

O'ZBEKISTON VA SINGAPUR O'RTASIDA TASHQI SAVDO ALOQALARTINING EKONOMETRIK TAHLILI.

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Annotation: Ushbu maqolada O'zbekiston va Singapur o'rtasida tashqi savdo aloqalarining shakllanishi, hozirgi holati va kelajak uchun prognozlar aks ettirilgan. Prognozlar ekonometrik tahlillar asosida amalga oshirilgan bo'lib, turli modellardan foydalanilgan va R studio dasturida yaratilgan.

Key words: O'zbekiston, Singapur, tashqi savdo aylanmasi, import, eksport, snaive model, ekonometrik modellar.

Review the topic: Hozirgi vaqtda jadal rivojlanib, globallashib borayotgan zamonda davlatlar o'rtasida tashqi savdo aloqalarini o'rnatish va mustahkamlash muhim o'rin tutadi. O'zbekiston va Singapur o'rtasidagi diplomatik aloqalar ham O'zbekiston mustaqillikka erishgandan so'ng boshlangan. Singapur Respublikasi va O'zbekiston 1997-yil 8-aprelda esa ikkala davlat o'rtasida diplomatik aloqalar o'rnatilgan va tez orada O'zbekistonda Singapur elchixonasi ochilgan. Aynan shu davrlardan boshlab to hozirgacha Singapur davlati O'zbekistonning Janubi-Sharqiy Osiyoda joylashgan davlatlar ichida savdo munosabatlarida birinchi o'rinni egallaydi. Quyida esa ushbu savdo aloqalarini ekonometrik tahlil qilamiz.

Loading the data

```
Foreigntrade=c(13,15.6,18.4,20.8,13.8,22.6,24.1,76.1,113.6,157.9,104,107,111,112.5,105,101,87,75.4,81.3,92.7,92.1,181.5,125.7,175.6,179,185.6)
```

```
Arrivals=      ts(Foreigntrade,      frequency=1,      start=c(1998))
```

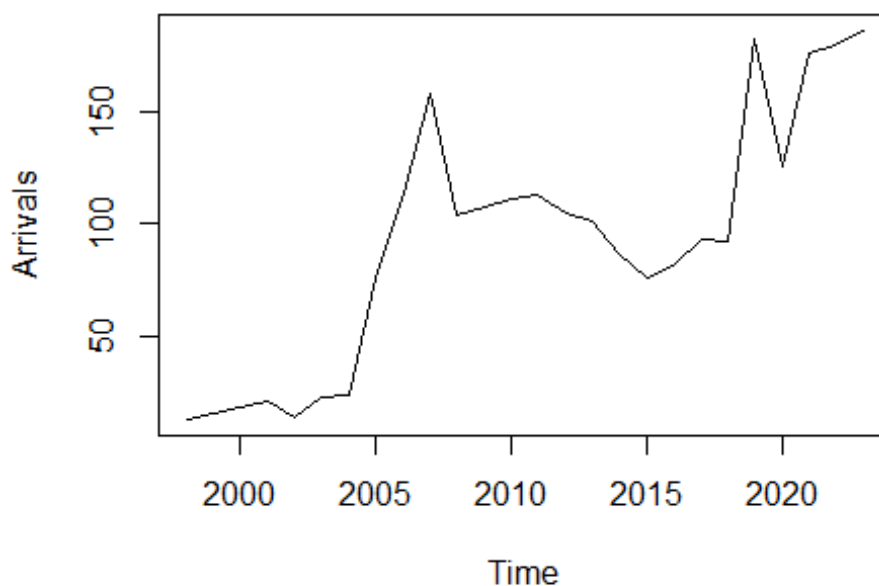
Arrivals

```
##              Time              Series:
```

```
##              Start              =              1998
```

```
##           End           =           2023
##           Frequency       =           1
## [1] 13.0 15.6 18.4 20.8 13.8 22.6 24.1 76.1 113.6 157.9 104.0 107.0
## [13] 111.0 112.5 105.0 101.0 87.0 75.4 81.3 92.7 92.1 181.5 125.7 175.6
## [25] 179.0 185.6
```

```
plot(Arrivals)
```



Ko'rsatkichlar 1998-yildan boshlab 2023-yilgacha berilgan bo'lib, milliard Aqsh dollari hisobida.

Metodlar

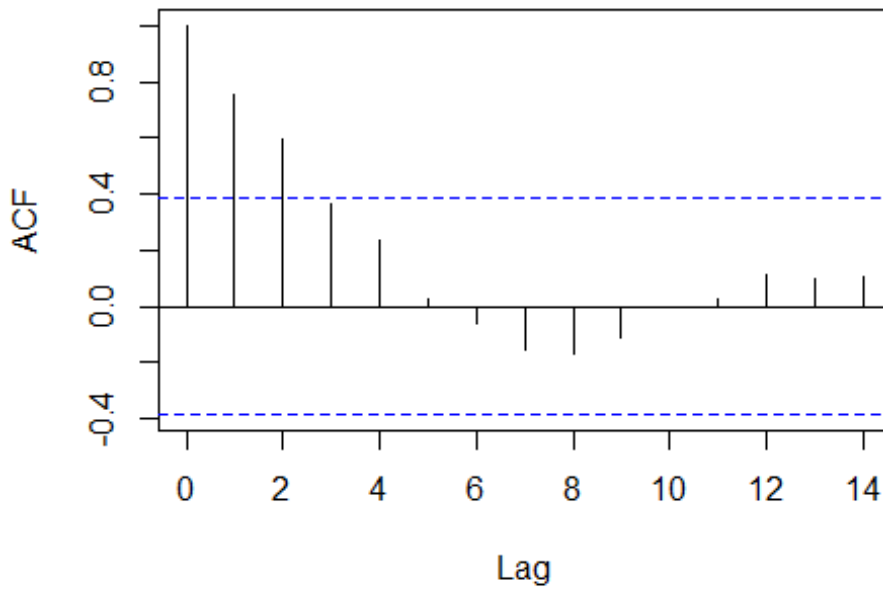
Ma'lumotlarni analiz qilish.

```
Foreigntrade=ts(Foreigntrade, start = c(1998), frequency = 1)
plot(Foreigntrade)
```



`acf(Foreigntrade)`

Series Foreigntrade



Vaqt qatorlari bo'yicha ekonometrik modellardan biri bo'lgan Naive model yaratamiz (3 yiluchun prognoz, RMSE va MAE xatoliklarni tekshirish)

