

R Notebook

Code ▾

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```
vetor = c(1, 2, 3, 4, 5, 6)
vetor
```

```
[1] 1 2 3 4 5 6
```

Função diff

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```
diff_ = function(x){
  new_vetor = c()

  for (i in (length(x)):1) {
    new_vetor = append(new_vetor, (x[i] - x[i-1]))
  }

  return(new_vetor)
}
```

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```
diff_(vetor)
```

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

o diff() no R calcula as diferenças de frente para trás, ou seja, na ordem natural dos elementos no vetor, usando o elemento atual menos o anterior. O cálculo segue o fluxo dos índices no vetor.

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```
diff(vetor)
```

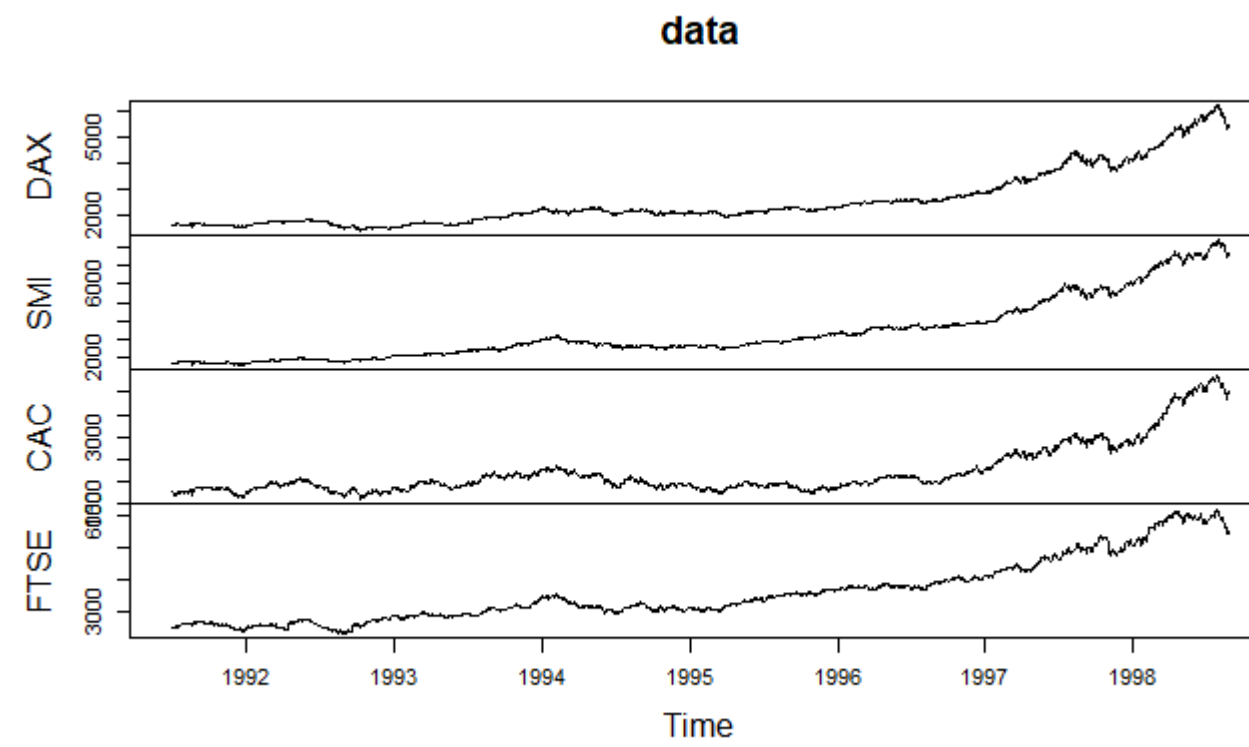
