

# **Latin America GDP analysis**

Marcelo José Rovai

**UCSanDiegoX: DSE200x - Python for Data Science**

# Dataset

This work was developed based on following dataset:

World Development Indicators Dataset:

<https://www.kaggle.com/worldbank/world-development-indicators>

List of indicators:

<https://www.kaggle.com/benhamner/d/worldbank/world-development-indicators/indicators-in-data>

List of countries:

<https://www.kaggle.com/benhamner/d/worldbank/world-development-indicators/countries-in-the-wdi-data>

# Motivation

Understand the GDP per capita behavior among the most important countries in Latin America.

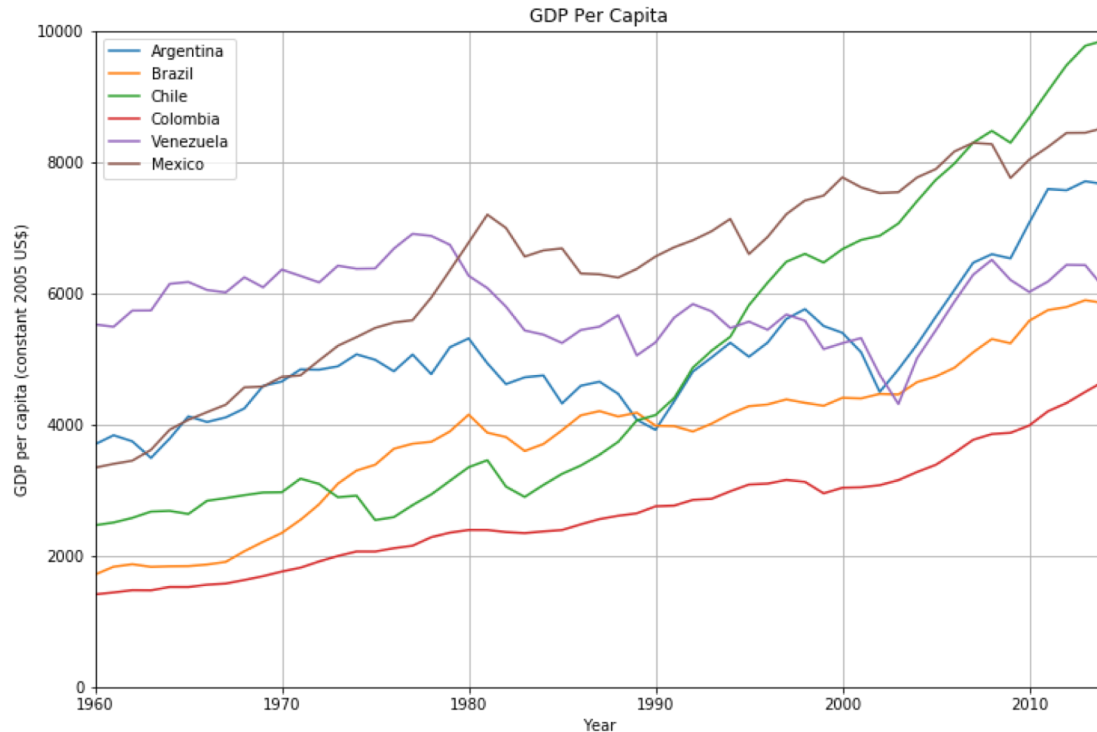
# Research Questions

- Which Latin American country have an important growth during the years?
- Which country had the worst behavior?
- Why those differences happened?

# Findings

The following slides will guide us to understand how the GPD per capita changed over the last decades on Latin America region and what would be the reason for main differences.