ACF funksiyasi bo'yicha tekshiradigan bo'lsak, Laglarimiz Nostatsionar

##1.2. Naive model (Prediction for 3 years, and checking for errors: MAE, RMSE).

```
library(forecast)
```

```
naive.x=naive(Foreigntrade,h=3);naive.x
```

```
##          Point Forecast      Lo 80      Hi 80      Lo 95      Hi 95
## 2024          185.6 146.4144 224.7856 125.67083 245.5292
## 2025          185.6 130.1832 241.0168 100.84735 270.3527
## 2026          185.6 117.7286 253.4714  81.79963 289.4004
```

```
round(accuracy(naive.x), 2)
```

```
##          ME  RMSE  MAE  MPE  MAPE  MASE  ACF1
## Training set 6.9 30.58 19.26 5.53 20.74  1 -0.34
```

$$X_n = X_{n+1}$$

Xulosa Naive model bo'yicha RMSE ya,ni residuals qoldiqlar 30.58 ga teng bo'ldi. Prognozlar ushbu model bo'yicha 185.6. Eng past ko'rsatkich 146.4 dan eng yuqori ko'rsatkich 224.7 gacha kuzatilishi mumkin.

$$X_n = X_{n+1}$$

```
snaivex=snaive(Foreigntrade, h=3);snaivex
```

```
##          Point Forecast      Lo 80      Hi 80      Lo 95      Hi 95
## 2024          185.6 146.4144 224.7856 125.67083 245.5292
## 2025          185.6 130.1832 241.0168 100.84735 270.3527
## 2026          185.6 117.7286 253.4714  81.79963 289.4004
```

Savdo aylanmasi chizmasidan ko'rishimiz mumkinki, trend va mavsumiylik mavjud emas, ya'ni tasodifiy. Laglar, ya'ni vaqt seriyasining kechikishlari esa nostatsionar.

Model tuzishni Naive model tuzishdan boshlaymiz.

Drift metod

```
driftx=rwf(Foreigntrade, h=3, drift = TRUE); driftx
```

```
##          Point Forecast      Lo 80      Hi 80      Lo 95      Hi 95
## 2024          192.504  152.7716  232.2364  131.73859  253.2694
## 2025          199.408  142.1476  256.6684  111.83572  286.9803
## 2026          206.312 134.8957 277.7283  97.09018 315.5338
```

```
round(accuracy(driftx), 2)
```

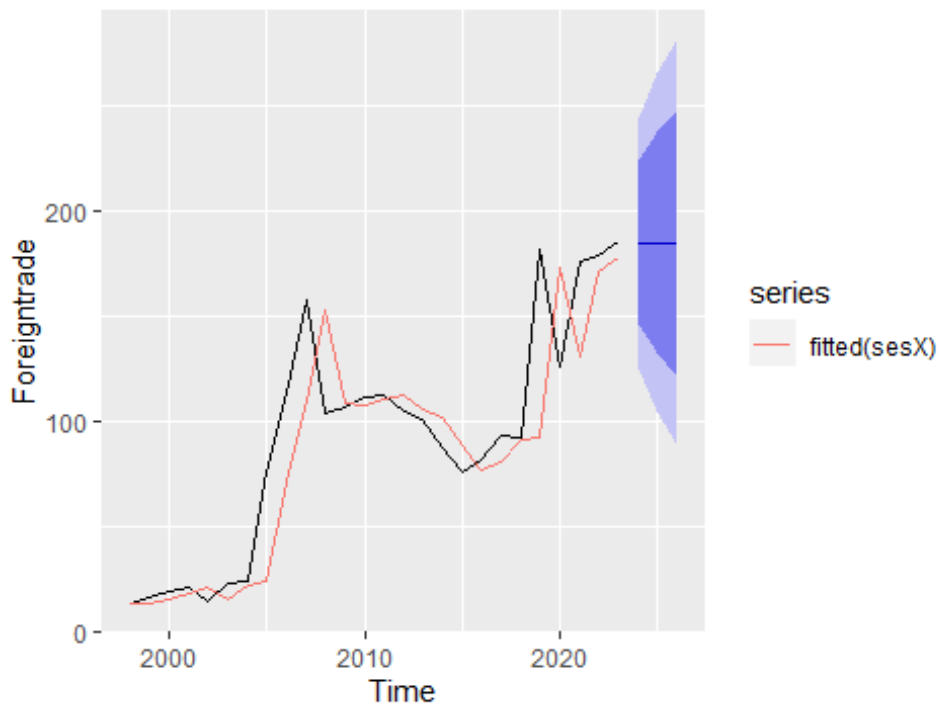
```
##          ME  RMSE  MAE  MPE  MAPE  MASE  ACF1
## Training set 0 29.79 19.6 -8.23 23.67 1.02 -0.34
```

Drift metodi orqali tahlil qiladigan bo'lsak, 192.5 dan 206.3 ko'rsatkichgacha prognoz kelib chiqadi. RMSE 29.79 ga teng. MAE 19.6ga.

5. Oddiy eksponensial chiziqli modeli

```
sesX<- ses(Foreigntrade,alpha =0.9,h = 3) # Alfa =0.9 model tekisligi
autoplot(sesX)
autolayer(fitted(sesX)) # Model grafigi
```

Forecasts from Simple exponential smoothing



$$F_{t+1} = \alpha \cdot X_{t+1} + (1 - \alpha) \cdot F_t$$

Prognoz

```
fEs<-sesX$mean;fEs # прогноз сгл.ряду
```

```
##                               Time                               Series:
##                               Start                               =           2024
##                               End                               =           2026
##                               Frequency                         =           1
## [1] 184.8608 184.8608 184.8608
```

```
#fEsAr<- forecast(ESar1, 3,level=95);fEsAr # AR bo'yicha prognoz
#ffEs<-fEs+fEsAr$mean;ffEs # yakuniy prognoz
```

##Trend model xatoligi:

```
round(accuracy(sesX),3)
```

```
##           ME    RMSE    MAE    MPE    MAPE    MASE    ACF1
## Training set 7.333 29.389 18.438 5.909 19.96 0.958 -0.231
```

