Data Analytics: Final Project

Analysis of World Development Indicators in Relation to Global Economy

Presented by Marina Bishay

Introduction
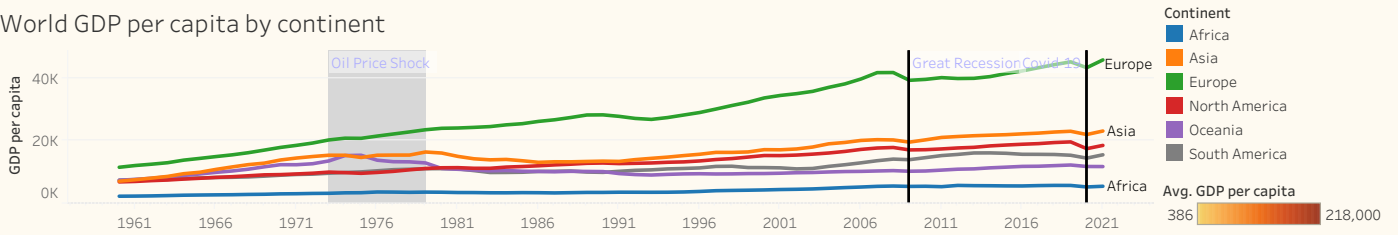
Purpose: To analyze the relationship between GDP and World Development Indicators

Dataset: World Development Indicators from The World Bank

Scope: 207 countries, grouped into six continents, 1900 to 2023
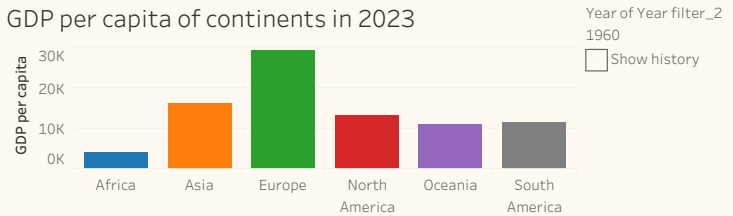
Tools Used: Jupyter Notebook and Tableau
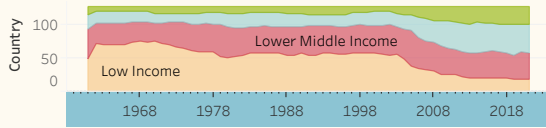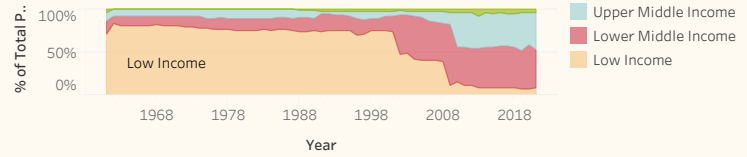
World GDP per capita by continent

GDP per capita

40K

20K

0K

Oil Price Shock

Great Recession Covid-19

1961 1966 1971 1976 1981 1986 1991 1996 2001 2006 2011 2016 2021

Europe
Asia
Africa

Continent
- Africa
- Asia
- Europe
- North America
- Oceania
- South America

Avg. GDP per capita
386 — 218,000

GDP per capita in the World Map - 1960

© 2024 Mapbox © OpenStreetMap

GDP per capita of continents in 2023

GDP per capita

30K

20K

10K

0K

Africa | Asia | Europe | North America | Oceania | South America

Year of Year filter_2
1960
☐ Show history

Number of countries in different income categories

Country

100

50

0

Lower Middle Income

Low Income

1968   1978   1988   1998   2008   2018

Population share in different income categories

% of Total P..

100%

50%

0%

Low Income

1968   1978   1988   1998   2008   2018

Year

Income classification
- High Income
- Upper Middle Income
- Lower Middle Income
- Low Income

Middle income countries share of GDP

% of Total GDP

100%

50%

0%

2005   2010   2015   2020

Poverty rate ratio

ratio at $6...

40

20

0

ratio at $3...

40

20

1995   2000   2005   2010   2015

Birth Rate
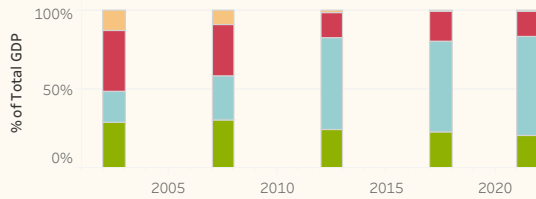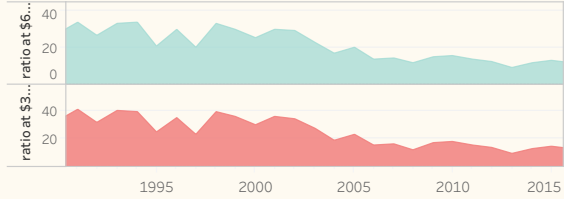
Birth Rate vs Year (1966–2016+), with Africa labeled on the top line.
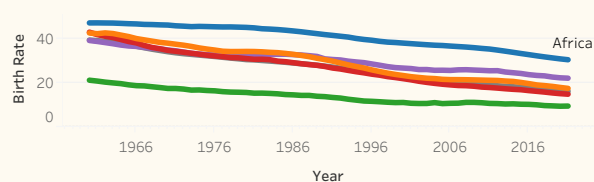
GDP per capita rises, birth rates fall