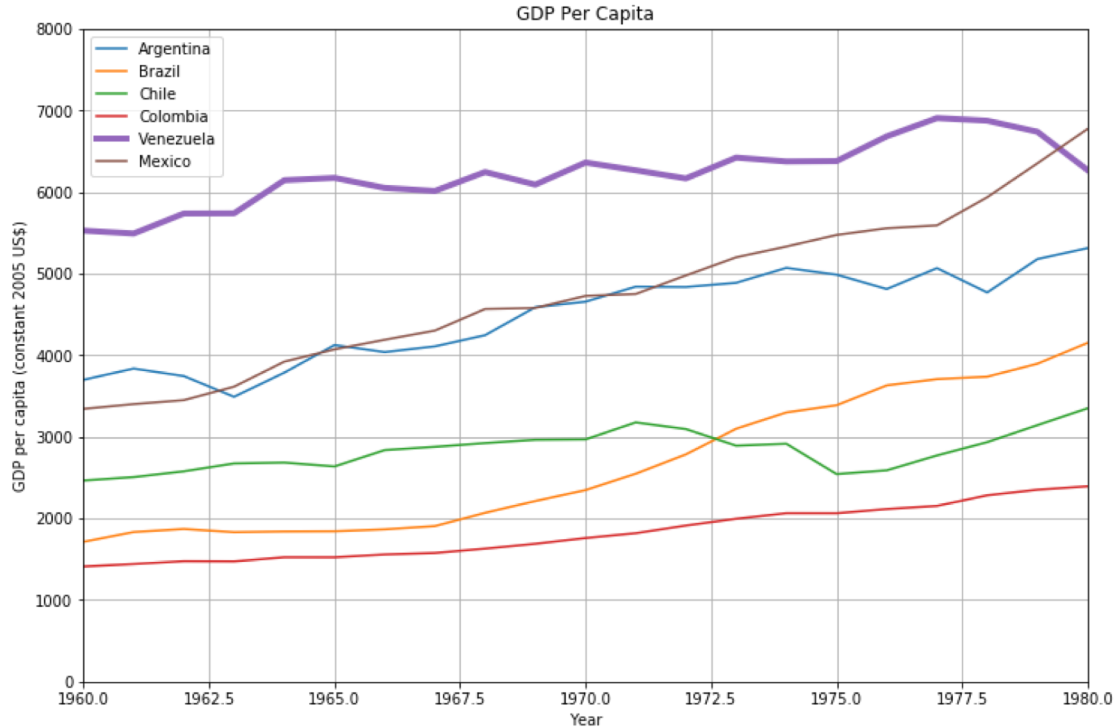
# LATAM GDP per capita



## TAKEAWAY

In average, regional GDP have growth, but we can observe significant variations if we “slice” the years by decades.

