

$r_1, r_2, \dots, r_t, r_{t+1}, \dots$ daily cc returns

$$r_t(2) = r_t + r_{t-1} = 2\text{-day return}$$

Non-overlapping returns

$$\underbrace{r_2 + r_1}_{r_2(2)}, \underbrace{r_4 + r_3}_{r_4(2)}, \underbrace{r_6 + r_5}_{r_6(2)}, \dots$$

$$\underbrace{r_2 + r_1}_{r_2(2)}, \underbrace{r_3 + r_2}_{r_3(2)}, \underbrace{r_4 + r_3}_{r_4(2)}, \dots$$

overlapping returns

$$\underbrace{\quad}_{r_2(2)} \quad \underbrace{\quad}_{r_3(2)} \quad \underbrace{\quad}_{r_4(2)} \quad \dots$$

Advantages of overlapping — more data

Disadvantages:

$r_3(2)$ & $r_2(2)$ are correlated

$\{r_t(2)\} \rightarrow \text{MA}(1)$ process

$\{r_t(q)\} \rightarrow \text{MA}(q-1)$

Correcting for multiple hypothesis in tests
Use version of the "Benjamini-Hochberg"
of Hal White.

R package `htest`

