

GDPType

2022-11-23

GDP Type

This calculates the percent of GDP that is for each type of income.

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

Later, in Value Added section, I calculate the percent of value added in each industry that are profits in “Net Operating Surplus divided by Value Added”. One problem with this is that net operating surplus is not exactly the same as profits. Net operating surplus includes income for self-employed workers.

Big takeaways:

- 1) One major reason for the decline in labor share of GDP (percent of GDP that goes to workers) is increasing depreciation. GDP is not the same as income (which is why it is “gross”) as it does not take into account depreciation of the capital stock.
- 2) The data shows that profits did not increase a very extreme amount during COVID. The charts to pay attention to are “Profits after tax with IVA and CCAdj” versus “Compensation of employees”. Note that the charts for corporate business only include corporations, while the later charts for net operating surplus include all businesses.
- 3) The chart for “Net Operating Surplus divided by Value Added 1998-2021 for All industries” does not show a spike during COVID-19.
- 4) One industry with a huge spike in profits is supposedly the food service industry.

```
library(readr)
Table <- read_csv("Data/Table.csv", col_names = FALSE, skip = 5)
```

```
## Warning: One or more parsing issues, see 'problems()' for details

## Rows: 56 Columns: 133
## -- Column specification -----
## Delimiter: ","
## chr (11): X1, X2, X3, X4, X5, X6, X7, X8, X9, X10, X133
## dbl (122): X11, X12, X13, X14, X15, X16, X17, X18, X19, X20, X21, X22, X23, ...
##
## i Use 'spec()' to retrieve the full column specification for this data.
## i Specify the column types or set 'show_col_types = FALSE' to quiet this message.
```

```
library(ggplot2)
```

```
## Warning: package 'ggplot2' was built under R version 4.2.3
```

```
library(dplyr)
```

```
## Warning: package 'dplyr' was built under R version 4.2.3
```

```
##
## 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
```

```
library(tidyr)
```

```
## Warning: package 'tidyr' was built under R version 4.2.3
```

```
Table[3:133] = Table[3:133] %>% mutate(across(where(is.character), as.numeric))
```

```
## Warning: There were 9 warnings in 'mutate()'.
## The first warning was:
## i In argument: 'across(where(is.character), as.numeric)'.
## Caused by warning:
## ! NAs introduced by coercion
## i Run 'dplyr::last_dplyr_warnings()' to see the 8 remaining warnings.
```

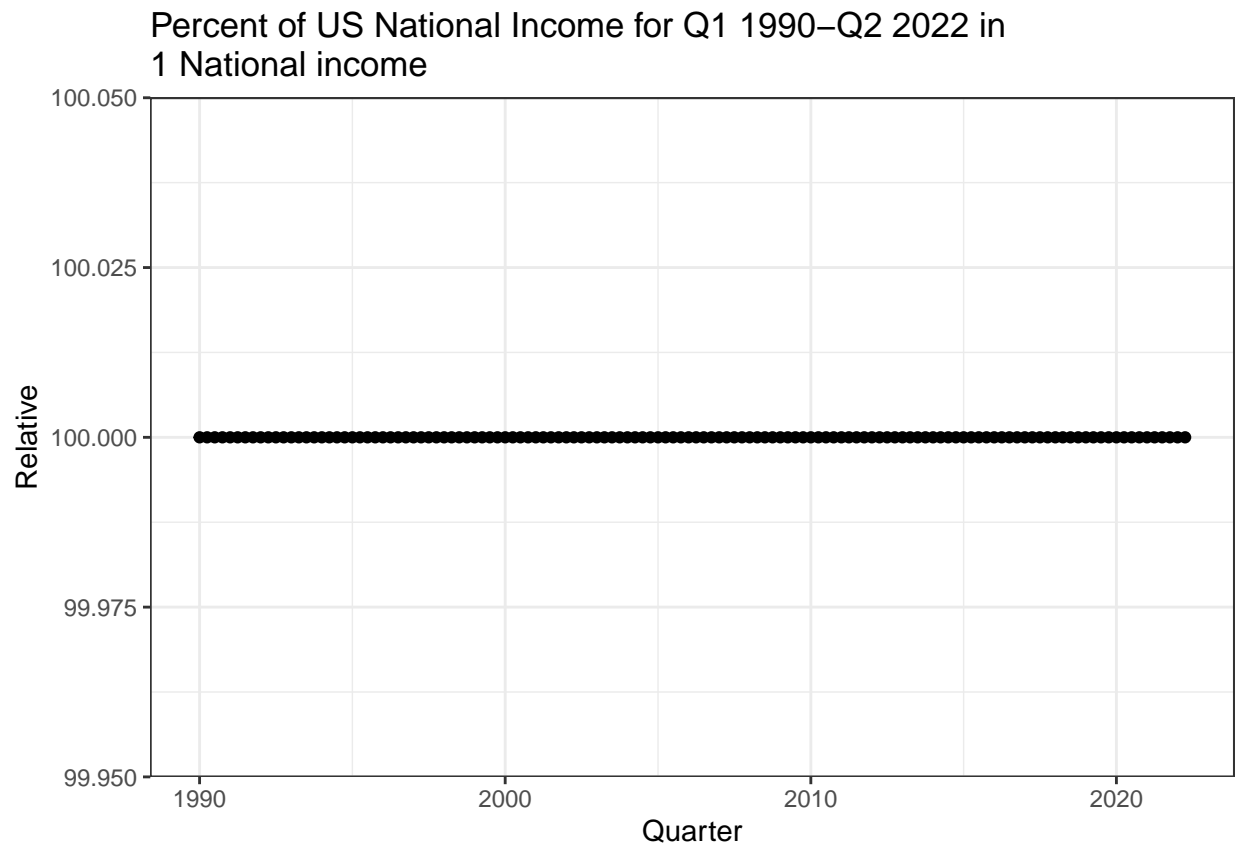
```
Relative = bind_rows(apply(Table[3:132], 1, function(x) 100 * x/Table[1,3:132]))
colnames(Relative) = seq(as.Date("1990/01/01"), by = "quarter", length.out = 130)
Relative = cbind(paste(Table[[1]], Table[[2]]), Relative)
Proportion = Relative %>% pivot_longer(cols = 2:131, names_to = "Quarter", values_to = "Proportion")
Proportion[[2]] = as.Date(Proportion[[2]])
colnames(Proportion) = c("Type", "Quarter", "Relative")
```

```
make_plot = function(frame){
  title = paste0("Percent of US National Income for Q1 1990-Q2 2022 in \n", frame[[1]][1])
  ggplot(frame, aes(x = Quarter, y = Relative)) +
    geom_point() +
    geom_line() + theme_bw() +
    ggtitle(title)
}
```

```
Proportion_Type = group_split(Proportion, Type)
Plots = lapply(Proportion_Type, make_plot)
```

```
Plots
```

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



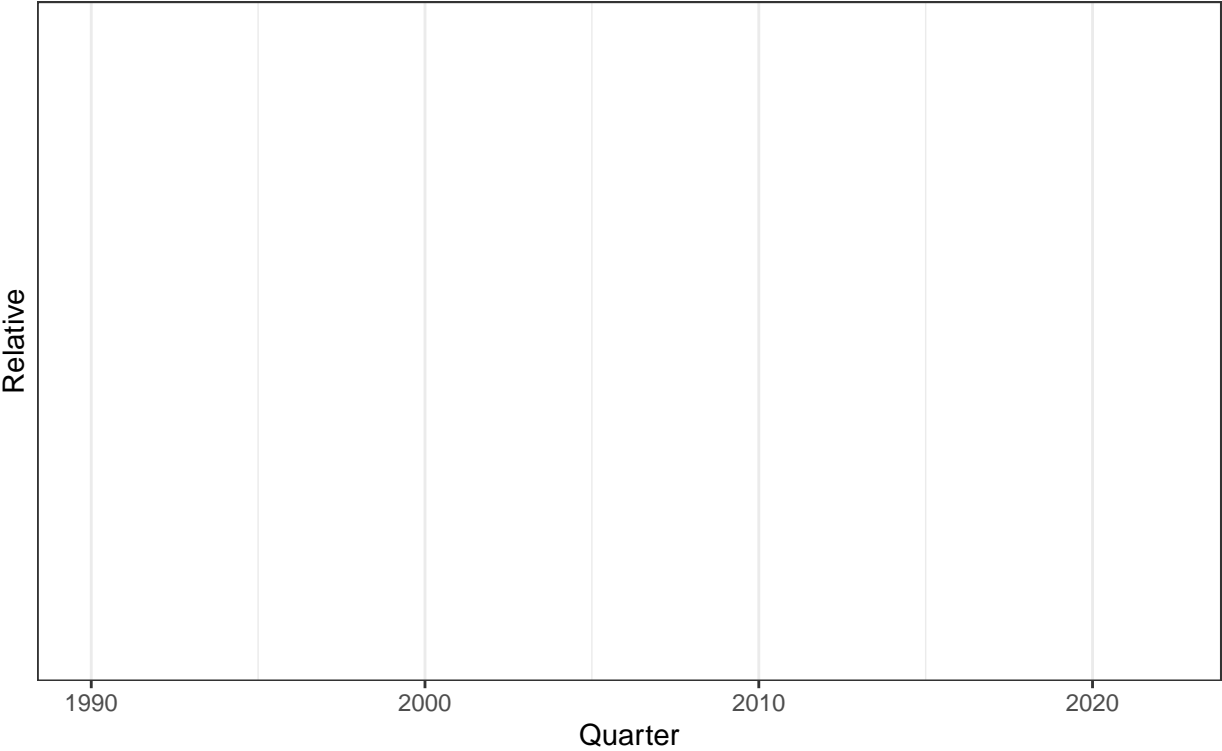
```
##
```

```
## [[2]]
```

```
## Warning: Removed 130 rows containing missing values ('geom_point()').
```

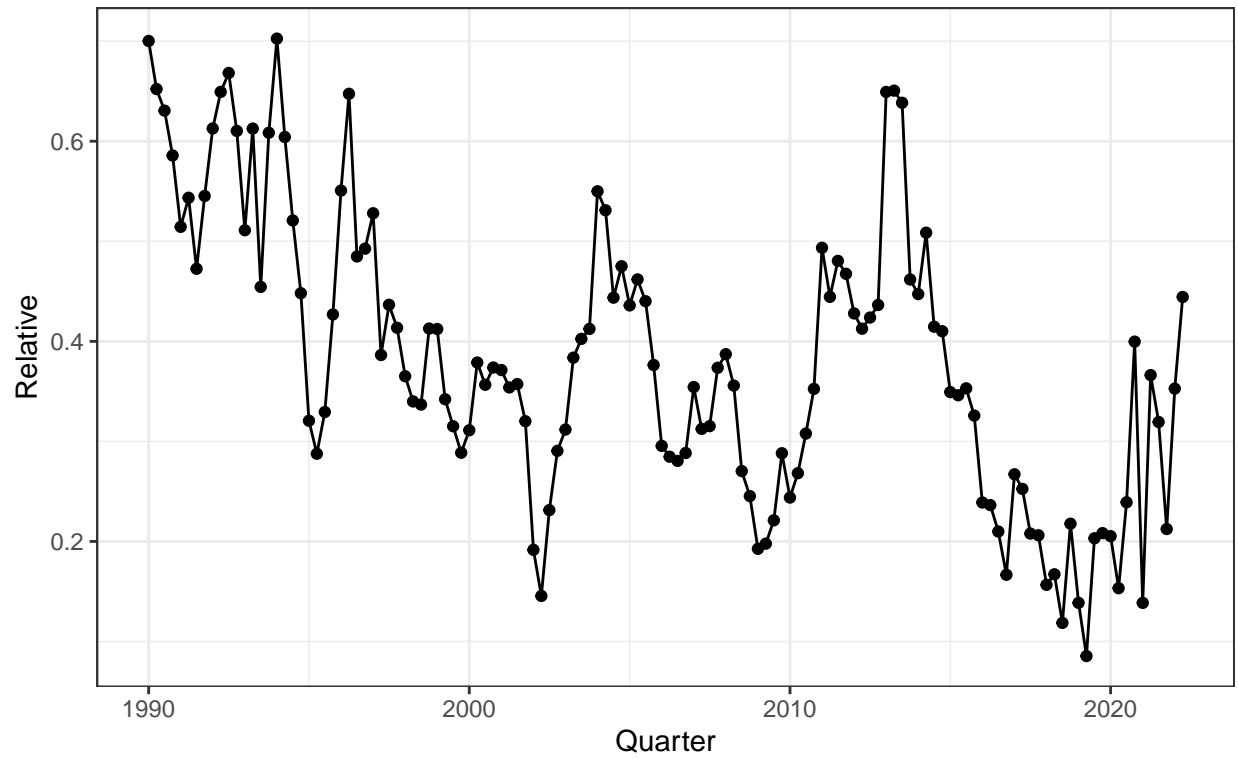
```
## Warning: Removed 130 rows containing missing values ('geom_line()').
```

Percent of US National Income for Q1 1990–Q2 2022 in
1. Includes actual employer contributions and actuarially imputed employer cor



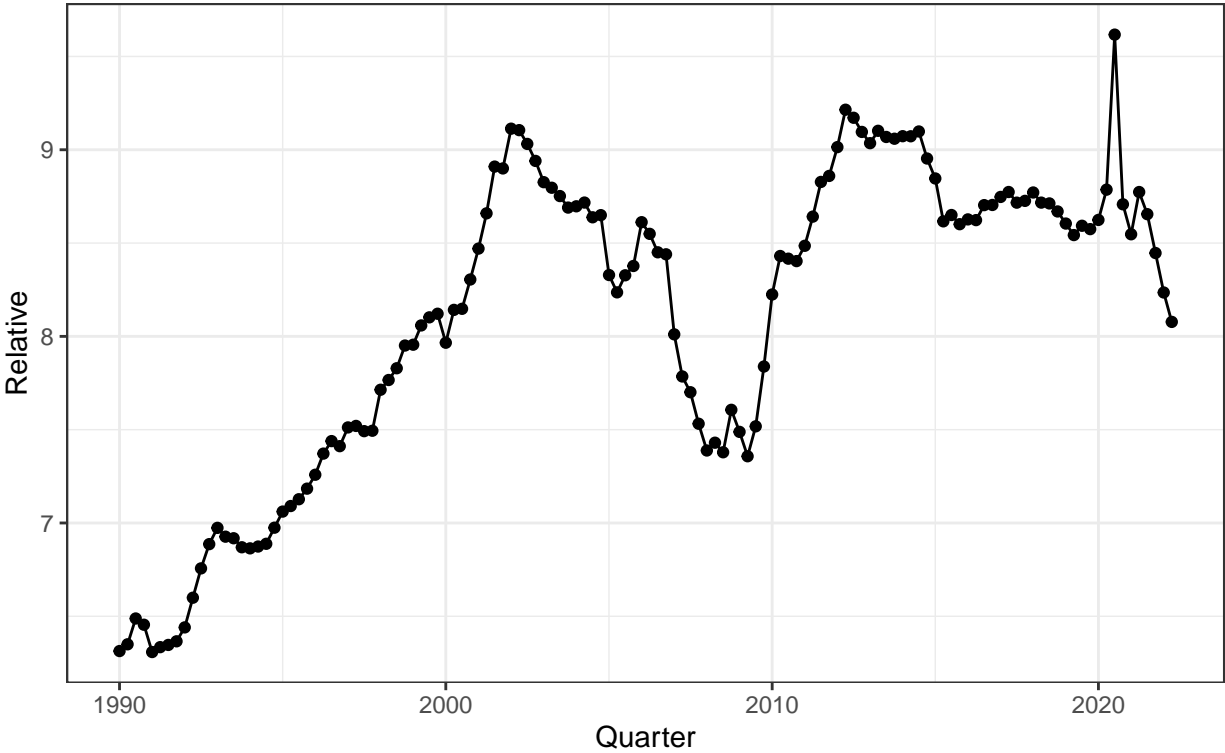
[[3]]

Percent of US National Income for Q1 1990–Q2 2022 in
10 Farm



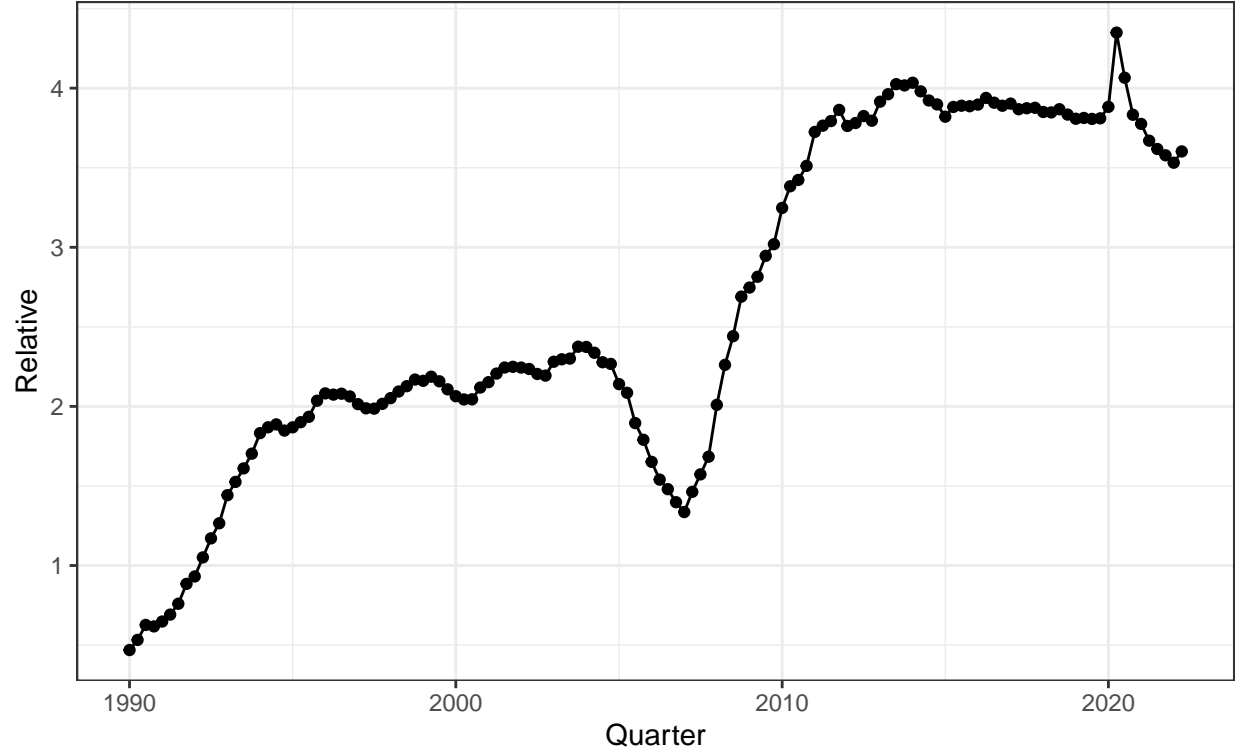
```
##  
## [[4]]
```

Percent of US National Income for Q1 1990–Q2 2022 in
11 Nonfarm



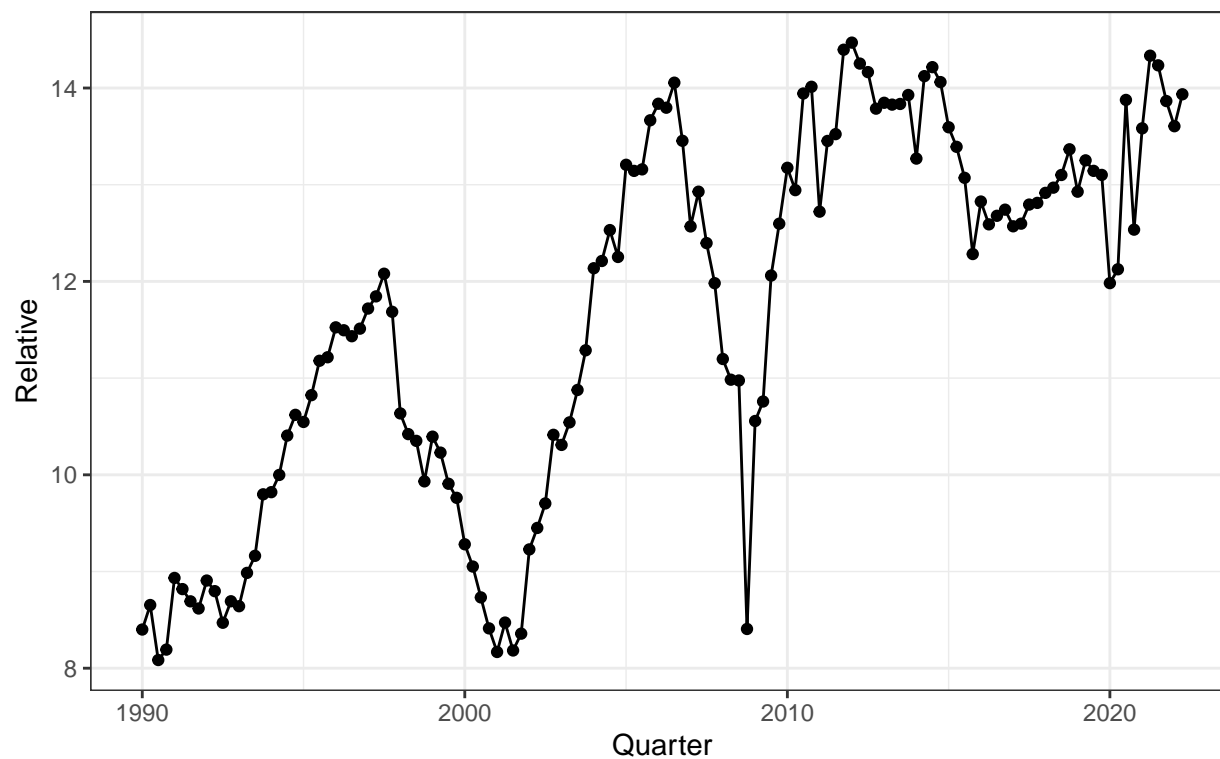
[[5]]

Percent of US National Income for Q1 1990–Q2 2022 in
12 Rental income of persons with CCAAdj



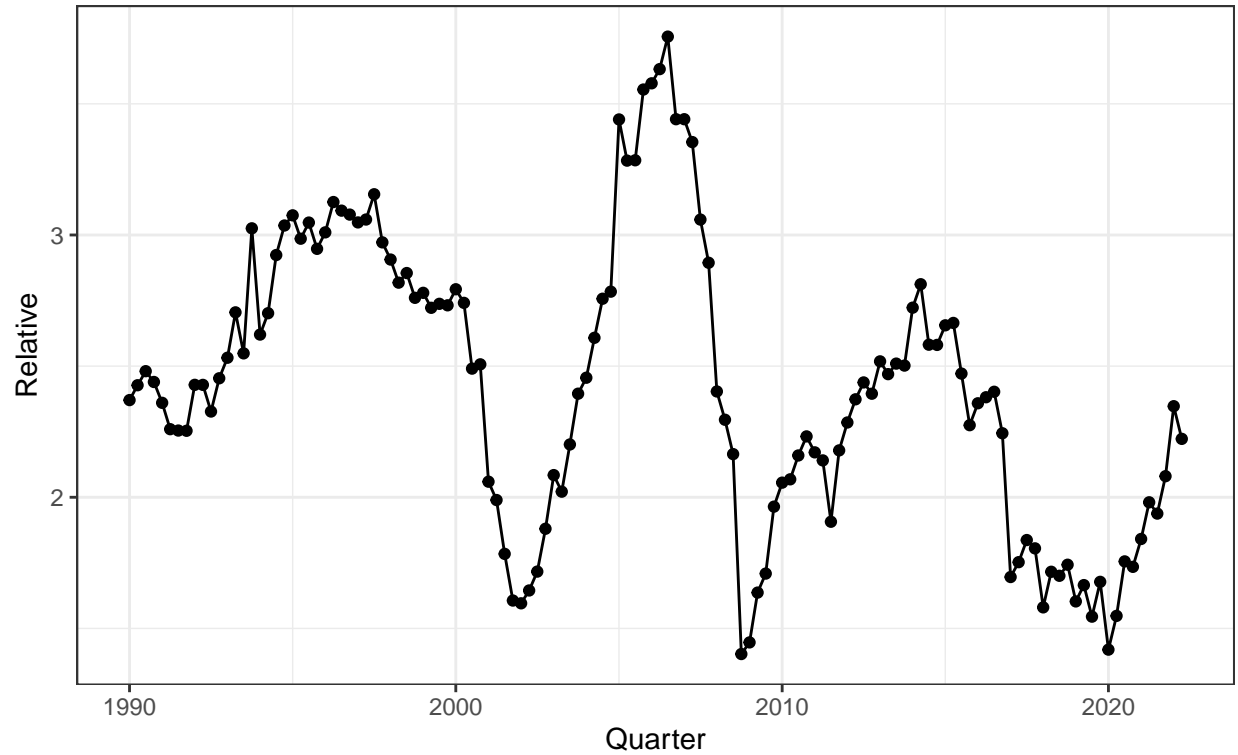
```
##  
## [[6]]
```

Percent of US National Income for Q1 1990–Q2 2022 in
13 Corporate profits with IVA and CCAdj



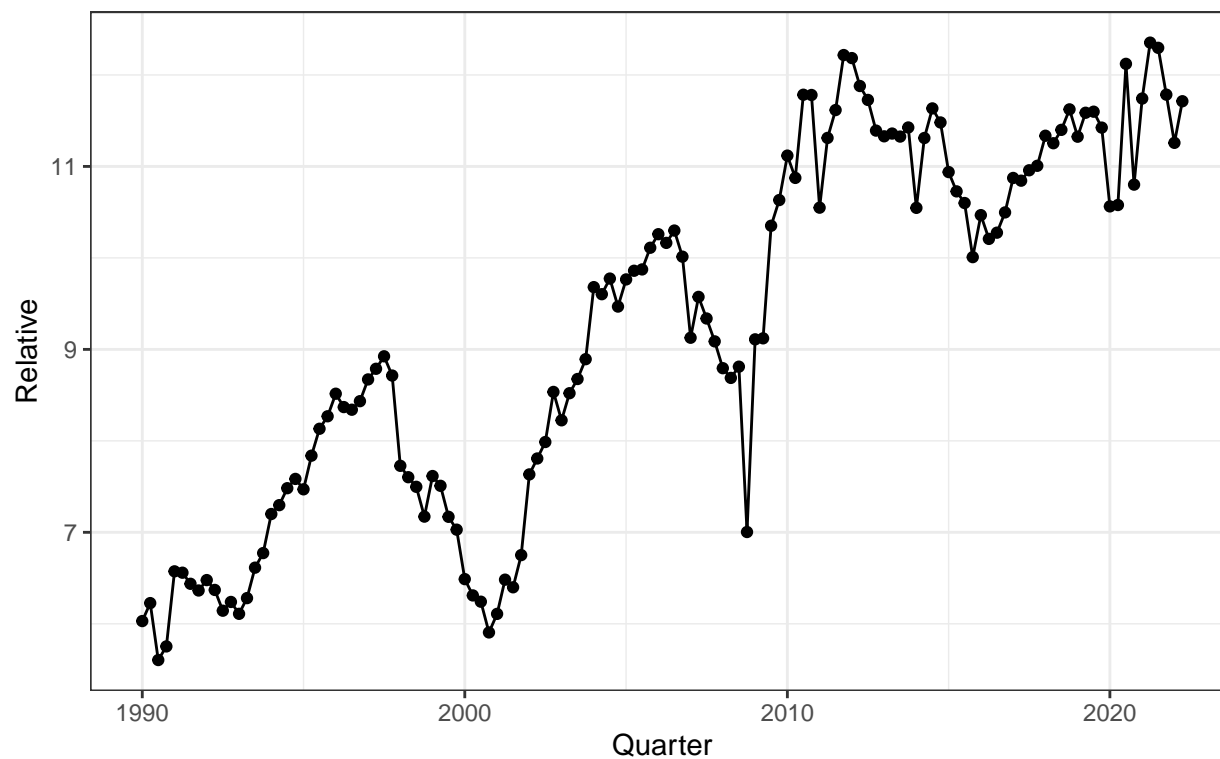
[[7]]

Percent of US National Income for Q1 1990–Q2 2022 in
14 Taxes on corporate income



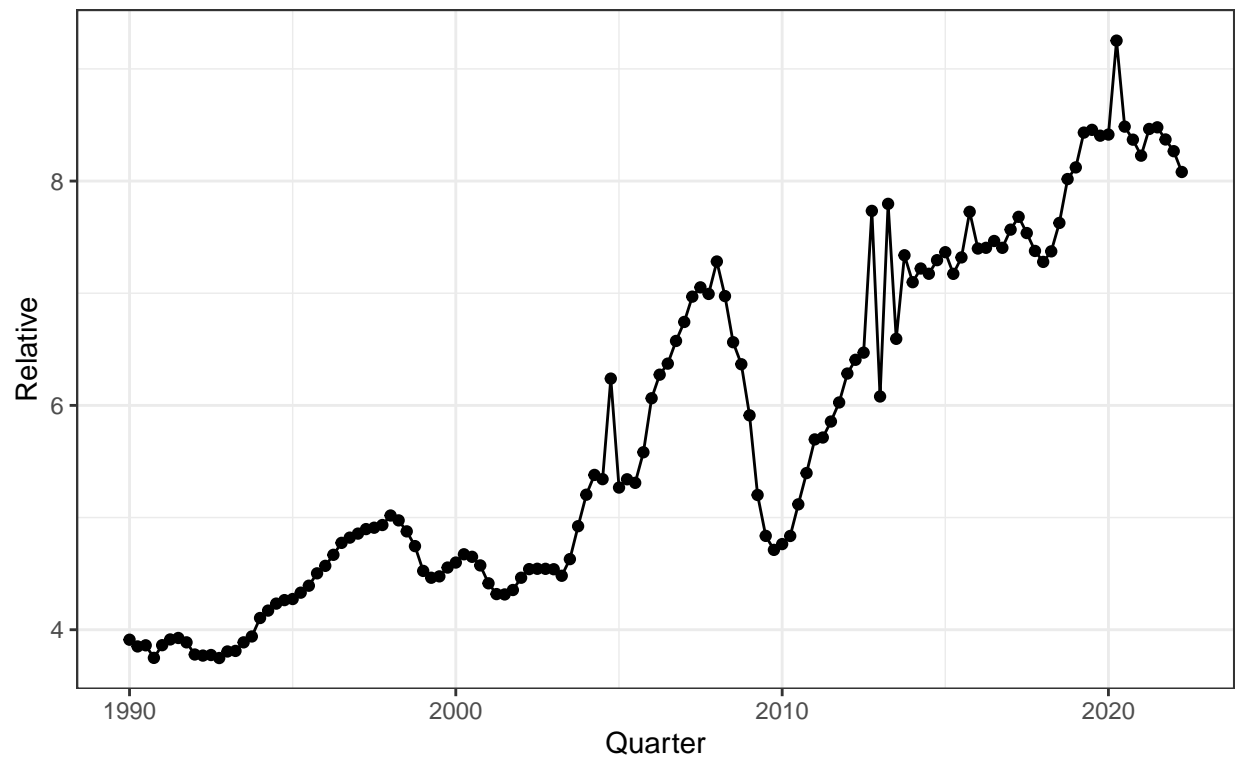
[[8]]

Percent of US National Income for Q1 1990–Q2 2022 in
15 Profits after tax with IVA and CCAdj



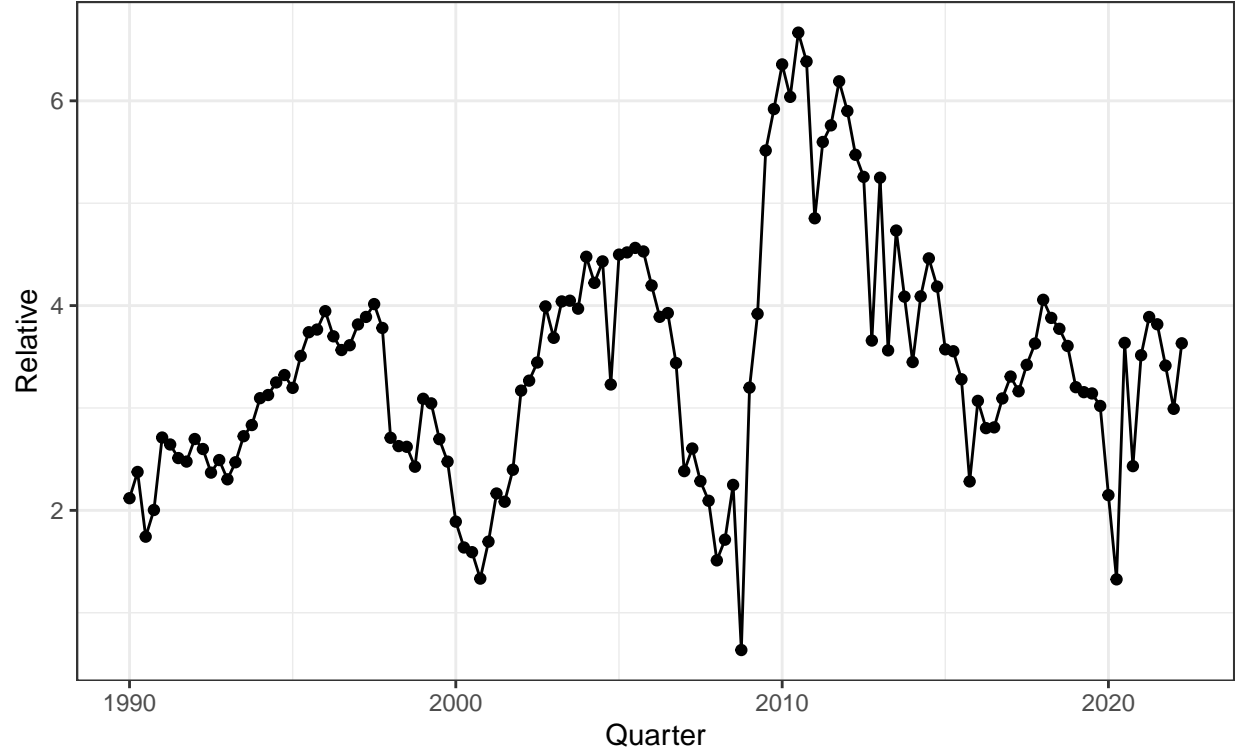
[[9]]

Percent of US National Income for Q1 1990–Q2 2022 in
16 Net dividends



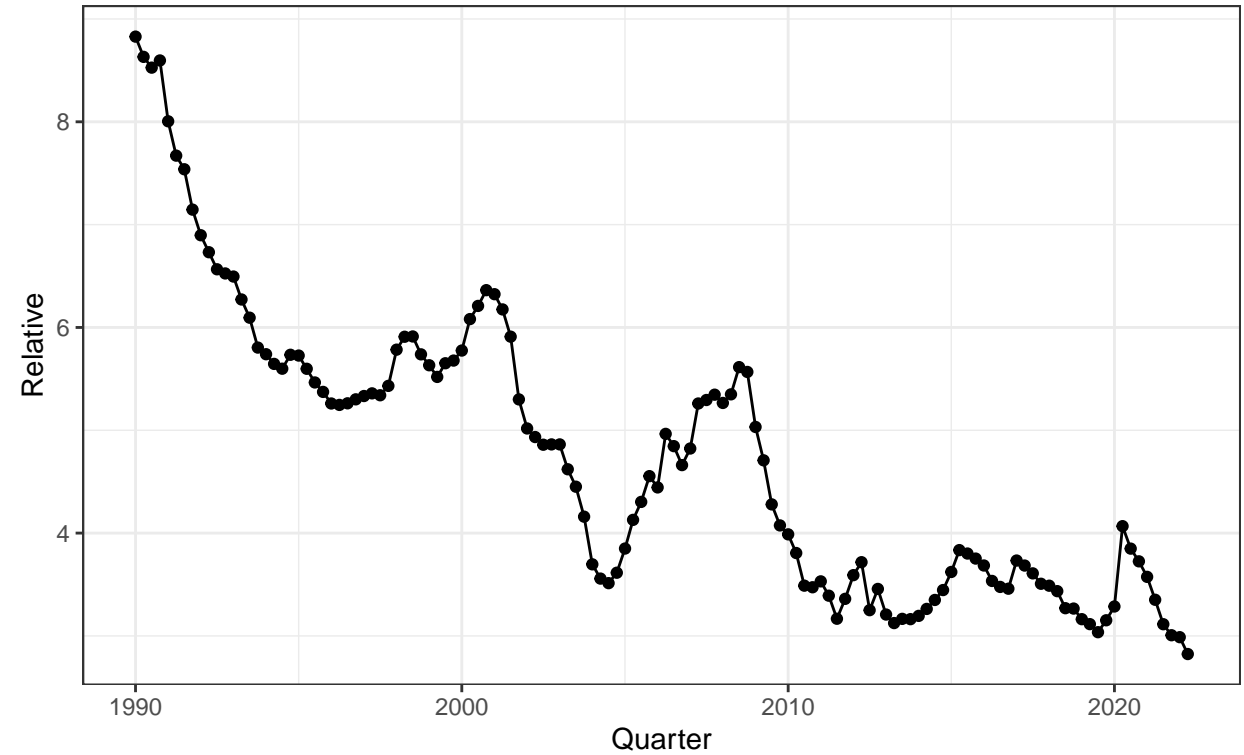
```
##
## [[10]]
```

Percent of US National Income for Q1 1990–Q2 2022 in
17 Undistributed profits with IVA and CCAdj



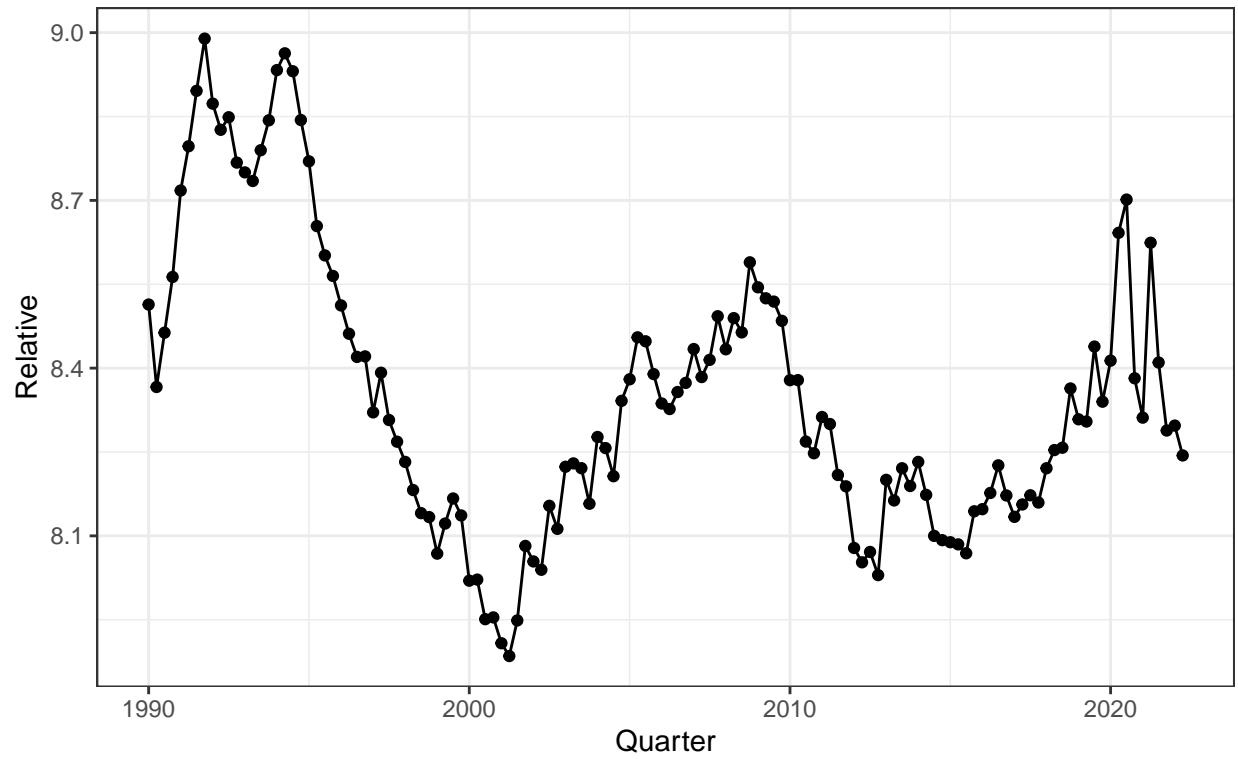
```
##  
## [[11]]
```

Percent of US National Income for Q1 1990–Q2 2022 in
18 Net interest and miscellaneous payments



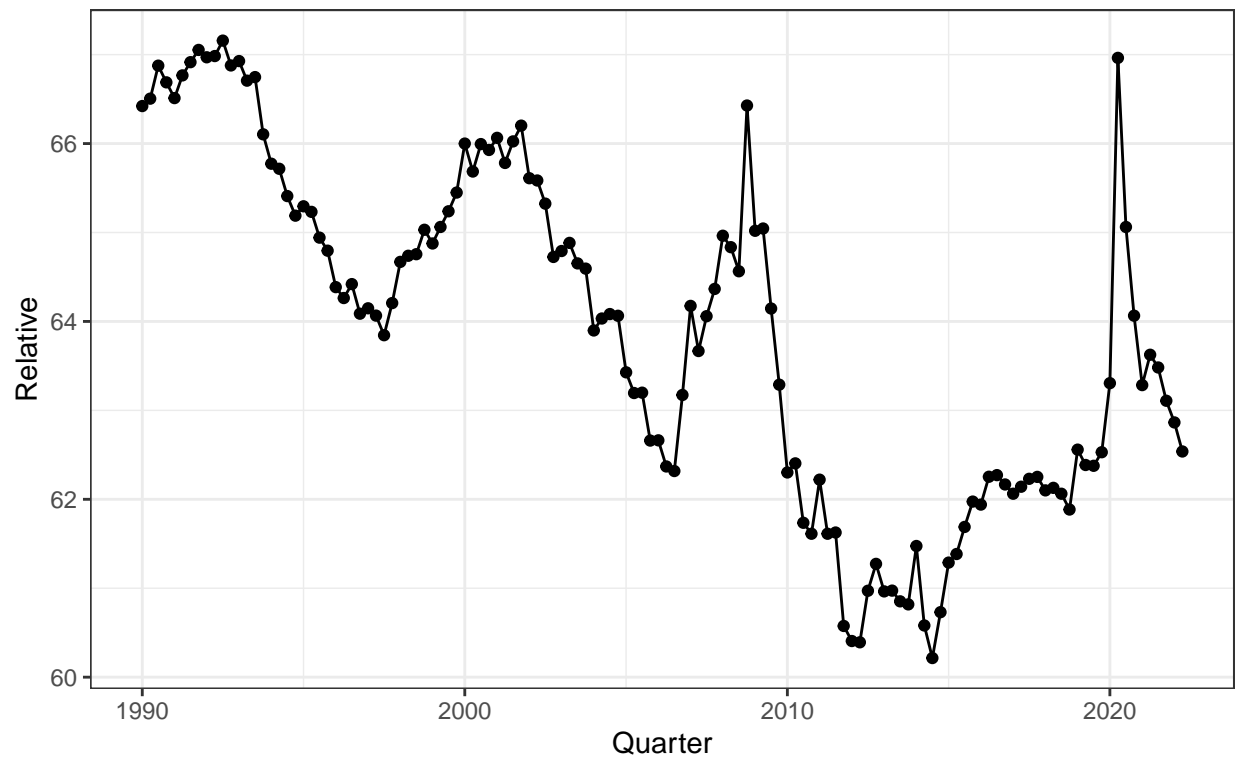
[[12]]

Percent of US National Income for Q1 1990–Q2 2022 in
19 Taxes on production and imports



[[13]]

Percent of US National Income for Q1 1990–Q2 2022 in
2 Compensation of employees



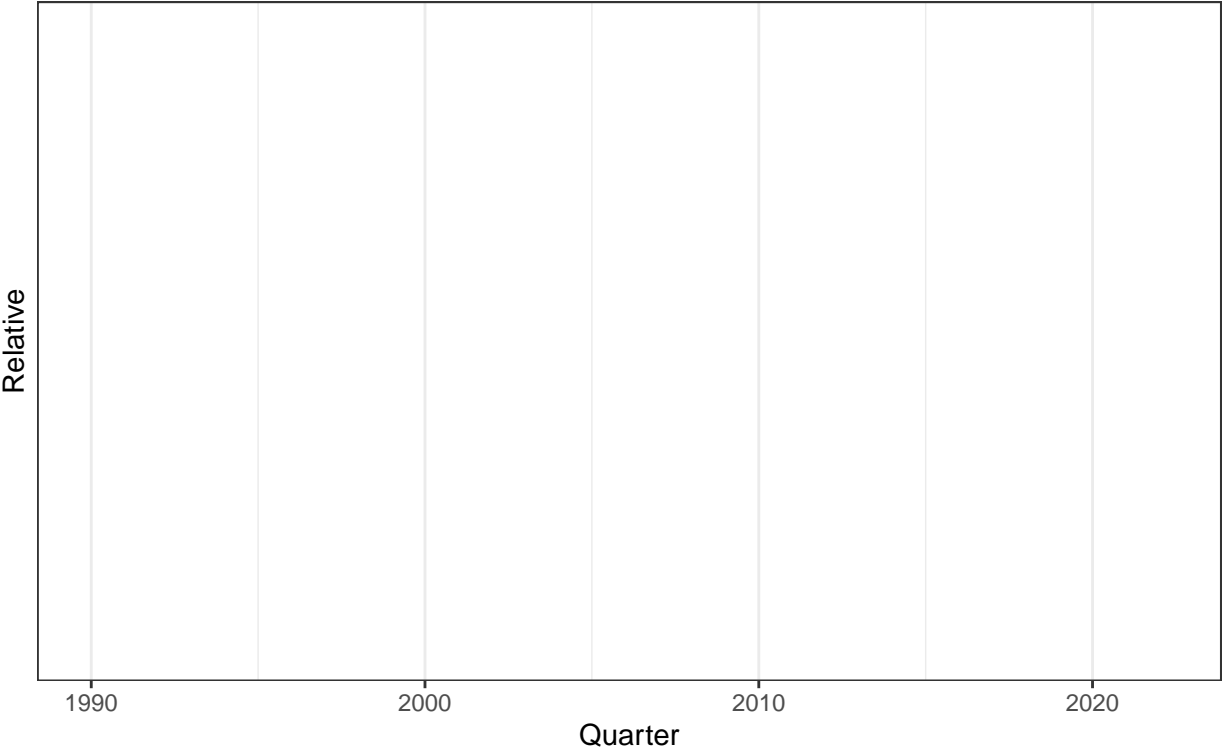
```
##
```

```
## [[14]]
```

```
## Warning: Removed 130 rows containing missing values ('geom_point()').
```

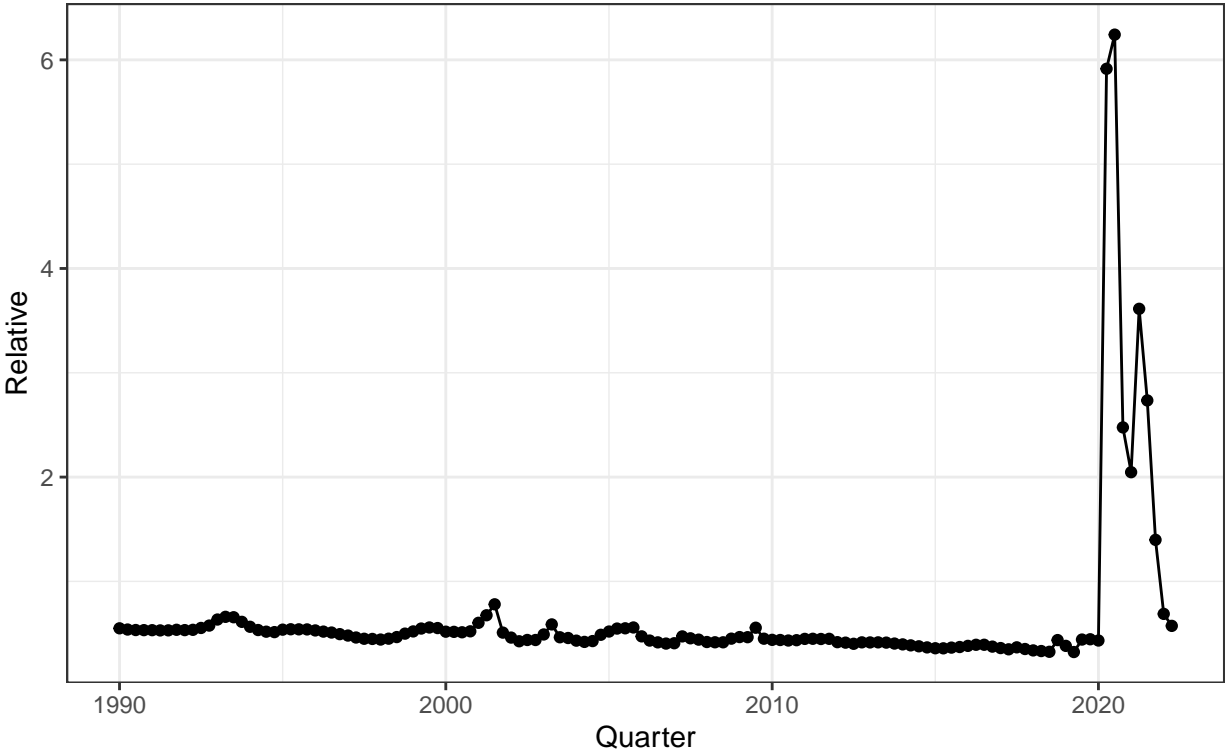
```
## Removed 130 rows containing missing values ('geom_line()').
```

Percent of US National Income for Q1 1990–Q2 2022 in
2. Prior to 1959, subsidies (line 20) and the current surplus of government ente

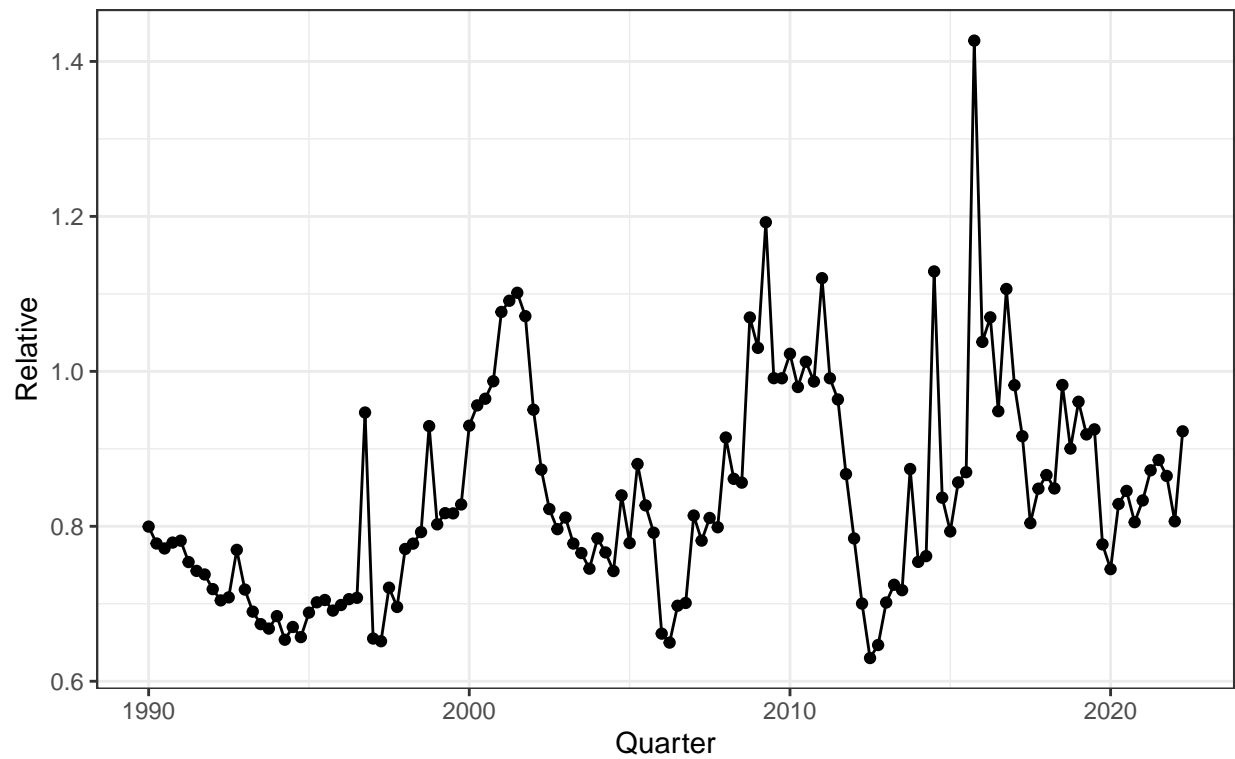


[[15]]

Percent of US National Income for Q1 1990–Q2 2022 in
20 Less: Subsidies2

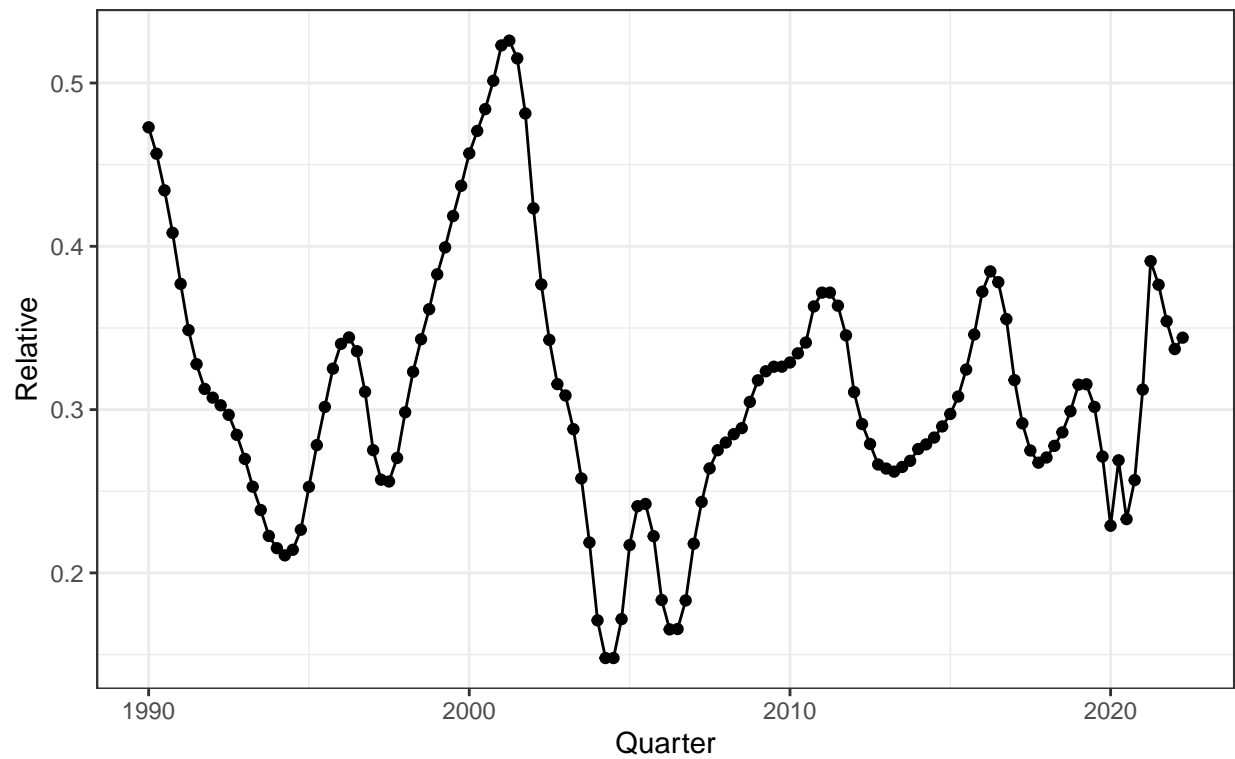


Percent of US National Income for Q1 1990–Q2 2022 in
21 Business current transfer payments (net)



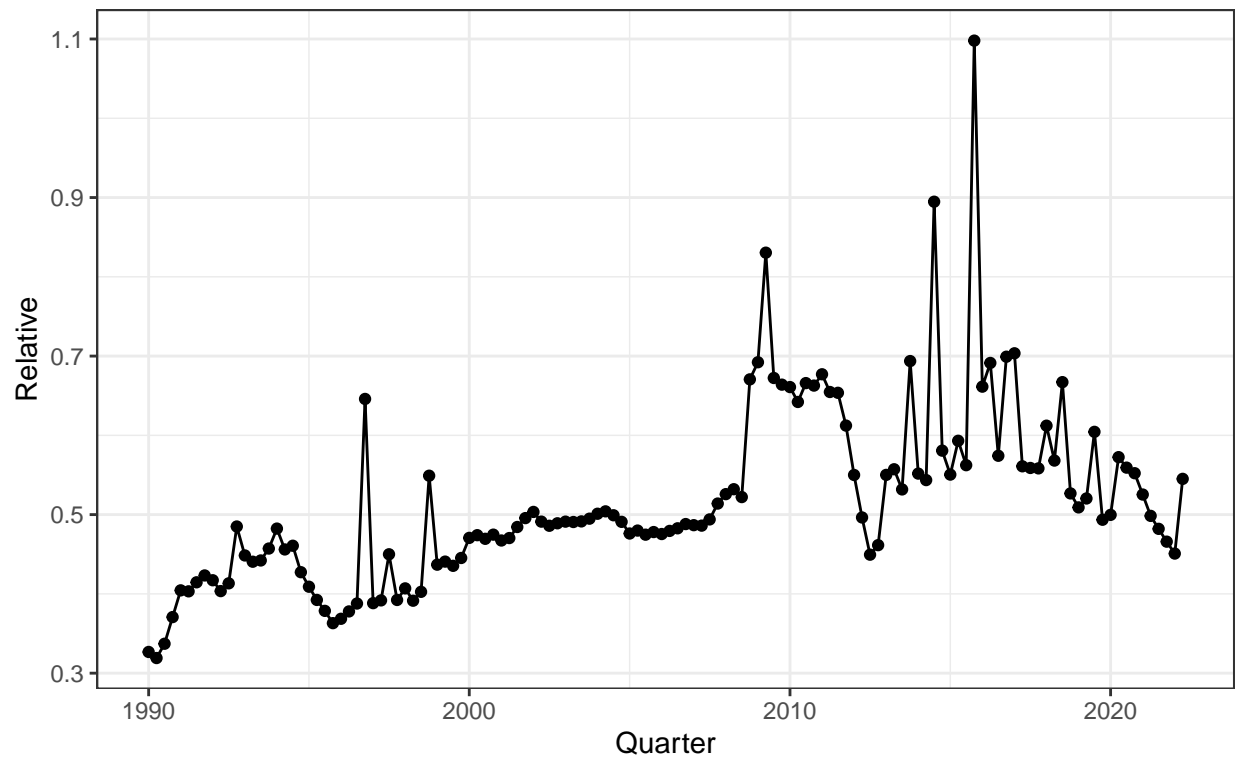
[[17]]

Percent of US National Income for Q1 1990–Q2 2022 in
22 To persons (net)



```
##
## [[18]]
```

Percent of US National Income for Q1 1990–Q2 2022 in
23 To government (net)



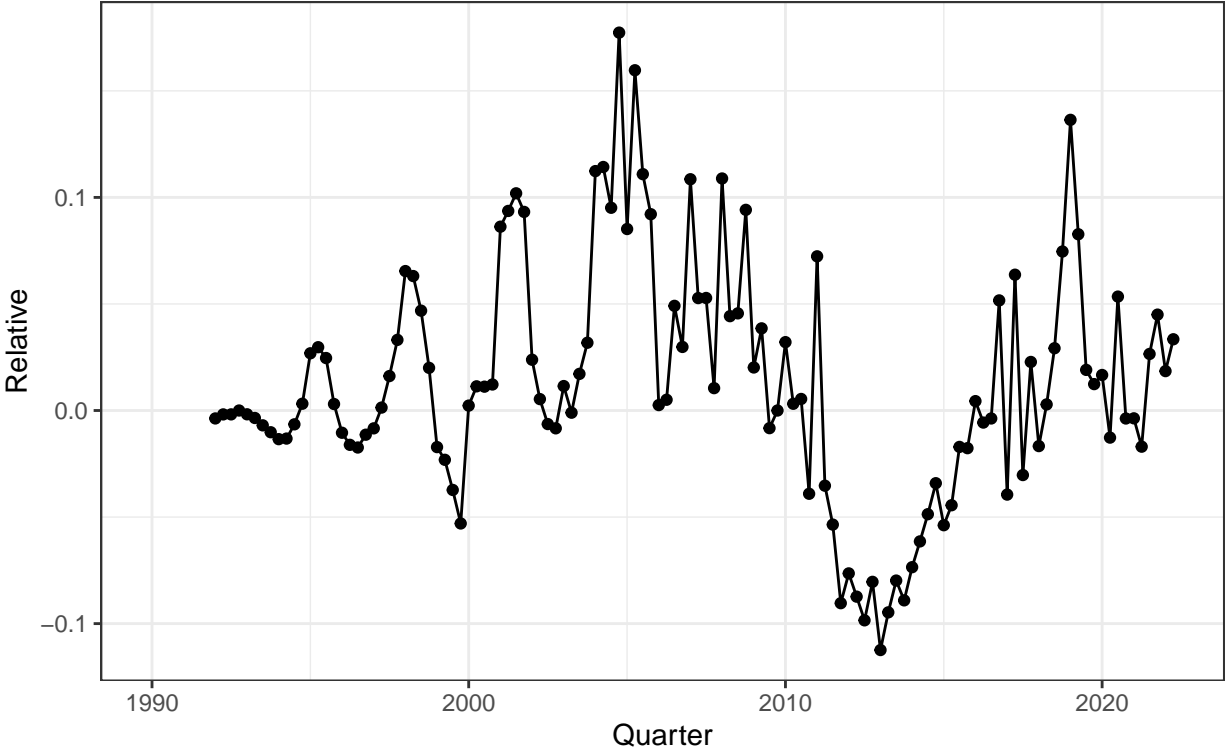
```
##
```

```
## [[19]]
```

```
## Warning: Removed 8 rows containing missing values ('geom_point()').
```

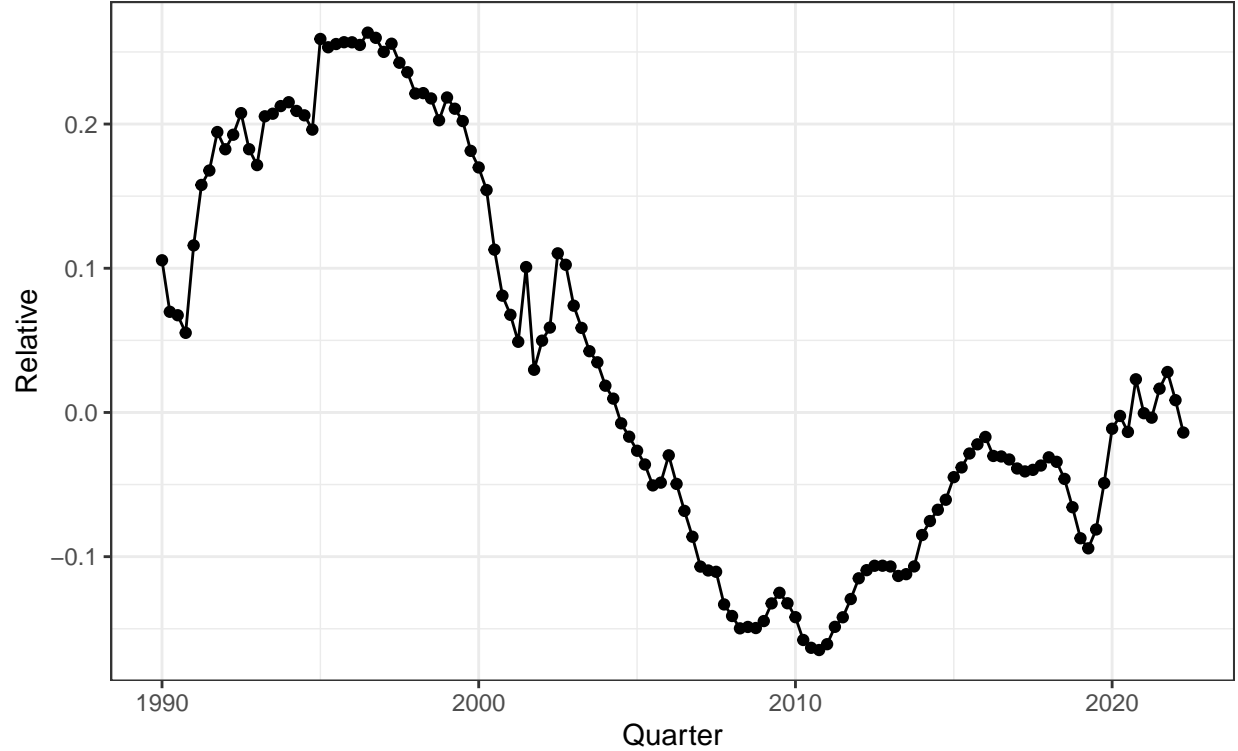
```
## Warning: Removed 8 rows containing missing values ('geom_line()').
```

Percent of US National Income for Q1 1990–Q2 2022 in
24 To the rest of the world (net)



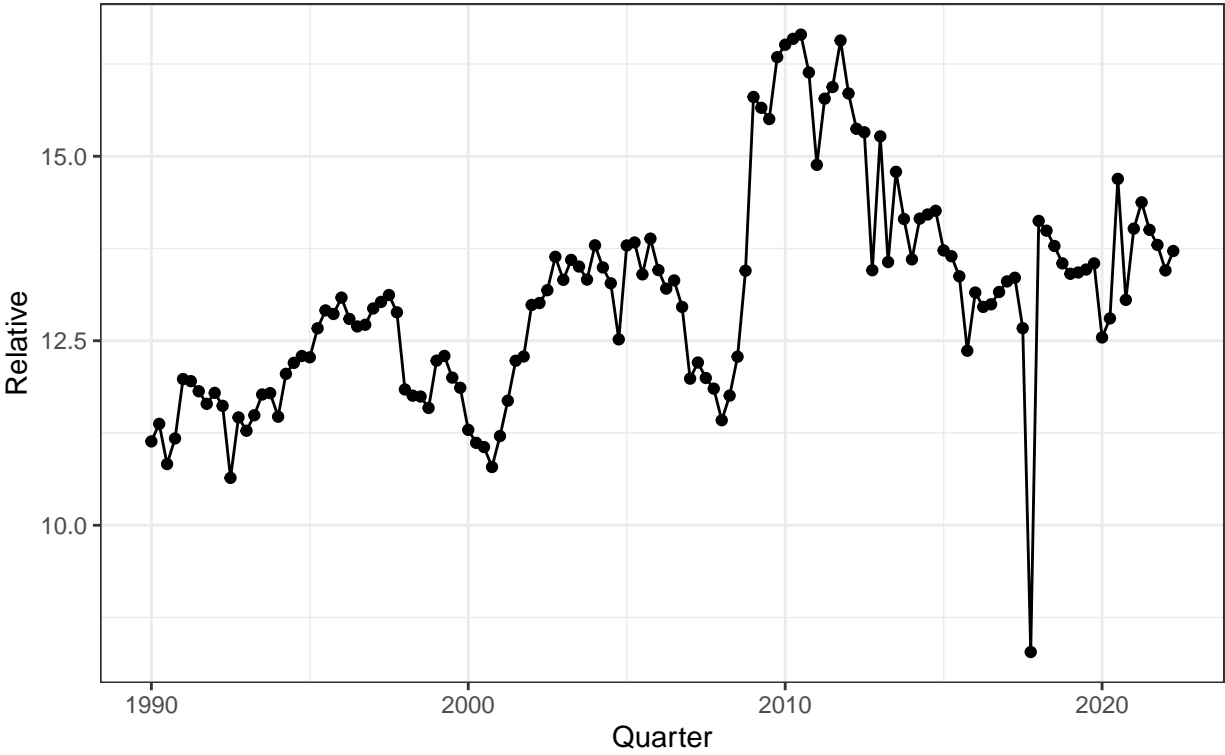
[[20]]

Percent of US National Income for Q1 1990–Q2 2022 in
25 Current surplus of government enterprises2



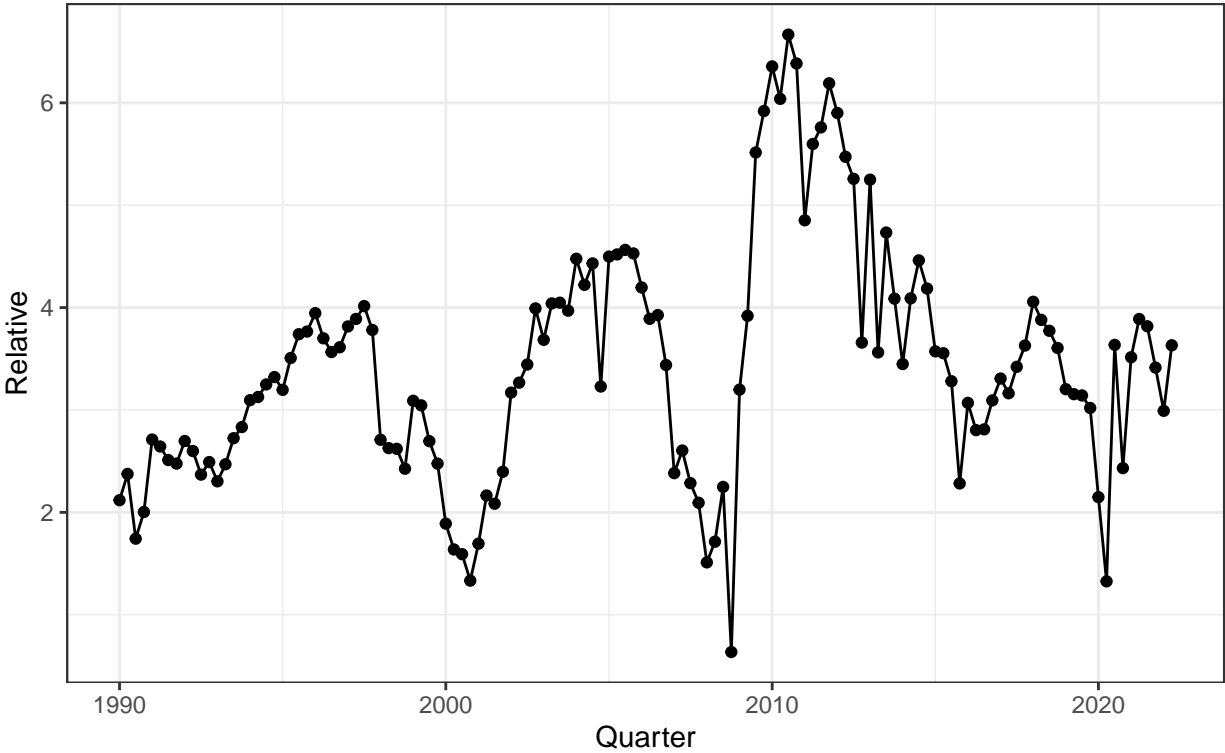
[[21]]

Percent of US National Income for Q1 1990–Q2 2022 in
26 Net cash flow with IVA



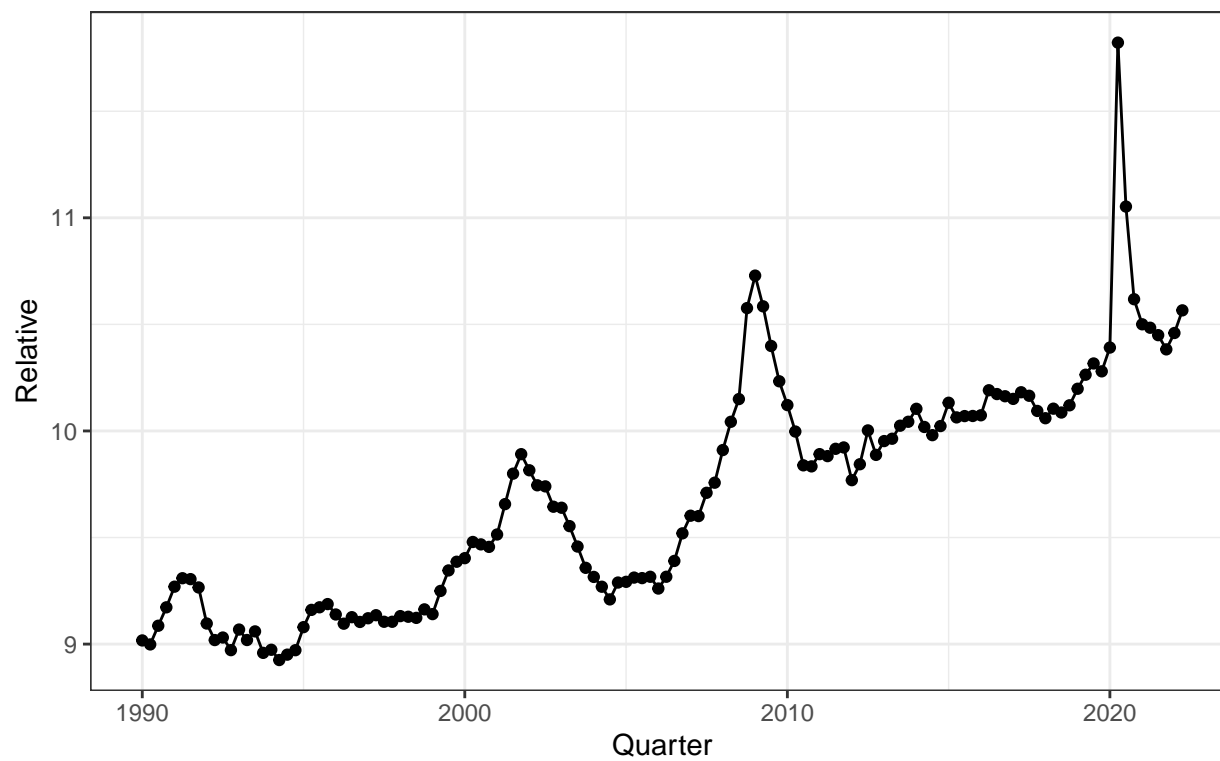
[[22]]

Percent of US National Income for Q1 1990–Q2 2022 in
27 Undistributed profits with IVA and CCAdj



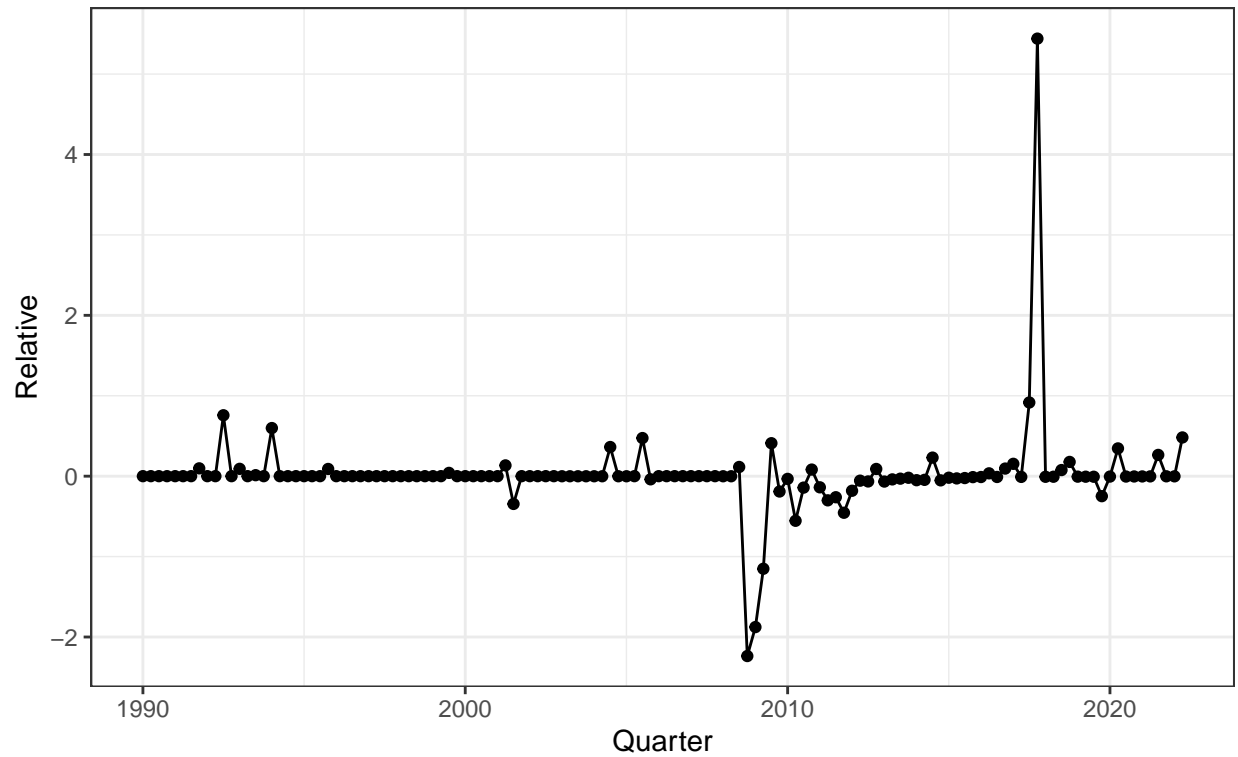
[[23]]

Percent of US National Income for Q1 1990–Q2 2022 in
28 Consumption of fixed capital