# LATAM on 60's and 70's

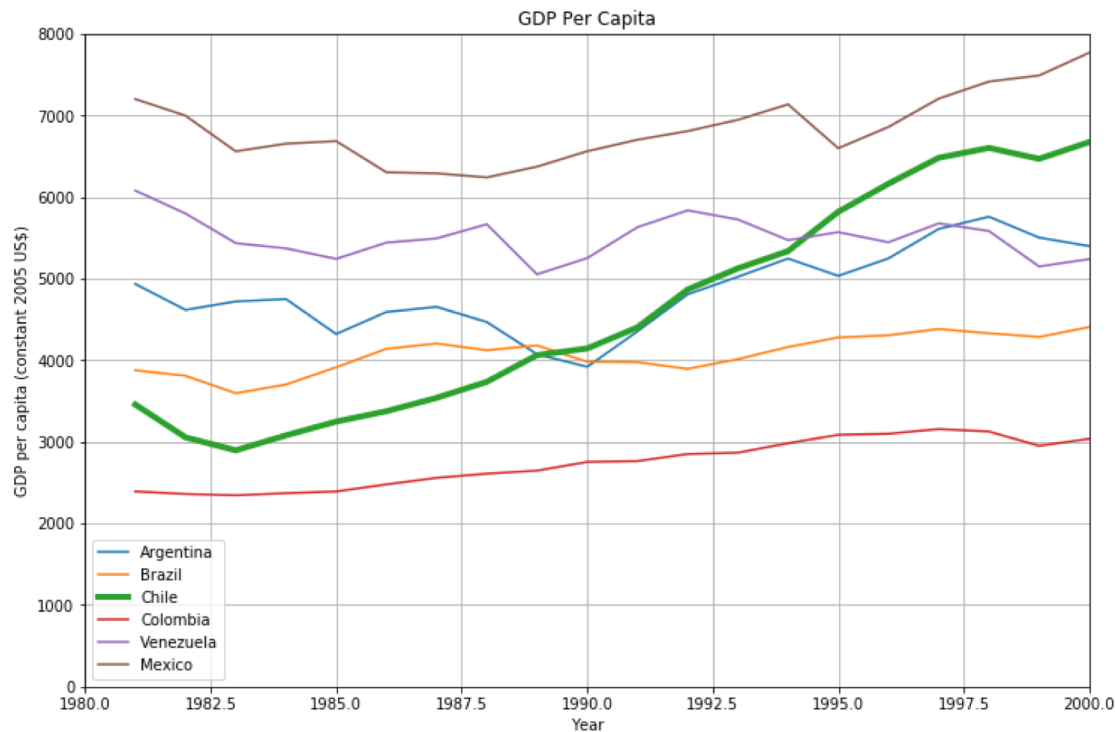


## TAKEAWAY

From 1960 to 1980, all analyzed countries in the region had growth.

Venezuela has the highest GDP per capita in the region

# LATAM from 80's to 90's



## TAKEAWAY

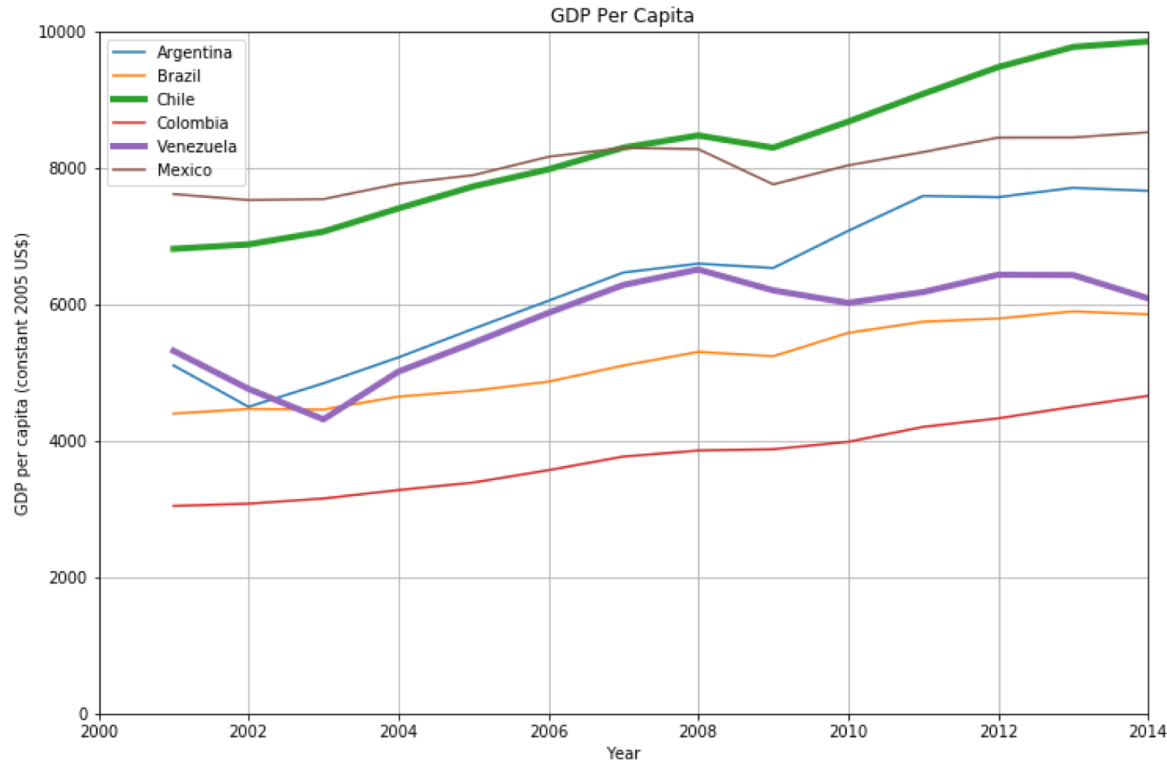
During this 2 decades, a great stagnation is observed.