Results and analysis

1. Avtoregression model AR(p):

```

ArX<-arima(Foreigntrade,c(1,0,0));ArX # avtoregression AR(1) kontstanta

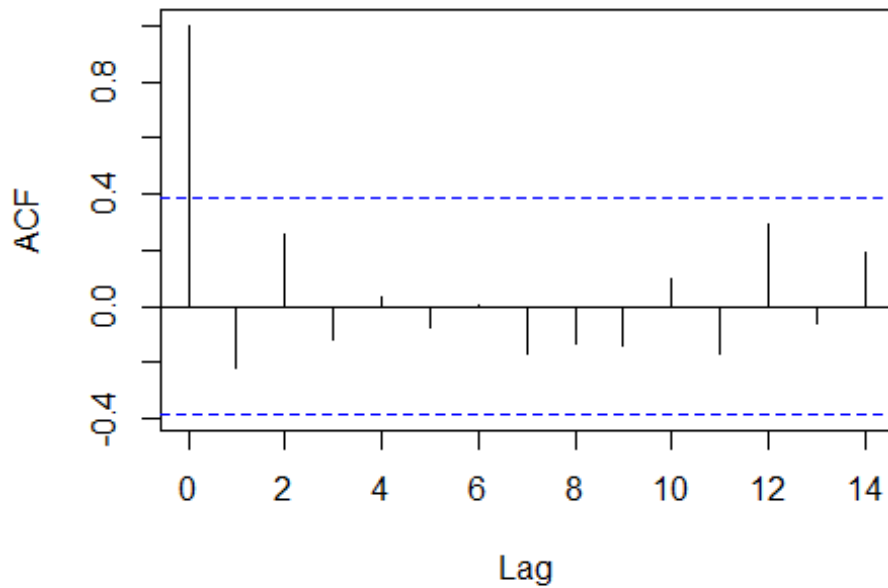
##
##
## Call:
## arima(x = Foreigntrade, order = c(1, 0, 0))
##
## Coefficients:
## ar1 intercept
## 0.8781 94.6066
## s.e. 0.0987 38.6344
##
## sigma^2 estimated as 895.3: log likelihood = -125.99, aic = 257.98

coeftest(ArX) # T: koeffitsient testi

##
## z test of coefficients:
##
## Estimate Std. Error z value Pr(>|z|)
## ar1 0.878059 0.098712 8.8952 < 2e-16 ***
## intercept 94.606647 38.634414 2.4488 0.01433 *
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

acf(ArX$resid) # AKF qoldiqlari
    
```

Series ArX\$resid



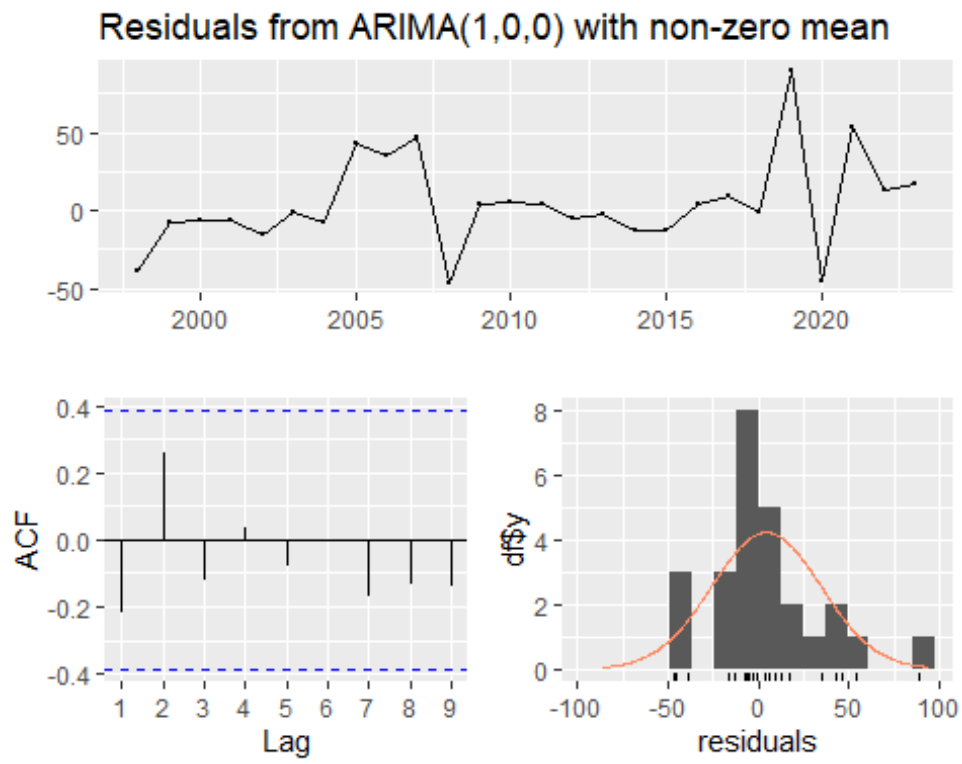
summary(ArX)

```
##
##                                     Call:
##   arima(x      = Foreigntrade, order = c(1, 0, 0))
##
##                                     Coefficients:
##                                     ar1      intercept
##                                     0.8781      94.6066
##   s.e.                                0.0987      38.6344
##
## sigma^2 estimated as 895.3:  log likelihood = -125.99,  aic = 257.98
##
##   Training set      error      measures:
##   ME  RMSE  MAE  MPE  MAPE  MASE  ACF1
## Training set 4.393211 29.92104 20.58417 -17.26319 35.77355 1.068975 -0.217
## 6348
```



```
#ArX<-arima(X,c(1,0,0),include.mean = F);ArX # avtoregression AR(1) konstant
asiz
#coefest(ArX) # T: Koeffitsient testi
#acf(ArX$resid) # AKF qoldiqlar

#ArX<-arima(X,c(2,0,0));ArX # авторегрессия AR(2) с константой
#coefest(ArX) # T: Koeffitsient testi
#acf(ArX$resid) # AKF qoldiqlari
checkresiduals(ArX) # Qoldiqlar grafigi va Ljung-Box testi
```



```
##
## Ljung-Box test
##
## data: Residuals from ARIMA(1,0,0) with non-zero mean
## Q* = 4.0974, df = 4, p-value = 0.393
##
## Model df: 1. Total lags used: 5
```

jarqueberaTest(ArX\$resid) # *Jarque-Bera testi*

```
##
##
##                               Title:
##           Jarque       -       Bera       Normalality       Test
##
##                               Test                               Results:
##                               STATISTIC:
##                               X-squared:       3.8735
##                               P               VALUE:
## Asymptotic p Value: 0.1442
```

fAr<- **forecast**(ArX, 3,level=95);fAr # *AR bo'yicha prognoz*

```
##           Point Forecast           Lo 95           Hi 95
## 2024           174.5042    115.86004    233.1484
## 2025           164.7614     86.71868    242.8042
## 2026    156.2067 66.01262 246.4008
```

round(accuracy(ArX),3) # *AR model xatoligi:*

```
##           ME  RMSE  MAE  MPE  MAPE  MASE  ACF1
## Training set 4.393 29.921 20.584 -17.263 35.774 1.069 -0.218
```