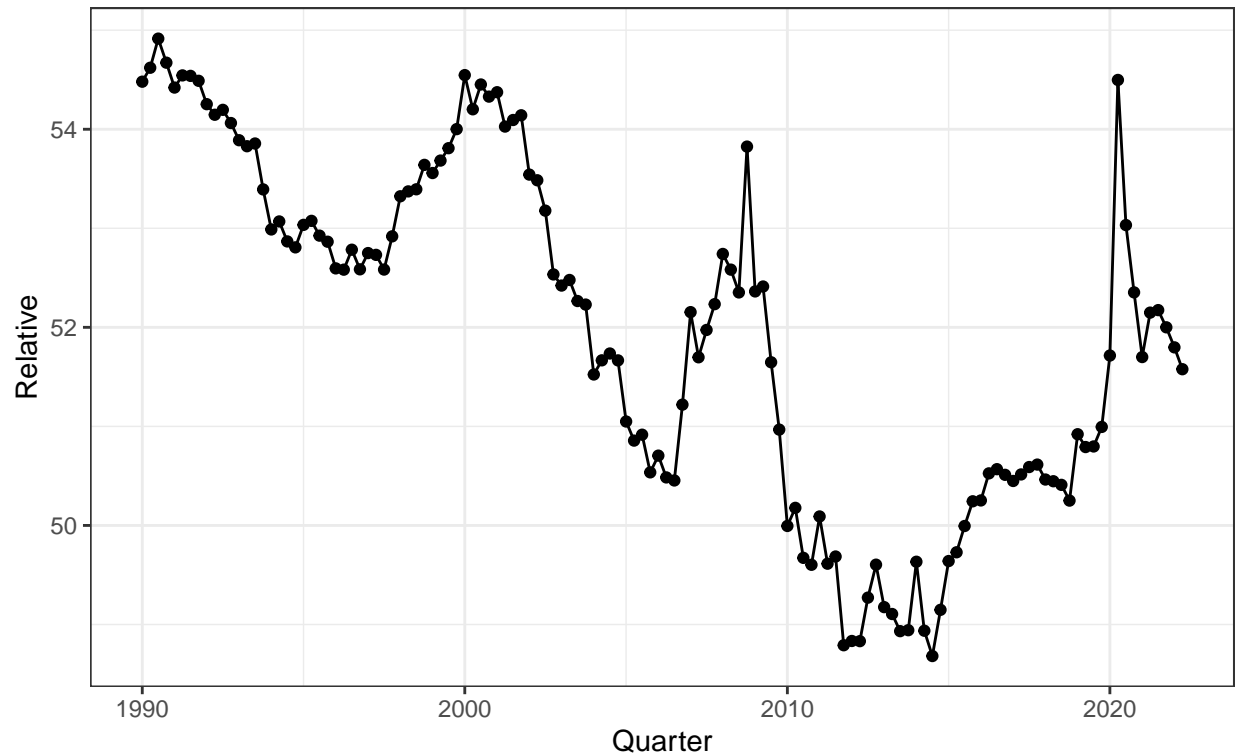
[[24]]

Percent of US National Income for Q1 1990–Q2 2022 in
29 Less: Capital transfers paid (net)



[[25]]

Percent of US National Income for Q1 1990–Q2 2022 in
3 Wages and salaries



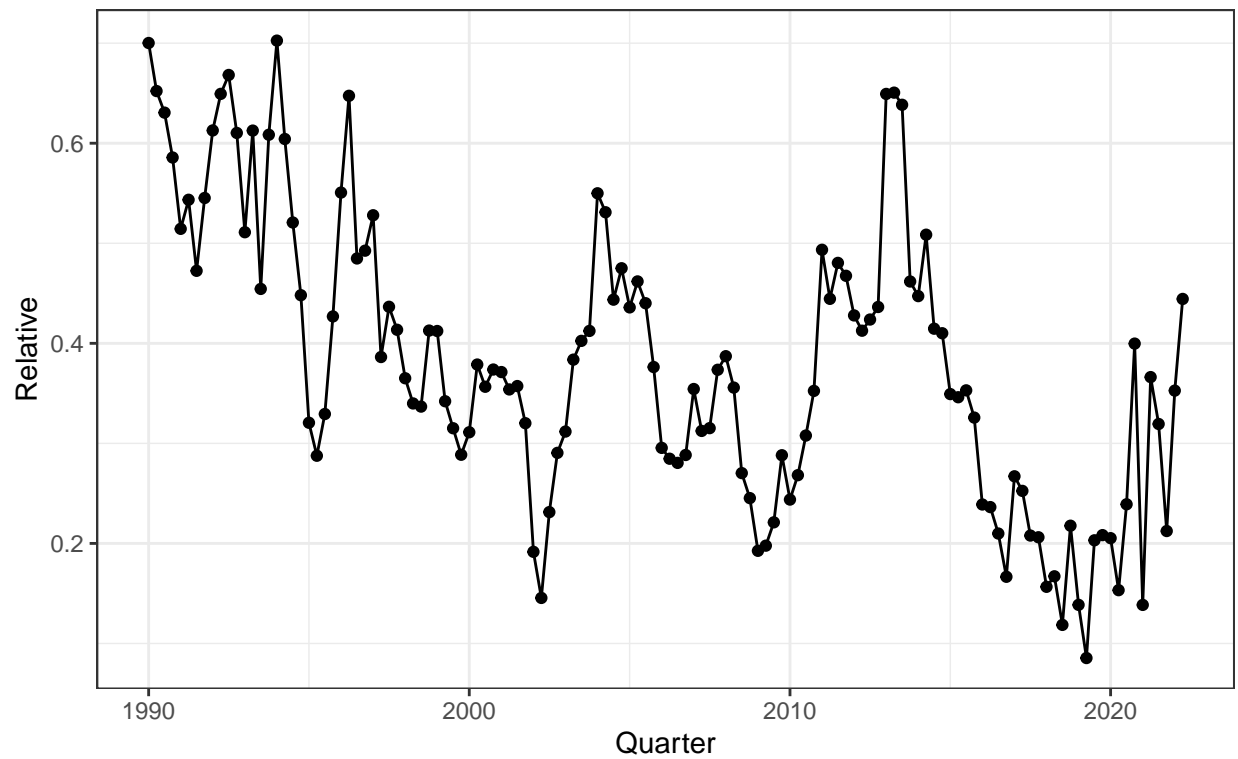
```
##  
## [[26]]
```

Percent of US National Income for Q1 1990–Q2 2022 in
30 Proprietors' income with IVA and CCAdj



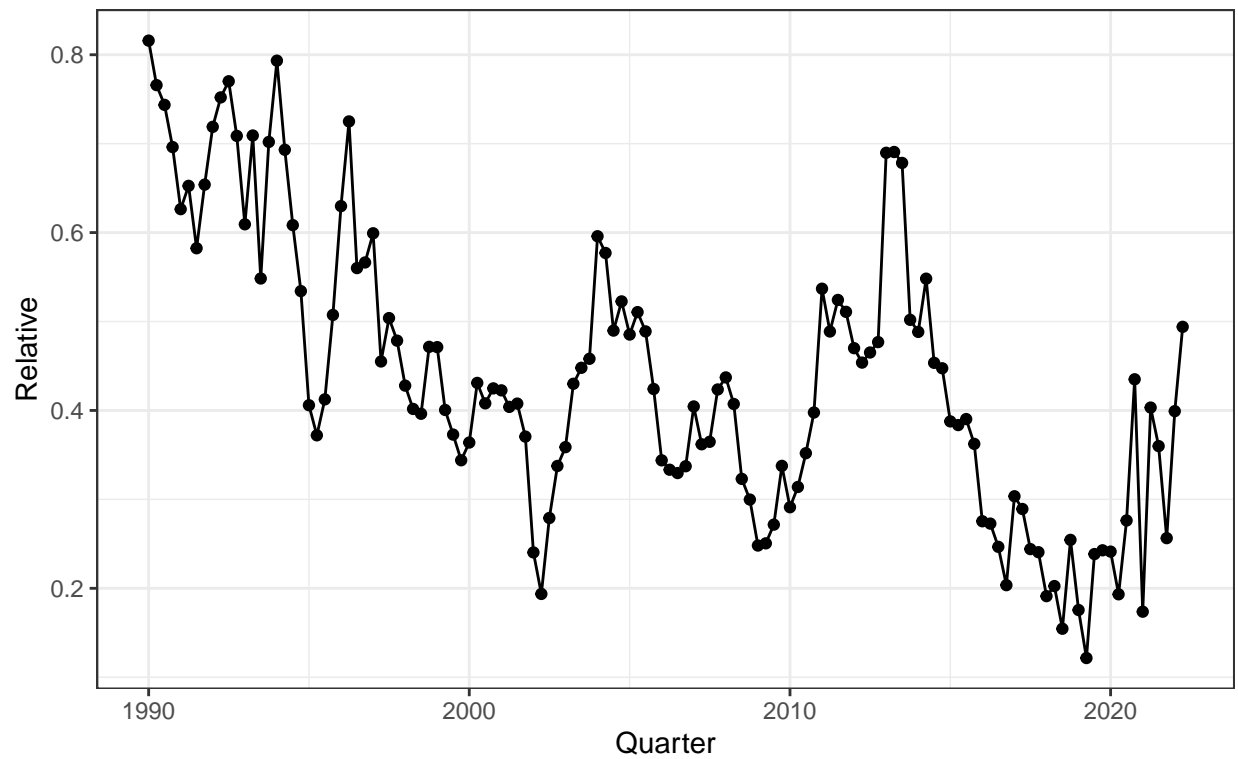
[[27]]

Percent of US National Income for Q1 1990–Q2 2022 in
31 Farm

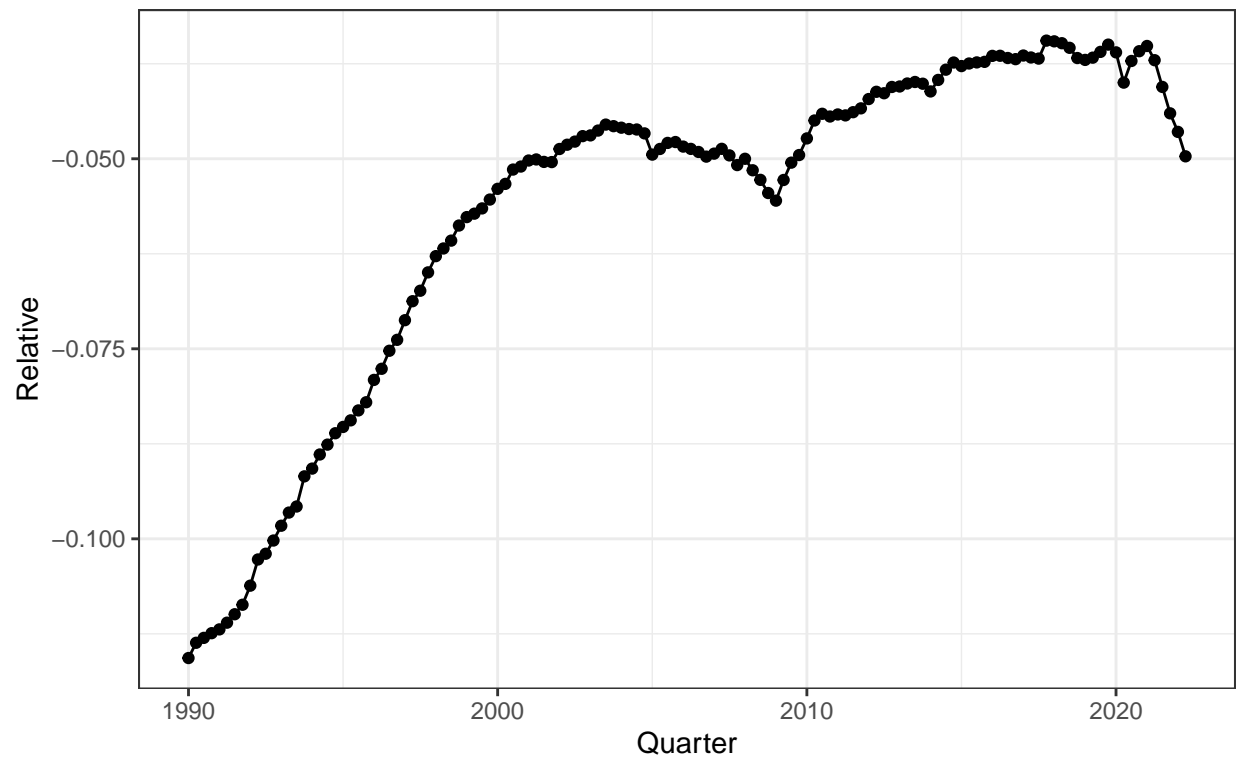


[[28]]

Percent of US National Income for Q1 1990–Q2 2022 in
32 Proprietors' income with IVA

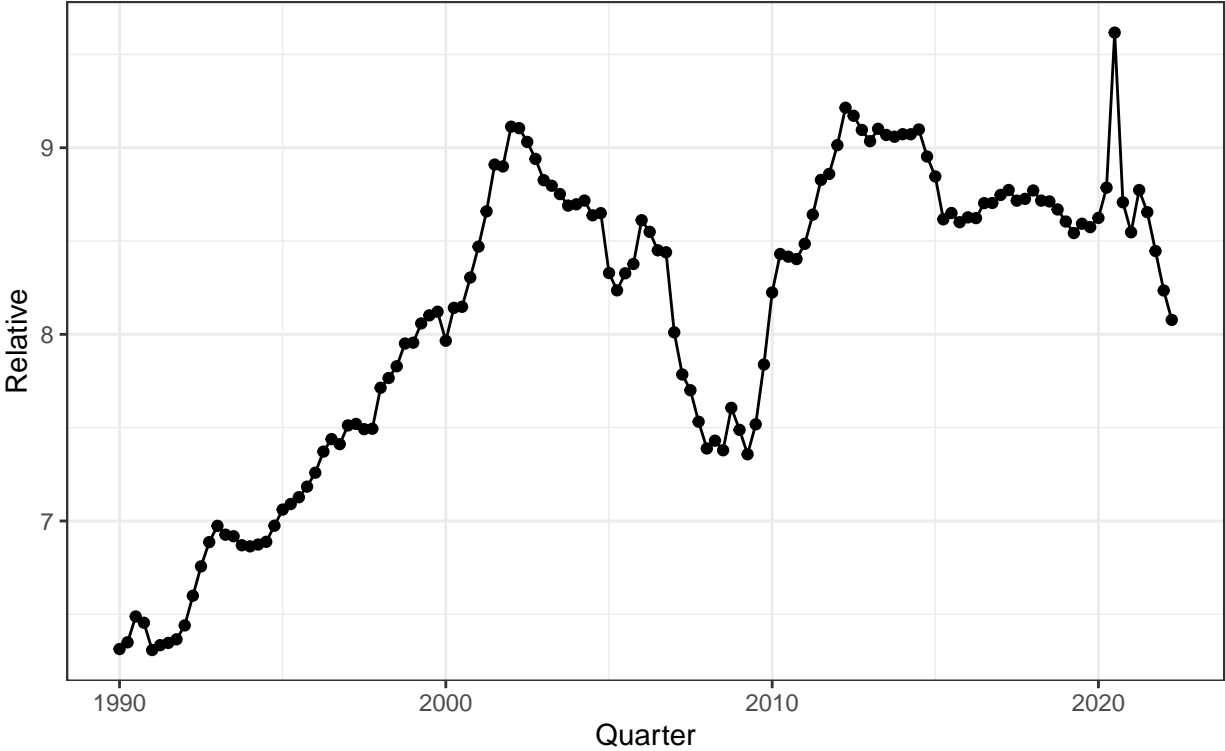


Percent of US National Income for Q1 1990–Q2 2022 in
33 Capital consumption adjustment



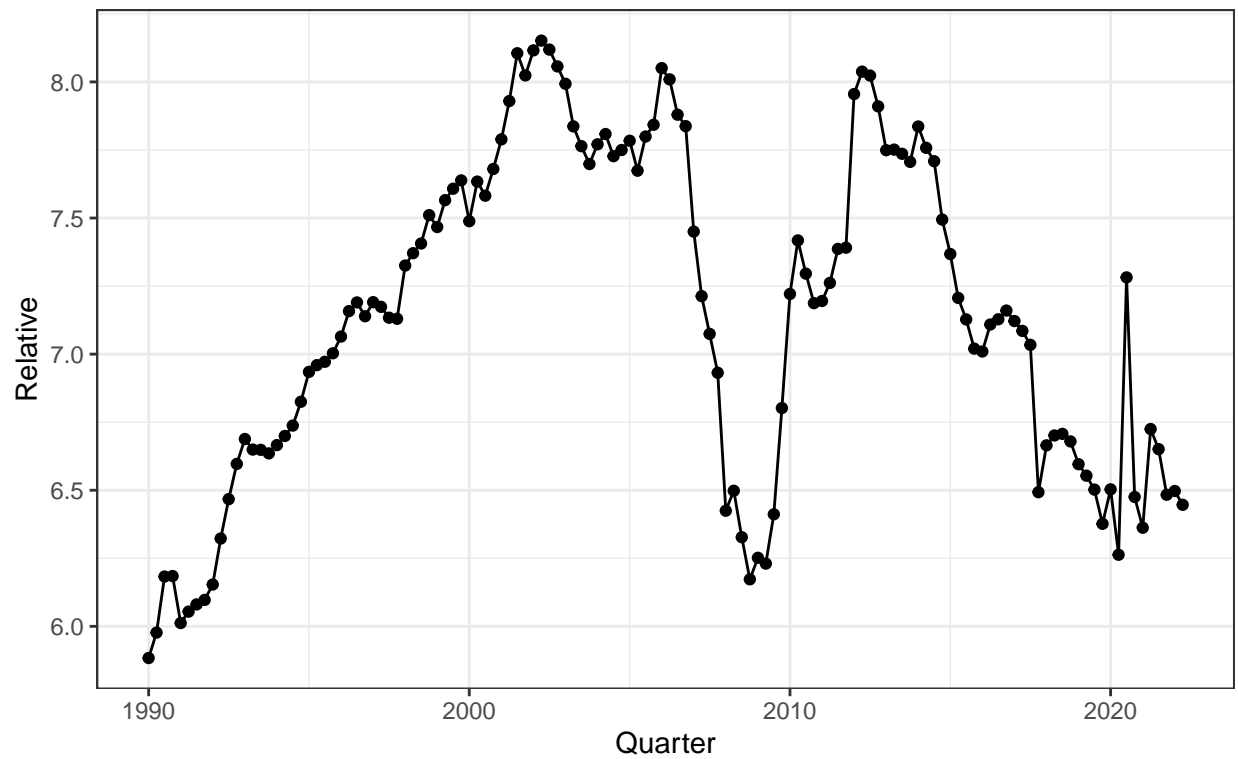
```
##
## [[30]]
```

Percent of US National Income for Q1 1990–Q2 2022 in
34 Nonfarm



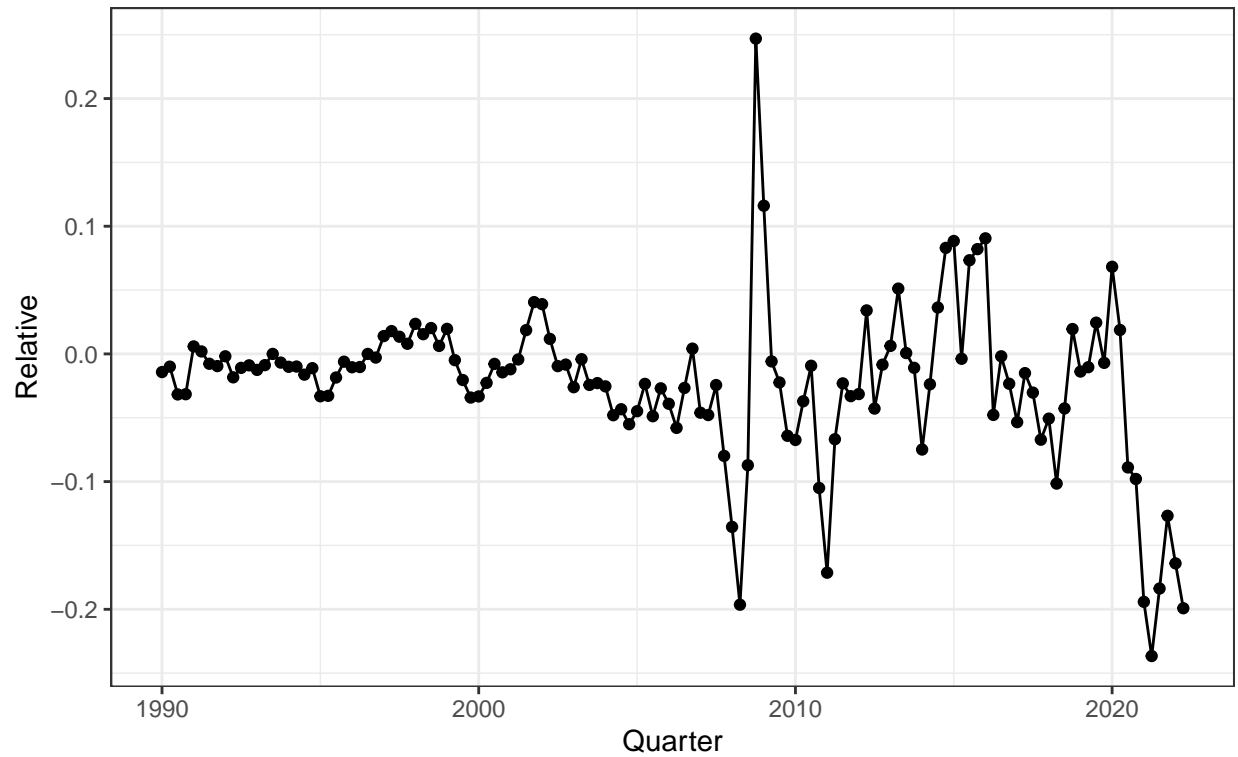
```
##  
## [[31]]
```


Percent of US National Income for Q1 1990–Q2 2022 in
35 Proprietors' income (without IVA and CCAdj)

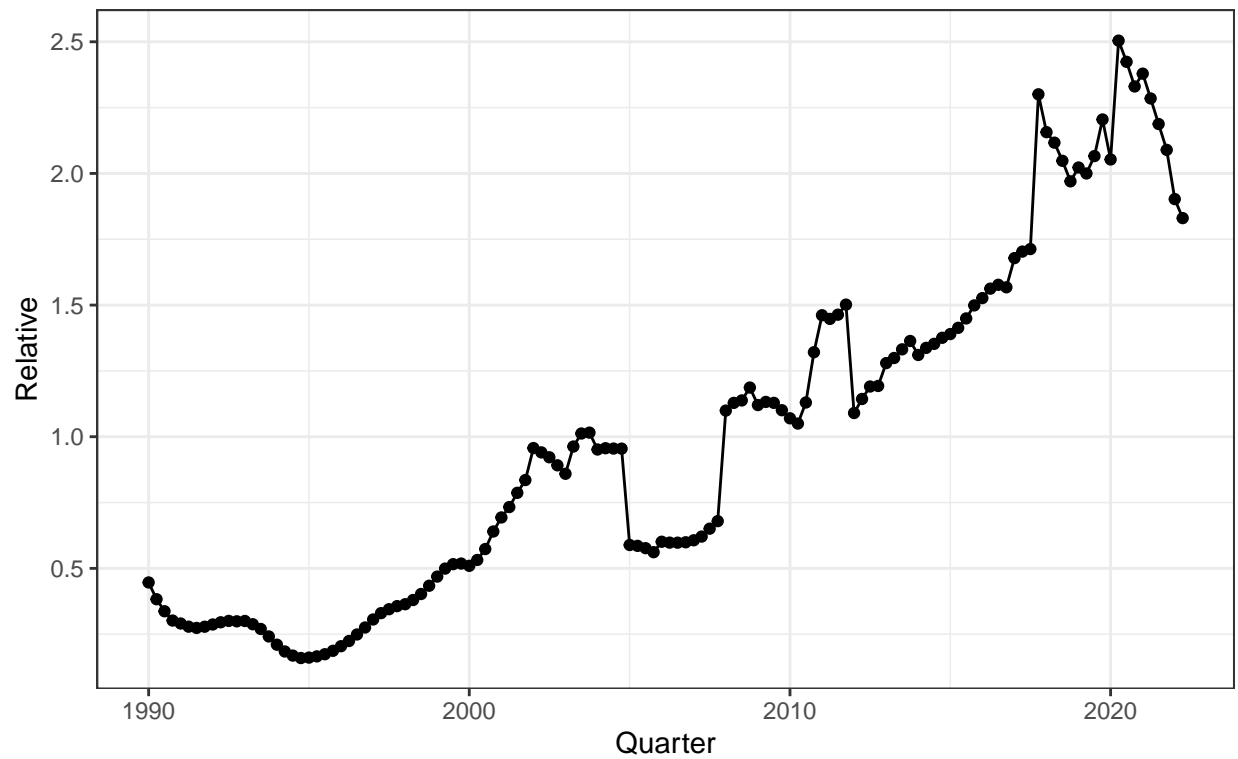


[[32]]

Percent of US National Income for Q1 1990–Q2 2022 in
36 Inventory valuation adjustment

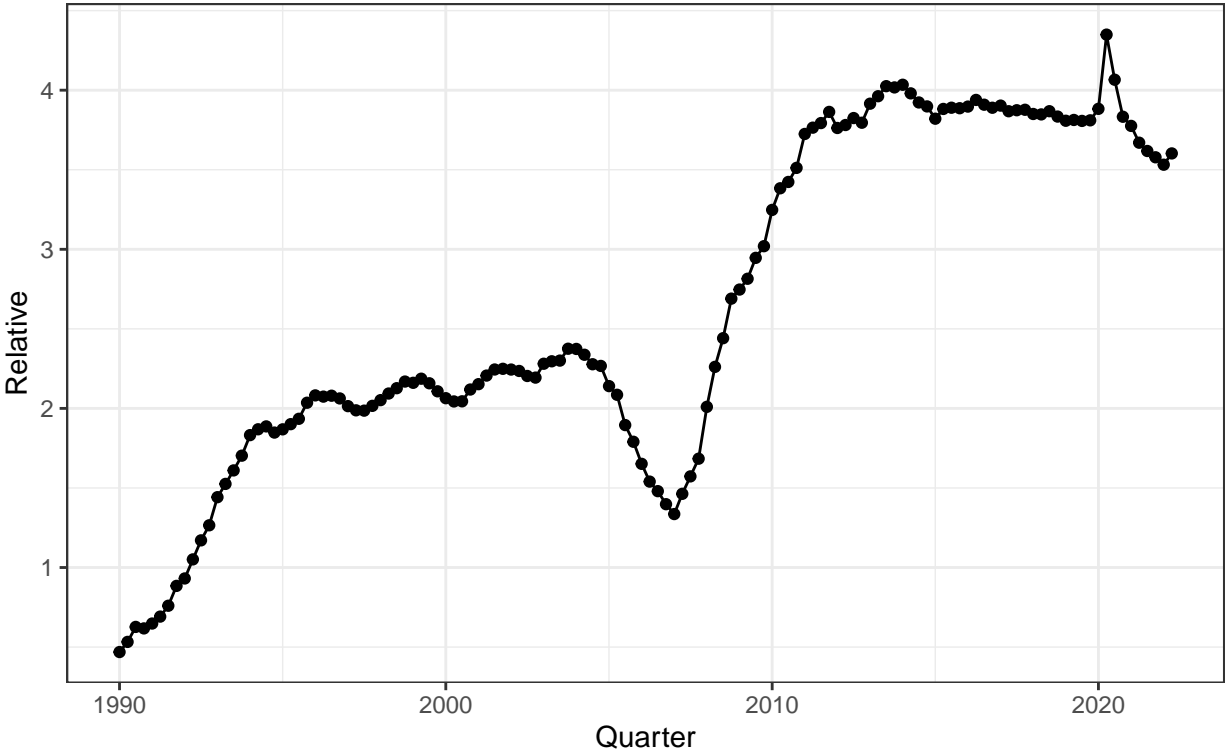


Percent of US National Income for Q1 1990–Q2 2022 in
37 Capital consumption adjustment



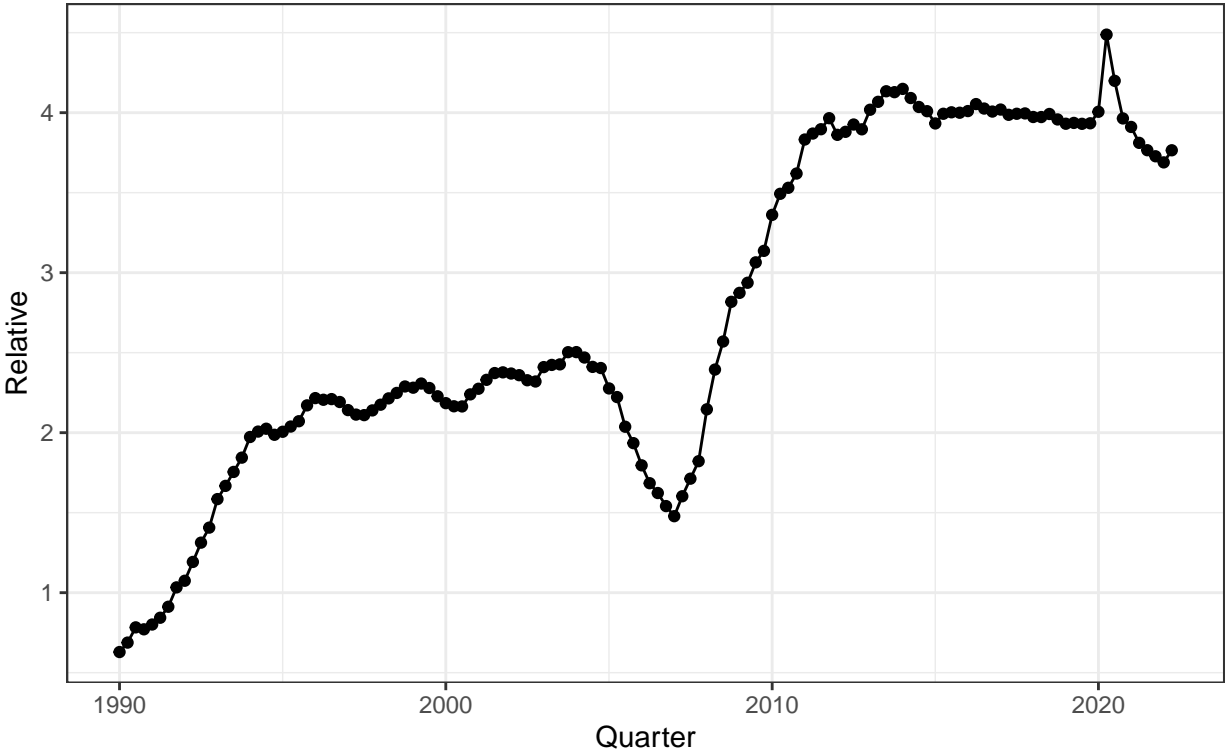
```
##
## [[34]]
```

Percent of US National Income for Q1 1990–Q2 2022 in
38 Rental income of persons with CCAAdj



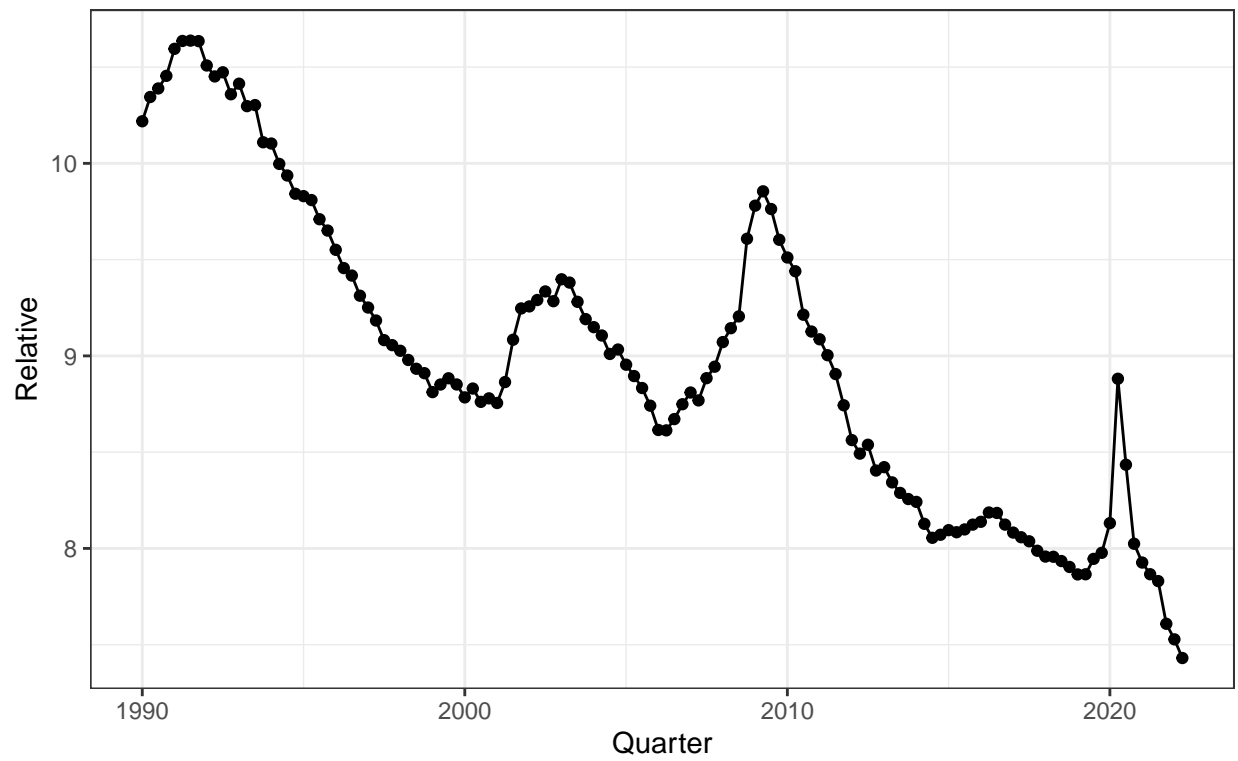
[[35]]

Percent of US National Income for Q1 1990–Q2 2022 in
39 Rental income of persons (without CCAdj)



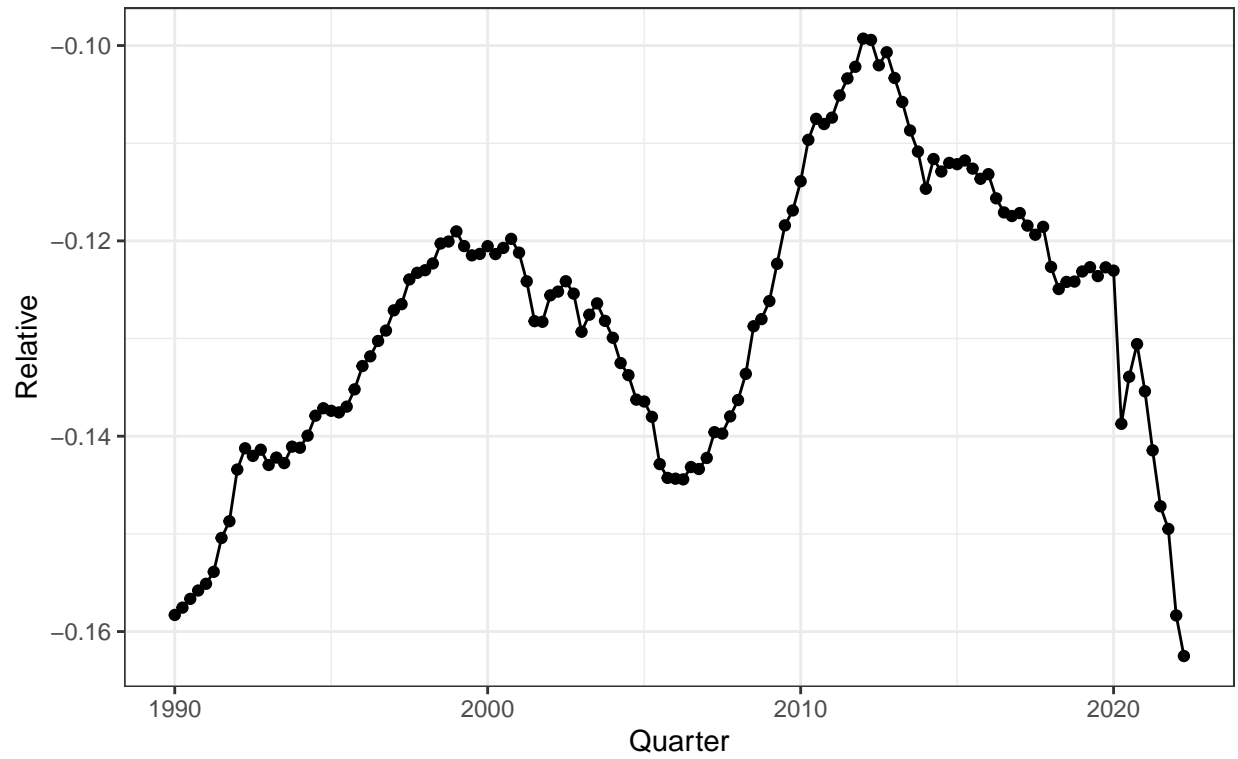
```
##  
## [[36]]
```

Percent of US National Income for Q1 1990–Q2 2022 in
4 Government



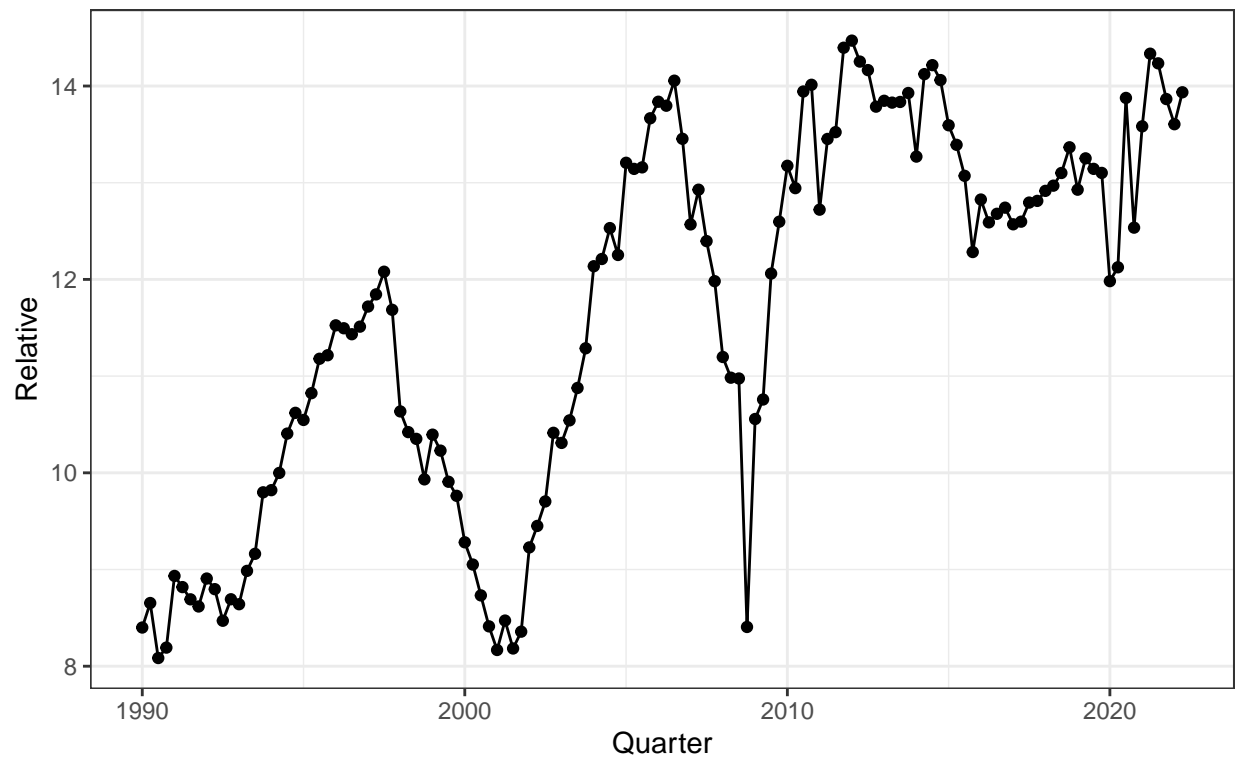
```
##  
## [[37]]
```

Percent of US National Income for Q1 1990–Q2 2022 in
40 Capital consumption adjustment



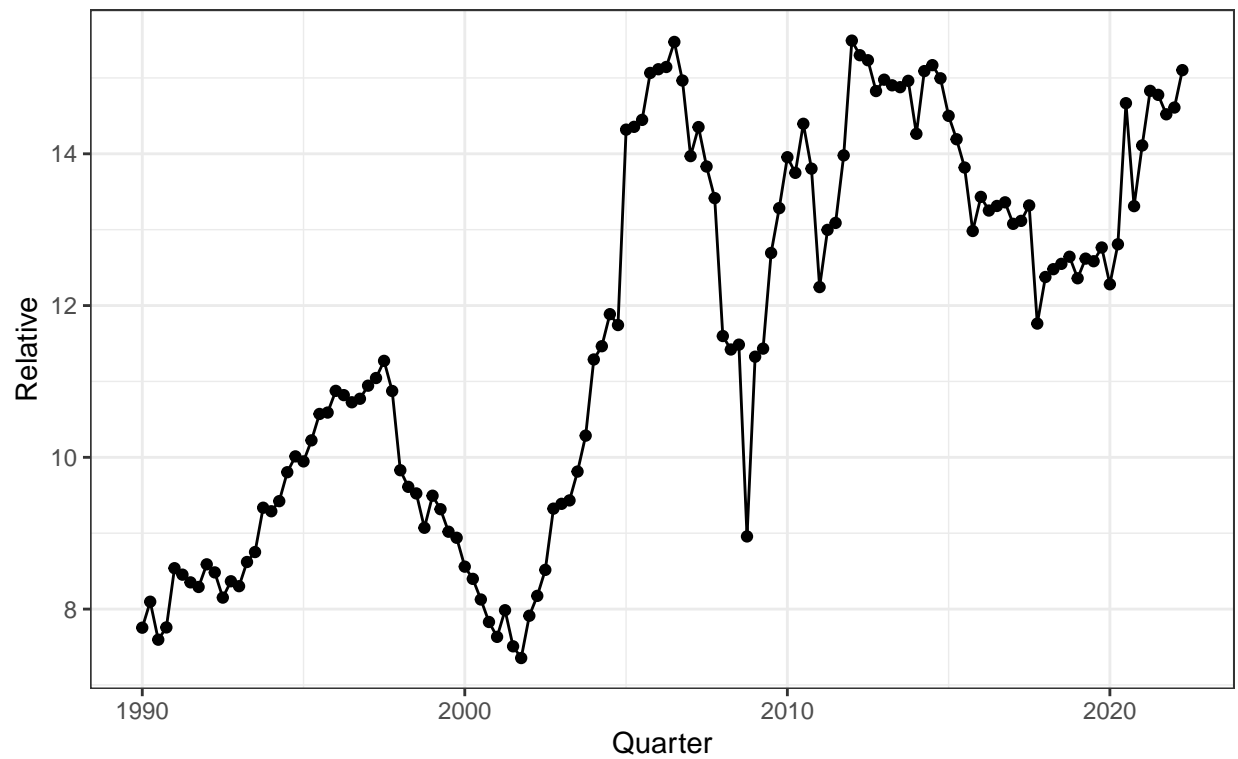
```
##
## [[38]]
```

Percent of US National Income for Q1 1990–Q2 2022 in
41 Corporate profits with IVA and CCAdj



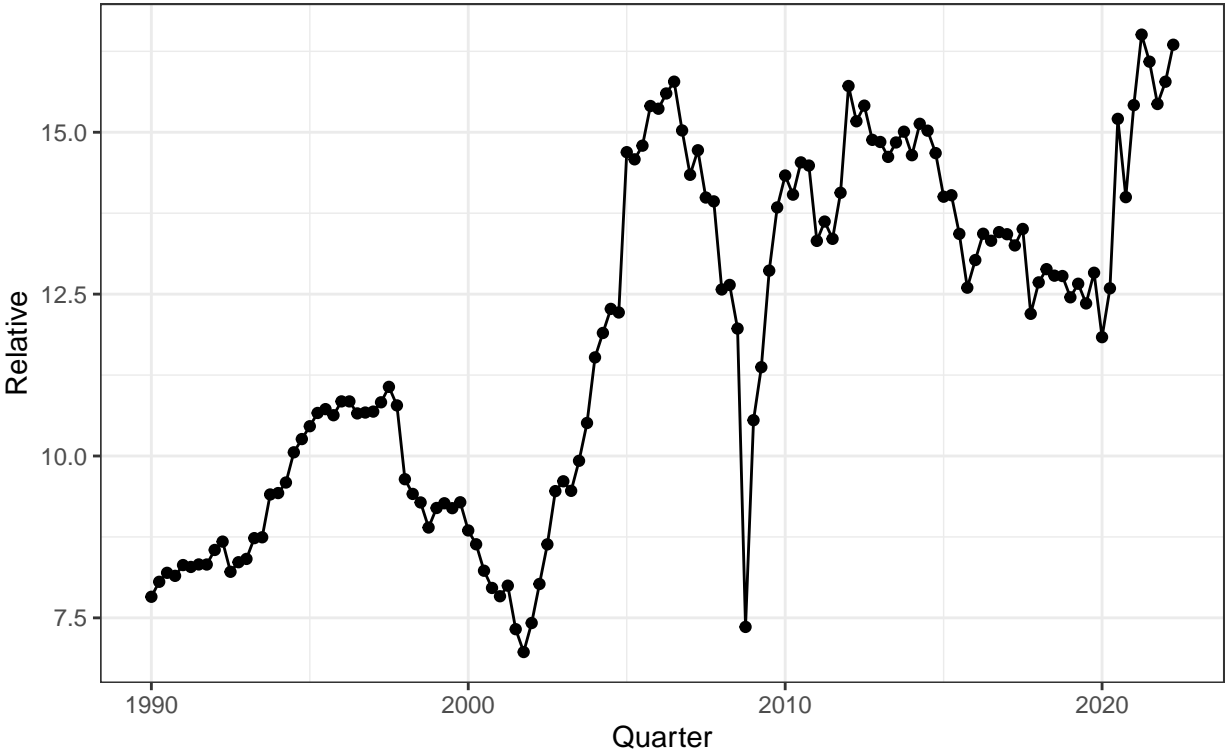
[[39]]

Percent of US National Income for Q1 1990–Q2 2022 in
42 Corporate profits with IVA



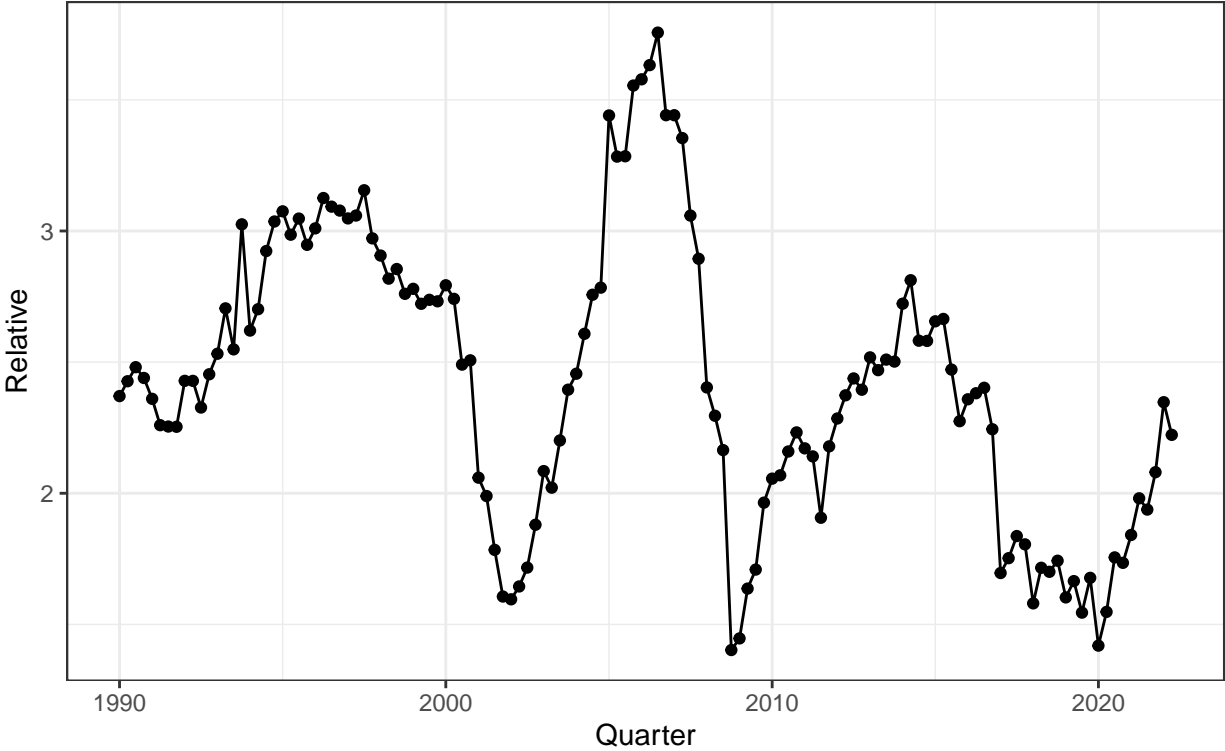
[[40]]

Percent of US National Income for Q1 1990–Q2 2022 in 43 Profits before tax (without IVA and CCAdj)



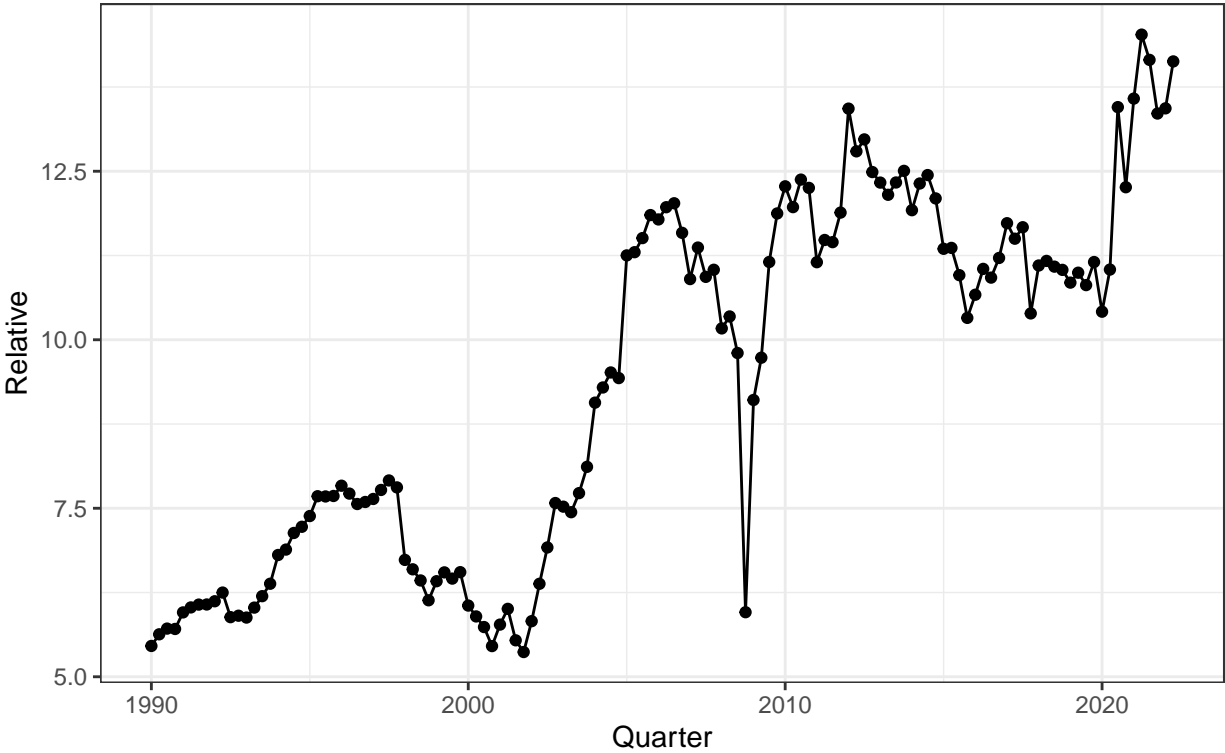
[[41]]

Percent of US National Income for Q1 1990–Q2 2022 in
44 Taxes on corporate income



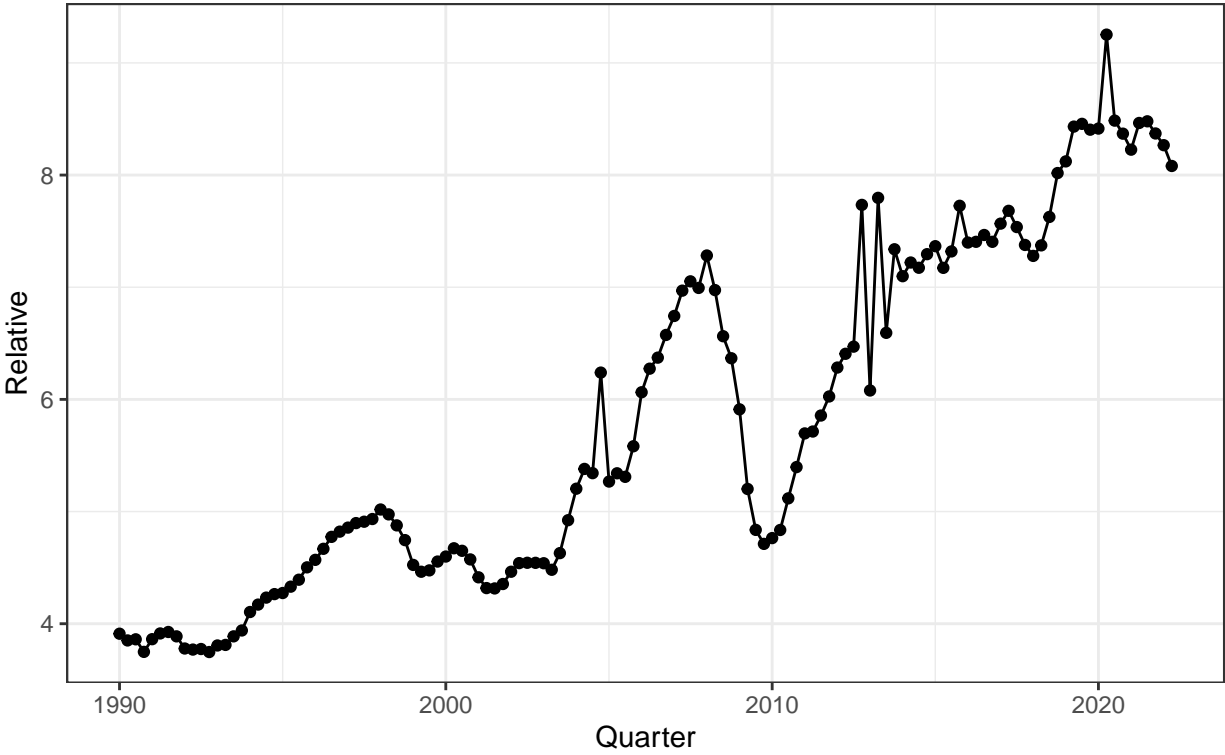
[[42]]

Percent of US National Income for Q1 1990–Q2 2022 in
45 Profits after tax (without IVA and CCAdj)



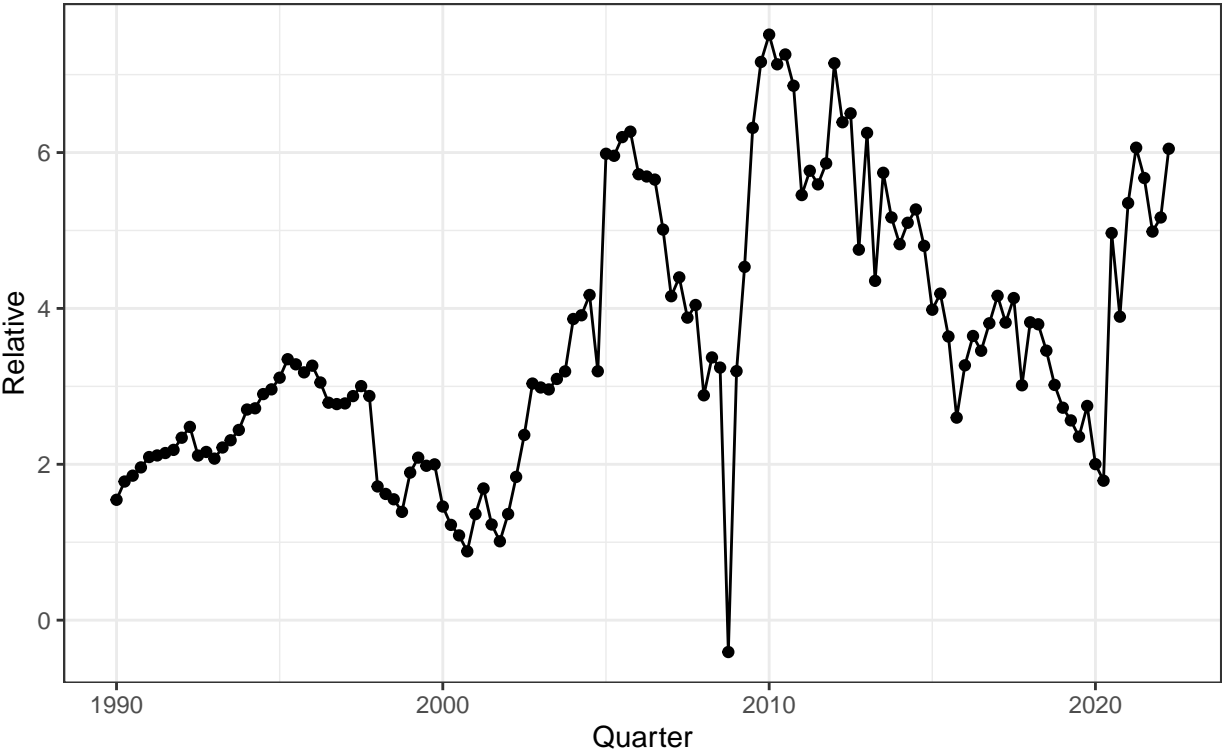
[[43]]

Percent of US National Income for Q1 1990–Q2 2022 in
46 Net dividends



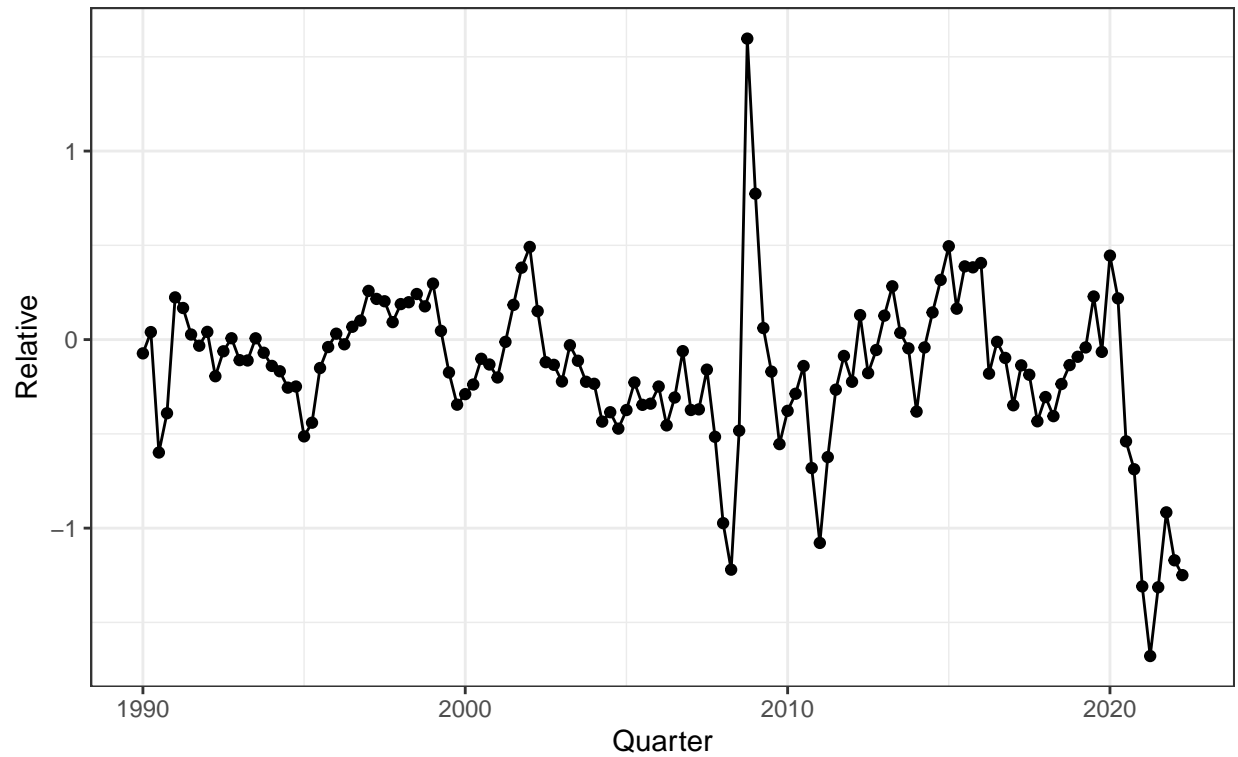
[[44]]

Percent of US National Income for Q1 1990–Q2 2022 in
47 Undistributed profits (without IVA and CCAdj)



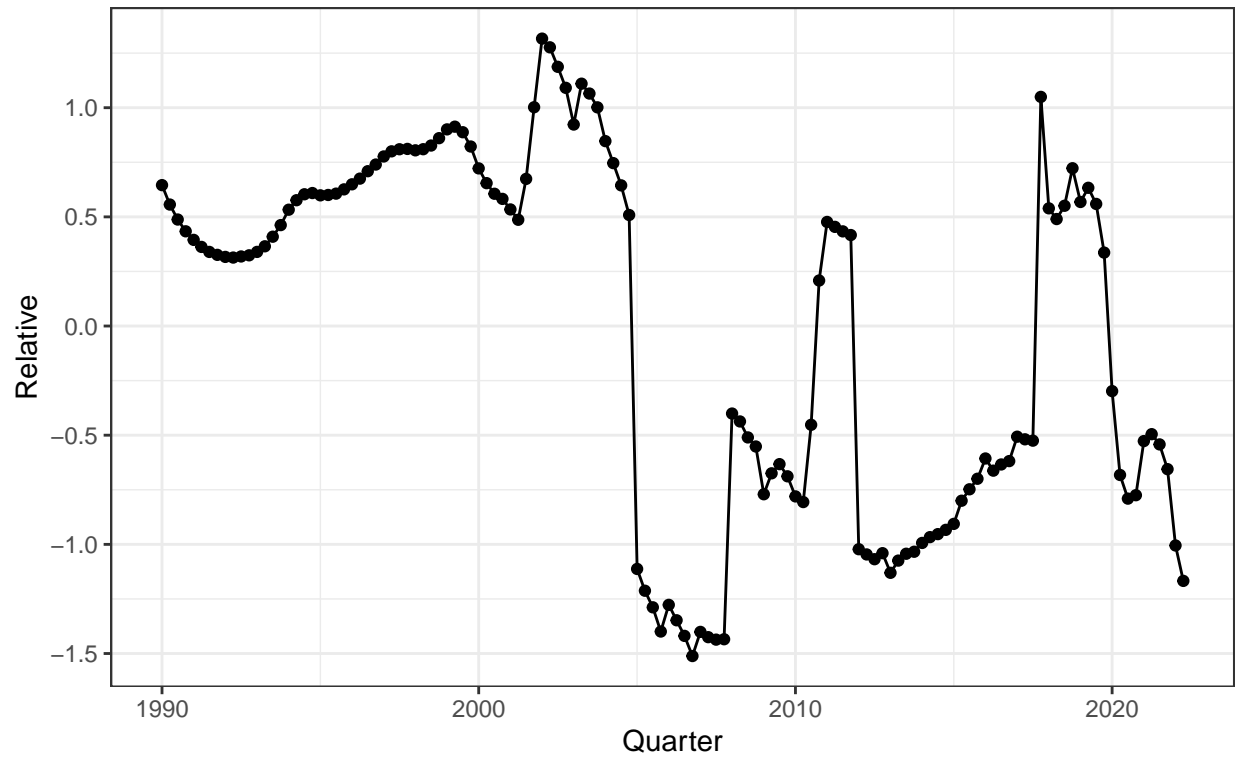
[[45]]

Percent of US National Income for Q1 1990–Q2 2022 in
48 Inventory valuation adjustment



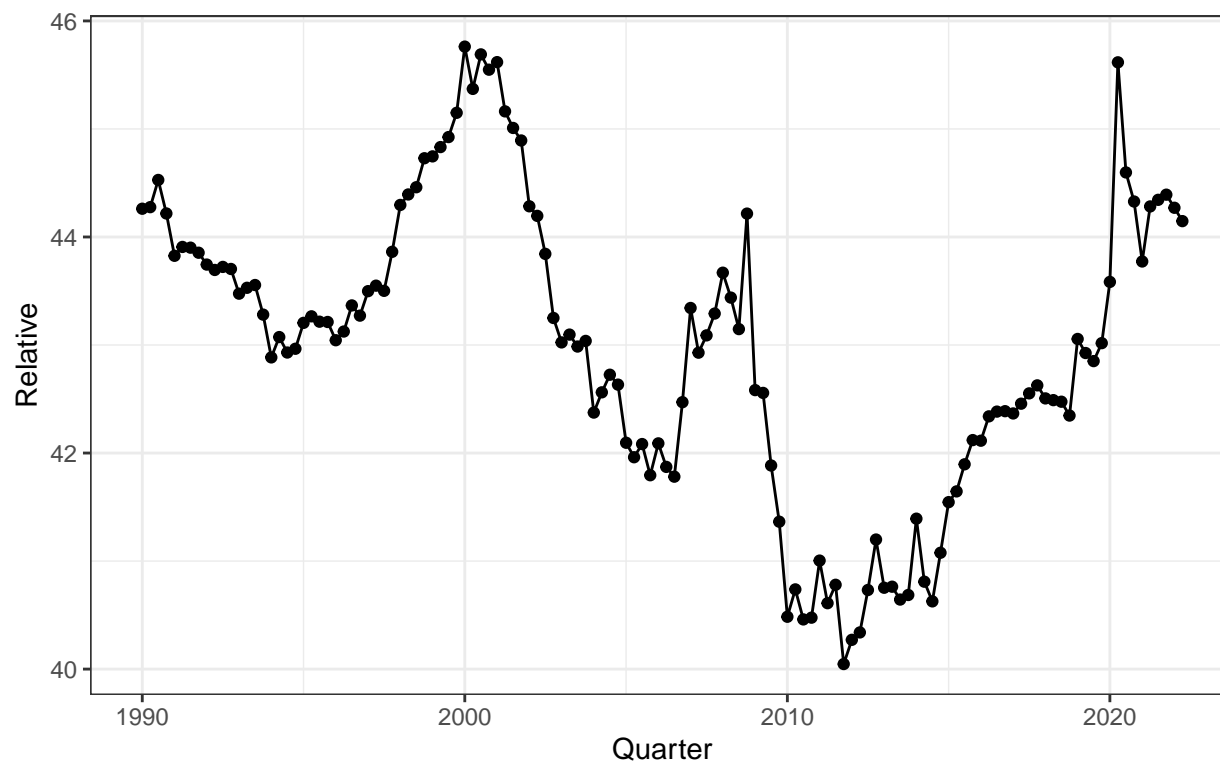
[[46]]

Percent of US National Income for Q1 1990–Q2 2022 in
49 Capital consumption adjustment



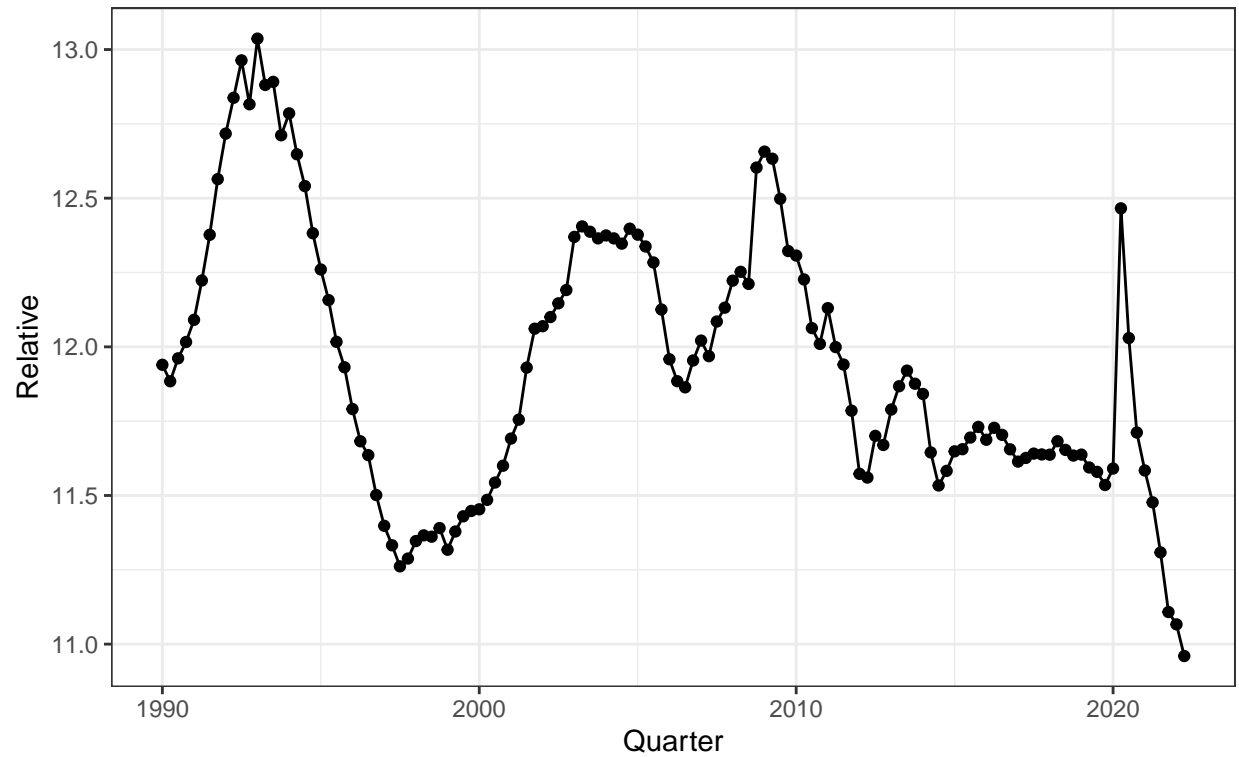
[[47]]

Percent of US National Income for Q1 1990–Q2 2022 in
5 Other



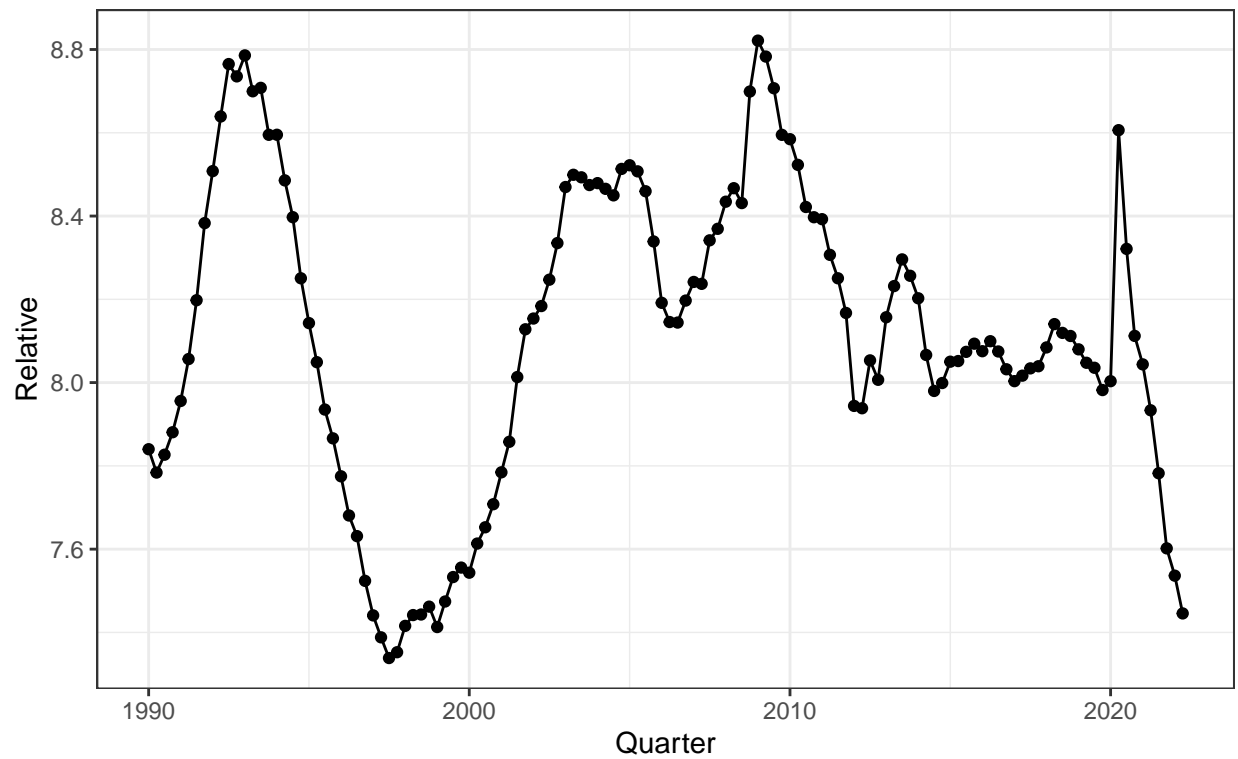
[[48]]

Percent of US National Income for Q1 1990–Q2 2022 in
6 Supplements to wages and salaries



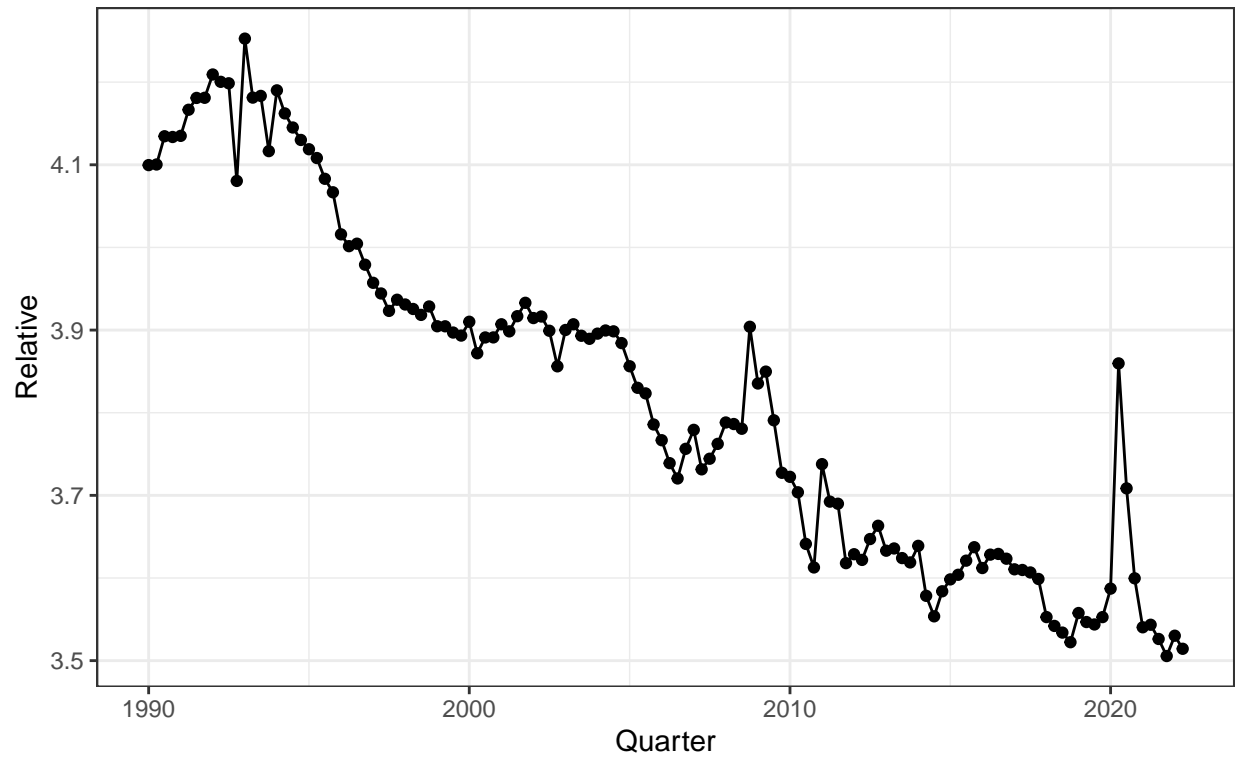
[[49]]

Percent of US National Income for Q1 1990–Q2 2022 in
7 Employer contributions for employee pension and insurance funds1



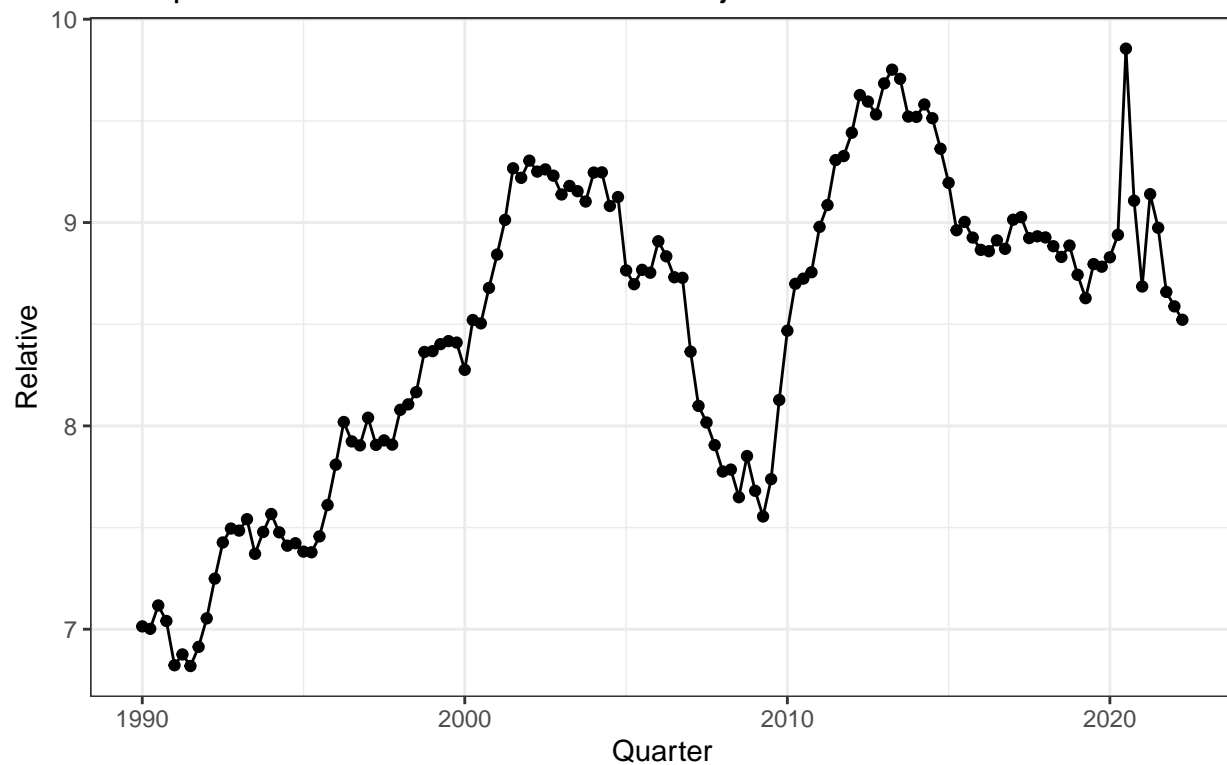
[[50]]

