use "C:\Users\Stanislav.Rogachev\Documents\Stanislav A. Rogachev\Äàâûäîâè÷ Äàâèä\cryptocurrencies2805.dta", clear

dfuller dash, regress lags(0)

pperron dash

tsset date, daily

tsset date, daily

arima bitcoin, ar(1 2)

arima bitcoin, ar(1 2)

arima bitcoin if < 01/05/2019, ar(1 2)

arima bitcoin if < 01/05/2019 in 1/365, arima(1,0,0)

arima bitcoin in 1/365, arima(1,0,0)

dfuller bitcoin, regress lags(0)

dfuller d.bitcoin, regress lags (0)

dfuller bitcoin, regress lags(0)

dfuller bitcoin, regress lags(0)

dfuller bitcoin, regress lags(0)

dfuller d.bitcoin, regress lags (0)

dfuller bitcoin, noconstant regress lags(0)

dfuller bitcoin, trend regress lags(0)

dfuller bitcoin, drift regress lags(0)

dfuller d.bitcoin, drift regress lags(0)

dfuller bitcoin, drift regress lags(0)

dfuller d.bitcoin, drift regress lags(0)

dfuller d.bitcoin, drift noconstant regress lags(0)

dfuller d.bitcoin, drift regress lags(0)

dfuller bitcoin, drift regress lags(0)

arima(1;0;0)

arima bitcoin (1;0;0)

arima bitcoin, ar(1)

arima bitcoin if < 01/05/2019, ar(1)

arima bitcoin in 1/365, arima(1,0,0)

dfuller d.bitcoin, drift regress lags(0)

dfuller bitcoin, drift regress lags(0)

dfuller bitcoin in 1/365, regress lags(0)

dfuller bitcoin in 1/365, drift regress lags(0)

arima bitcoin in 1/365, arima(1,0,0)

estat dwatson

dwatson

estat dw

estat dwe

estat dwatson

estat, dwatson

estat dw

estat archlm

arima bitcoin in 1/365, arima(1,0,0)

estat ic

estat dwatson

tsset date, daily

arima bitcoin in 1/365, arima(1,0,0)

arima bitcoin in 1/365, arima(1,0,0)

arima bitcoin in 1/365, arima(1,0,0)

arima bitcoin in 1/365, arima(1,0,0)

arima bitcoin in 1/365, arima(1,0,0)

arima bitcoin in 1/365, arima(1,0,0)

arima bitcoin in 1/365, arima(1,0,0)

arima bitcoin in 1/365, arima(1,0,0)

arima bitcoin in 1/365, arima(1,0,0)

arima bitcoin in 1/365, arima(1,0,0)

arima bitcoin in 1/365, arima(1,0,0)

arima bitcoin in 1/365, arima(1,0,0)

arima bitcoin in 1/365, arima(1,0,0)

arima bitcoin in 1/365, arima(1,0,0)

arima bitcoin in 1/365, arima(1,0,0)

arima bitcoin in 1/365, arima(1,0,0)

arima bitcoin in 1/365, arima(1,0,0)

arima bitcoin in 1/365, arima(1,0,0)

arima bitcoin in 1/365, arima(1,0,0)

arima bitcoin in 1/365, arima(1,0,0)

estat dwatson

ssc install estout

estat dwatson

arima bitcoin in 1/365, arima(1,0,0)

estat dwatson

nlsur

estat dwatson

arima bitcoin in 1/365, arima(1,0,0)

estat dwatson

tsset, clear

regress bitcoin date

estat swatson

estat dwatson

tsset date, daily

regress bitcoin L.bitcoin

estat dwatson

dfuller ethereum, regress lags(0)

dfuller ethereum, drift regress lags(0)

dfuller ethereum in 1/365, regress lags(0)

dfuller ethereum in 1/365, drift regress lags(0)

dfuller ethereum in 1/365, noconstant regress lags(0)

dfuller bitcoin in 1/365, noconstant regress lags(0)

arimaethereum in 1/365 noconst,arima(1,0,0)

arimaethereum in 1/365, noconst arima(1,0,0)

arima ethereum in 1/365, noconst arima(1,0,0)

predict ethereum\_forecast, xb

twoway (tsrline ethereum\_forecast ethereum)

predict ethereum\_forecast, xb dynamic(10)

predict ethereum\_forecast1, xb dynamic(10)

twoway (tsrline ethereum\_forecast1 ethereum)

predict ethereum\_forecast, stdp dynamic(.)

predict ethereum\_forecast2, stdp dynamic(.)