The remarkable exception is Chile, that changed its path (positively) when compared with other Latin American countries.

Chile's GDP per capita doubled on this period.



# LATAM at the new millennium



## TAKEAWAY

Argentina on 2000's restart growth

Mexico stop growth and stayed almost at same level during all time

Brazil and Colombia show steady growth

Venezuela with ups and downs stayed at same level

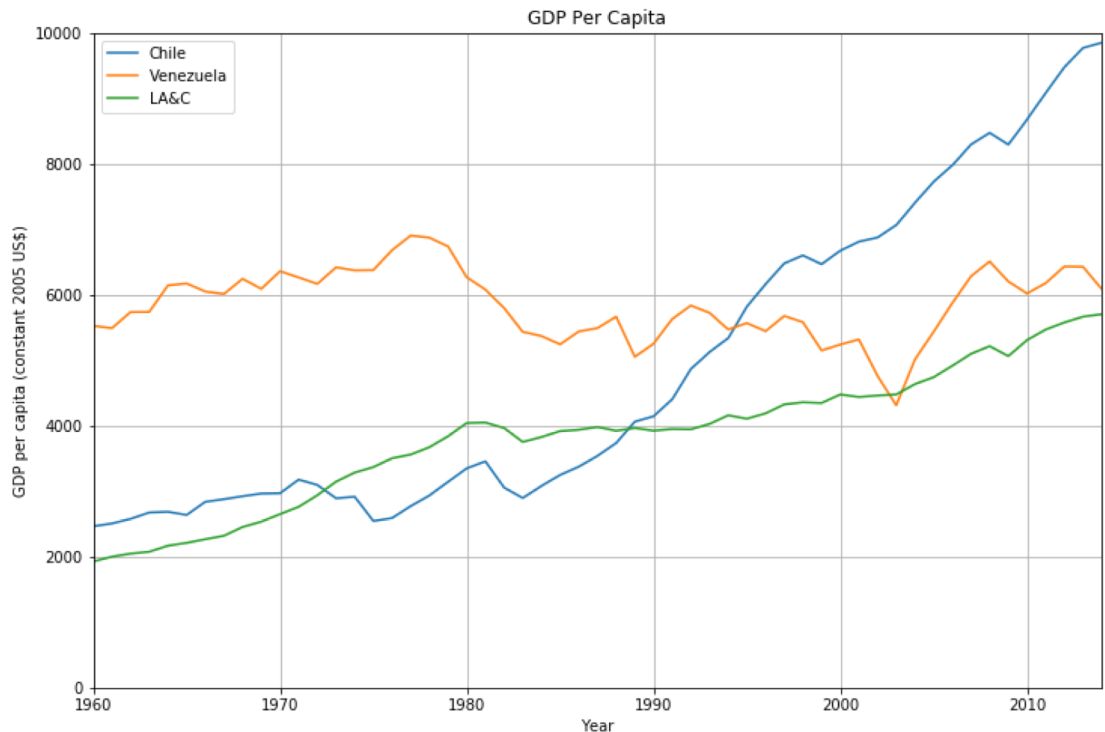
# Partial conclusion



Venezuela, used to be the richest country in the region on 60's, but on current path should be the worst before the end of this decade.