Percent of US National Income for Q1 1990–Q2 2022 in
8 Employer contributions for government social insurance



```
##  
## [[51]]
```

Percent of US National Income for Q1 1990–Q2 2022 in
9 Proprietors' income with IVA and CCAdj



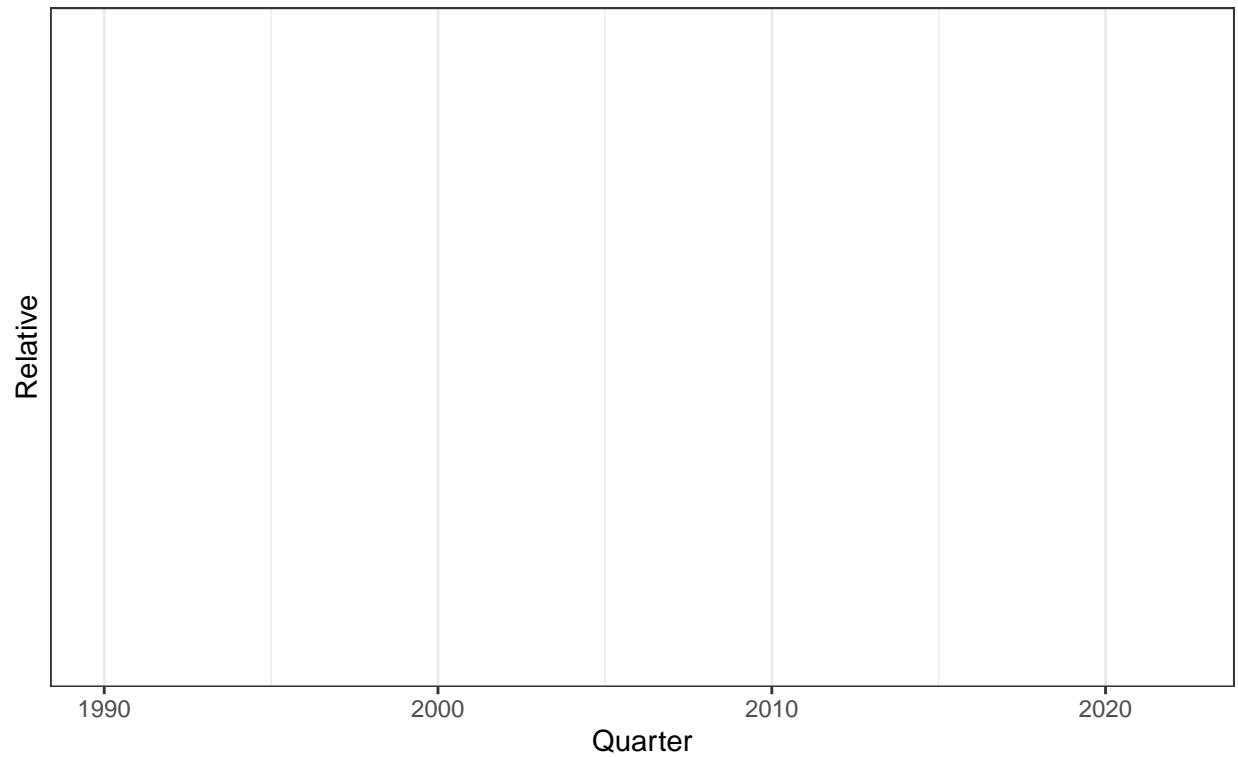
```
##
```

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## [[52]]
```

```
## Warning: Removed 130 rows containing missing values ('geom_point()').
```

```
## Warning: Removed 130 rows containing missing values ('geom_line()').
```

Percent of US National Income for Q1 1990–Q2 2022 in
CCAdj Capital consumption adjustment NA



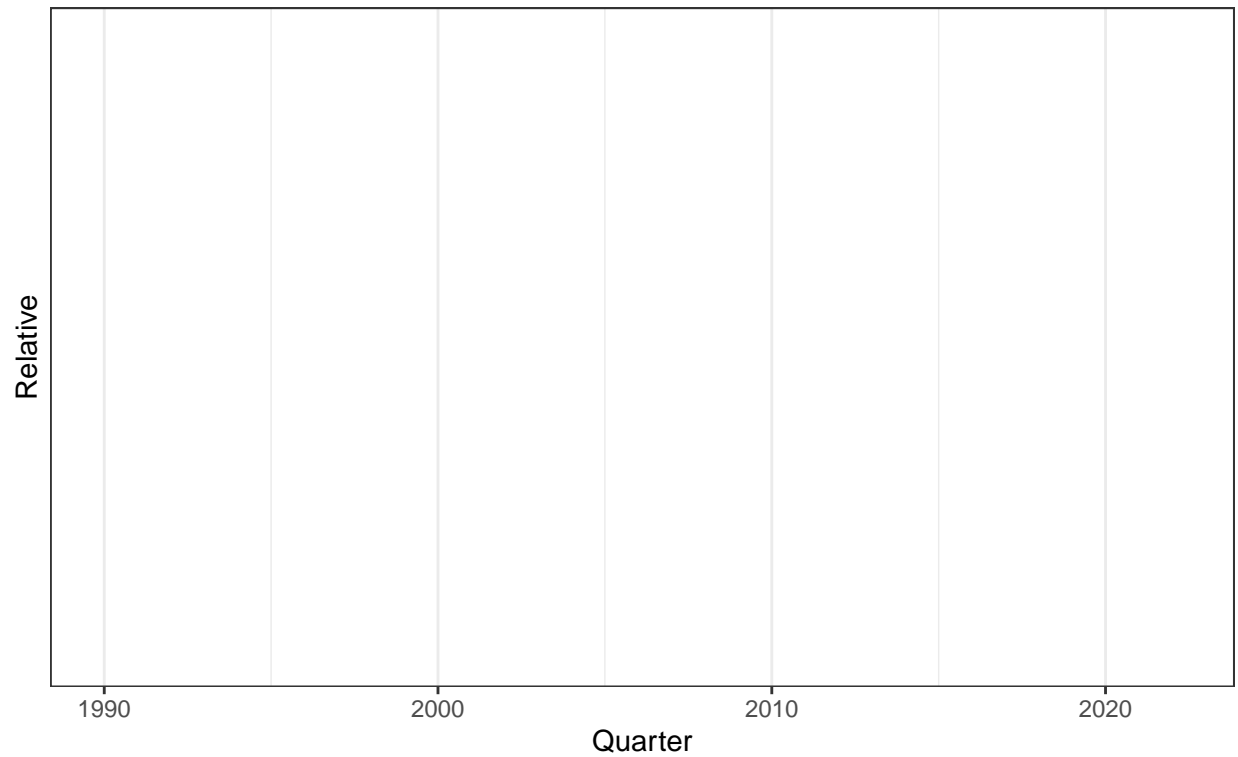
```
##
```

```
## [[53]]
```

```
## Warning: Removed 130 rows containing missing values ('geom_point()').
```

```
## Removed 130 rows containing missing values ('geom_line()').
```

Percent of US National Income for Q1 1990–Q2 2022 in IVA Inventory valuation adjustment NA



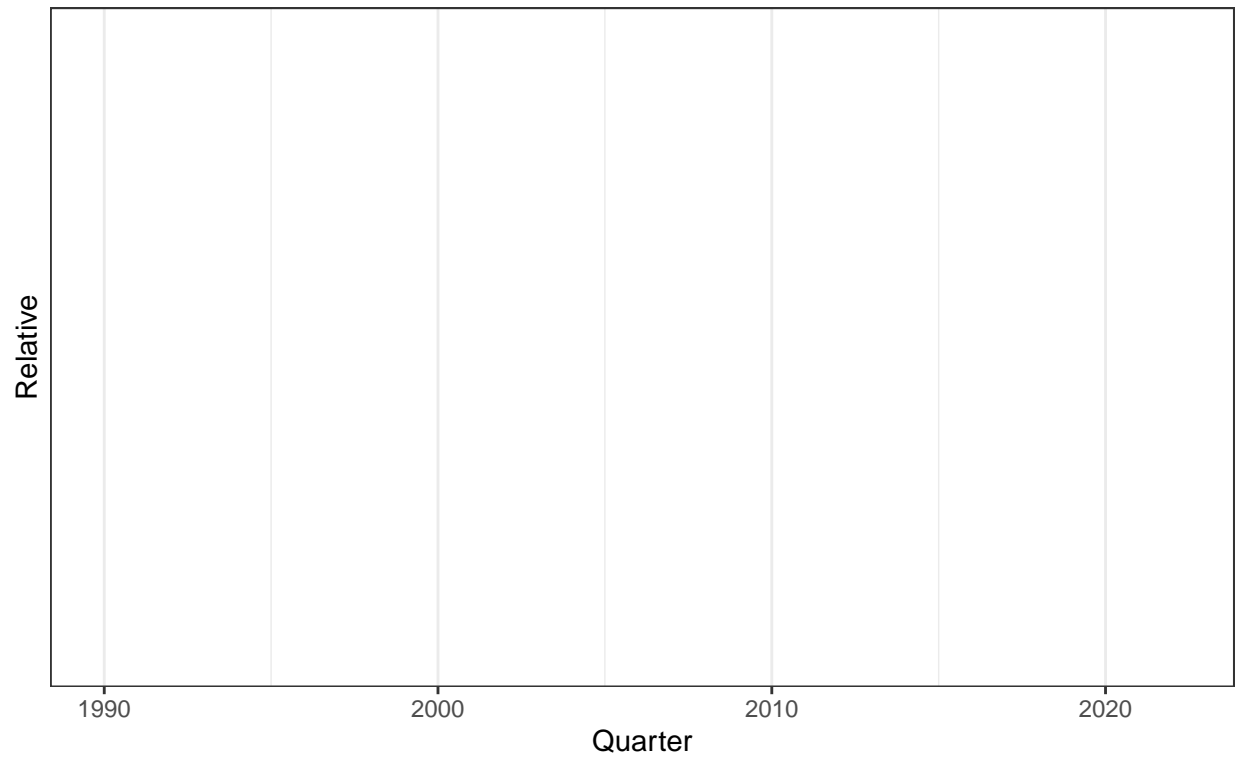
```
##
```

```
## [[54]]
```

```
## Warning: Removed 130 rows containing missing values ('geom_point()').
```

```
## Removed 130 rows containing missing values ('geom_line()').
```

Percent of US National Income for Q1 1990–Q2 2022 in
Legend/Footnotes NA



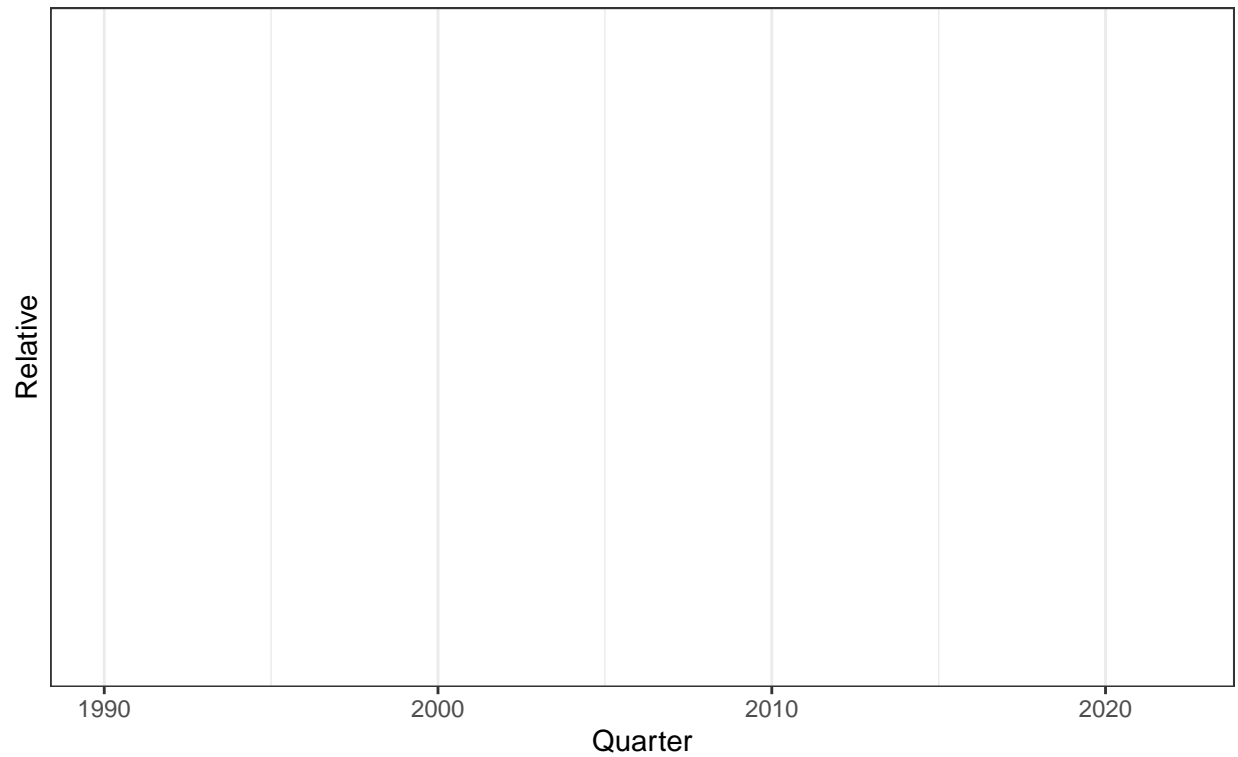
```
##
```

```
## [[55]]
```

```
## Warning: Removed 130 rows containing missing values ('geom_point()').
```

```
## Removed 130 rows containing missing values ('geom_line()').
```


Percent of US National Income for Q1 1990–Q2 2022 in
NA Addenda for corporate cash flow:



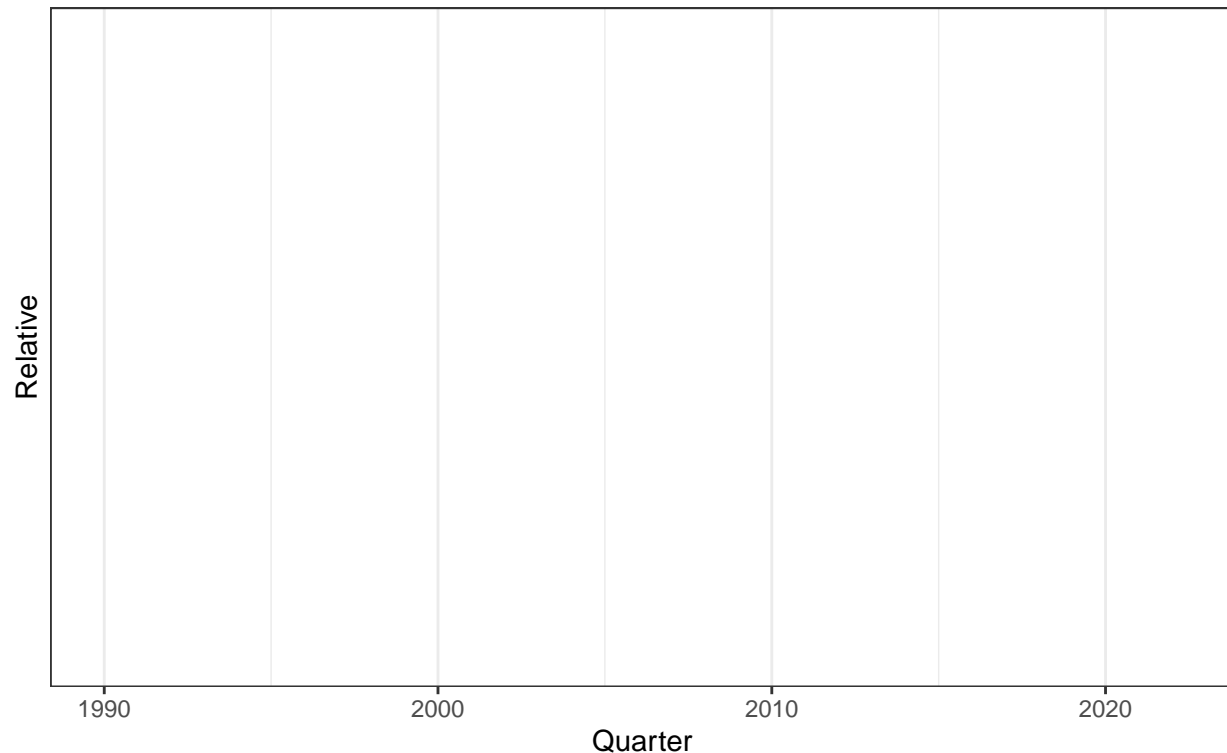
```
##
```

```
## [[56]]
```

```
## Warning: Removed 130 rows containing missing values ('geom_point()').
```

```
## Removed 130 rows containing missing values ('geom_line()').
```

Percent of US National Income for Q1 1990–Q2 2022 in NA Addenda:



Corporate Business

```
library(readr)
Table <- read_csv("C:/Users/willi/Downloads/Table (3).csv", col_names = FALSE, skip = 5)
```

```
## Warning: One or more parsing issues, see 'problems()' for details
```

```
## Rows: 54 Columns: 253
## -- Column specification -----
## Delimiter: ","
## chr   (3): X1, X2, X253
## dbl (250): X3, X4, X5, X6, X7, X8, X9, X10, X11, X12, X13, X14, X15, X16, X1...
##
## i Use 'spec()' to retrieve the full column specification for this data.
## i Specify the column types or set 'show_col_types = FALSE' to quiet this message.
```

```
library(ggplot2)
library(dplyr)
library(tidyr)
Table[3:250] = Table[3:250] %>% mutate(across(where(is.character), as.numeric))
Relative = bind_rows(apply(Table[1:17, 3:252], 1, function(x) 100*x/Table[1,3:252]),
                      apply(Table[18:31, 3:252], 1, function(x) 100*x/Table[17,3:252]),
```

```

      apply(Table[32:54, 3:252], 1, function(x) 100*x/Table[1, 3:252]))
colnames(Relative) = seq(as.Date("1960/01/01"), by = "quarter", length.out = 250)
Relative = cbind(paste(Table[[1]], Table[[2]]), Relative)
Proportion = Relative %>% pivot_longer(cols = 2:251, names_to = "Quarter", values_to = "Proportion")
Proportion[[2]] = as.Date(Proportion[[2]])
colnames(Proportion) = c("Type", "Quarter", "Relative")

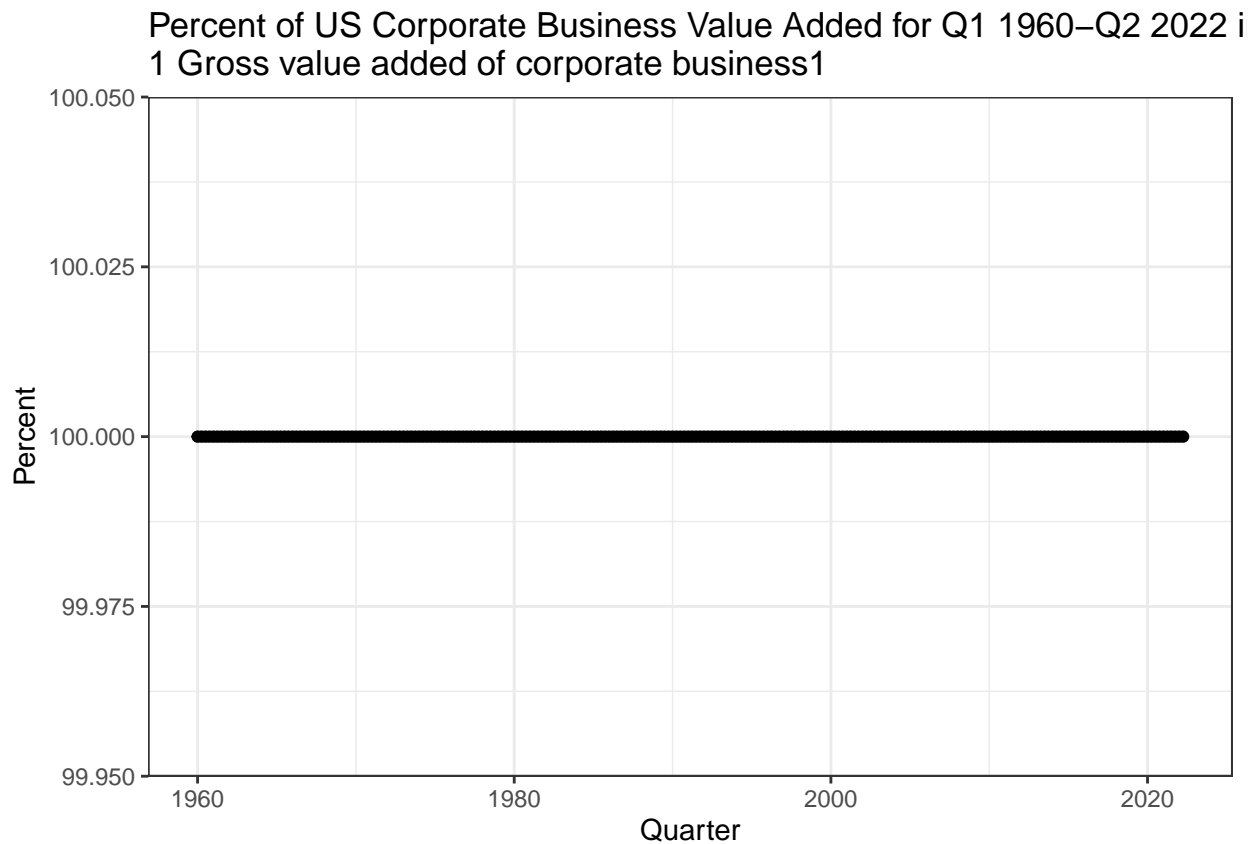
make_plot = function(frame){
  title = paste0("Percent of US Corporate Business Value Added for Q1 1960-Q2 2022 in \n", frame[[1]][1])
  ggplot(frame, aes(x = Quarter, y = Relative)) +
    geom_point() + ylab("Percent") +
    geom_line() + theme_bw() +
    ggtitle(title)
}

Proportion_Type = group_split(Proportion, Type)
Plots = lapply(Proportion_Type, make_plot)

```

Plots

[[1]]

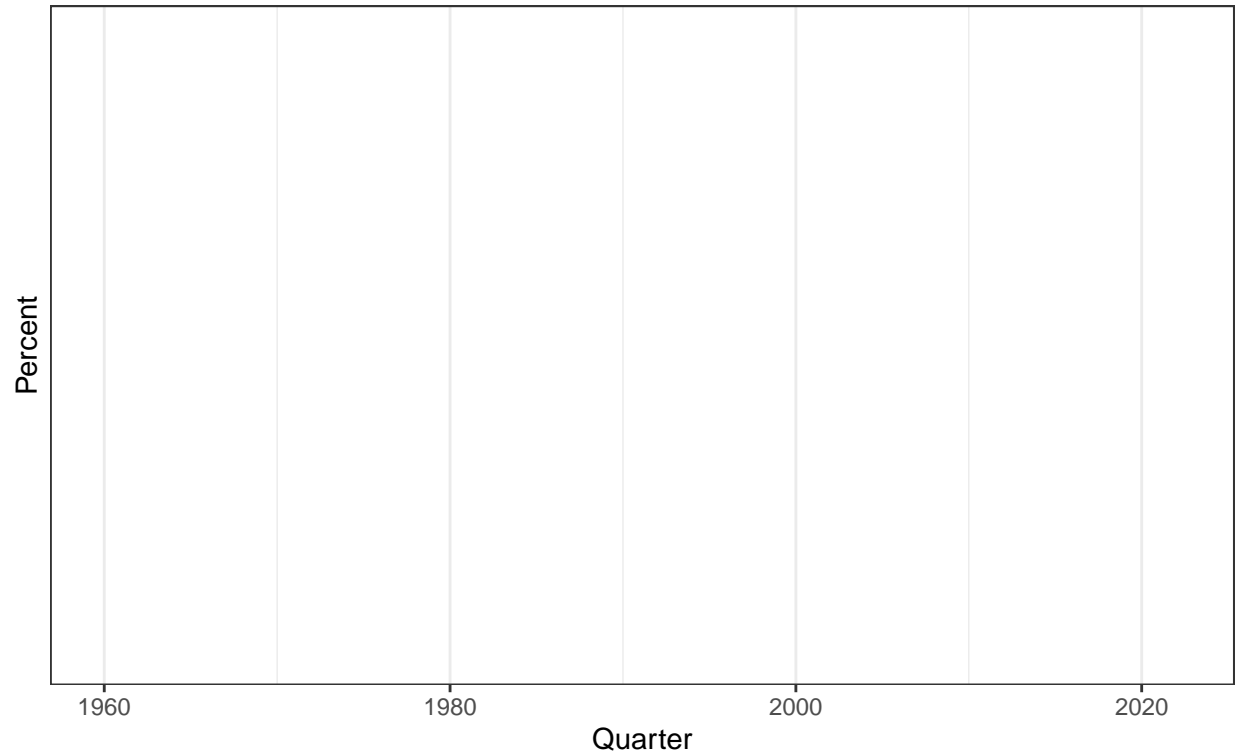


[[2]]

```
## Warning: Removed 250 rows containing missing values ('geom_point()').
```

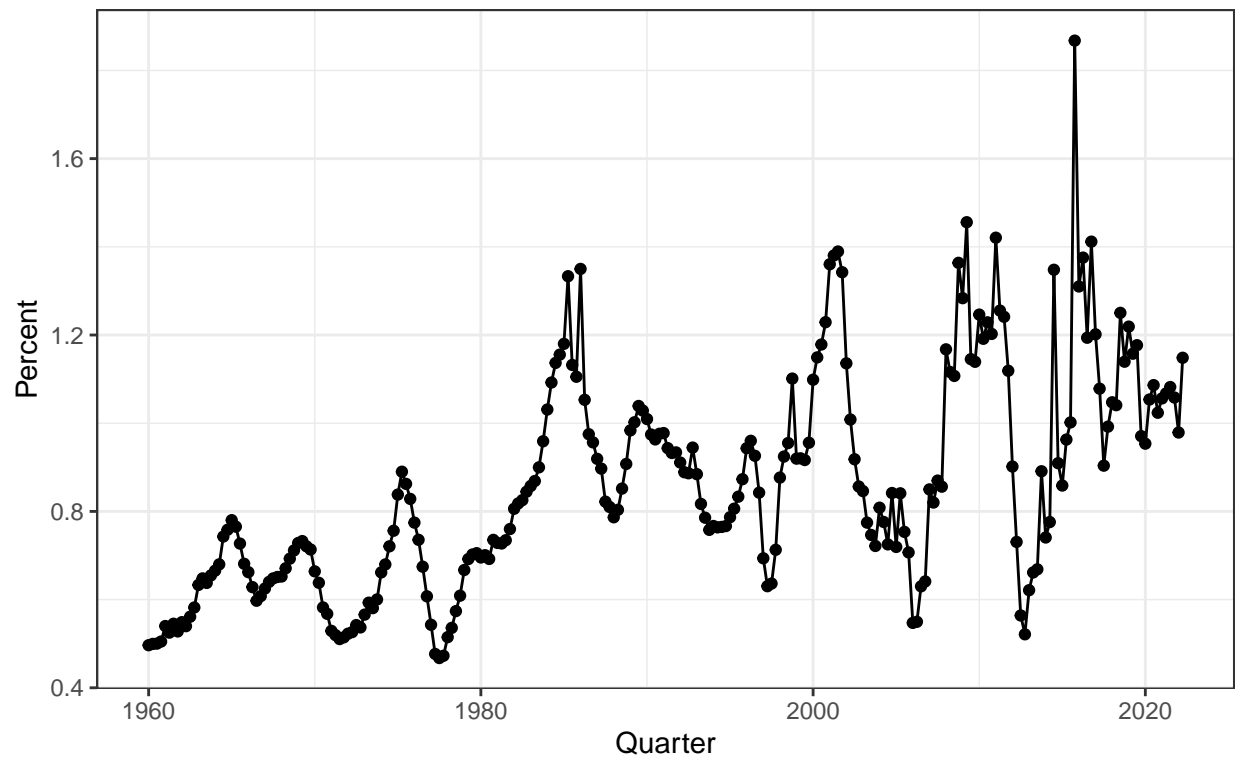
```
## Warning: Removed 250 rows containing missing values ('geom_line()').
```

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in
1. Estimates for financial corporate business and nonfinancial corporate business



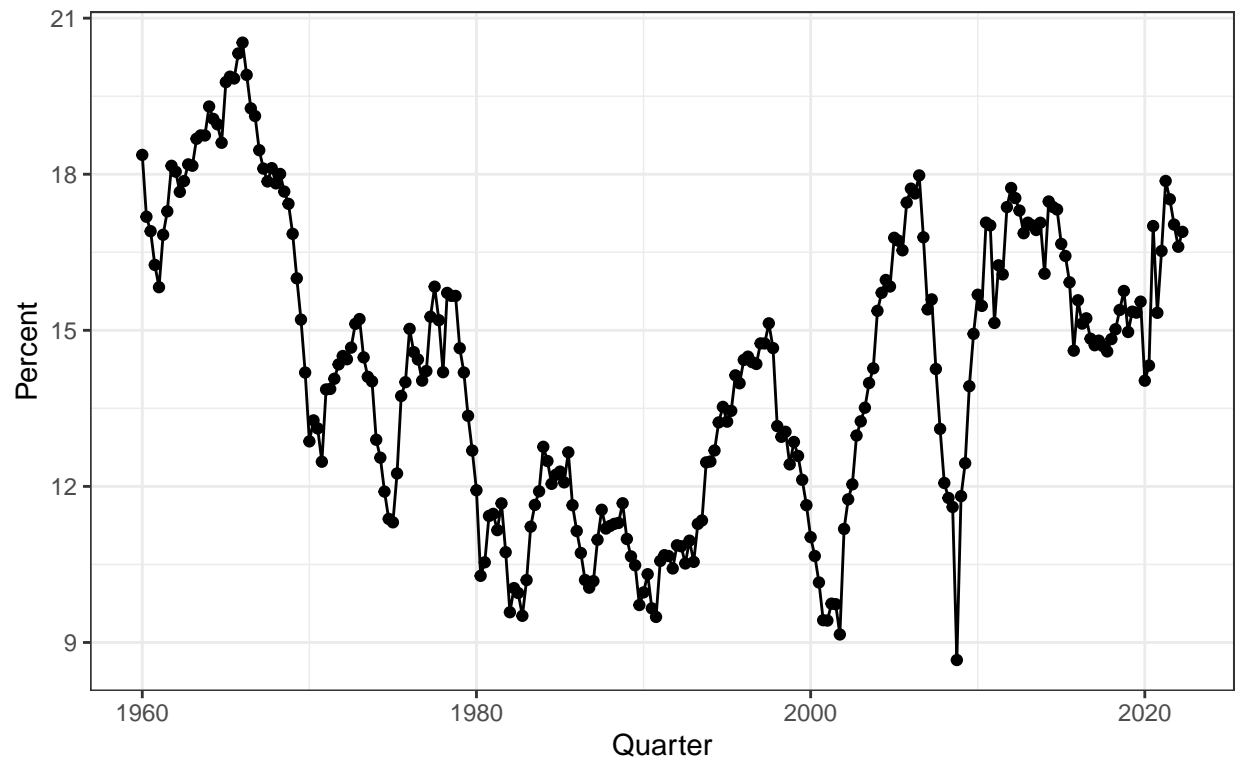
```
##  
## [[3]]
```

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in
10 Business current transfer payments (net)



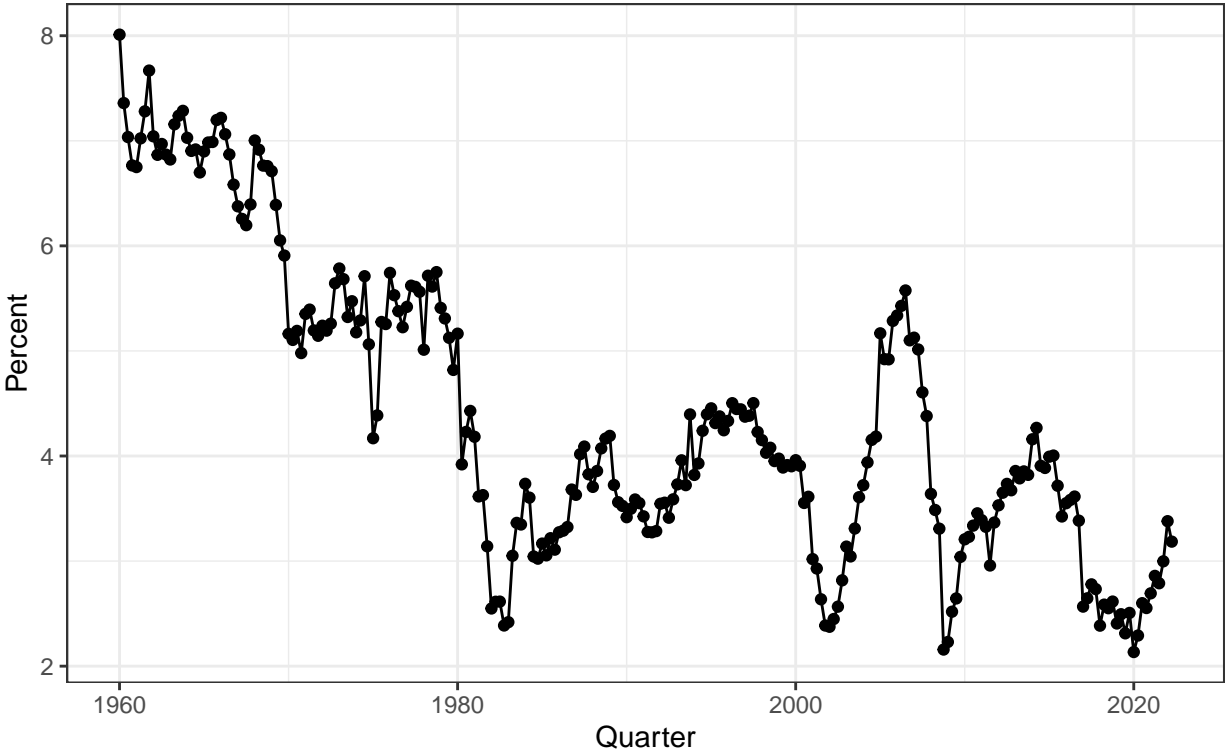
```
##  
## [[4]]
```

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in 11 Corporate profits with IVA and CCAdj



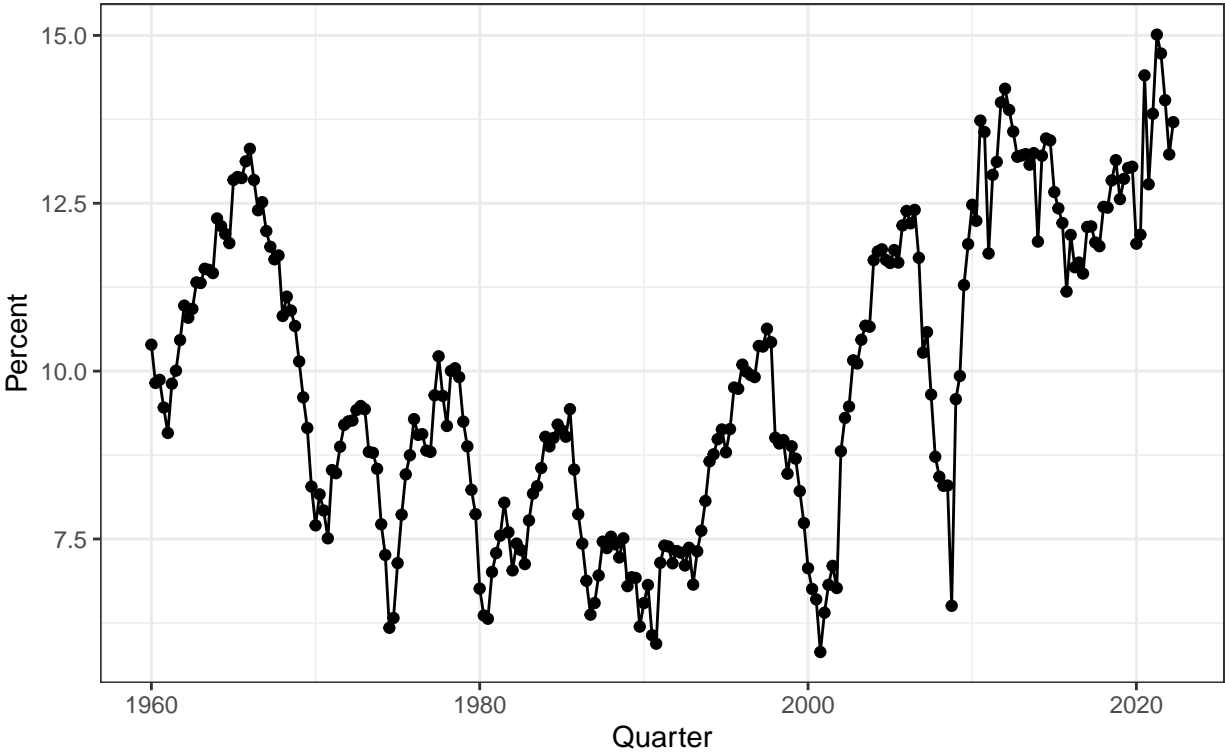
[[5]]

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in 12 Taxes on corporate income



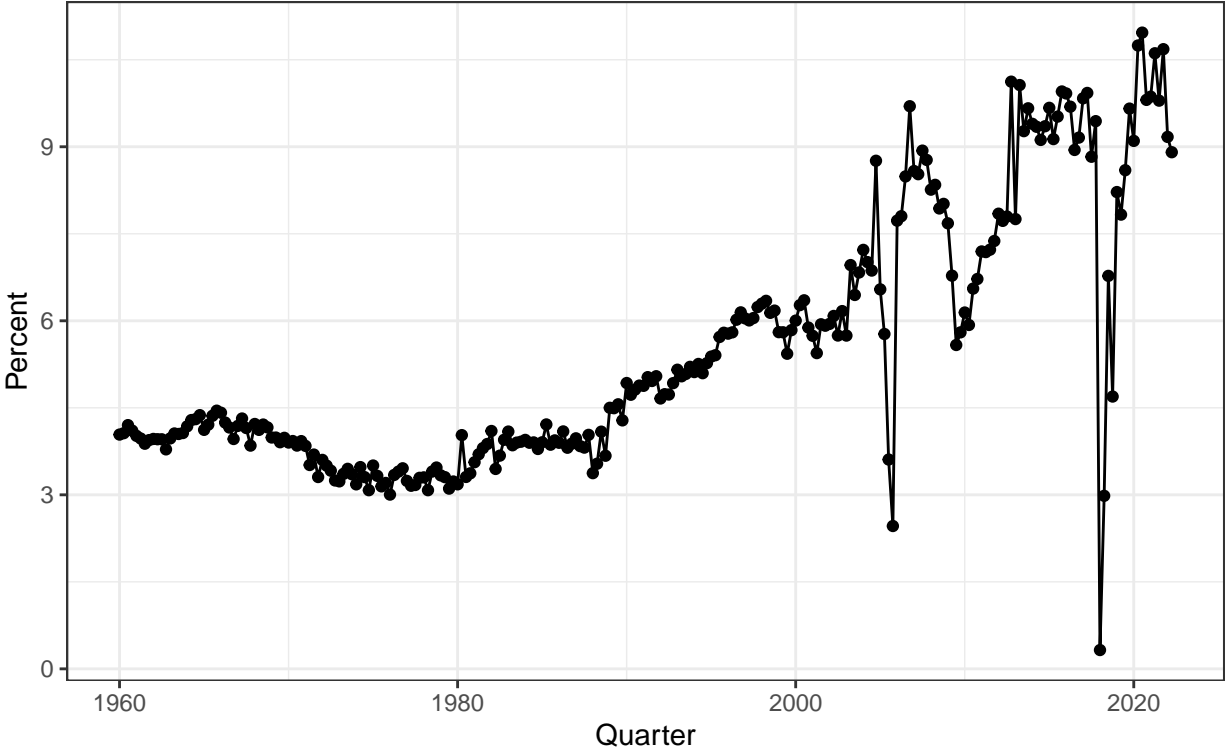
[[6]]

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in 13 Profits after tax with IVA and CCAdj



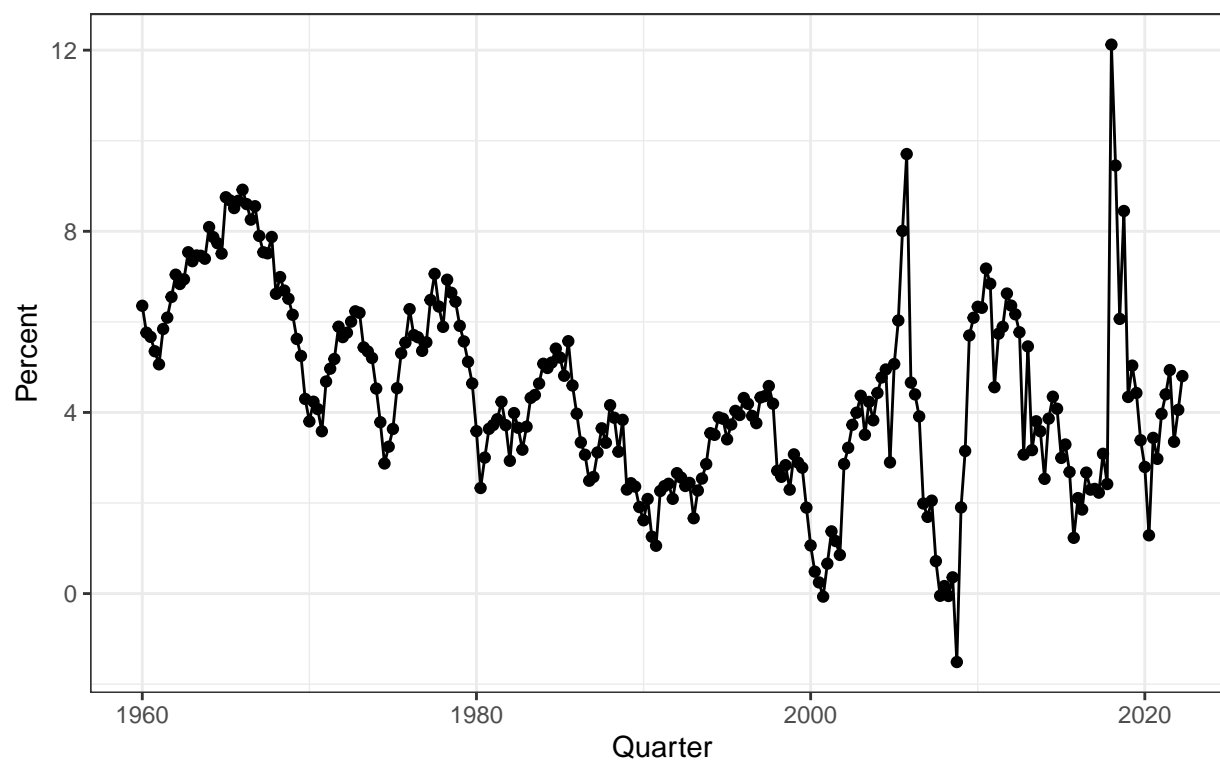
[[7]]

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in 14 Net dividends



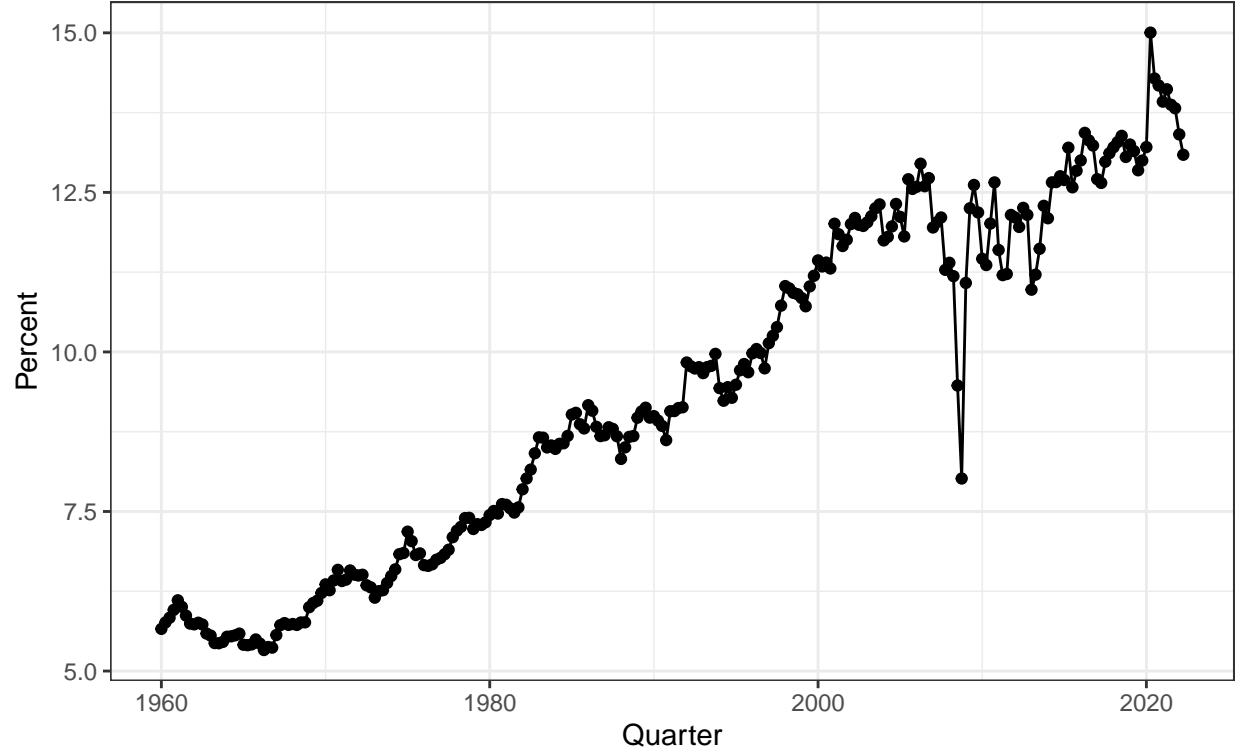
[[8]]

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in
15 Undistributed profits with IVA and CCAdj



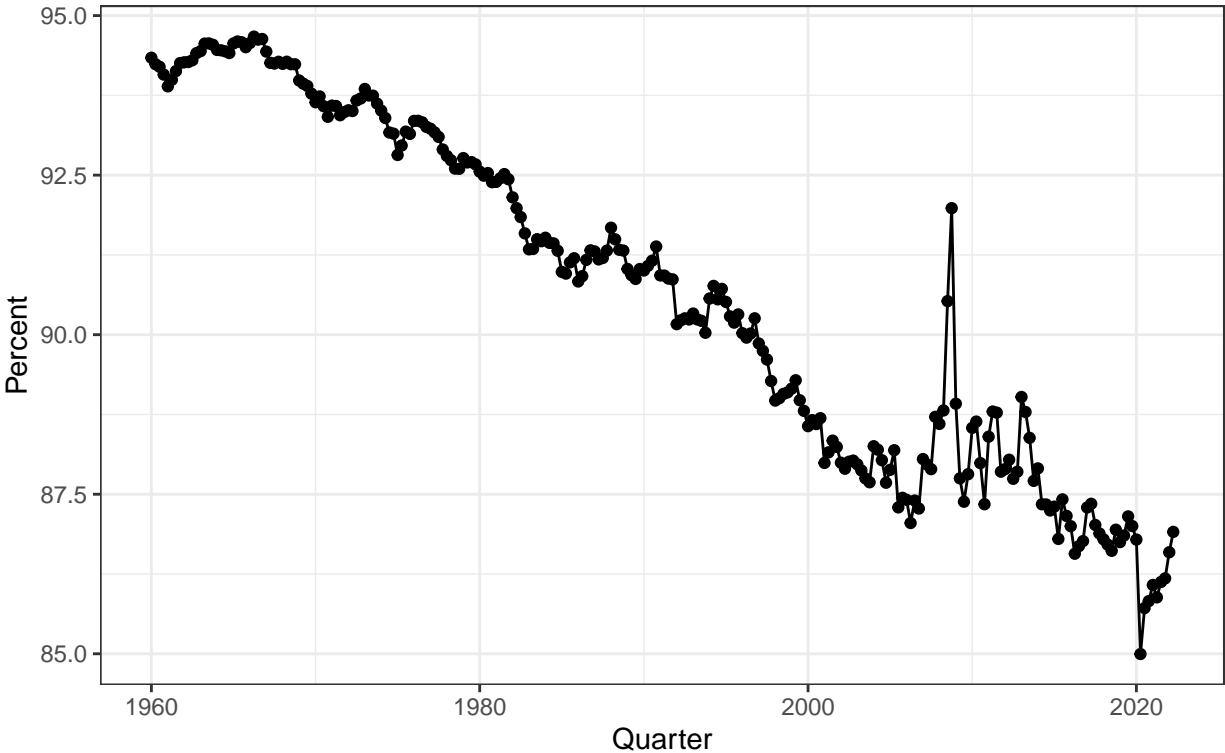
```
##
## [[9]]
```

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in 16 Gross value added of financial corporate business1



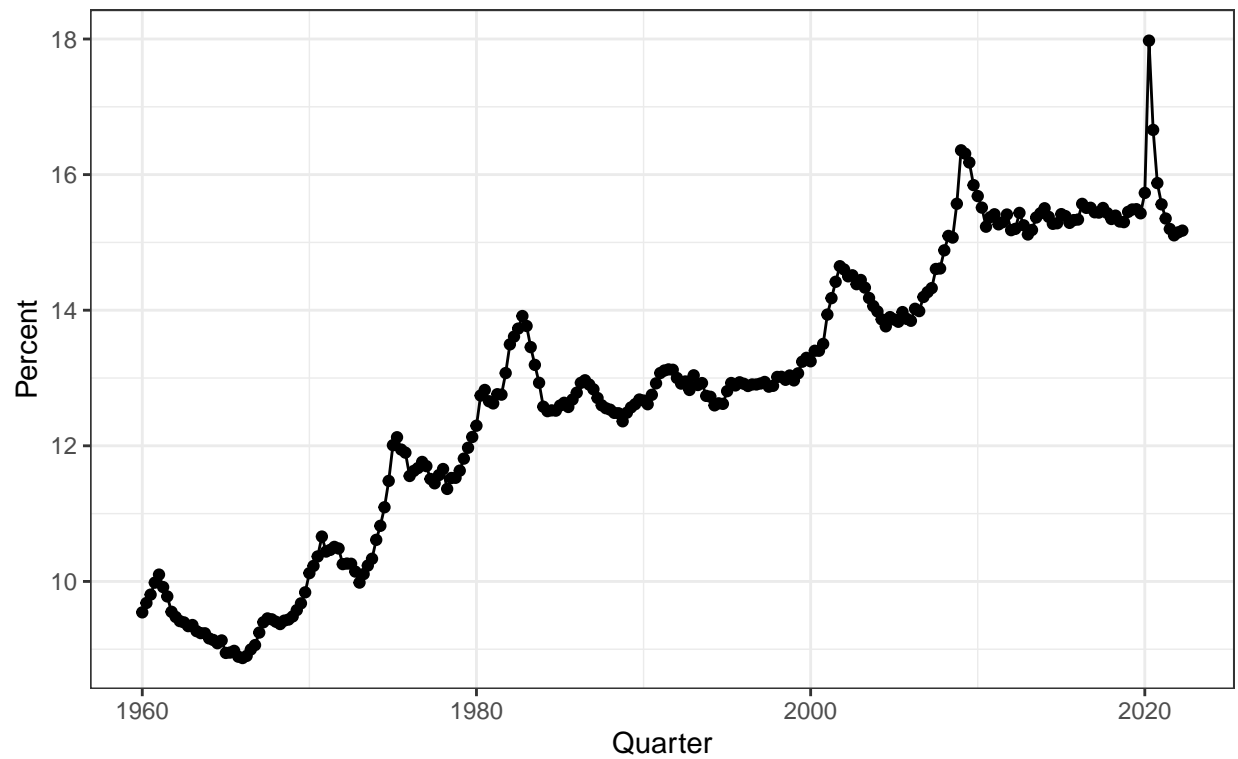
[[10]]

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in 17 Gross value added of nonfinancial corporate business1



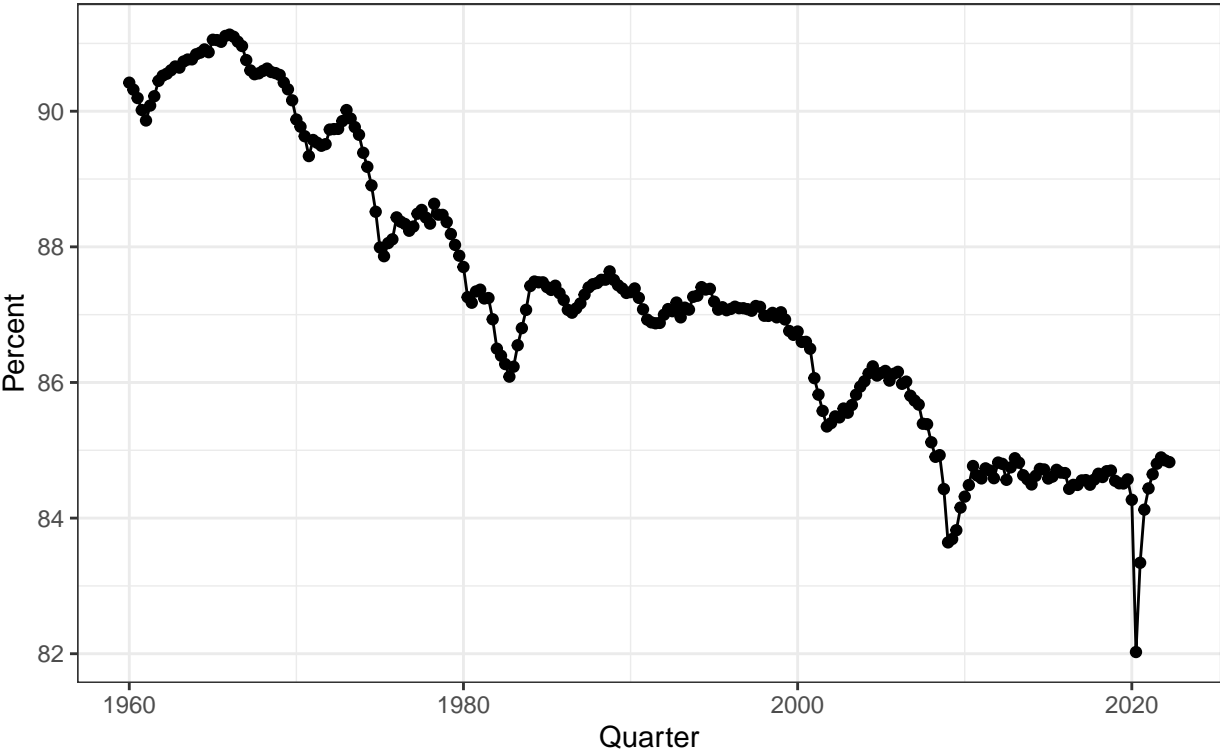
```
##  
## [[11]]
```

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in
18 Consumption of fixed capital



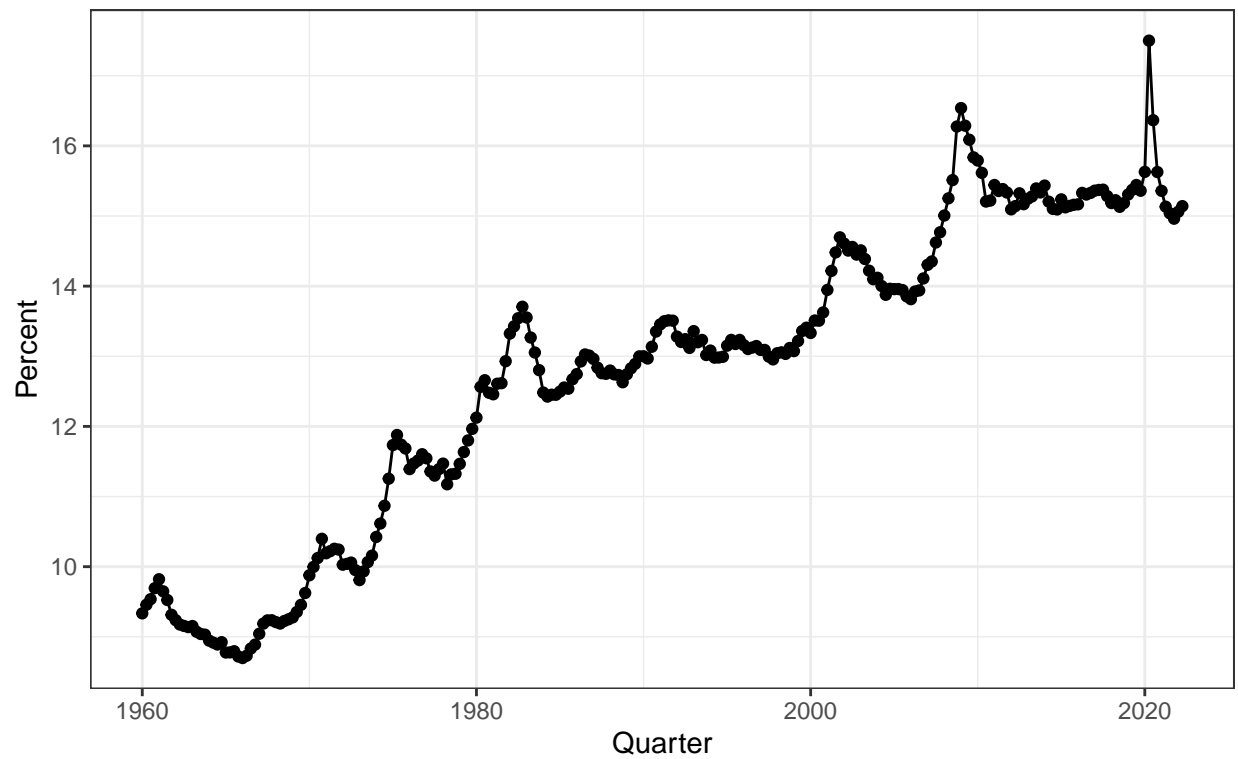
```
##  
## [[12]]
```

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in 19 Net value added



[[13]]

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in
2 Consumption of fixed capital



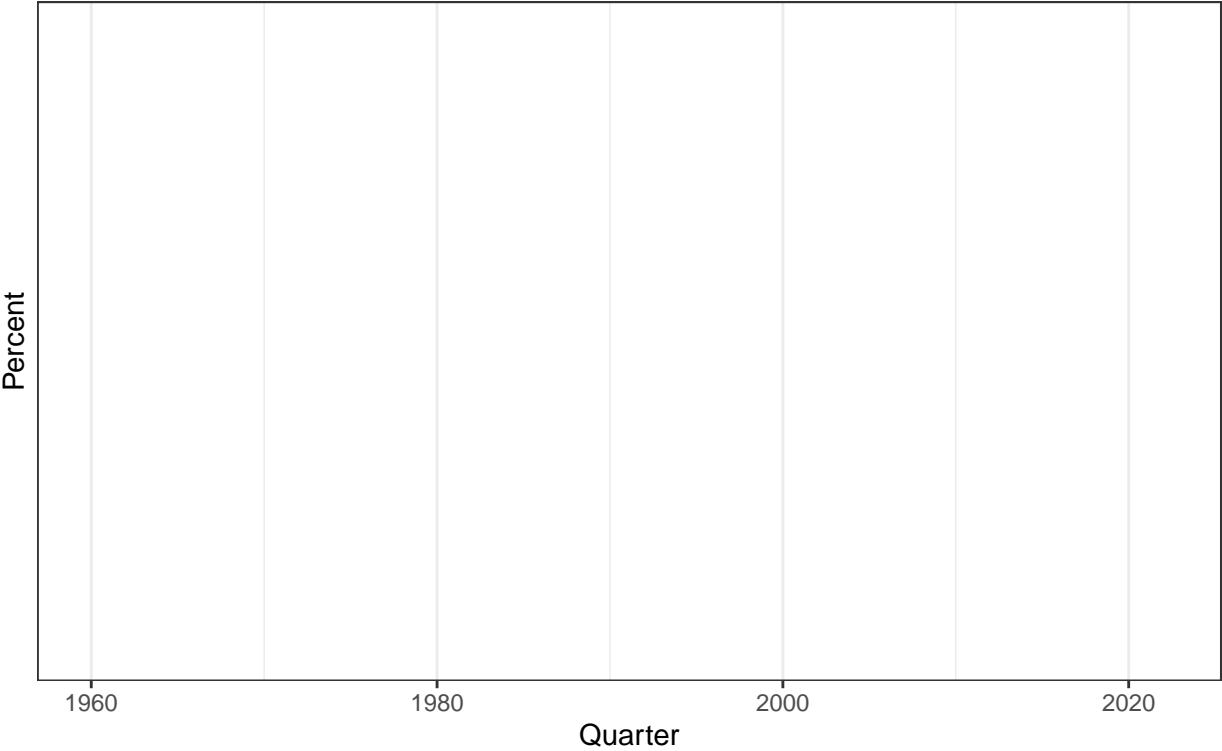
```
##
```

