Taiwan GDP By Sector

2022-11-19

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This contains data that comes for the Taiwan DGBAS.

Gross Domestic Product measures economic activity of an country: https://en.wikipedia.org/wiki/Gross_domestic_product

The data can be assessed from https://nstatdb.dgbas.gov.tw/dgbasall/webMain.aspx?k=engmain Specifically, the following analysis includes data from "4.2 Quarterly Gross Domestic Product by Kind of Activity and Price Deflator-Annual".

Takeaways from following charts:

1) As typical, when countries develop, the percent of GDP that goes to agriculture declines.

2) When countries develop, the percent of GDP that goes to services increase.

3) The percent of GDP that goes to industry increases to a peak and then declines steadily (and never goes back up). Typically, this is a steady decline. Very unusual for any economy, Taiwan sees a decline but a rise again in the 2010s. Even more bizarre is that the percentage of GDP that goes to services declines in the 2010s, which rarely ever happens.

4) The percentage of GDP that goes to accommodation and food services (hotels and restaurants) goes up, as typical when countries become richer.

5) During the pandemic, ocean shipping prices skyrocketed for a brief period as consumers bought goods instead of services and pandemic shutdowns reduced supply. As larger percentage of Taiwan's economy is from ocean shipping, so the percentage of GDP that goes to Transportation and Storage briefly rose in 2021 and 2022.

6) A small statistic discrepancy arises with the different approaches to GDP: The disprepancy in chart below is the difference in the output method and the expenditure method. https://www.cso.ie/en/interactivezone/statisticsexplained/nationalaccountsexplained/grossdomesticproducthowitismeasured/#:~:text=The%20Income%20Method%20(all%20income,Expenditure%20Method%20(all%20spending)

```
library(readxl)
library(zoo)
```

```
##
## Attaching package: 'zoo'

## The following objects are masked from 'package:base':
##
##     as.Date, as.Date.numeric
```

```r
library(ggplot2)
library(dplyr)
```

```
##
## Attaching package: 'dplyr'

## The following objects are masked from 'package:stats':
##
##     filter, lag

## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union
```

```r
asdf <- read_excel("C:/Users/willi/Downloads/E018103020-02558096.xlsx",
    skip = 2, col_types = c("guess", "text","numeric","numeric","numeric"))
asdf[[1]][1:4760] = sort(rep(unique(asdf[[1]])[c(1:170)], 28))
colnames(asdf) = c("Quarter","Sector","GDP", "RealGDP","Price")
asdf[[1]] = as.Date(as.yearqtr(asdf[[1]], "%Y Q%q"))


plot_this = function(Res, Divide){
  Res[3] = 100 * Res[3]/Divide[3]
  ggplot(Res, aes(x = Quarter, y = GDP)) +
    geom_point() +
    geom_line() +
    theme_bw() + xlab("Year") + ylab("% of GDP") +
    ggtitle(paste0("Percent of Taiwan GDP for ", Res[[2]][1]))
}


Res = group_split(asdf, Sector)

plots = lapply(Res[1:27], function(x) plot_this(x, Res[[27]]))
```

```r
plots
```

```
## [[1]]
```