Chile showed notable growth and today is the highest regional GDP per capita

# Correlation between LA&C, Chile and Venezuela

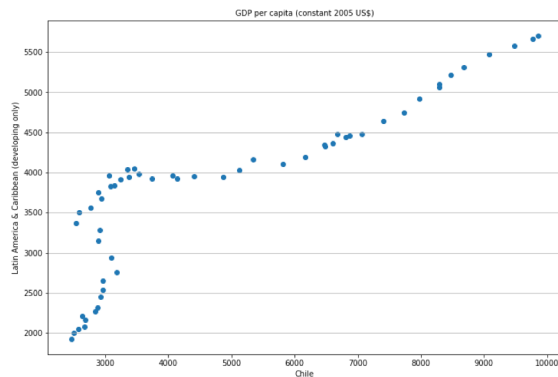


## TAKEAWAY

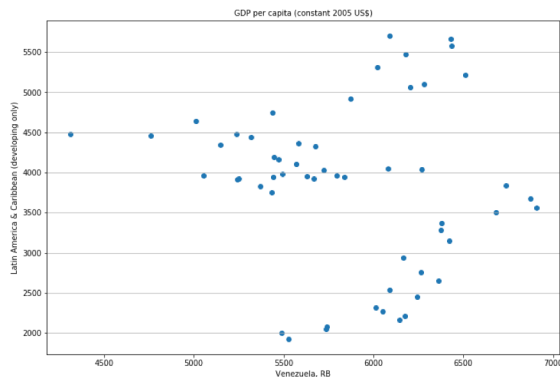
Looking the graphics, it is easy to verify that there exists a correlation between Chile and LA&C (Latin America & Caribbean) GDP per capita growth, but not with Venezuela.

