



# GDP & LIFE EXPECTANCY

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Python, Pandas, Matplotlib, Seaborn,  
Numpy

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# EXECUTIVE SUMMARY – GDP & LIFE EXPECTANCY

## A. FINDINGS

- During 2000 – 2015, both developed & developing nations' life expectancy have all increased
- The Average life expectancy for Germany was the highest 80, followed by Chile 79 and USA 78; while Mexico, China & Zimbabwe were 75, 74 and 50 respectively
- USA, Germany, Mexico & Chile's GDP have all increased, although there were slight volatility
- China & Zimbabwe were the biggest winners, their GDPs have increased significantly, more than 3-fold.
- For both developed & developing nations, there is a positive correlation between GDP and life expectancy, as the GDP increases, the life expectancy also increases.

# EXECUTIVE SUMMARY –GDP & LIFE EXPECTANCY

## B. CONCLUSION

- For both developed or developing nation, as GDP increases, the life expectancy also increases
- The result is even more significant for poor nation like Zimbabwe, as the country's GDP increases, its life expectancy has also increased significantly

## C. LIMITATION

Both China and Zimbabwe have enjoyed 3-fold GDP growth during the years 2000 – 2015, Zimbabwe's average life expectancy have grown by almost by 15 years , from 45 to 60, while China only grow from 72 to 76. Reasons might be:

- Zimbabwe came from a quite low base; There is a limit of life expectancy
- Life is not just about how many breath you take, it is more about how many moments that take your breath away.



## EXECUTIVE SUMMARY –GDP & LIFE EXPECTANCY

### D. SUGGESTIONS

- Most developing nations are located in Africa, we need to utilize its natural resources, especially solar power, eg to install millions of solar panels in Africa, the solar grid can then be exported to Europe and around the world, to provide clean solar energy
- By developing solar energy, developing nations in Africa can not only increase its GDP, but also play a vital role in creating clean and green energy for the world.
- A true Win - Win strategy.



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## INTRODUCTION

## MAIN BODY

1. Has life expectancy increased over time in the six nations?
2. Has GDP increased over time in the six nations?
3. Is there a correlation between GDP and life expectancy of a country?