```
## [[14]]
```

```
## Warning: Removed 250 rows containing missing values ('geom_point()').
```

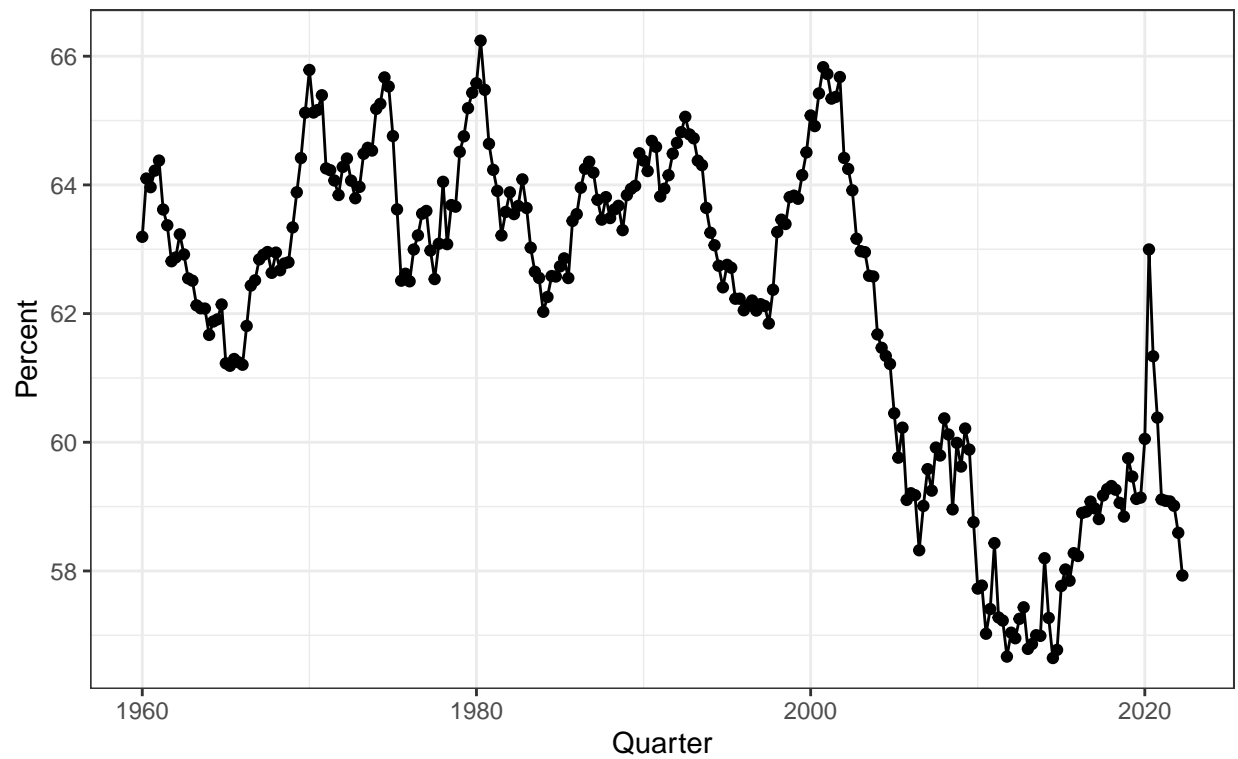
```
## Removed 250 rows containing missing values ('geom_line()').
```

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in
2. The current-dollar gross value added is deflated using the gross value added



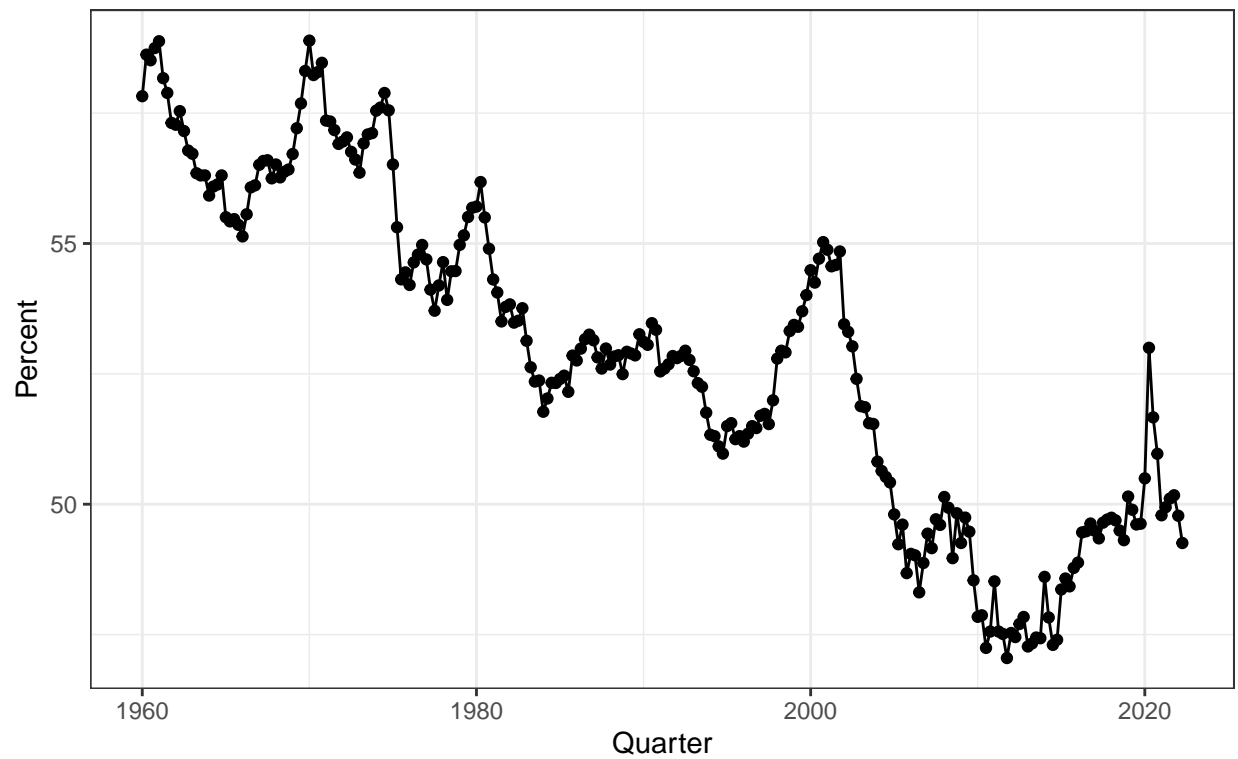
[[15]]

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in 20 Compensation of employees



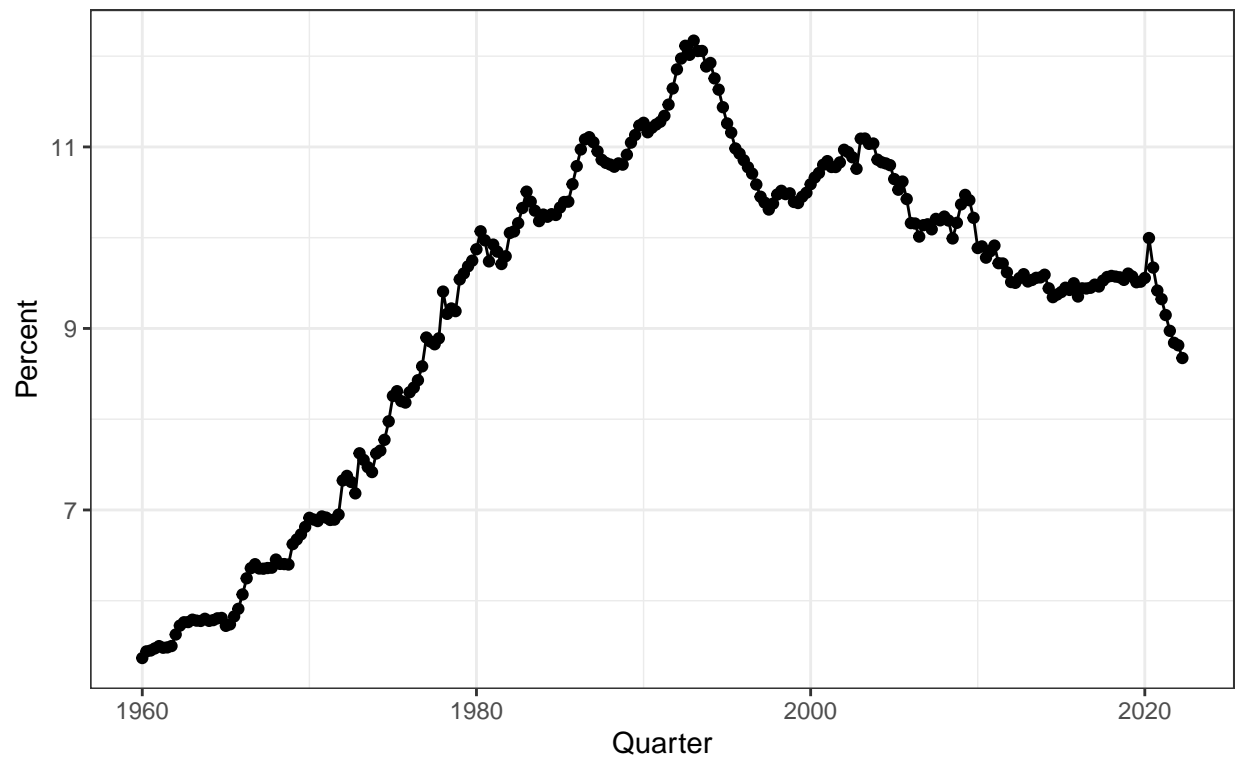
[[16]]

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in
21 Wages and salaries



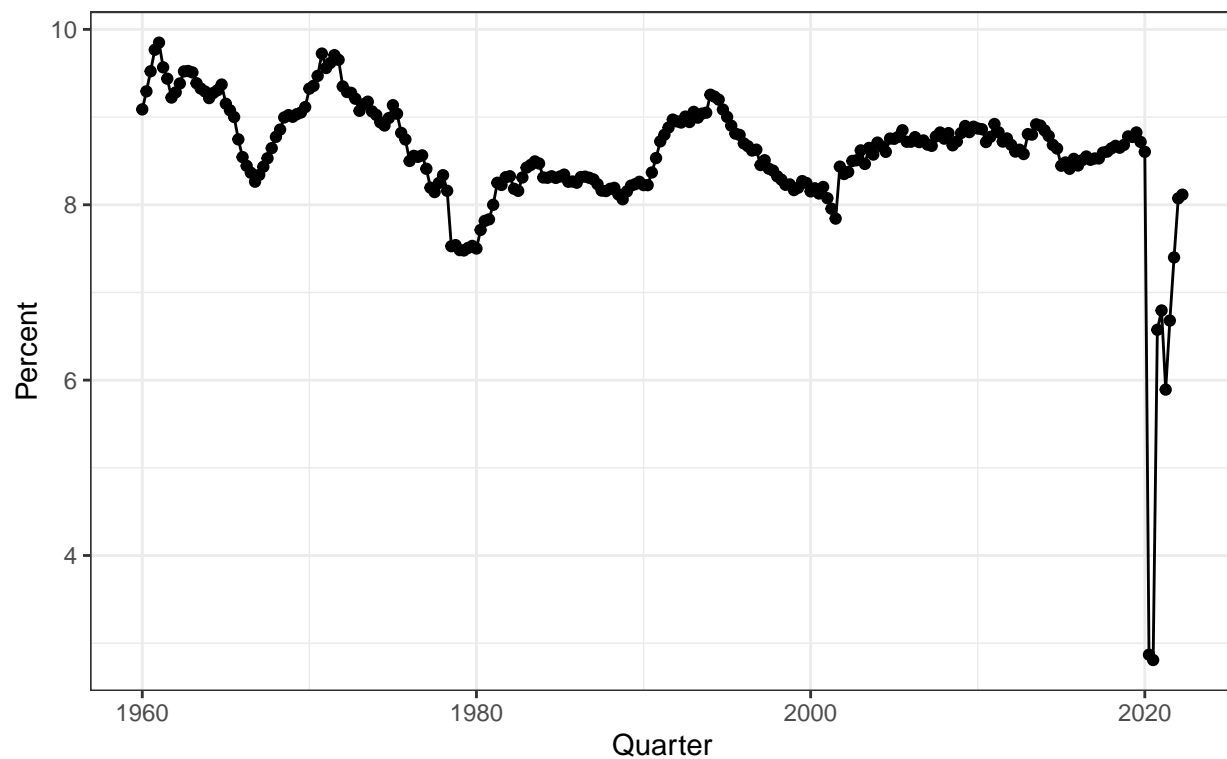
```
##  
## [[17]]
```

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in 22 Supplements to wages and salaries



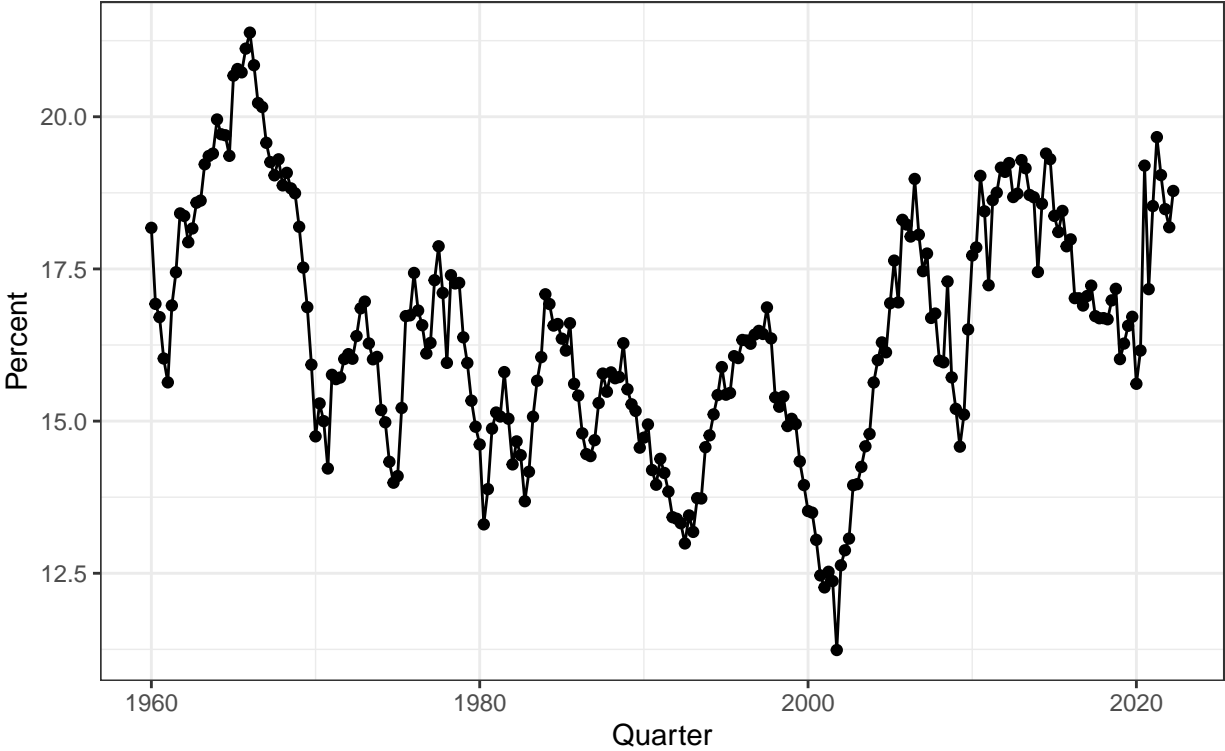
[[18]]

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in 23 Taxes on production and imports less subsidies



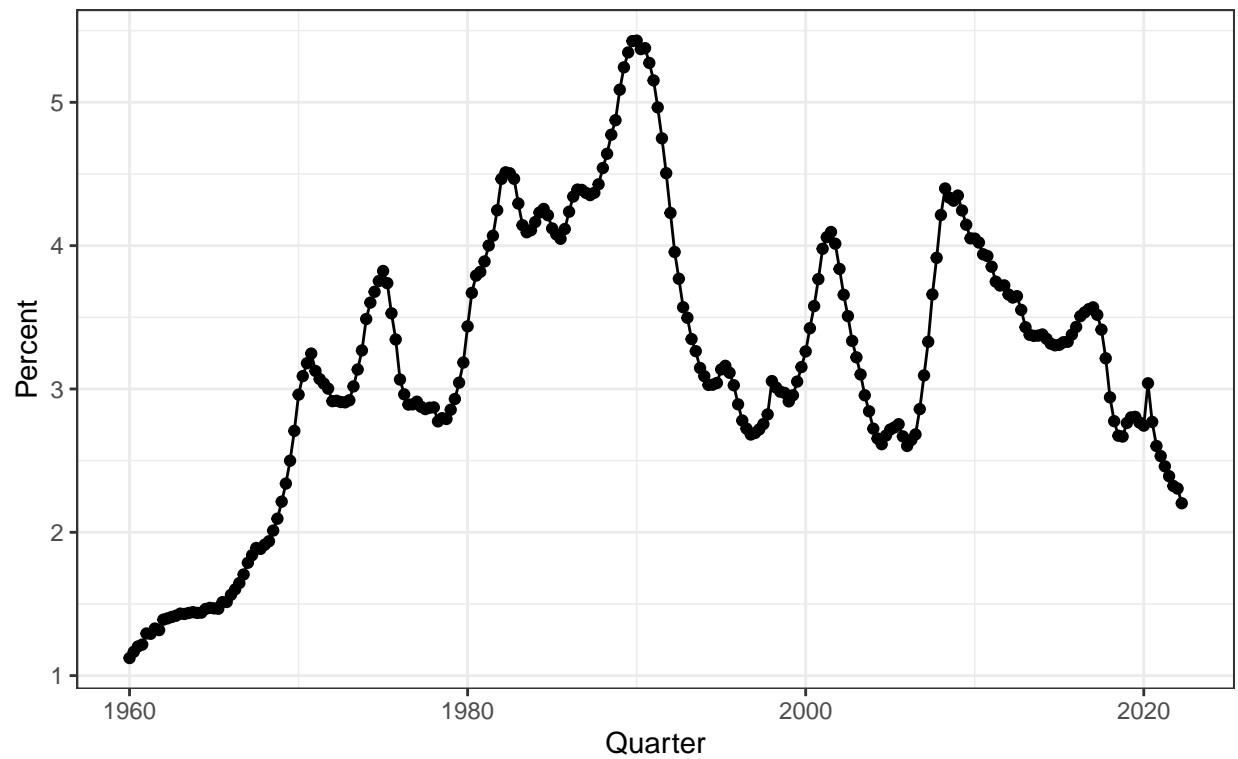
[[19]]

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in 24 Net operating surplus



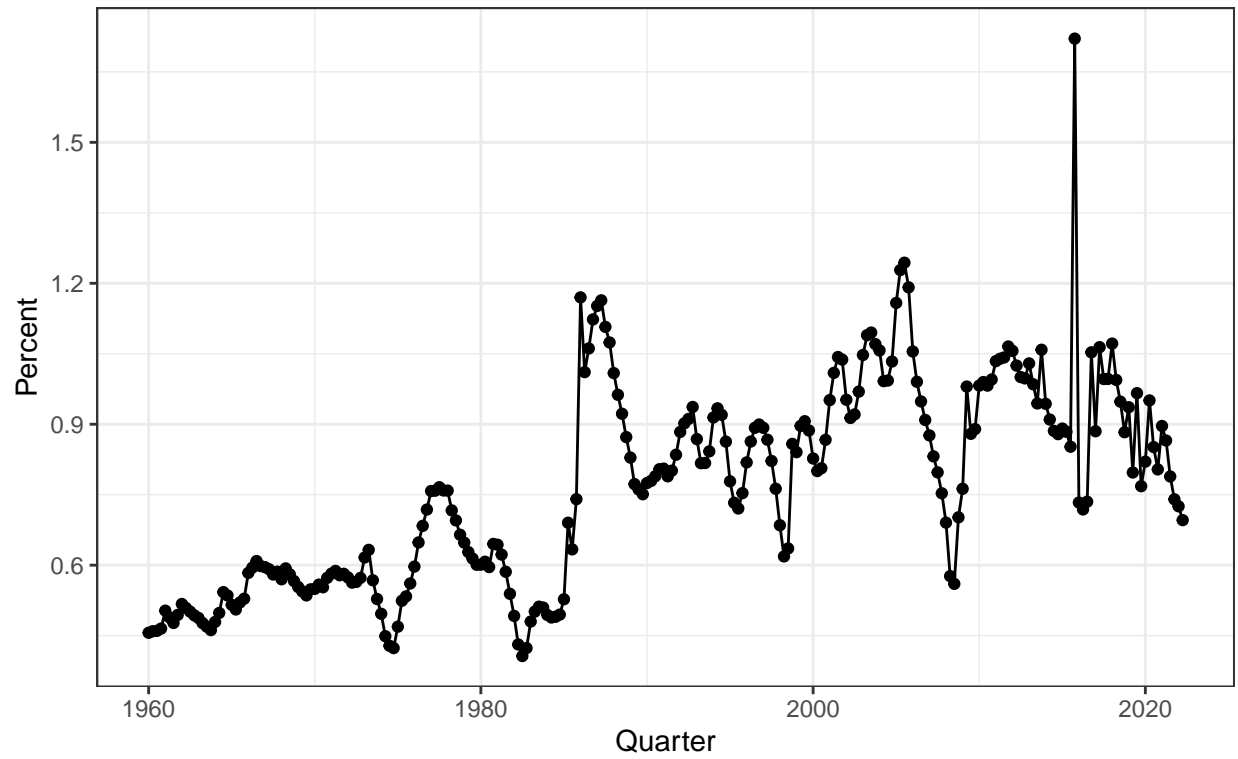
[[20]]

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in
25 Net interest and miscellaneous payments



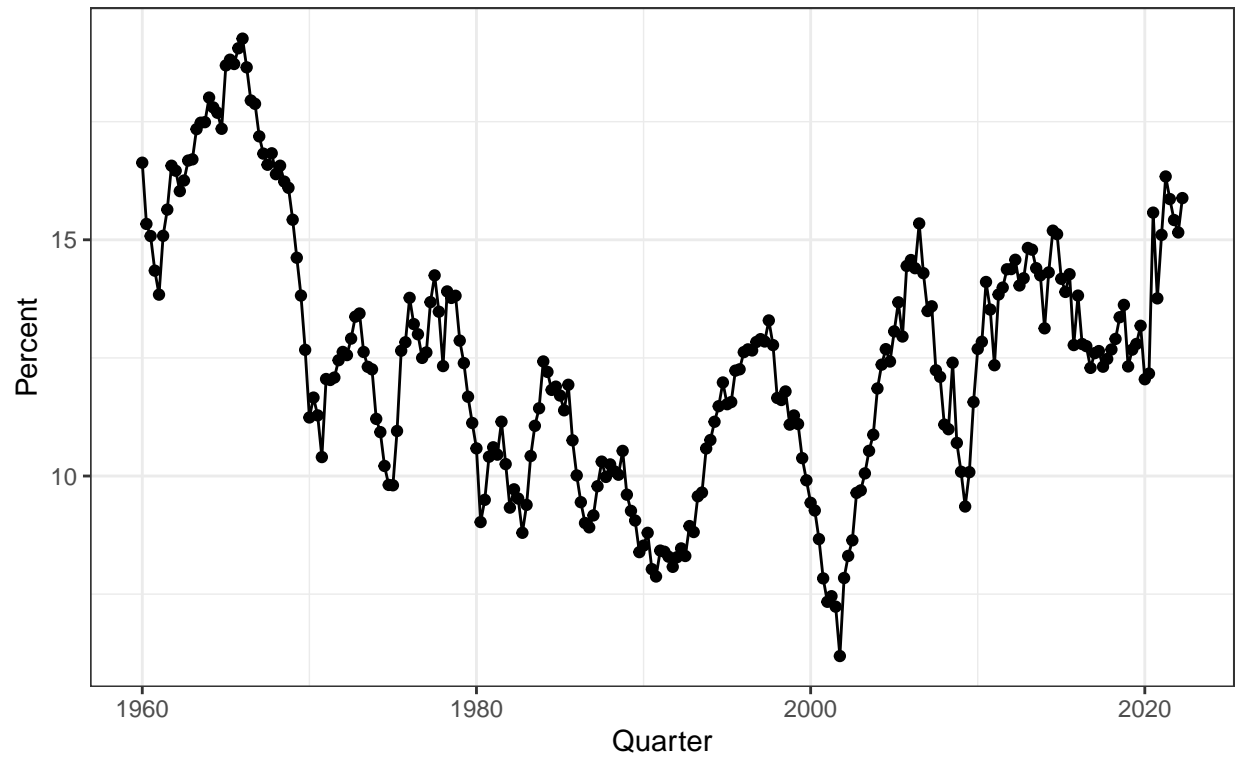
```
##  
## [[21]]
```

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in
26 Business current transfer payments (net)



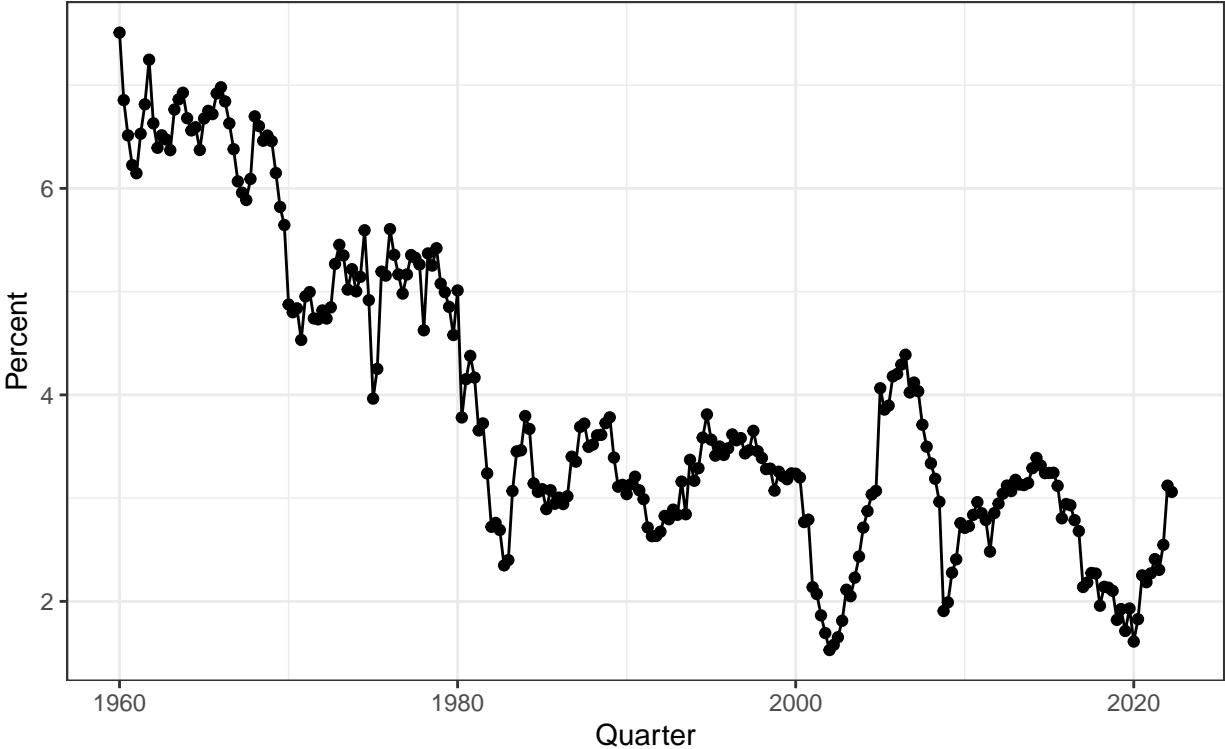
[[22]]

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in 27 Corporate profits with IVA and CCAdj



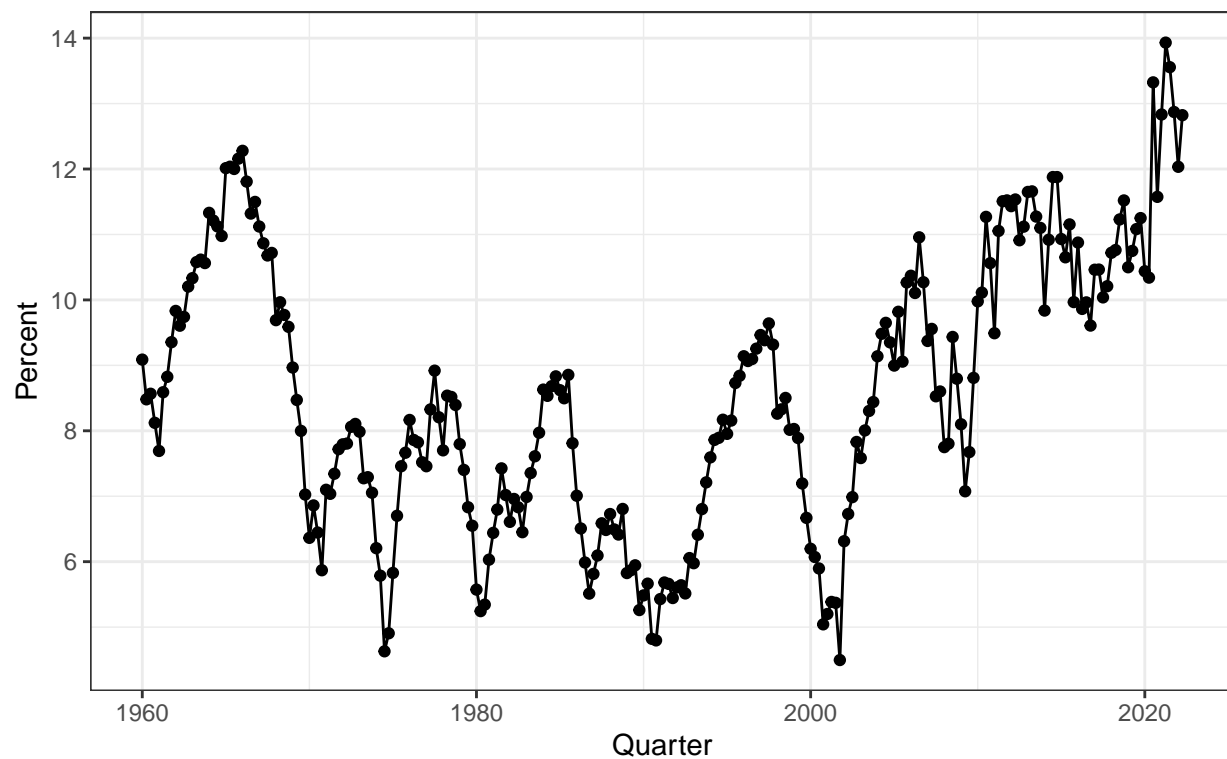
```
##
## [[23]]
```


Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in 28 Taxes on corporate income



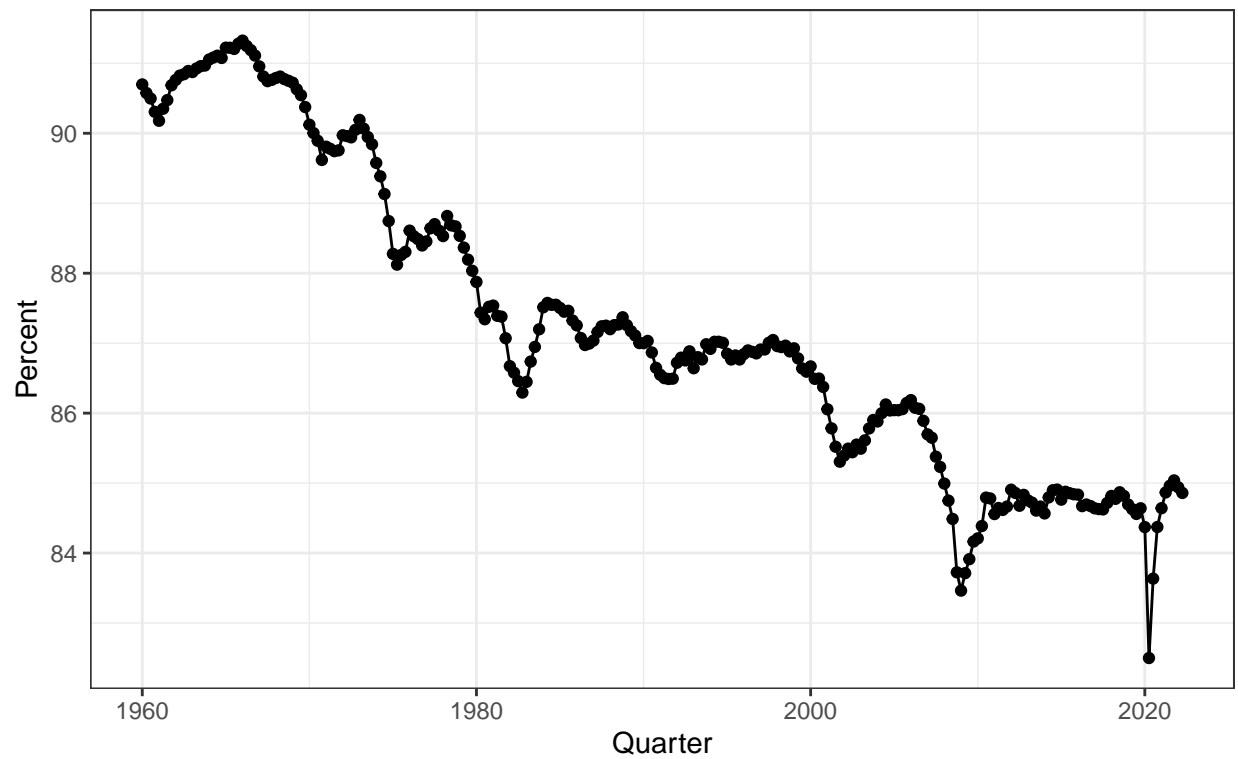
[[24]]

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in 29 Profits after tax with IVA and CCAdj



[[25]]

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in 3 Net value added



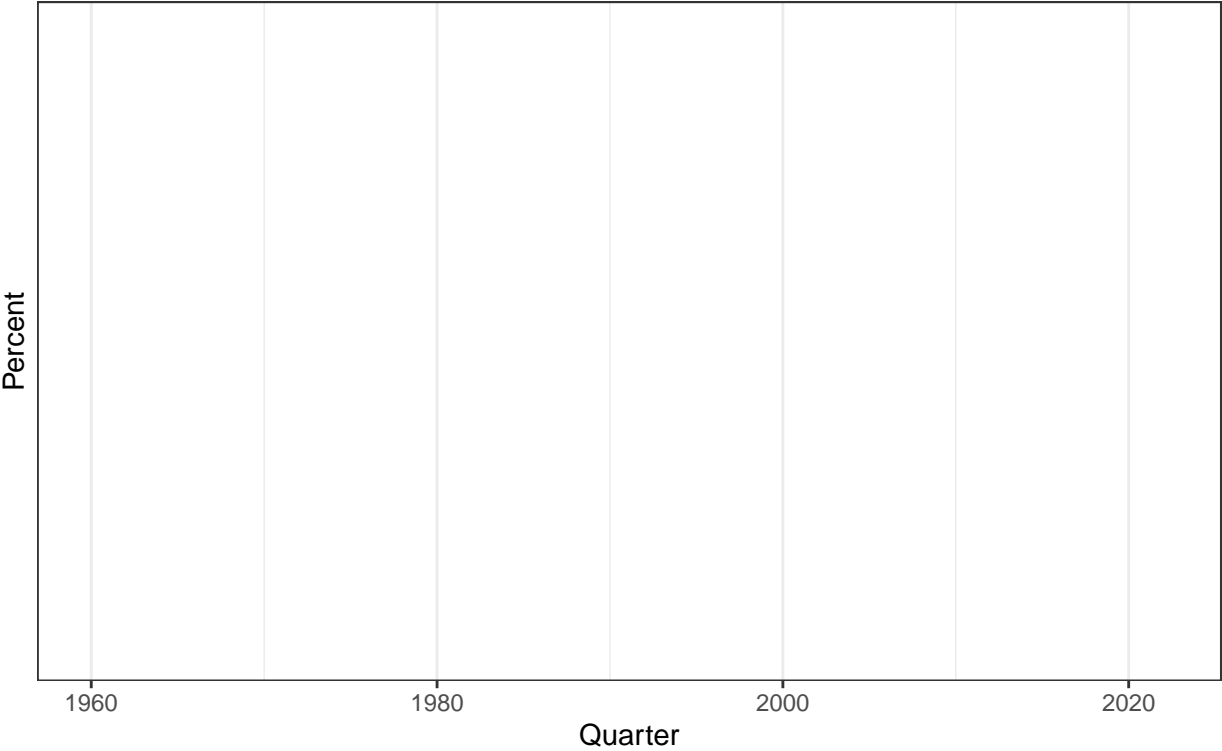
```
##
```

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

```
## Warning: Removed 250 rows containing missing values ('geom_point()').
```

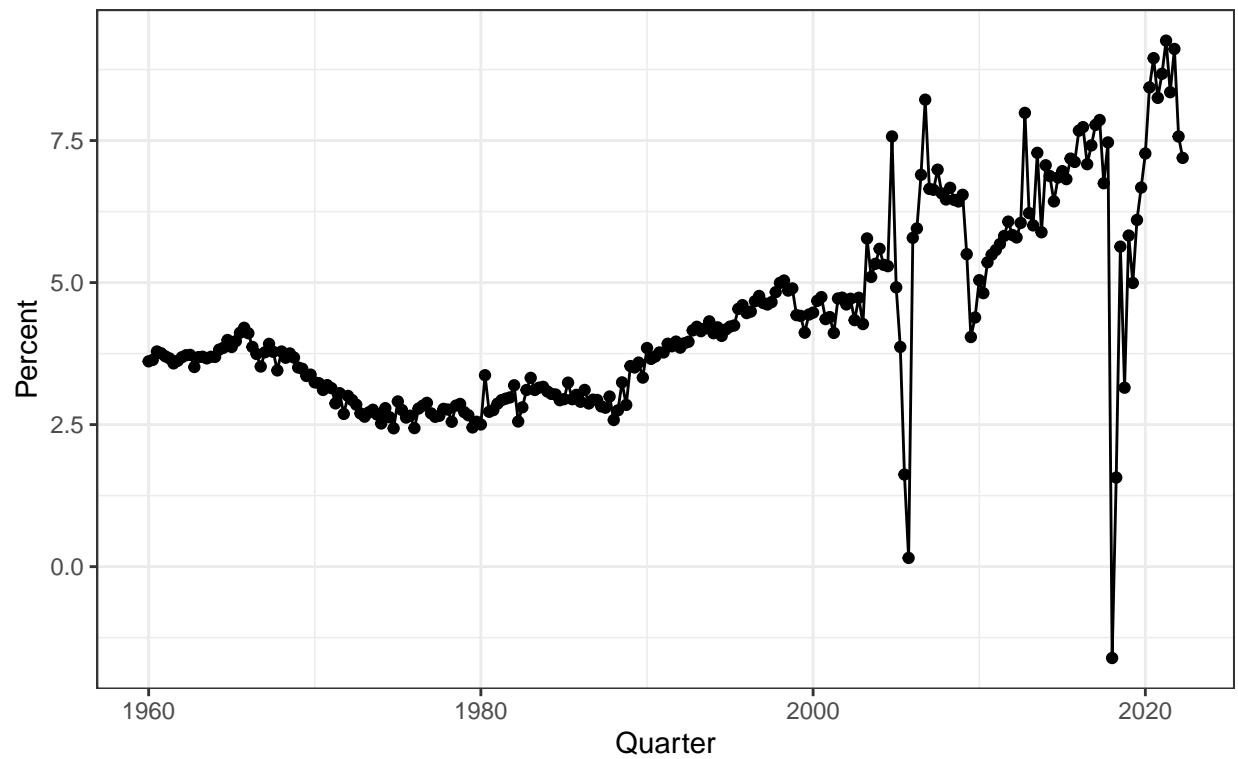
```
## Removed 250 rows containing missing values ('geom_line()').
```

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in
3. Chained-dollar consumption of fixed capital of nonfinancial corporate busine



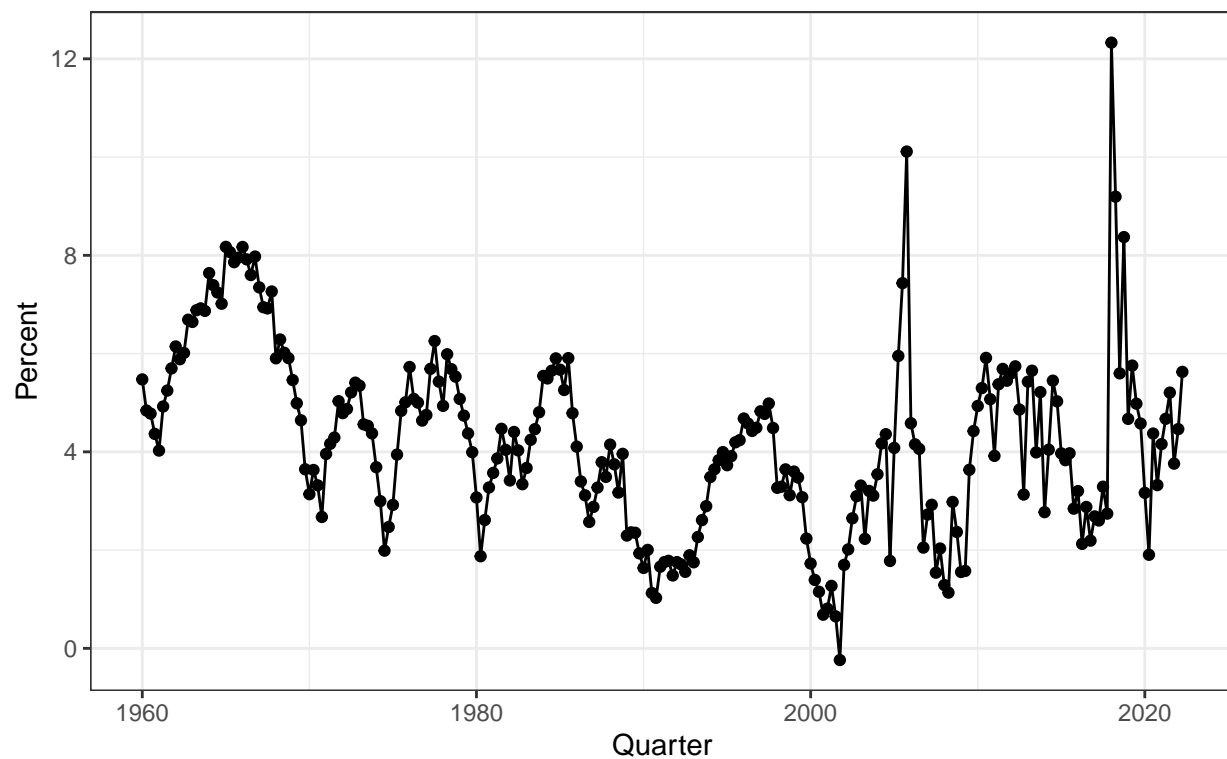
[[27]]

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in 30 Net dividends



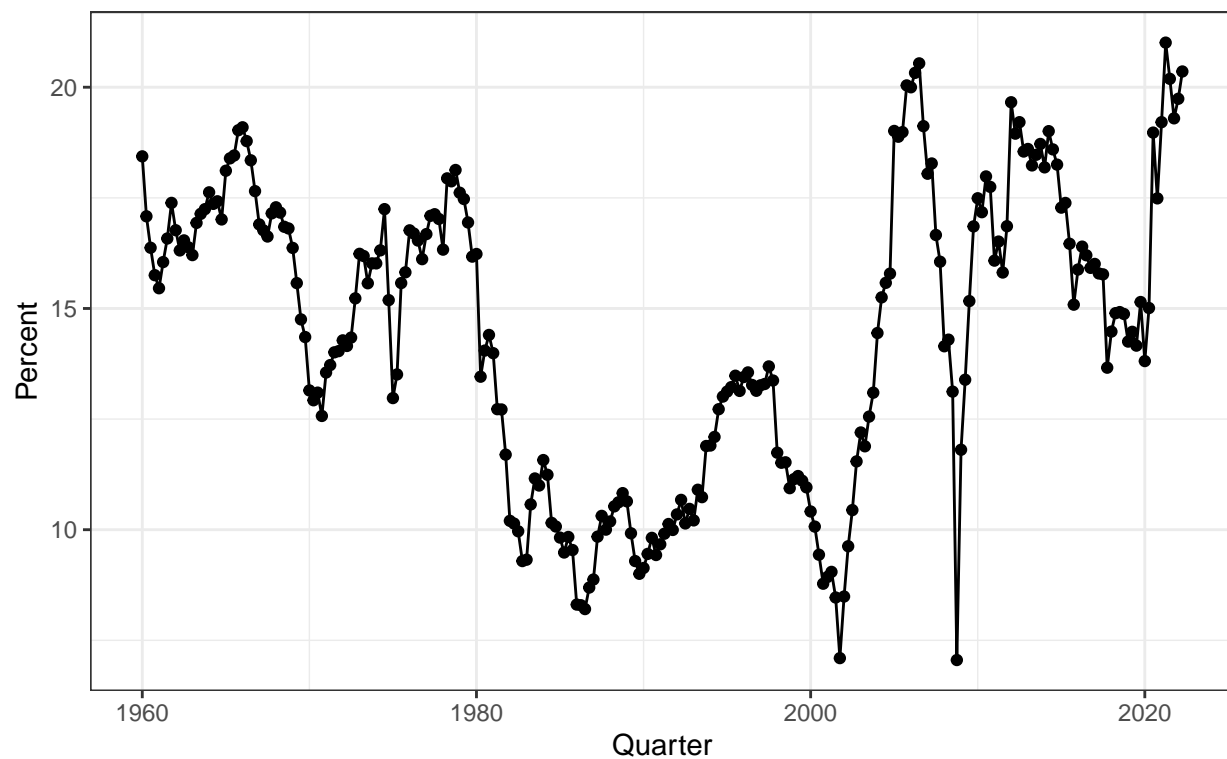
```
##  
## [[28]]
```

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in 31 Undistributed profits with IVA and CCAdj



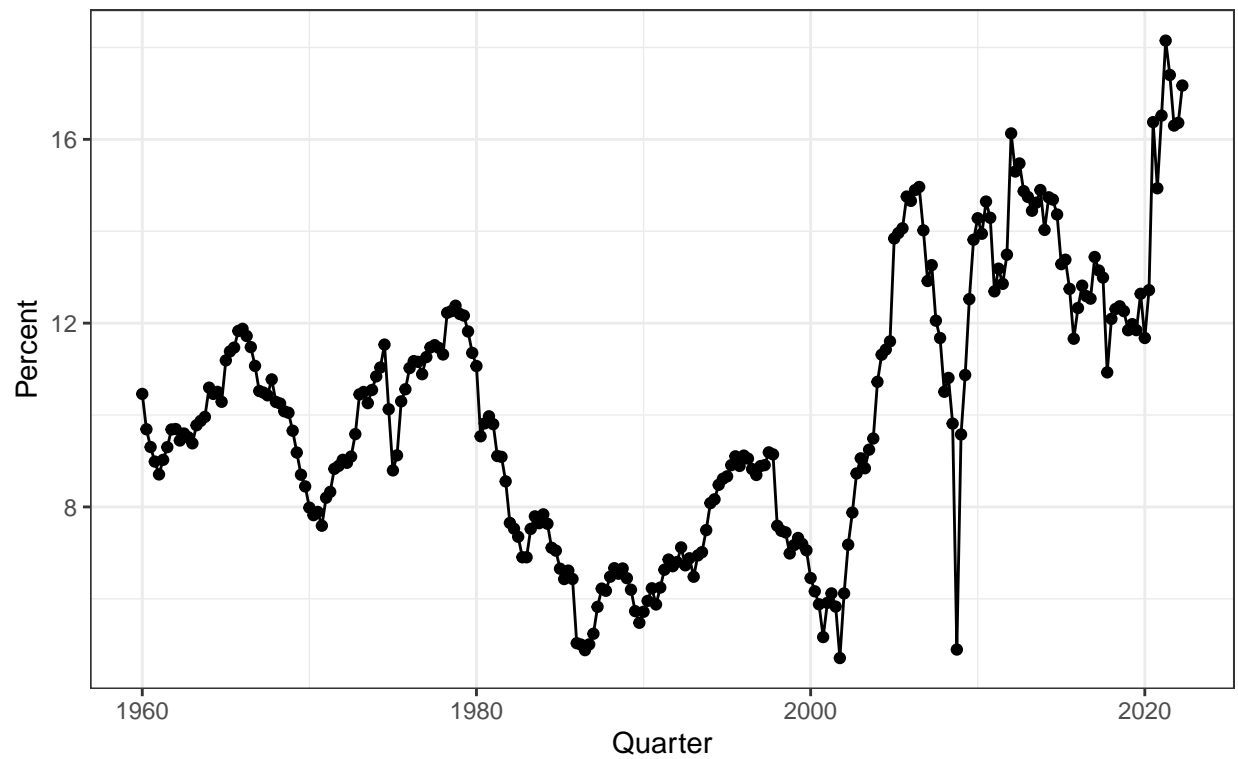
[[29]]

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in 32 Profits before tax (without IVA and CCAdj)



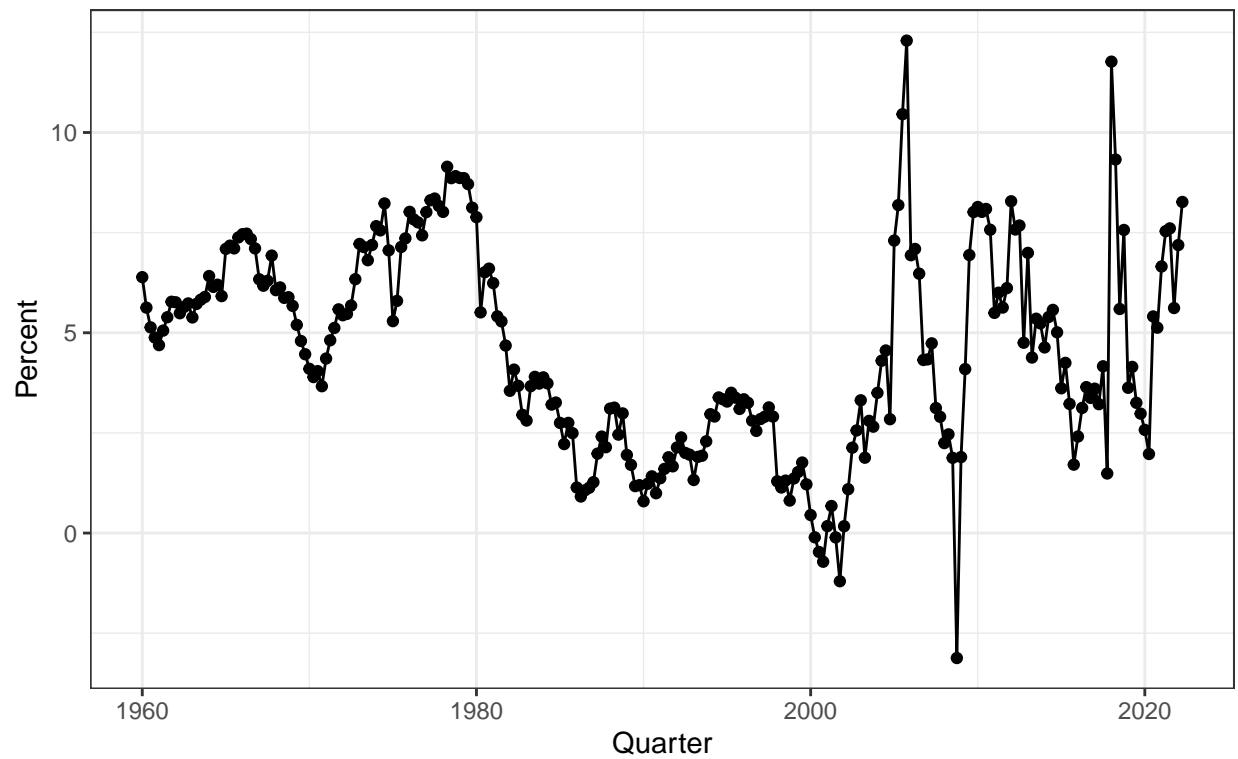
```
##
## [[30]]
```

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in 33 Profits after tax (without IVA and CCAdj)



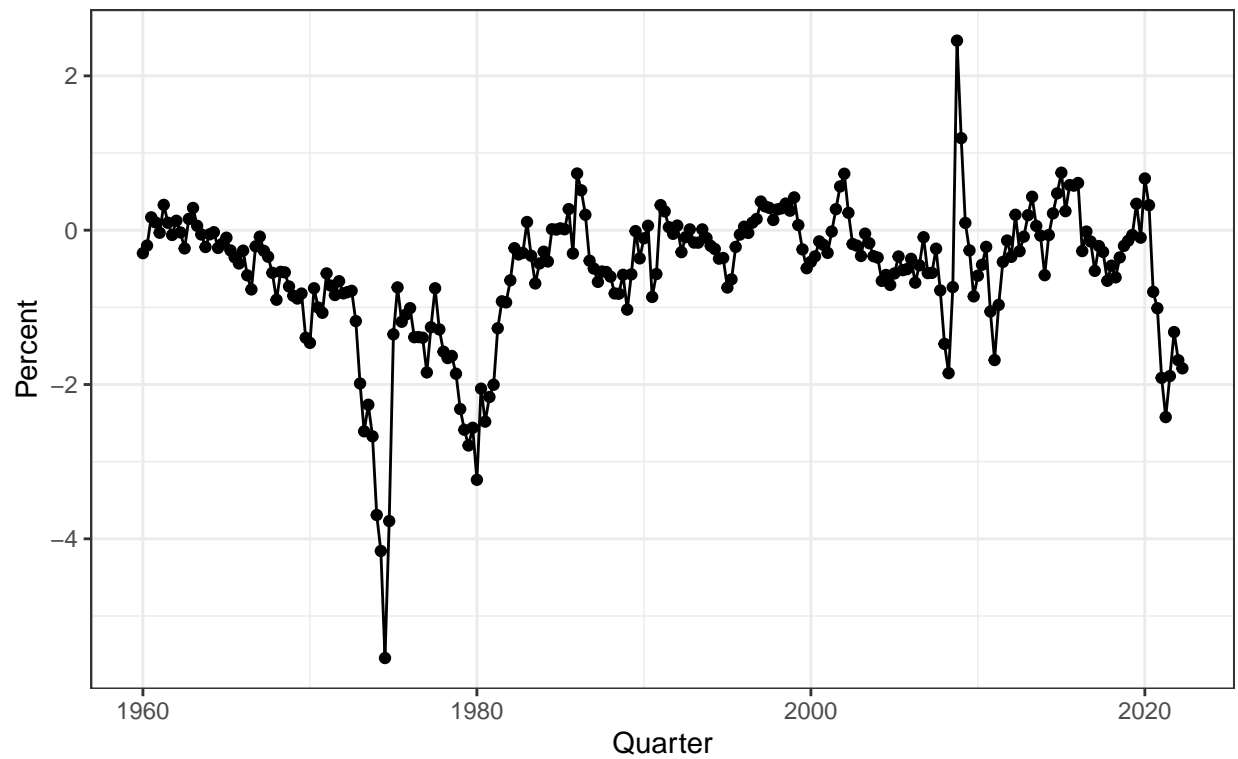
```
##  
## [[31]]
```


Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in 34 Undistributed profits after tax (without IVA and CCAdj)



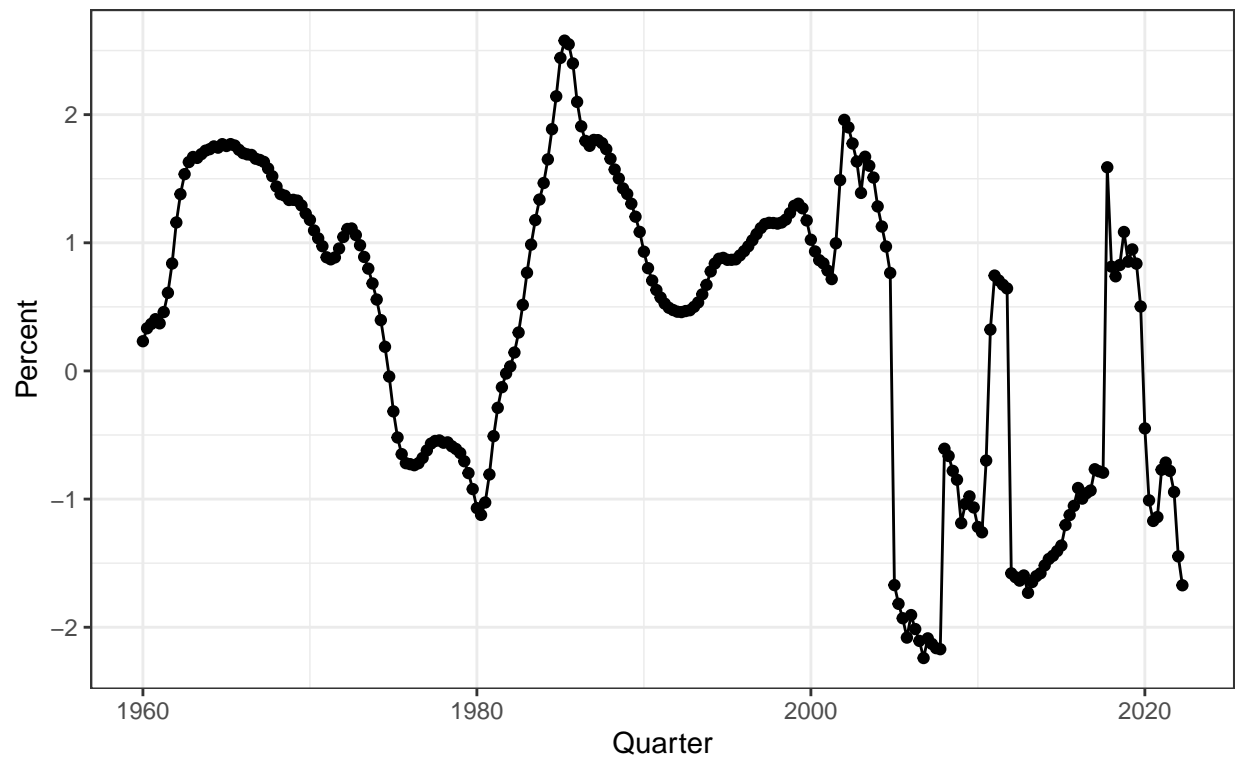
```
##
## [[32]]
```

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in 35 Inventory valuation adjustment



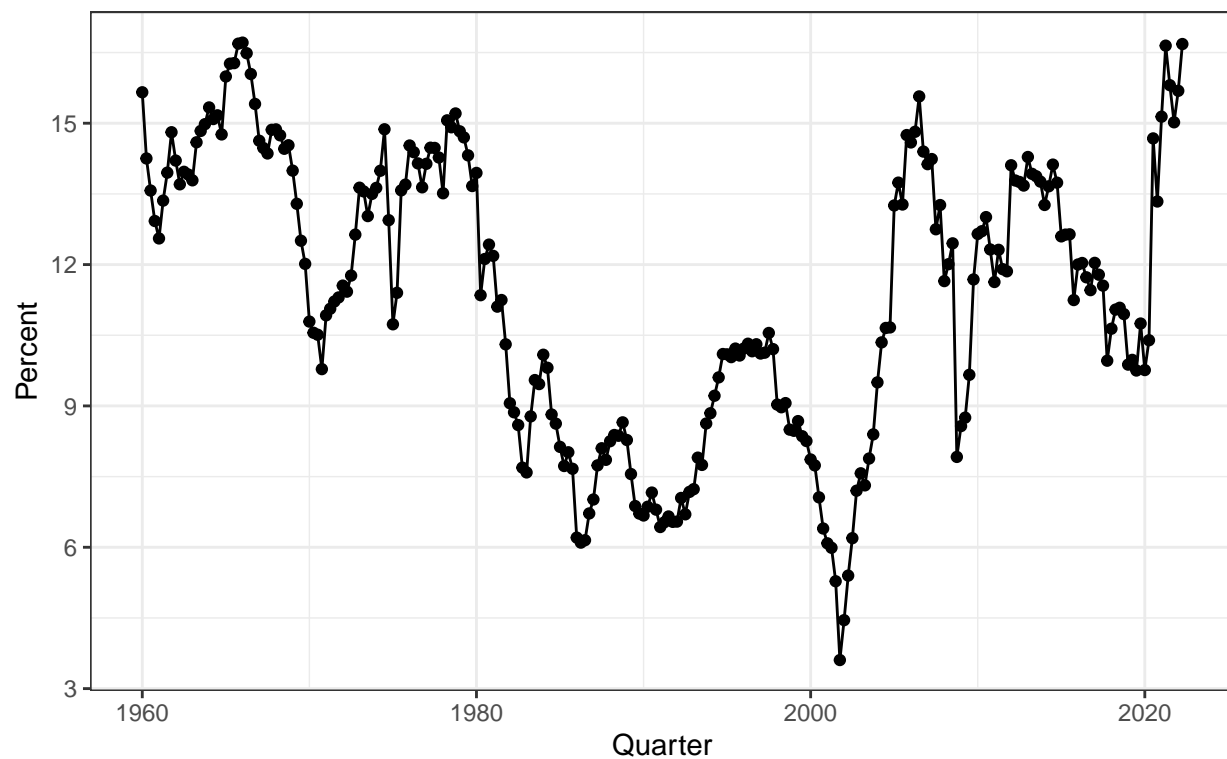
[[33]]

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in
36 Capital consumption adjustment



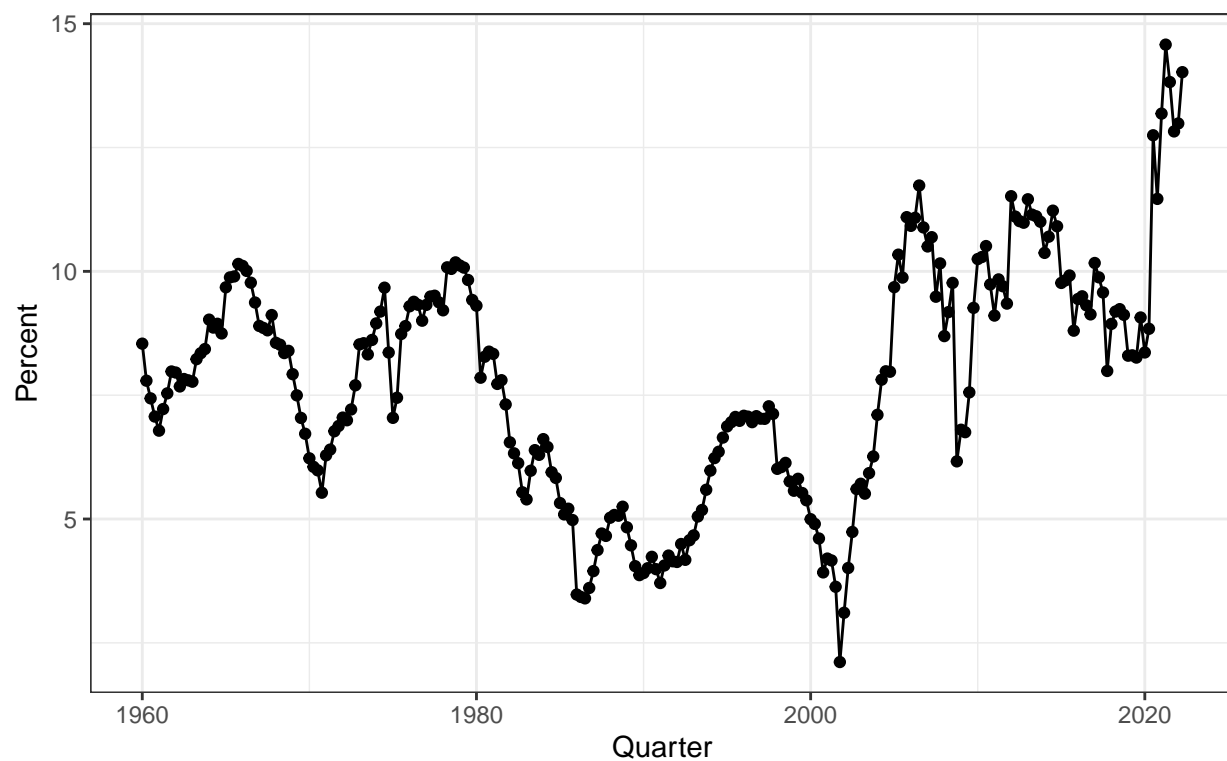
```
##
## [[34]]
```

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in 37 Profits before tax (without IVA and CCAdj)



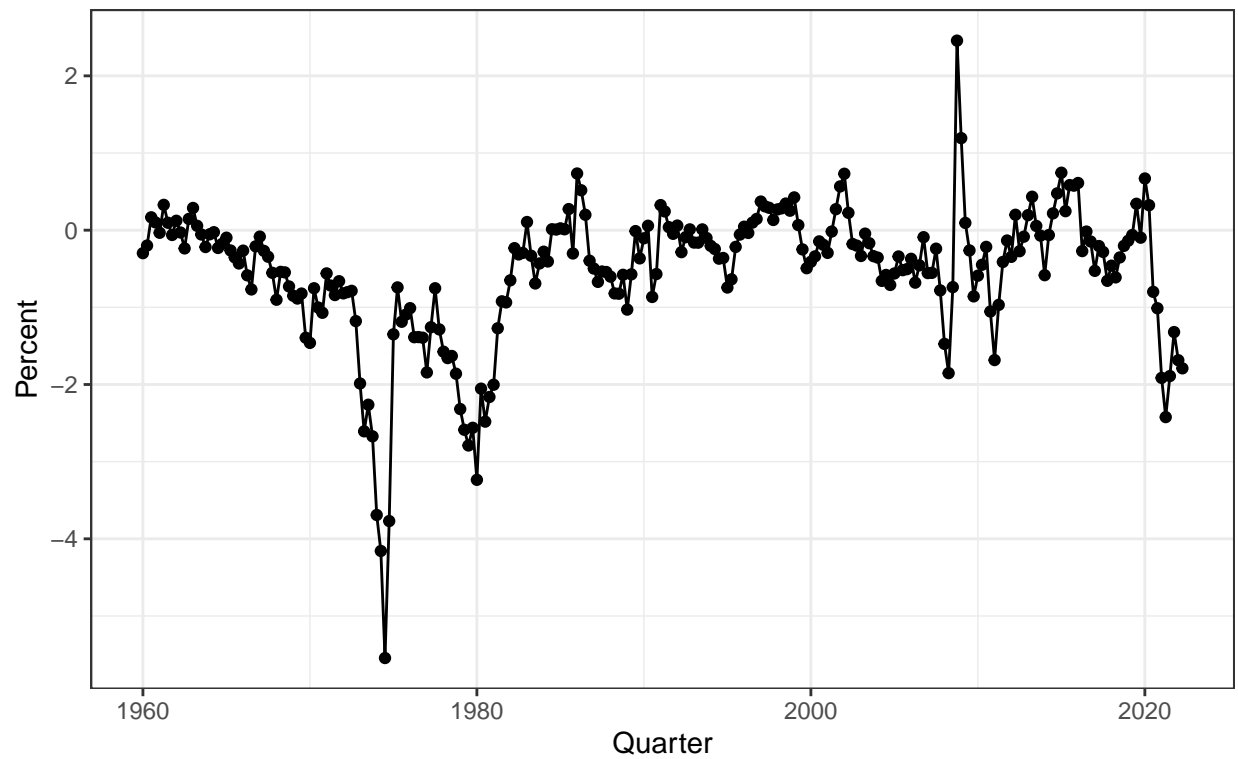
```
##  
## [[35]]
```

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in 38 Profits after tax (without IVA and CCAdj)



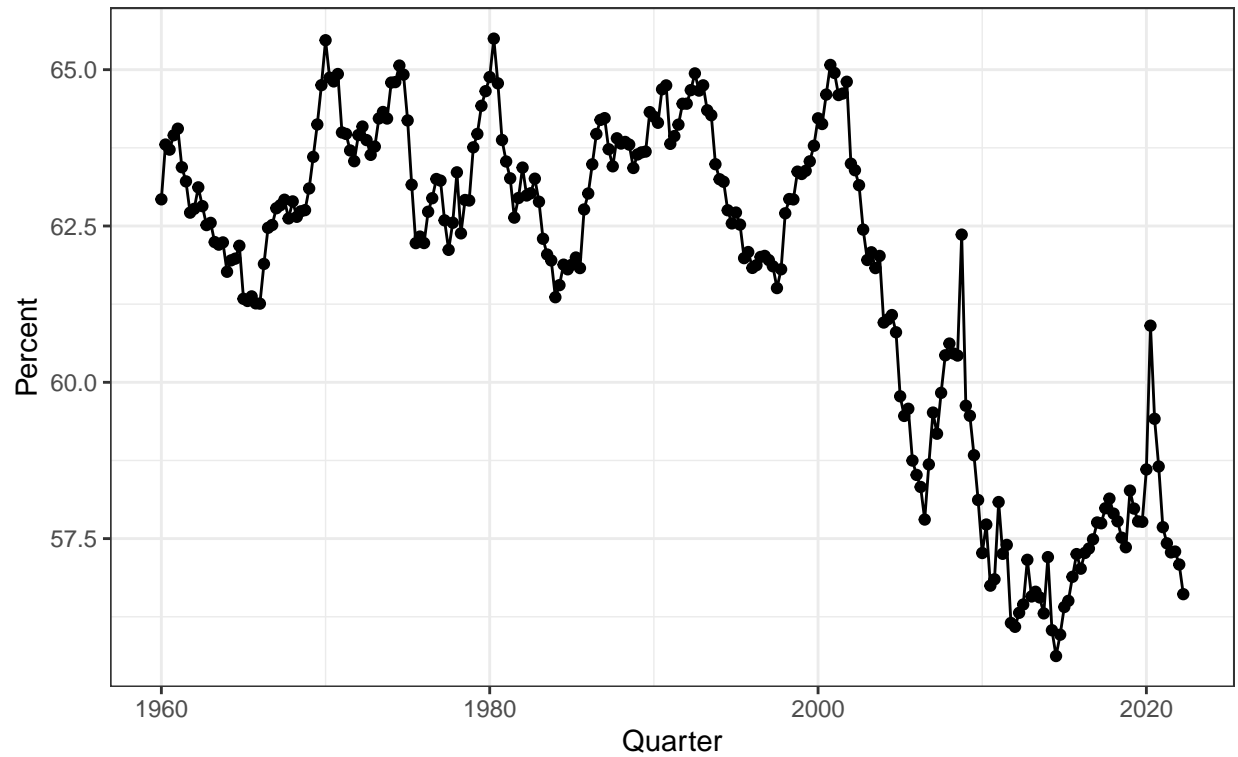
[[36]]

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in
39 Inventory valuation adjustment



```
##  
## [[37]]
```

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in
4 Compensation of employees



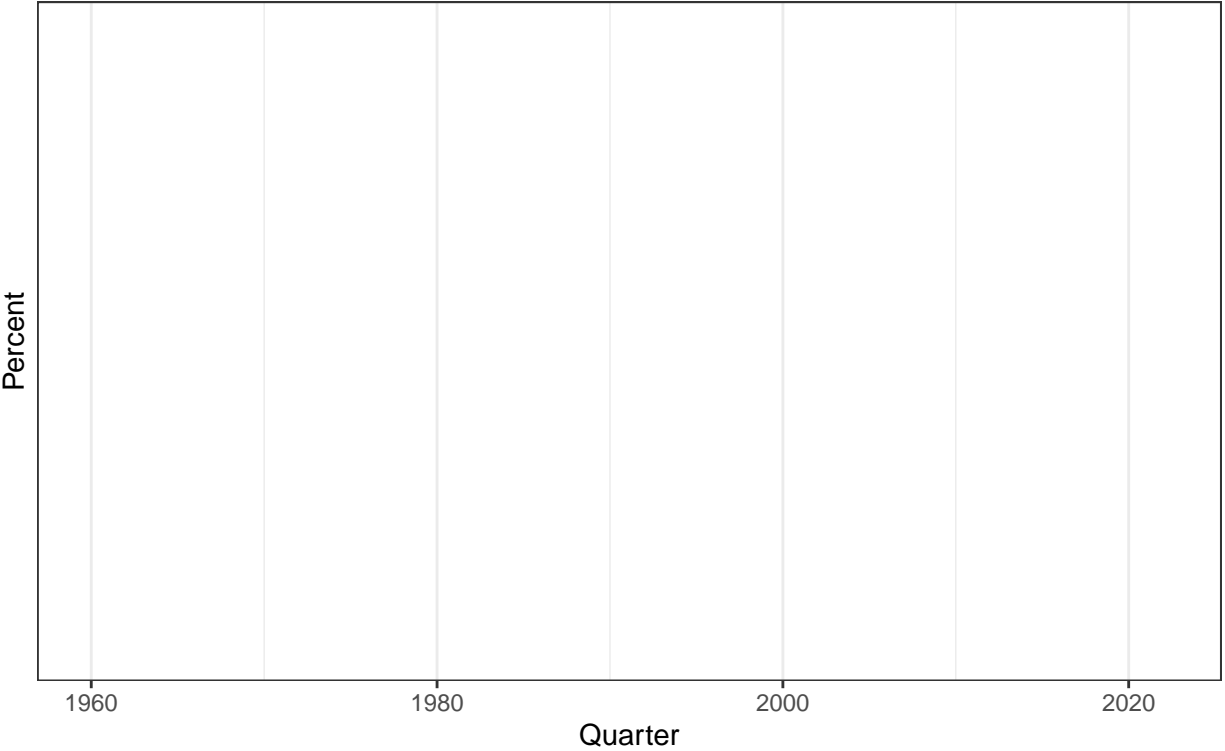
```
##
```

```
## [[38]]
```

```
## Warning: Removed 250 rows containing missing values ('geom_point()').
```

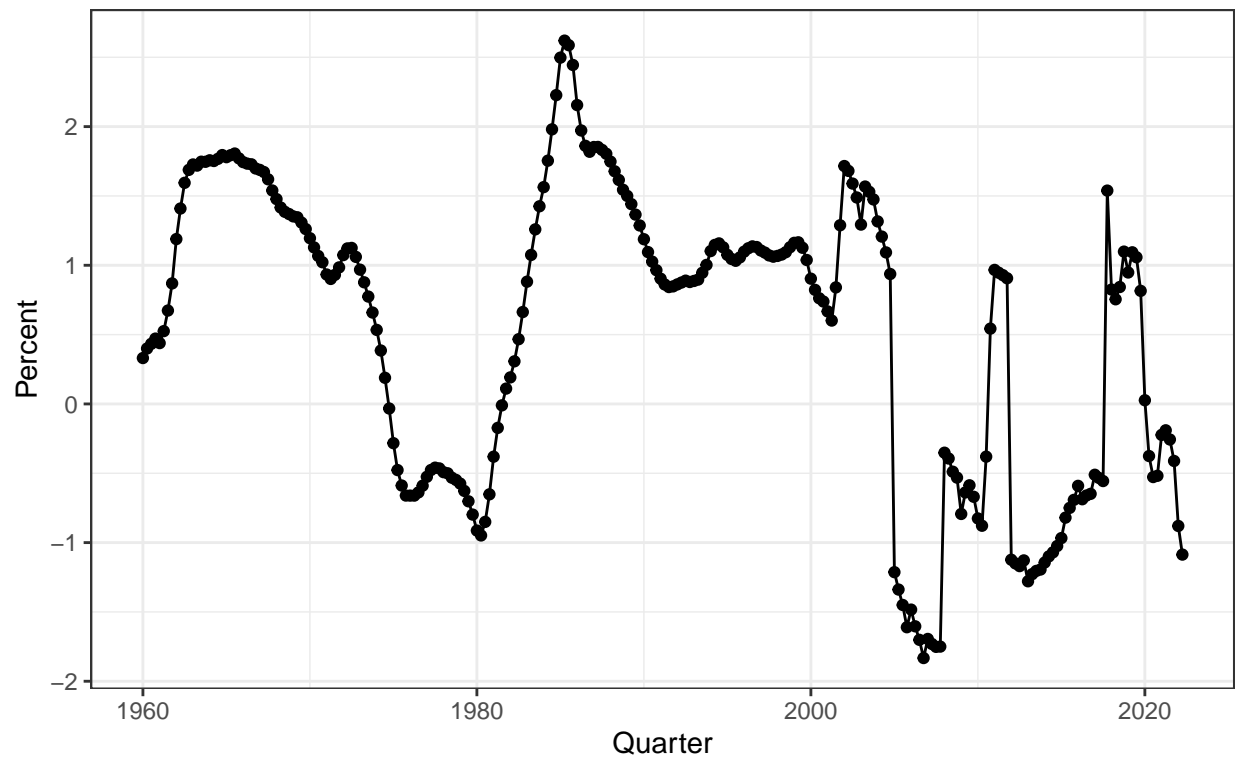
```
## Removed 250 rows containing missing values ('geom_line()').
```

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in
4. Chained-dollar net value added of nonfinancial corporate business is the dif



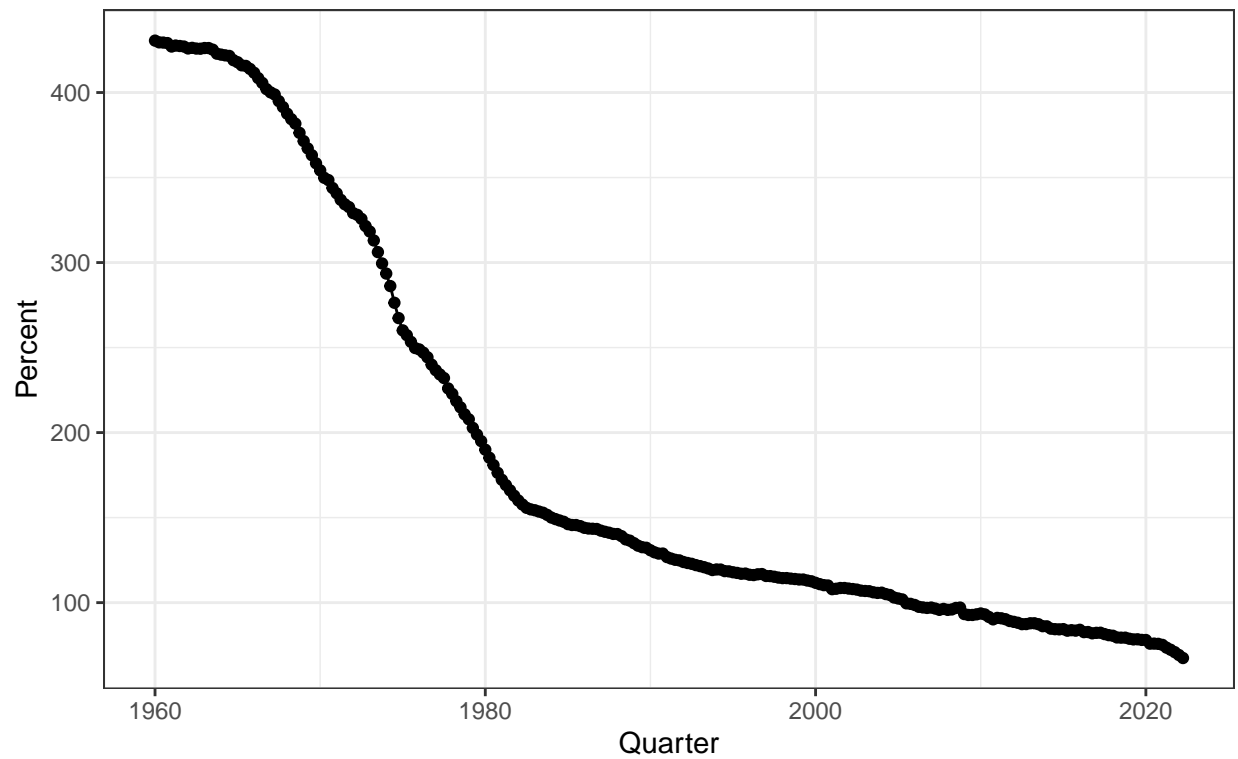
[[39]]

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in
40 Capital consumption adjustment



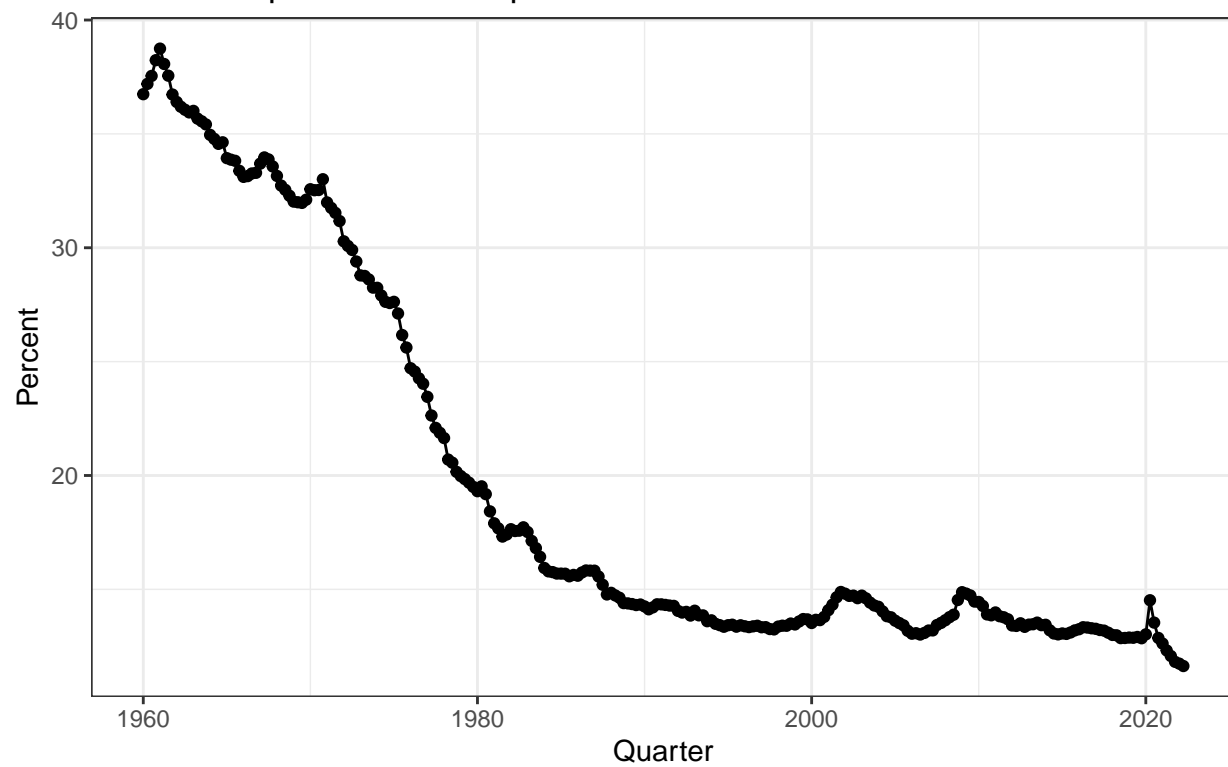
[[40]]

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in
41 Gross value added of nonfinancial corporate business2



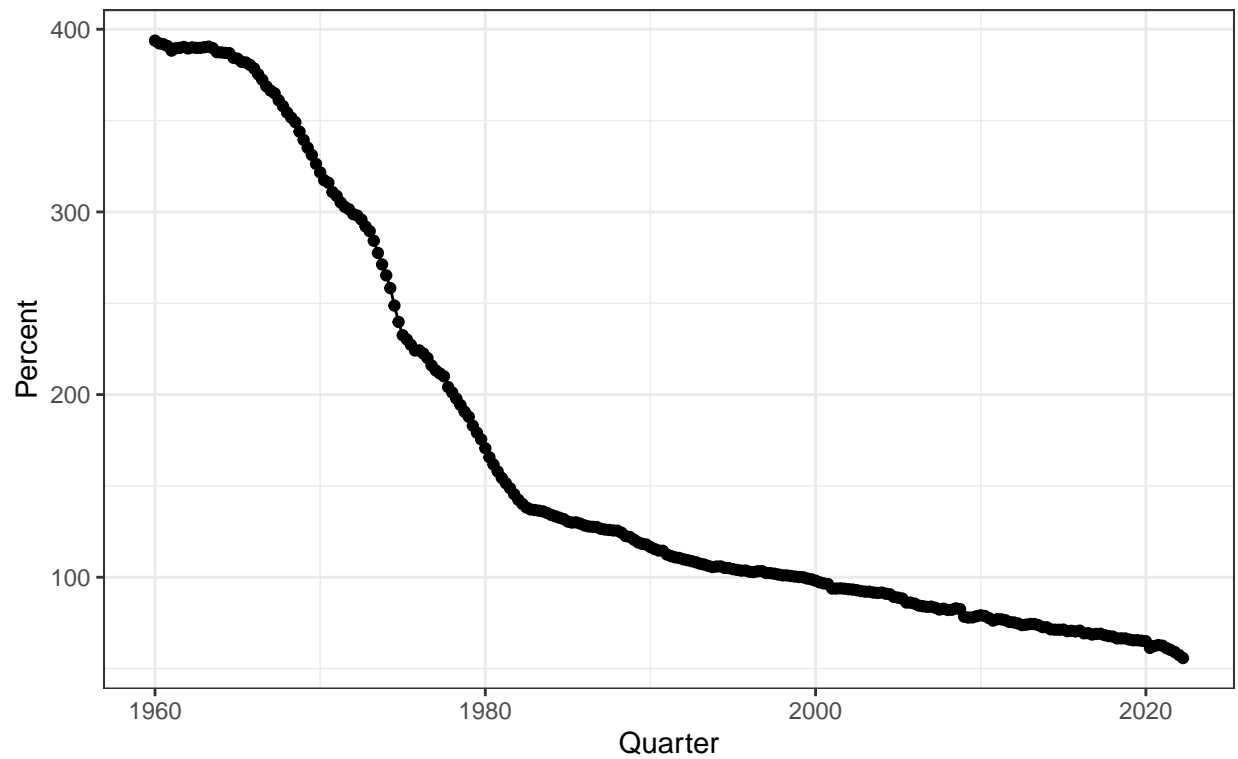
```
##  
## [[41]]
```

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in
42 Consumption of fixed capital3



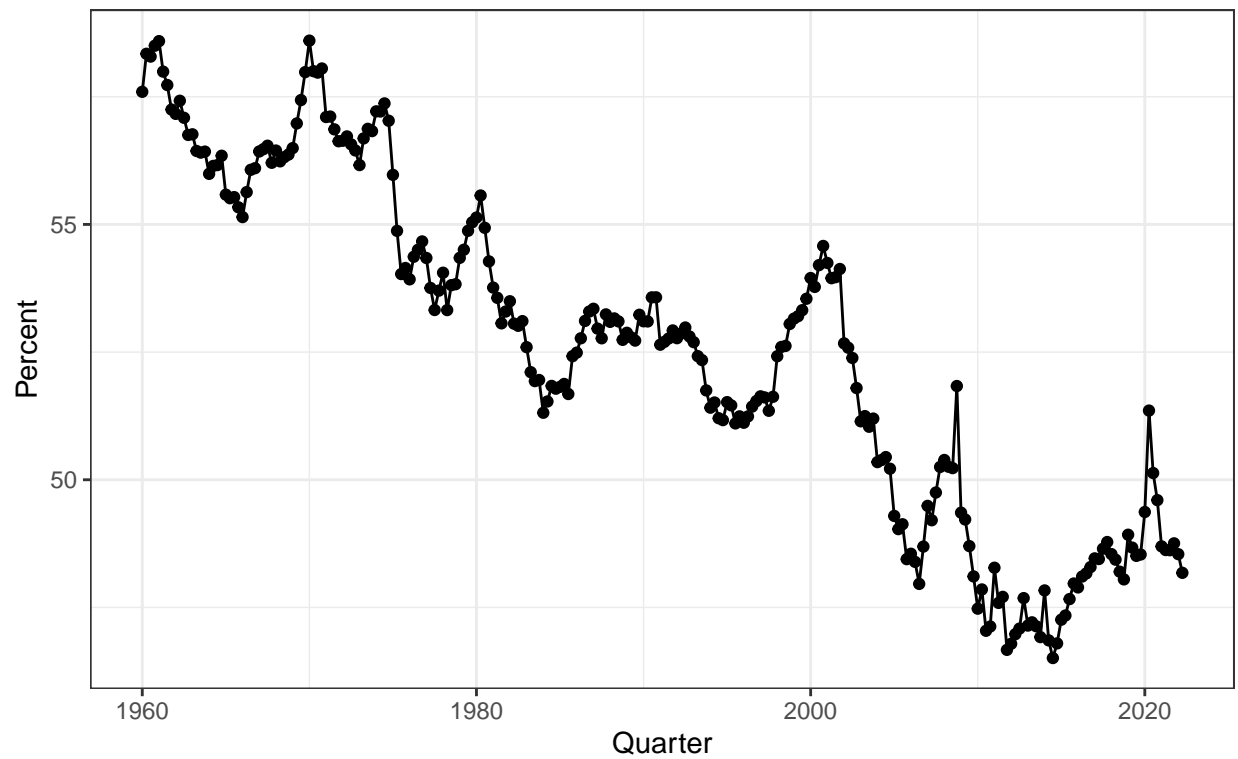
[[42]]

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in 43 Net value added4



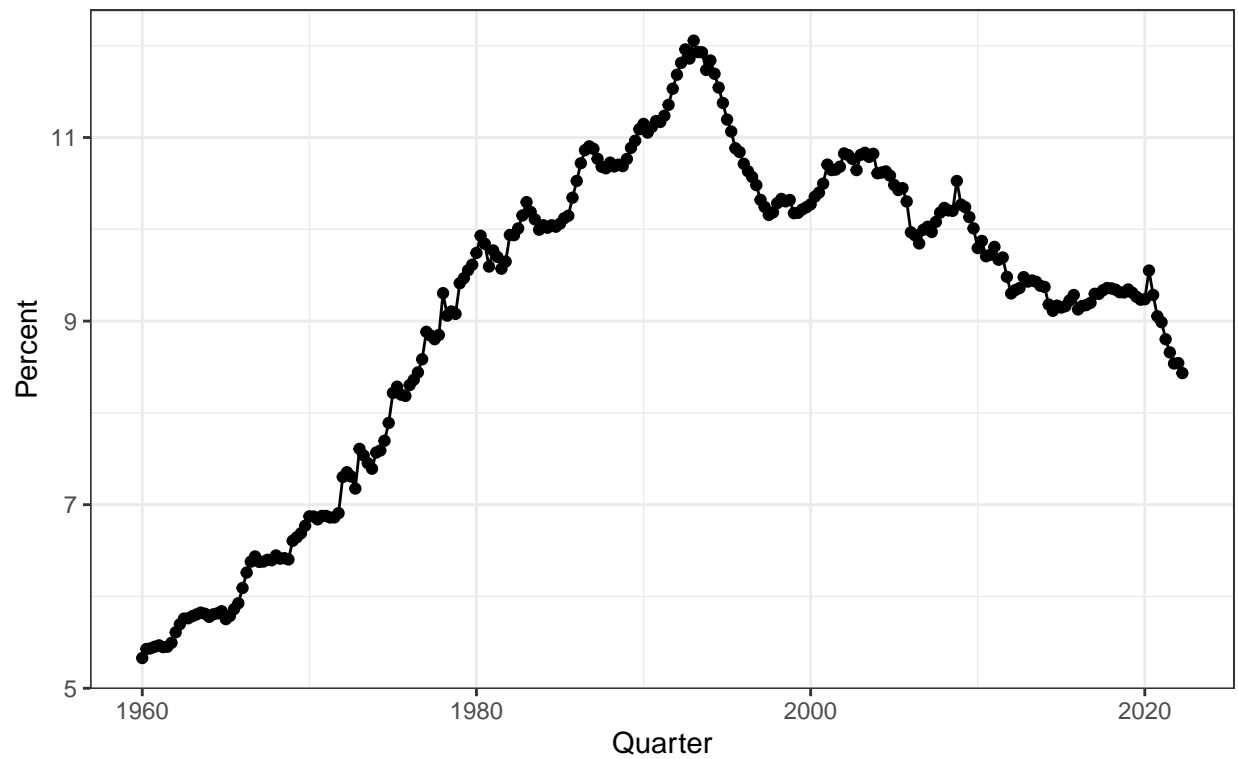
[[43]]

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in 5 Wages and salaries



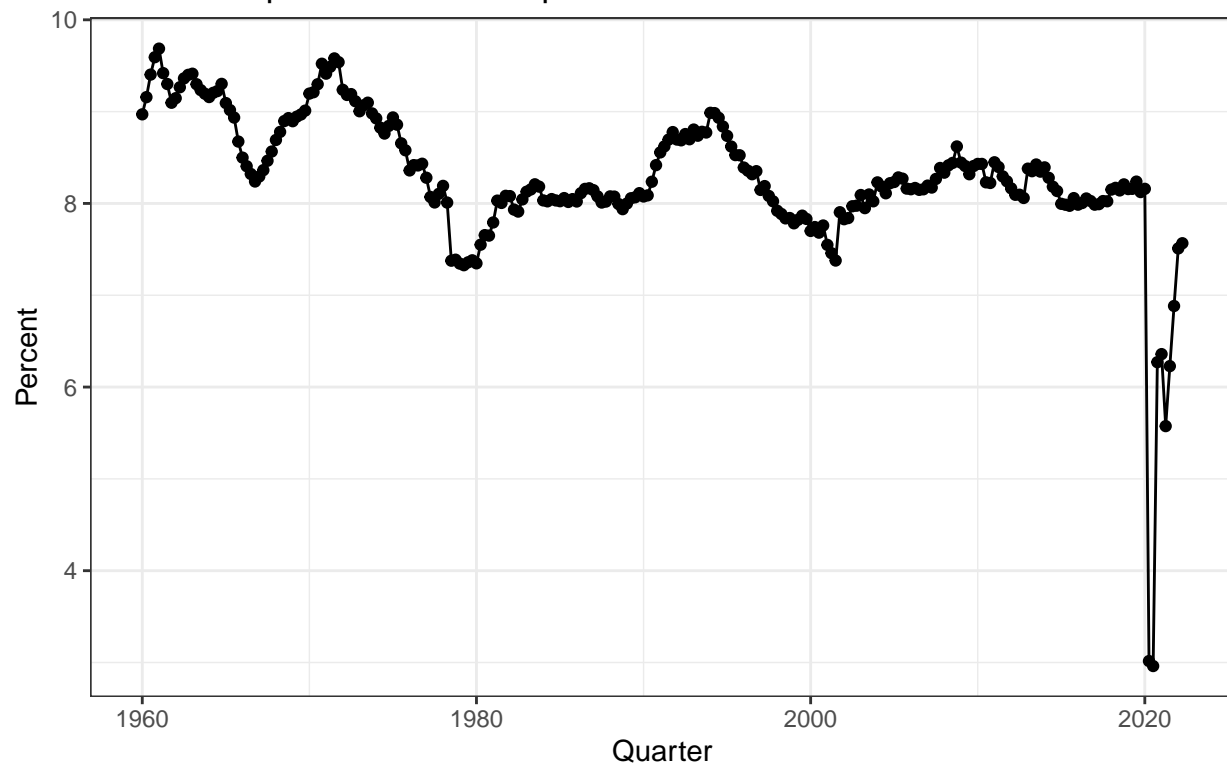
```
##  
## [[44]]
```

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in 6 Supplements to wages and salaries



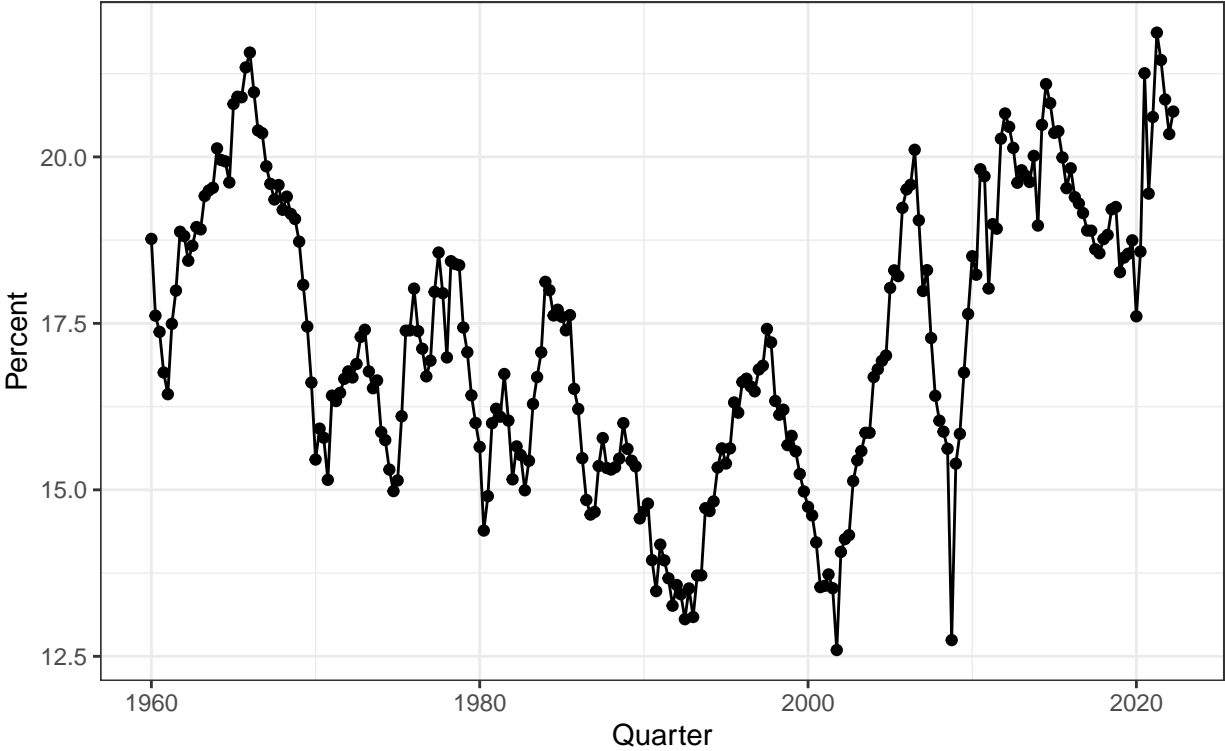
[[45]]

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in
7 Taxes on production and imports less subsidies



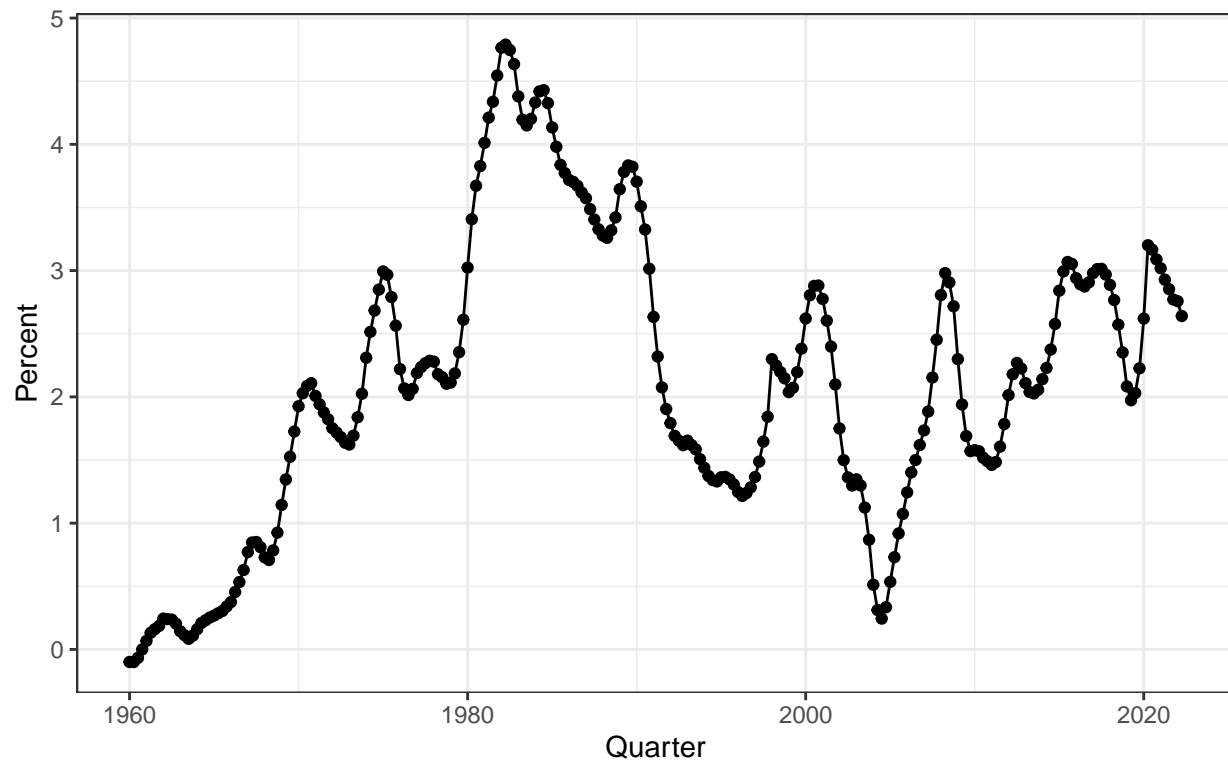
[[46]]

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in
8 Net operating surplus



[[47]]

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in
9 Net interest and miscellaneous payments



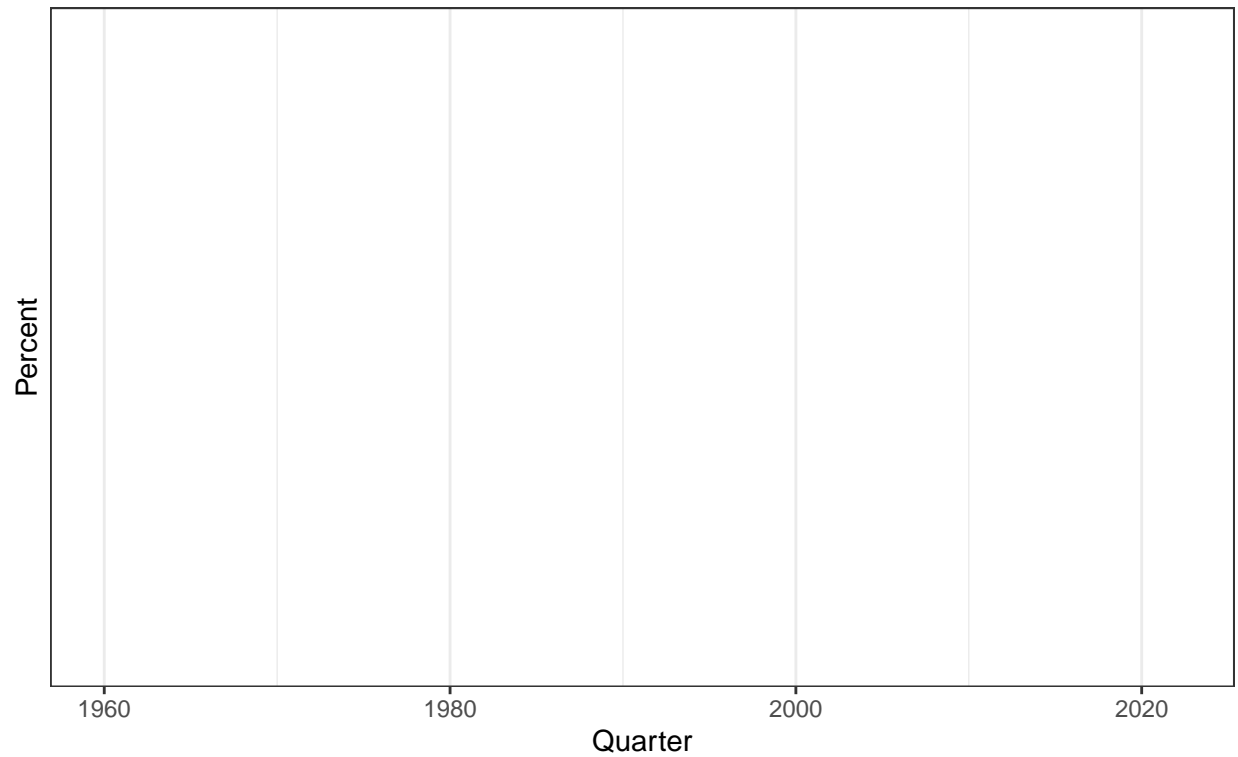
```
##
```

