

金融危機預測- HW5

魏上傑

2023-03-26

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1 資料處理

```
library(readxl)
Crisis <- read_excel("Currency_Crisis.xlsx")
```

```
Crisis$year <- as.character(Crisis$year)
Crisis$year <- as.Date(paste(Crisis$year, "-01-01", sep = ""), origin = "1970-01-01")
# origin 指定日期起點
```

```
Crisis$Total <- rowSums(Crisis[, -1])
```

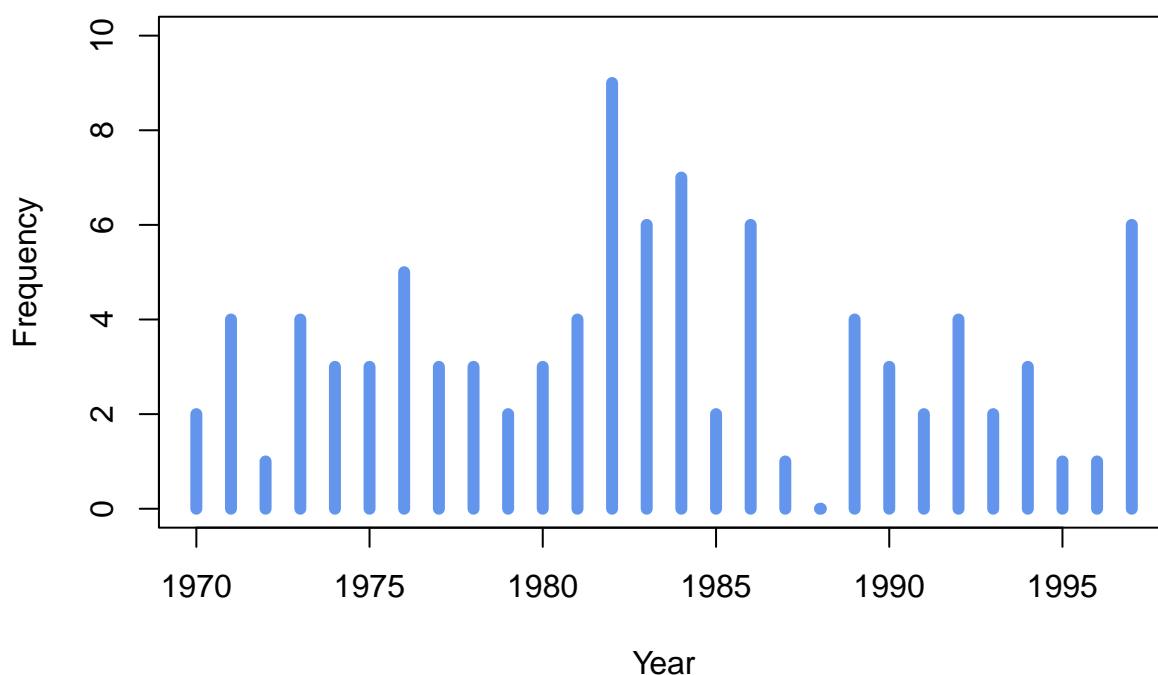
2 畫圖

```
plot(x=Crisis$year, y=Crisis$Total, type="h", lwd=6,
     col="cornflowerblue",
     main="Distribution of Currency Crises over Year",
     ylab="Frequency",
     xlab = "Year",
```

```
ylim = c(0,10))
```

```
mtext("Source:Goldstein, Kaminsky, and Reinhart (2000)",side=1, line=4, cex=0.8, adj=0)
```

Distribution of Currency Crises over Year



Source:Goldstein, Kaminsky, and Reinhart (2000)

`mtext()` 函數在底部增加註釋，`side` 參數設置為 1，表示在底部增加文本，`line` 參數設置為 4，表示在底部第四行增加文本，`cex` 參數指定文本的字體大小。然後，我們使用 `adj` 參數將文本對齊到左側，將其設置為 0。

如果要將文本靠右對齊，可以將 `adj` 參數設置為 1。如果要將文本置中對齊，可以將 `adj` 參數設置為 0.5。

3 STATA

```
library(Statamarkdown, quietly=TRUE)
```

```
## Stata found at /Applications/Stata/StataSE.app/Contents/MacOS/StataSE
```

```
## The 'stata' engine is ready to use.
```

```

clear

cd "~/Desktop/Financial_Crisis/HW5/STATA"

import excel "GoldsteinKaminskyReinhartCurrencyCrises.xlsx",firstrow

* check the imported data
describe

summarize

```

```
/Users/weishangjie/Desktop/Financial_Crisis/HW5/STATA
```

Contains data

```

obs:          94
vars:          4
size:         4,418

```

	storage	display	value	
variable name	type	format	label	variable label
Country	str14	%14s		Country
Month	str9	%9s		Month
Year	int	%10.0g		Year
Region	str22	%22s		Region

Sorted by:

Note: Dataset has changed since last saved.

Variable	Obs	Mean	Std. Dev.	Min	Max
Country	0				
Month	0				
Year	94	1983.149	7.52052	1970	1997
Region	0				

```
clear

cd "~/Desktop/Financial_Crisis/HW5/STATA"

import excel "GoldsteinKaminskyReinhartCurrencyCrises.xlsx",firstrow

* label variables
label variable Country "Country"
label variable Month "Month"
label variable Year "Year"
label variable Region "Region"

* distribution over year
egen maxY=max(Year)
egen minY=min(Year)
gen span=maxY-minY

twoway histogram Year, bin(`=span') frequency subtitle("Distribution of Crises over Year").

/Users/weishangjie/Desktop/Financial_Crisis/HW5/STATA
```