2

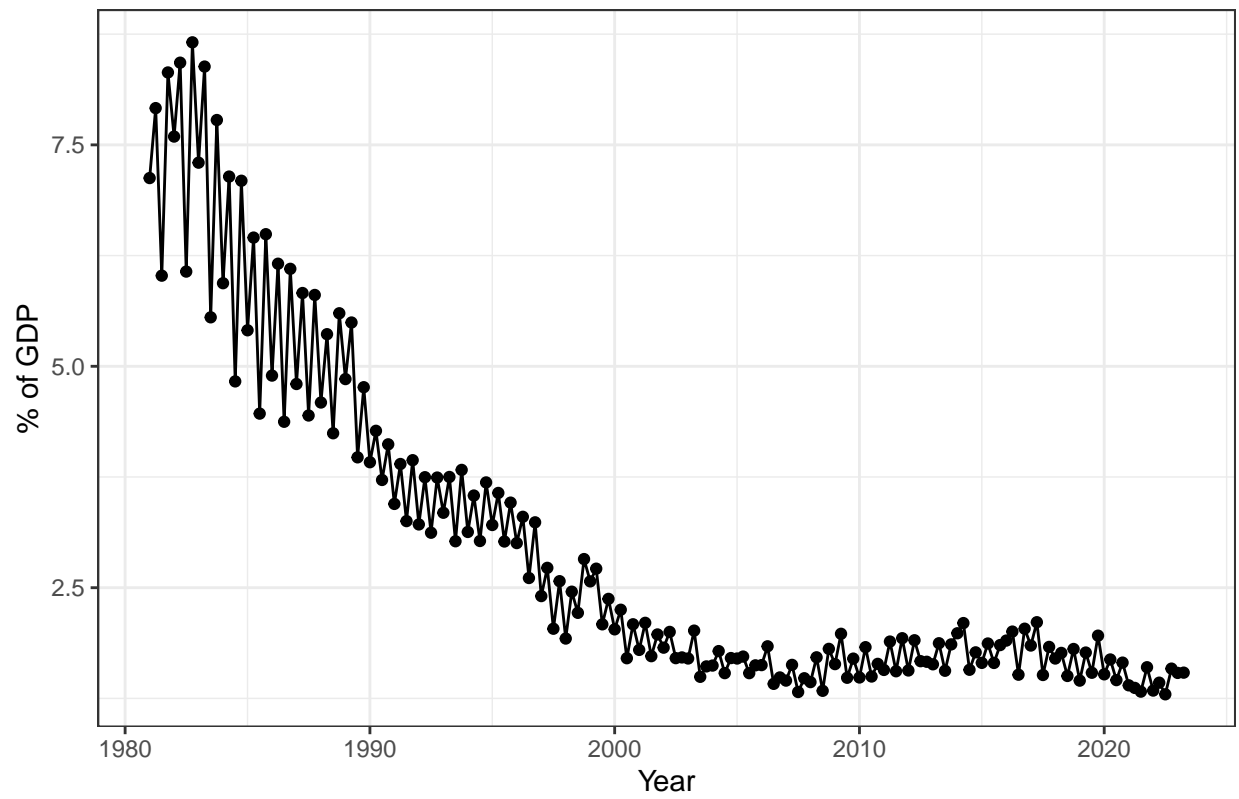## Percent of Taiwan GDP for A. Agriculture, Forestry, Fishing and Animal Hus


```
## 
## [[2]]
```
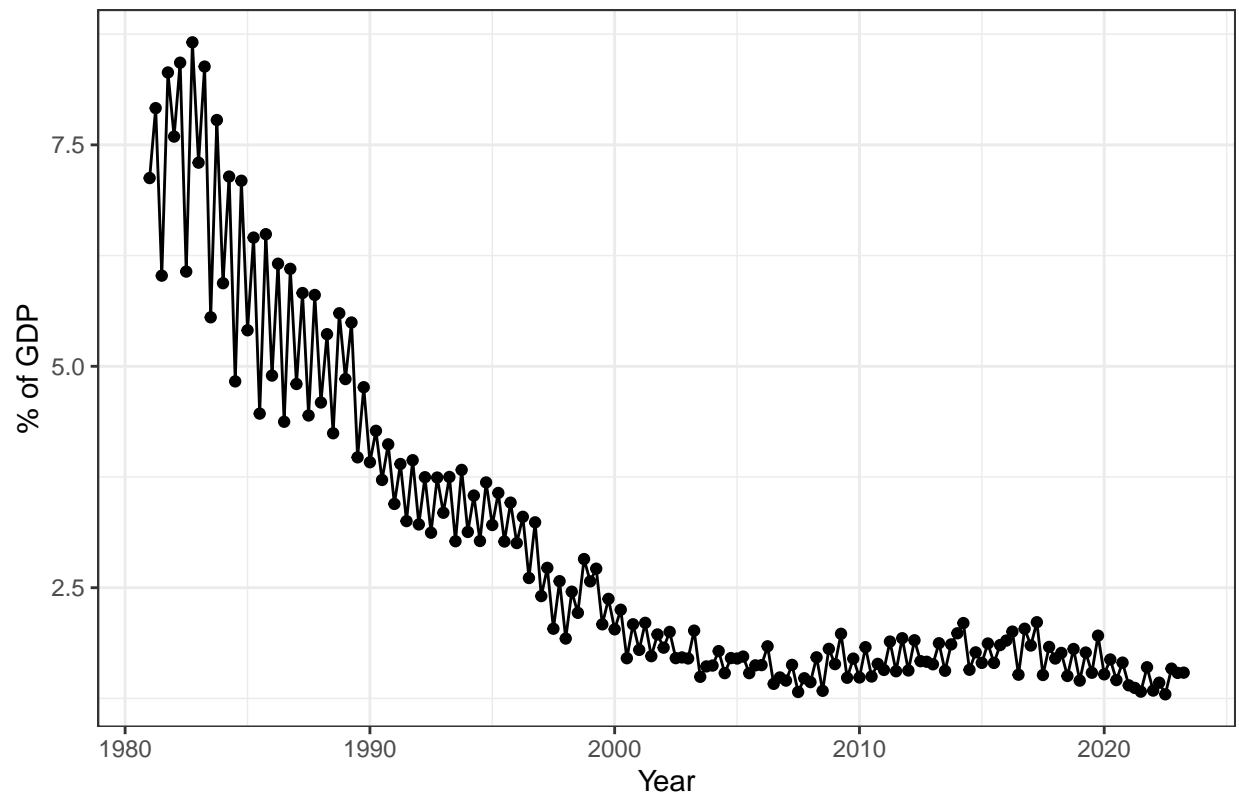
Percent of Taiwan GDP for B. Mining and Quarrying
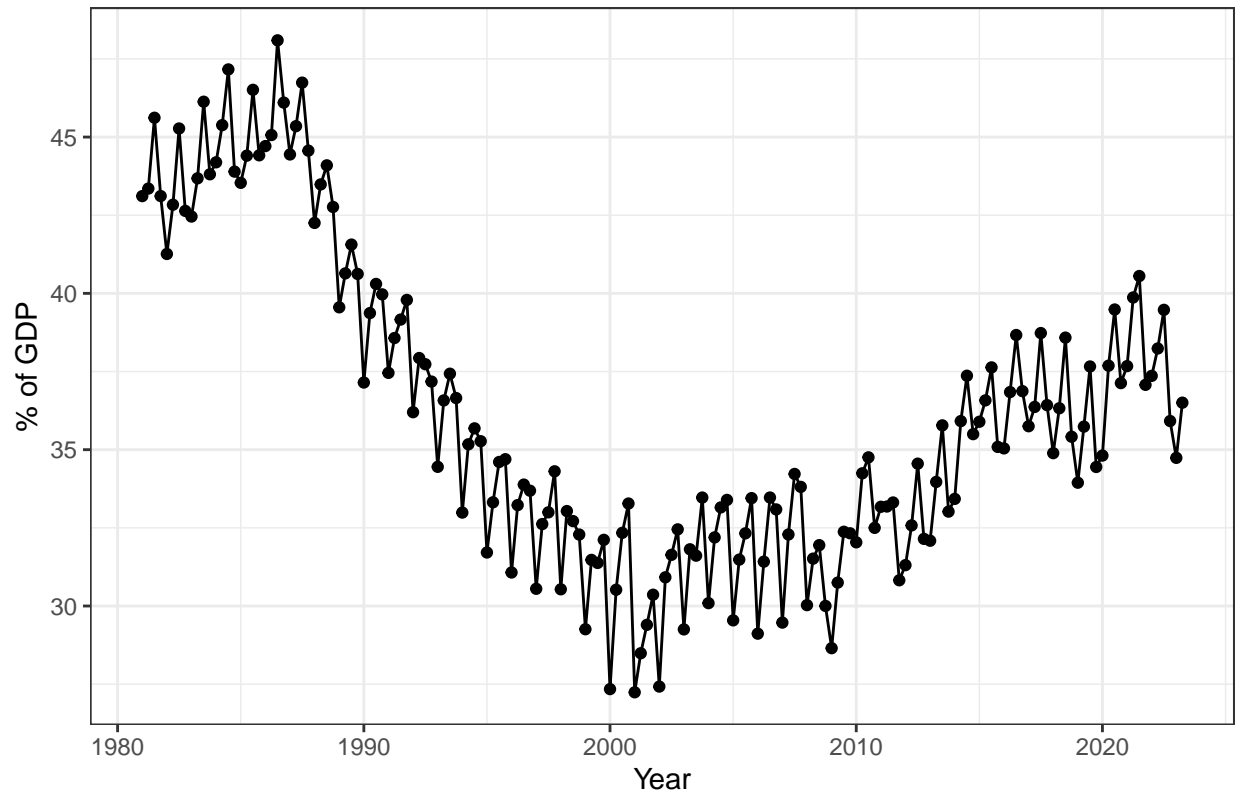


```
##
## [[3]]
```
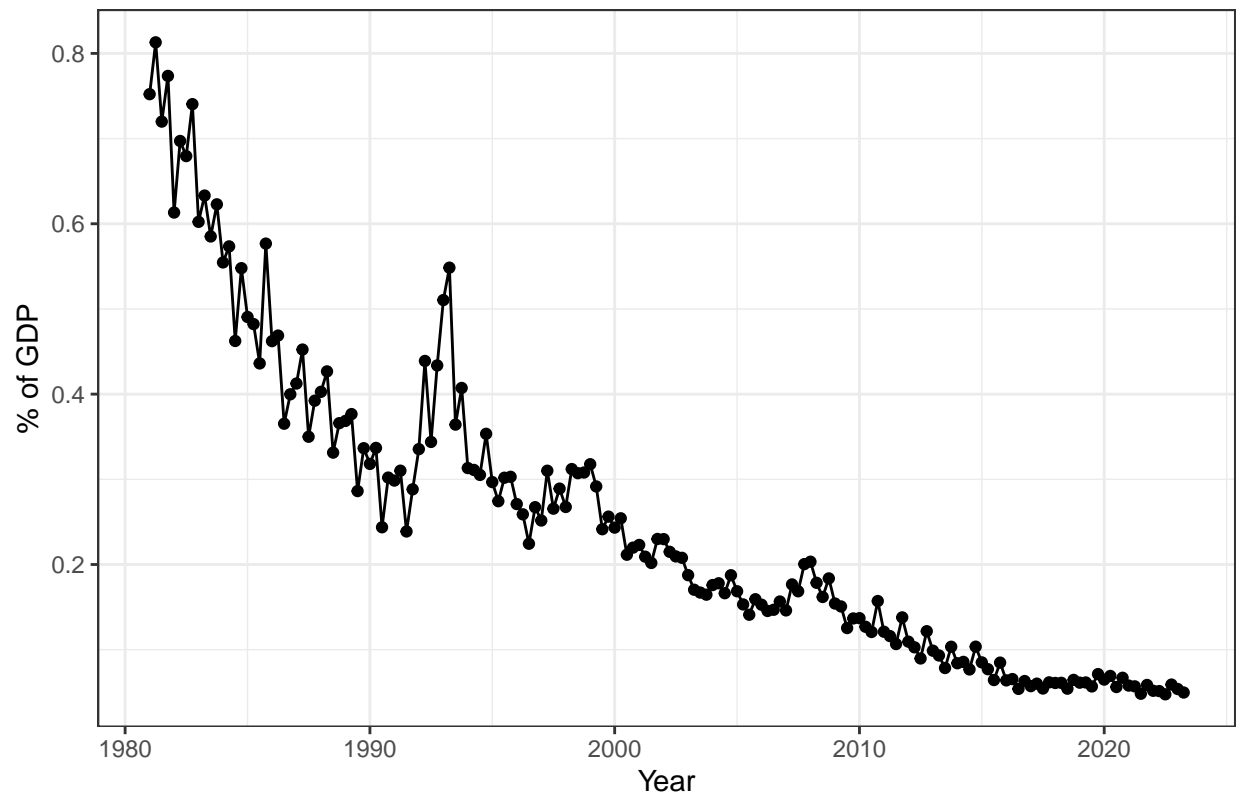
Percent of Taiwan GDP for By Major Activities : Agriculture
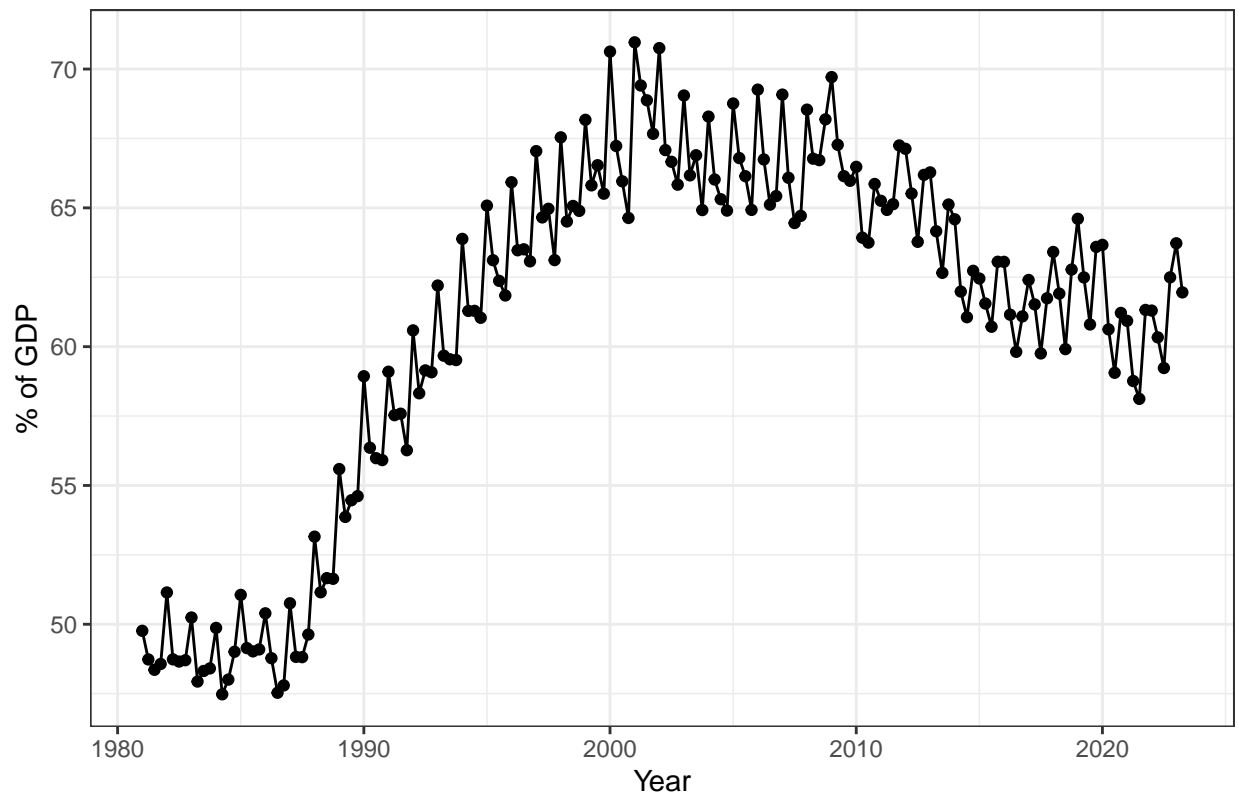


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## 
## [[4]]
```

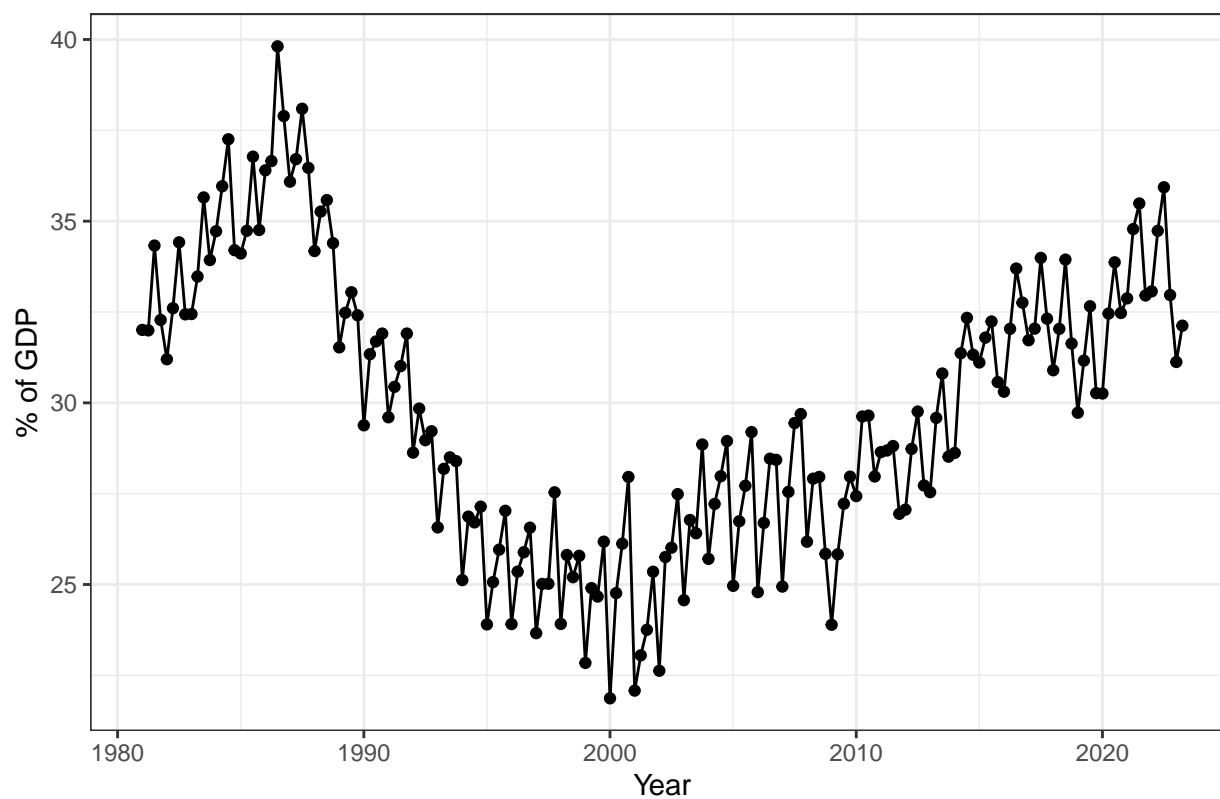## Percent of Taiwan GDP for By Major Activities : Industry


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## 
## [[5]]
```