$$X_t = 3.8754 + 0.9046 \cdot X_{t-1} + w_t$$

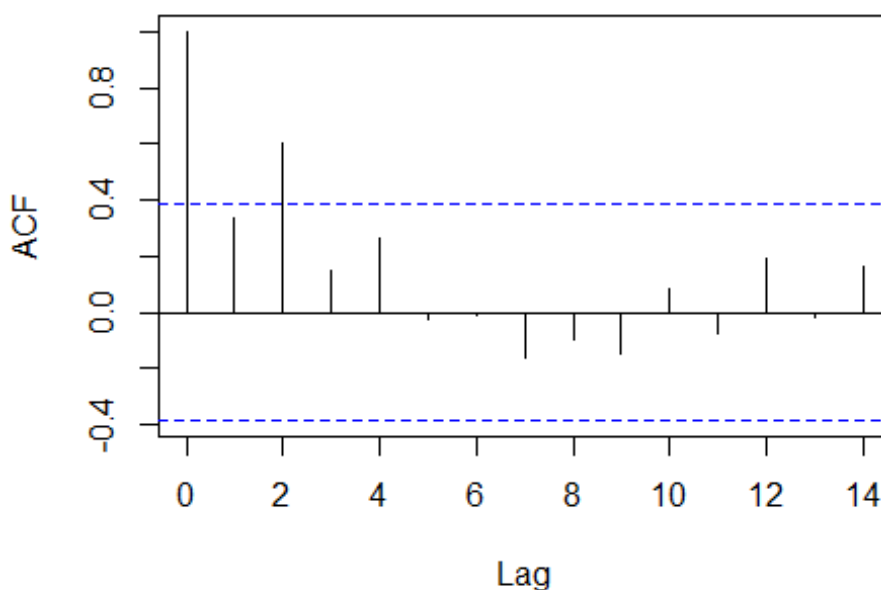
**** Model MA(q):****

MaX<-**arima**(Foreigntrade,c(0,0,1));MaX # *MA(1) model konstanta bilan*

```
##
##
##           arima(x = Foreigntrade, order = c(0, 0, 1))
##
##                               Coefficients:
```

```
##
##                               mal          intercept
##                               0.5517          92.4449
##          s.e.                  0.1205          12.7153
##
## sigma^2 estimated as 1793: log likelihood = -134.46, aic = 274.93
coeftest(MaX) # T: Koeffitsient testi
##
##          z          test          of          coefficients:
##
##          Estimate  Std. Error  z value  Pr(>|z|)
## mal              0.55172      0.12048   4.5793  4.666e-06 ***
## intercept  92.44489      12.71526   7.2704  3.585e-13 ***
##
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
acf(MaX$resid) # AKF qoldiqlar
```

Series MaX\$resid



```

#MaX<-arima(X,c(0,0,1),include.mean = F);MaX # MA(1) model Konstantasiz
#coefstest(MaX) # T: koeffitsient testi
#acf(MaX$resid) # AKF qoldiqlar

MaX1<-arima(Foreigntrade,c(0,0,2));MaX1 # MA (2) konstanta bilan

##
## Call:
## arima(x = Foreigntrade, order = c(0, 0, 2))
##
## Coefficients:
## ma1 ma2 intercept
## 0.7677 0.5474 91.6350
## s.e. 0.2041 0.1317 15.0088
##
## sigma^2 estimated as 1158: log likelihood = -129.09, aic = 266.18

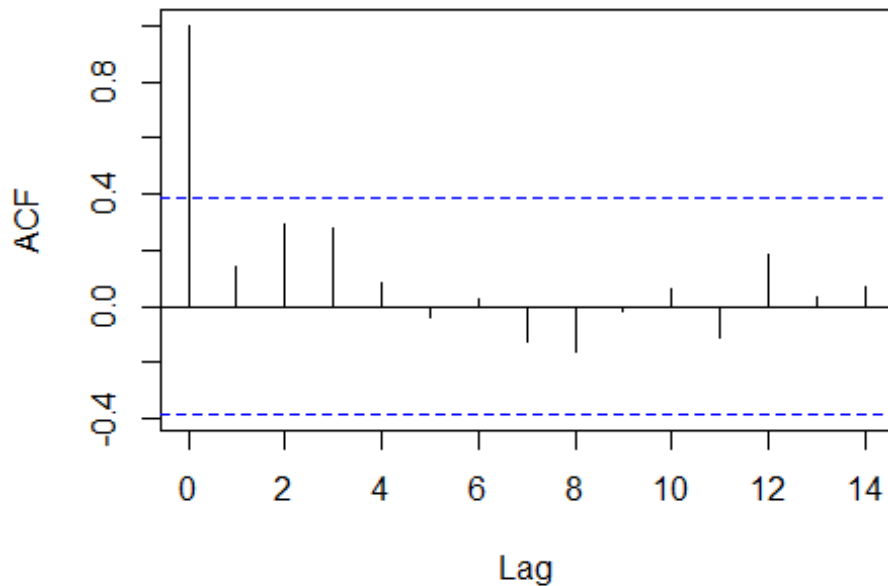
coefstest(MaX1) # T: koeffitsient testi

##
## z test of coefficients:
##
## Estimate Std. Error z value Pr(>|z|)
## ma1 0.76774 0.20412 3.7612 0.0001691 ***
## ma2 0.54744 0.13173 4.1557 3.243e-05 ***
## intercept 91.63497 15.00882 6.1054 1.025e-09 ***
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

acf(MaX1$resid) # AKF qoldiqlari

```

Series MaX1\$resid



```
MaX2<-arima(Foreigntrade,c(0,0,3));MaX2 # MA(3) model konstanta bilan
```

