

Economic Trends in Saudi Arabia: An Analysis of GDP from 2010 to 2022

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Introduction

This report presents an analysis of Saudi Arabia's Gross Domestic Product (GDP) trends from 2010 to 2022. It examines the overall GDP growth and fluctuations due to oil prices and diversification efforts under Vision 2030.

GDP Analysis

```
install.packages("WDI")

## Installing package into '/cloud/lib/x86_64-pc-linux-gnu-library/4.4'
## (as 'lib' is unspecified)

library(WDI)

# Download data from the World Bank
gdp_data <- WDI(country = "SA", indicator = "NY.GDP.MKTP.CD", start = 2010, end = 2022)

# Show first 6 rows to check
head(gdp_data)
```

##	country	iso2c	iso3c	year	NY.GDP.MKTP.CD
## 1	Saudi Arabia	SA	SAU	2022	1.108571e+12
## 2	Saudi Arabia	SA	SAU	2021	8.741560e+11
## 3	Saudi Arabia	SA	SAU	2020	7.342712e+11
## 4	Saudi Arabia	SA	SAU	2019	8.385648e+11
## 5	Saudi Arabia	SA	SAU	2018	8.465837e+11
## 6	Saudi Arabia	SA	SAU	2017	7.149947e+11

Summary Statistics

```
# Statistical summary of the data
summary(gdp_data)
```

```
##      country      iso2c      iso3c      year
## Length:13      Length:13      Length:13      Min.   :2010
## Class :character Class :character Class :character 1st Qu.:2013
## Mode  :character Mode  :character Mode  :character Median :2016
##                                     Mean   :2016
##                                     3rd Qu.:2019
##                                     Max.   :2022
## NY.GDP.MKTP.CD
## Min.   :5.282e+11
## 1st Qu.:6.766e+11
## Median :7.418e+11
## Mean   :7.631e+11
## 3rd Qu.:8.386e+11
## Max.   :1.109e+12
```

GDP Trend Over Time

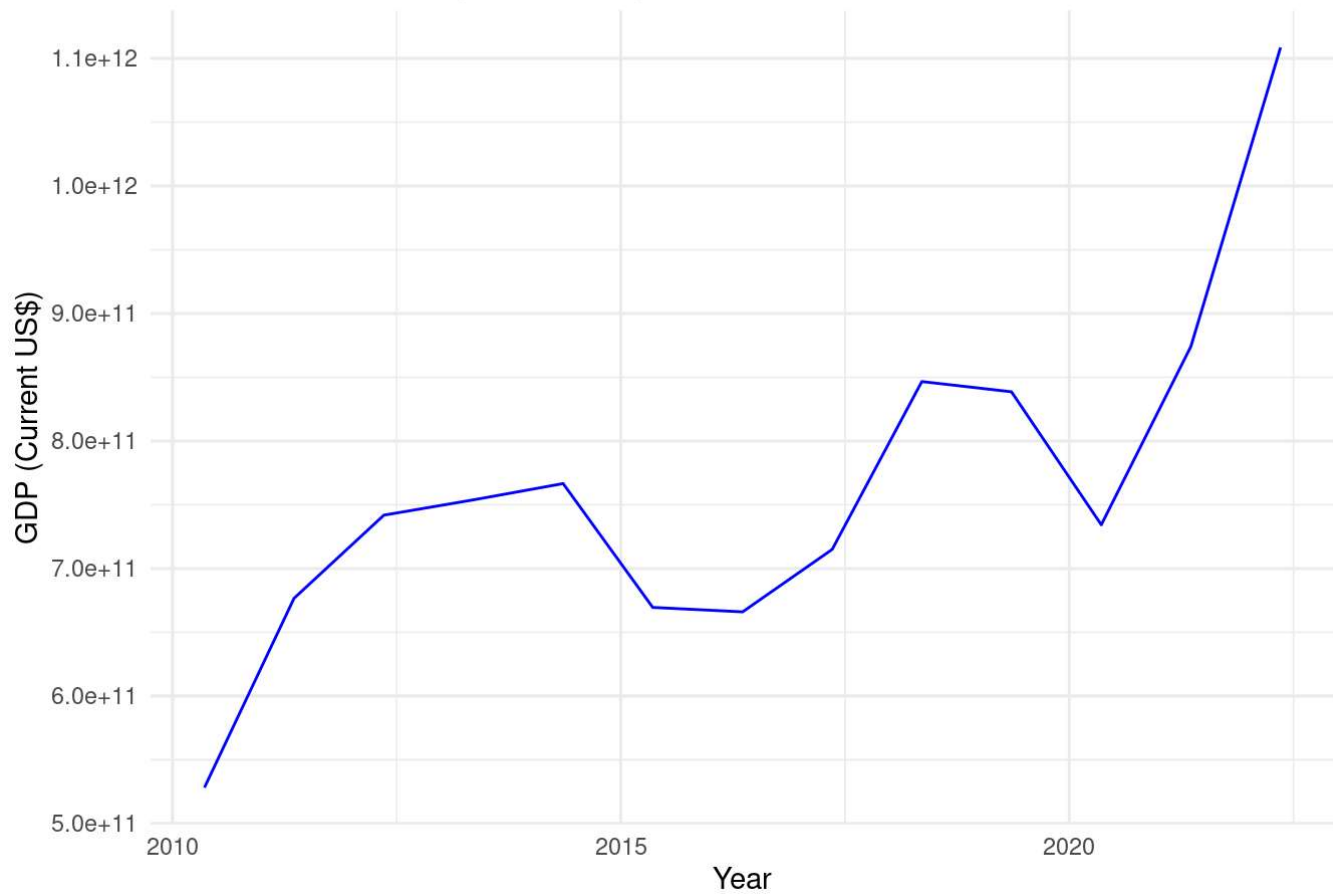
```
# Convert year to date format
gdp_data$year <- as.Date(as.character(gdp_data$year), format="%Y")
```

```
install.packages("ggplot2")
```

```
## Installing package into '/cloud/lib/x86_64-pc-linux-gnu-library/4.4'
## (as 'lib' is unspecified)
```

```
library(ggplot2)
#GDP chart
ggplot(gdp_data, aes(x = year, y = NY.GDP.MKTP.CD)) +
  geom_line(color = "blue") +
  labs(title = "Saudi Arabia GDP (2010-2022)",
       x = "Year",
       y = "GDP (Current US$)") +
  theme_minimal()
```

Saudi Arabia GDP (2010-2022)



Conclusion

The GDP analysis highlights the economic growth trends and how external factors such as oil prices have affected Saudi Arabia's economy during this period. Moving forward, diversification efforts under Vision 2030 are expected to shape the Kingdom's economic future.