ARMA

ARMA(1,1)

Rt= π + ϴ1Rt-1 + ϴ2ϵt-1 + ϵt

ARMAX (Autoregresive Moving Average Exogenous)

ARMAX(1,1)

Rt= π + ϴ1Rt-1 + ϴ2ϵt-1 + ϵt +X1Zt

Forecasting

1. One step forecasting
2. Dynamic forecasting

|  |  |
| --- | --- |
| t | Data |
| … |  |
| 97 | 500 |
| 98 | 550 |
| 99 | 560 |
| 100 | 530 |

One step forecasting AR(1)

F98 -> 97

F99 -> 98

F100 -> 99

Dynamic forecasting AR(1)

F101 -> 100

F102 -> F101

F103 -> F102

….

ARIMA

Differencing

Autoregressive Intergrated Moving Averga (p,d,q)

-differencing d

-fit ARMA

-transformasi balikin data ke original

-forecast