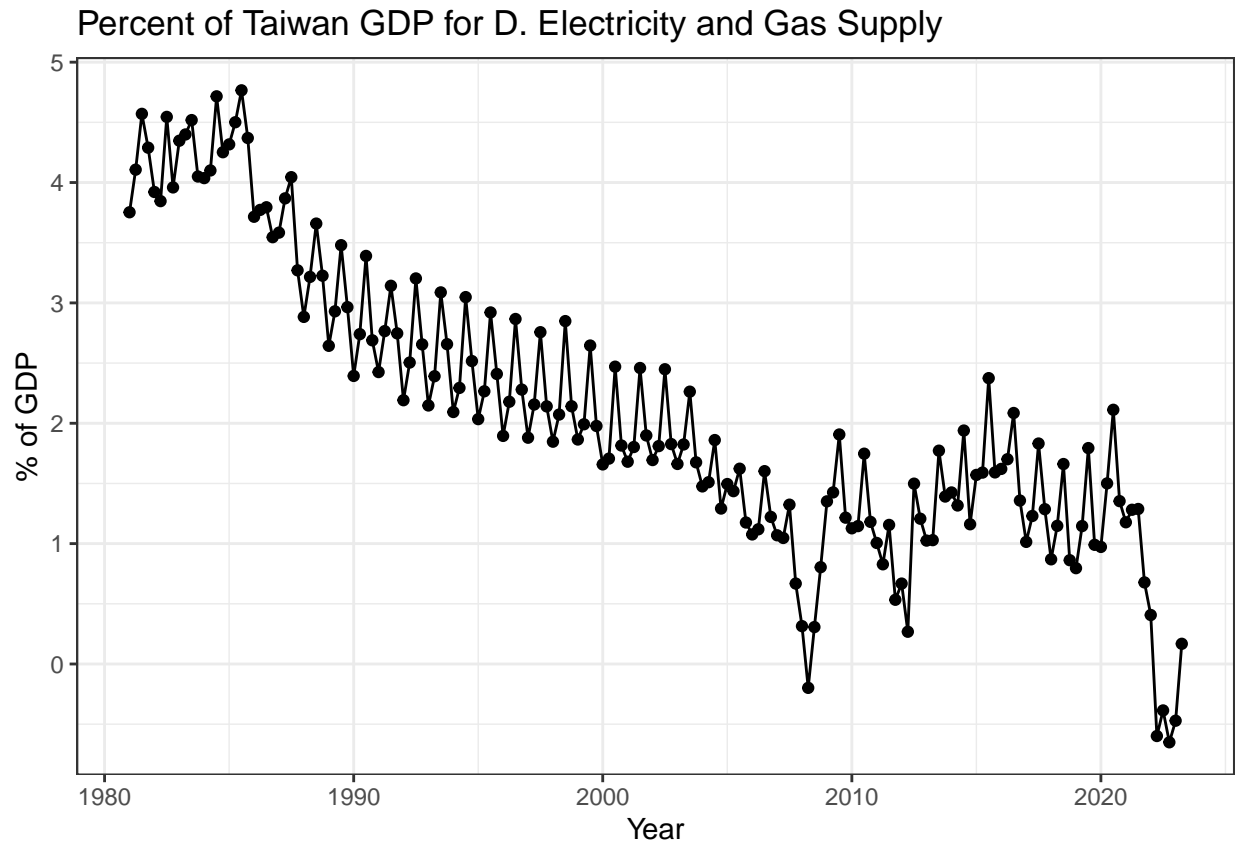**Percent of Taiwan GDP for By Major Activities : Services**

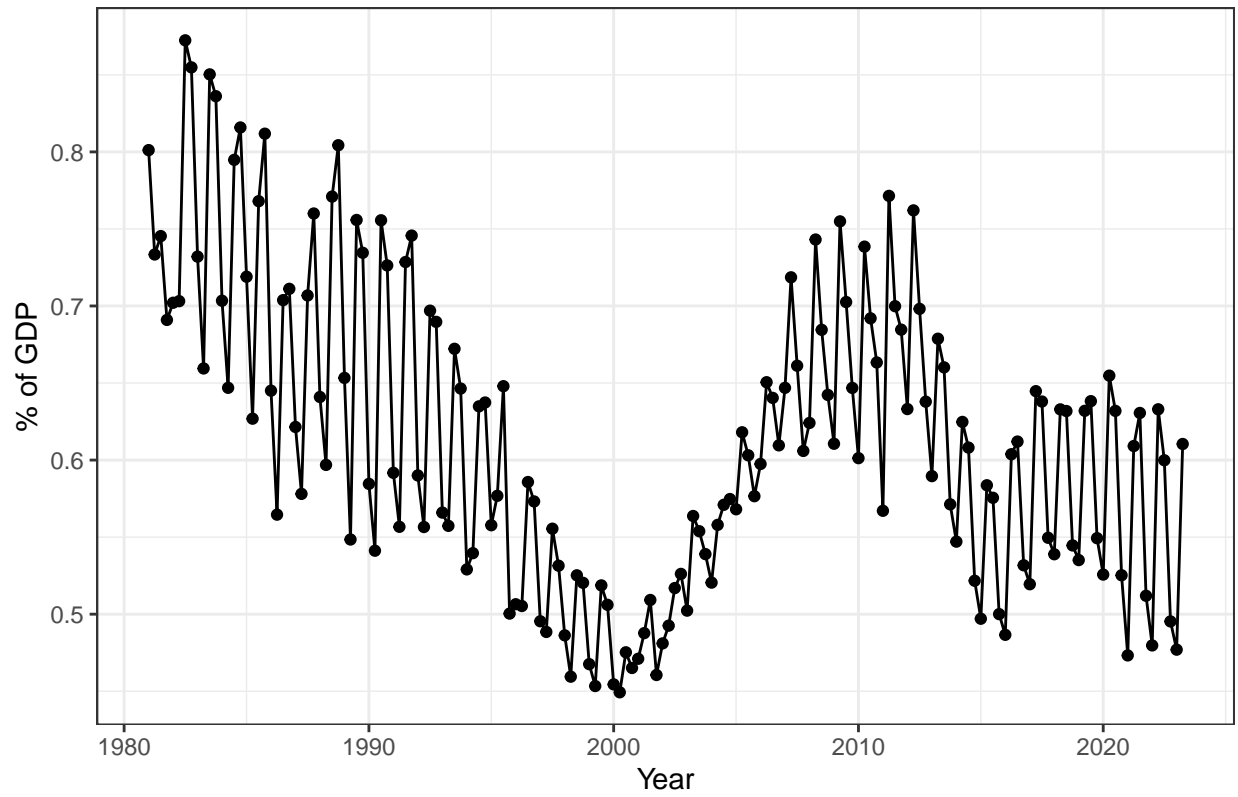```
##
[[6]]
```

## Percent of Taiwan GDP for C. Manufacturing



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## 
## [[7]]
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Percent of Taiwan GDP for D. Electricity and Gas Supply


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## 
## [[8]]
```

Percent of Taiwan GDP for E. Water Supply and Remediation Activities


```
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## [[9]]
```

Percent of Taiwan GDP for F. Construction
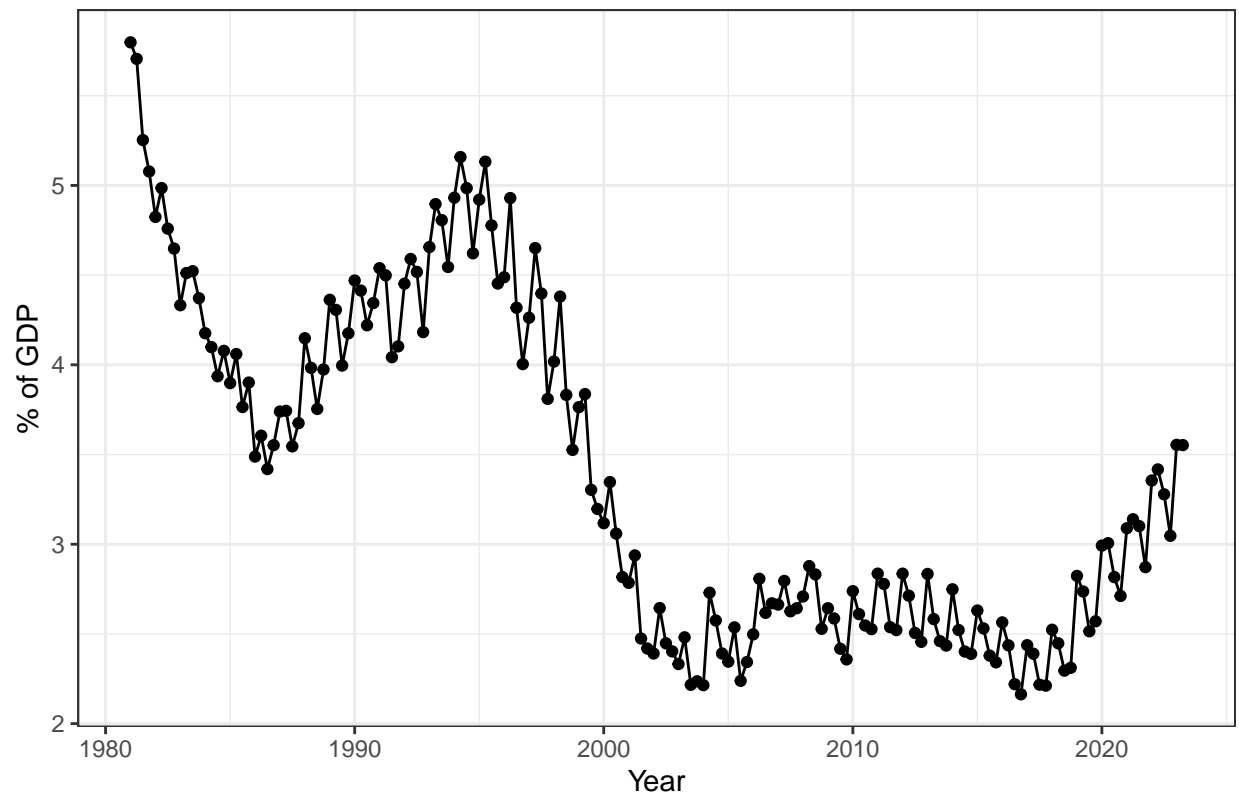

```
##
## [[10]]
```

