

Econ 493 Term paper proposal

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1. The data description.

The data I am planning to work on for my term paper is the seasonally adjusted Canadian monthly home sales data from January 1, 2007 to January 1, 2023. The data was collected and processed by the Canadian Real Estate Association (CREA).

The data can be accessed from the following link. (<https://stats.crea.ca/en-CA/>)

2.some summary of the data

```
setwd("~/SynologyDrive/nn/ECON-493-forecasting-economy")
```

2.1 input the data

```
The_housing_sell_data <- read_excel("/Users/tie/SynologyDrive/nn/ECON-493-forecasting-economy/excel/The_housing_sell_data.xlsx",  
  col_types = c("date", "numeric", "numeric",  
    "skip", "skip"))
```

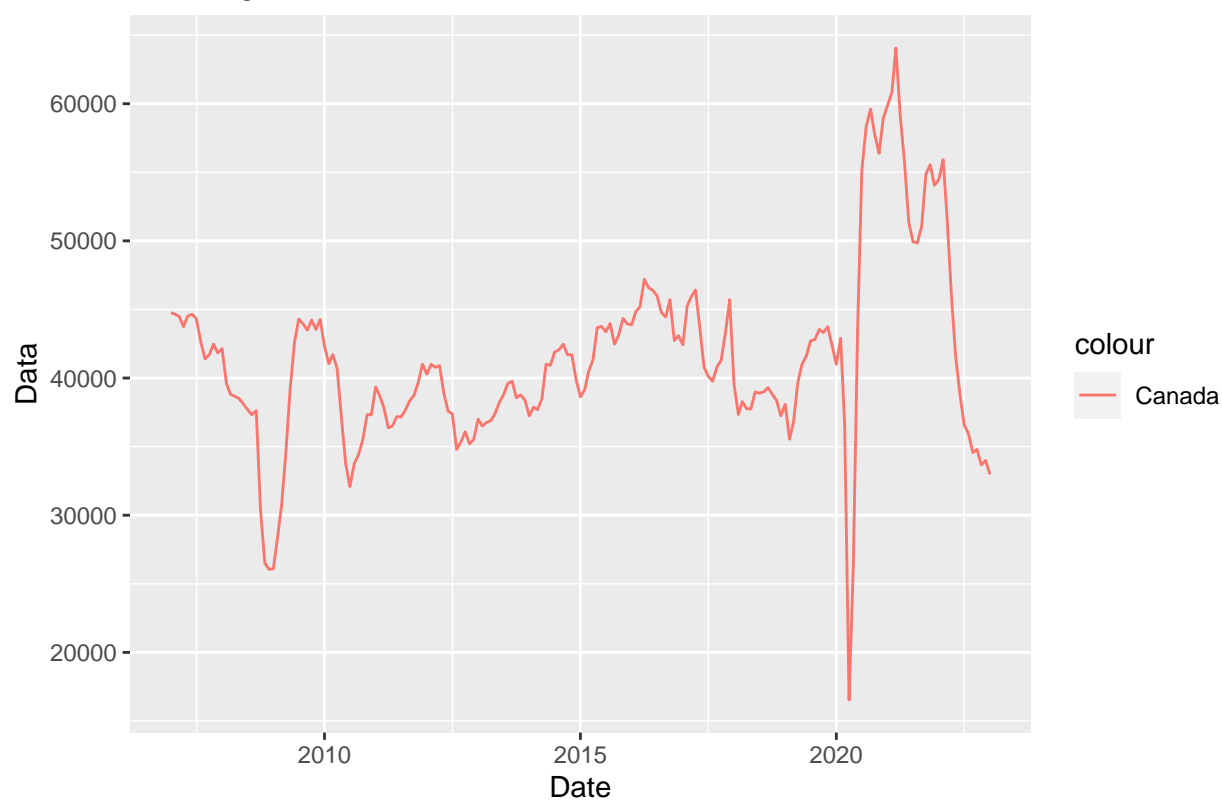
2.2 draw the graphy

```
The_housing_sell_data.raw <- as.data.frame(The_housing_sell_data)  
head(The_housing_sell_data.raw, 5)
```

```
##           Date Canada 10-year average  
## 1 2007-01-01 44759      33136.45  
## 2 2007-02-01 44646      33254.82  
## 3 2007-03-01 44494      33393.78  
## 4 2007-04-01 43742      33532.91  
## 5 2007-05-01 44522      33691.76
```

```
ggplot(The_housing_sell_data.raw, aes(x = Date)) +  
  geom_line(aes(y = Canada, color = "Canada")) +  
  labs(title = "Housing Sell Data", x = "Date", y = "Data")
```

Housing Sell Data



2.3 the summary of the data

```
describe(The_housing_sell_data.raw$Canada)
```

```
##      vars   n    mean      sd median trimmed   mad   min   max range skew
## X1      1 193 41372.11 6746.72  40802   40809 4636.09 16530 64061 47531 0.62
##      kurtosis    se
## X1          2.1 485.64
```