Birth rate vs GDP per capita scatter plot. Labeled points: Oman, Saudi Arabia, Kuwait, Qatar.
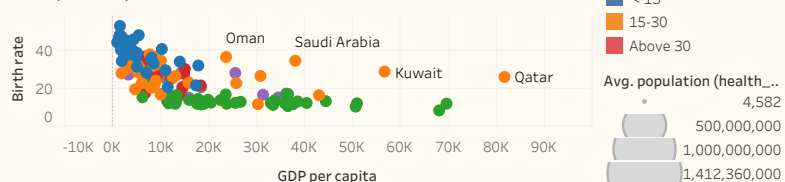
Population and Birth rate Map - 2021

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Population

Population vs Year. Labeled lines: Asia, South America.
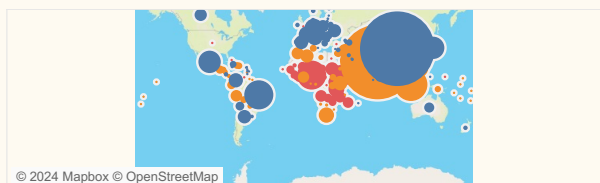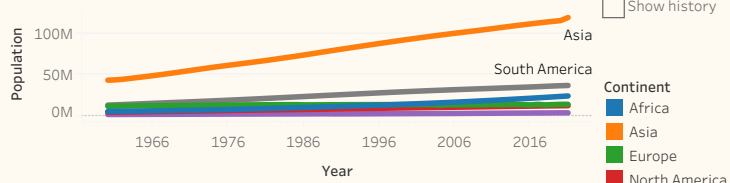
Life Expectancy and GDP per capita

Life Expectancy

80

70

60

50

-10K 0K 10K 20K 30K 40K 50K 60K 70K 80K

GDP per capita
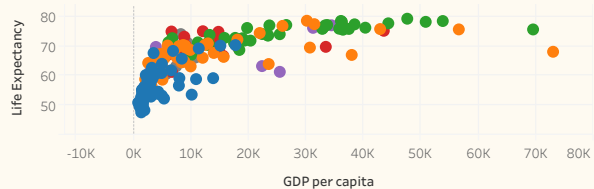
Top 10 countries by average life expectancy in Asia and Europe
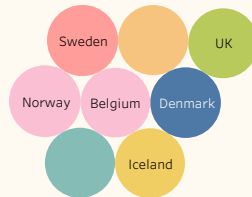
Sweden   UK

Norway Belgium Denmark

Iceland

Top 10 countries by GDP in Asia and Europe

Country

Ireland

Singapore

Switzerland

San Marino

0K 50K 100K 150K 200K

Top 10 countries by Health Expenditure in Asia and Europe
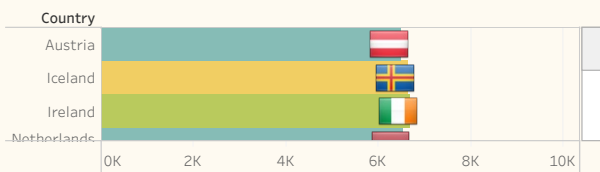
Country

Austria

Iceland

Ireland

Netherlands

0K 2K 4K 6K 8K 10K

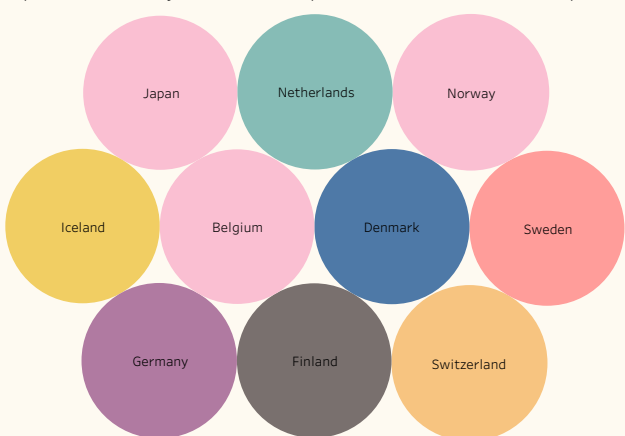Year of Year filter
2021

Show history

Correlation between GDP and Human Development Index
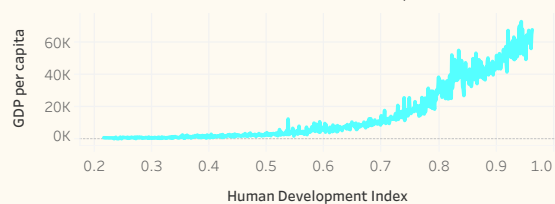
Top 10 Countries by GDP in Asia and Europe
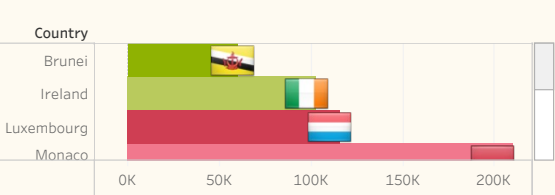
Top 10 countries by Human Development Index in Asia and Europe

Country
- Belgium
- Denmark
- Finland
- Germany
- Iceland
- Japan

Country
- Brunei
- Ireland
- Luxembourg
- Monaco
- Qatar
- San Marino
- Japan

Year of Year filter
2021
☐ Show history

Key Takeaways

- Global GDP has steadily risen, with Europe leading among continents

- Income classification shows a shift towards Middle and High-Income countries

- Poverty rates have decreased significantly since the 1990s

-Birth rates tend to decrease as GDP increases globally

-Europe's higher health expenditure contributes to higher life expectancy compared to Asia...