Percent of Taiwan GDP for G. Wholesale and Retail Trade
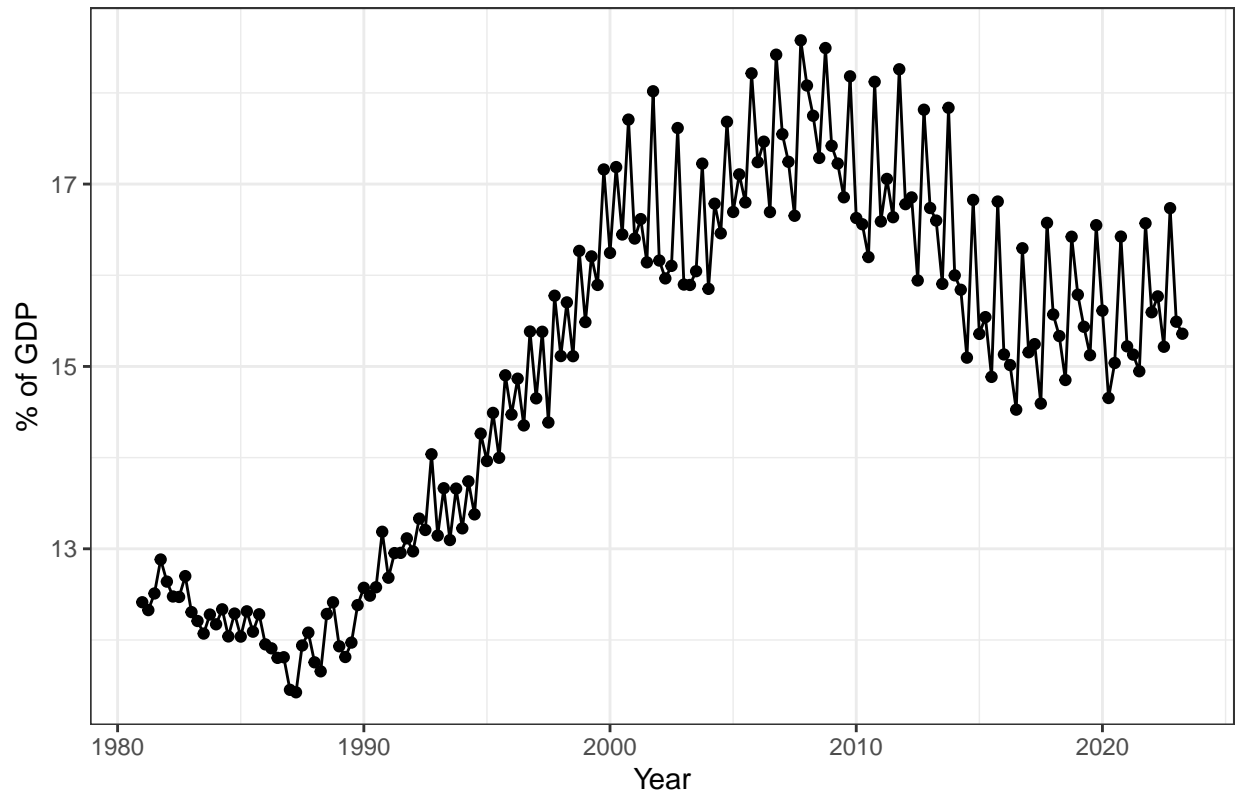

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## [[11]]
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Percent of Taiwan GDP for GDP


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## [[12]]
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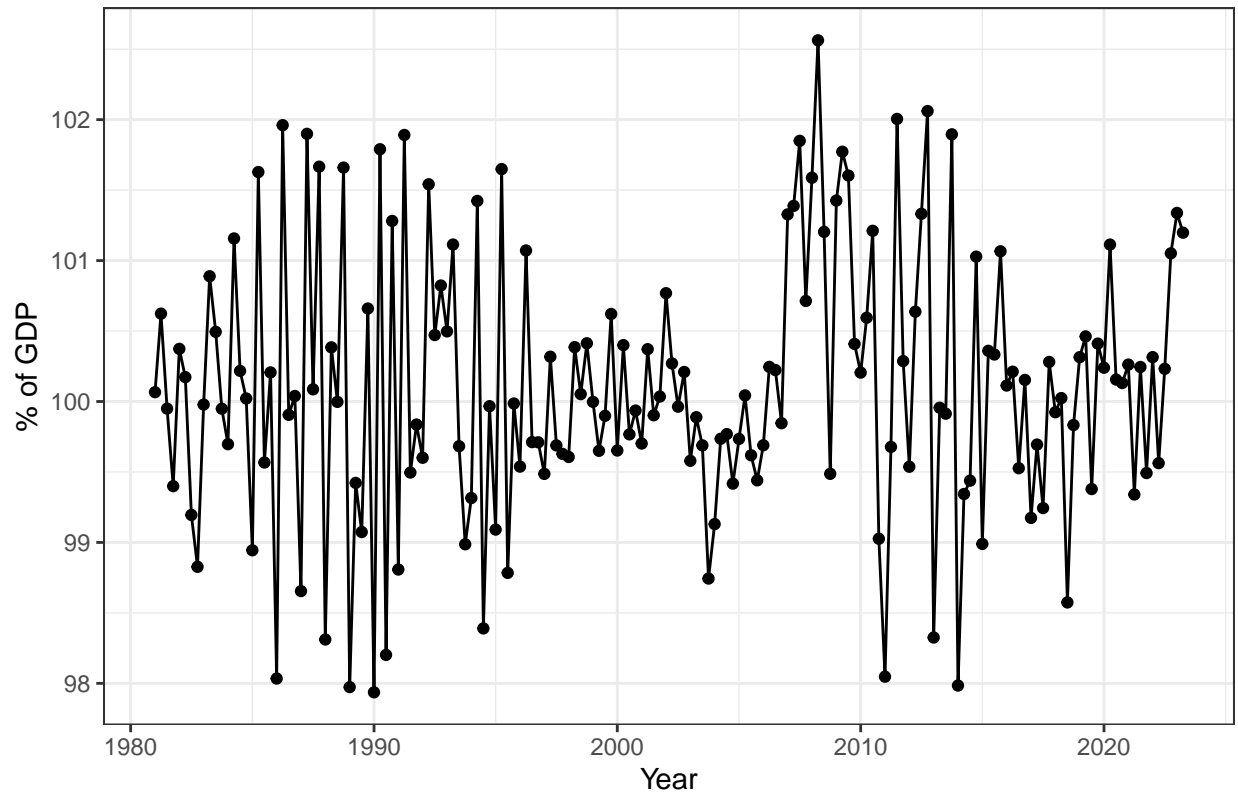
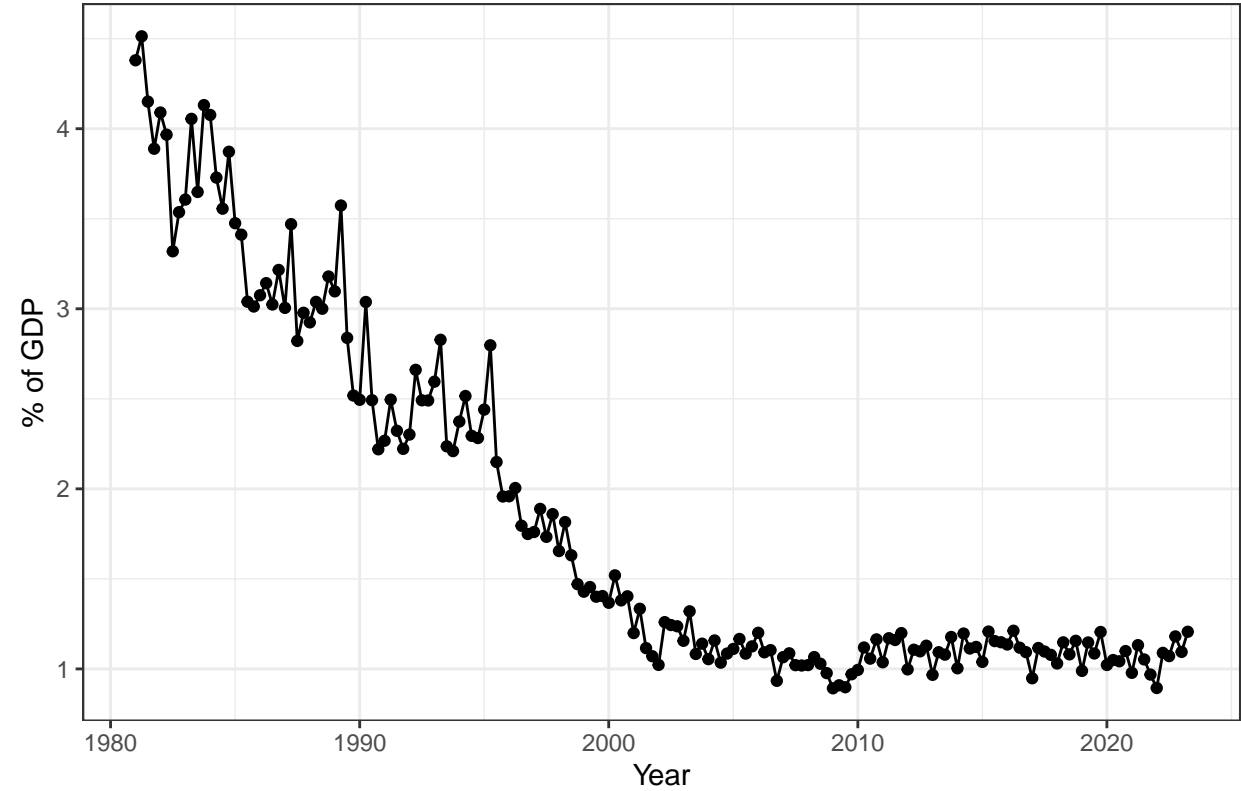## Percent of Taiwan GDP for H. Transportation and Storage
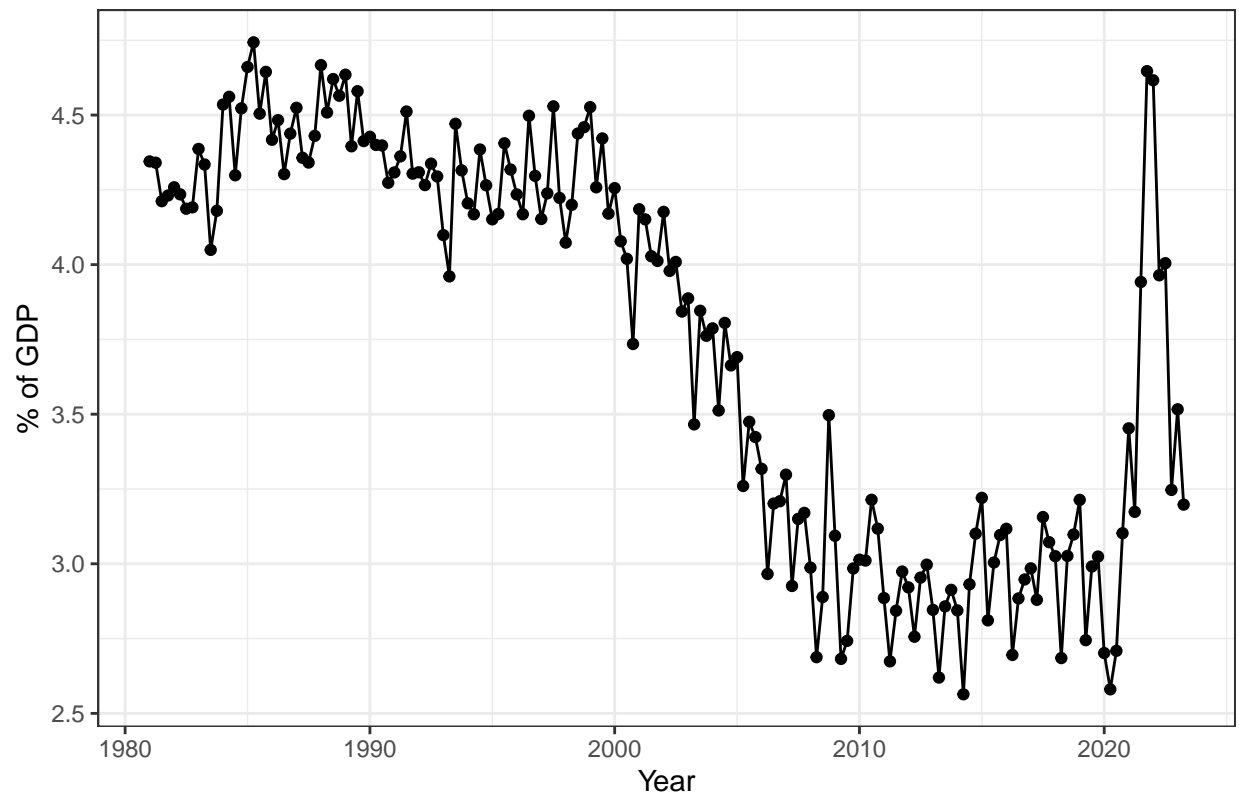