## APPENDIX:

See Separately Attached iPYNB File

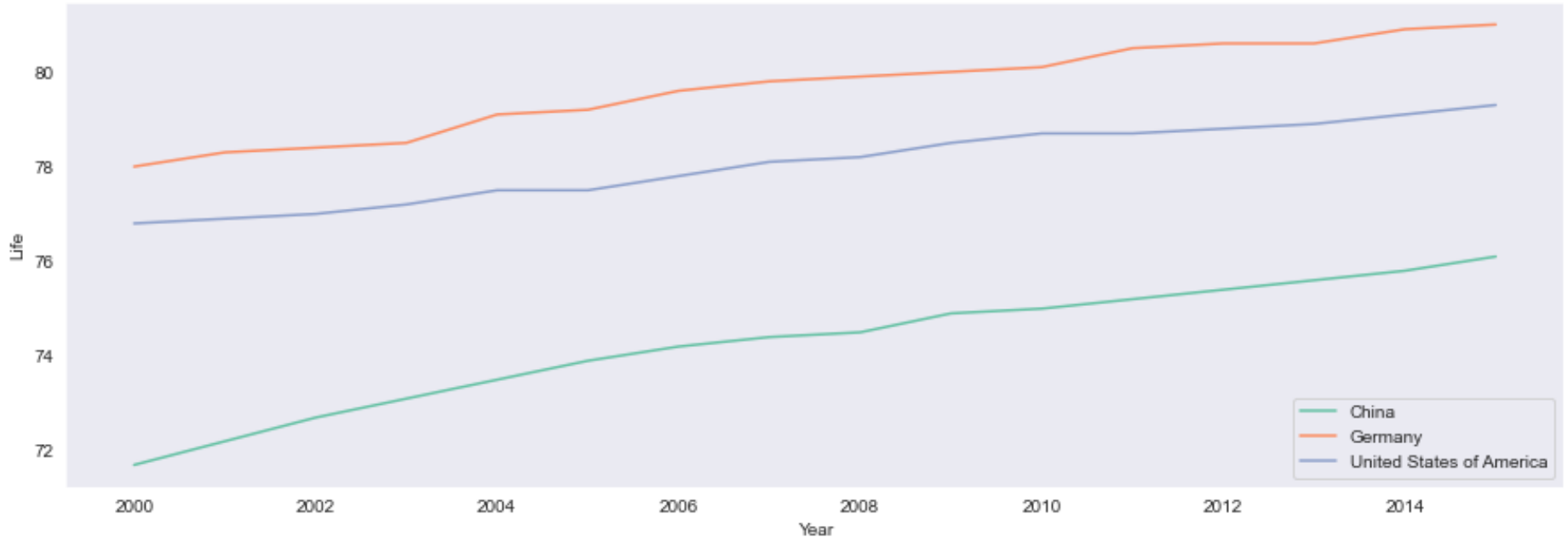


# INTRODUCTION

The World Health Organization and the World Bank are trying to identify the relationship between the GDP and life expectancy.

In this project, data from six countries will be analysed, in order to provide workable suggestions.

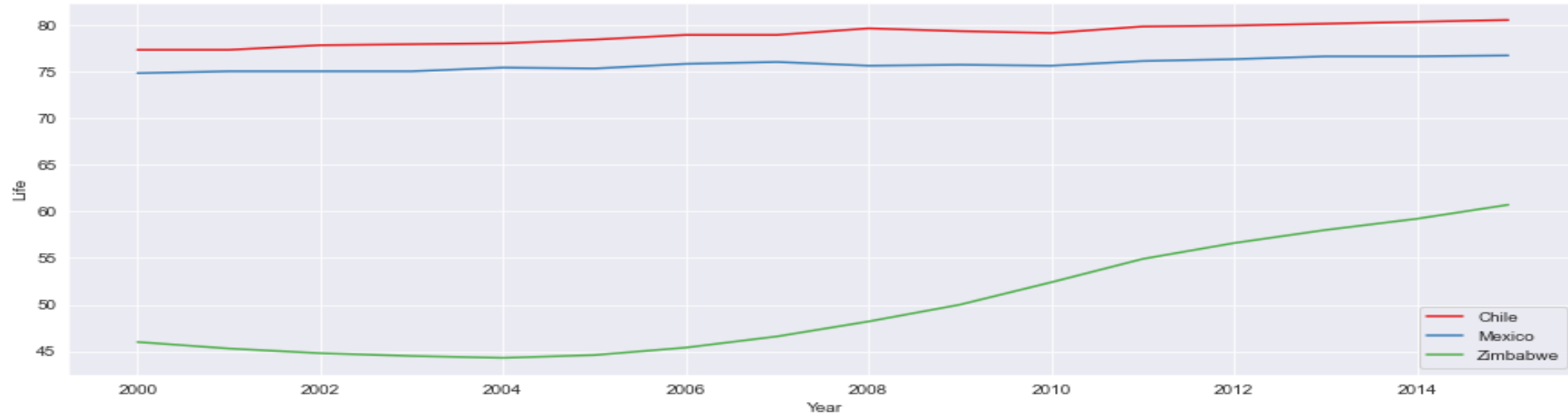
Life Expectancy of 3 Wealth Nations 2000 - 2015



## 1.1. LIFE EXPECTANCY INCREASE FOR 3 WEALTHY NATIONS

- 3 wealthy nations' life expectancy all increased during 2000 to 2015
- Germany(Orange LINE) leading, followed by USA and China.