```
## [[48]]
```

```
## Warning: Removed 250 rows containing missing values ('geom_point()').
```

```
## Removed 250 rows containing missing values ('geom_line()').
```

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in
CCAdj Capital consumption adjustment NA



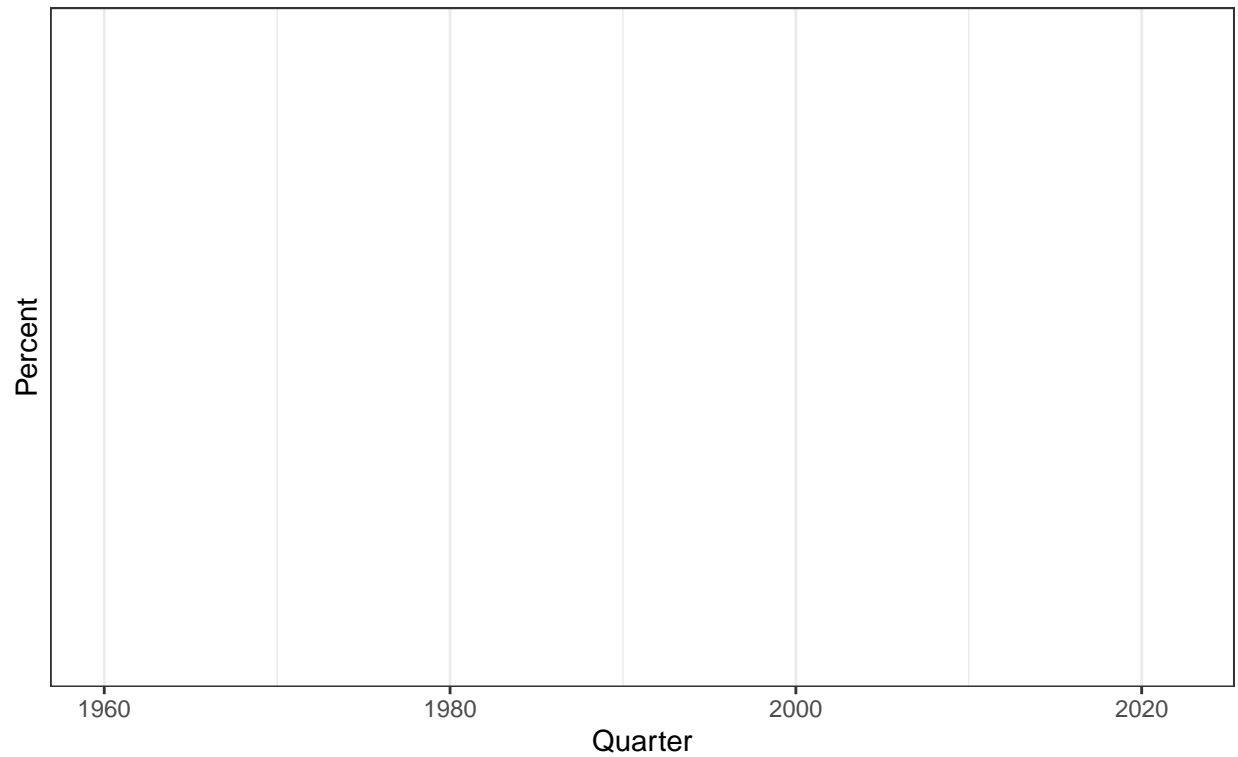
```
##
```

```
## [[49]]
```

```
## Warning: Removed 250 rows containing missing values ('geom_point()').
```

```
## Removed 250 rows containing missing values ('geom_line()').
```

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in IVA Inventory valuation adjustment NA



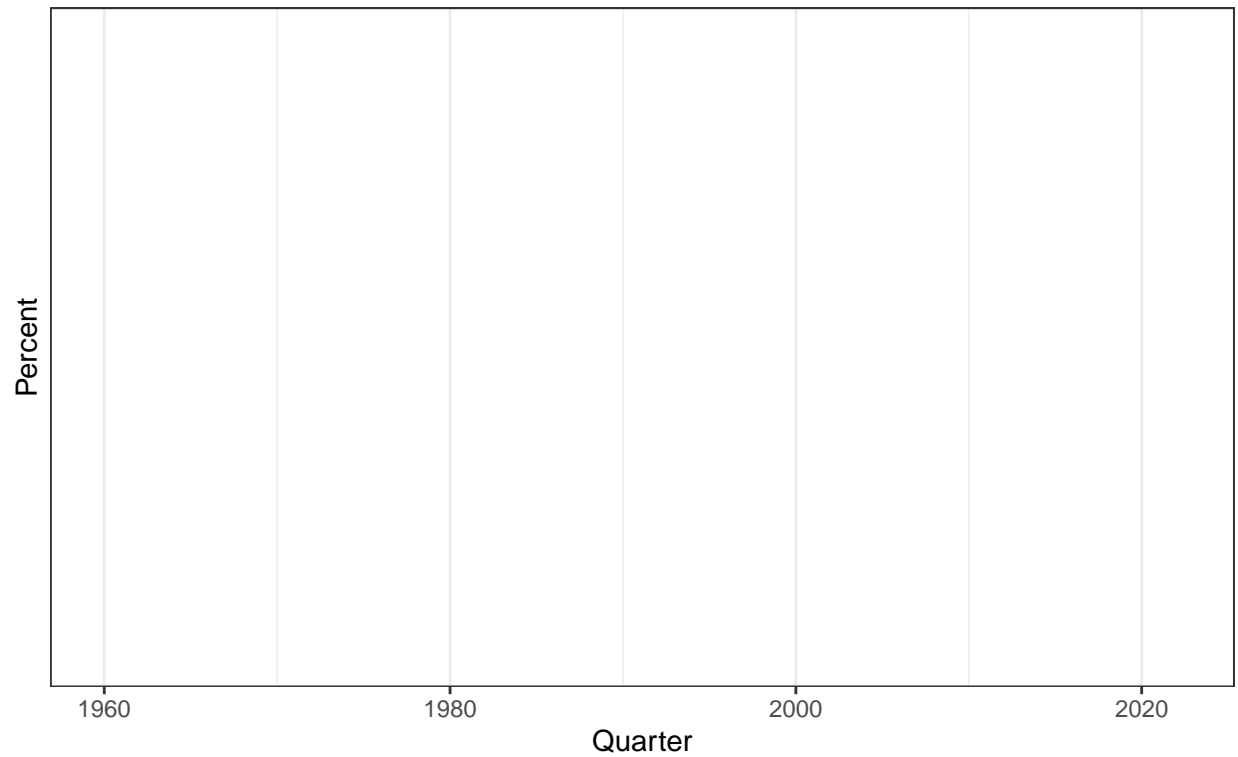
```
##
```

```
## [[50]]
```

```
## Warning: Removed 250 rows containing missing values ('geom_point()').
```

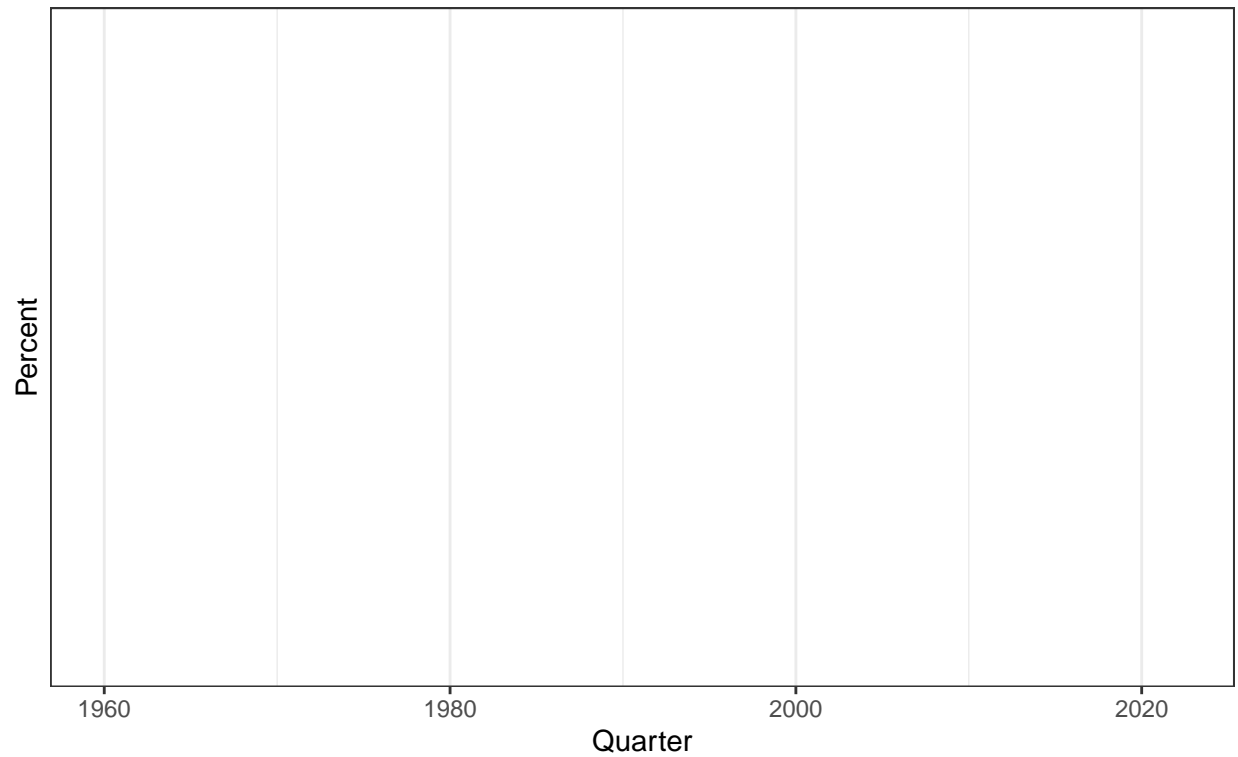
```
## Removed 250 rows containing missing values ('geom_line()').
```

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in Legend/Footnotes NA



```
##  
## [[51]]  
  
## Warning: Removed 250 rows containing missing values ('geom_point()').  
## Removed 250 rows containing missing values ('geom_line()').
```

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in
NA Addenda:



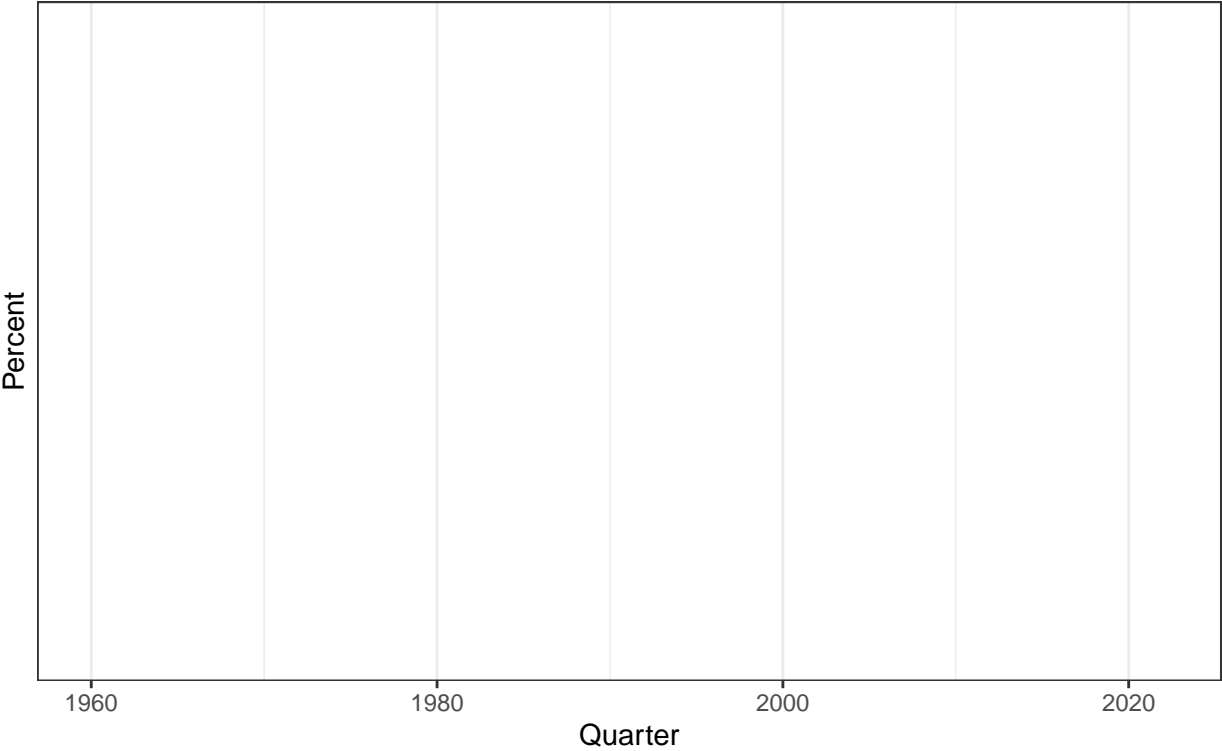
```
##
```

```
## [[52]]
```

```
## Warning: Removed 250 rows containing missing values ('geom_point()').
```

```
## Removed 250 rows containing missing values ('geom_line()').
```

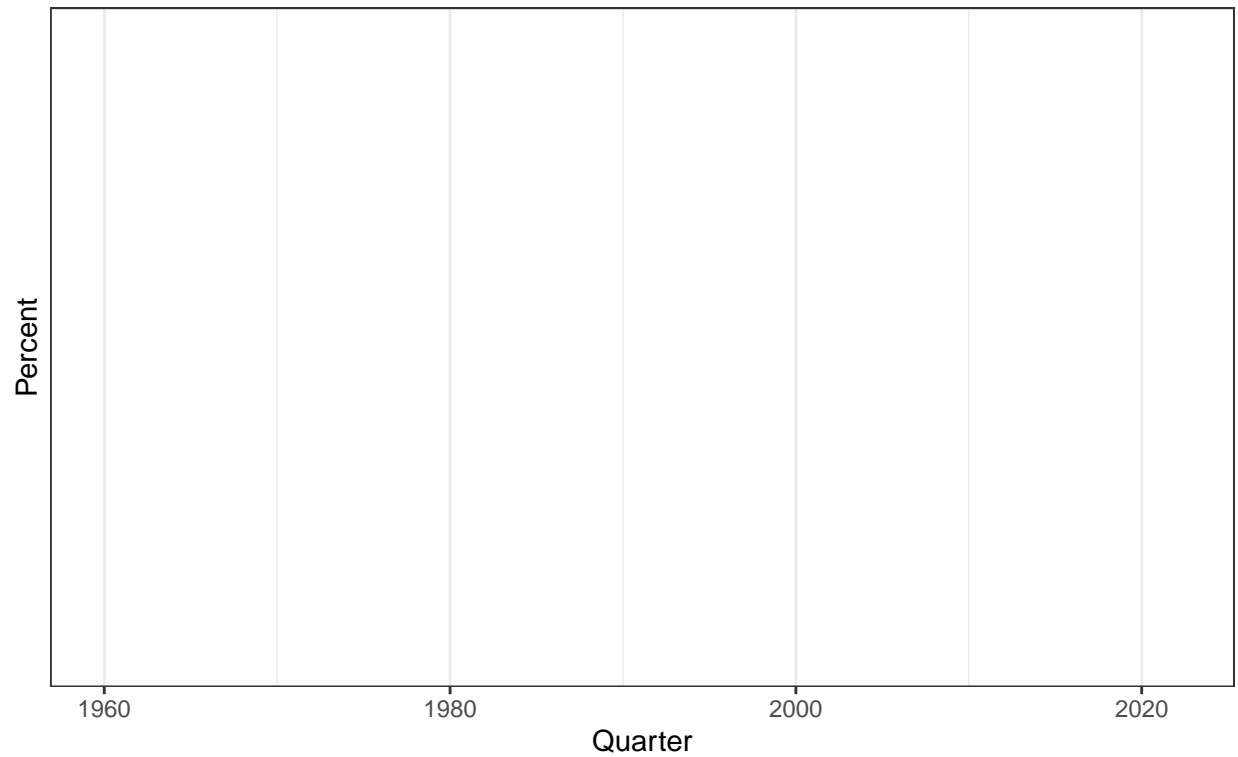
Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in NA Corporate business:



```
##
## [[53]]

## Warning: Removed 250 rows containing missing values ('geom_point()').
## Removed 250 rows containing missing values ('geom_line()').
```

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in
NA Nonfinancial corporate business:



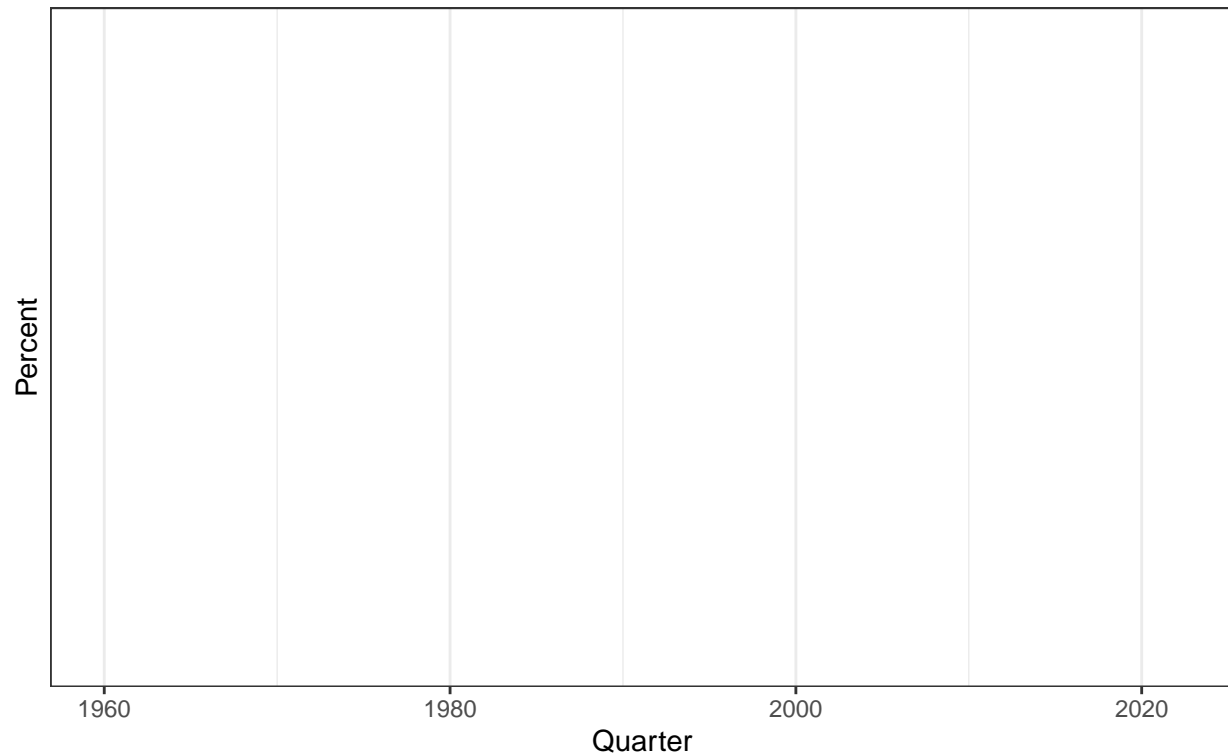
```
##
```

```
## [[54]]
```

```
## Warning: Removed 250 rows containing missing values ('geom_point()').
```

```
## Removed 250 rows containing missing values ('geom_line()').
```

Percent of US Corporate Business Value Added for Q1 1960–Q2 2022 in NA Value added, in billions of chained (2012) dollars:



Value Added

```
Table1 <- read_csv("C:/Users/willi/Downloads/Table (4).csv", col_names = FALSE, skip = 5)
```

```
## Warning: One or more parsing issues, see 'problems()' for details
```

```
## Rows: 96 Columns: 26
```

```
## -- Column specification -----
```

```
## Delimiter: ","
```

```
## chr (26): X1, X2, X3, X4, X5, X6, X7, X8, X9, X10, X11, X12, X13, X14, X15, ...
```

```
##
```

```
## i Use 'spec()' to retrieve the full column specification for this data.
```

```
## i Specify the column types or set 'show_col_types = FALSE' to quiet this message.
```

```
Table1[3:26] = Table1[3:26] %>% mutate(across(where(is.character), as.numeric))
```

```
## Warning: There were 24 warnings in 'mutate()'.
```

```
## The first warning was:
```

```
## i In argument: 'across(where(is.character), as.numeric)'.
```

```
## Caused by warning:
```

```
## ! NAs introduced by coercion
```

```
## i Run 'dplyr::last_dplyr_warnings()' to see the 23 remaining warnings.
```



```
Table2 <- read_csv("C:/Users/willi/Downloads/Table (6).csv", col_names = FALSE, skip = 5)
```

```
## Warning: One or more parsing issues, see 'problems()' for details
```

```
## Rows: 96 Columns: 26
## -- Column specification -----
## Delimiter: ","
## chr (2): X1, X2
## dbl (24): X3, X4, X5, X6, X7, X8, X9, X10, X11, X12, X13, X14, X15, X16, X17...
##
## i Use 'spec()' to retrieve the full column specification for this data.
## i Specify the column types or set 'show_col_types = FALSE' to quiet this message.
```

```
Table2[3:26] = Table2[3:26] %>% mutate(across(where(is.character), as.numeric))
Proportion = 100*Table1[3:26]/Table2[3:26]
colnames(Proportion) = c(1998:2021)
Proportion = cbind(Table1[[2]], Proportion)

Proportion = Proportion %>% pivot_longer(cols = 2:25, names_to = "Year", values_to = "Percent")
colnames(Proportion) = c("Type", "Year", "Percent")
Proportion[[2]] = as.numeric(Proportion[[2]])
```

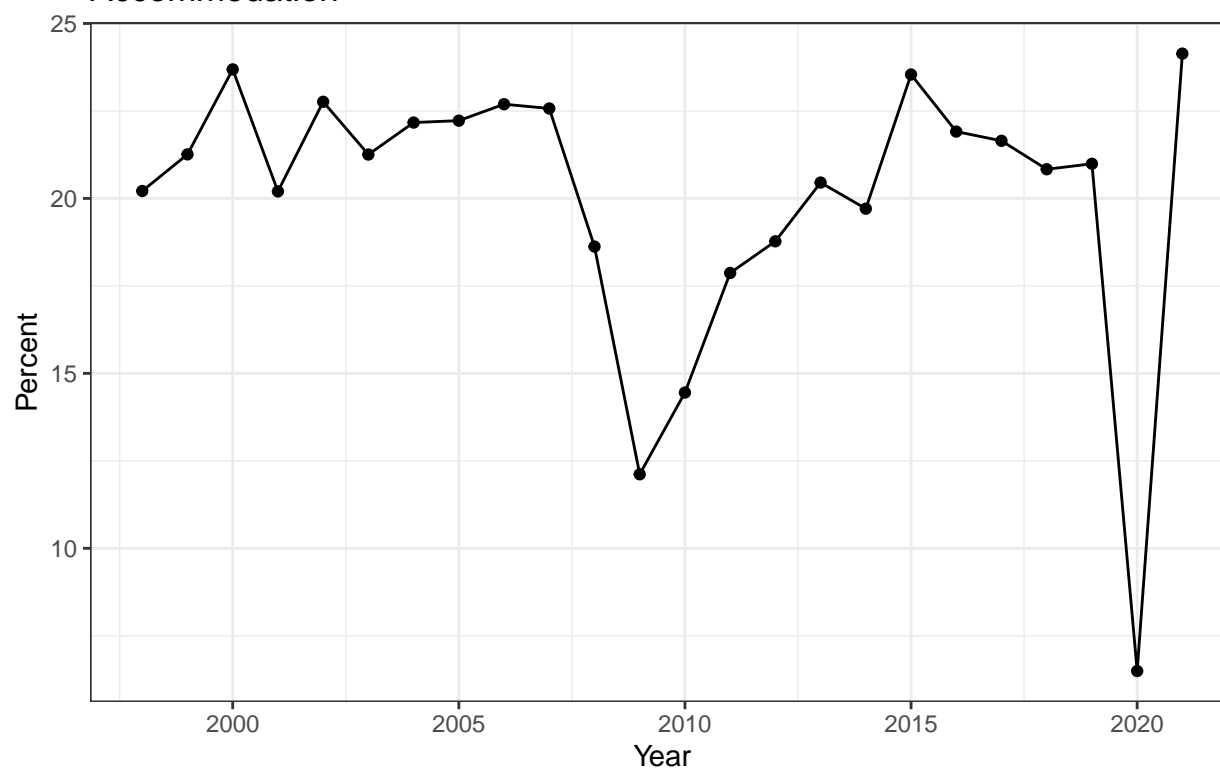
```
make_plot_value = function(frame){
  title = paste0("Net Operating Surplus divided by Value Added 1998-2021 for \n",frame[[1]][1])
  ggplot(frame, aes(x = Year, y = Percent)) +
    geom_point() +
    geom_line() + theme_bw() +
    ggtitle(title)
}
```

```
Proportion_Type = group_split(Proportion, Type)
Plots = lapply(Proportion_Type, make_plot_value)
```

```
Plots
```

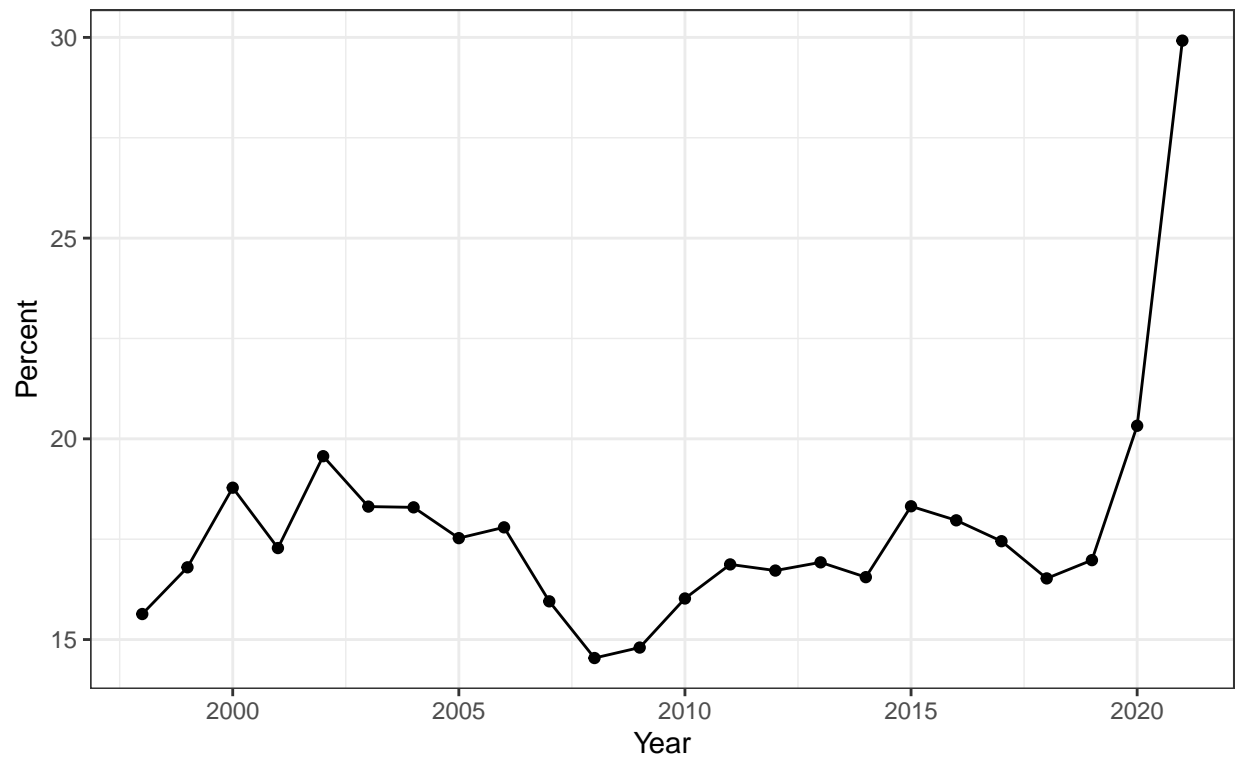
```
## [[1]]
```

Net Operating Surplus divided by Value Added 1998–2021 for Accommodation



[[2]]

Net Operating Surplus divided by Value Added 1998–2021 for
Accommodation and food services



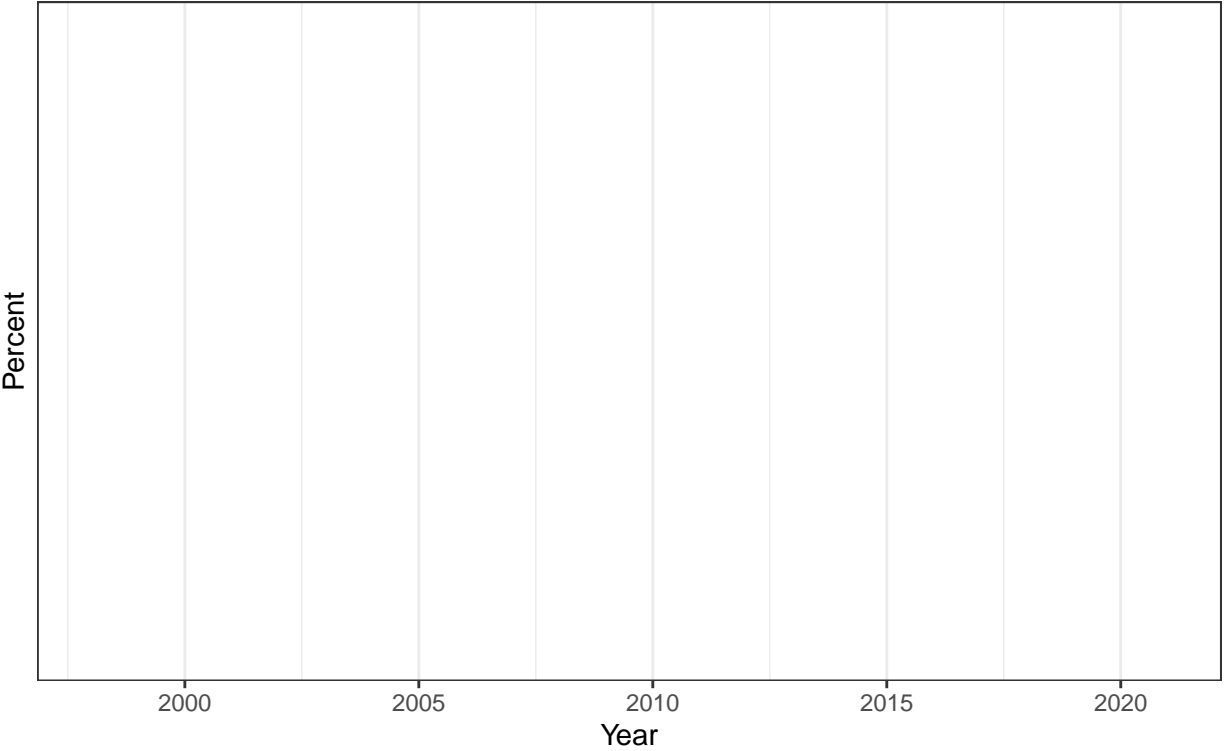
```
##
```

```
## [[3]]
```

```
## Warning: Removed 24 rows containing missing values ('geom_point()').
```

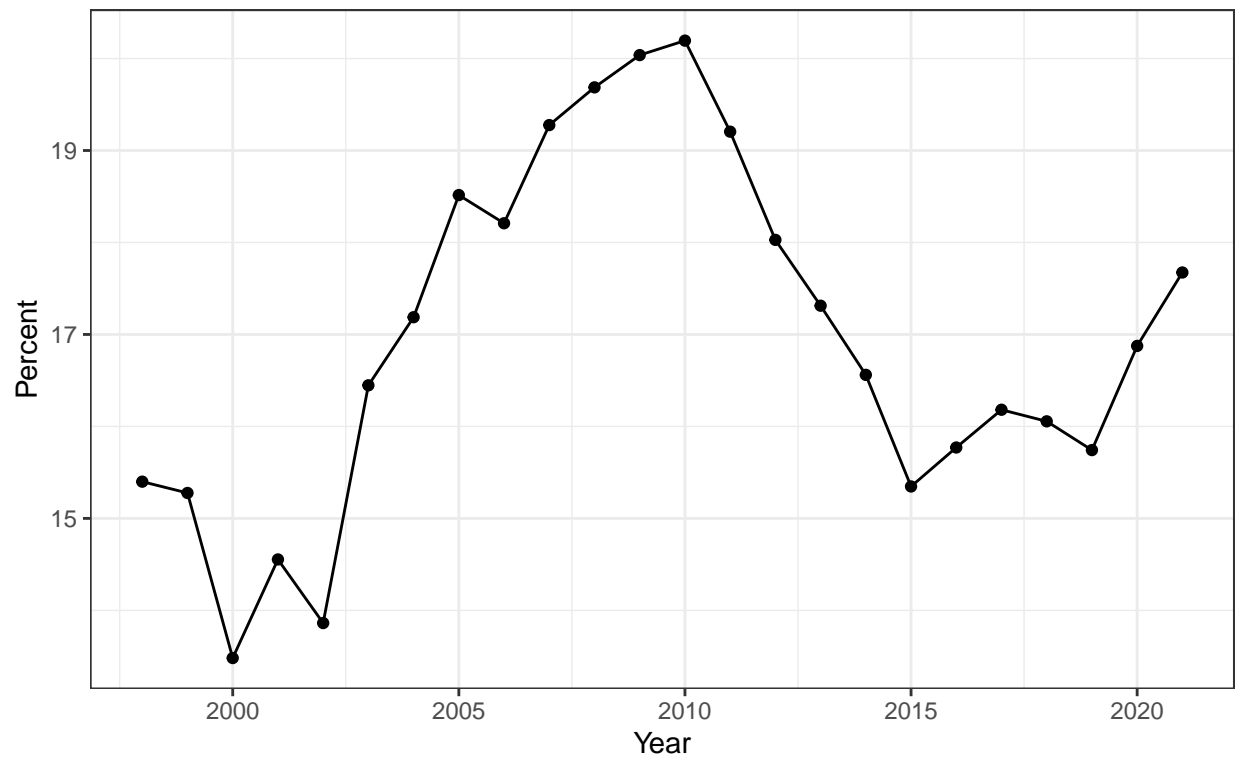
```
## Warning: Removed 24 rows containing missing values ('geom_line()').
```

Net Operating Surplus divided by Value Added 1998–2021 for
Addenda:



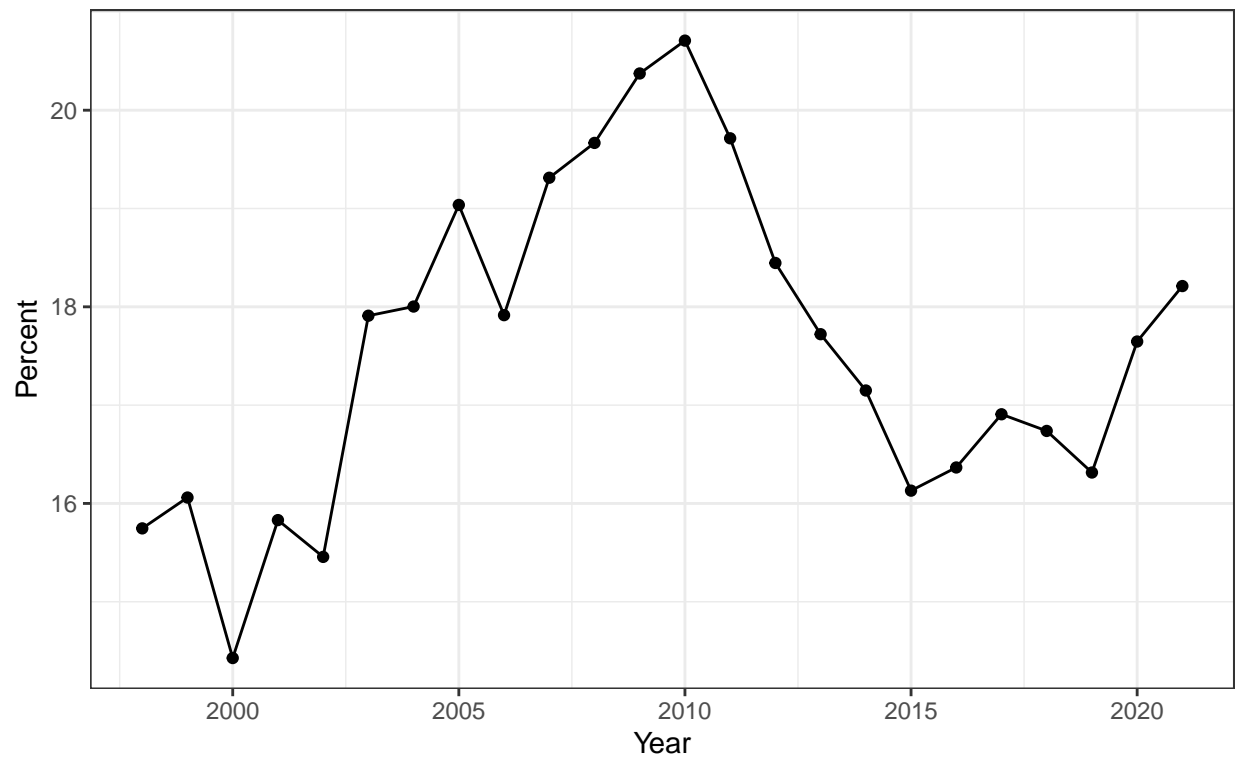
```
##  
## [[4]]
```

Net Operating Surplus divided by Value Added 1998–2021 for
Administrative and support services



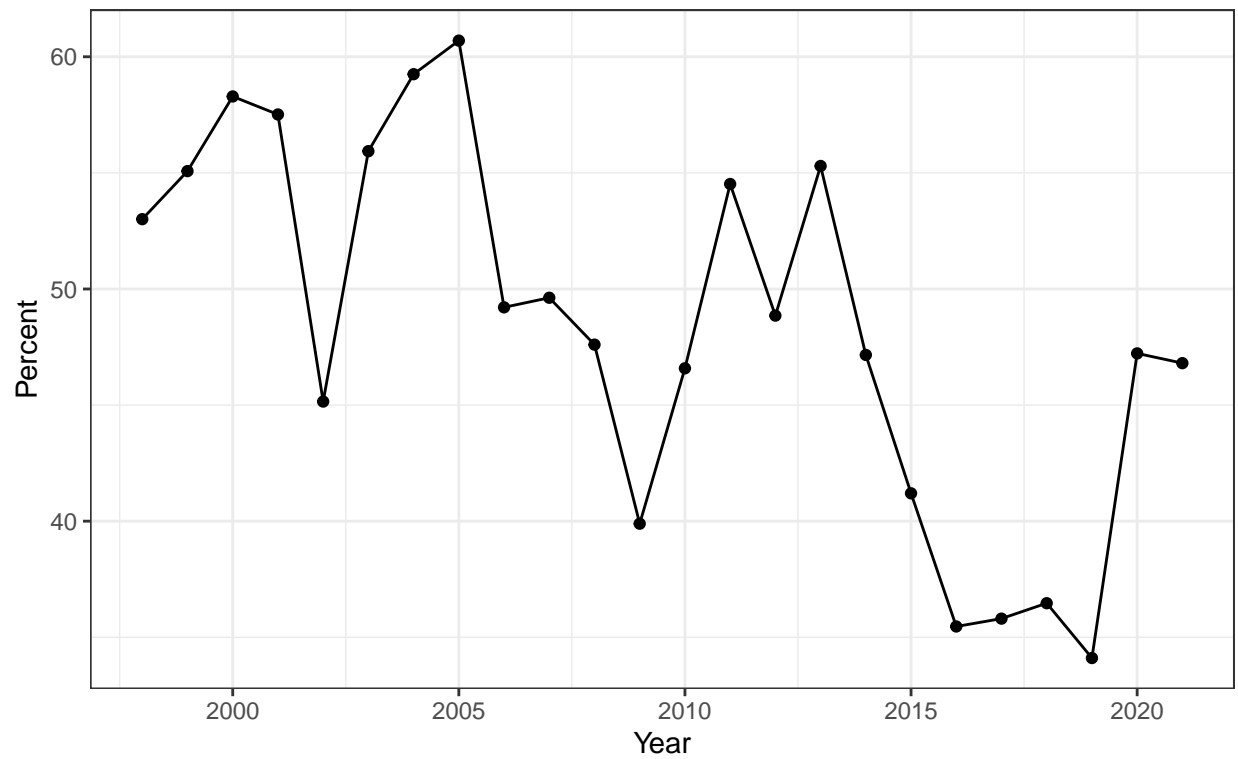
```
##  
## [[5]]
```

Net Operating Surplus divided by Value Added 1998–2021 for
Administrative and waste management services



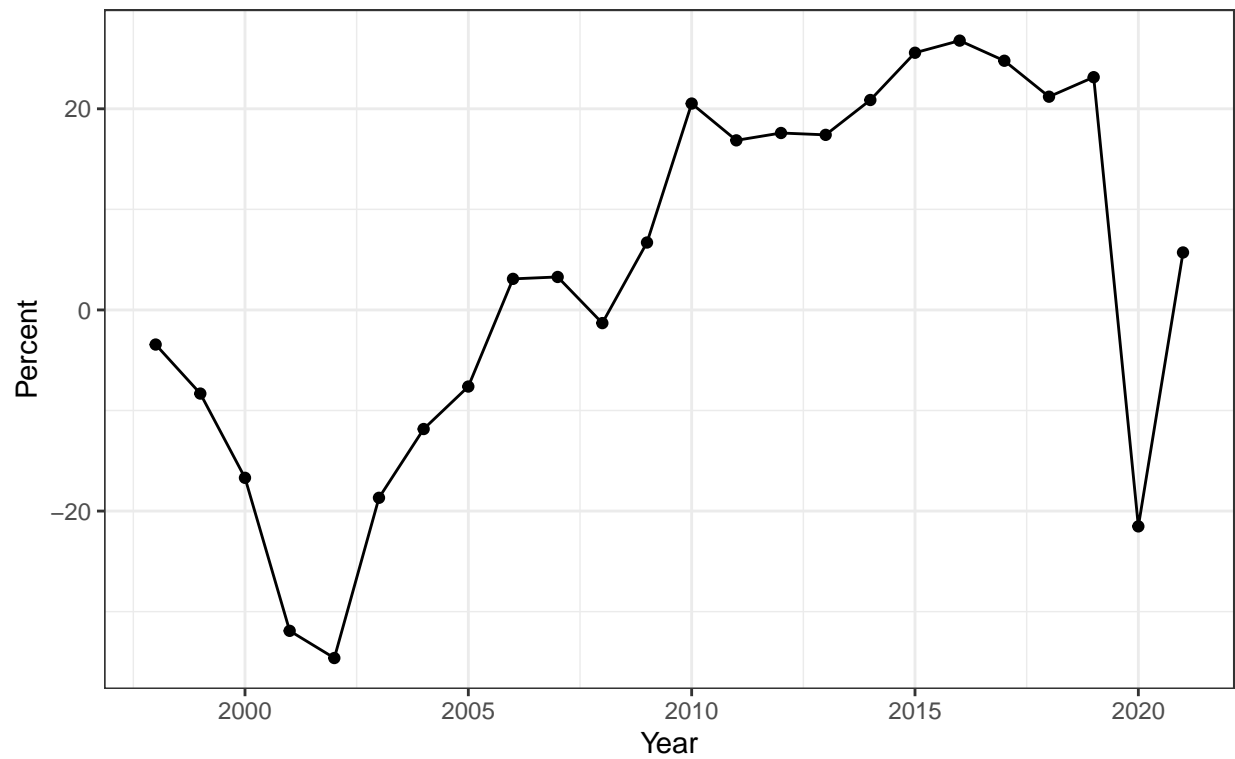
```
##  
## [[6]]
```

Net Operating Surplus divided by Value Added 1998–2021 for
Agriculture, forestry, fishing, and hunting



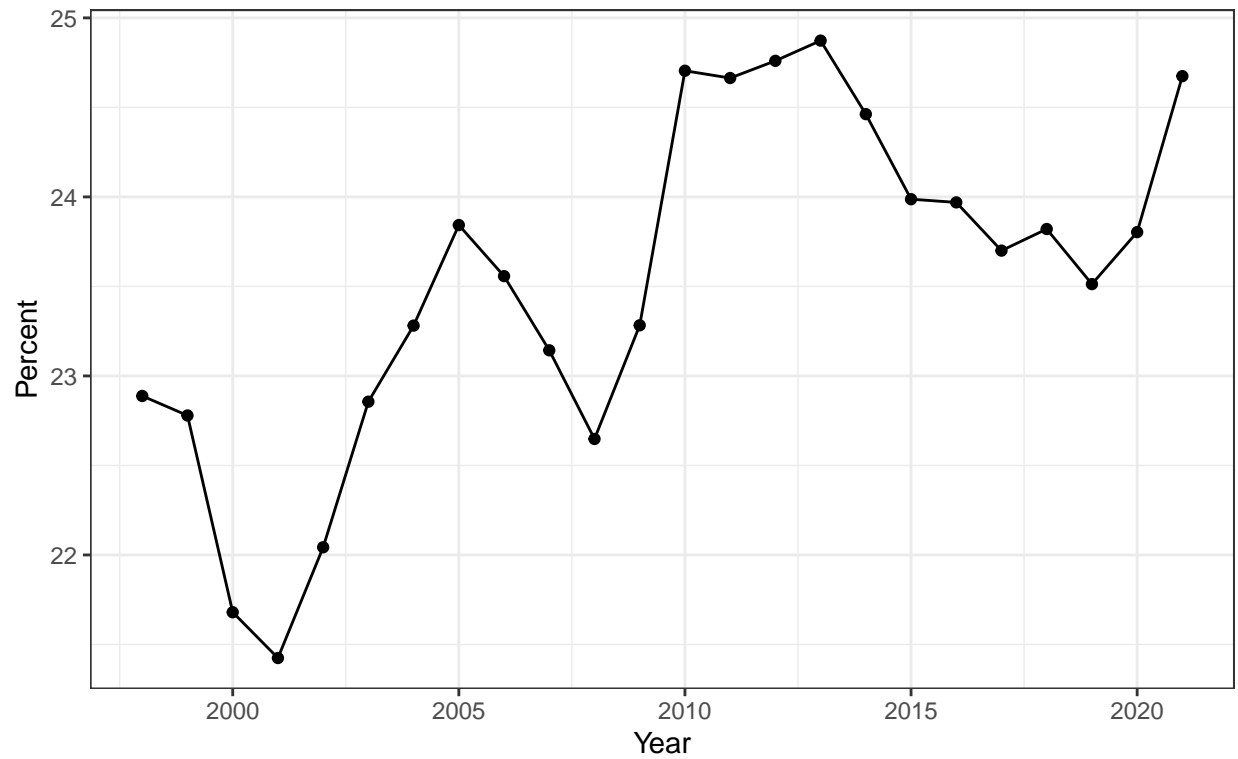
```
##  
## [[7]]
```

Net Operating Surplus divided by Value Added 1998–2021 for
Air transportation



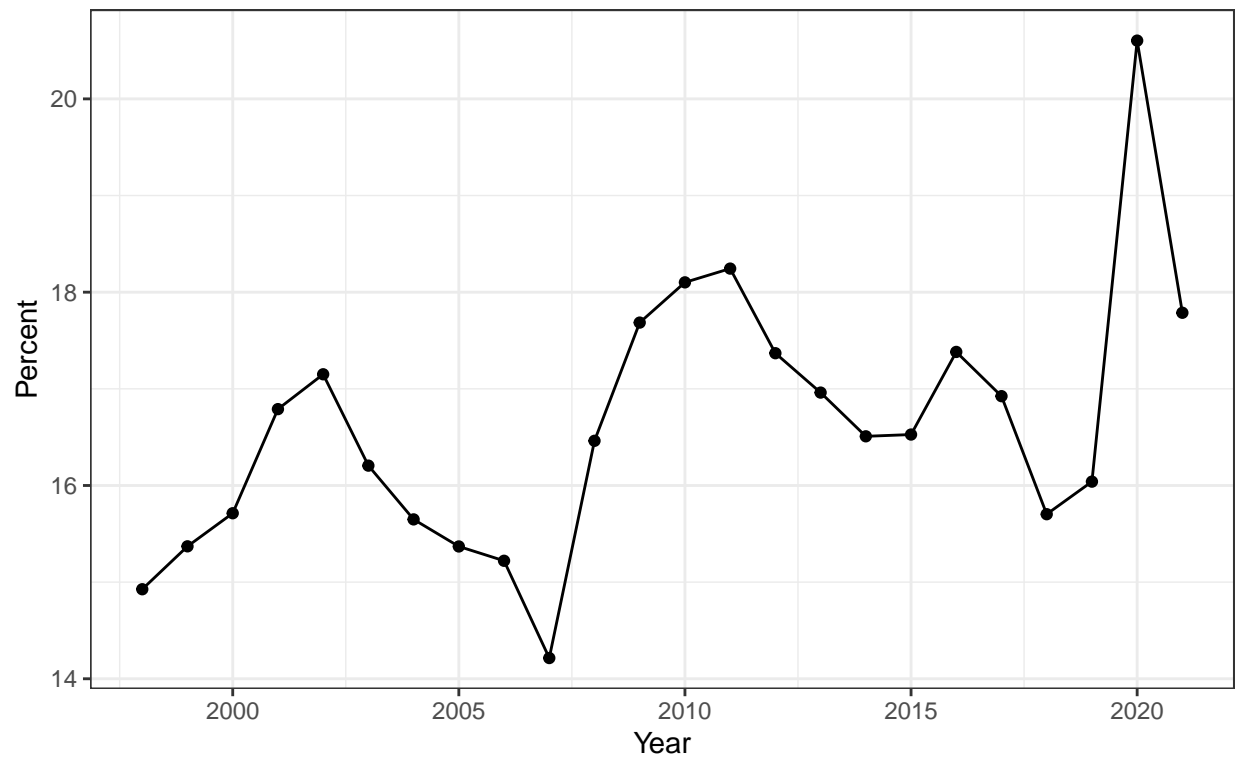
[[8]]

Net Operating Surplus divided by Value Added 1998–2021 for
All industries



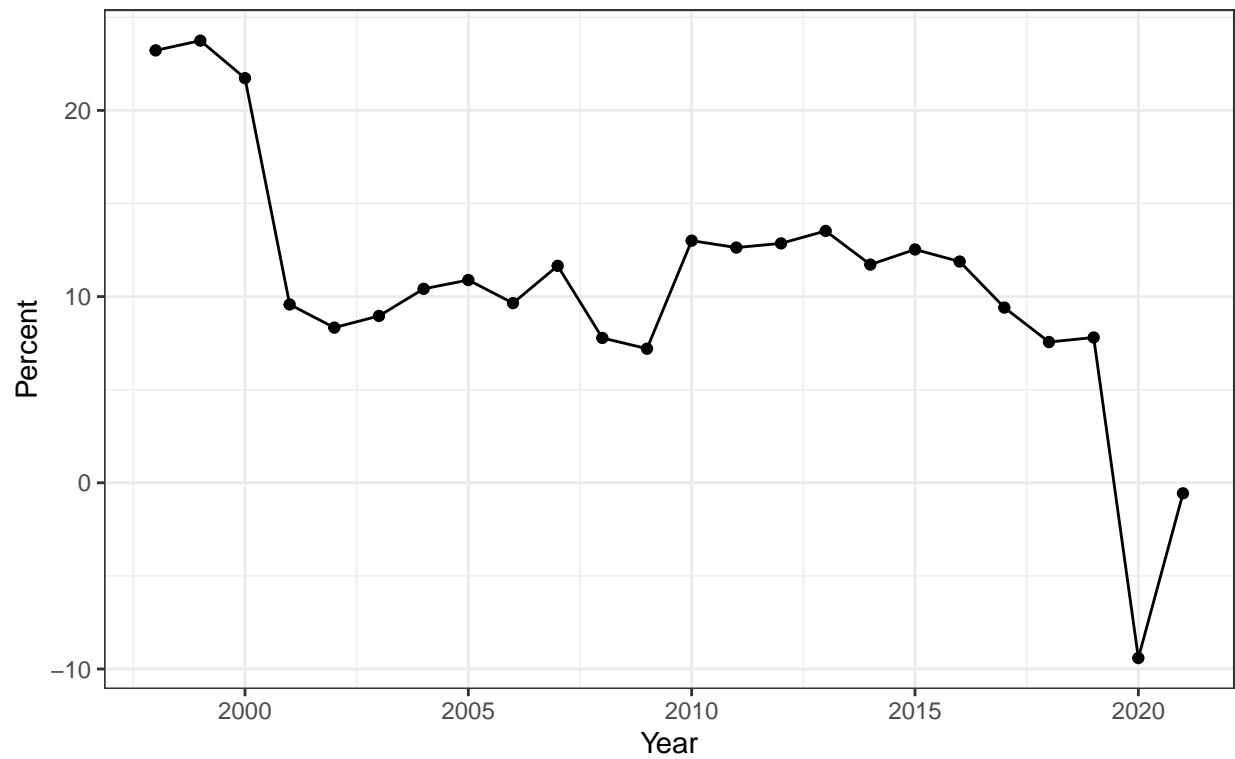
[[9]]

Net Operating Surplus divided by Value Added 1998–2021 for Ambulatory health care services



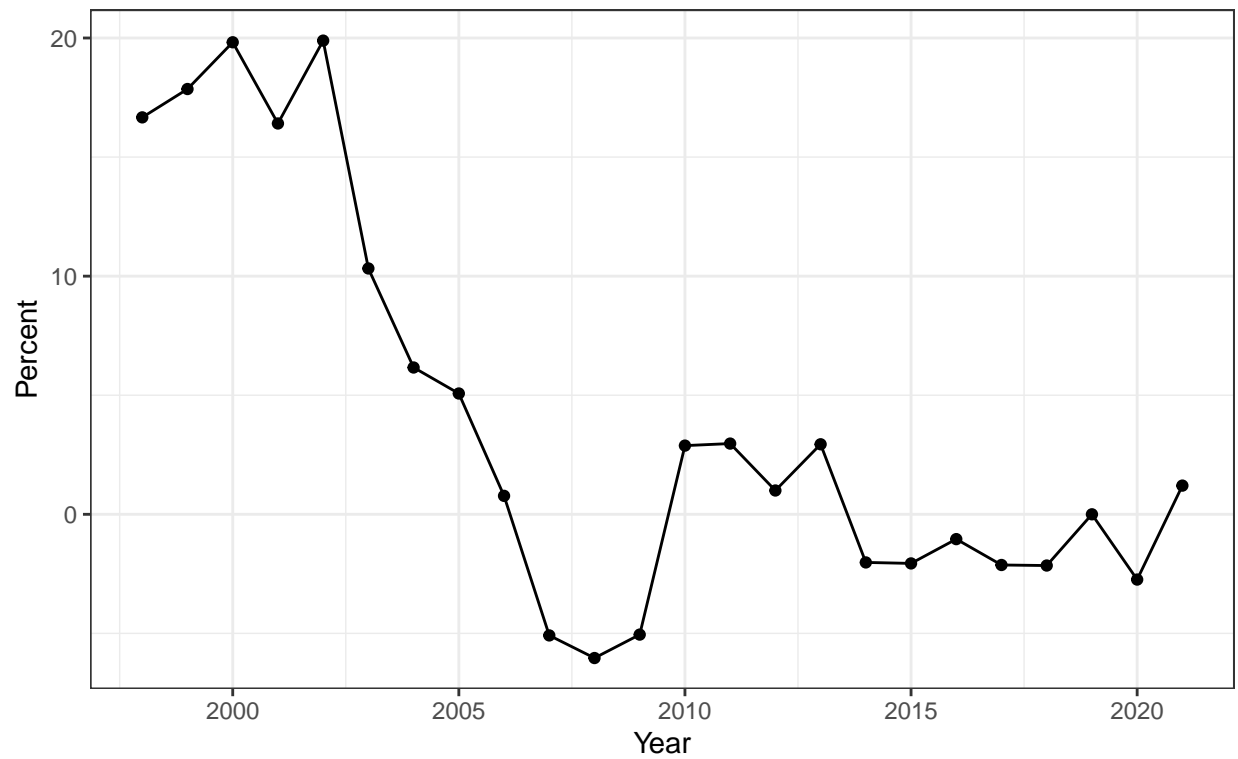
```
##  
## [[10]]
```

Net Operating Surplus divided by Value Added 1998–2021 for Amusements, gambling, and recreation industries



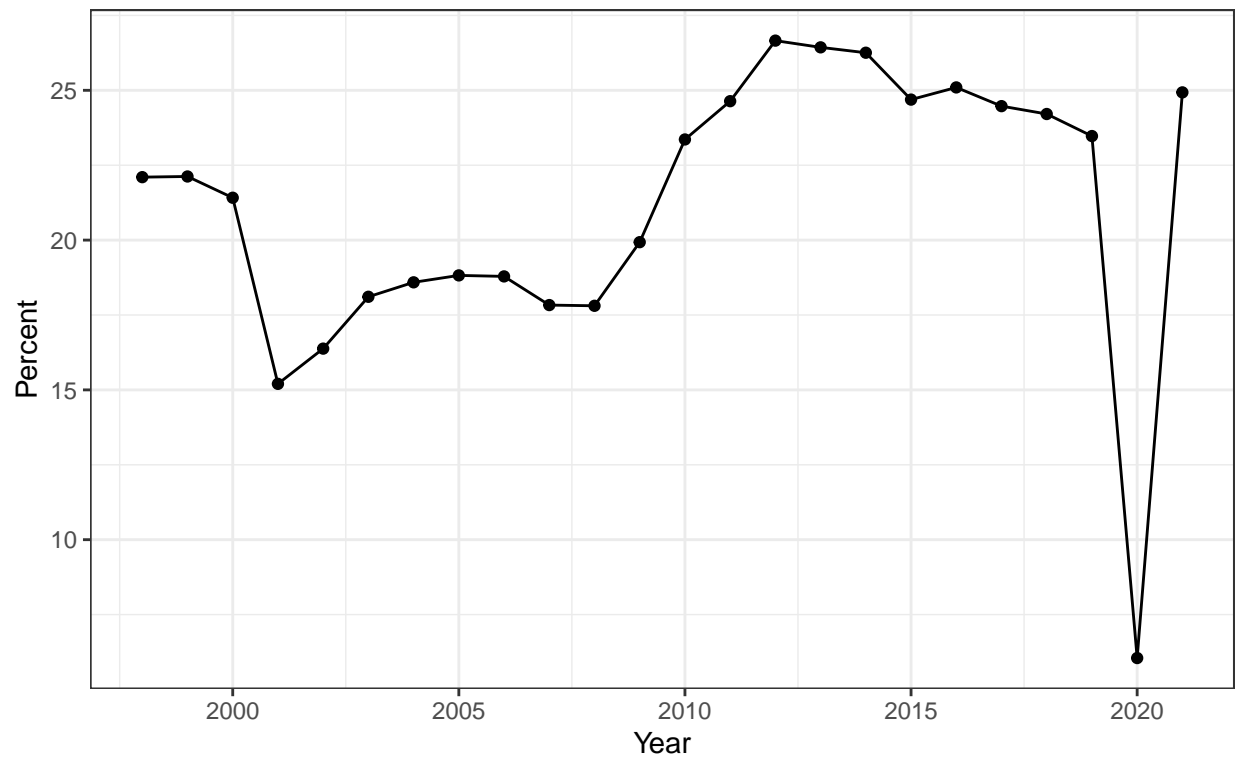
```
##  
## [[11]]
```

Net Operating Surplus divided by Value Added 1998–2021 for
Apparel and leather and allied products



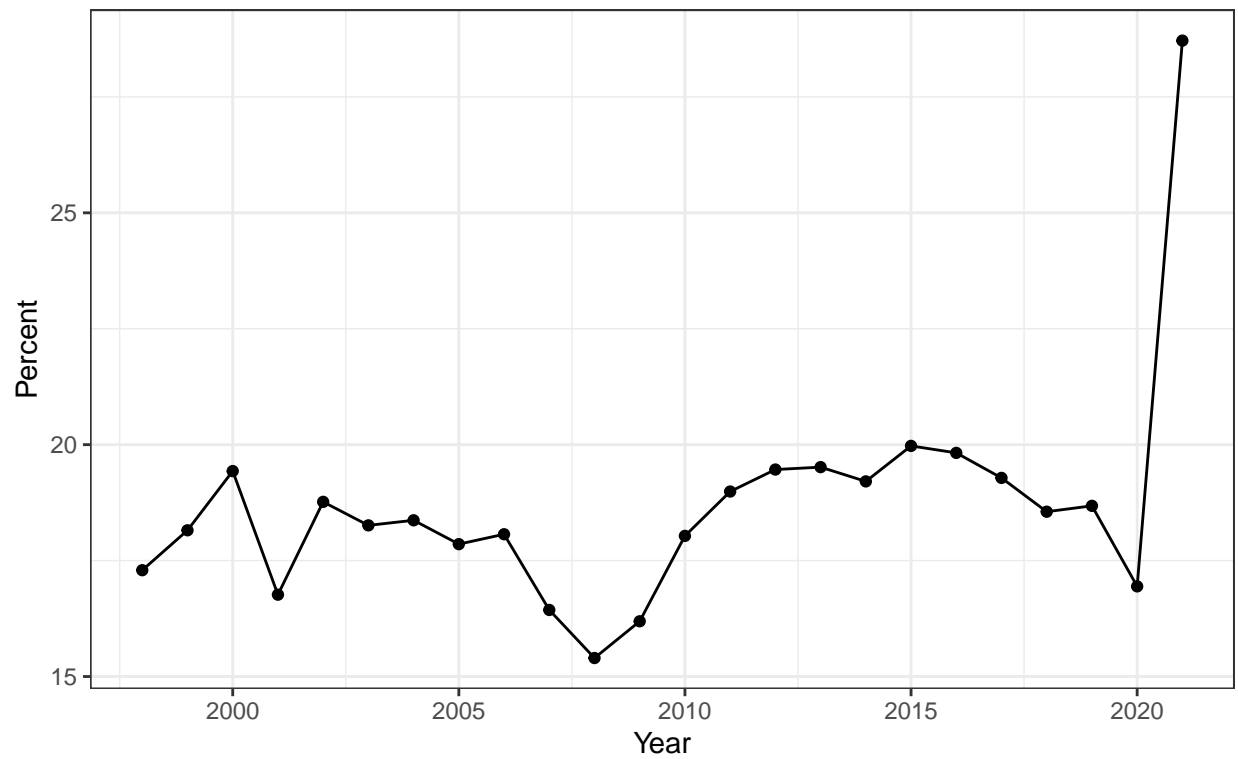
[[12]]

Net Operating Surplus divided by Value Added 1998–2021 for
Arts, entertainment, and recreation



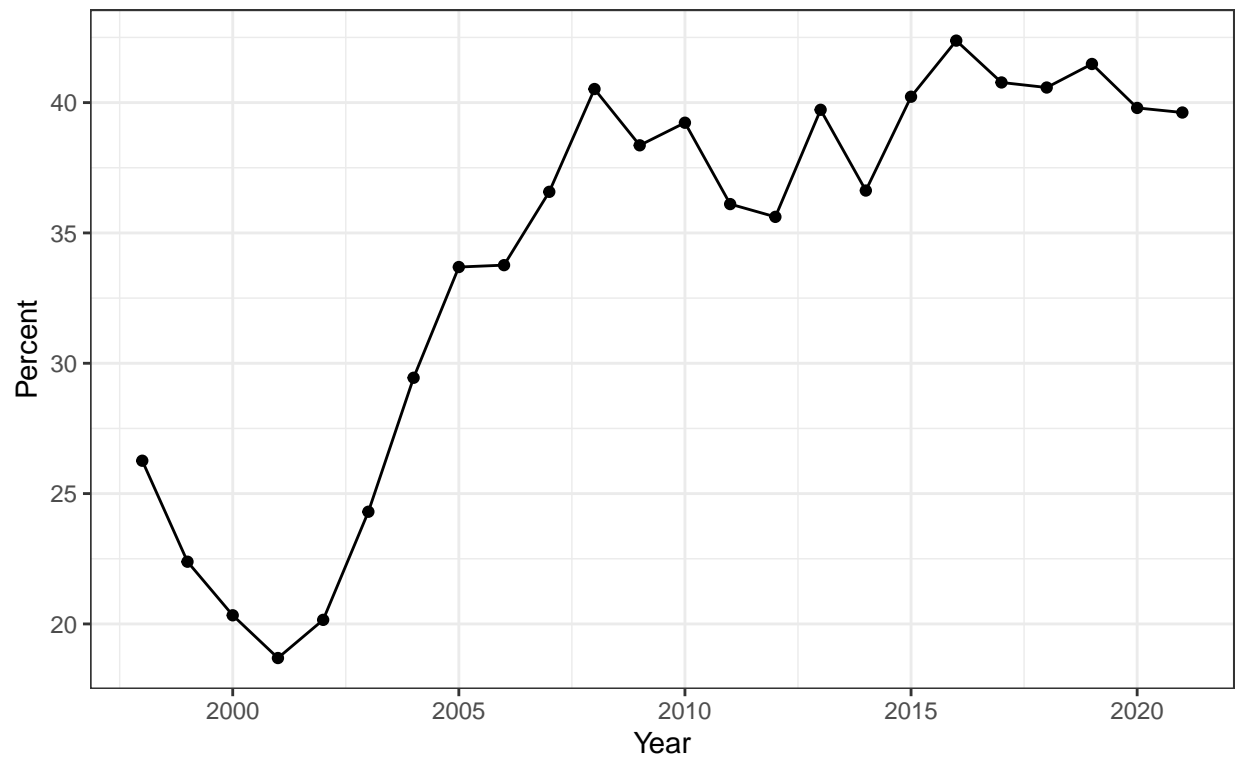
[[13]]

Net Operating Surplus divided by Value Added 1998–2021 for
Arts, entertainment, recreation, accommodation, and food services



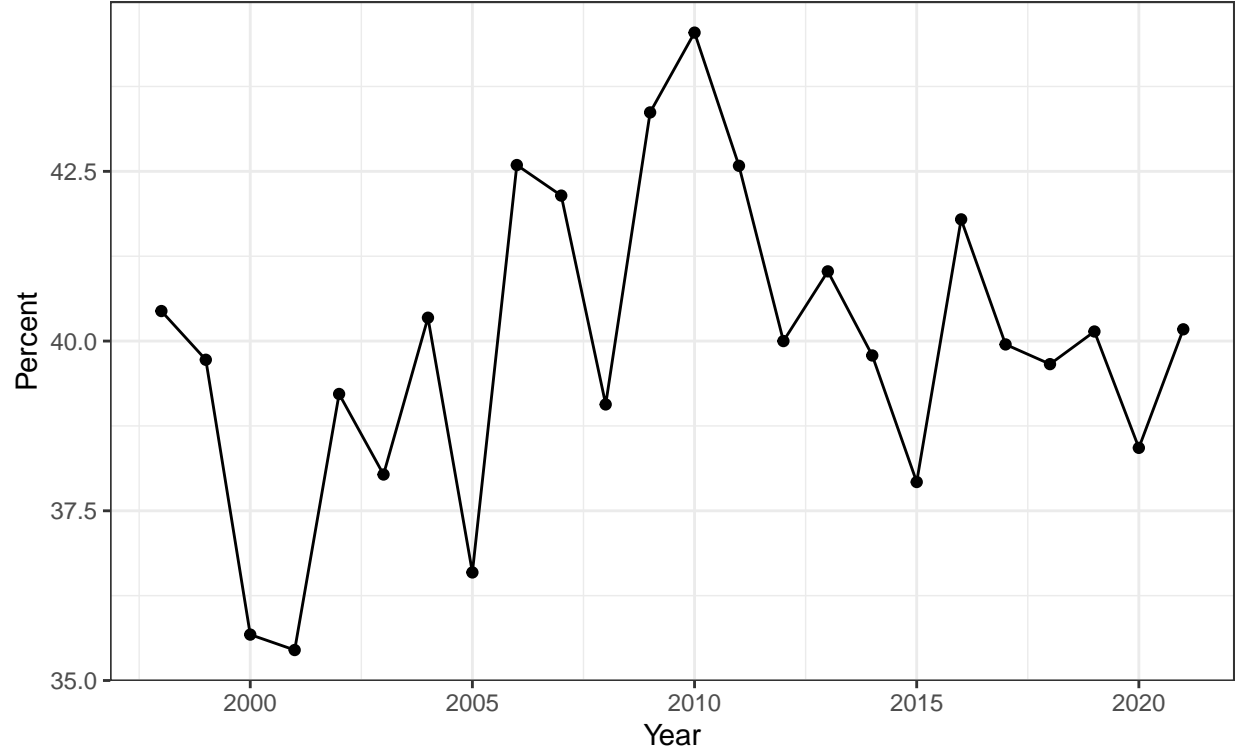
```
##
## [[14]]
```

Net Operating Surplus divided by Value Added 1998–2021 for
Broadcasting and telecommunications



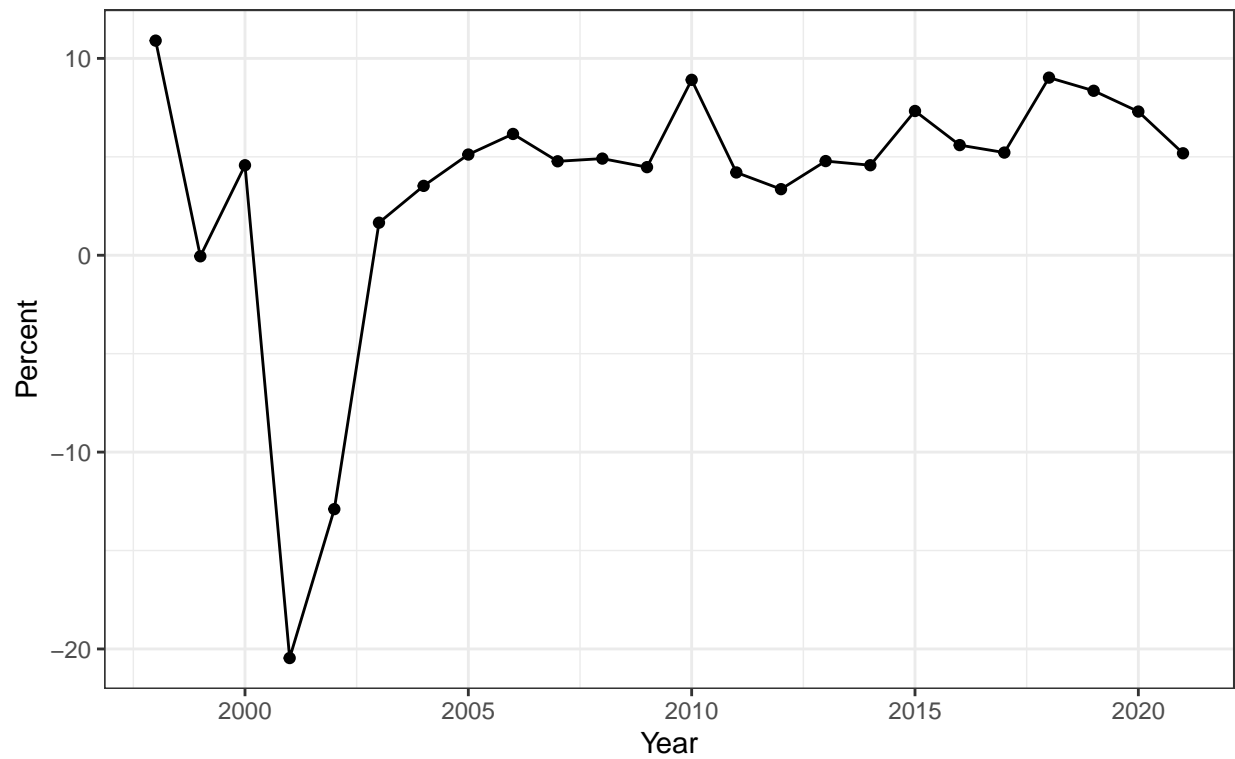
[[15]]

Net Operating Surplus divided by Value Added 1998–2021 for
Chemical products



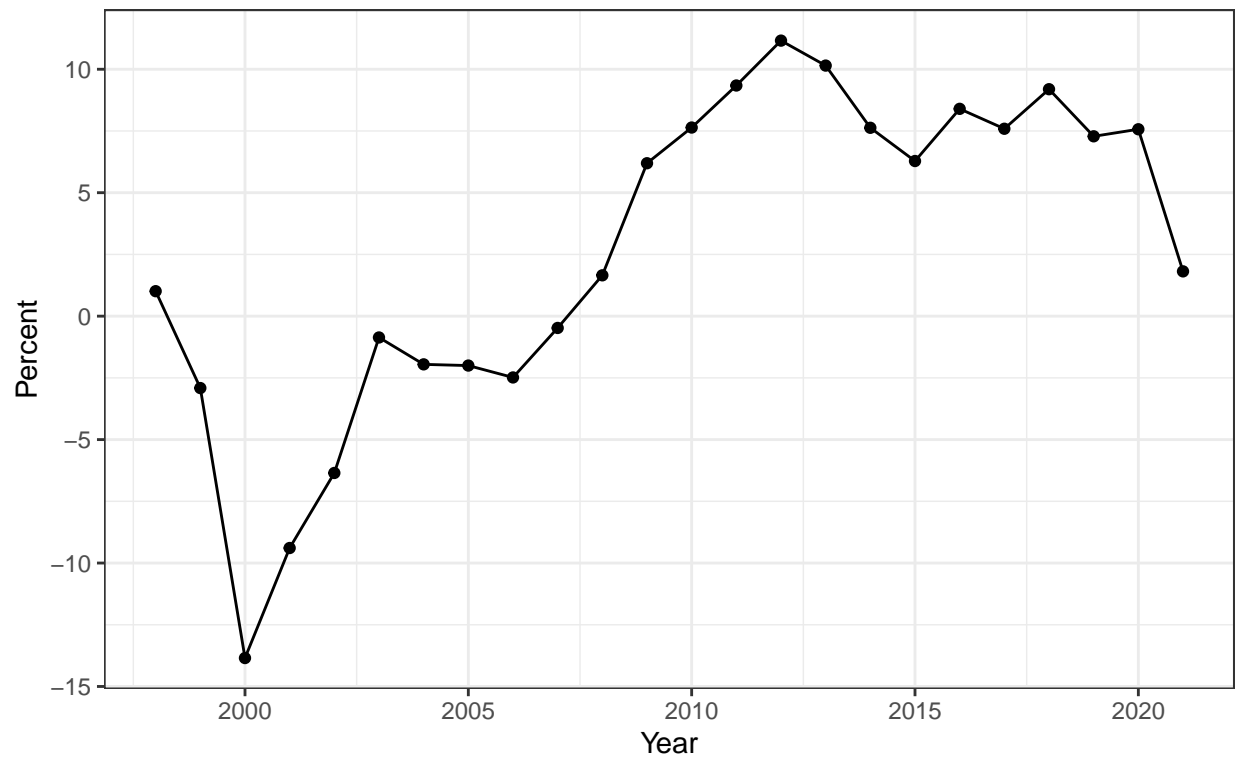
[[16]]

Net Operating Surplus divided by Value Added 1998–2021 for
Computer and electronic products



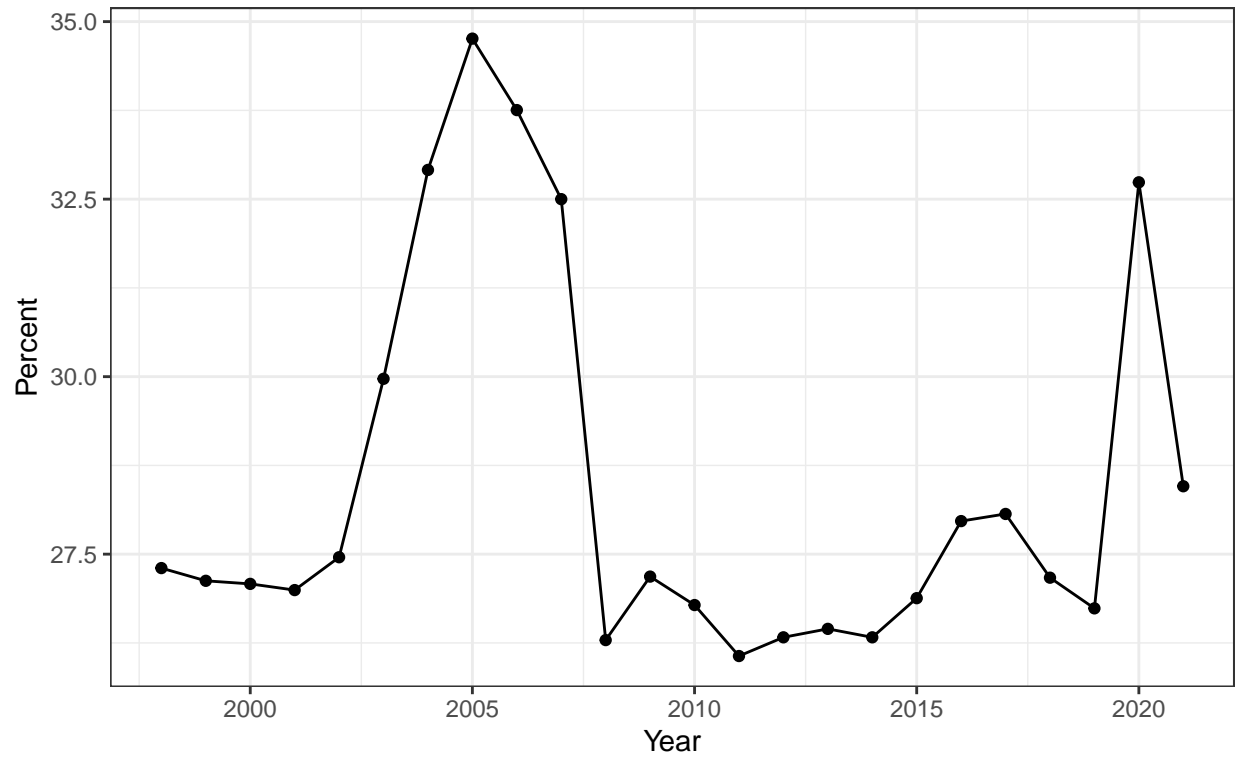
[[17]]

Net Operating Surplus divided by Value Added 1998–2021 for
Computer systems design and related services



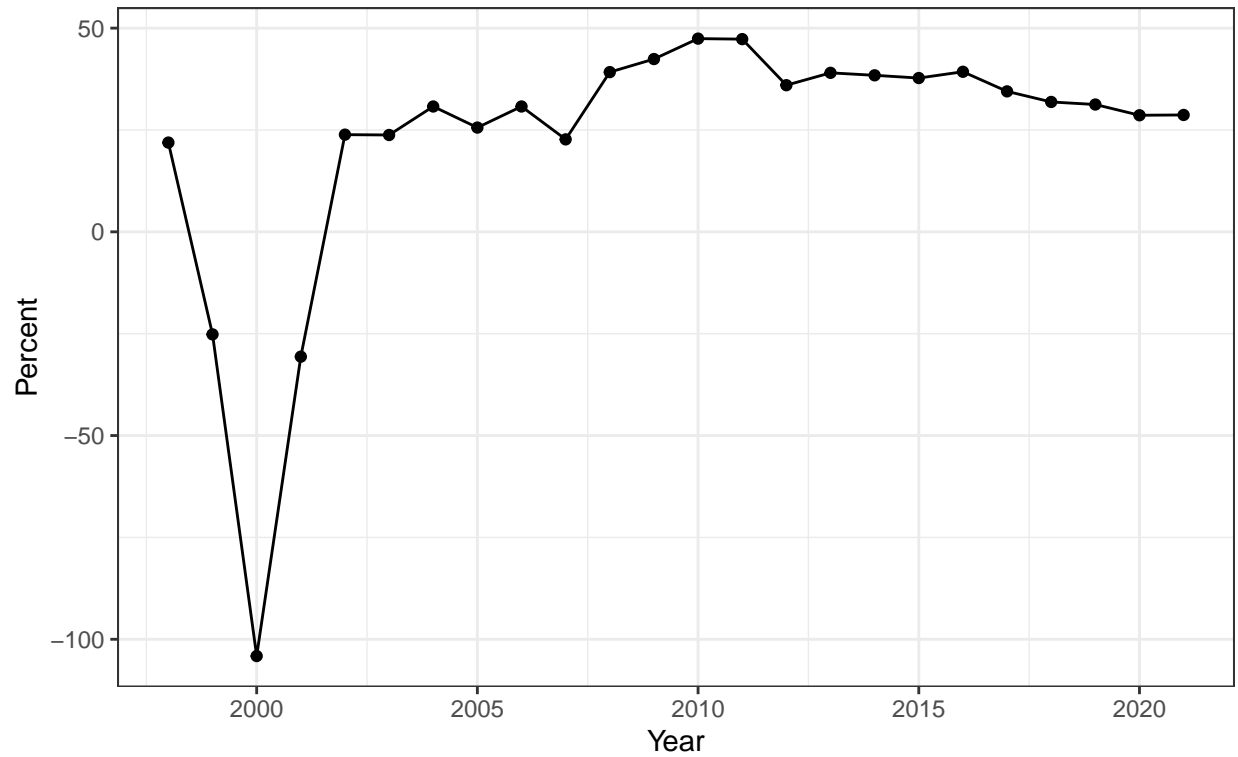
```
##  
## [[18]]
```

Net Operating Surplus divided by Value Added 1998–2021 for Construction



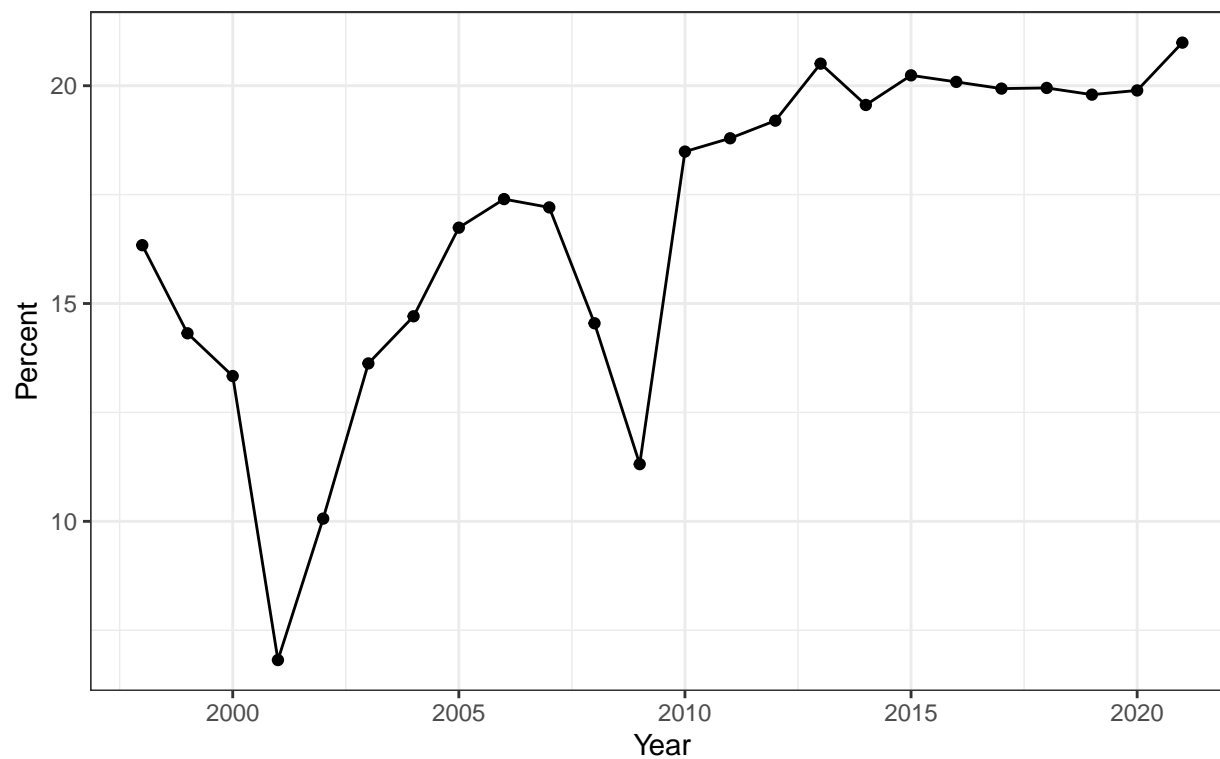
[[19]]

Net Operating Surplus divided by Value Added 1998–2021 for
Data processing, internet publishing, and other information services



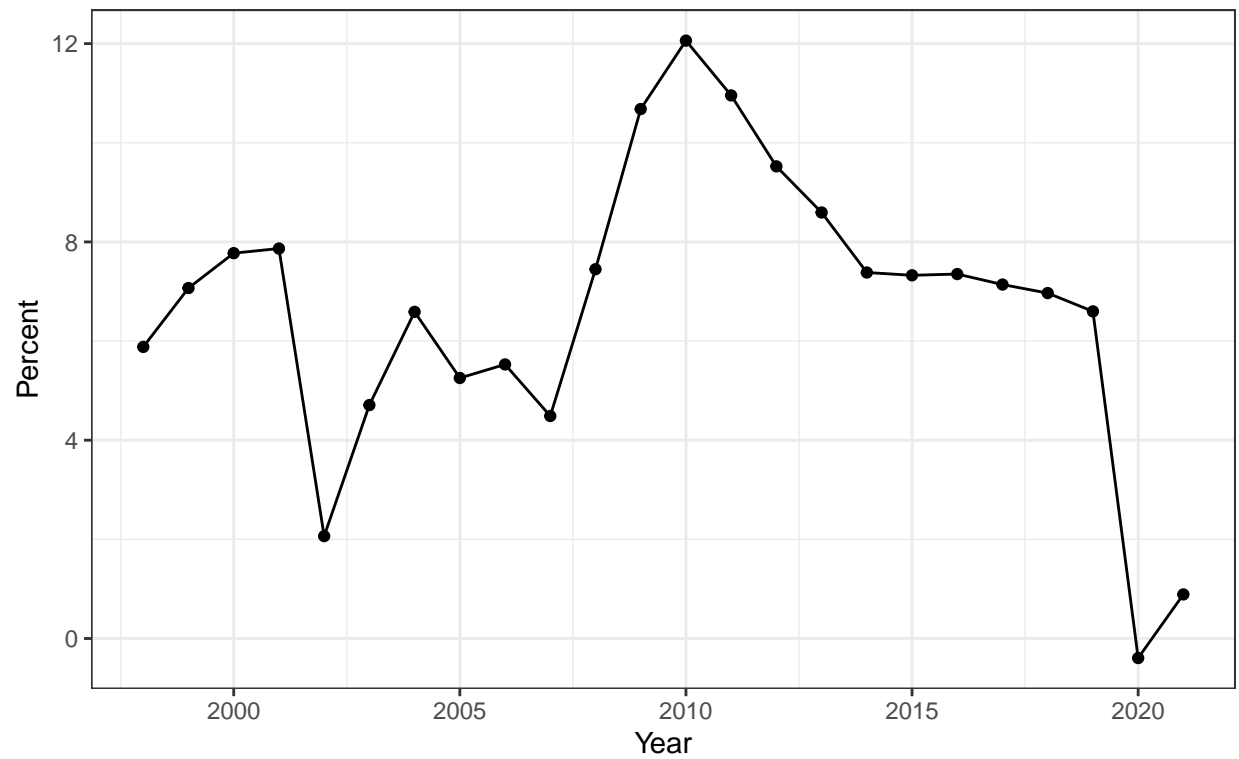
[[20]]

Net Operating Surplus divided by Value Added 1998–2021 for
Durable goods



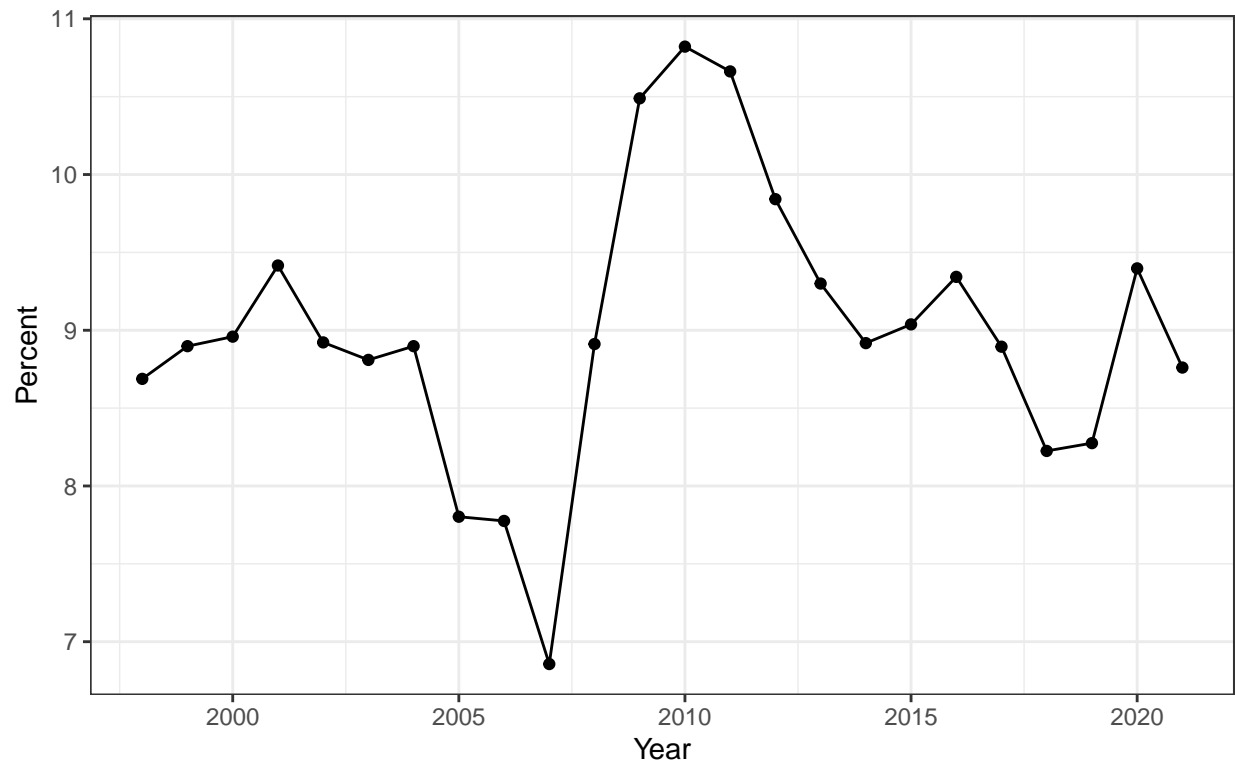
```
##  
## [[21]]
```

Net Operating Surplus divided by Value Added 1998–2021 for Educational services



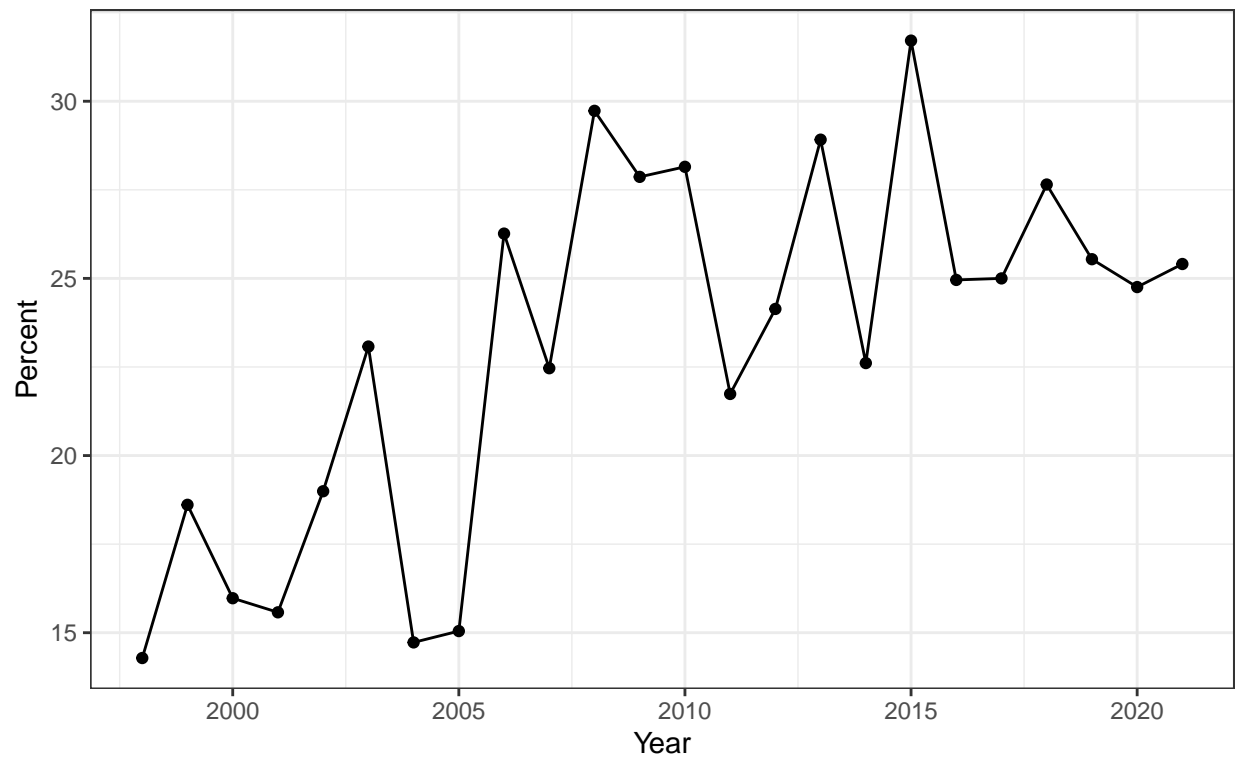
[[22]]

Net Operating Surplus divided by Value Added 1998–2021 for
Educational services, health care, and social assistance



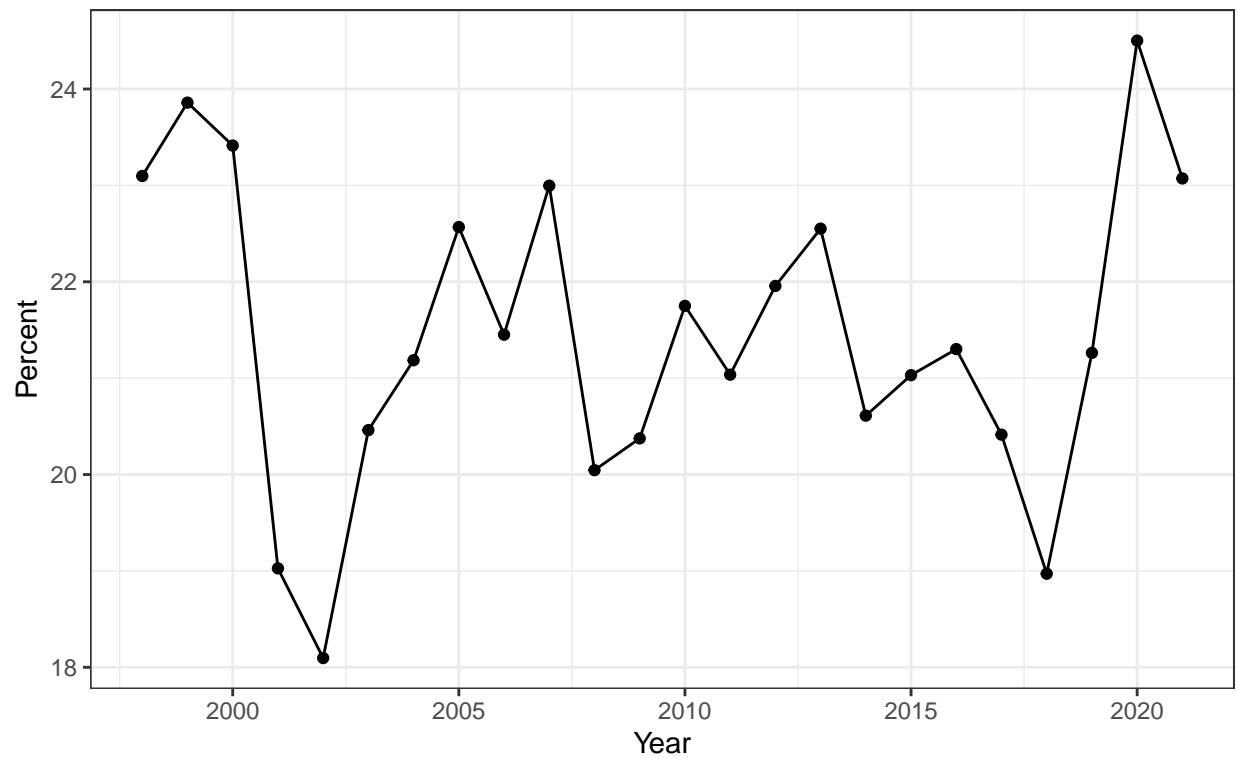
[[23]]

Net Operating Surplus divided by Value Added 1998–2021 for
Electrical equipment, appliances, and components



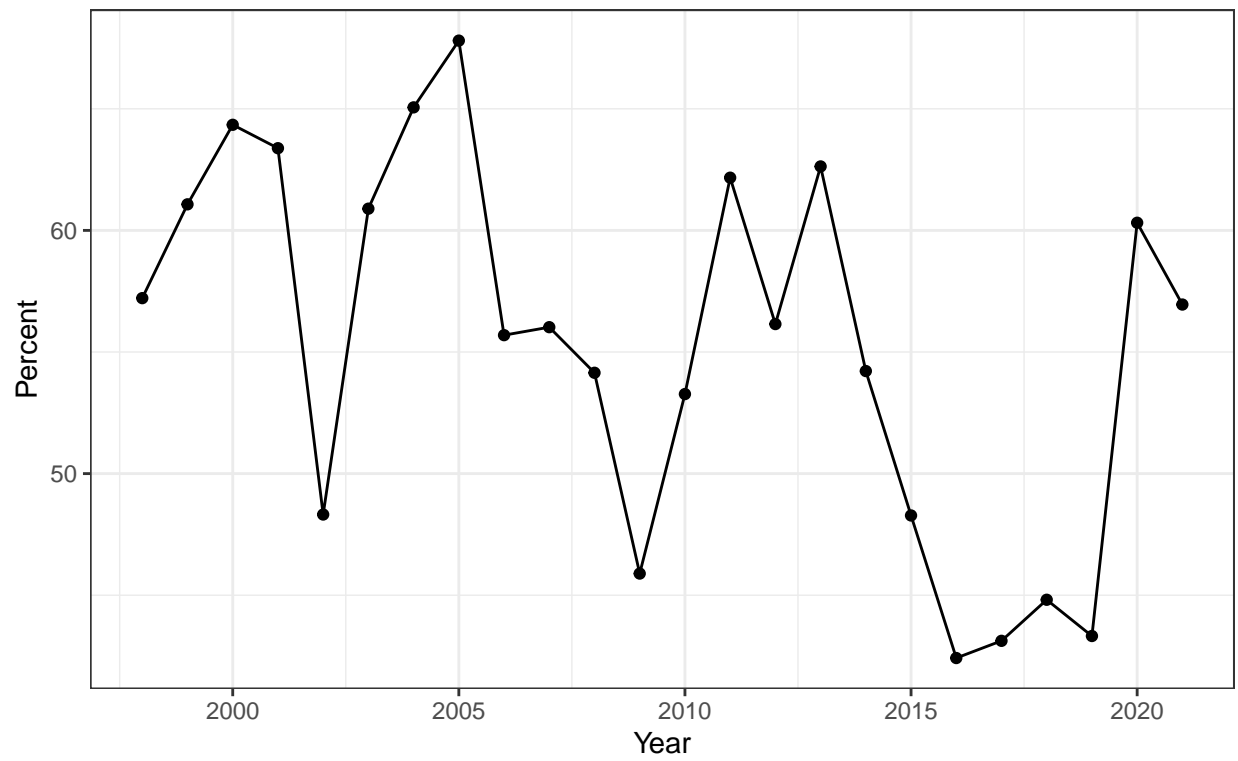
[[24]]

Net Operating Surplus divided by Value Added 1998–2021 for
Fabricated metal products



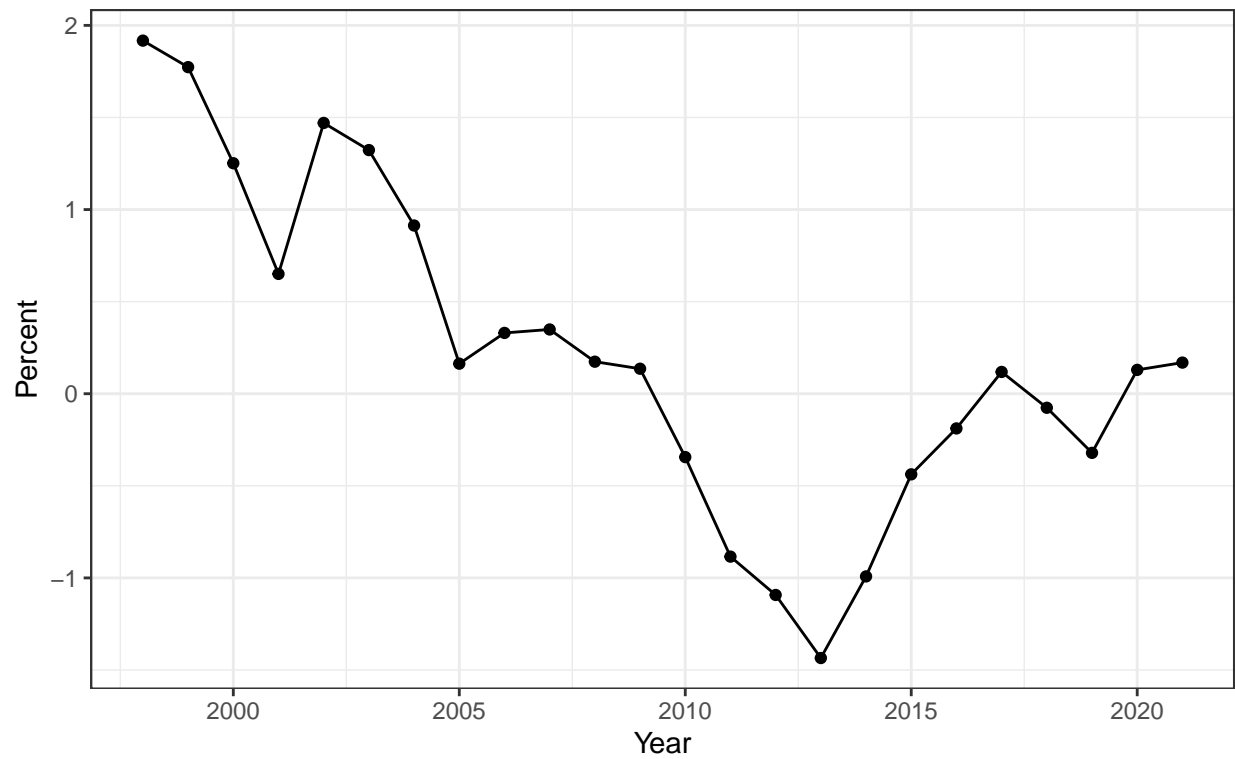
[[25]]

Net Operating Surplus divided by Value Added 1998–2021 for Farms



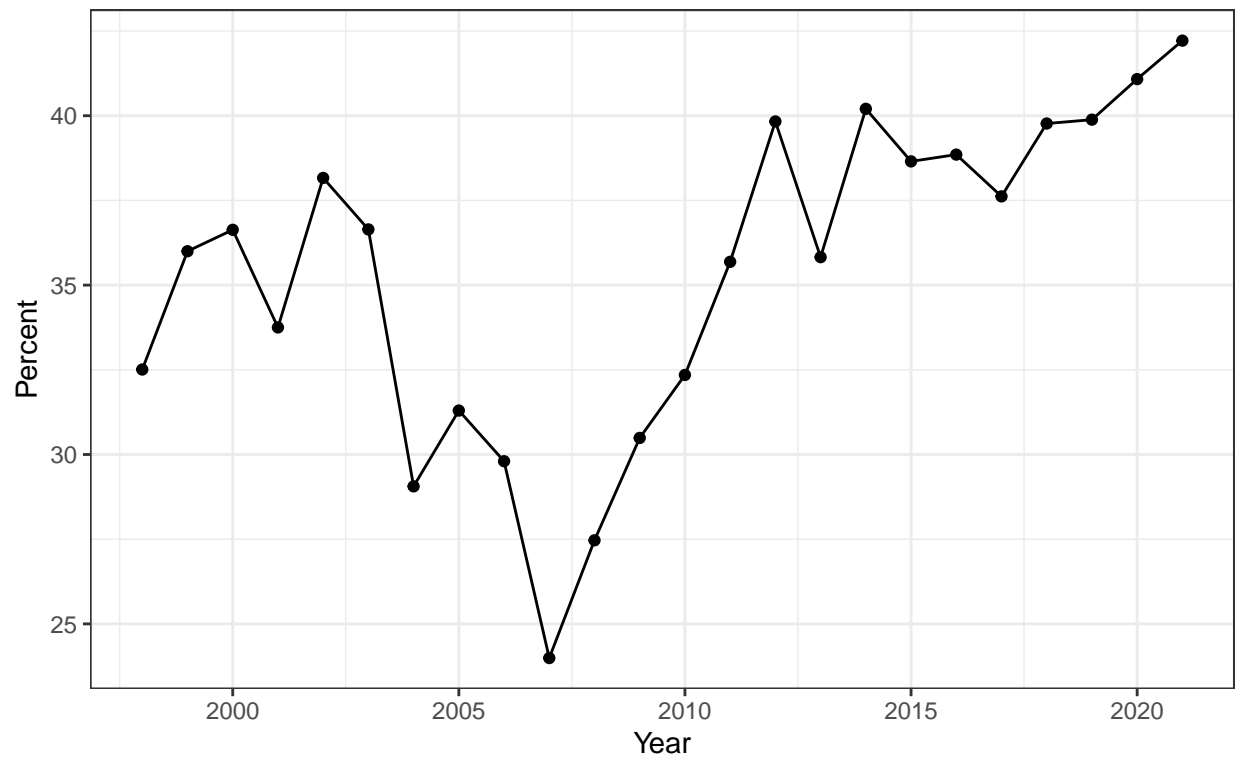
```
##  
## [[26]]
```

Net Operating Surplus divided by Value Added 1998–2021 for Federal



[[27]]

Net Operating Surplus divided by Value Added 1998–2021 for
Federal Reserve banks, credit intermediation, and related activities



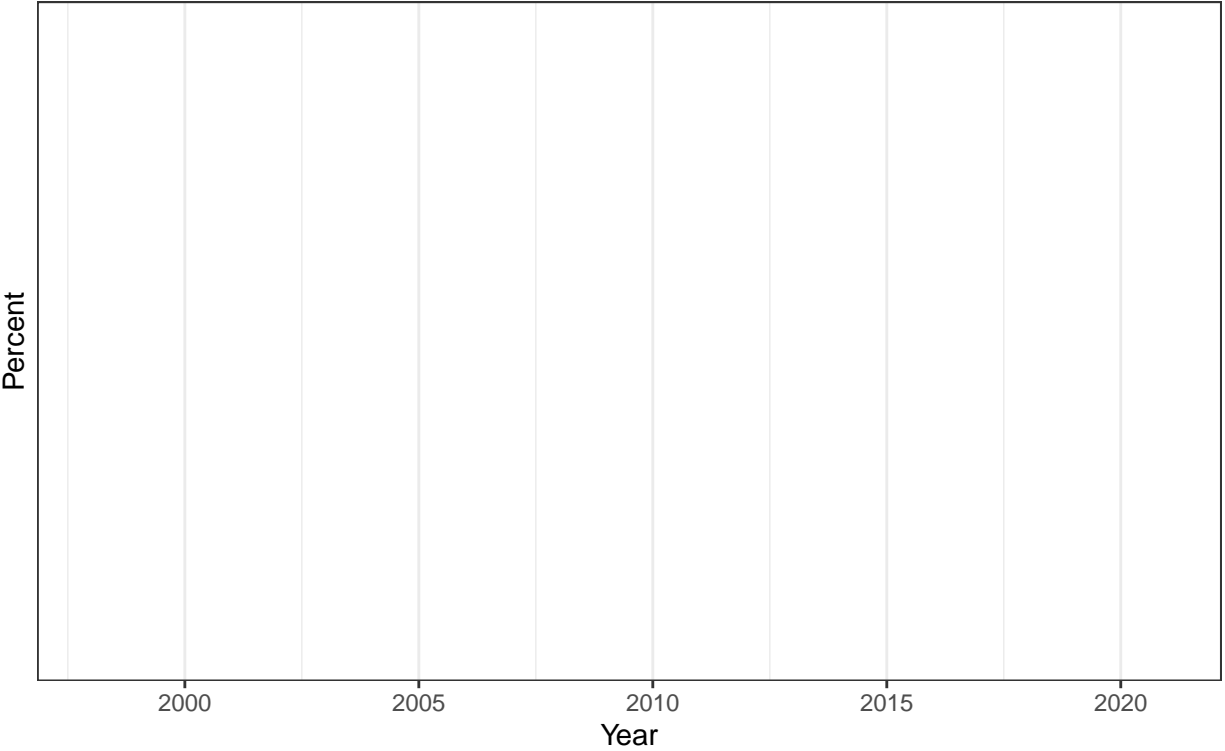
```
##
```