```
[1] 1 1 1 1 1
```

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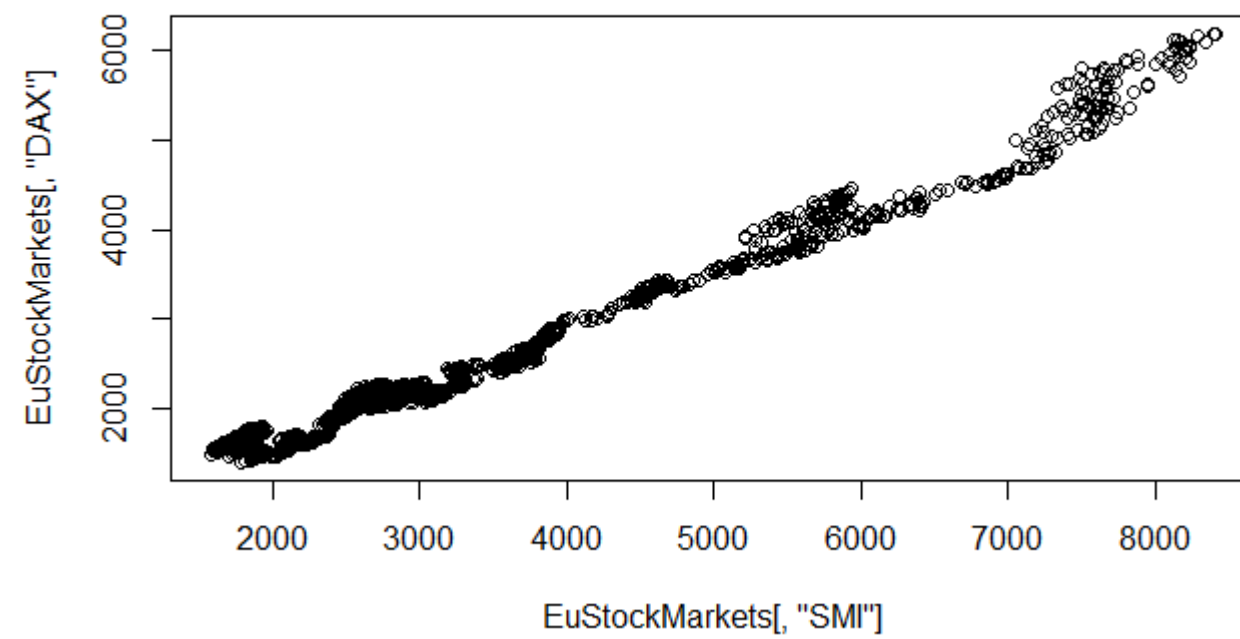
```
data = EuStockMarkets
```

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```
plot(data)
```


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```
plot(EuStockMarkets[, "SMI"], EuStockMarkets[, "DAX"])
```

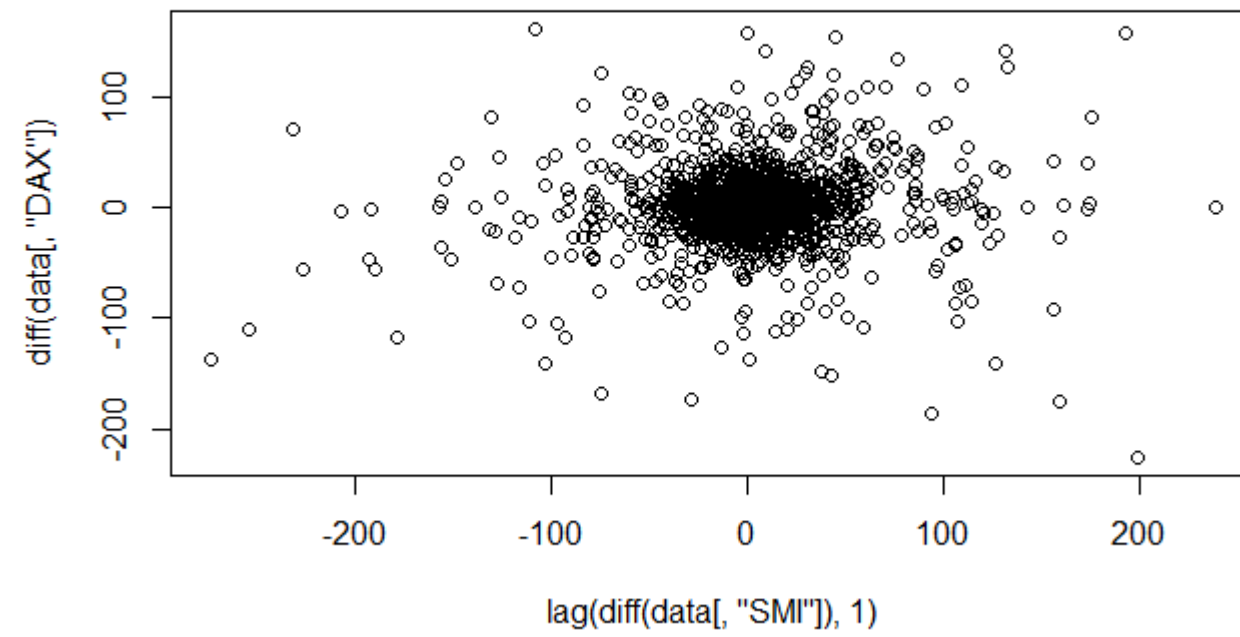

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```
cor(data[, "SMI"], data[, "DAX"], method = "spearman")
```

```
[1] 0.9727973
```

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```
plot(lag(diff(data[, "SMI"]), 1), diff(data[, "DAX"]))
```

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```
cor(lag(diff(data[, "SMI"]), 1), diff(data[, "DAX"]))
```

```
[1] 0.7468422
```