Life Expectancy of 3 Developing Nations 2000 - 2015

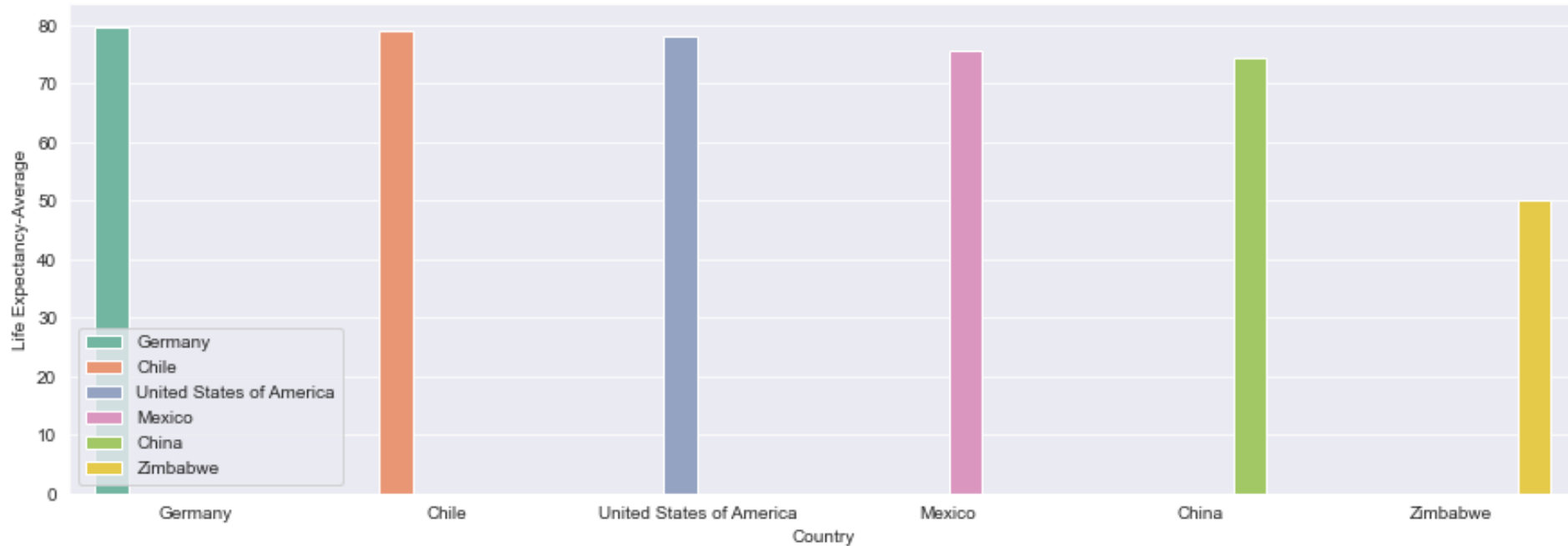


## 1.2 LIFE EXPECTANCY INCREASE FOR 3 DEVELOPING NATIONS

- 3 developing nations' life expectancy all increased during 2000 to 2015, leading by Chile and followed by Mexico
- The biggest winner is Zimbabwe (green), its life expectancy has increased significantly from 2004 to 2015, from 45 years old to almost 60 years old.



Average Life Expectancy of 6 Nations 2000 - 2015



## 1.3 AVERAGE LIFE EXPECTANCY FOR 6 NATIONS

- Germany the highest 80, followed by Chile 79 and USA 78;
- Mexico, China & Zimbabwe 75, 74 and 50



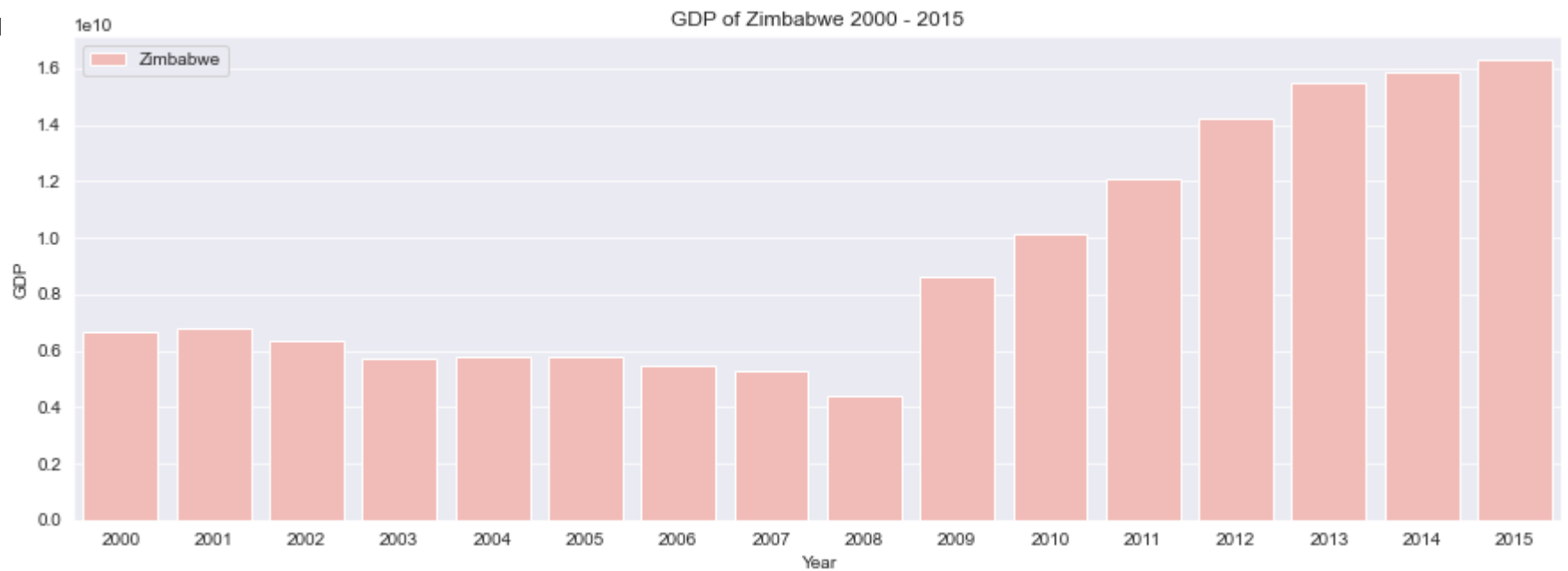
## 2.1 GDP INCREASE FOR 3 WEALTHY NATIONS