```
## [[28]]
```

```
## Warning: Removed 24 rows containing missing values ('geom_point()').
```

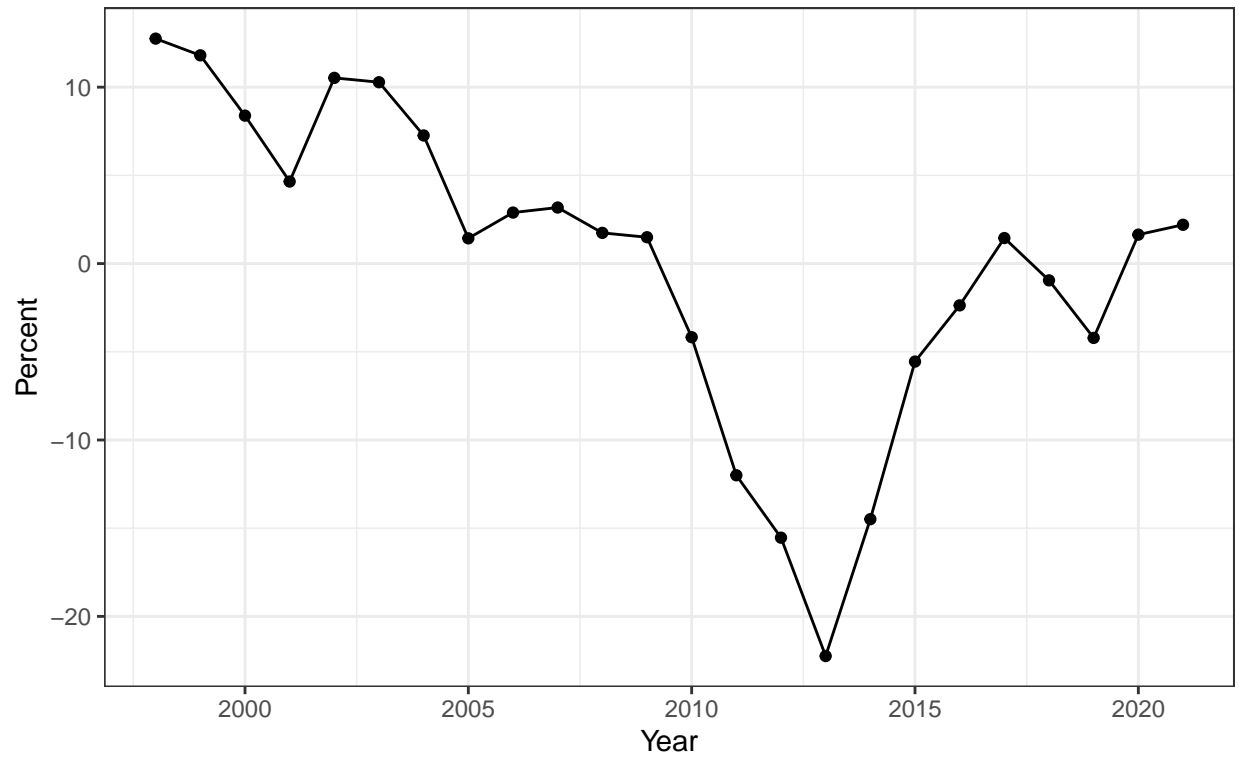
```
## Removed 24 rows containing missing values ('geom_line()').
```

Net Operating Surplus divided by Value Added 1998–2021 for
Federal general government



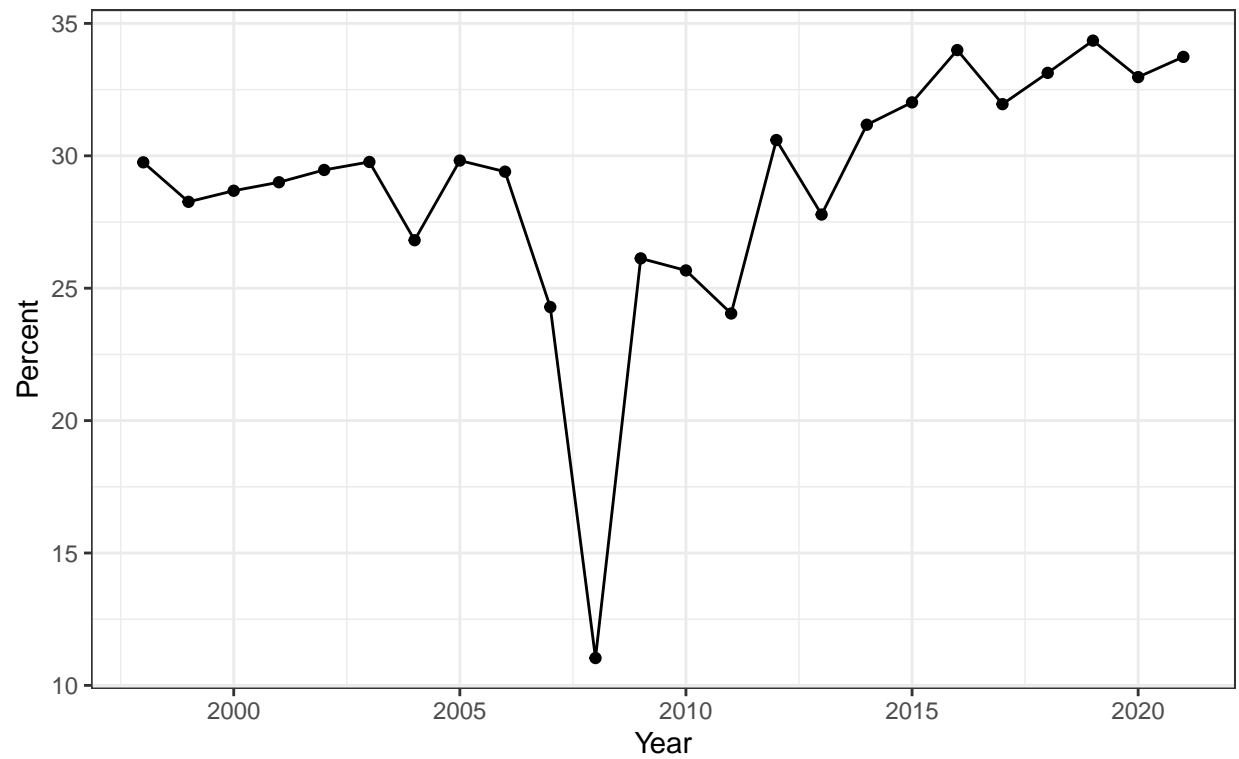
[[29]]

Net Operating Surplus divided by Value Added 1998–2021 for
Federal government enterprises



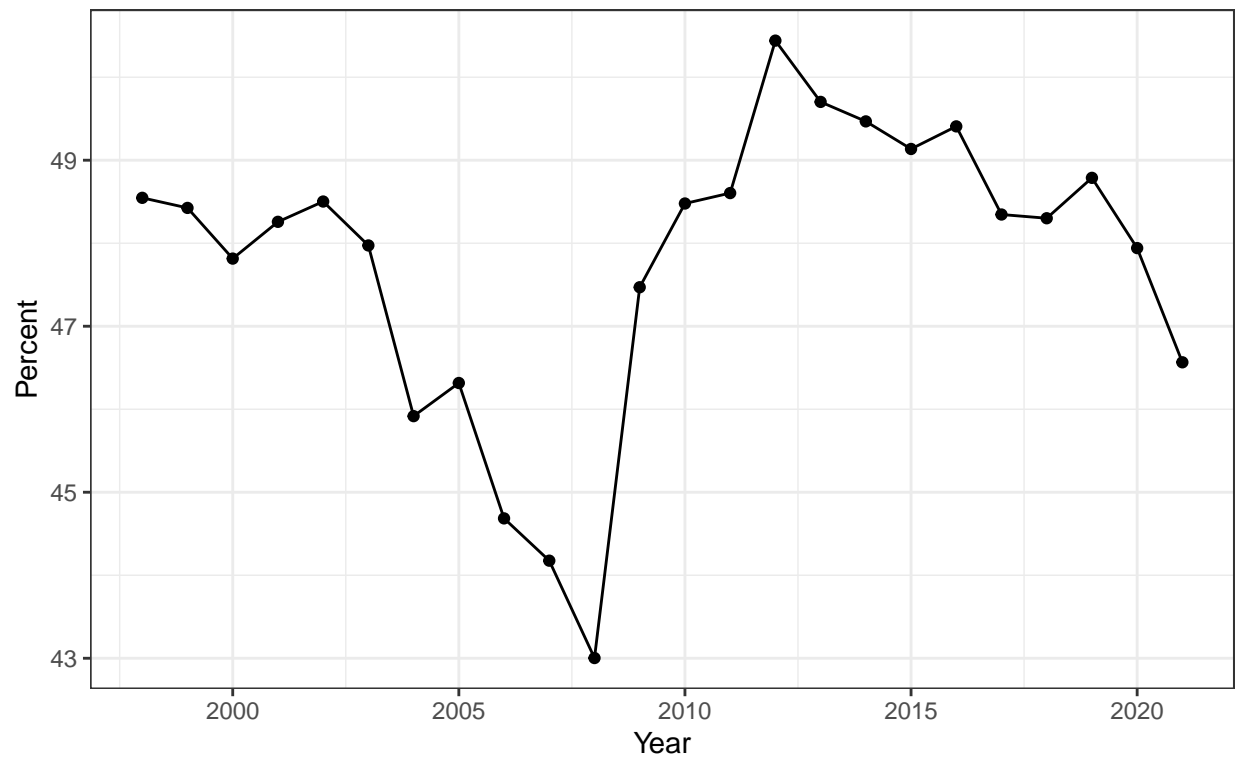
[[30]]

Net Operating Surplus divided by Value Added 1998–2021 for
Finance and insurance



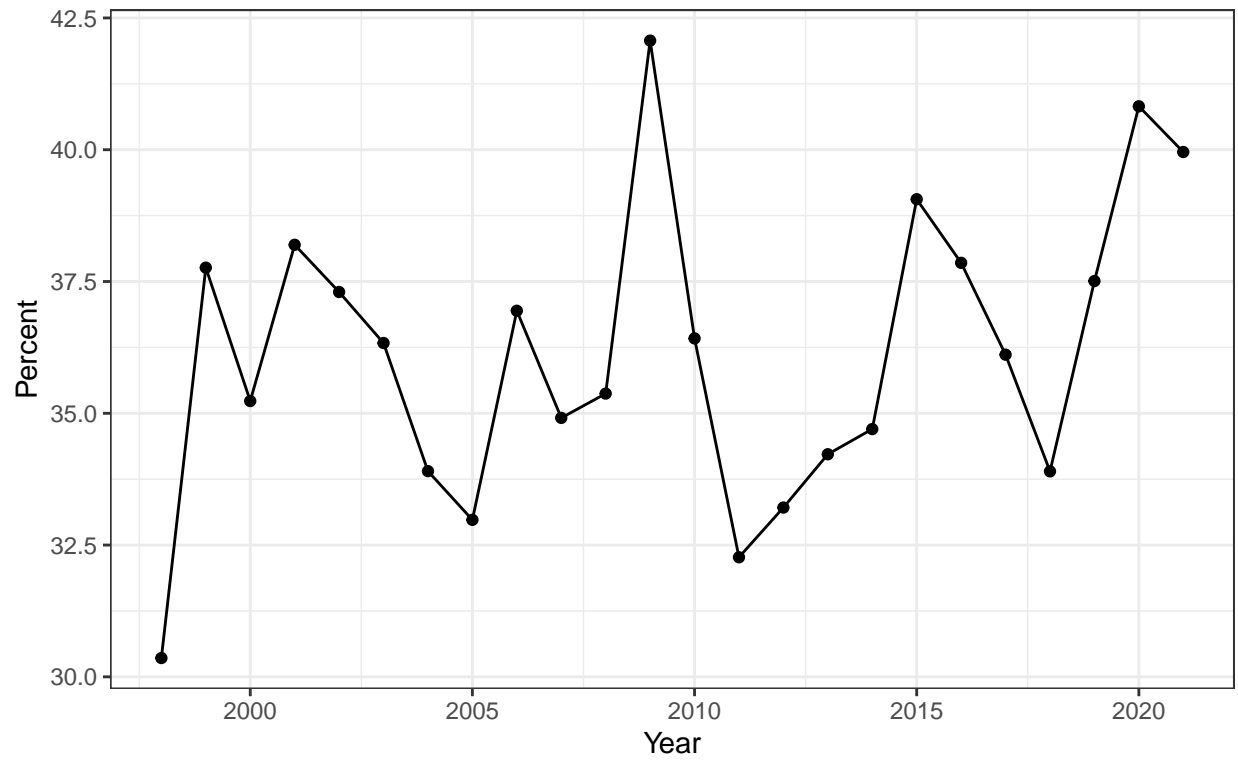
```
##  
## [[31]]
```

Net Operating Surplus divided by Value Added 1998–2021 for
Finance, insurance, real estate, rental, and leasing



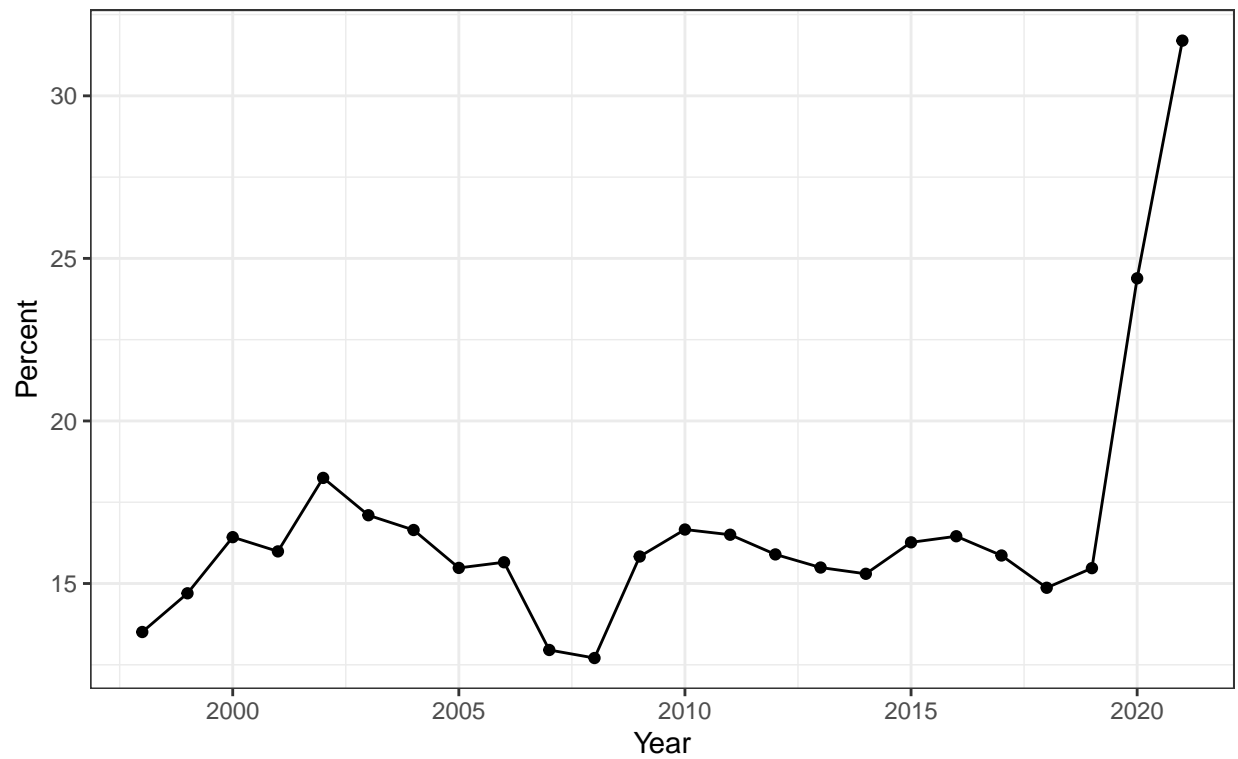
[[32]]

Net Operating Surplus divided by Value Added 1998–2021 for Food and beverage and tobacco products



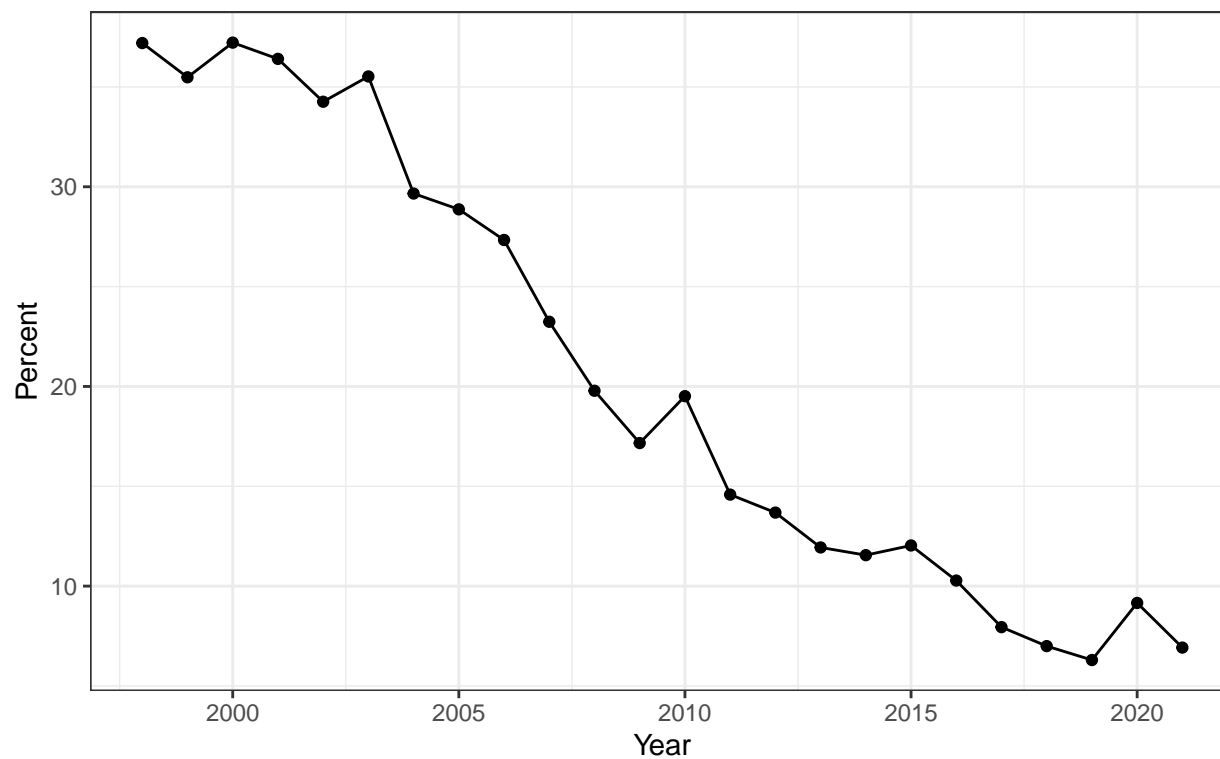
```
##  
## [[33]]
```

Net Operating Surplus divided by Value Added 1998–2021 for
Food services and drinking places



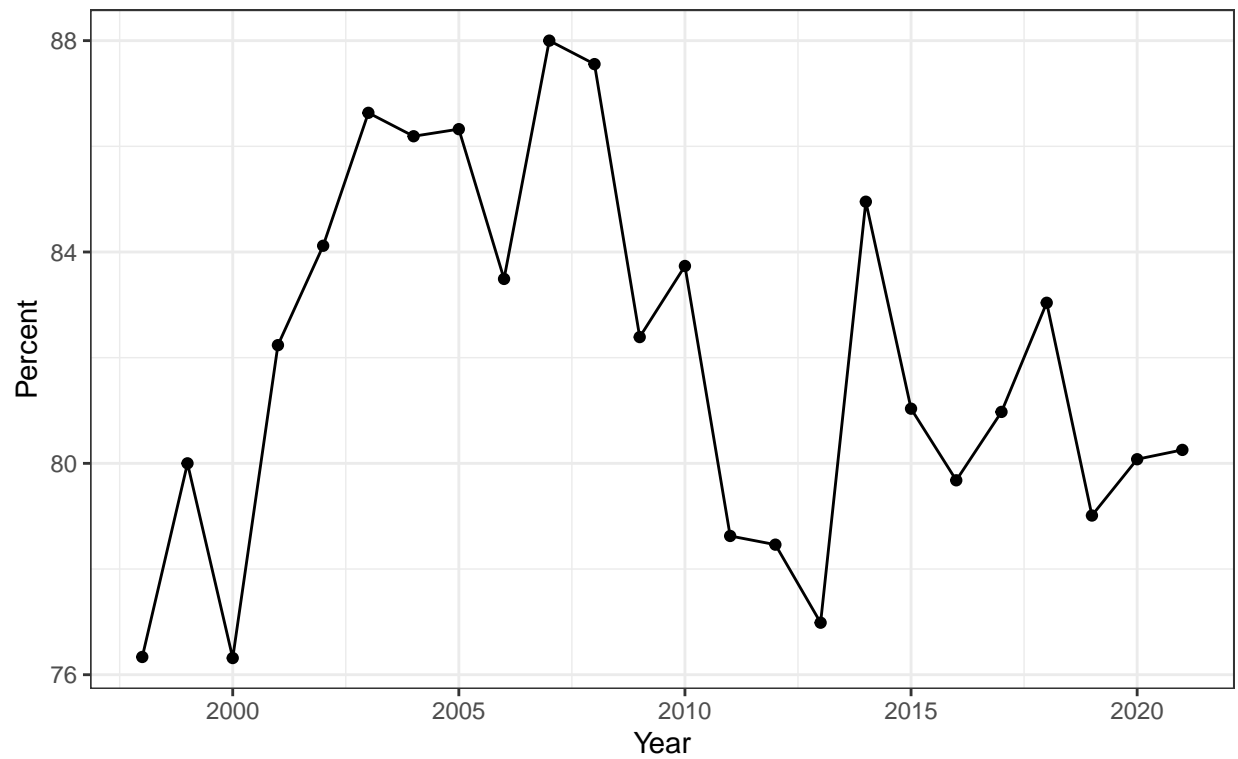
```
##  
## [[34]]
```

Net Operating Surplus divided by Value Added 1998–2021 for
Forestry, fishing, and related activities



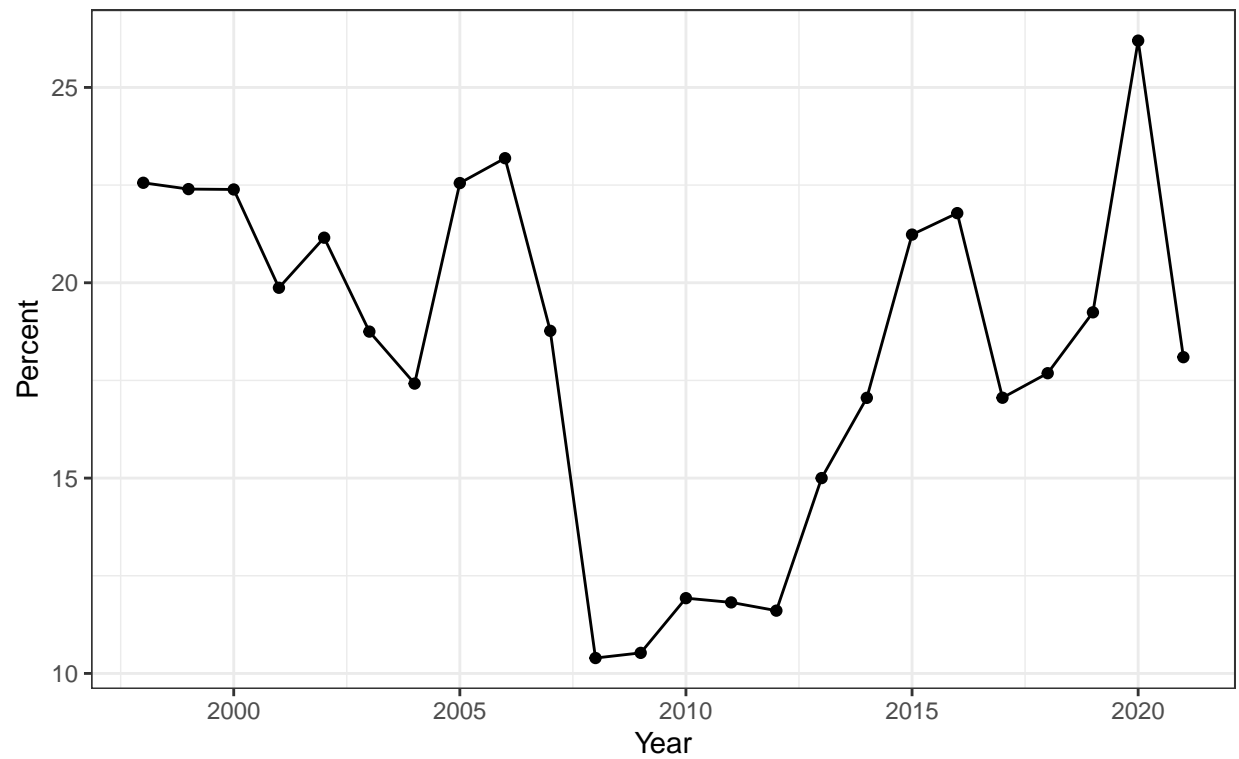
[[35]]

Net Operating Surplus divided by Value Added 1998–2021 for
Funds, trusts, and other financial vehicles



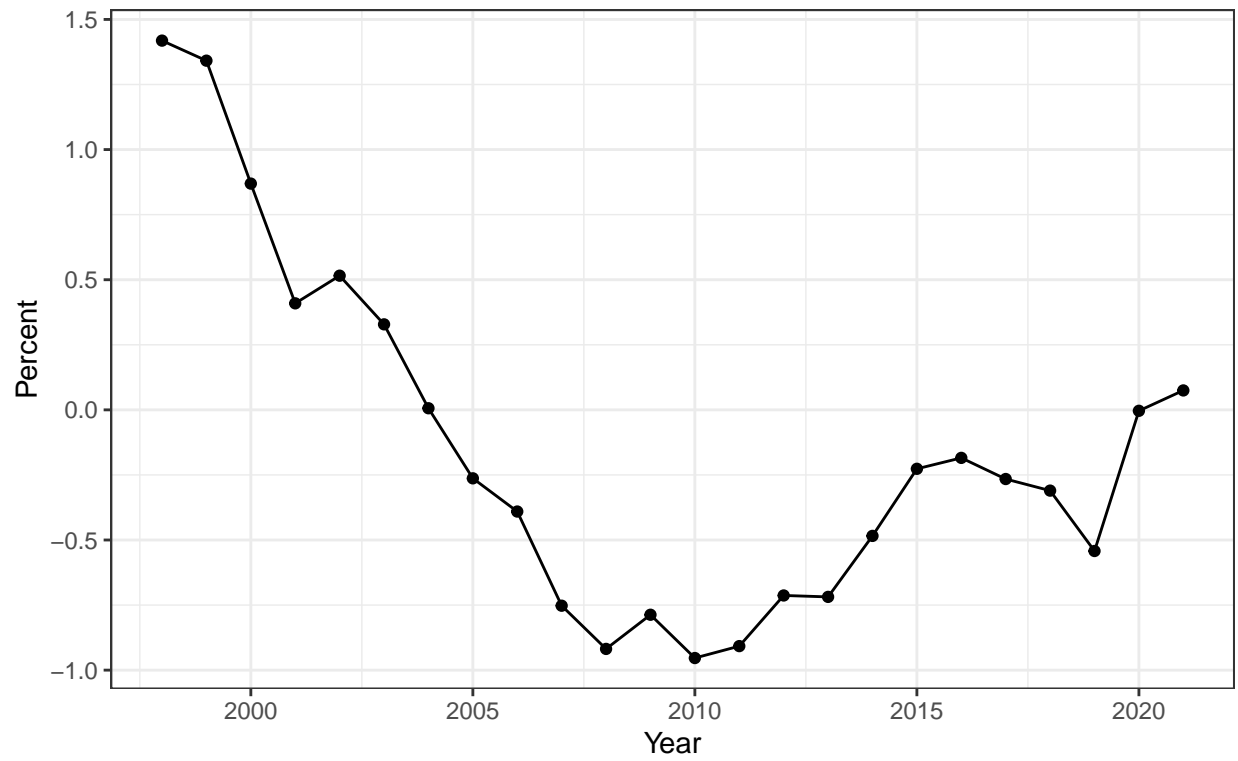
[[36]]

Net Operating Surplus divided by Value Added 1998–2021 for Furniture and related products



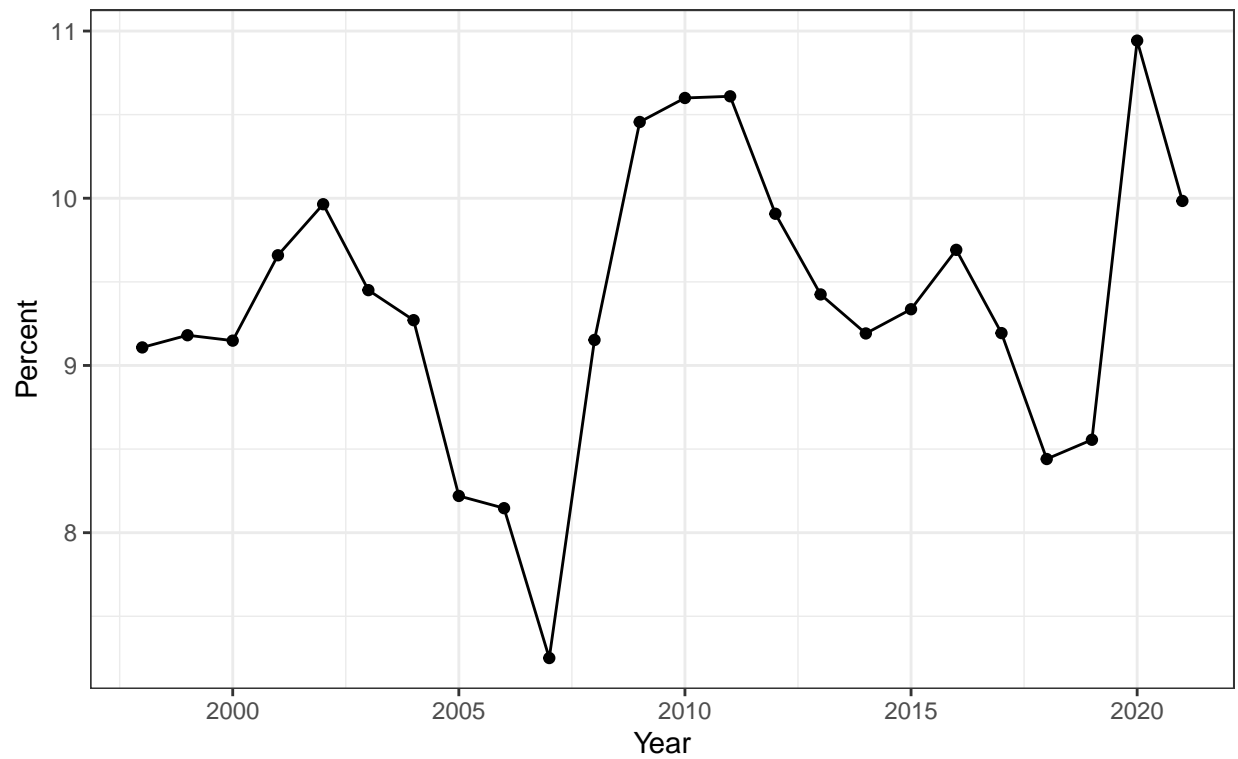
```
##  
## [[37]]
```

Net Operating Surplus divided by Value Added 1998–2021 for Government



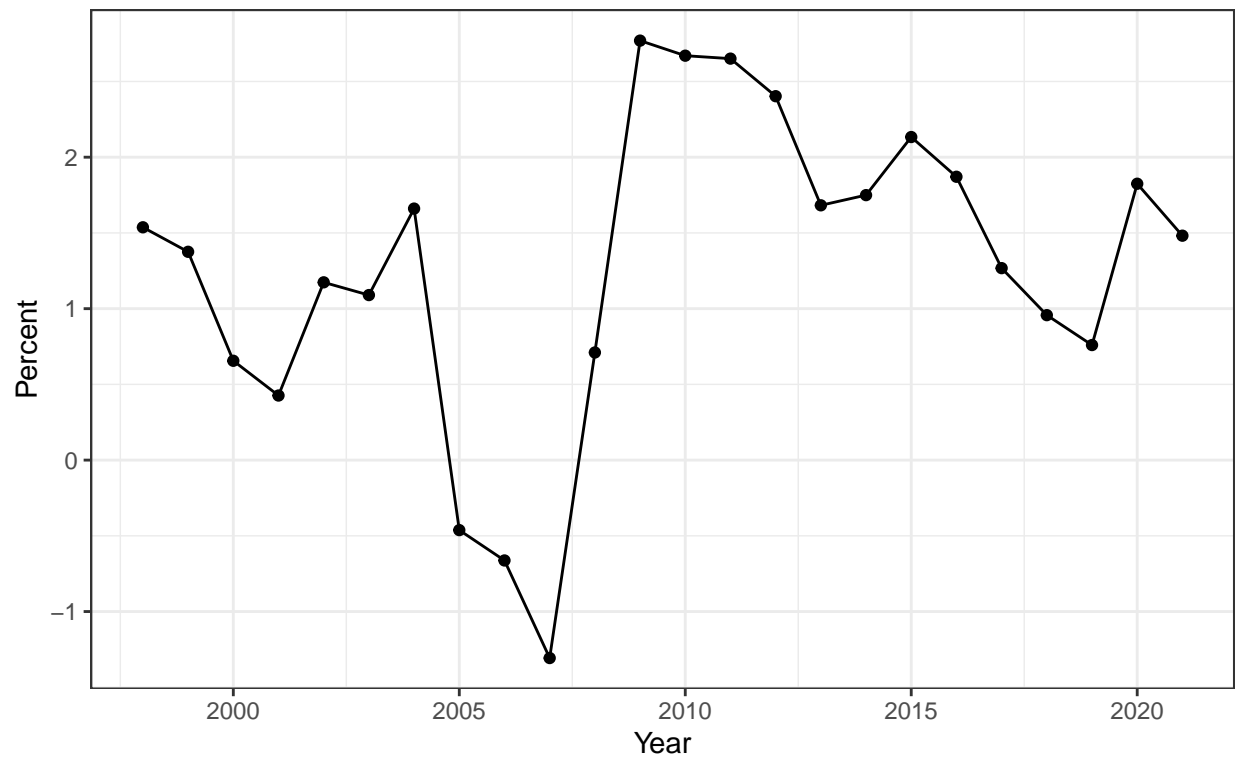
```
##  
## [[38]]
```

Net Operating Surplus divided by Value Added 1998–2021 for
Health care and social assistance



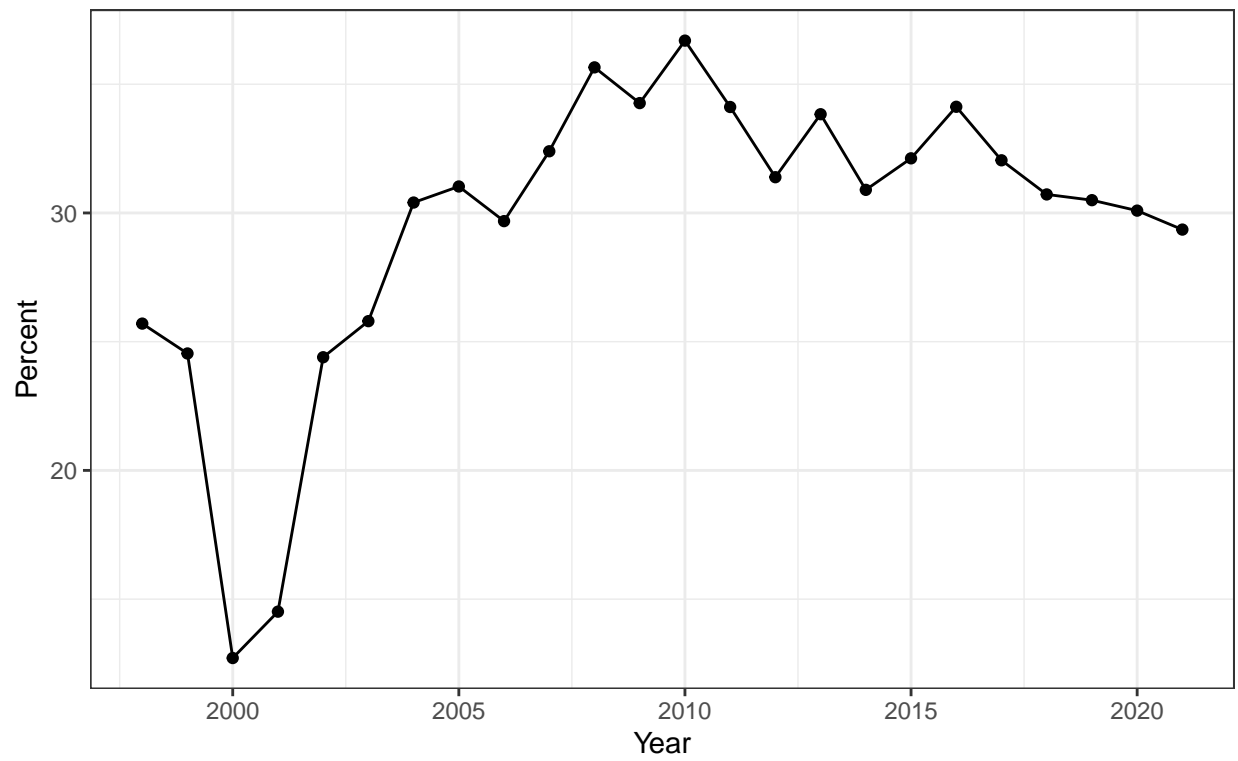
[[39]]

Net Operating Surplus divided by Value Added 1998–2021 for
Hospitals and nursing and residential care facilities



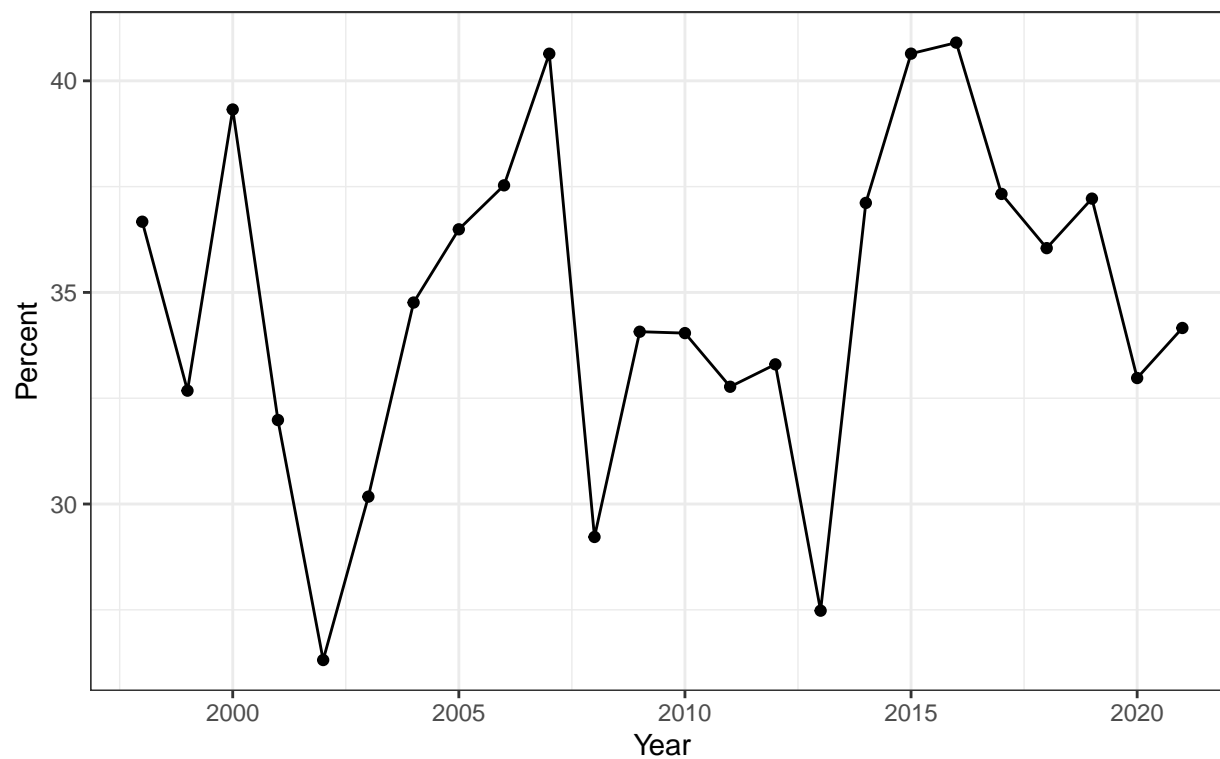
```
##  
## [[40]]
```


Net Operating Surplus divided by Value Added 1998–2021 for Information



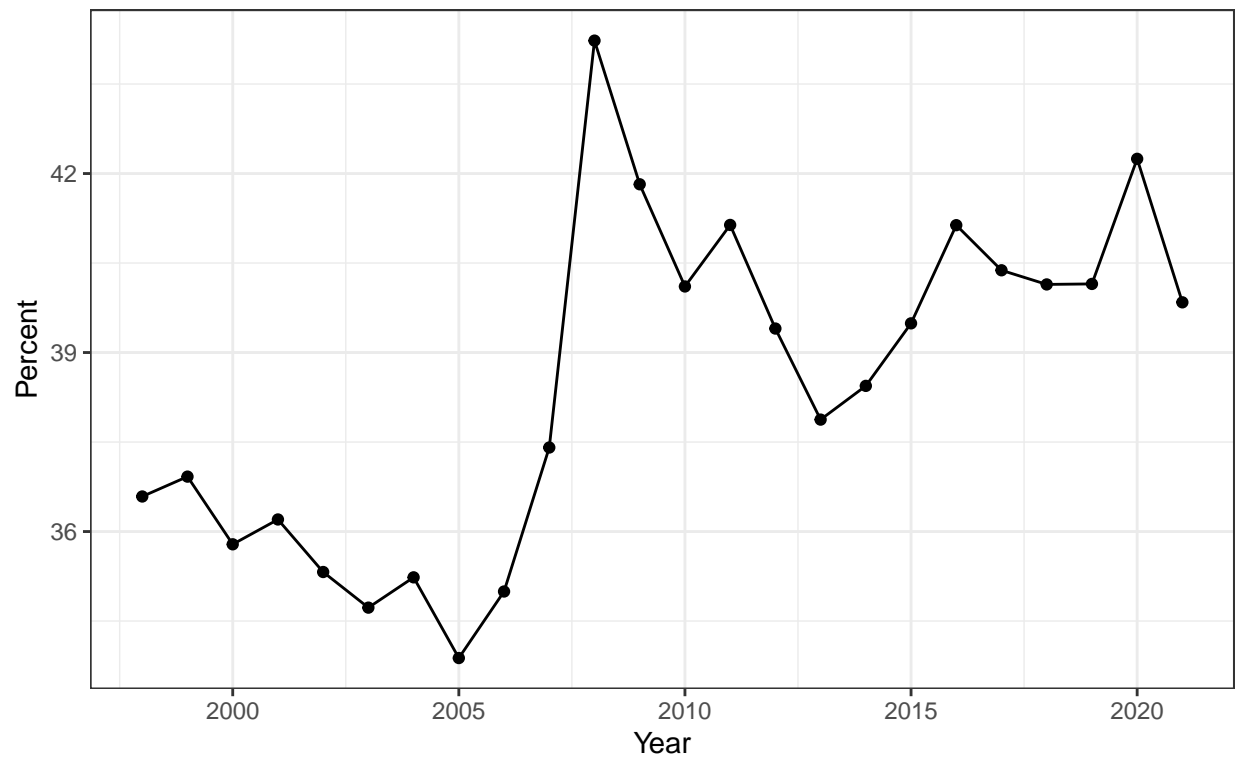
```
##  
## [[41]]
```

Net Operating Surplus divided by Value Added 1998–2021 for Insurance carriers and related activities



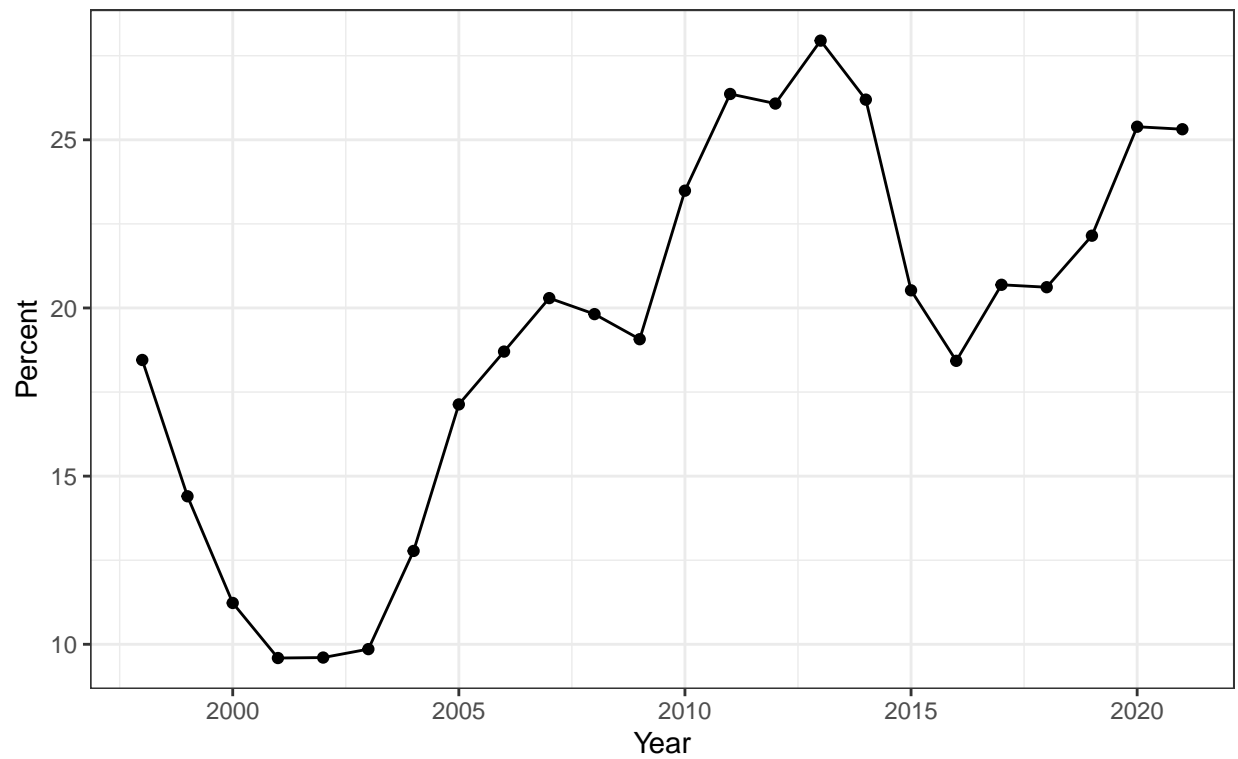
[[42]]

Net Operating Surplus divided by Value Added 1998–2021 for
Legal services



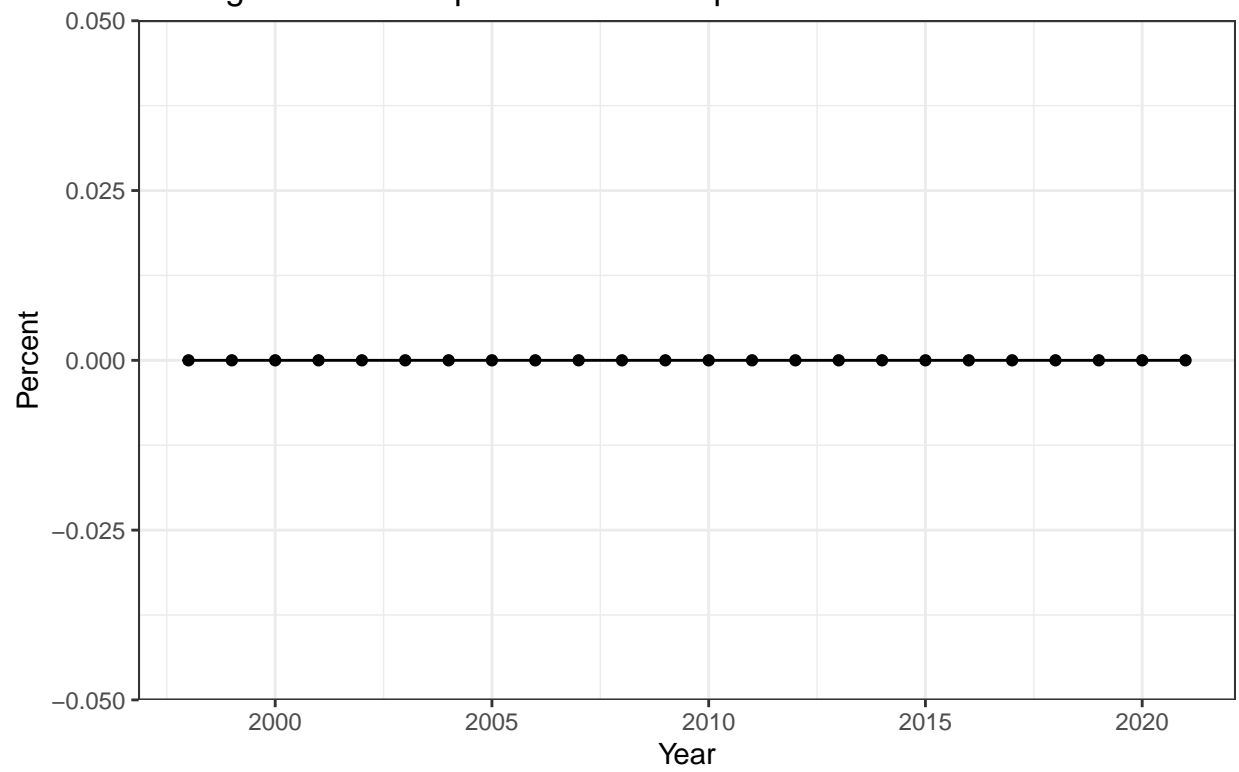
[[43]]

Net Operating Surplus divided by Value Added 1998–2021 for Machinery



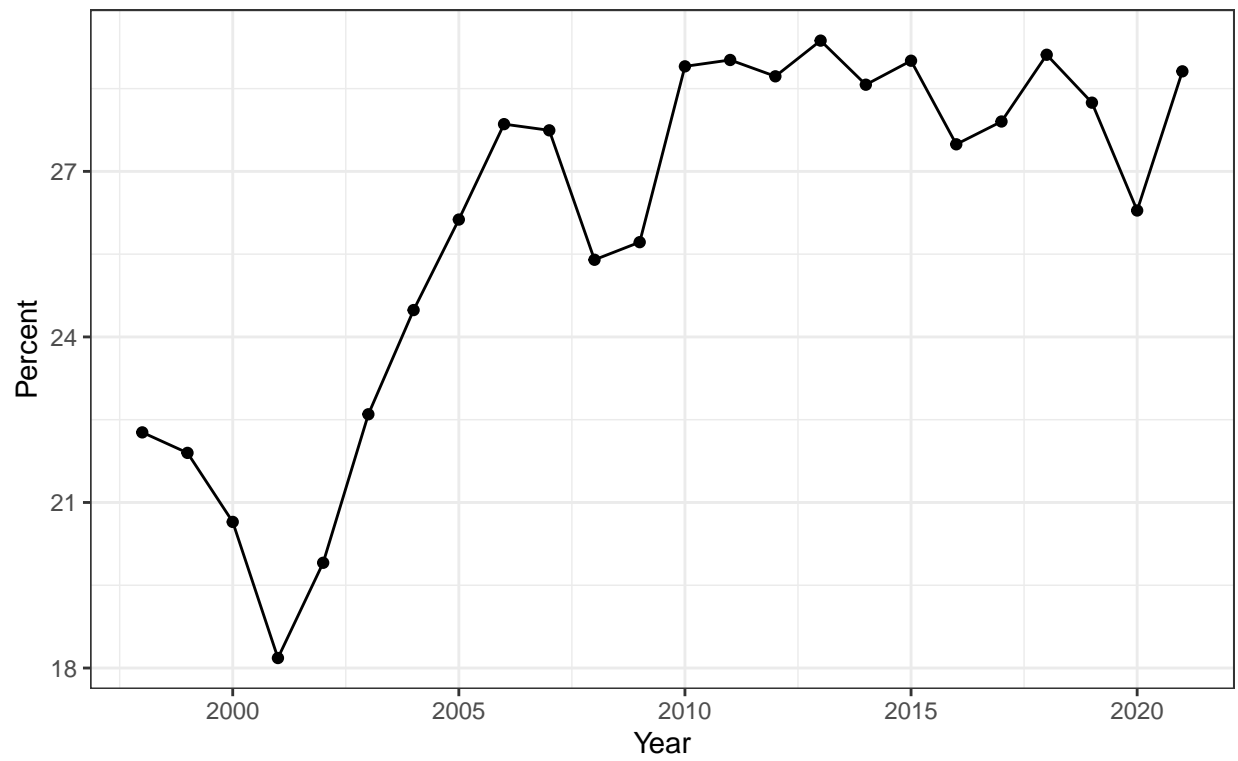
```
##  
## [[44]]
```

Net Operating Surplus divided by Value Added 1998–2021 for
Management of companies and enterprises



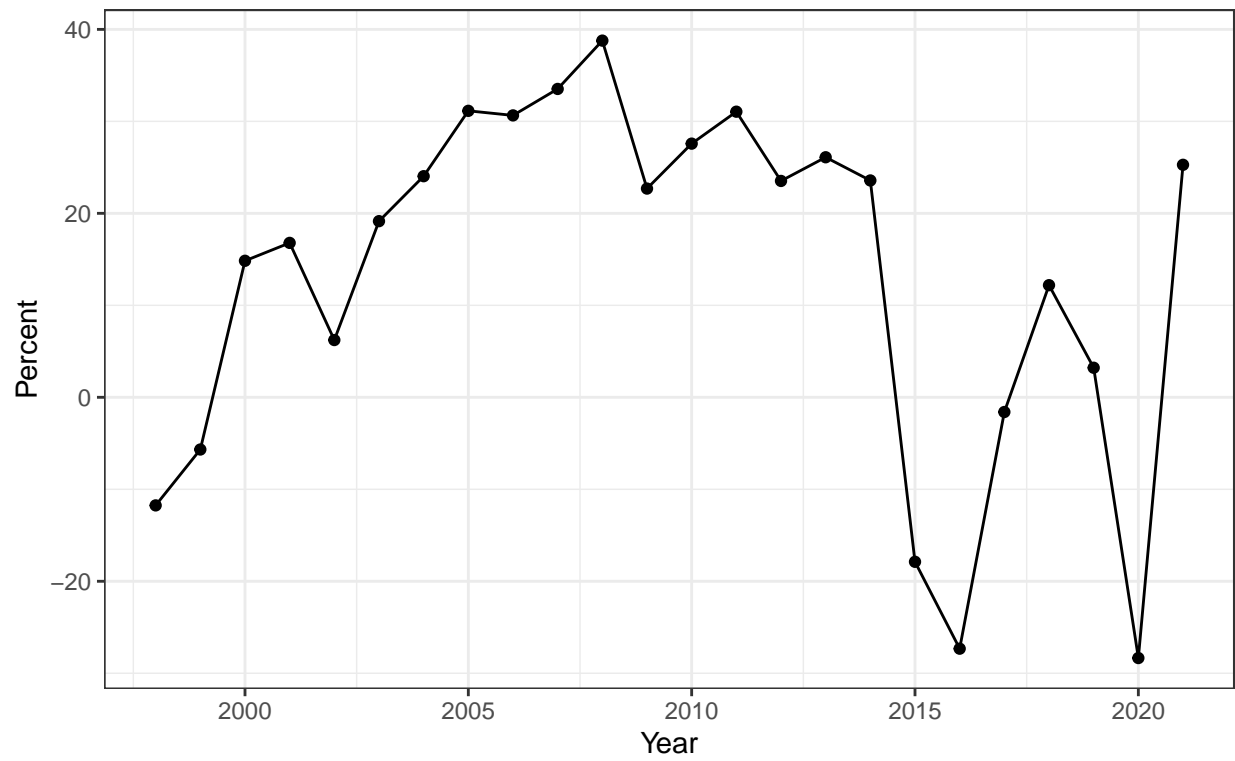
```
##  
## [[45]]
```

Net Operating Surplus divided by Value Added 1998–2021 for Manufacturing



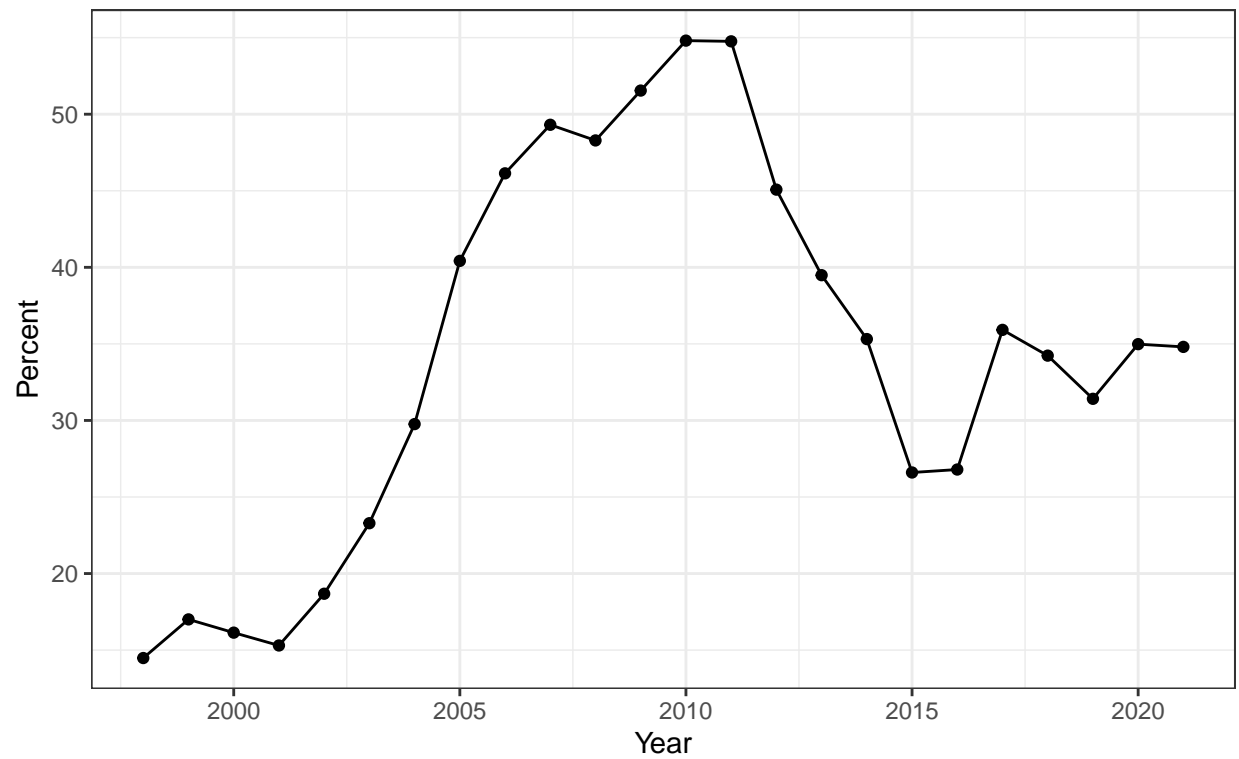
```
##  
## [[46]]
```

Net Operating Surplus divided by Value Added 1998–2021 for Mining



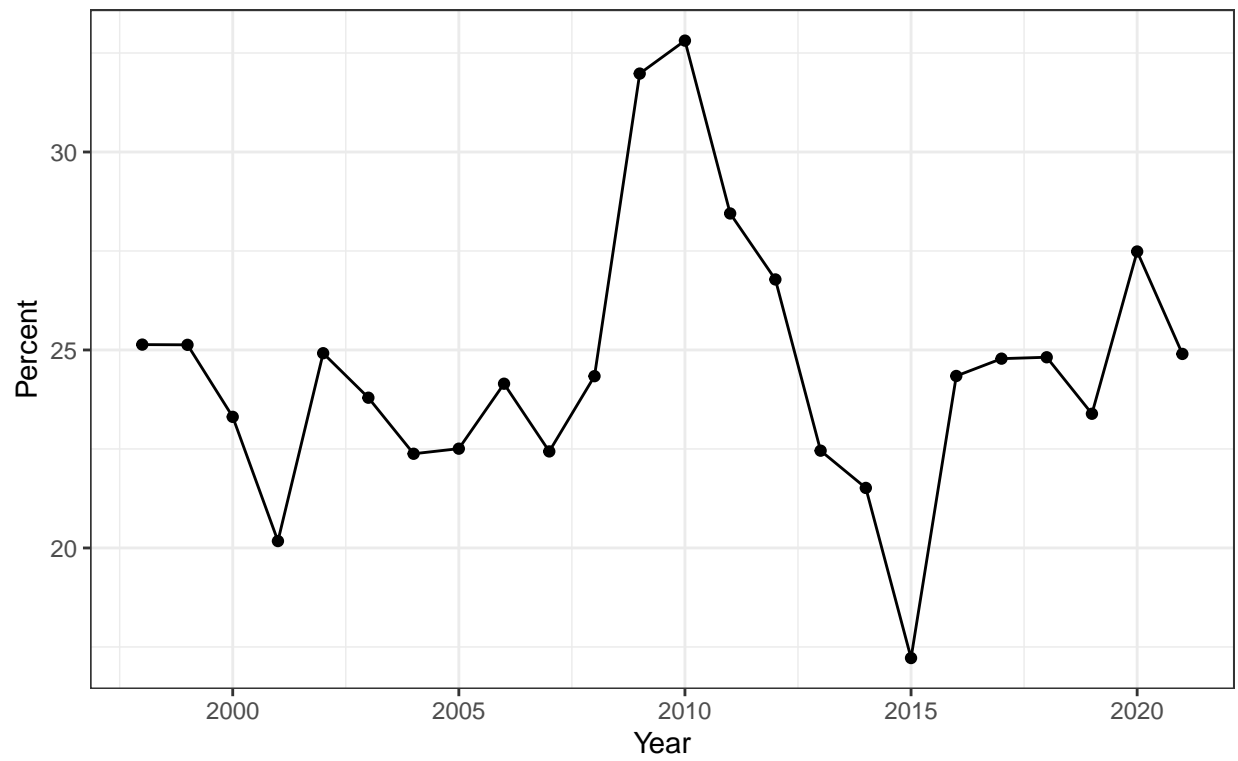
```
##  
## [[47]]
```

Net Operating Surplus divided by Value Added 1998–2021 for
Mining, except oil and gas



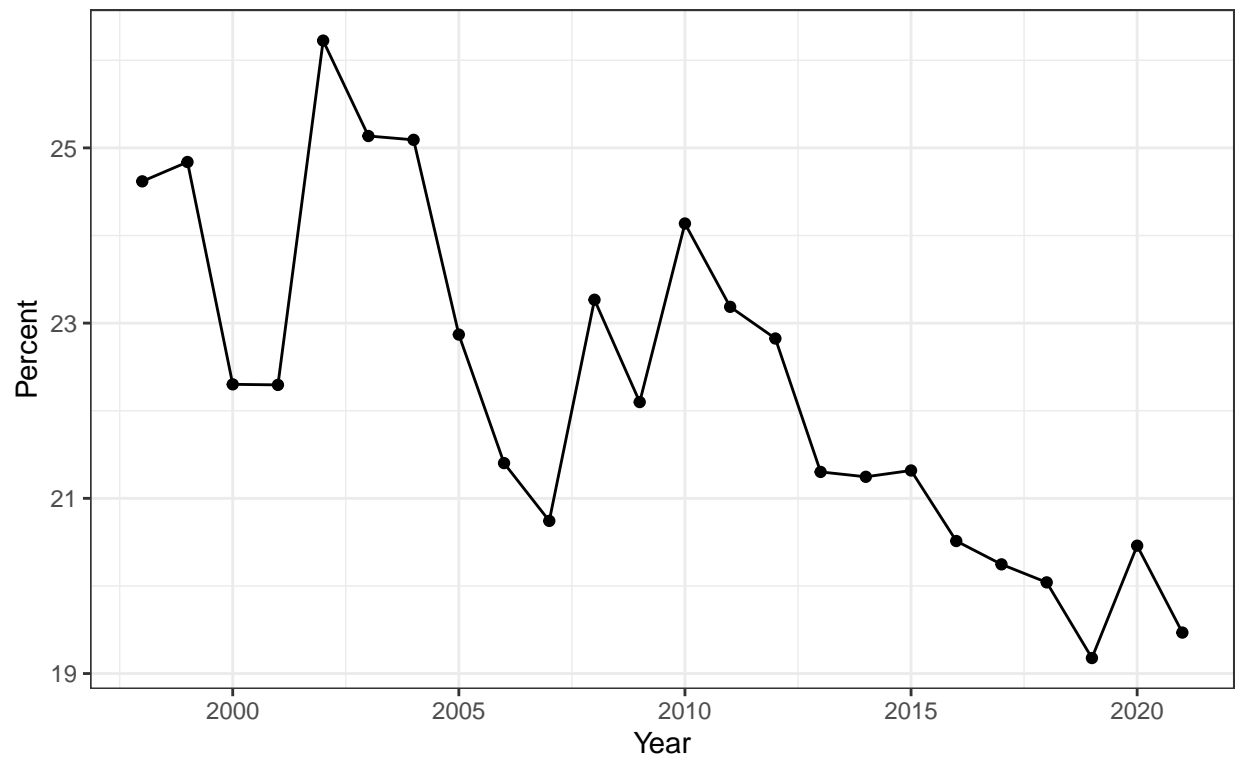
[[48]]

Net Operating Surplus divided by Value Added 1998–2021 for
Miscellaneous manufacturing



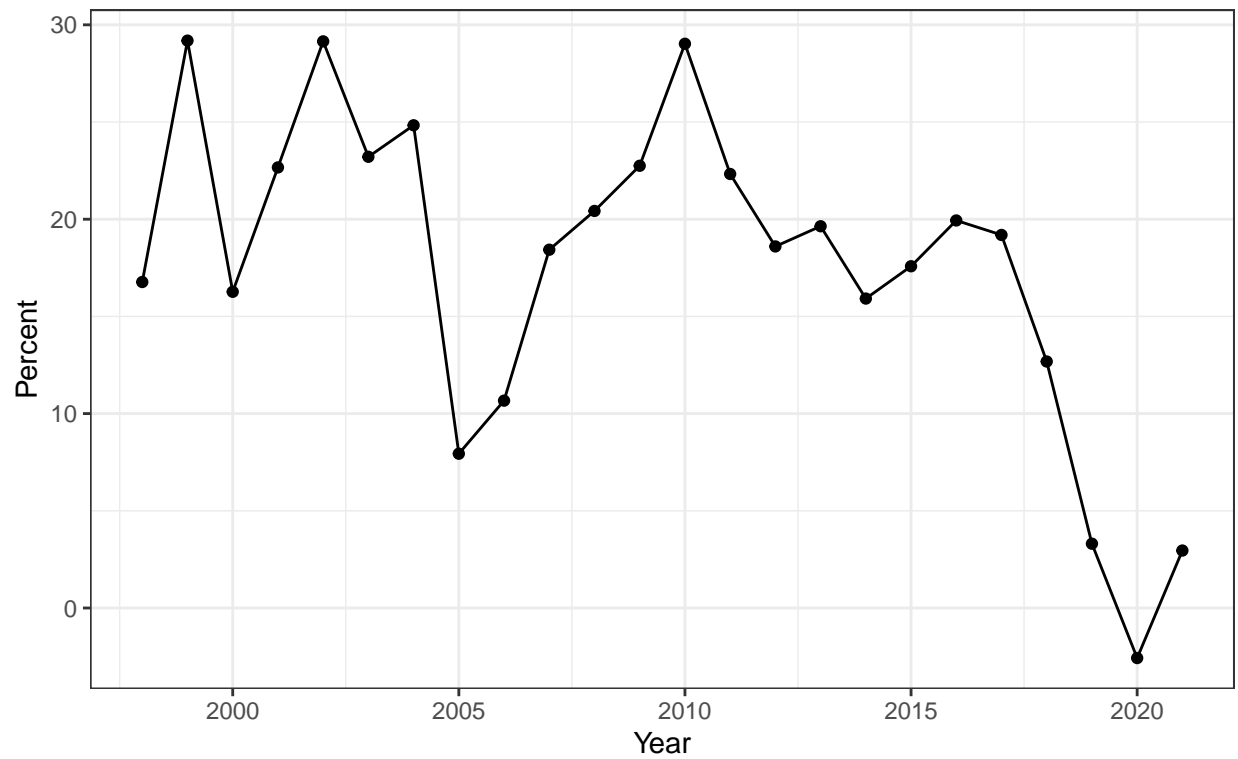
```
##  
## [[49]]
```

Net Operating Surplus divided by Value Added 1998–2021 for
Miscellaneous professional, scientific, and technical services



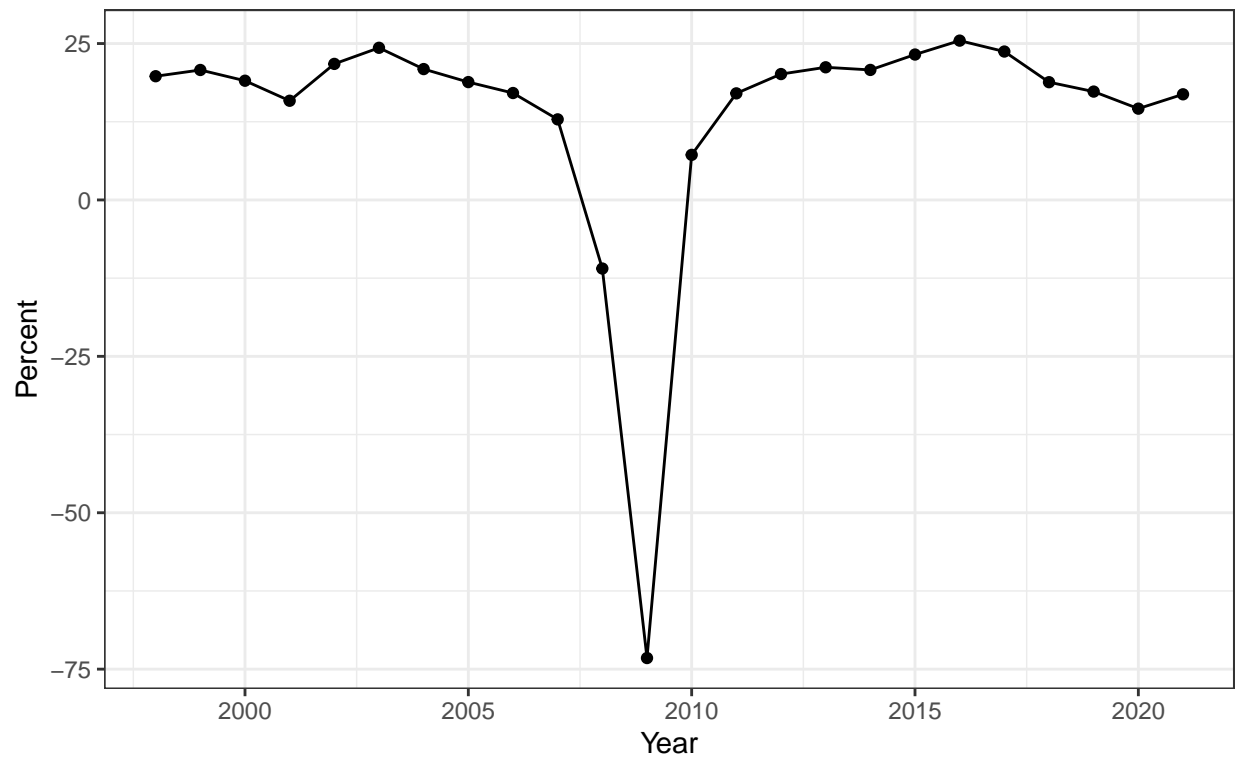
```
##  
## [[50]]
```

Net Operating Surplus divided by Value Added 1998–2021 for
Motion picture and sound recording industries



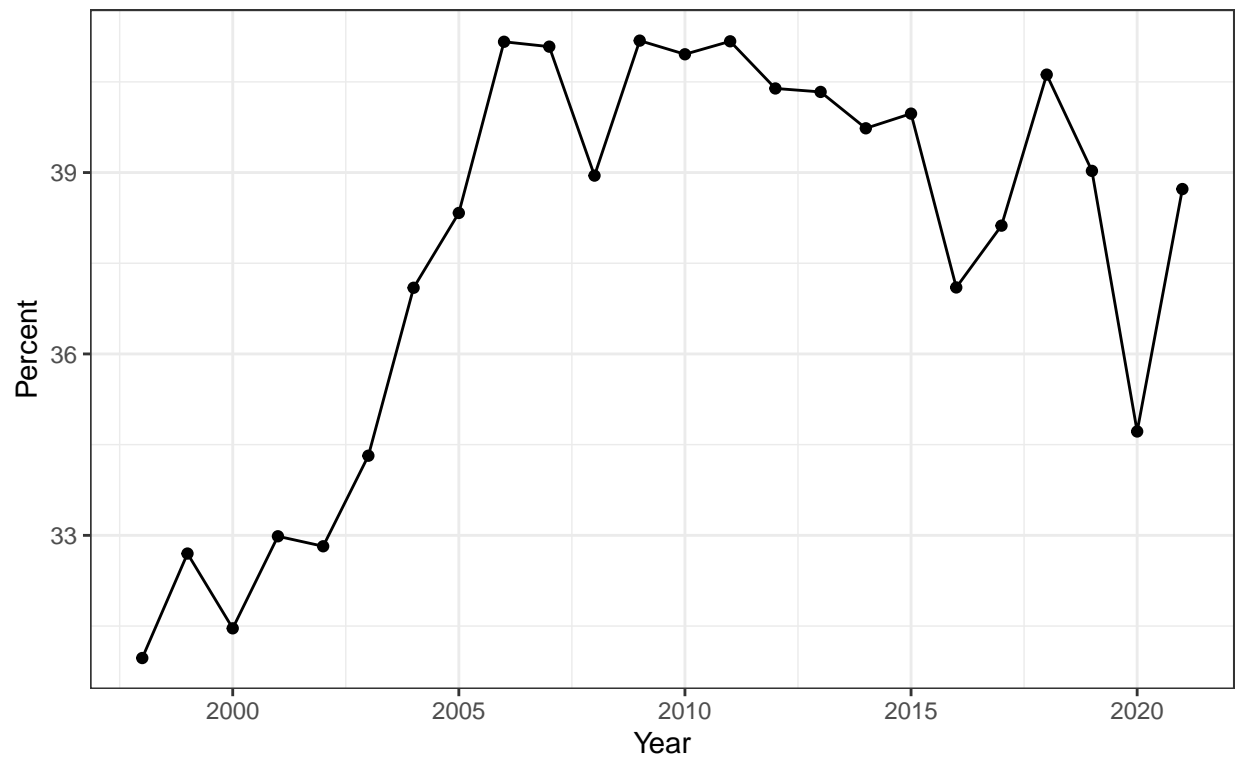
```
##  
## [[51]]
```

Net Operating Surplus divided by Value Added 1998–2021 for
Motor vehicles, bodies and trailers, and parts



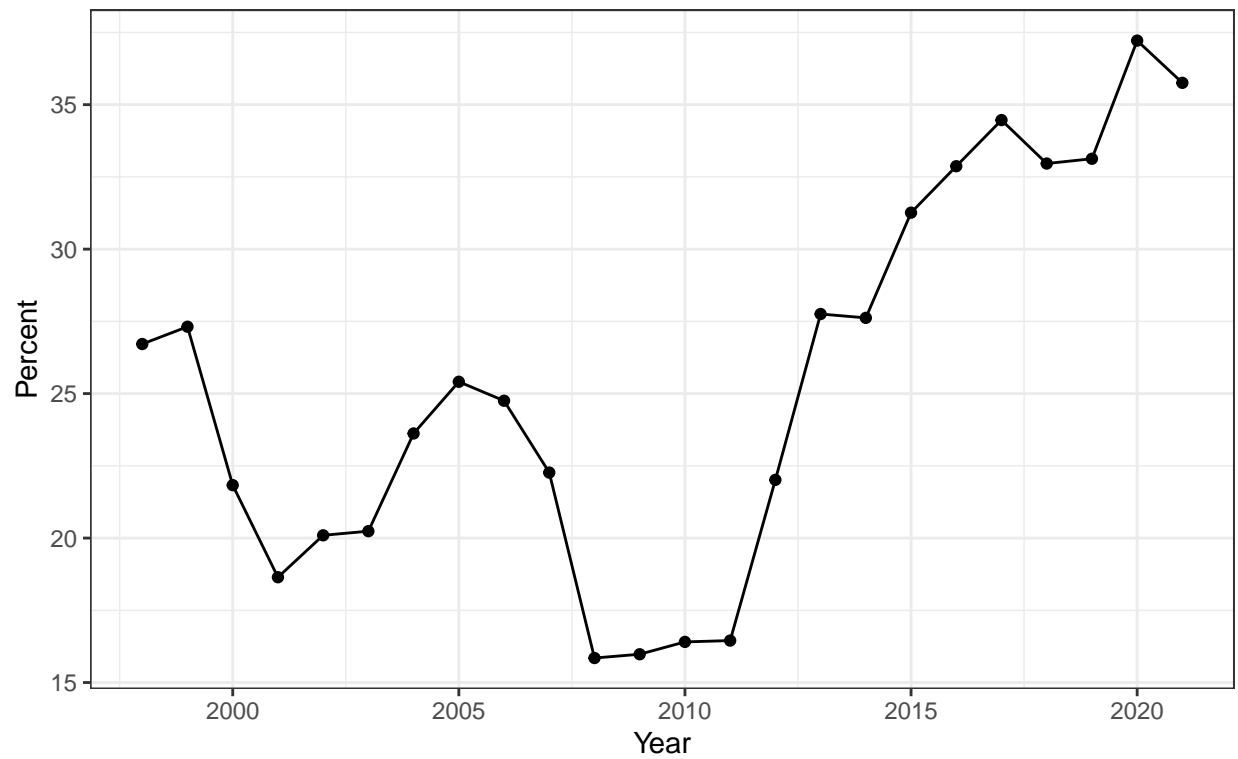
[[52]]