# Correlation between LA&C, Chile and Venezuela

## Chile versus LA&C



## Venezuela versus LA&C

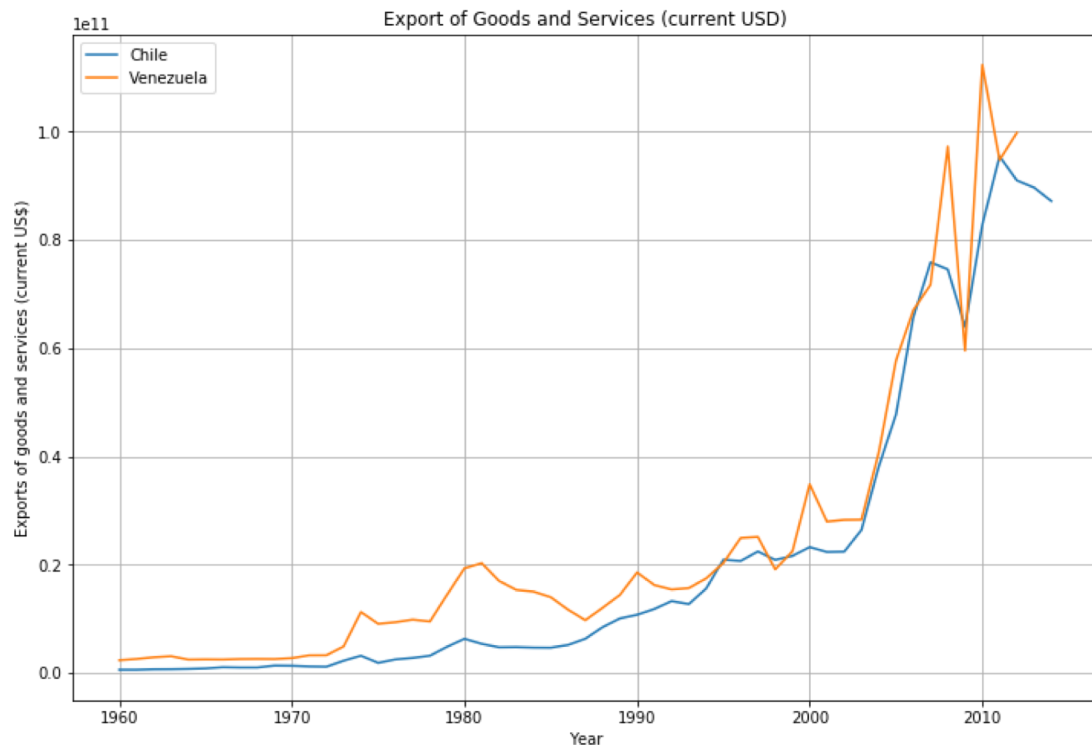


## TAKEAWAY

Exist correlation between  
Chile and LAC Growth

NO correlation between  
Venezuela and LAC Growth

# Exports of goods and services



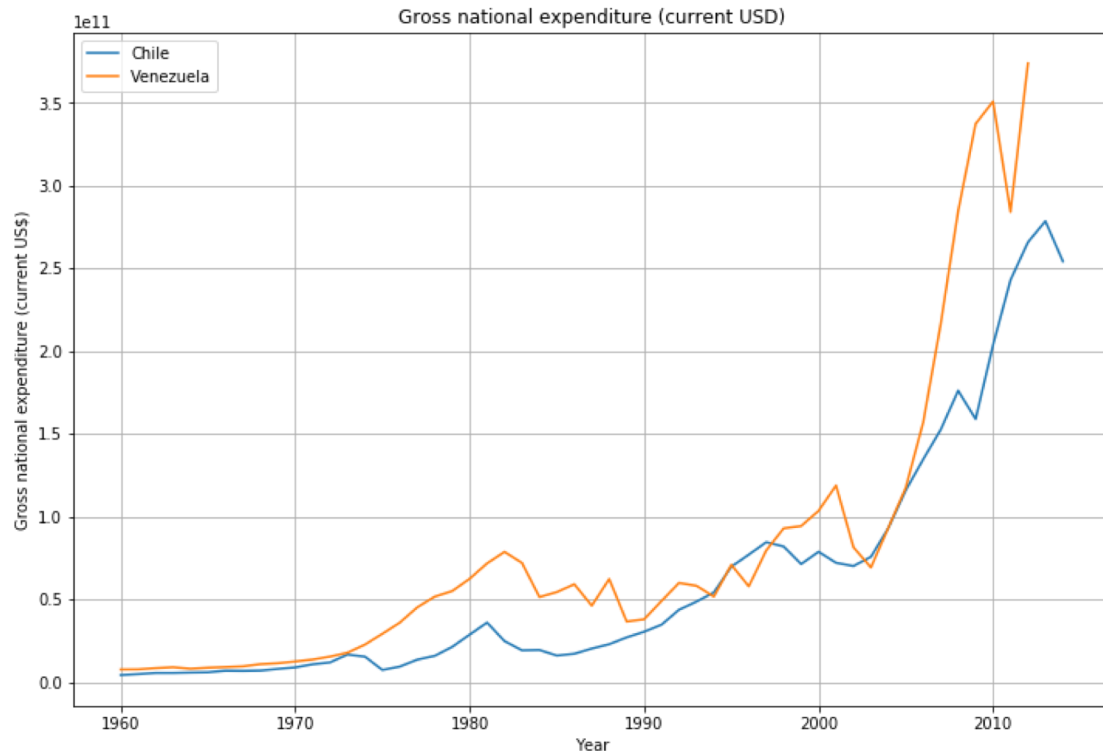
## TAKEAWAY

It is clear the correlation between both countries when we analyze Exports.

This is understandable, because Chile is a big Copper exporter, once Venezuela is an Oil exporter.

We can see that Venezuela's exports were always greater than Chile. So, seems that the country should have more money, but why the GDP did not went up?

# Gross national expenditure



## TAKEAWAY

One possible explanation is the “Total Expenditure” indicator.

After 2005, seems that the total expenditure of Venezuela went to the roof! No control! What should explain on a simple way why their GDP per capita did not follow Chile or at least the average of Latin America region.

# Acknowledgements

My work was fully based on the information learned on:

**“UCSanDiegoX: DSE200x - Python for Data Science”**

My sincere thanks to professors :

- Ilkay Altintas, Chief Data Science Officer, San Diego Supercomputer Center (SDSC)

And,

- Leo Porter, Assistant Teaching Professor, Computer Science and Engineering Department

# References

Please see the complete Jupyter Datebook on my GitHub:

<https://github.com/Mjrovai/Python4DS/blob/master/Latin%20America%20GDP%20Analysis/Latin%20America%20GDP%20analysis.ipynb>



# **Thank you**

Marcelo José Rovai

**Santiago, Chile**

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