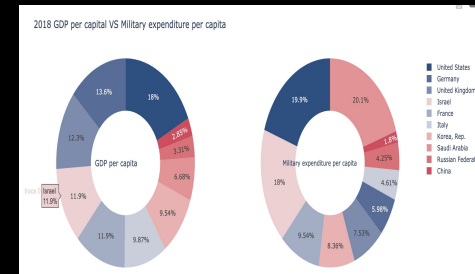
GDP per capita



Population



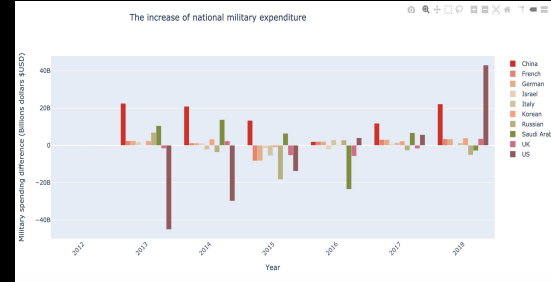
percentage



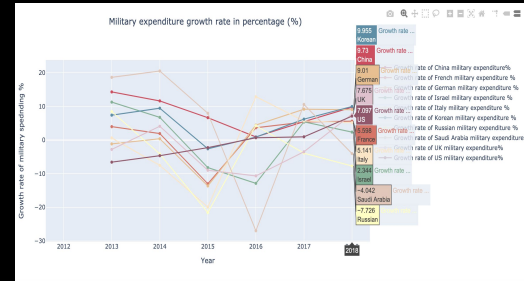
1. absolute value
2. percentage

1. absolute value
2. percentage

Absolute value



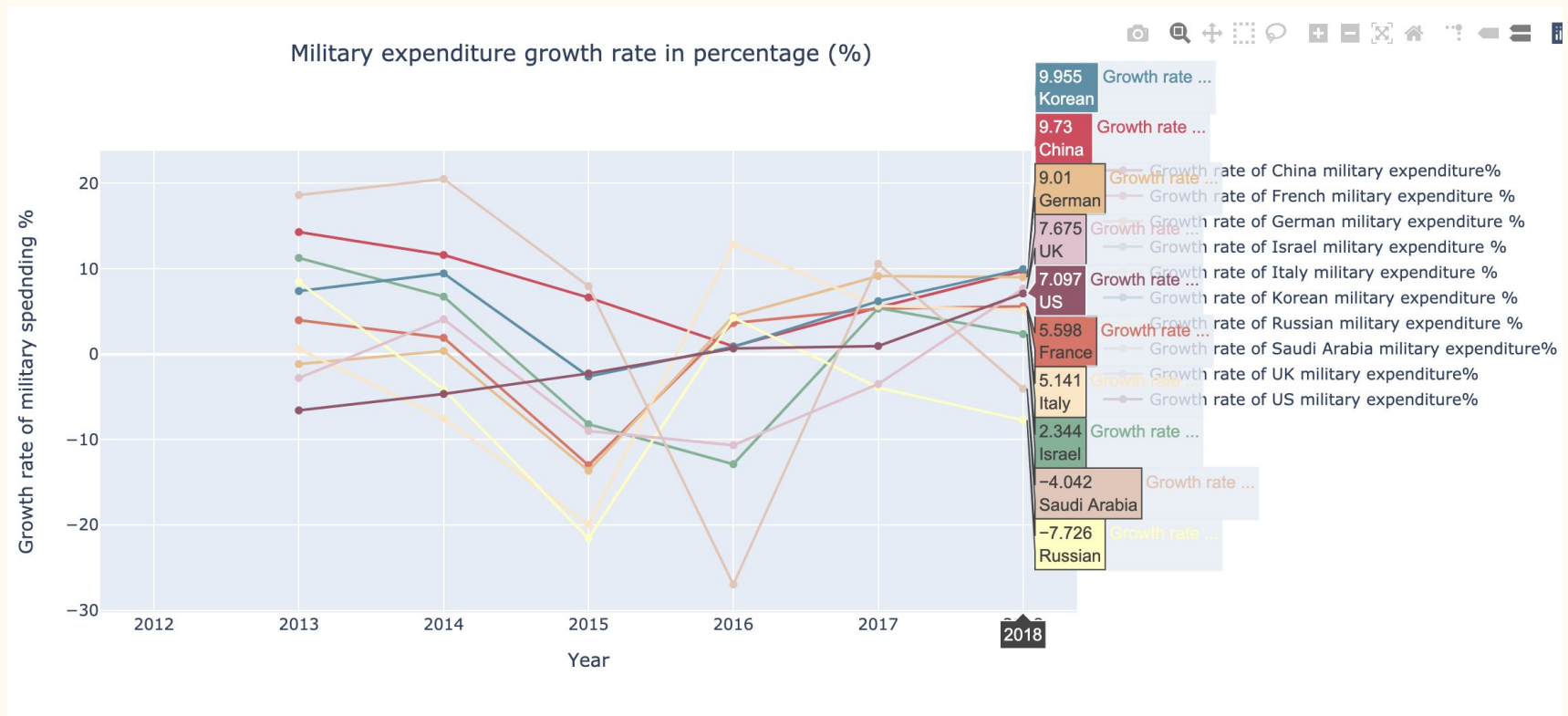
Percentage



The increase of national military expenditure



The military spending of United States increase a lot among ten countries.



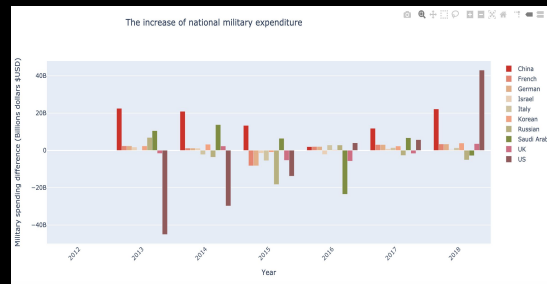
Korean is the fast grow country in military expenditure

Conclusion

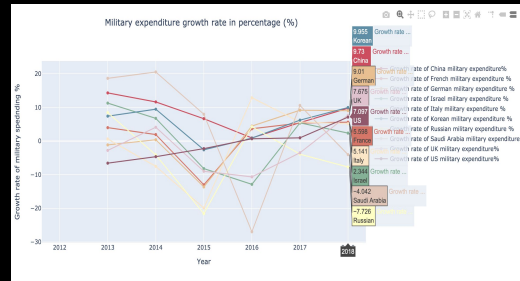
Based on the graph, South Korean is the fast grow country in military spend among those ten countries as the growth rate is the highest.

The gap between South Korean and China is small, so China is likely surpass the South Korean

Absolute value



Percentage



Data source:

The datasource in this project comes from THE WORLD BANK:

https://data.worldbank.org/?name_desc=false.

Graph tool: Plotly