Net Operating Surplus divided by Value Added 1998–2021 for
Nondurable goods



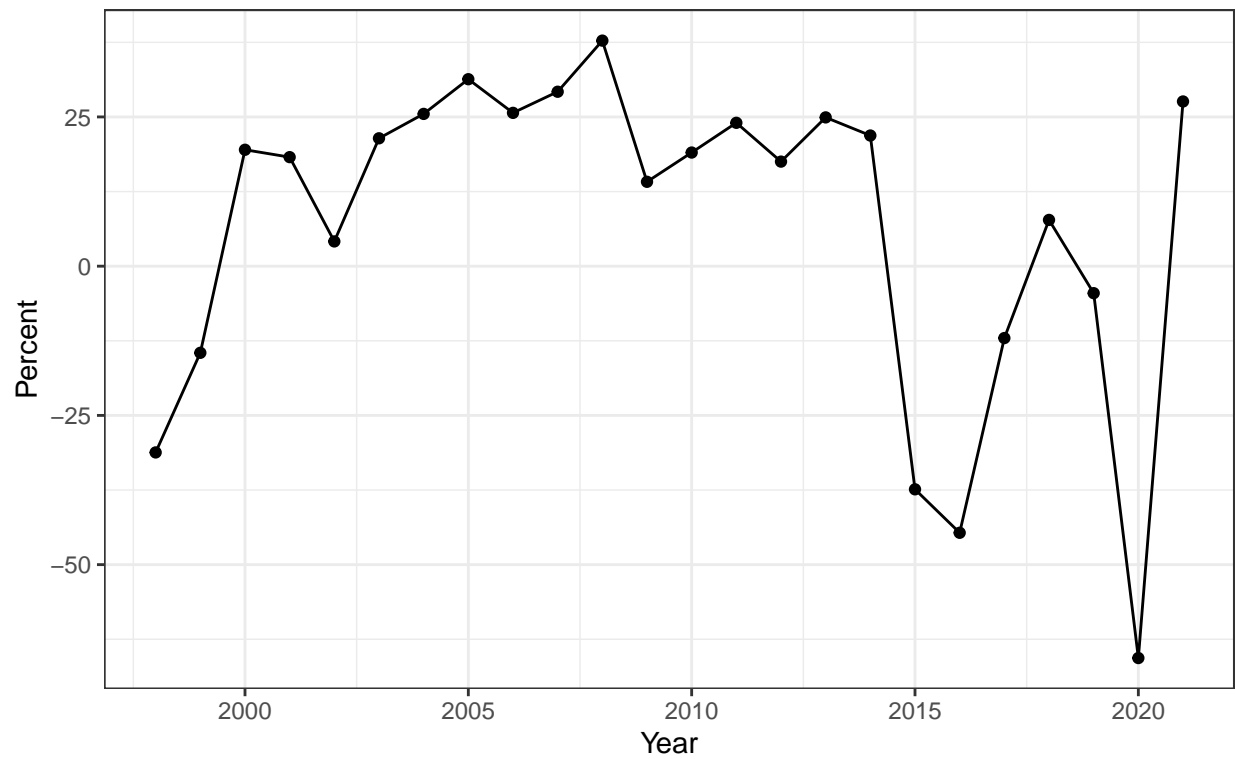
[[53]]

Net Operating Surplus divided by Value Added 1998–2021 for
Nonmetallic mineral products



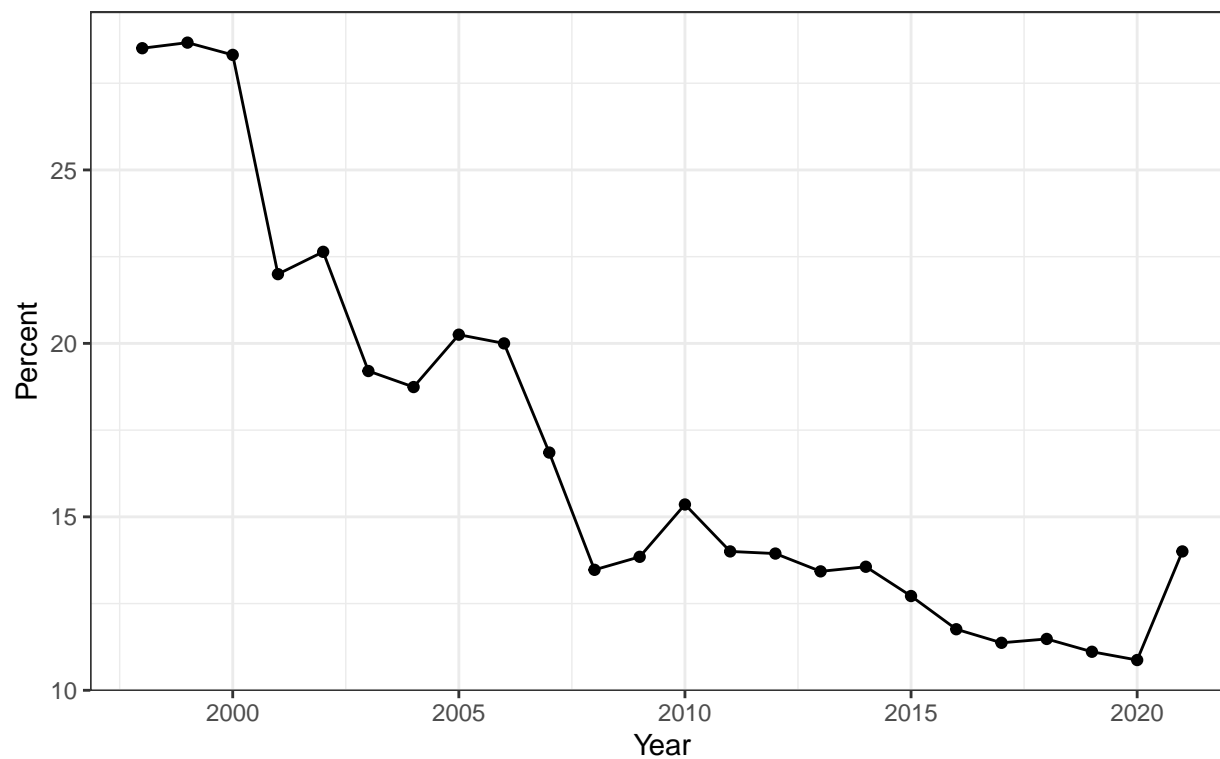
[[54]]

Net Operating Surplus divided by Value Added 1998–2021 for
Oil and gas extraction



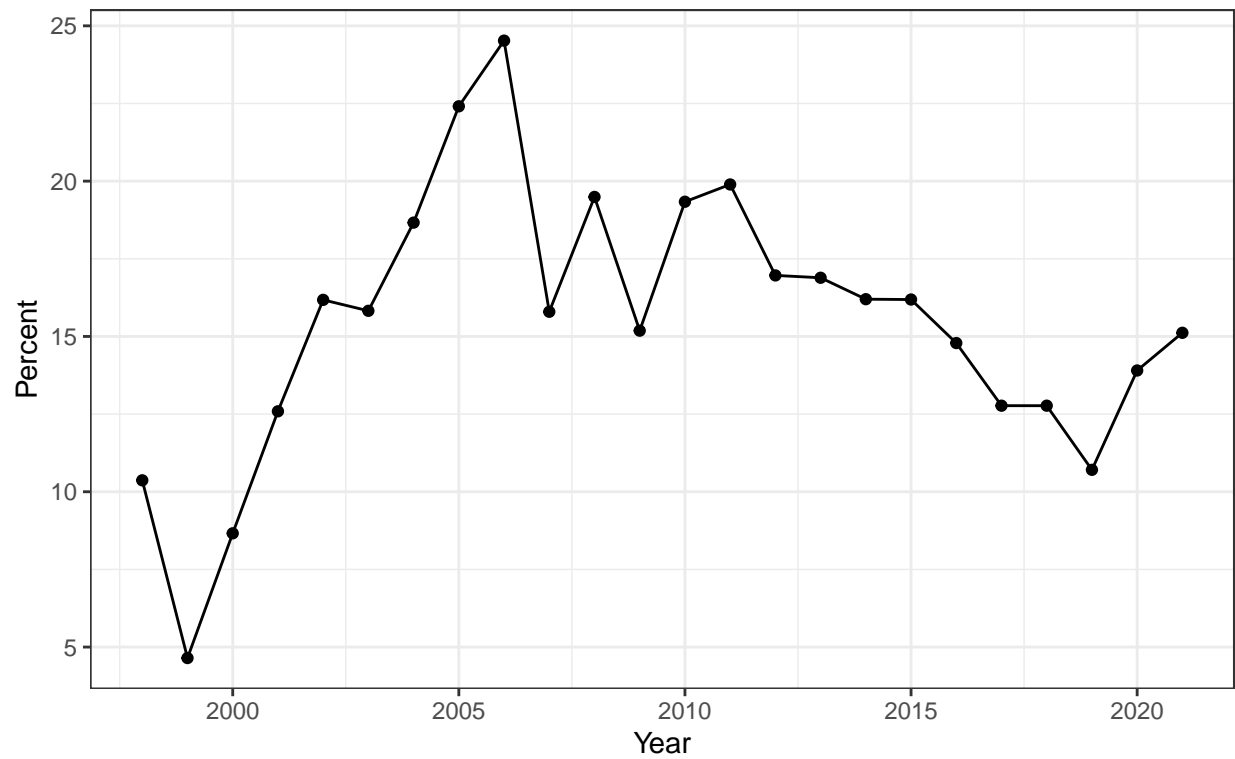
[[55]]

Net Operating Surplus divided by Value Added 1998–2021 for
Other services, except government



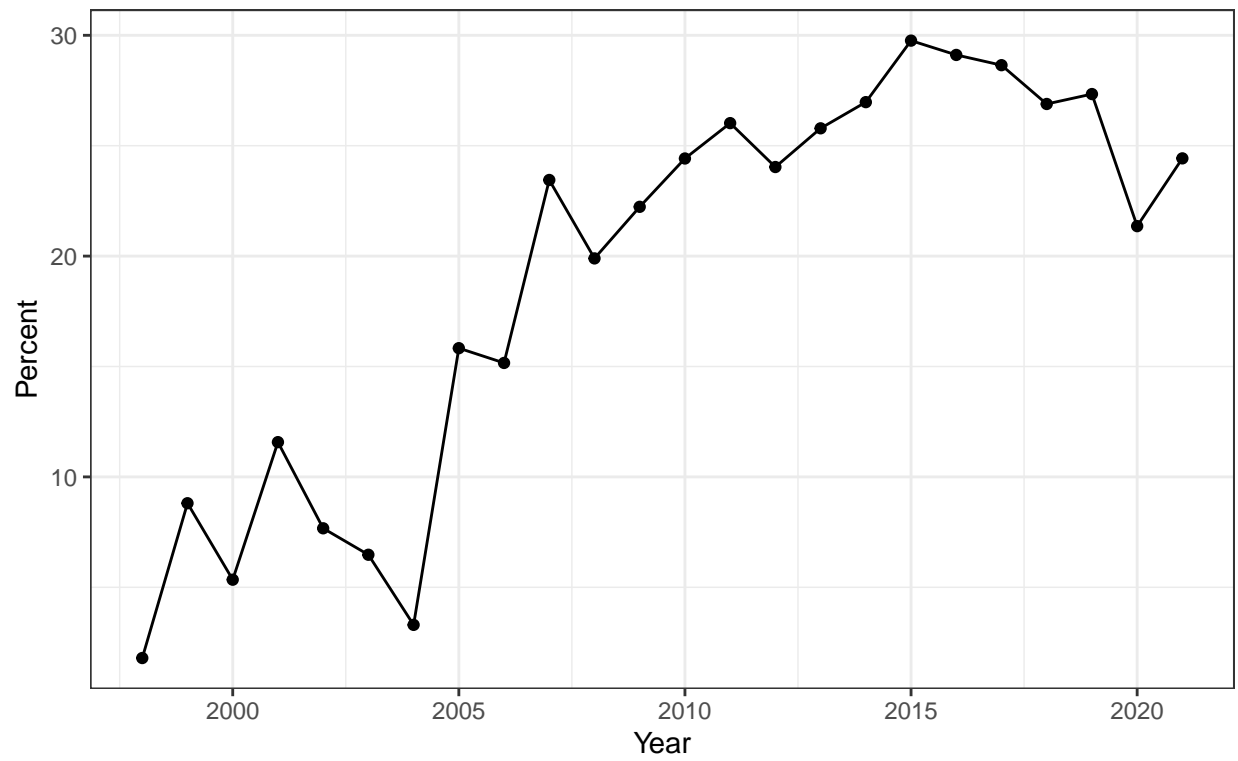
[[56]]

Net Operating Surplus divided by Value Added 1998–2021 for
Other transportation and support activities



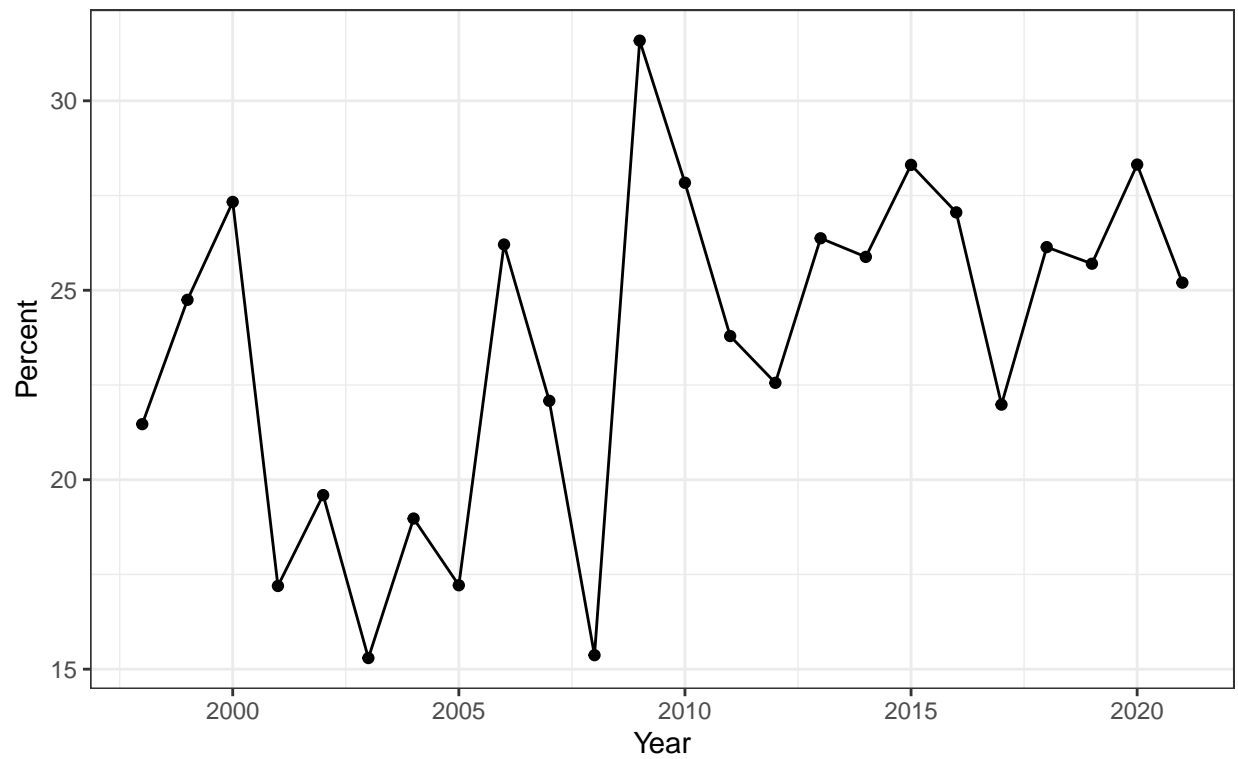
```
##  
## [[57]]
```

Net Operating Surplus divided by Value Added 1998–2021 for
Other transportation equipment



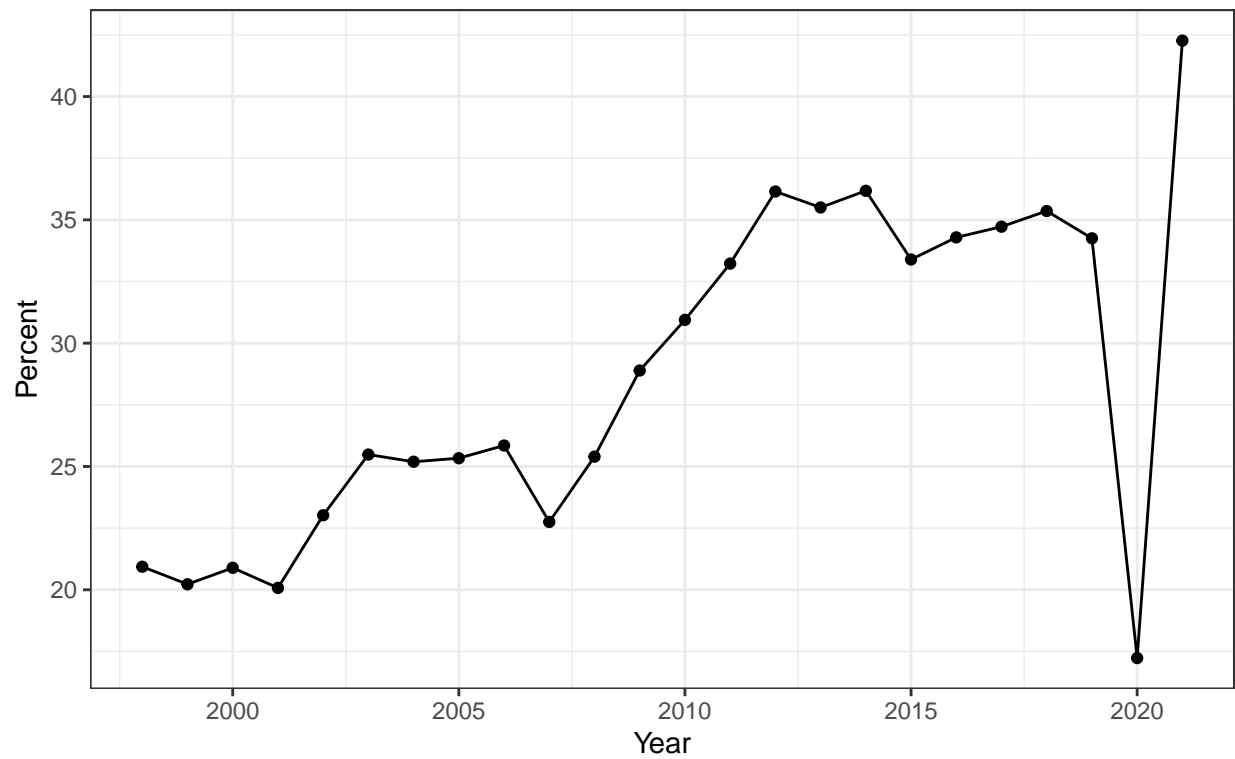
[[58]]

Net Operating Surplus divided by Value Added 1998–2021 for Paper products



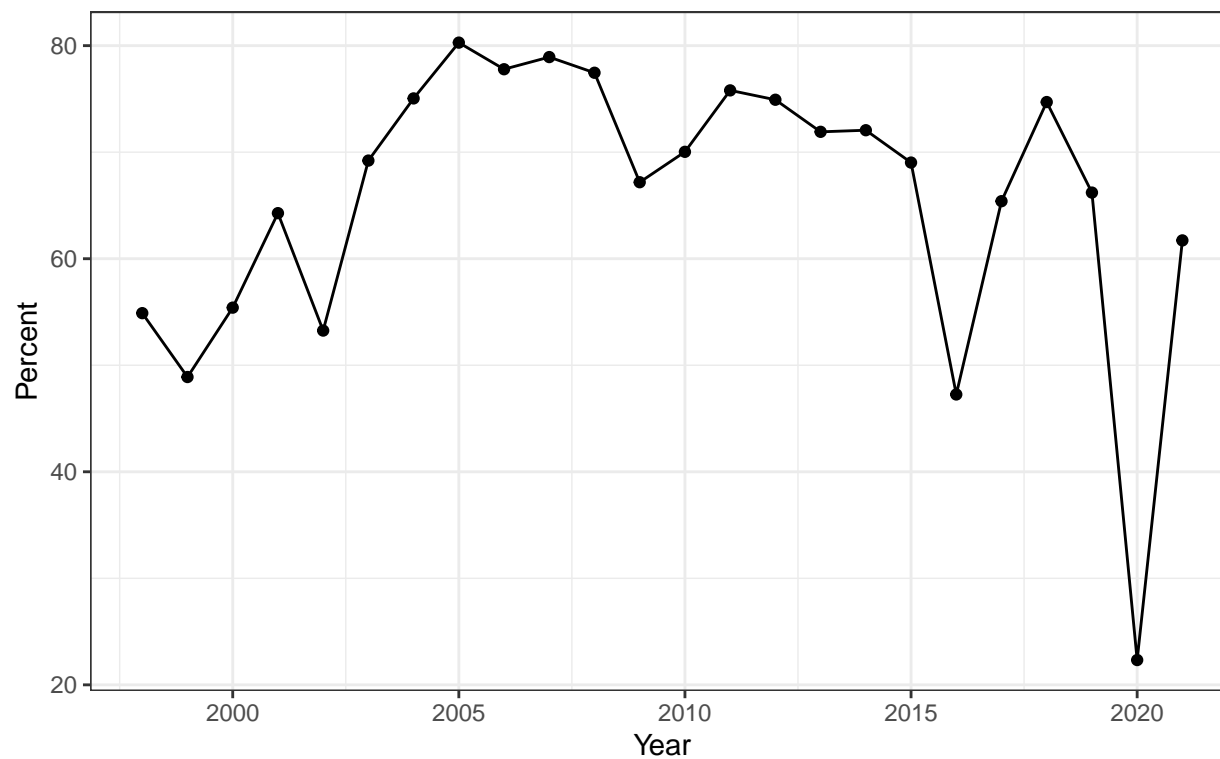
[[59]]

Net Operating Surplus divided by Value Added 1998–2021 for
Performing arts, spectator sports, museums, and related activities



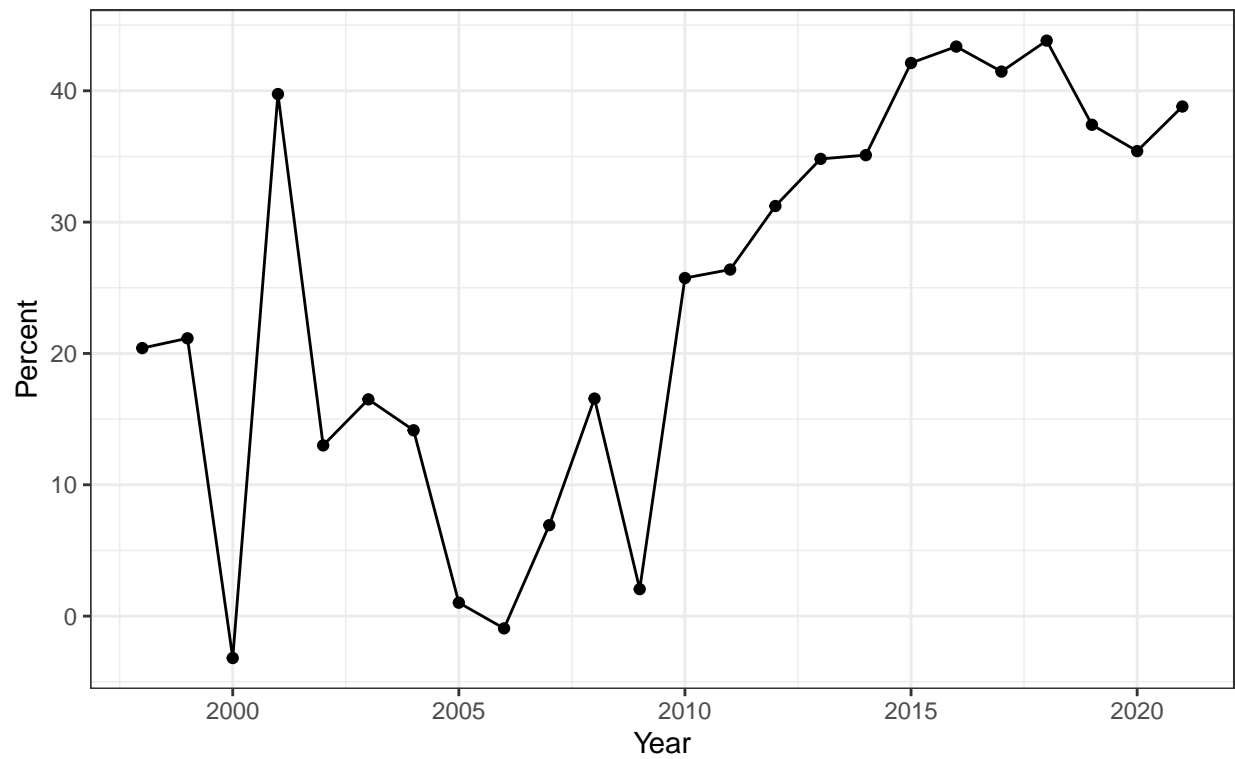
[[60]]

Net Operating Surplus divided by Value Added 1998–2021 for
Petroleum and coal products



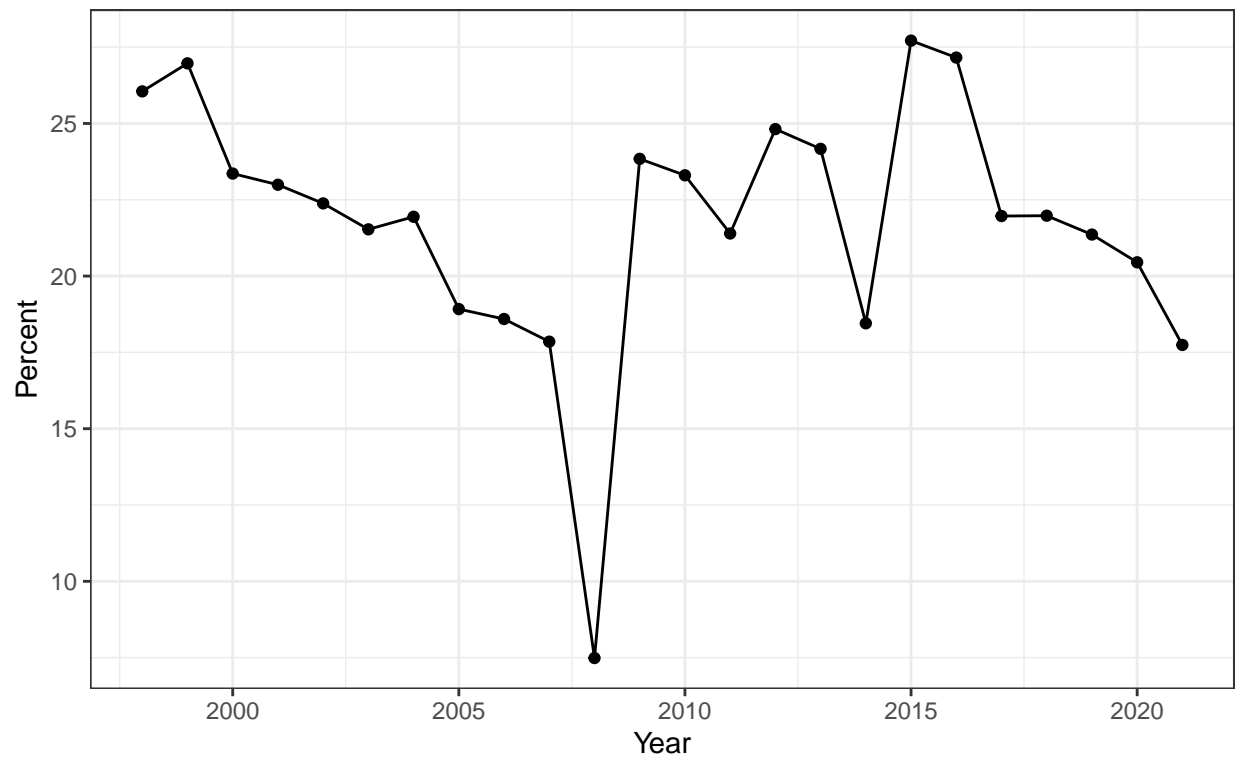
```
##  
## [[61]]
```

Net Operating Surplus divided by Value Added 1998–2021 for Pipeline transportation



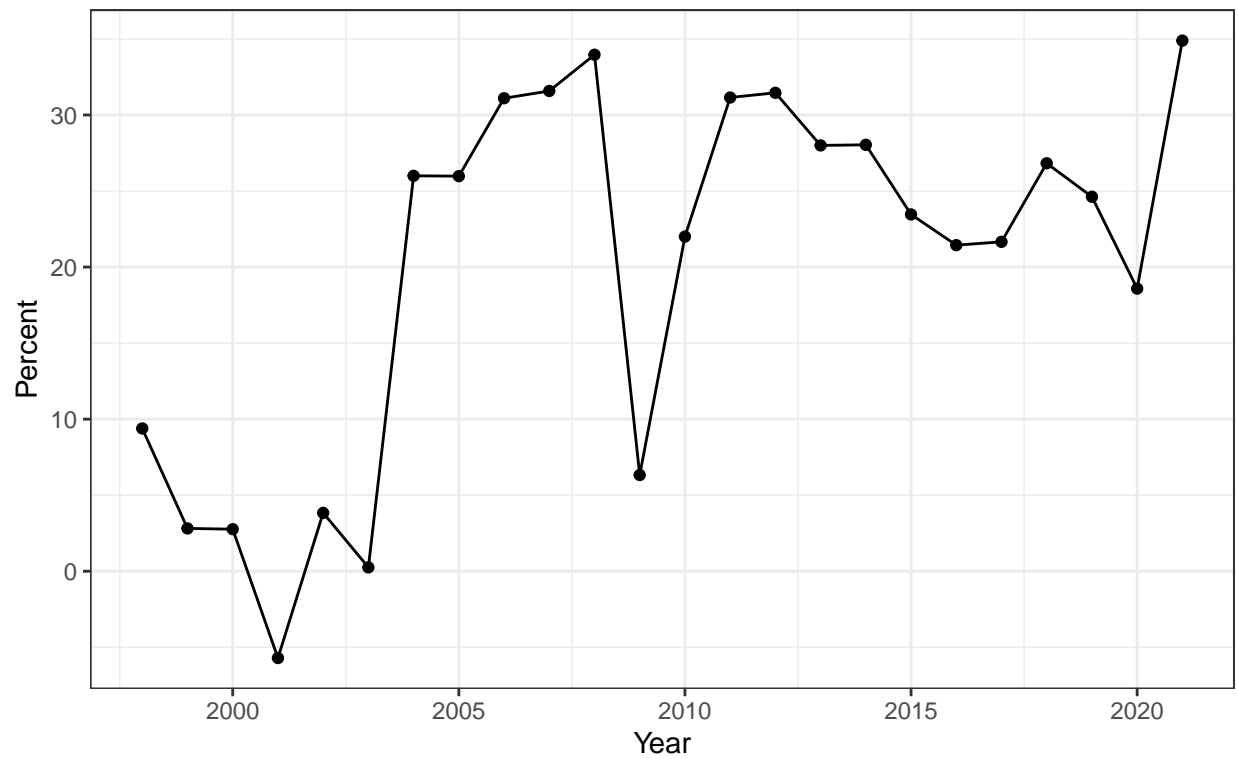
[[62]]

Net Operating Surplus divided by Value Added 1998–2021 for
Plastics and rubber products



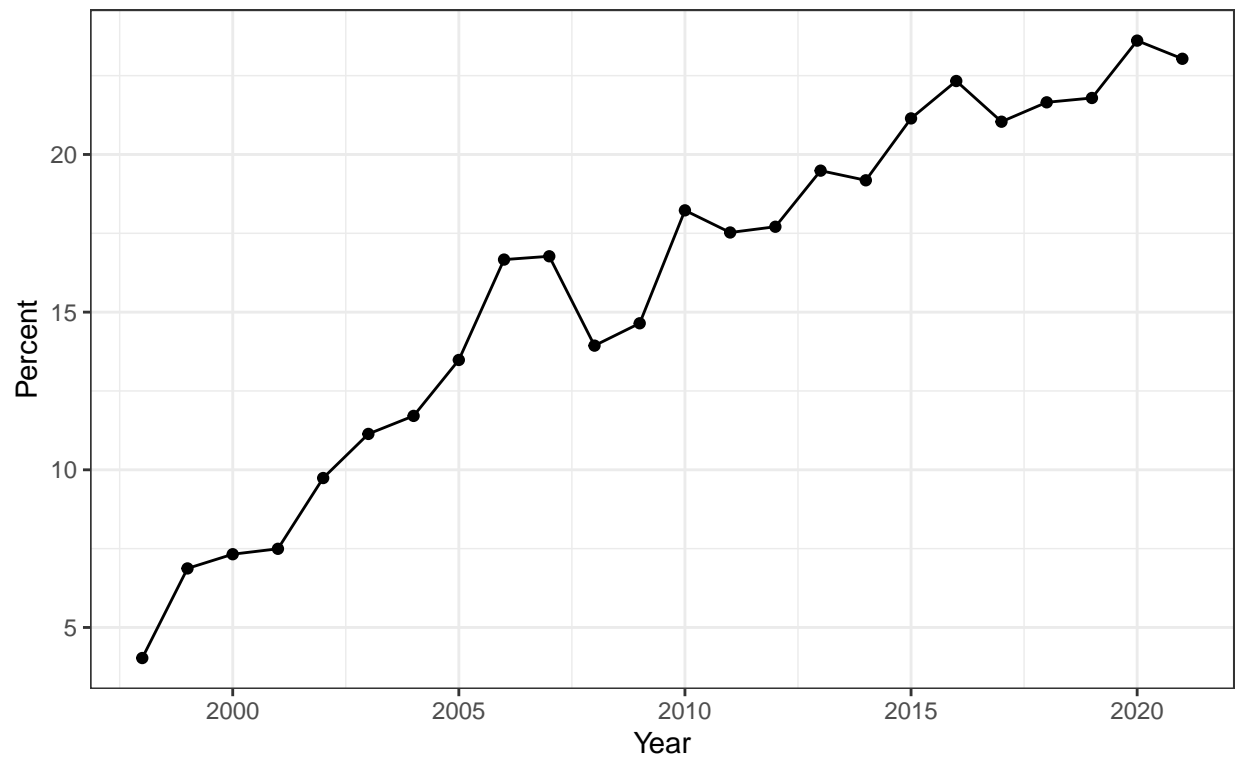
[[63]]

Net Operating Surplus divided by Value Added 1998–2021 for
Primary metals



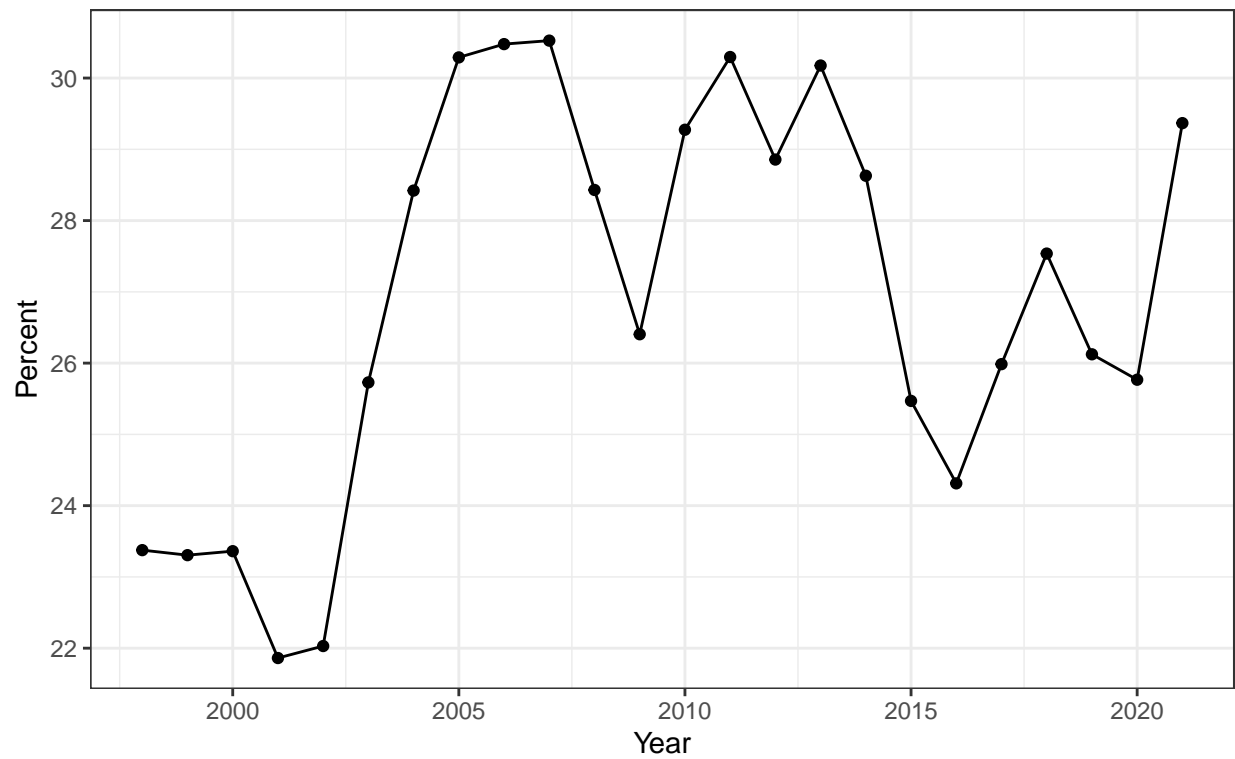
```
##  
## [[64]]
```


Net Operating Surplus divided by Value Added 1998–2021 for
Printing and related support activities



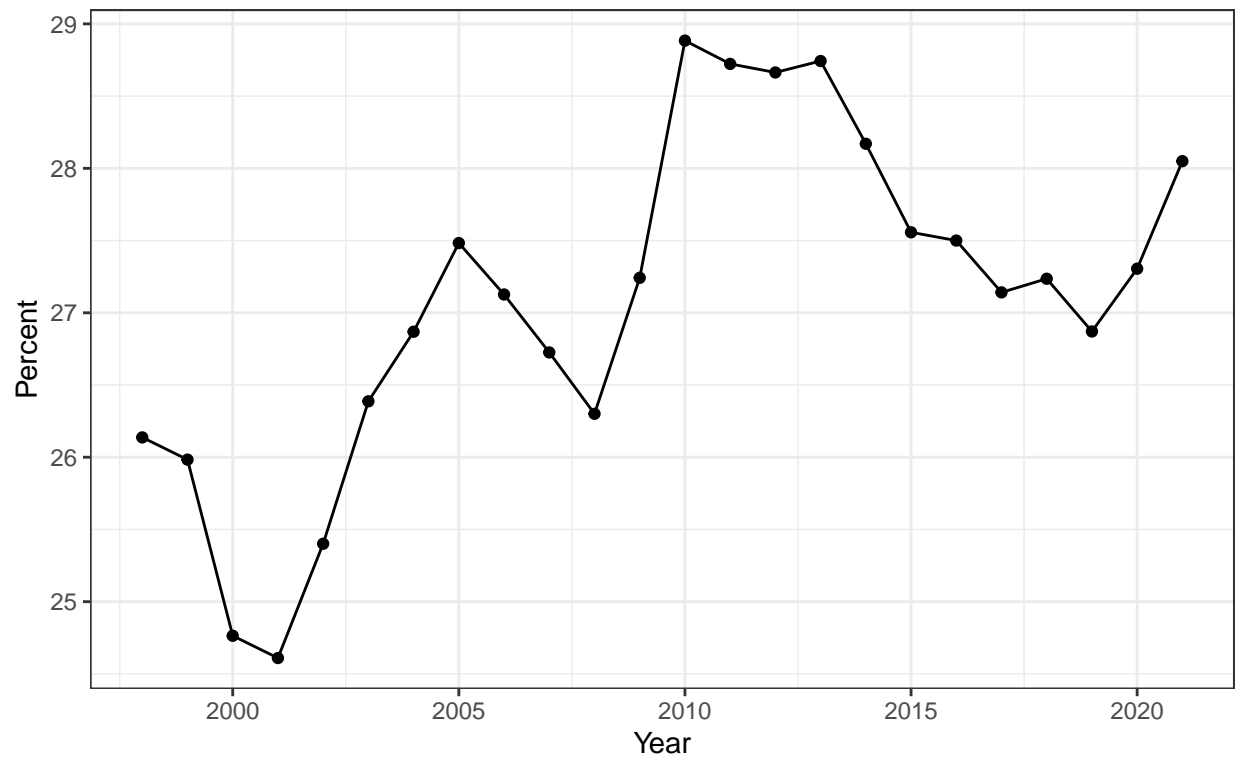
[[65]]

Net Operating Surplus divided by Value Added 1998–2021 for
Private goods-producing industries¹



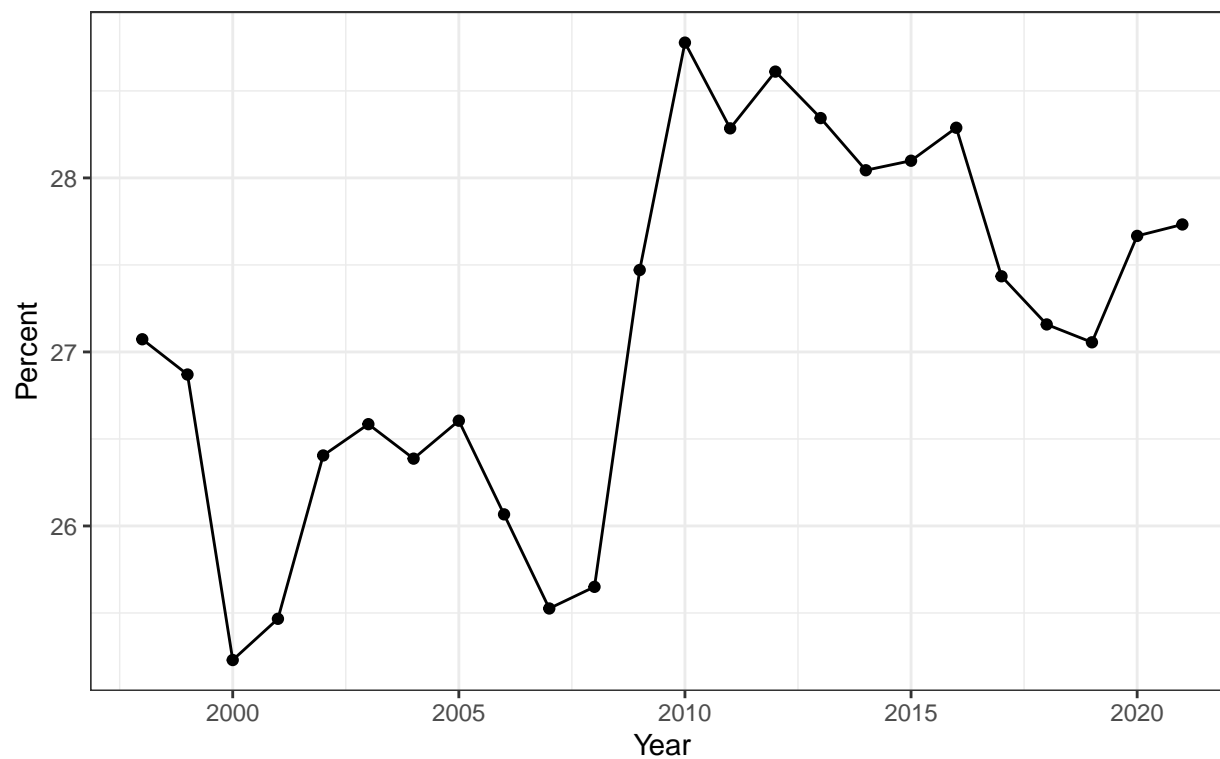
[[66]]

Net Operating Surplus divided by Value Added 1998–2021 for Private industries



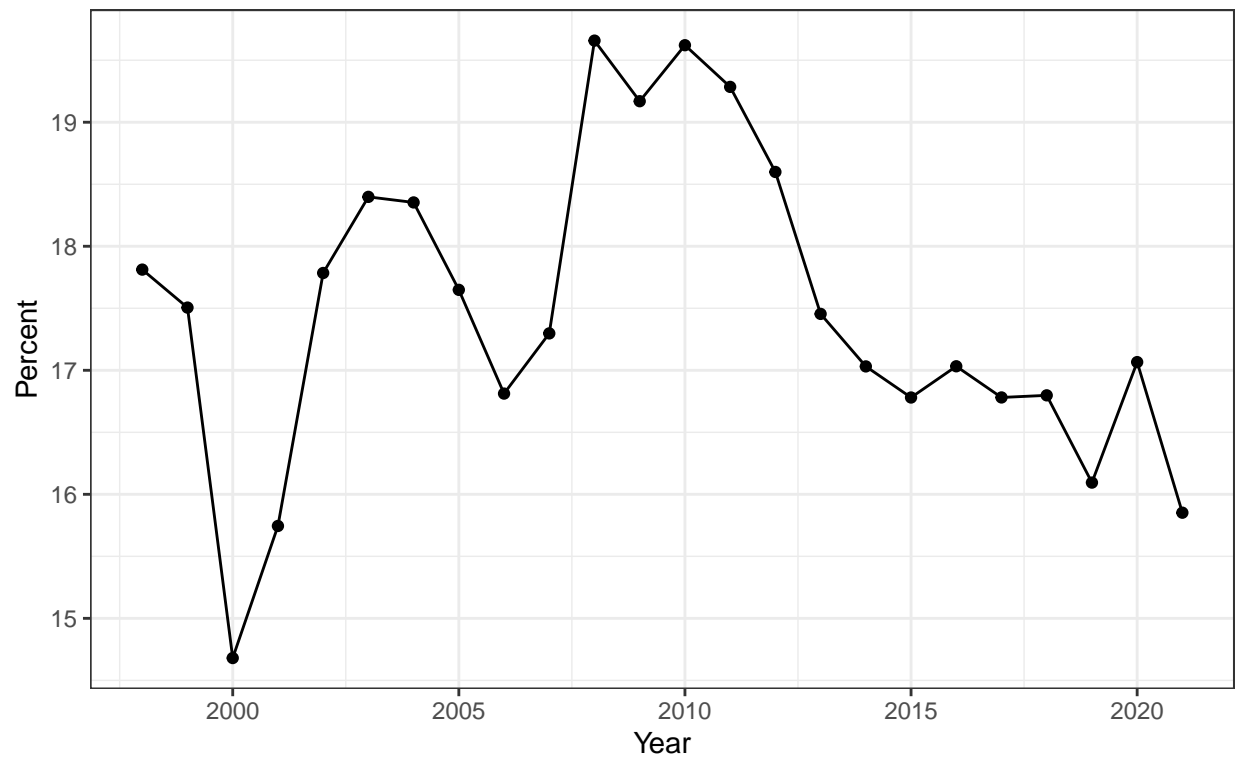
```
##  
## [[67]]
```

Net Operating Surplus divided by Value Added 1998–2021 for
Private services–producing industries2



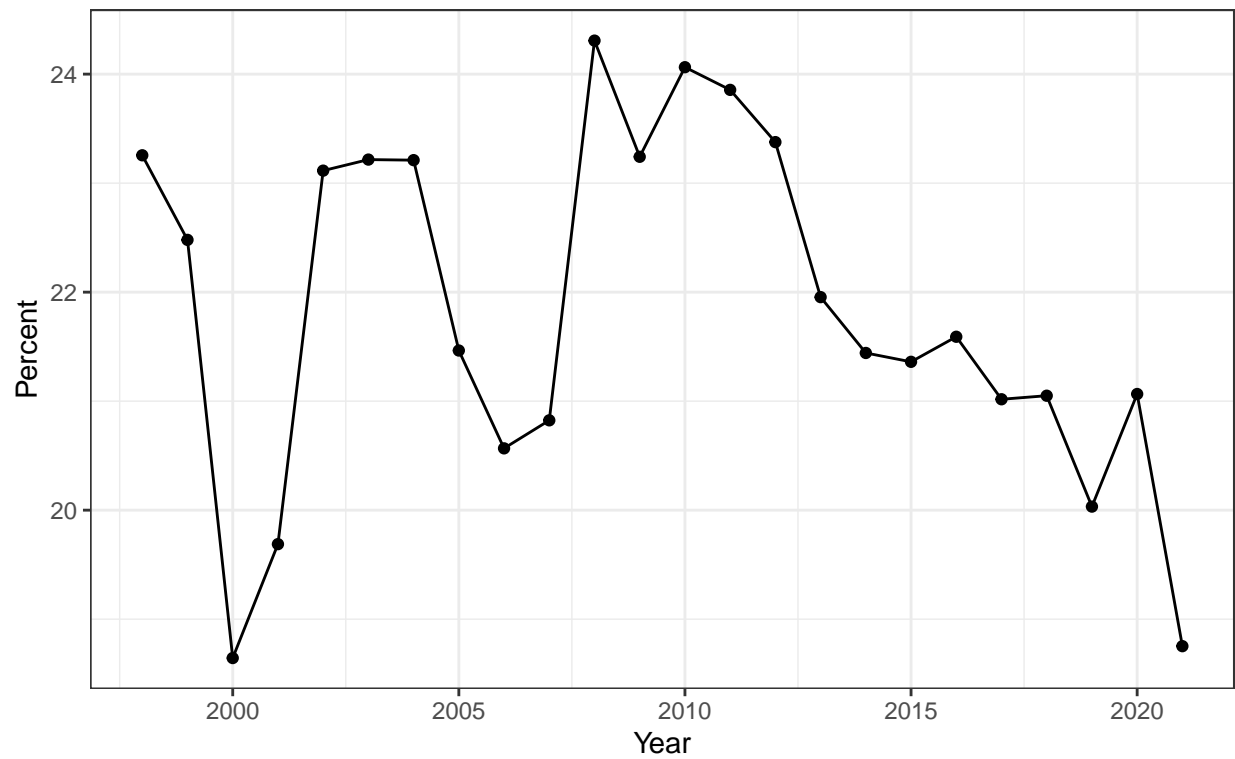
[[68]]

Net Operating Surplus divided by Value Added 1998–2021 for Professional and business services



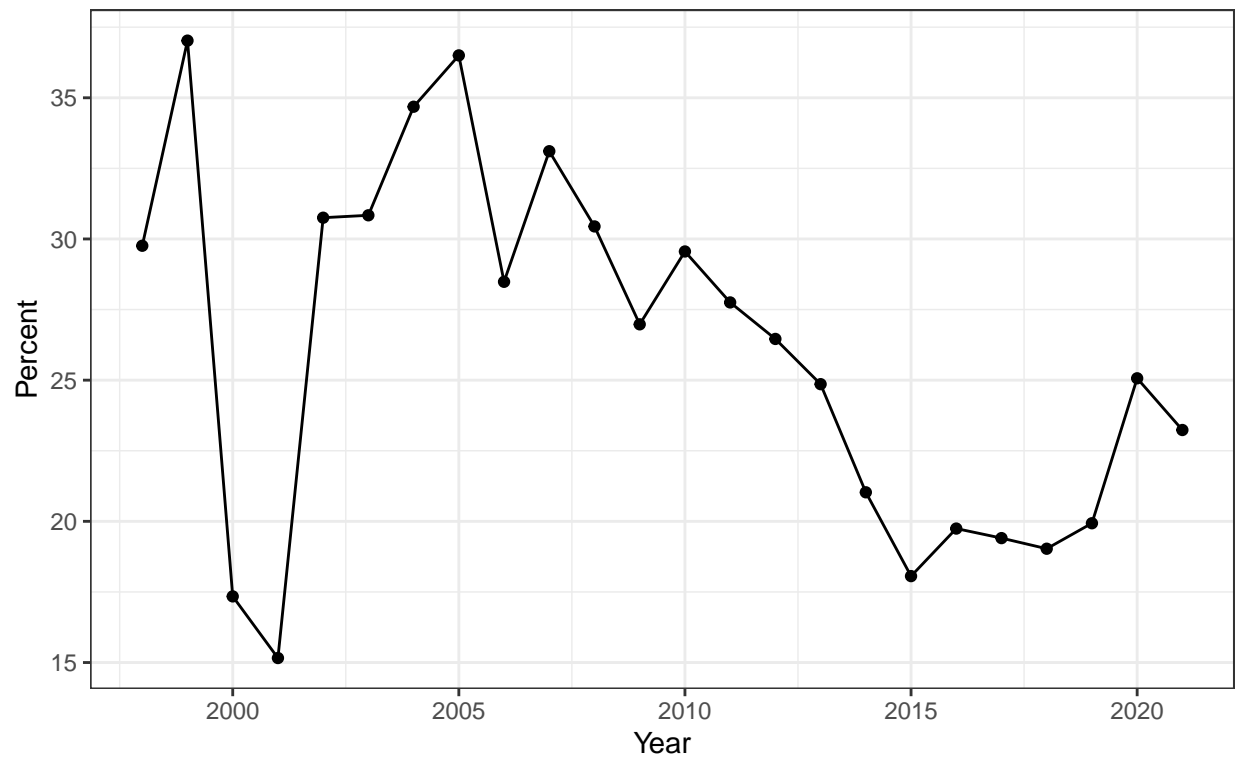
[[69]]

Net Operating Surplus divided by Value Added 1998–2021 for Professional, scientific, and technical services



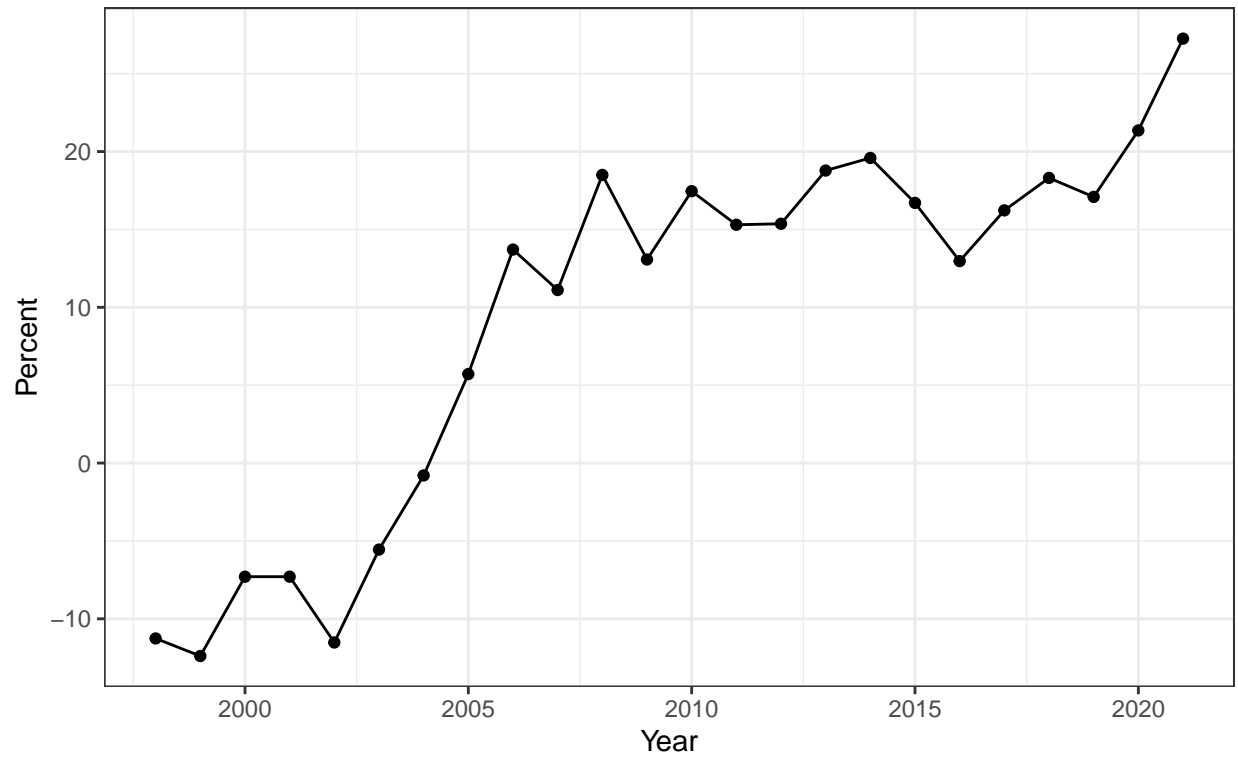
[[70]]

Net Operating Surplus divided by Value Added 1998–2021 for
Publishing industries, except internet (includes software)



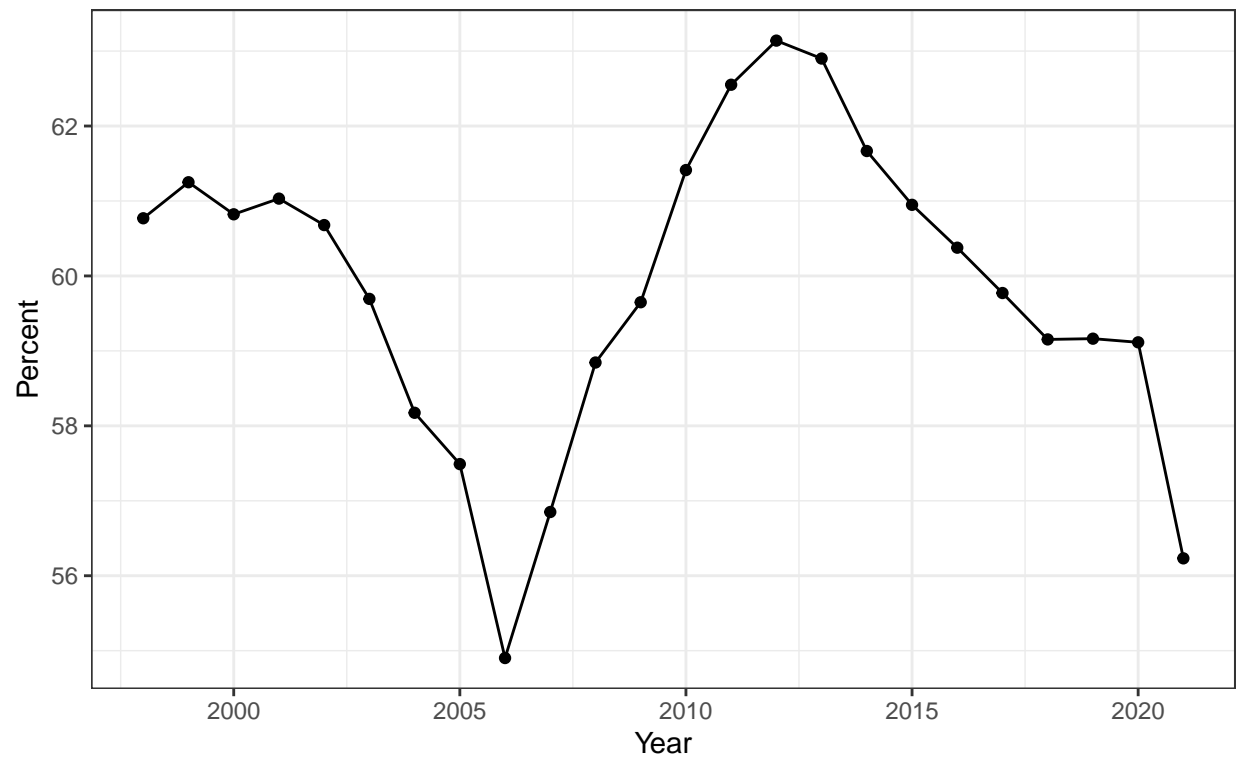
[[71]]

Net Operating Surplus divided by Value Added 1998–2021 for
Rail transportation



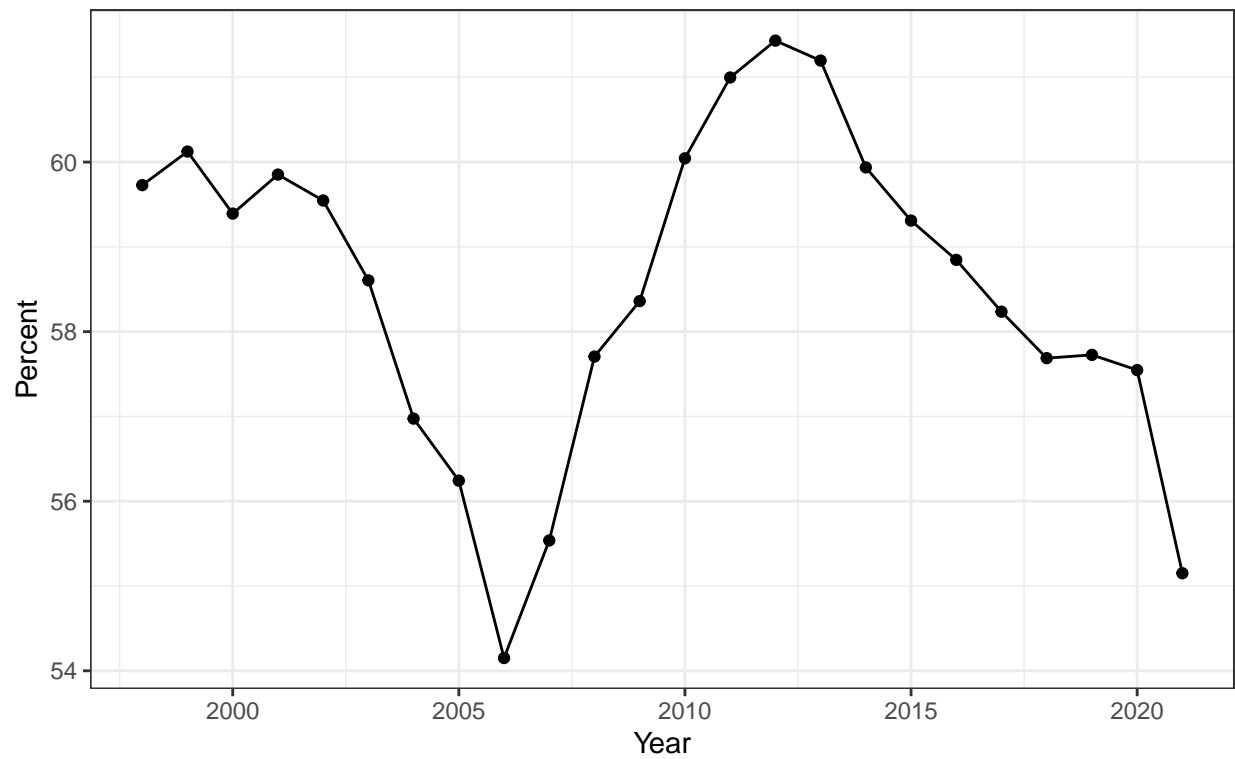
[[72]]

Net Operating Surplus divided by Value Added 1998–2021 for Real estate



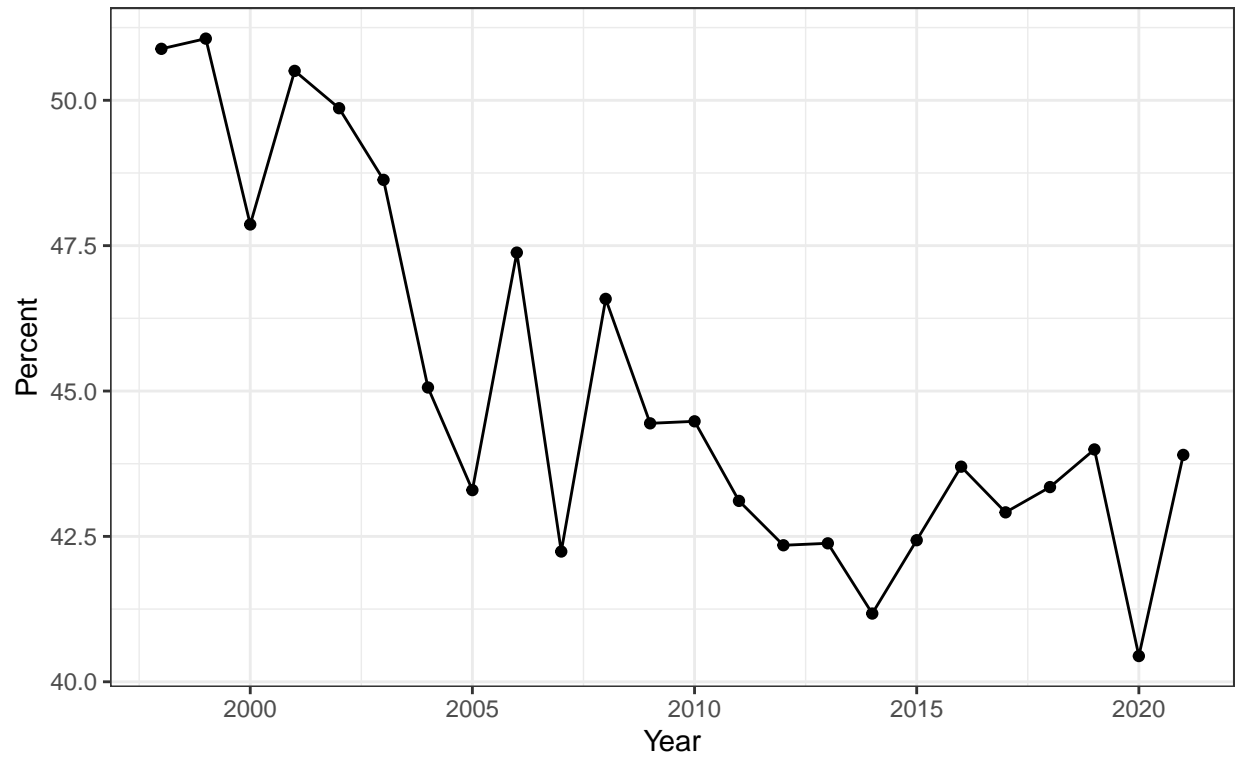
[[73]]

Net Operating Surplus divided by Value Added 1998–2021 for
Real estate and rental and leasing



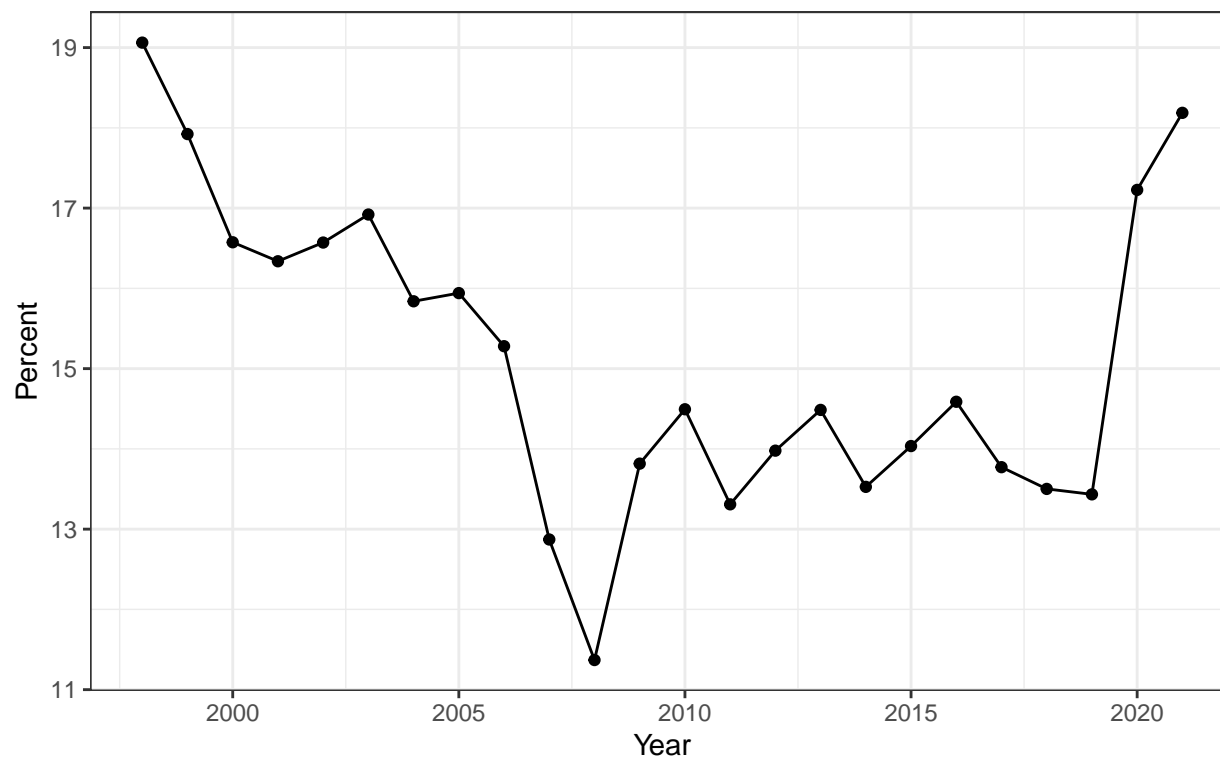
[[74]]

Net Operating Surplus divided by Value Added 1998–2021 for
Rental and leasing services and lessors of intangible assets



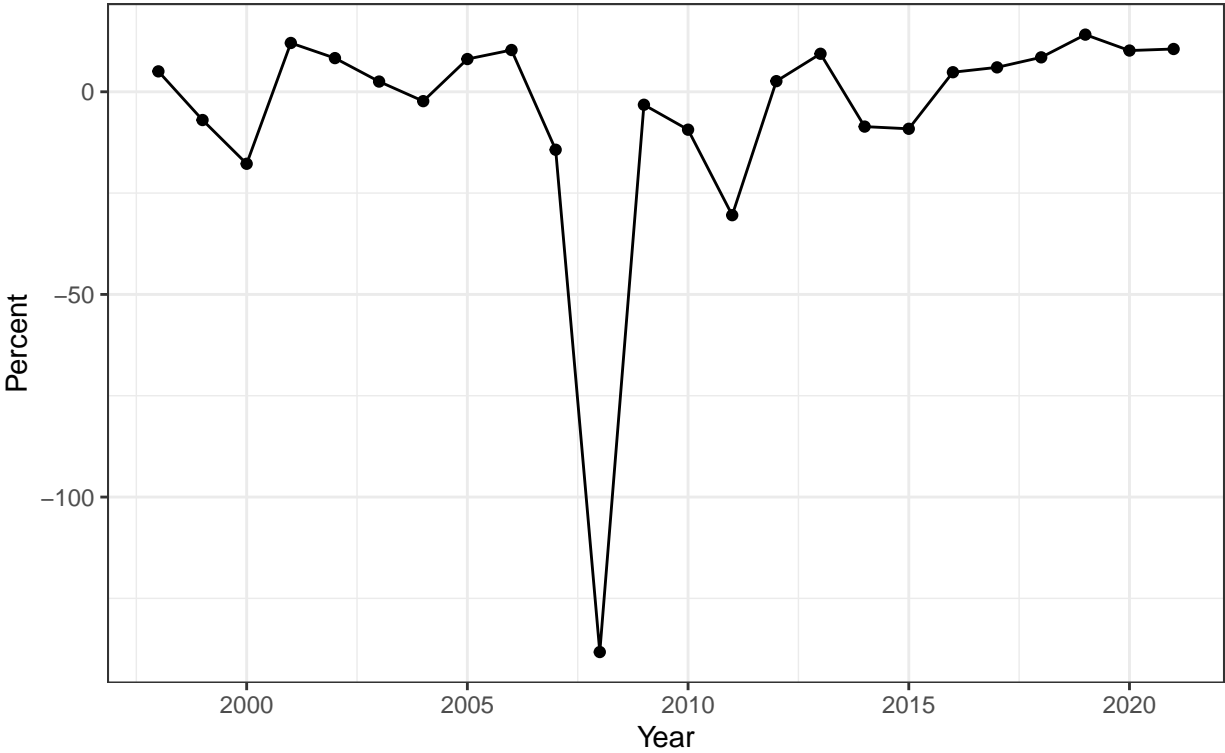
[[75]]

Net Operating Surplus divided by Value Added 1998–2021 for
Retail trade



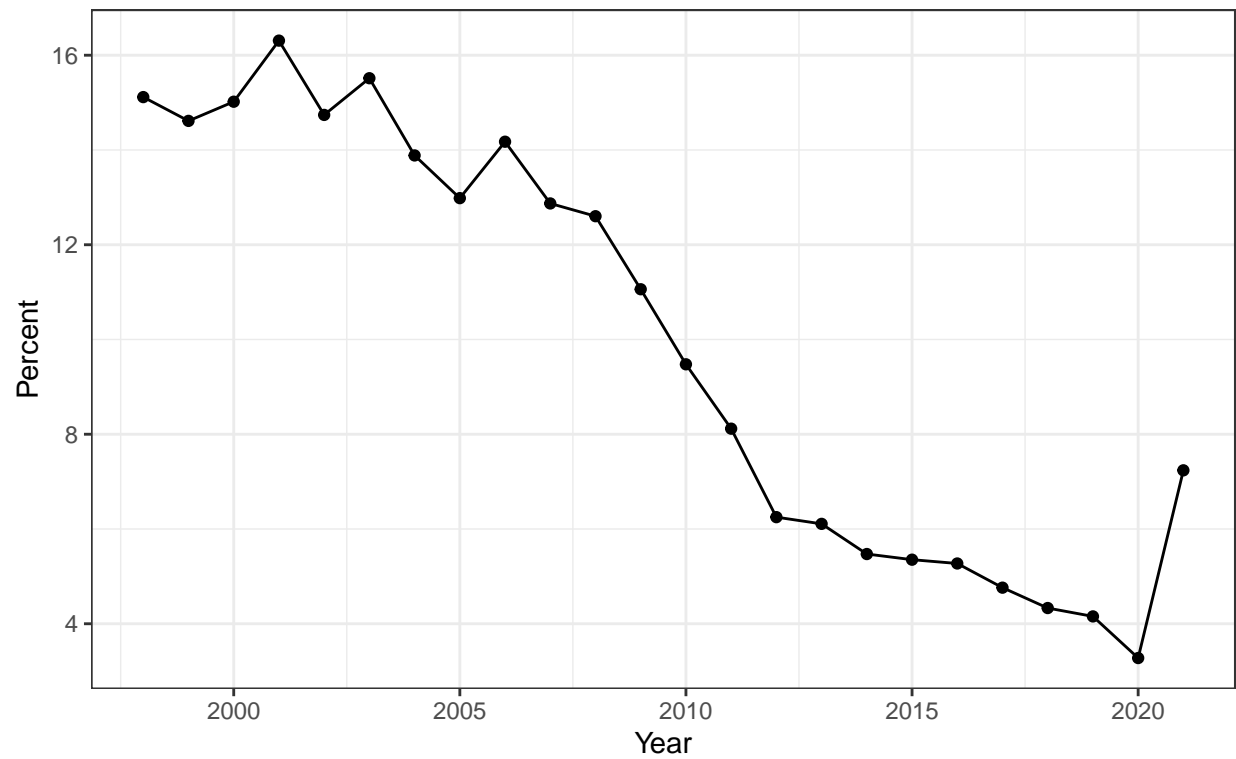
[[76]]

Net Operating Surplus divided by Value Added 1998–2021 for
Securities, commodity contracts, and investments



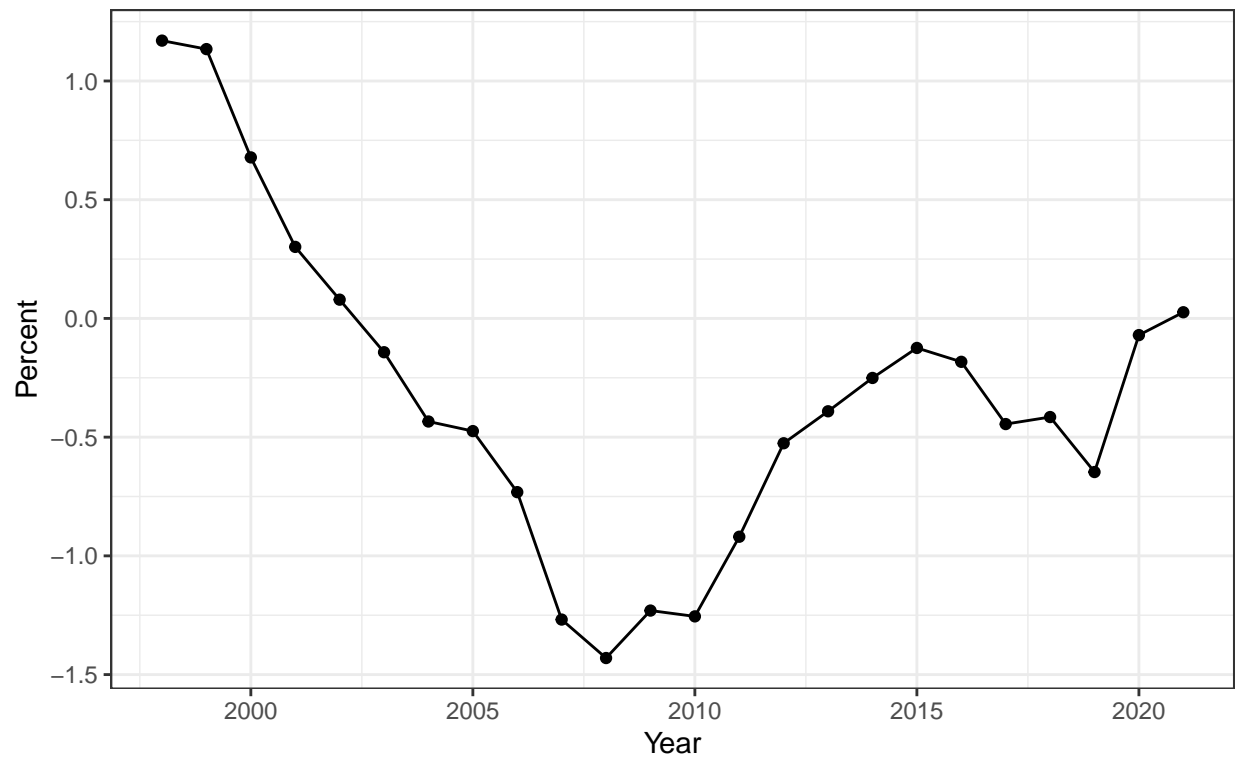
[[77]]

Net Operating Surplus divided by Value Added 1998–2021 for
Social assistance



[[78]]

Net Operating Surplus divided by Value Added 1998–2021 for
State and local



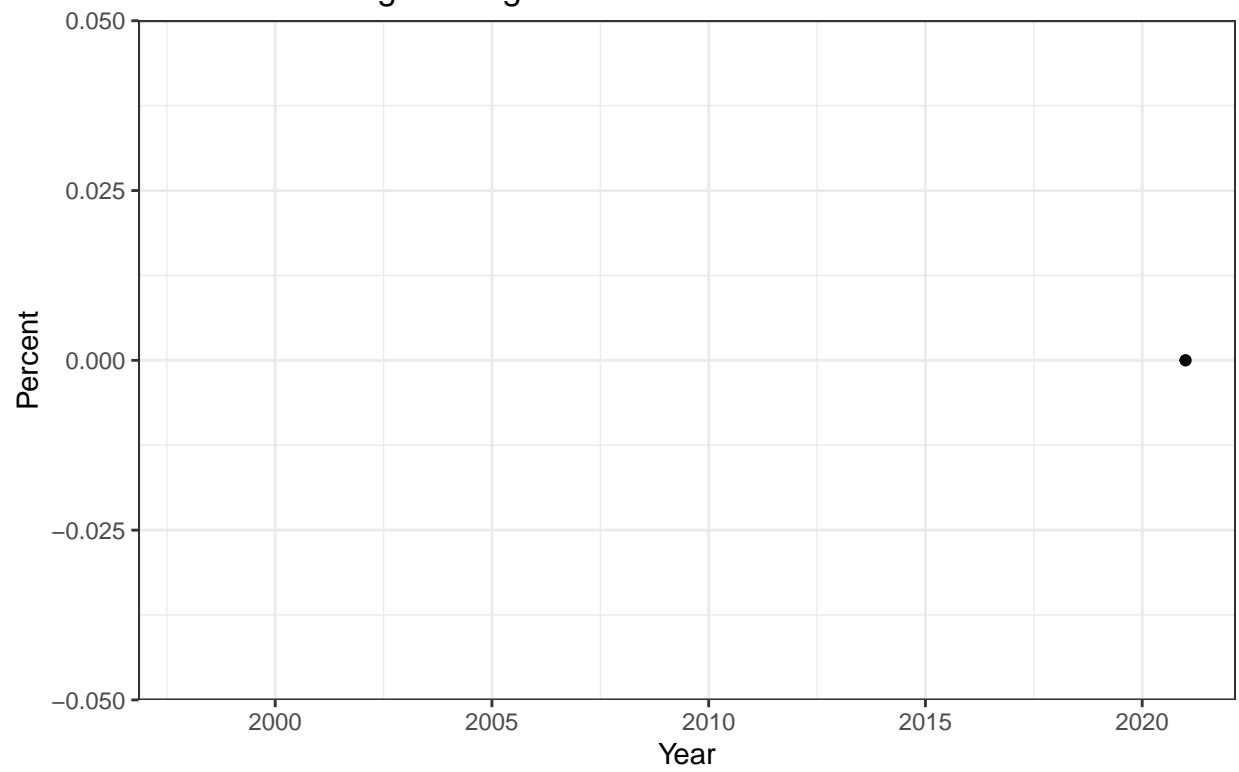
```
##
## [[79]]