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## 
## [[13]]
```

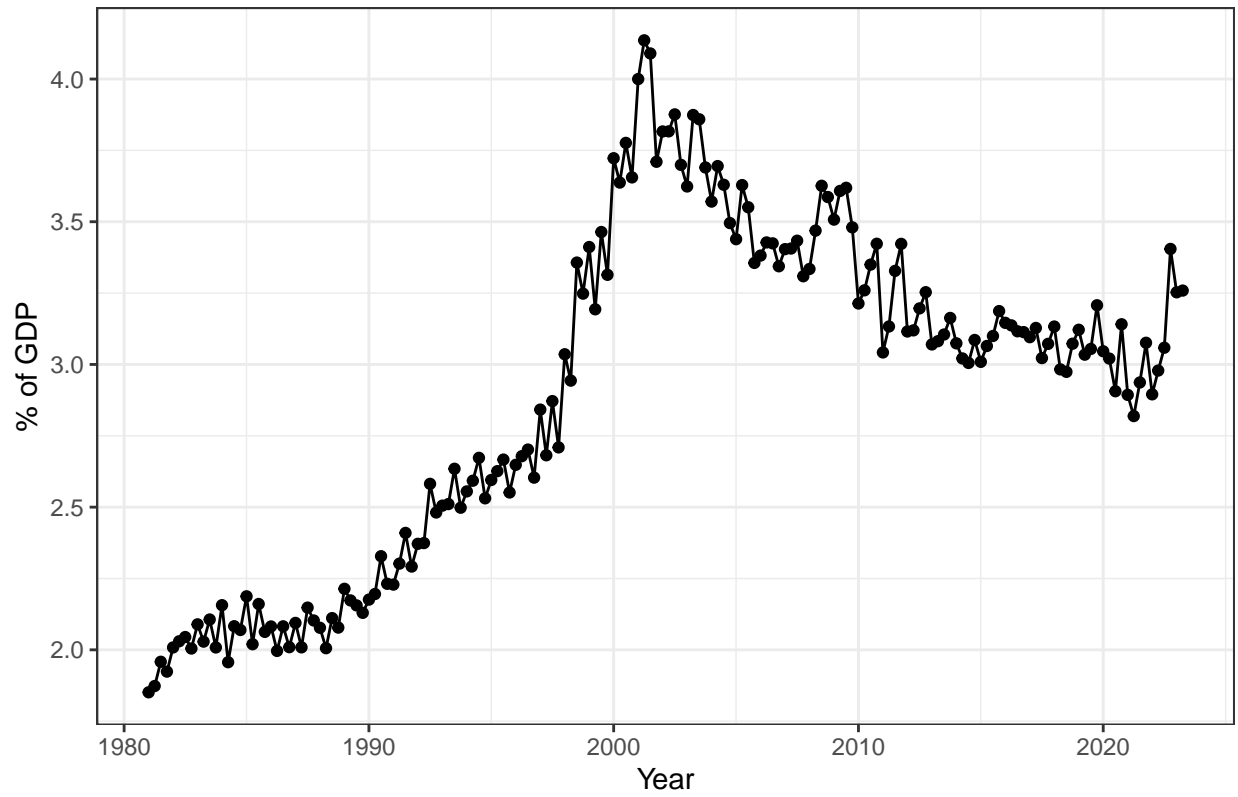## Percent of Taiwan GDP for I. Accommodation and Food Service Activities
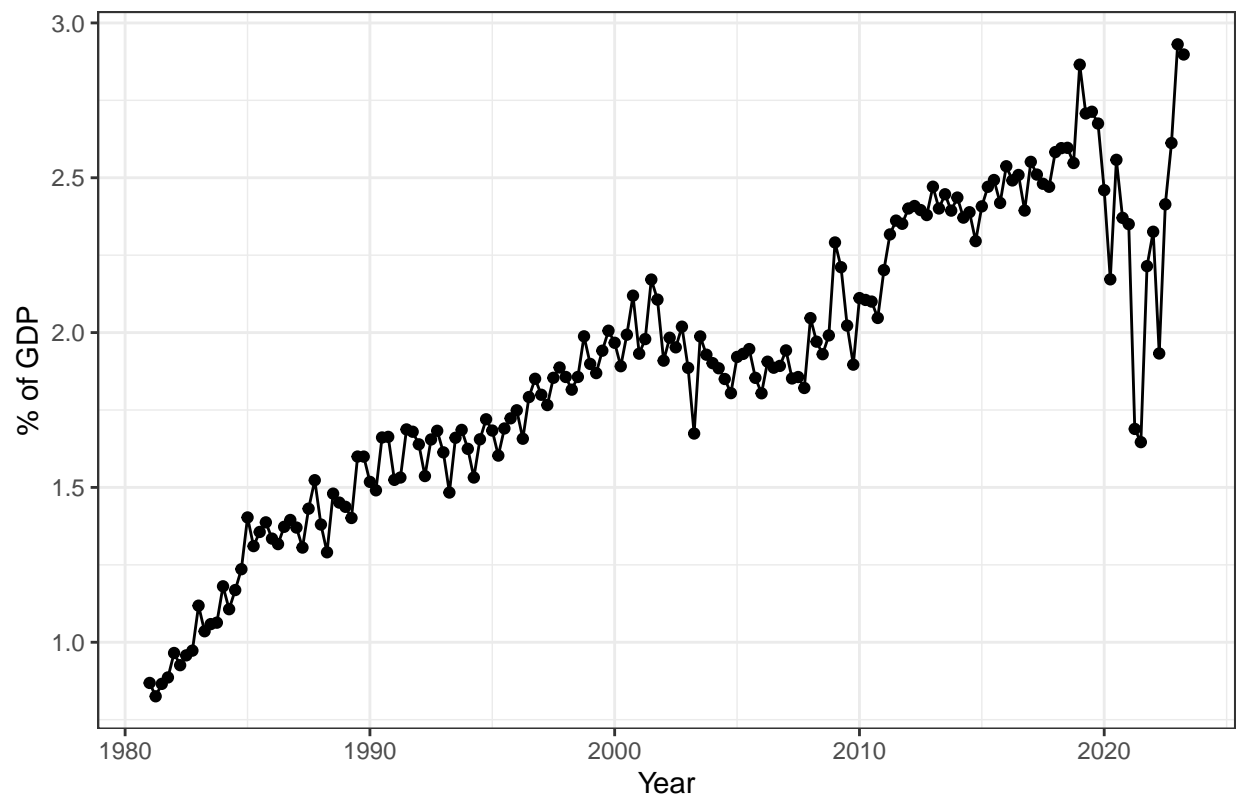

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## 
## [[14]]
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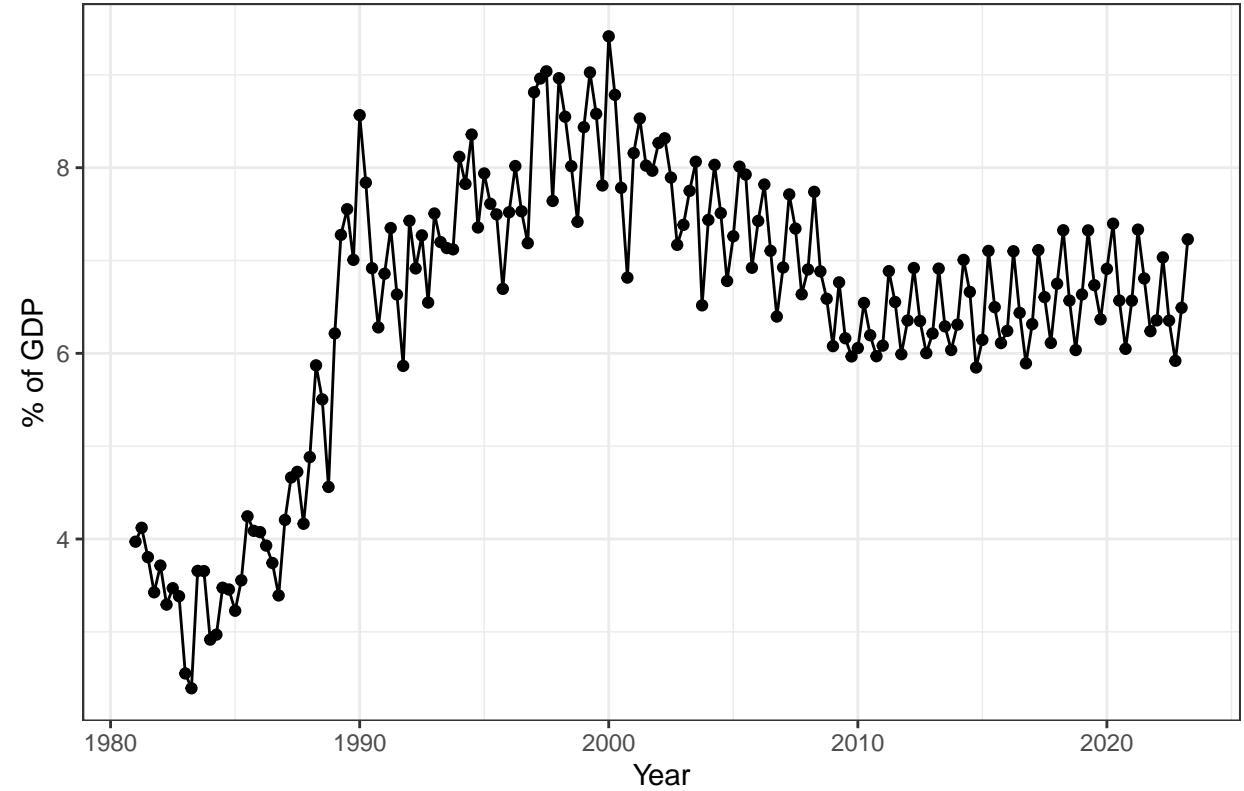
Percent of Taiwan GDP for Import Duties