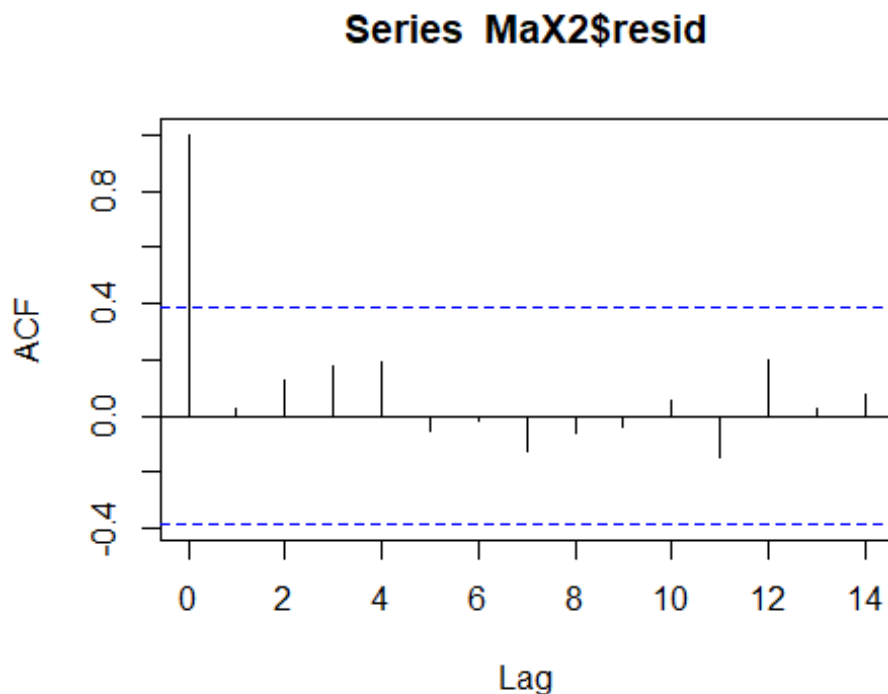
```
##
##
##          Call:
## arima(x = Foreigntrade, order = c(0, 0, 3))
##
##          Coefficients:
##          ma1      ma2      ma3  intercept
##          0.8316  0.9341  0.4214   92.9474
## s.e.      0.1983    0.3333    0.2036   18.3405
##
## sigma^2 estimated as 938.5: log likelihood = -126.91, aic = 263.83
```

```
coeftest(MaX2) # T: Koeffitsient testi
```

```
##
##          z          test          of          coefficients:
##
```

```
##              Estimate Std. Error z value Pr(>|z|)
## ma1            0.83164    0.19833   4.1932 2.751e-05 ***
## ma2            0.93414    0.33327   2.8029 0.005064 **
## ma3            0.42140    0.20360   2.0698 0.038474 *
## intercept    92.94735    18.34053   5.0679 4.023e-07 ***
##
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

`acf(MaX2$resid)` # *AKF qoldiqlari*

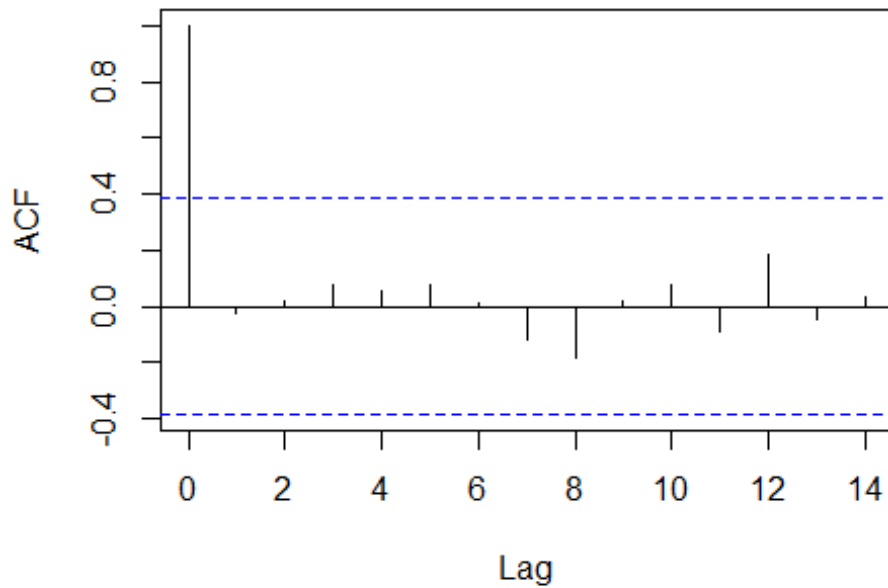


`MaX3<-arima(Foreigntrade,c(0,0,4));MaX3` # *MA(3) model Konstanta*

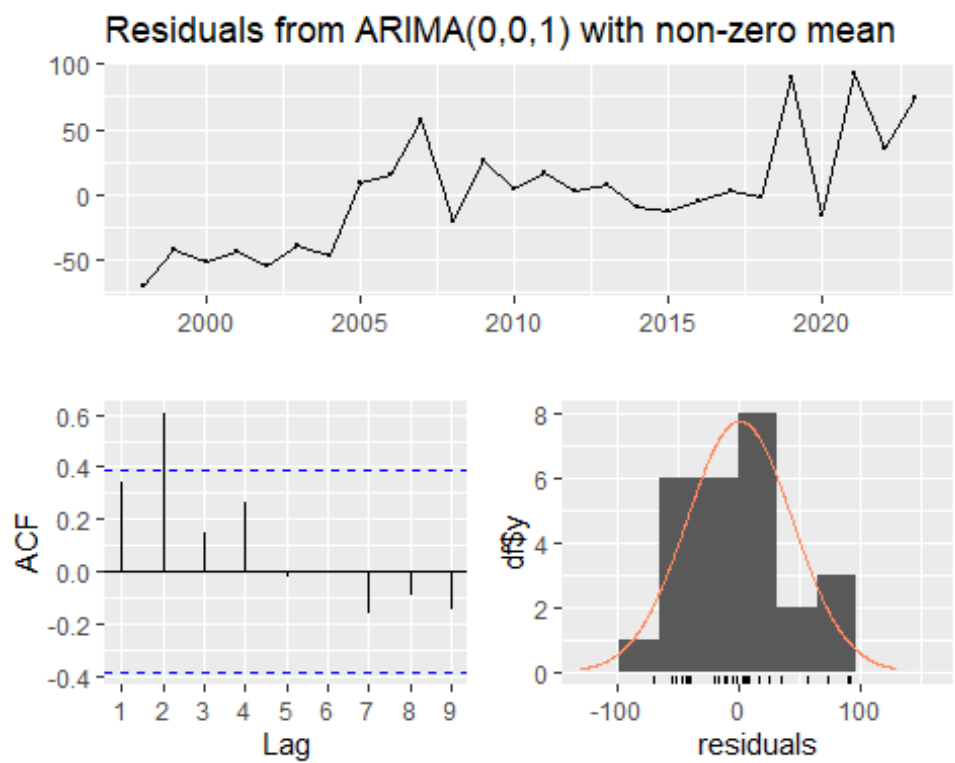
```
##
## Call:
## arima(x = Foreigntrade, order = c(0, 0, 4))
##
## Coefficients:
##          ma1          ma2          ma3          ma4  intercept
```

```
##          0.8207    0.9290    0.5859    0.5209    91.0514
## s.e.      0.2071    0.2505    0.2429    0.3250    20.9718
##
## sigma^2 estimated as 850.4: log likelihood = -125.64, aic = 263.29
coeftest(MaX3) # T: Koeffitsient testi
##
##          z          test          of          coefficients:
##
##          Estimate Std. Error z value Pr(>|z|)
## ma1          0.82072    0.20708    3.9633 7.391e-05 ***
## ma2          0.92896    0.25055    3.7077 0.0002092 ***
## ma3          0.58588    0.24291    2.4119 0.0158695 *
## ma4          0.52091    0.32498    1.6029 0.1089581
## intercept  91.05144    20.97184    4.3416 1.414e-05 ***
##
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
acf(MaX3$resid) # AKF qoldiqlari
```

Series MaX3\$resid



`checkresiduals(MaX) # grafiklar + Ljung-Box test`



##

##

Ljung-Box

test


```
##
## data:      Residuals from ARIMA(0,0,1) with non-zero mean
## Q*      =   17.391,   df      =   4,   p-value   =   0.001623
##
## Model df: 1. Total lags used: 5

jarqueberaTest(MaX$resid) # Jarque_Bera testi.