## Warning: Removed 23 rows containing missing values ('geom_point()').

## Warning: Removed 23 rows containing missing values ('geom_line()').

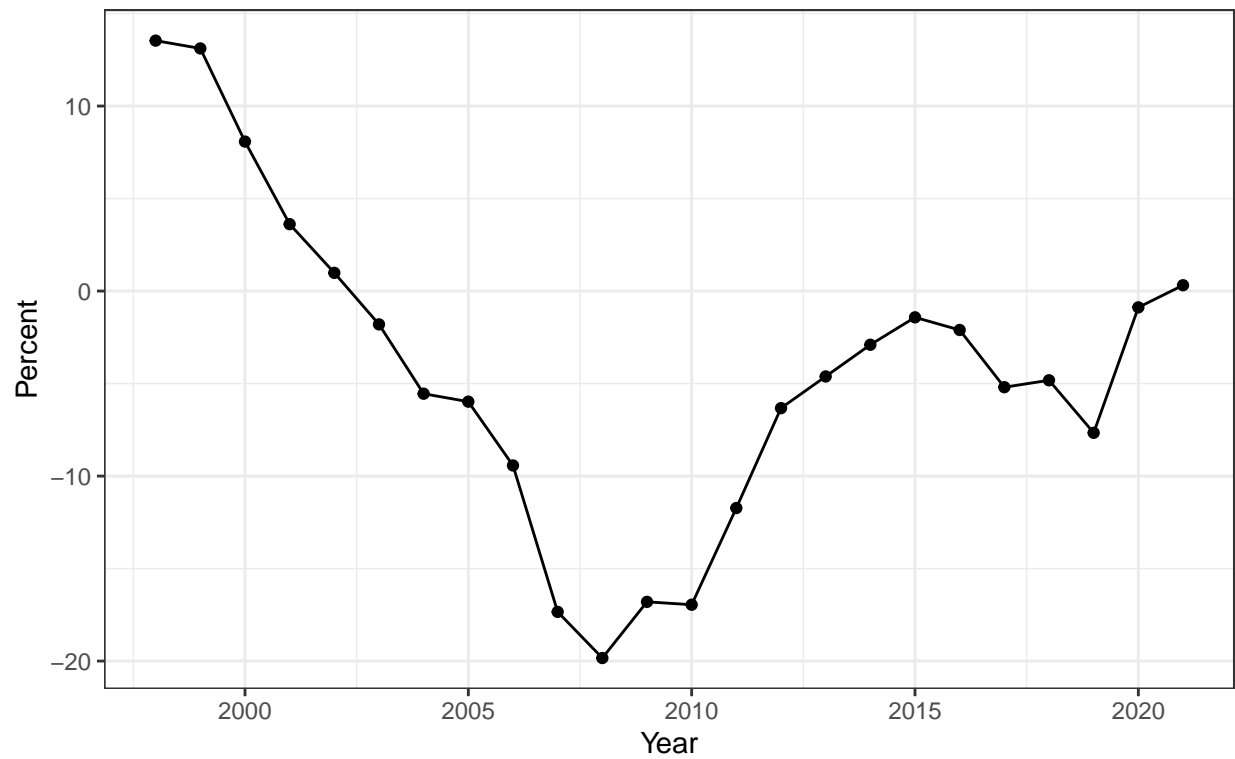
## 'geom_line()': Each group consists of only one observation.
## i Do you need to adjust the group aesthetic?
```

Net Operating Surplus divided by Value Added 1998–2021 for
State and local general government



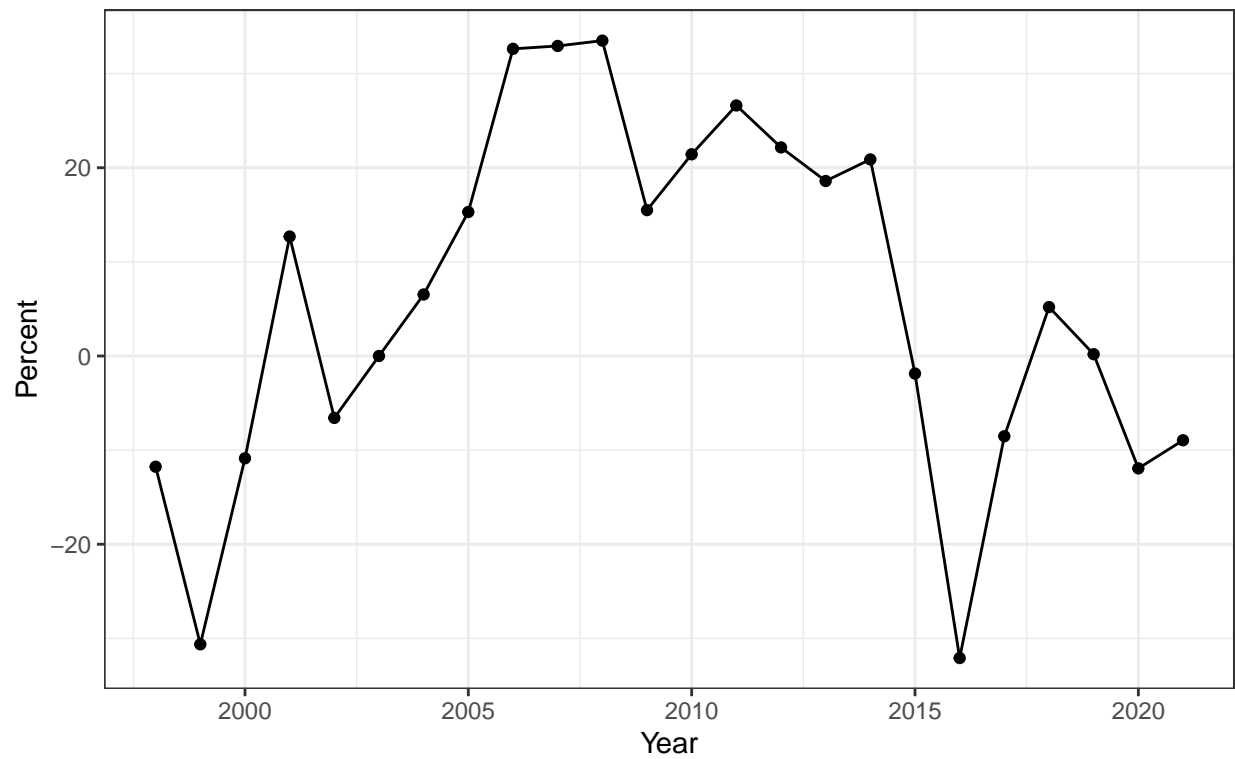
```
##  
## [[80]]
```


Net Operating Surplus divided by Value Added 1998–2021 for
State and local government enterprises



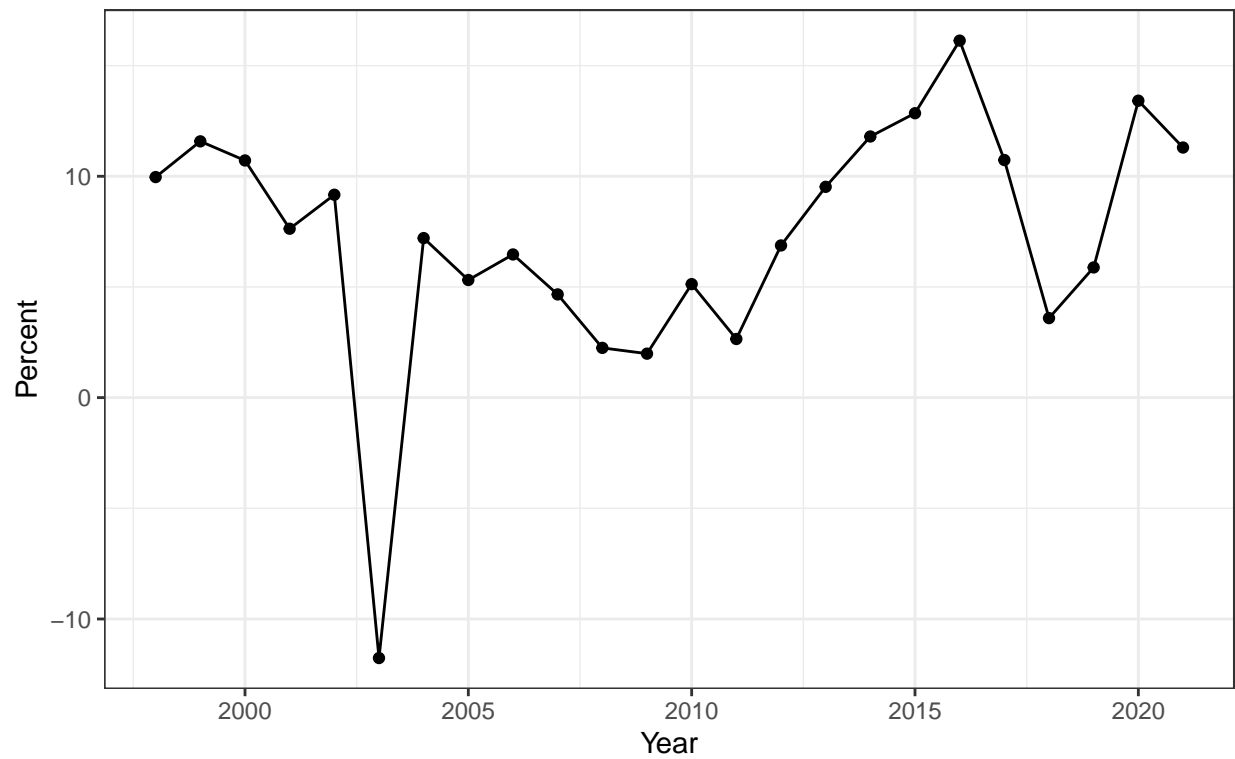
```
##  
## [[81]]
```

Net Operating Surplus divided by Value Added 1998–2021 for
Support activities for mining



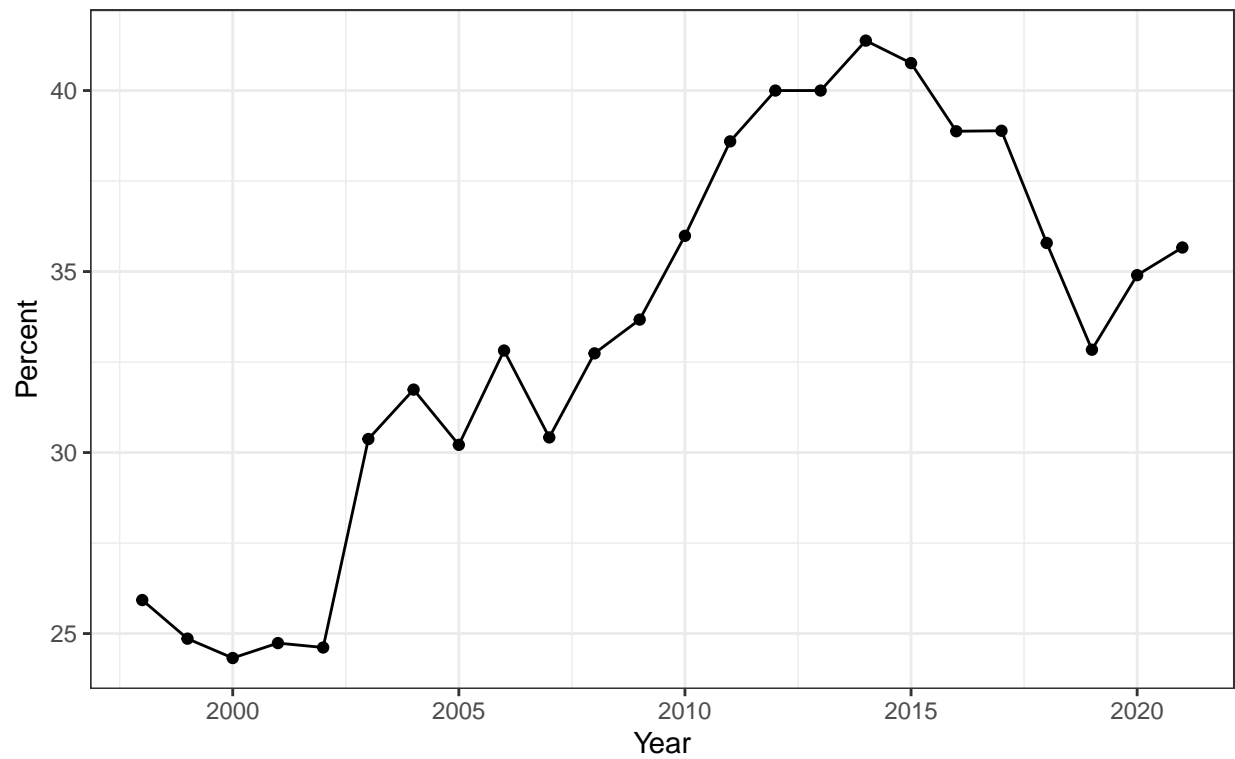
[[82]]

Net Operating Surplus divided by Value Added 1998–2021 for
Textile mills and textile product mills



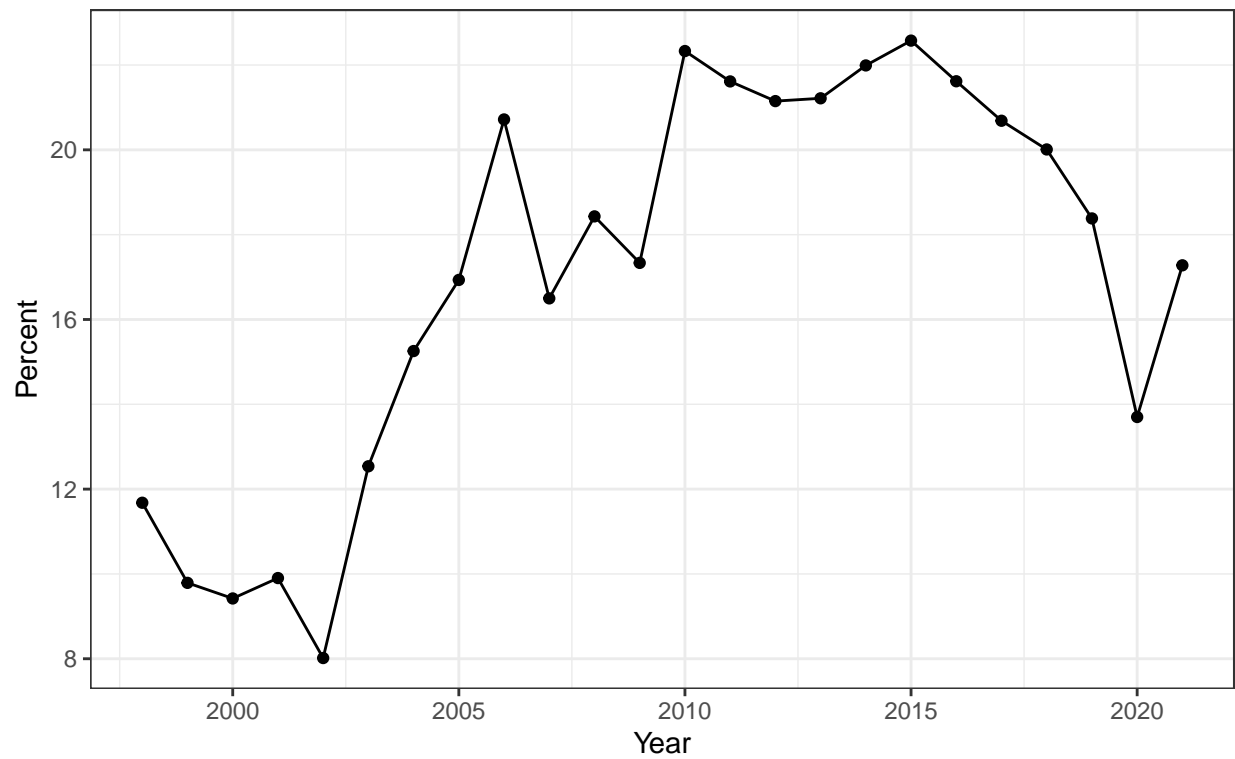
[[83]]

Net Operating Surplus divided by Value Added 1998–2021 for
Transit and ground passenger transportation



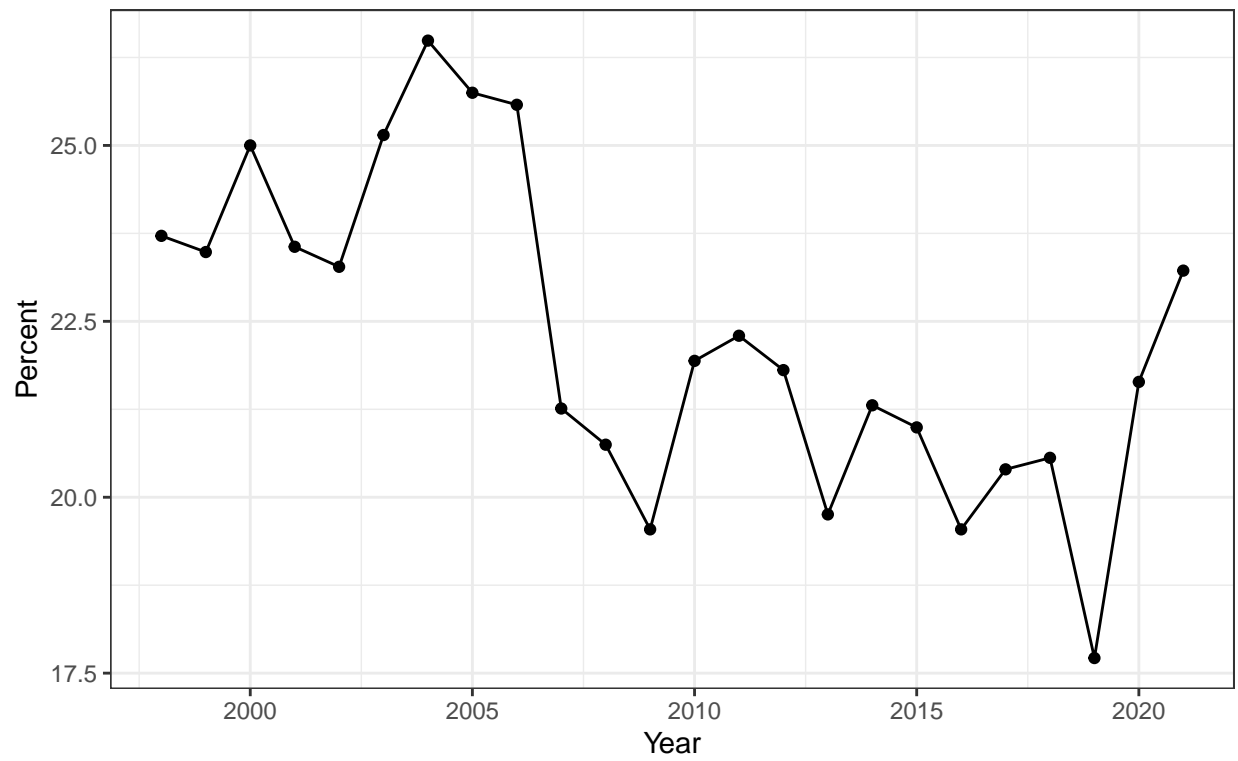
[[84]]

Net Operating Surplus divided by Value Added 1998–2021 for
Transportation and warehousing



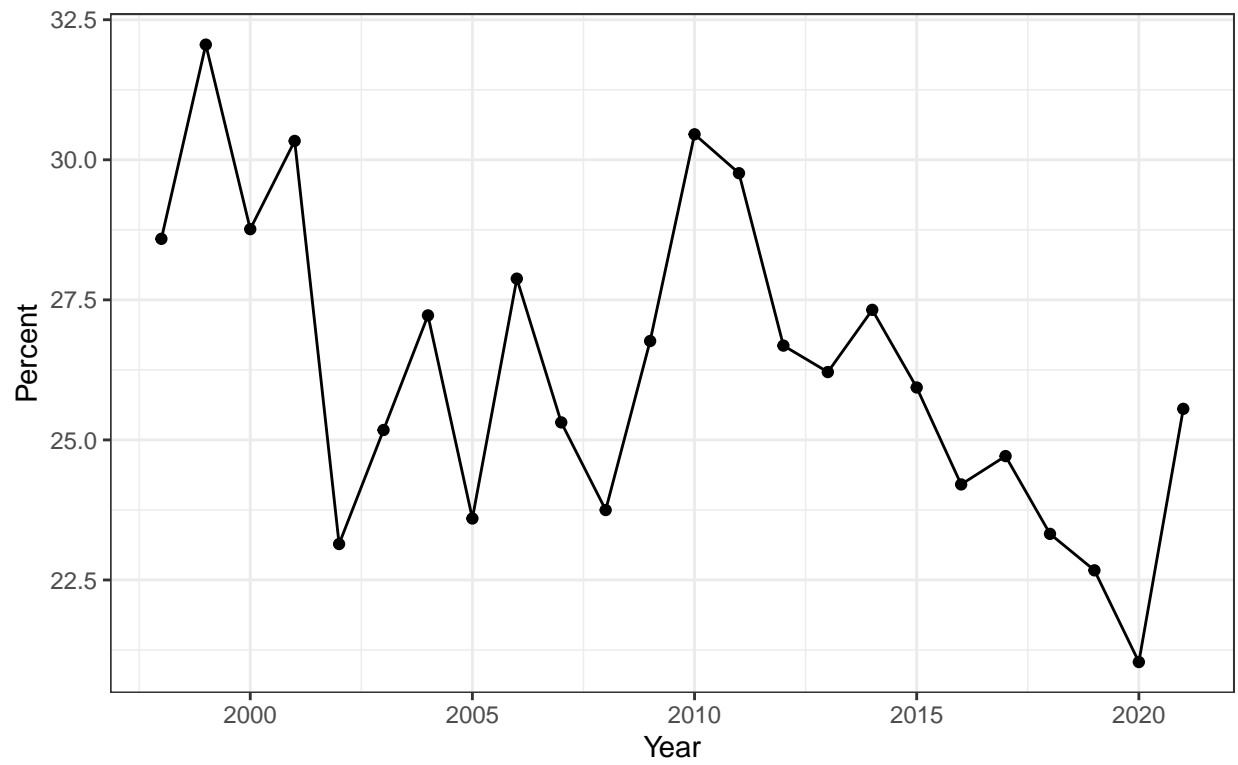
[[85]]

Net Operating Surplus divided by Value Added 1998–2021 for
Truck transportation



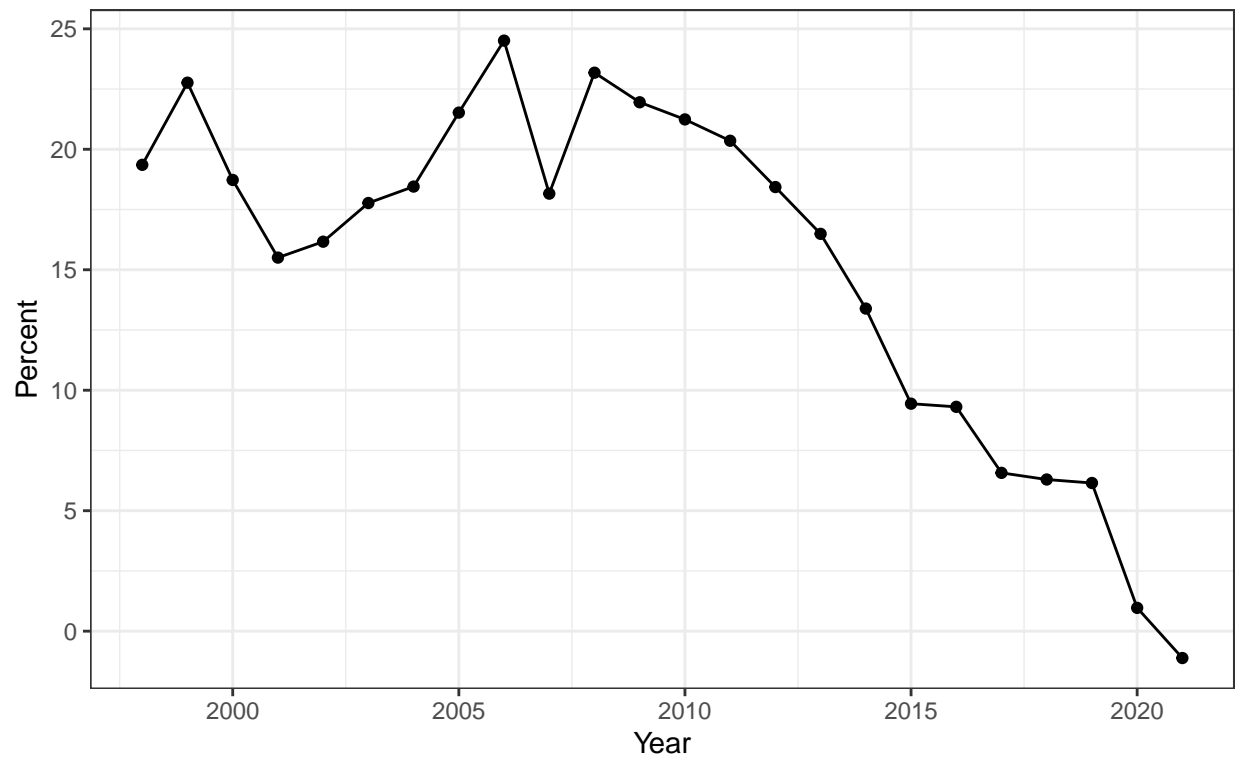
```
##  
## [[86]]
```

Net Operating Surplus divided by Value Added 1998–2021 for Utilities



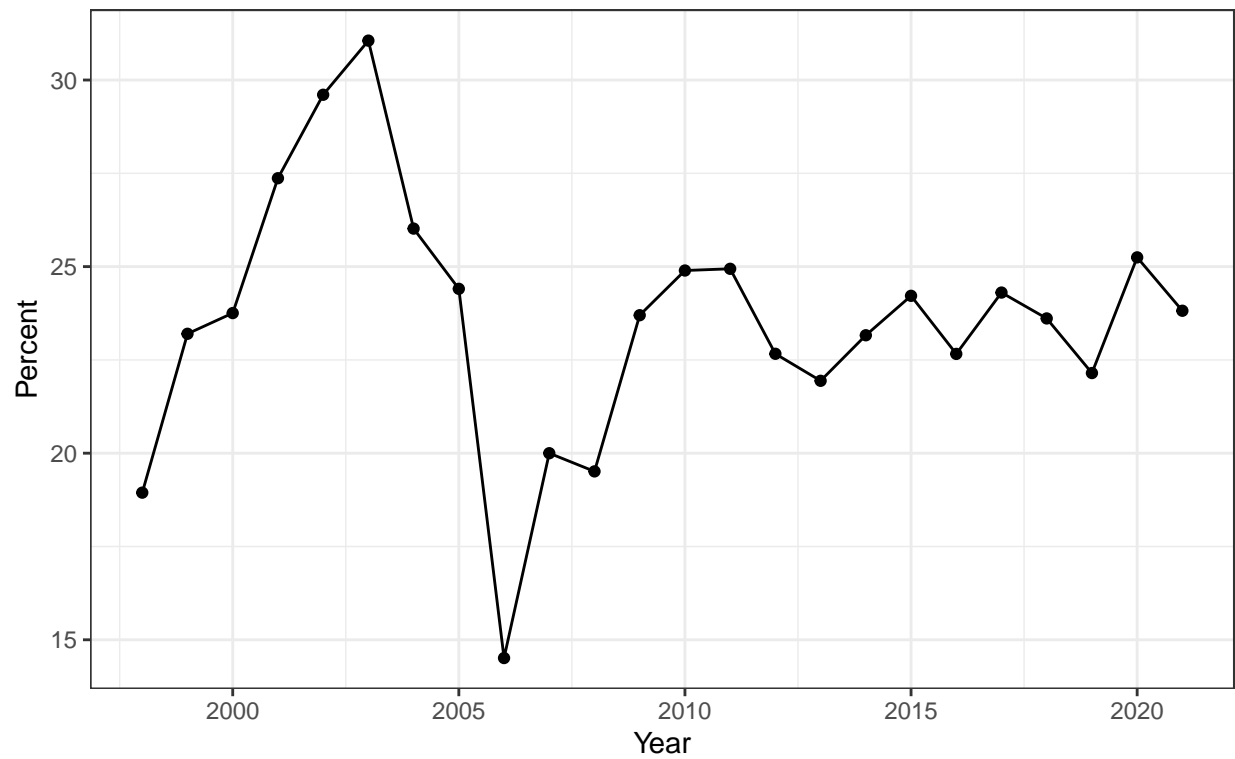
[[87]]

Net Operating Surplus divided by Value Added 1998–2021 for Warehousing and storage



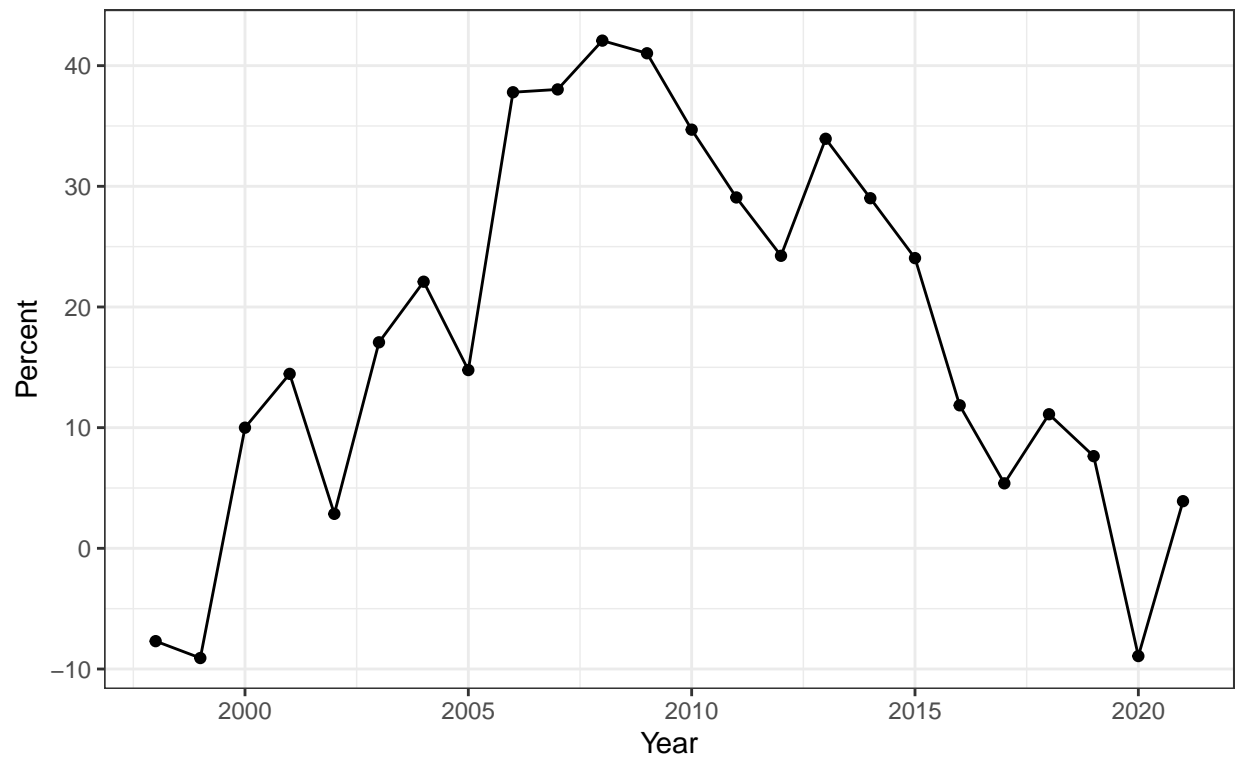
[[88]]

Net Operating Surplus divided by Value Added 1998–2021 for
Waste management and remediation services



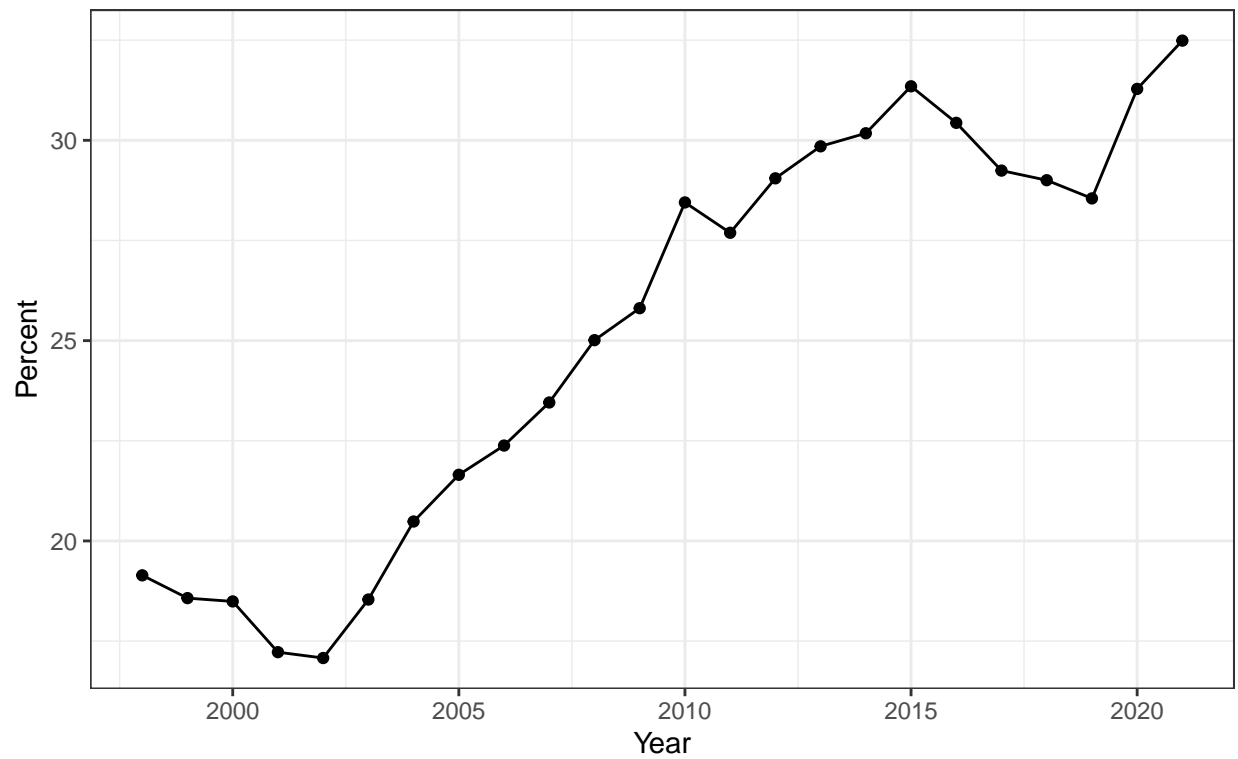
[[89]]

Net Operating Surplus divided by Value Added 1998–2021 for
Water transportation



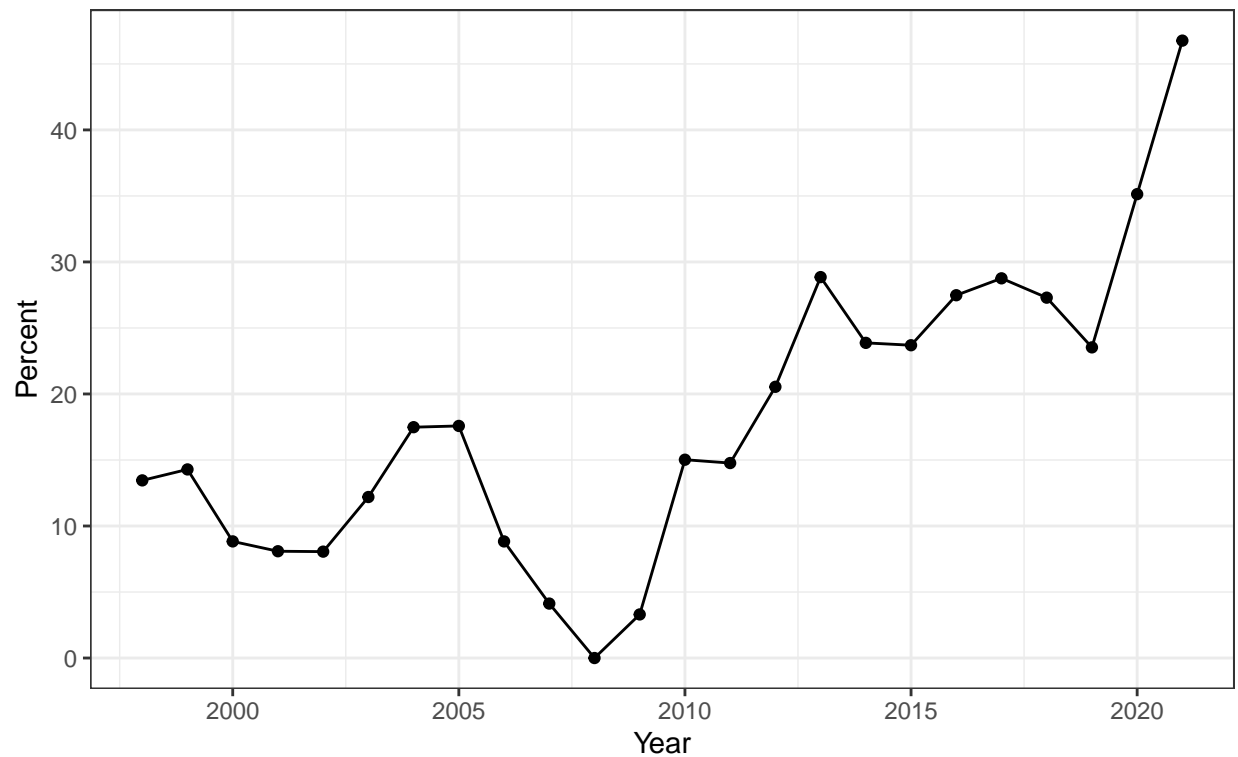
[[90]]

Net Operating Surplus divided by Value Added 1998–2021 for Wholesale trade



```
##  
## [[91]]
```

Net Operating Surplus divided by Value Added 1998–2021 for Wood products



```
##
## [[92]]

## Warning: Removed 120 rows containing missing values ('geom_point()').

## Warning: Removed 120 rows containing missing values ('geom_line()').
```

Net Operating Surplus divided by Value Added 1998–2021 for
NA

