

Now it's time to use customed fonts!!!

GYH

March 2020

Display:

First, we will test on \LaTeX : $\sum_{k=1}^n k^2$, $\iint_{\mathbb{R}^2} \frac{x}{y} d\omega$. It seems perfect!

$$\sum_{n=1}^{\infty} 2^{-n} = 1$$

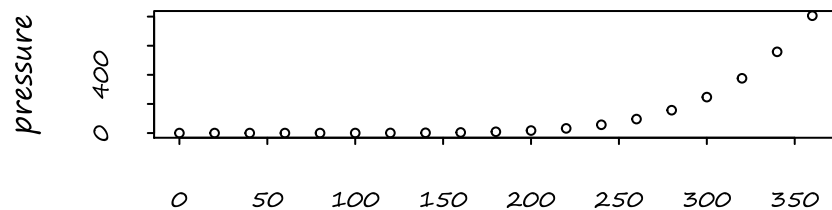
Plots:

Then, let us check several key points:

(a) r-base plot

```
library(showtext)
showtext_auto(enable = TRUE)
font_add('SegoePrint', 'SegoePrint.ttf')
plot(pressure, xlab='You can change the font now!', family='SegoePrint', tck=-0.05
      , main='r-base plot'
      , cex=0.6, cex.main=1
      , cex.lab=0.9, cex.axis=0.7)
```

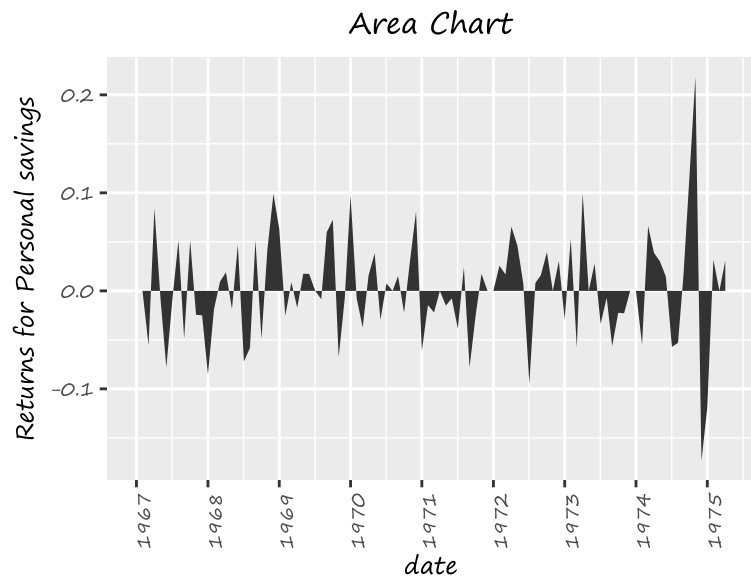
r-base plot



You can change the font now!

(b) ggplot2

```
library(ggplot2)
library(quantmod)
data("economics", package = "ggplot2")
economics$returns_perc <- c(0, diff(economics$psavert)/
economics$psavert[-length(economics$psavert)]])
brks <- economics$date[seq(1, length(economics$date), 12)]
lbls <- lubridate::year(economics$date[seq(1,
length(economics$date), 12)])
ggplot(economics[1:100, ], aes(date, returns_perc)) +
  geom_area() +
  scale_x_date(breaks=brks, labels=lbls) +
  theme(axis.text.x = element_text(angle=90)) +
  labs(title="Area Chart",
y="Returns for Personal savings",
caption="Source: economics")+
  theme(plot.title = element_text(hjust = 0.5))+
  theme(text=element_text(family="SegoePrint",size=9))
```

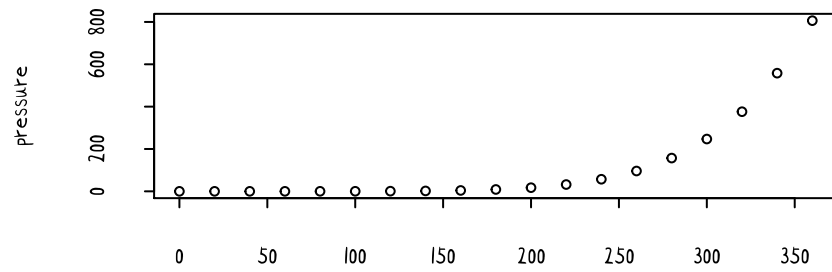


Source: economics

(c) r-base plot with chinese

```
font_add('Seafood', 'Seafood.ttf')
plot(pressure,xlab='现在可以更改字体了!',family='Seafood',tck=-0.05
,main='基础包作图'
,cex=0.6,cex.main=1.3
,cex.lab=1.2,cex.axis=1.05)
```

基础包作图

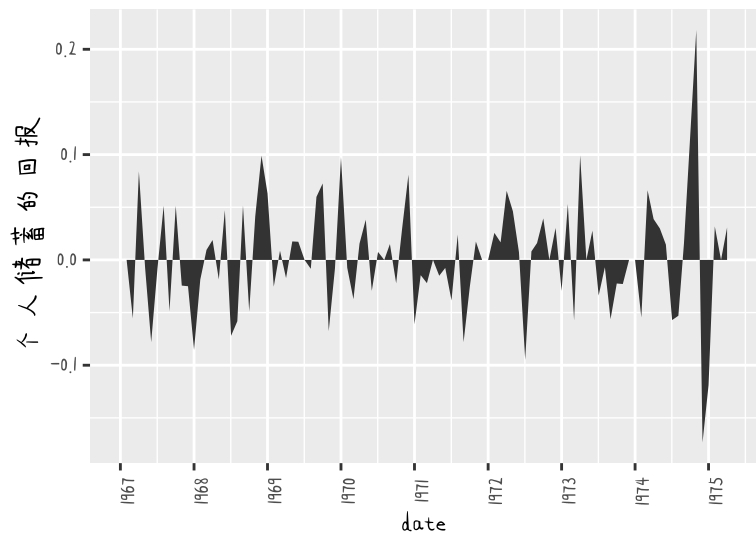


现在可以更改字体了！

(d) ggplot2 with chinese

```
library(ggplot2)
library(quantmod)
ggplot(economics[1:100, ], aes(date, returns_perc)) +
  geom_area() +
  scale_x_date(breaks=brks, labels=lbls) +
  theme(axis.text.x = element_text(angle=90)) +
  labs(title=" 分区图",
       y=" 个人储蓄的回报",
       caption=" 来源: Economics")+
  theme(plot.title = element_text(hjust = 0.5))+
  theme(text=element_text(family="Seafood",size=13))
```

分区图



来源: Economics