- Both US and Germany's GDP have increased during 2000 - 2015, although there were slight volatility during the period
- China was the biggest winner, its GDP increased significantly, more than tripled.



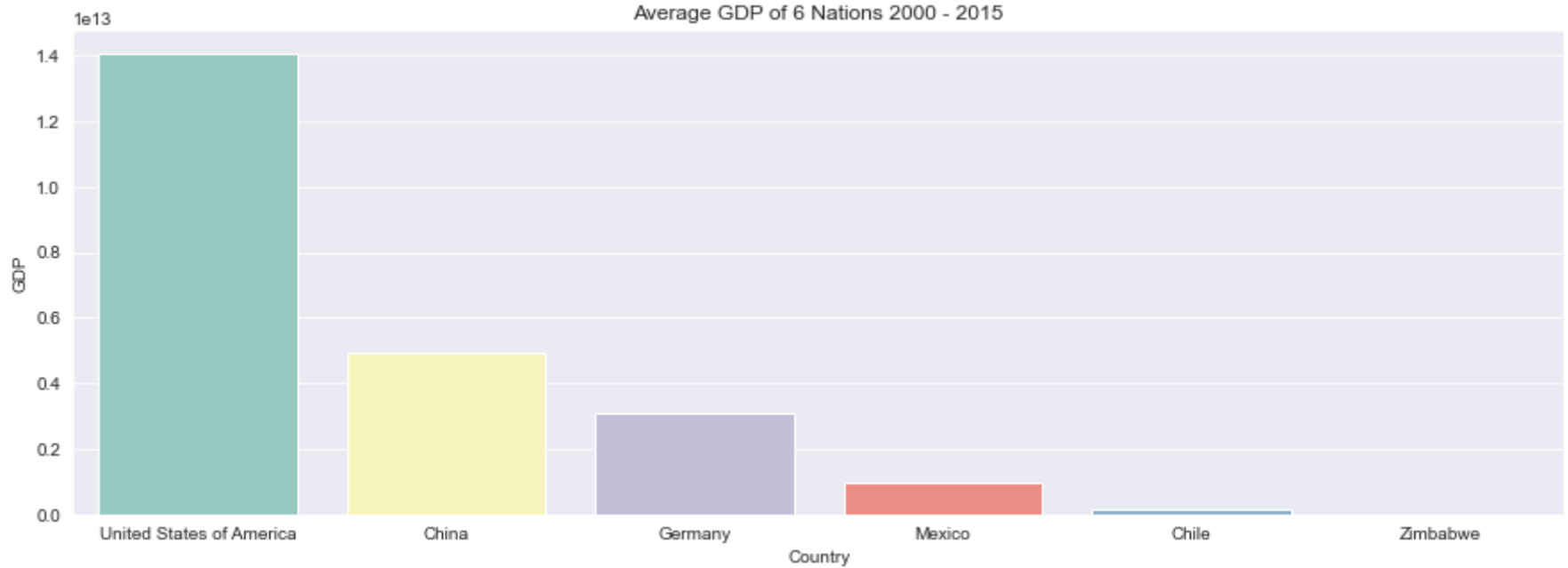
## 2.2 GDP INCREASE FOR 3 DEVELOPING NATIONS