##
##                                     Title:
##           Jarque      -      Bera      Normalality      Test
##
##                                     Test      Results:
##                                     STATISTIC:
##                                     X-squared:      1.3617
##                                     P      VALUE:
## Asymptotic p Value: 0.5062

fMa<- forecast(MaX, 3,level=95);fMa # MA bo'yicha prognoz

##           Point Forecast           Lo 95           Hi 95
## 2024           132.98318      49.991926      215.9744
## 2025           92.44489      -2.339679      187.2295
## 2026      92.44489 -2.339679 187.2295

fMa1<- forecast(MaX1, 3,level=95);fMa1 # MA(1) bo'yicha prognoz

##           Point Forecast           Lo 95           Hi 95
## 2024           136.11062      69.42822220      202.7930
## 2025           99.91831      15.85008753      183.9865
## 2026      91.63497 -0.01682866 183.2868

fMa2<- forecast(MaX2, 3,level=95);fMa2 # MA(2) bo'yicha prognoz
```

```
##          Point Forecast          Lo 95          Hi 95
## 2024          177.3584      117.303654      237.4131
## 2025          137.3309          59.226169      215.4355
## 2026    103.8051  7.652405 199.9578
```

```
fMa3<- forecast(MaX3, 3,level=95);fMa3 # MA(3) bo'yicha prognoz
```

```
##          Point Forecast          Lo 95          Hi 95
## 2024          136.7472          79.58952      193.9049
## 2025          136.6531          62.71087      210.5952
## 2026    114.6885 23.65773 205.7193
```

```
round(accuracy(MaX),3) # MA model xatoligi:
```

```
##          ME  RMSE  MAE  MPE  MAPE  MASE  ACF1
## Training set 0.877 42.343 32.469 -70.823 92.354 1.686 0.338
```

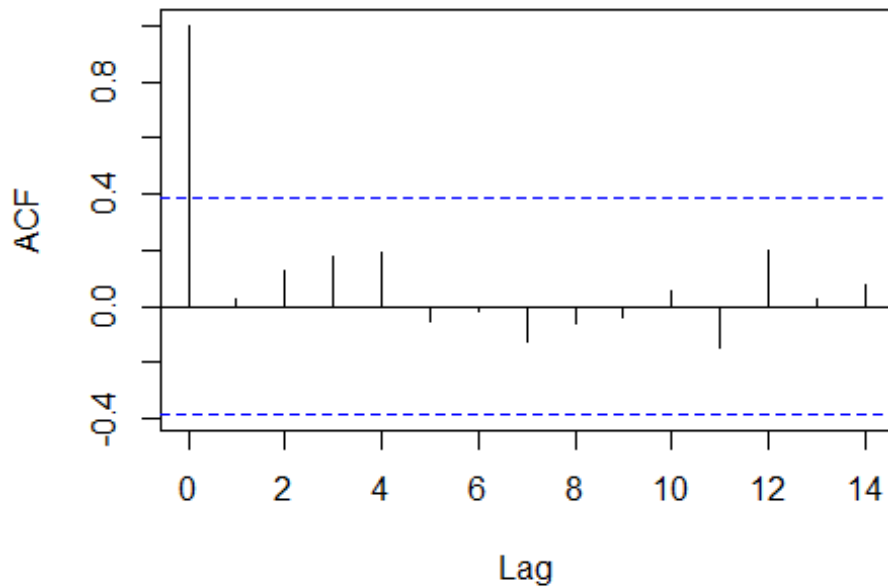
$$X_t = 92.9474 + \varepsilon_t + 0.8316 \cdot \varepsilon_{t-1} + 0.9341 \cdot \varepsilon_{t-2} + 0.4214 \cdot \varepsilon_{t-3}$$

```
## Qoldiqlarni tahlil qilish
```

```
errorMaX2=residuals(MaX2)
```

```
acf(errorMaX2)
```

Series errorMaX2



```
#Trarima1=arima(errorMaX2,c(1,0,0))
```

```
Trarima1=arima(errorMaX2,c(1,0,0), include.mean = F); Trarima1
```

```
##
```

```
##
```

Call:

```
## arima(x = errorMaX2, order = c(1, 0, 0), include.mean = F)
```

```
##
```

```
##
```

Coefficients:

```
##
```

ar1

```
##
```

0.0324

```
##
```

s.e.

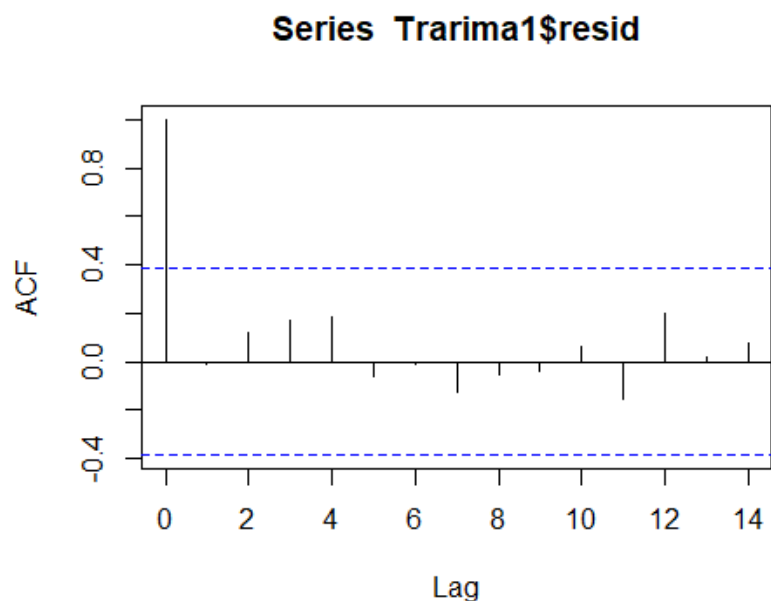
0.2048

```
##
```

```
## sigma^2 estimated as 937.6: log likelihood = -125.86, aic = 255.71
```

```
Trarima2=arima(errorMaX2,c(2,0,0), include.mean = F); Trarima2
```

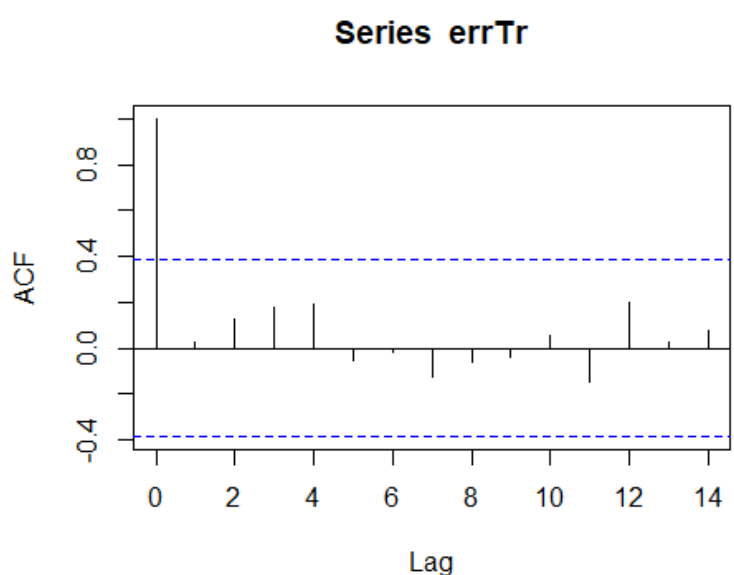
```
##
##
## Call:
## arima(x = errorMaX2, order = c(2, 0, 0), include.mean = F)
##
## Coefficients:
## ar1 ar2
## 0.0409 0.1532
## s.e. 0.2013 0.2104
##
## sigma^2 estimated as 917.2: log likelihood = -125.6, aic = 257.19
library(lmtest)
coeftest(Trarima1)
##
## z test of coefficients:
##
## Estimate Std. Error z value Pr(>|z|)
## ar1 0.032445 0.204825 0.1584 0.8741
coeftest(Trarima2)
##
## z test of coefficients:
##
## Estimate Std. Error z value Pr(>|z|)
## ar1 0.040917 0.201339 0.2032 0.8390
## ar2 0.153212 0.210432 0.7281 0.4666
acf(Trarima1$resid)
```



Xulosa. Xatoliklar bo'yicha tahlil qiladigan bo'lsak, Trarima1 bo'yicha tahlillar ishonchlilik darajasi yuqori bo'lib, Standard error 0.157 ga teng. Trarima2 0.188 standard xatolikni qayd etgan. Trarima1 ni ACF tahliliga qo'yadigan bo'lsak ham, ishonchlilik chizig'idan chiqib ketmagan.

Qoldiqlarni Jarque-Berra va Linun-Box tahlilidan o'tkazish

```
errTr<-residuals(MaX2)           #           qoldiqlarni           saqlash
acf(errTr) # AKF qoldiqlar
```



```

Trar1<-arima(errTr,c(1,0,0));Trar1 # avtoregressiya AR(1) c konstantali

##
##
## Call:
## arima(x = errTr, order = c(1, 0, 0))
##
## Coefficients:
## ar1 intercept
## 0.0267 1.8221
## s.e. 0.2055 6.1570
##
## sigma^2 estimated as 934.5: log likelihood = -125.81, aic = 257.63

coefest(Trar1) # T mecm: koeffitsienti

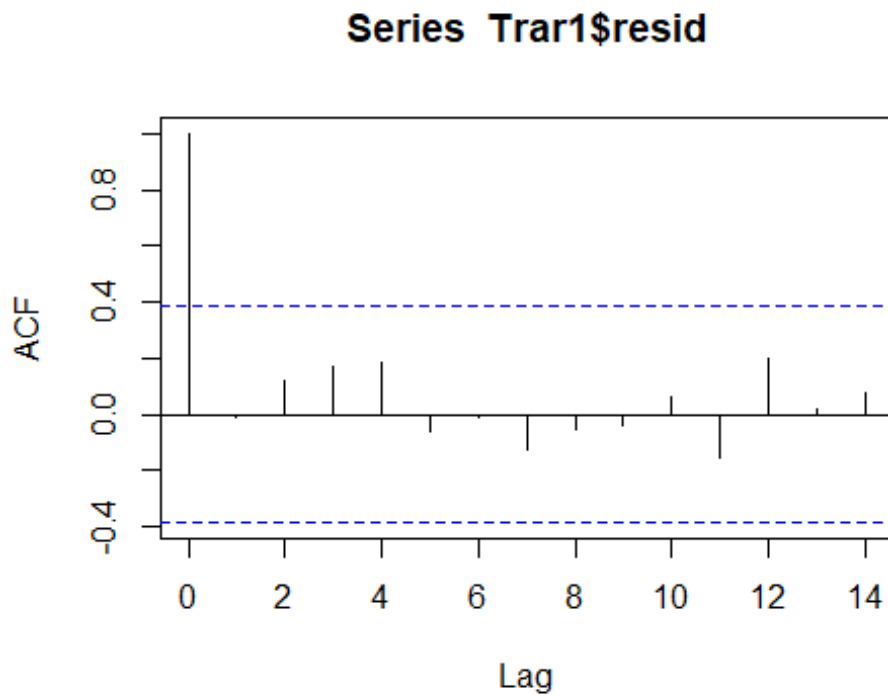
##
## z test of coefficients:
##
## Estimate Std. Error z value Pr(>|z|)
## ar1 0.026698 0.205451 0.1299 0.8966
## intercept 1.822098 6.156974 0.2959 0.7673

Trar1<-arima(errTr,c(1,0,0),include.mean = F);Trar1 # avtoregressiya AR(1) konst
antasiz