```
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## [[15]]
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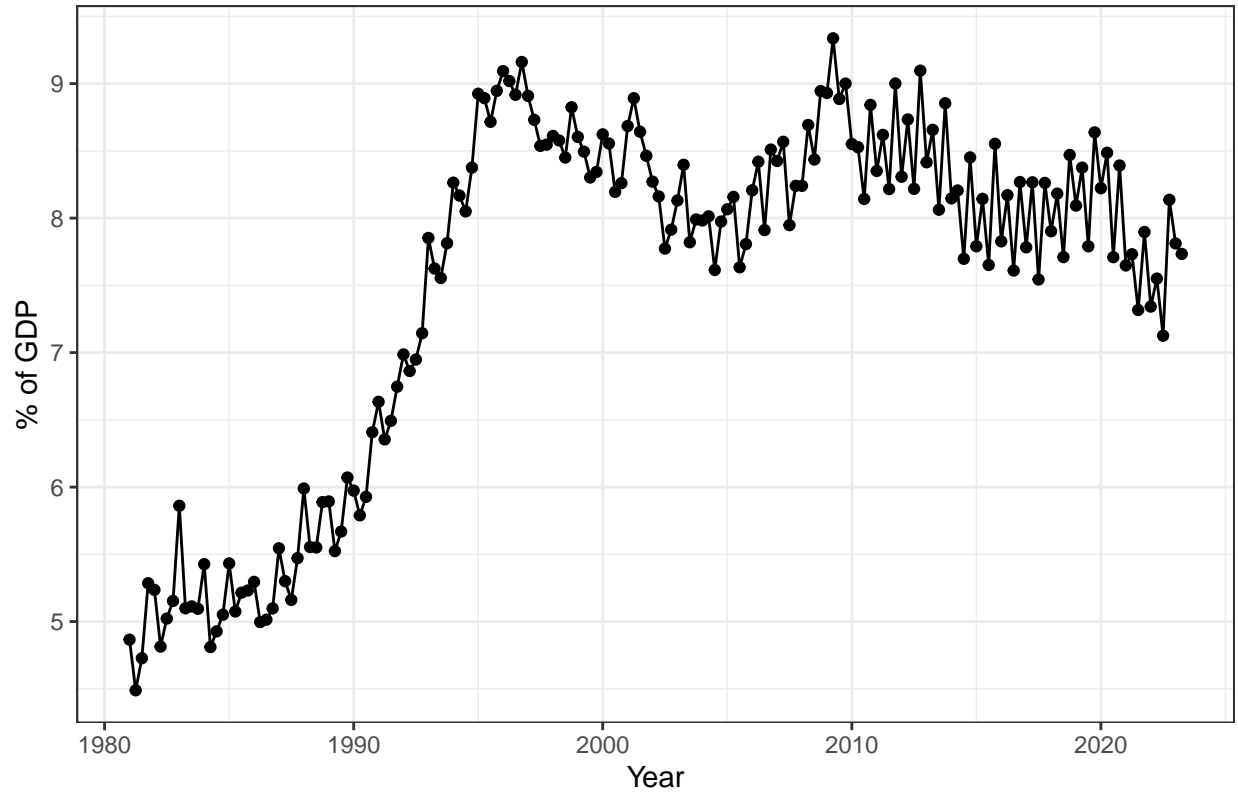## Percent of Taiwan GDP for J. Information and Communication


```
##
## [[16]]
```

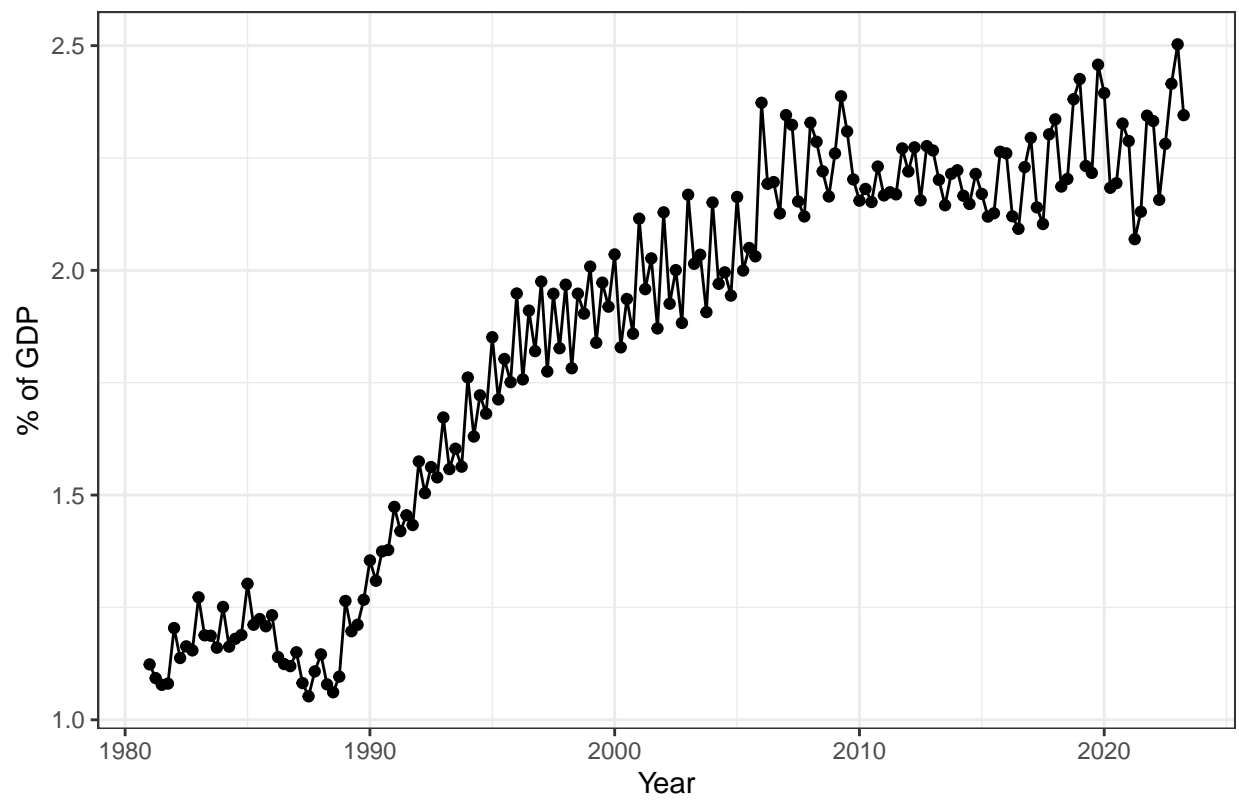## Percent of Taiwan GDP for K. Financial and Insurance Activities


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##
## [[17]]
```

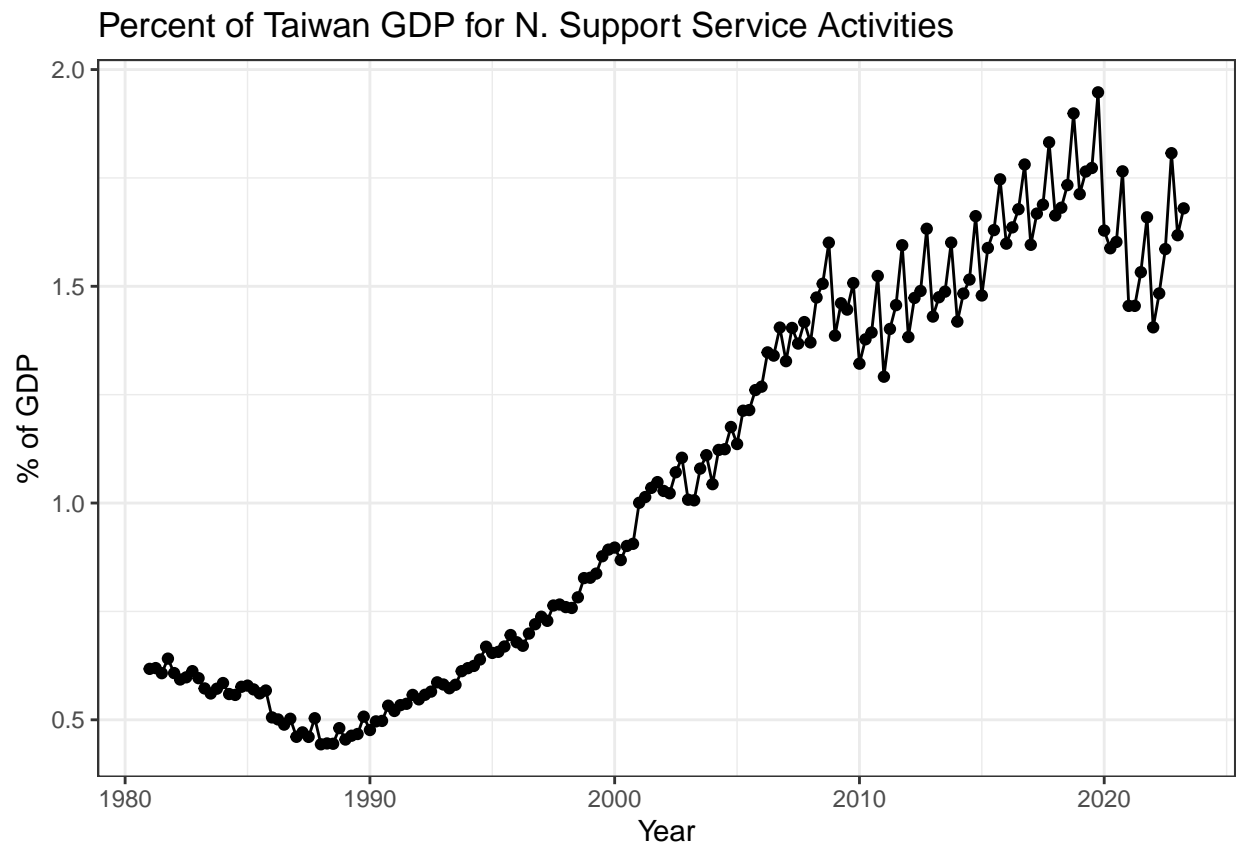## Percent of Taiwan GDP for L. Real Estate Activities and Ownership of Dwellin


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## [[18]]
```