- Both Mexico and Chile's GDP have increased during 2000 - 2015, although there were slight volatility
- It is hard analysis Zimbabwe' GDP, however, the country has the largest increase in life expectancy, a separate graph needs to be created.



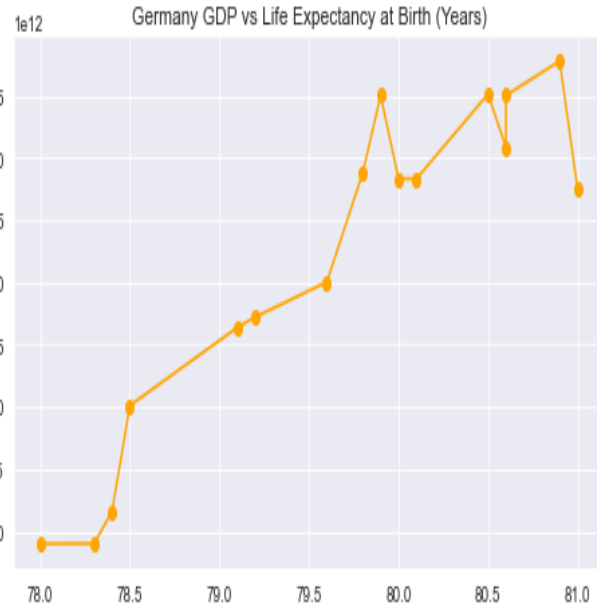
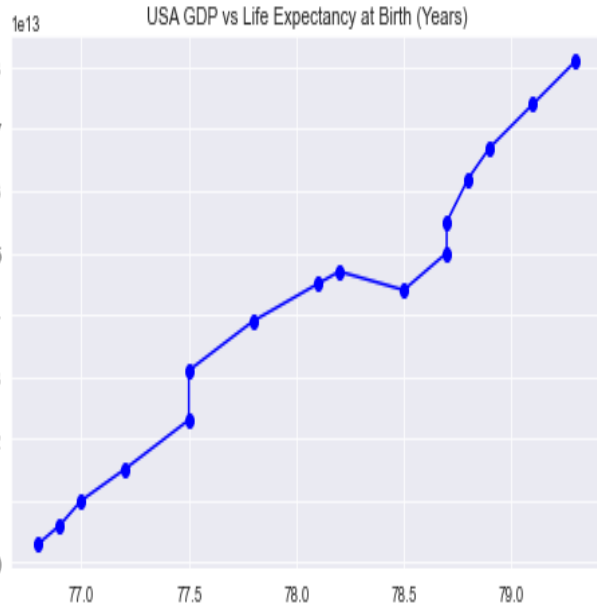
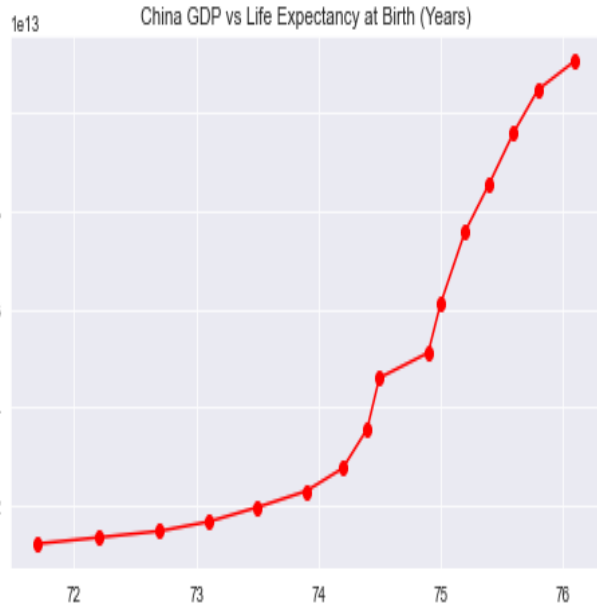
## 2.3. GDP INCREASE - ZIMBABWE

- Zimbabwe has enjoyed a strong growth of GDP from 2008 to 2015;
- Maybe it is one of the main reasons behind its life expectancy growth during the same period.