##
## Call:
## arima(x = errTr, order = c(1, 0, 0), include.mean = F)
##
## Coefficients:
## ar1
## 0.0324

```

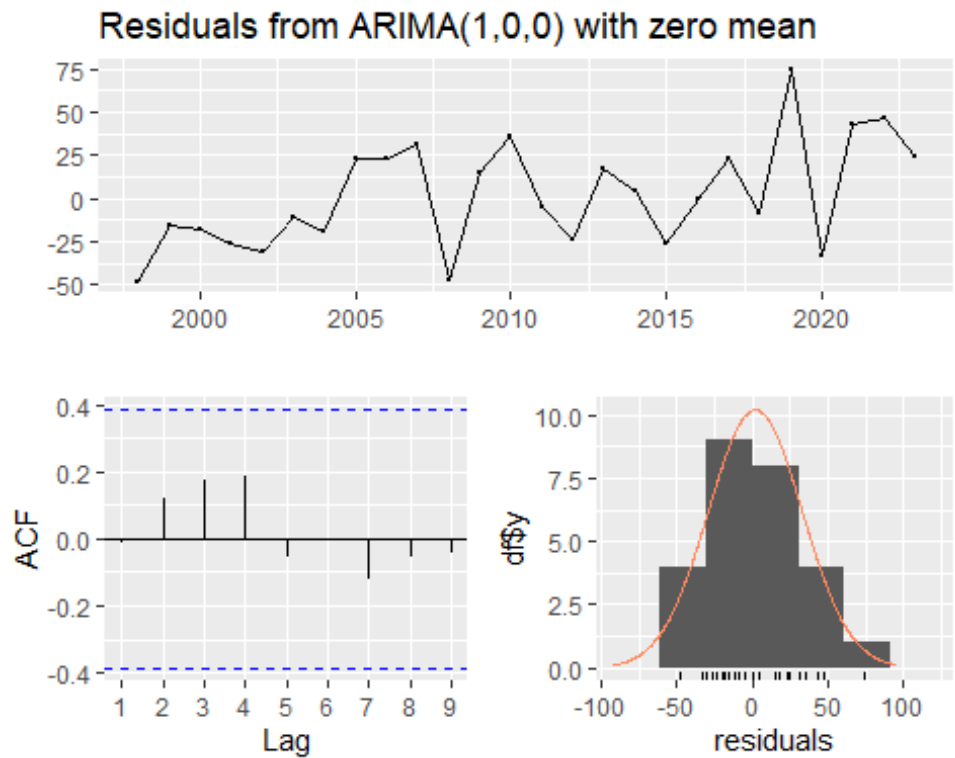
```
##                               s.e.                               0.2048
##
## sigma^2 estimated as 937.6: log likelihood = -125.86, aic = 255.71
acf(Trar1$resid) # AKF qoldiqlar
```



```
coefstest(Trar1) # T mecm: Coeftest tahlili
```

```
##
##           z           test           of           coefficients:
##
##           Estimate   Std. Error   z   value   Pr(>|z|)
## ar1 0.032445  0.204825  0.1584  0.8741
```

```
checkresiduals(Trar1) # Ljnung Box tahlili va grafigi
```



```
##
##                               Ljung-Box                               test
##
## data:      Residuals from ARIMA(1,0,0) with zero mean
## Q* = 2.6551, df = 4, p-value = 0.6171
##
## Model df: 1. Total lags used: 5
##
## jarqueberaTest(Trar1$resid) # Jarque-Bera testi.
##
##                               Title:
## Jarque - Bera Normality Test
##
##                               Test                               Results:
##                               STATISTIC:
##                               X-squared: 0.8386
```



```
## P VALUE:
## Asymptotic p Value: 0.6575
```

Prognozlar

```
fTr<- forecast(MaX2,h=3, level=95);fTr # trend bo'yicha prognoz
```

```
## Point Forecast Lo 95 Hi 95
## 2024 177.3584 117.303654 237.4131
## 2025 137.3309 59.226169 215.4355
## 2026 103.8051 7.652405 199.9578
```

```
fTrAr<- forecast(Trar1, 3,level=95);fTrAr # AR bo'yicha prognoz
```

```
## Point Forecast Lo 95 Hi 95
## 2024 0.8361780934 -59.17840 60.85075
## 2025 0.0271299834 -60.01902 60.07328
## 2026 0.0008802383 -60.04531 60.04707
```

```
ffTr<-fTr$mean+fTrAr$mean;ffTr # yakuniy prognoz
```

```
## Time Series:
## Start = 2024
## End = 2026
## Frequency = 1
## [1] 178.1946 137.3580 103.8060
```

Trend model xatoligi

```
round(accuracy(Trar1),3)
```

```
## ME RMSE MAE MPE MAPE MASE ACF1
## Training set 1.823 30.62 26.001 95.751 97.712 0.813 -0.012
```

$$X_t = F_t + e_t = \frac{X_{t-1} + X_{t-2} + X_{t-3}}{3} + 3.5066 \cdot e_{t-1} + w_t$$

Xulosa

Modelimizni vaqt qatorlarining ekonometrik modellar bo'yicha tahlil qilganimizda trend va parabolic modellar ma'qullanmadi. Chunki R-squared 66 % ga to'g'ri va p-value 0.05 dan katta shuning uchun Exponential smoothing, Auregression model va AR va MA modellardan hamda Drift metodidan foydalanib tahlil qilamiz. Drift metodiga ko'ra, TSA 192.5 mlrd AQSh dollaridan 206.3 mlrd AQSh dollarigacha qayd etmoqda. Autoregression AR va MA() modellarimizda esa ishonchilik darajasi boshqa modellarimizdan yuqori.

Conclusion and offers

Xulosa qilib aytishimiz mumkinki, tashqi savdo aylanmasi raqamlarini iqtisodiy tahlil qiladigan nbo'lsak, 2005-2006-yillarda savdo aylanmasi keskin o'sganini guvohi bo'lamiz. Buning sababi sifatida keltirishimiz mumkinki, aynan shu yillarda ikki davlat o'rtasida shartnomalar ko'p imzolangan va shu yillarda Singapurning Menejmentni rivojlantirish Instituti (MDIS 2007-yil faoliyatini boshlagan). Aytmoqchi bo'lgan taklifim shundan iboratki, Singapur bilan shartnomalar sonini ko'paytirish zarur. bu borada ikki davlat rahbarlari Sh.M.Mirziyoyev va Halima Yoqub joriy 2023-yilda juda faol iqtisodiy munosabatlarni yo'lga qo'ydi va diplomatik aloqalarda 5 ta tamoyil asosida amalga oshirishni belgilab oldi. Undan tashqari aytishimiz mumkinki, 5 milliardlik shartnomalar ham imzolandi.

Singapurning o'ziga xos rivojlanish omillariga nazar soladigan bo'lsak, Singapur mahrum Bosh vaziri, davlat arbobi li Kuan Yu inson kapitaliga juda katta ahamiyat bergan. O'zbekiston va Singapur davlatlari o'rtasida Savdo aloqlarini rivojlantirish borasida ikki davlat universitetlari orasida aloqalarni kengaytirish va talabalar o'rtasida exchange program almashuv dasturlari Yurtimiz iqtisodiyoti uchun juda katta samara olib kelishi aniq. deb o'ylayman.