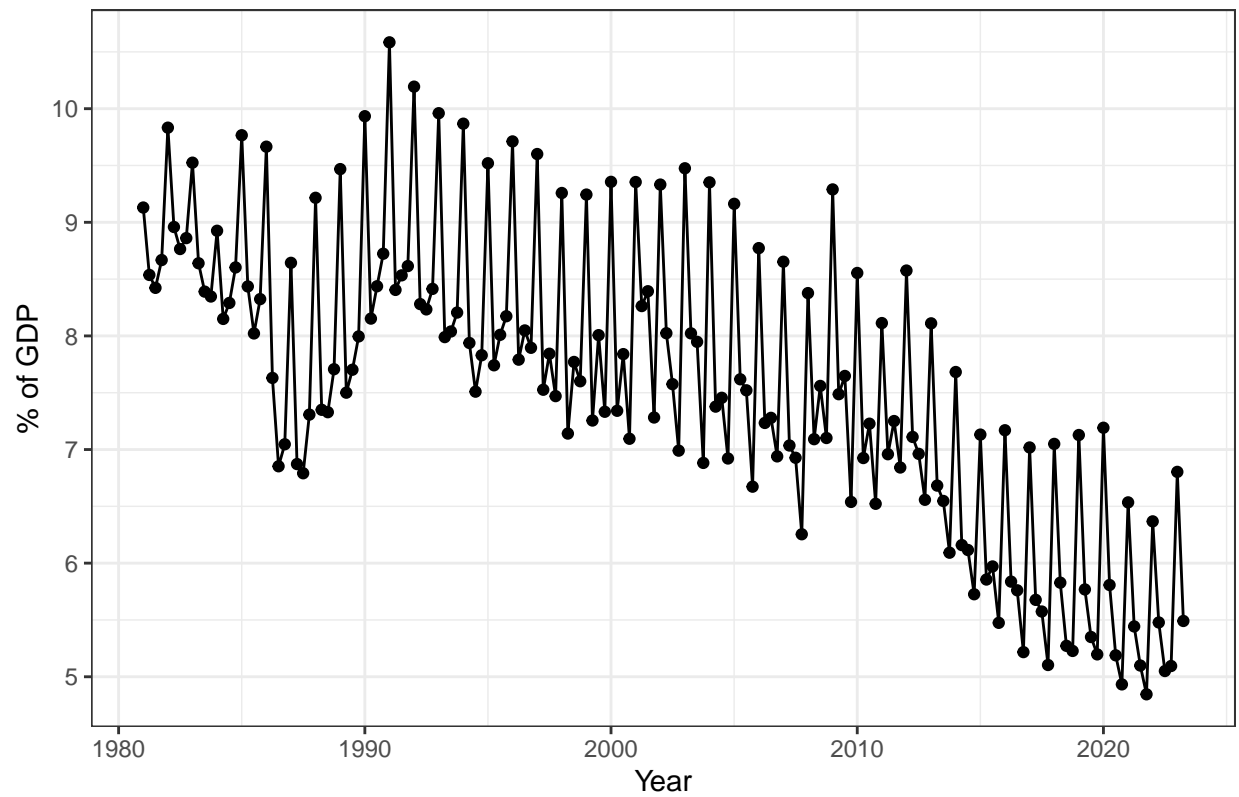## Percent of Taiwan GDP for M. Professional, Scientific and Technical Activitie


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## [[19]]
```

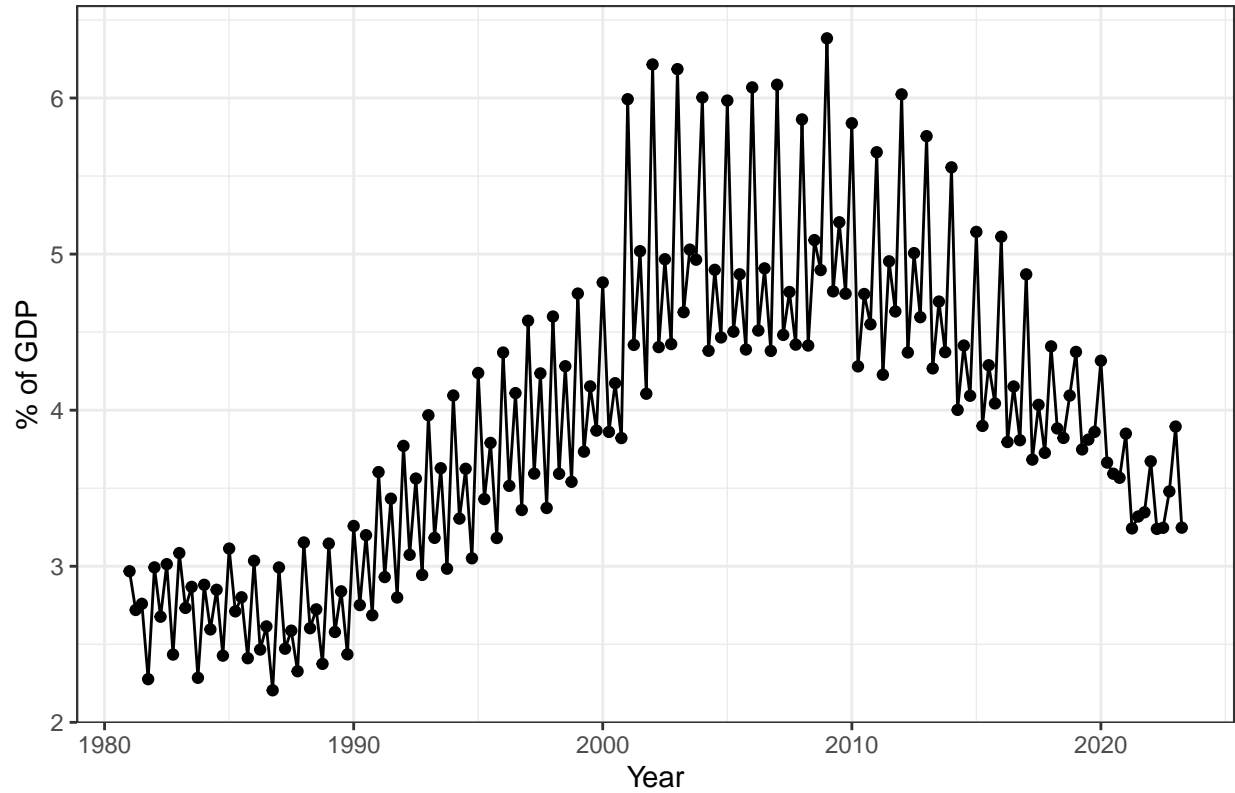## Percent of Taiwan GDP for N. Support Service Activities


```
##
## [[20]]
```

Percent of Taiwan GDP for O. Public Administration and Defence; Compulso
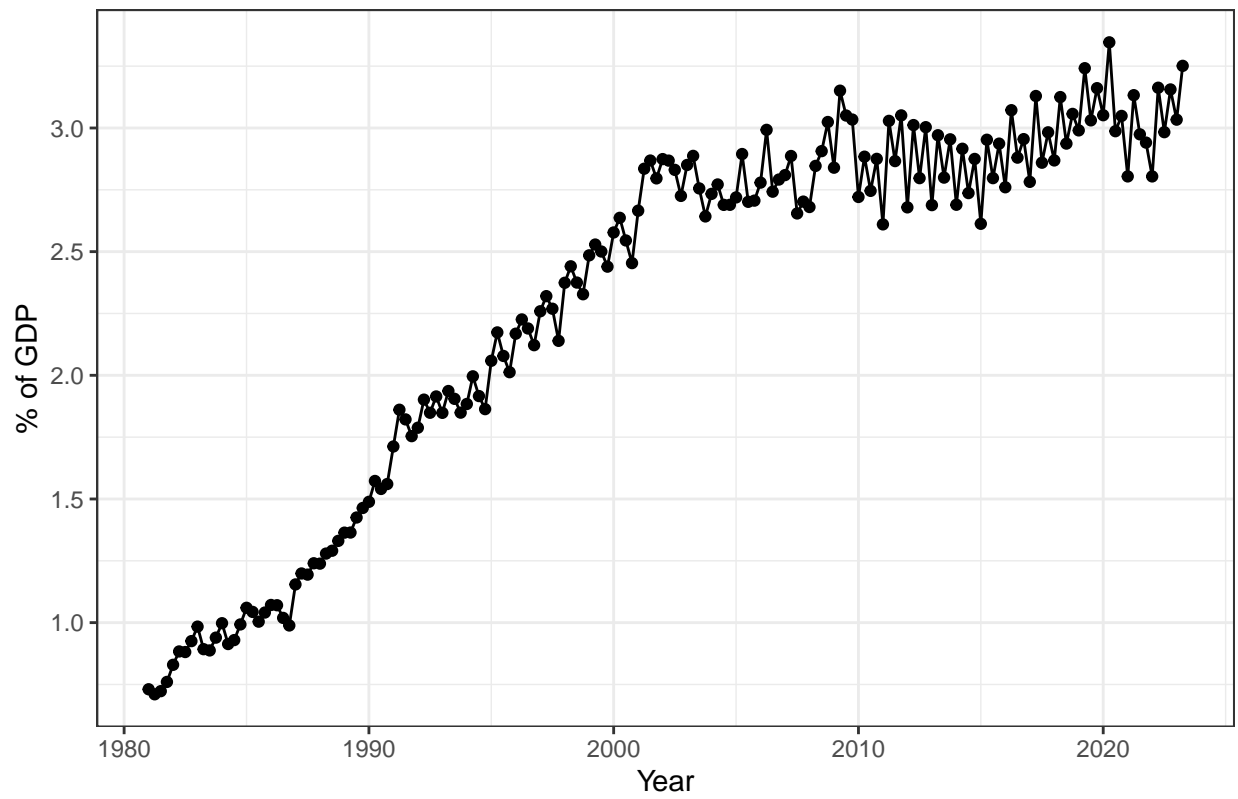


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##
## [[21]]
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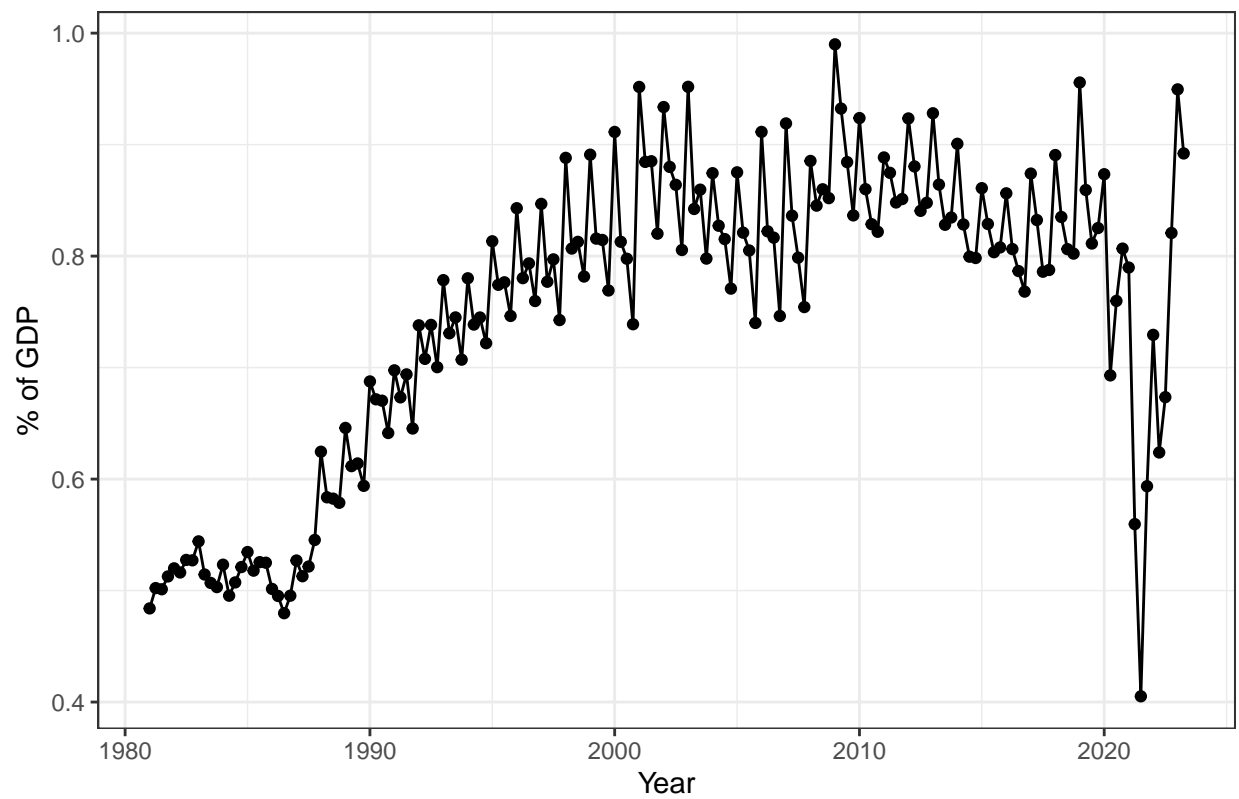## Percent of Taiwan GDP for P. Education