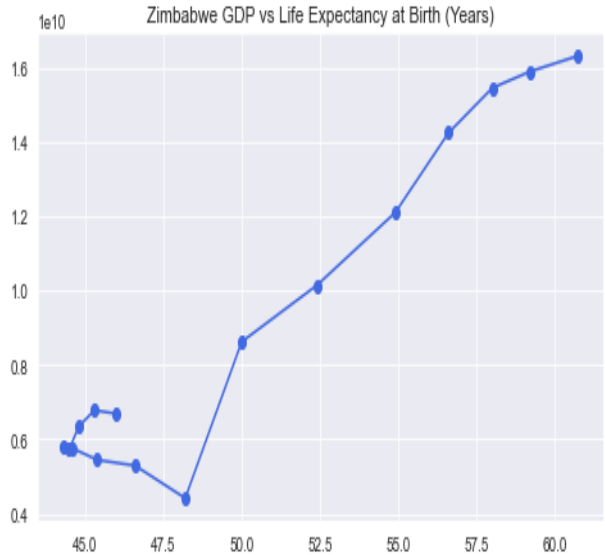
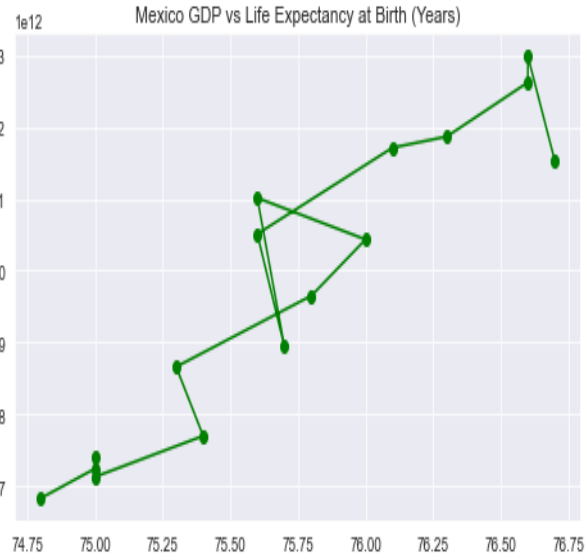
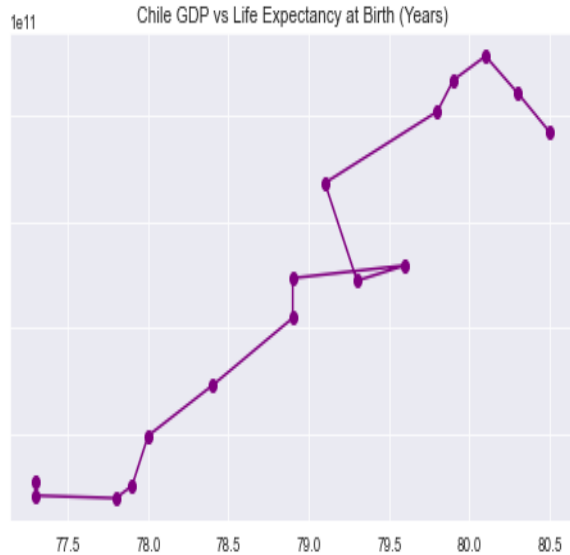
## 2.4 AVERAGE GDP

- USA has the highest GDP followed by China and Germany
- For developing nations, Mexico and Chile are ahead of Zimbabwe.



### 3.1 CORRELATION BETWEEN GDP & LIFE EXPECTANCY OF A COUNTRY - A

- Wealthy nations like China, USA and Germany, there is a positive correlation between GDP and life expectancy
- As the GDP increases, the life expectancy also increases.



## 3.2 CORRELATION BETWEEN GDP & LIFE EXPECTANCY OF A COUNTRY - B

- Developing nations like Chile, Mexico and Zimbabwe, there is also a positive correlation between GDP and life expectancy of a country
- As the GDP increases, the life expectancy also increases over the years.