```
## 
## [[22]]
```

Percent of Taiwan GDP for Q. Human Health and Social Work Activities
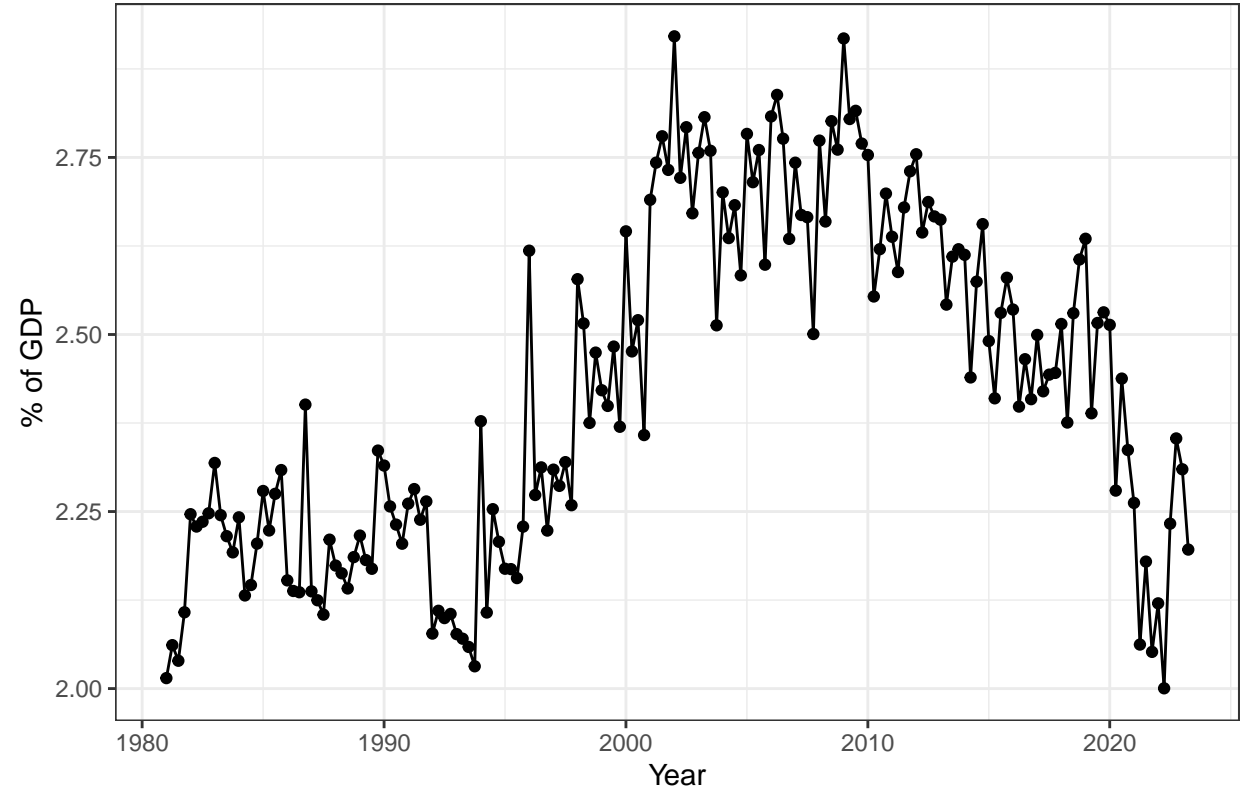


```
## 
## [[23]]
```

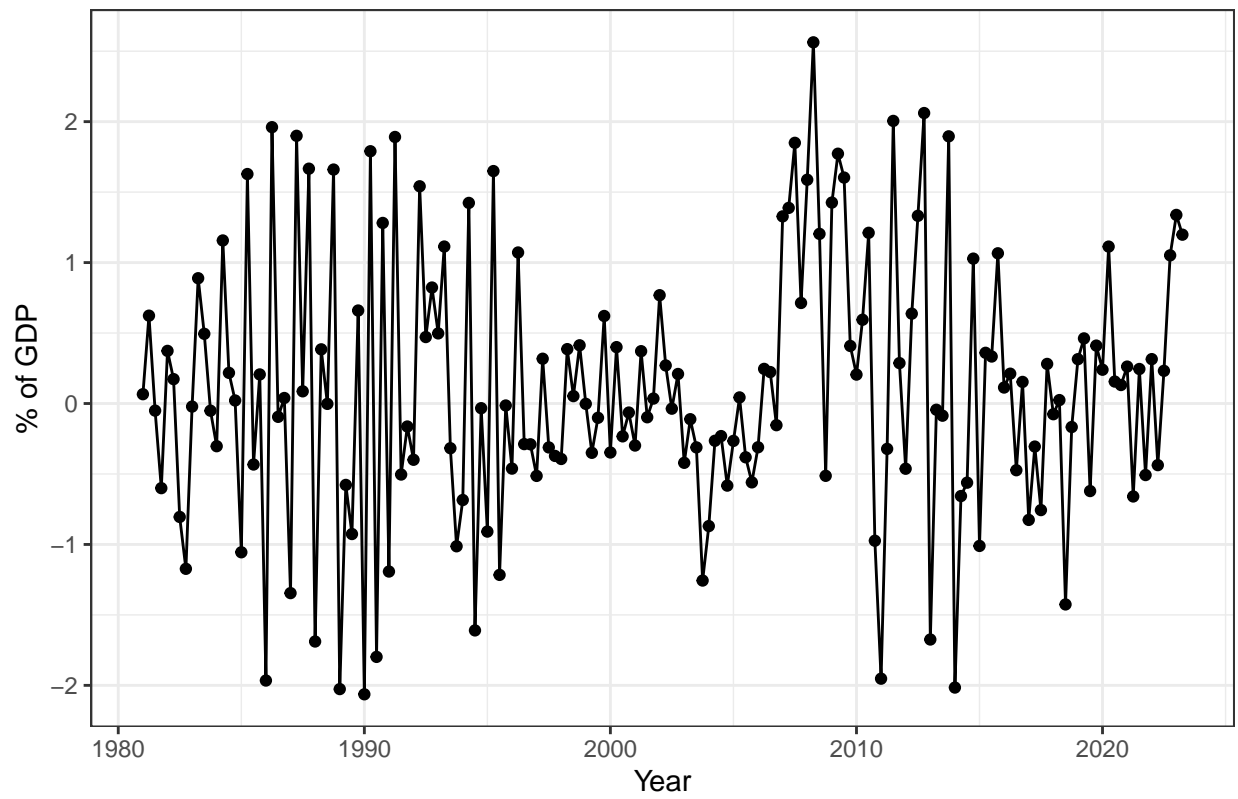## Percent of Taiwan GDP for R. Arts, Entertainment and Recreation


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## 
## [[24]]
```

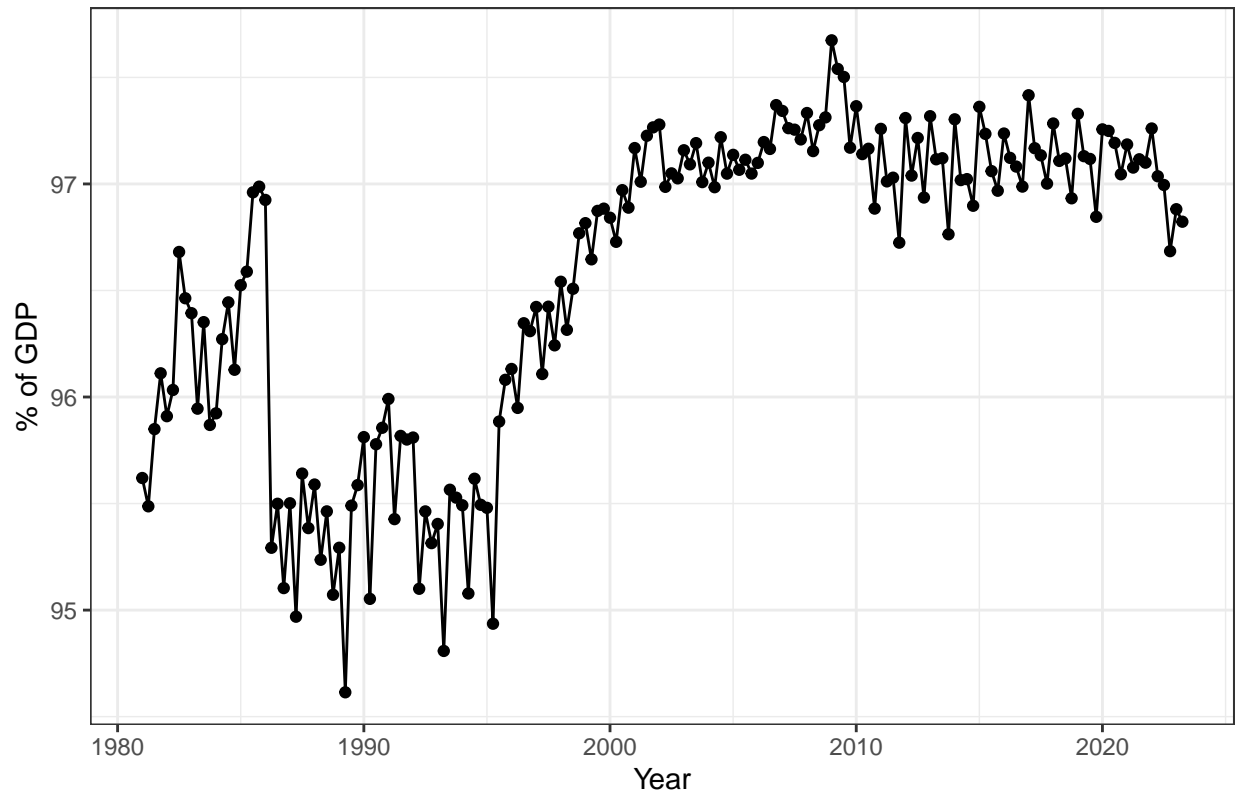## Percent of Taiwan GDP for S. Other Service Activities


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## [[25]]
```

Percent of Taiwan GDP for Statistical Discrepancy


```
##
## [[26]]
```

Percent of Taiwan GDP for Subtotal


```
## 
## [[27]]
```

Percent of Taiwan GDP for Total (by production approach)