predict ethereum\_forecast2, stdp

arima ethereum in 1/365, noconst arima(1,0,0)

predict ethereum\_forecast1, xb dynamic(10)

predict ethereum\_forecast10, xb dynamic(10)

predict ethereum\_forecast10, xb dynamic(5)

predict ethereum\_forecast5, xb dynamic(5)

twoway (tsrline ethereum\_forecast5)

twoway (tsline ethereum\_forecast5)

arima bitcoin in 1/365, arima(1,0,0)

predict predict bitcoin\_forecast, xb dynamic(10)

predict bitcoin\_forecast, xb dynamic(10)

twoway (tsline bitcoin\_forecast)

predict bitco\_forecast2, stdp

fcast compute

fcast graph bitco\_forecast2, observed

forecast create bitcoinfcst

var bitcoin ethereum litecoin bitcoincash dash, lags(1/2)

twoway (tsrline bitcoin\_forecast)

twoway (tsrline bitco\_forecast2)

twoway (tsline bitco\_forecast2)

arima bitcoin in 1/365, arima(1,0,0)

predict bitco\_forecast, stdp

twoway (tsline bitco\_forecast)

predict bitco\_forecast, xb

predict bitco\_forecast3, xb

twoway (tsline bitco\_forecast3)

regress bitcoin

arima bitcoin in 1/365, arima(1,0,0)

predict bitcoin\_yhat, yhat

predict bitcoin\_yhat, residuals

predict bitcoin\_prediction, xb

list date bitcoin\_prediction

predict bitcoin\_prediction, xb+1

predict bitcoin\_prediction1, xb+1

predict bitcoin\_yhat in 366/388, xb

predict bitcoin\_prediction in 366/388, xb

predict bitcoin\_prediction1 in 366/388, xb

list date bitcoin prediction1

list date bitcoin\_prediction1

list date bitcoin\_prediction1 bitcoin in 366/368

list date bitcoin\_prediction1 bitcoin in 366/388

list date bitcoin\_prediction1 bitcoin in 366/389

save "C:\Users\Stanislav.Rogachev\Documents\Stanislav A. Rogachev\Äàâûäîâè÷ Äàâèä\cryptocurrencies2905.dta"

predictnl btcn = predict(bitcoin), se(se\_btcn) ci(lbtcn ubtcn)

arima bitcoin in 1/365, arima(1,0,0)

forecast solve

forecast create

predict bitcoin\_dynam in 366/388, xb dynamic(.)

arima d.bitcoin in 1/365, arima(1,0,0)

ac d.bitcoin

arima d.bitcoin (0;0;1)

arima d.bitcoin in 1/365, arima(0,0,1)

arima rd\_bitcoin in 1/365, arima(1,0,0)

ac rd\_bitcoin

pac rd\_bitcoin

arima rd\_bitcoin in 1/365, arima(9,0,8)

arima rd\_bitcoin in 1/365, arima(8,0,0)

twoway (tsline rd\_bitcoin)

dfuller rd\_bitcoin in 1/365, regress lags(0)

arima rd\_bitcoin in 1/365, arima(1,0,1)

arima rd\_bitcoin in 1/365 noconst, arima(1,0,1)

arima rd\_bitcoin in 1/365, noconst arima(1,0,1)

predict bitcoin\_d in 366/388, xb dynamic(.)

twoway (tsline bitcoin\_d)

forecast create, replace

predict double bitcoin\_d in 366/388, xb dynamic(.)

predict double bitcoin\_d2 in 366/388, xb dynamic(3)

arima rd\_bitcoin in 1/365, noconst arima(1,0,1)

estst ic

ic

estst, ic

predict rdbitcndyn, dynamic (tq(367)) y

predict rdbitcndyn, dynamic (tq(1/5/2019)) y

predict rdbitcndyn, dynamic (tq()) y

predict rdbitcndyn, dynamic y

predict rdbitcndyn, dynamic, y

predict rdbitcndyn, dynamic

predict rdbitcndyn, dynamic (td(1/5/2019)) y

twoway (tsline rd\_bitcoin) (tsline rdbitcndyn)

arima bitcoin in 1/365, arima(1,0,0)

predict bitcndyn, dynamic (td(1/5/2019)) y

twoway (tsline bitcndyn)

twoway (tsline bitcndyn) (tsline bitcoin)

predict bitcndyn, dynamic (td(1/4/2019)) y

predict bitcndyn2, dynamic (td(1/4/2019)) y

twoway (tsline bitcndyn2) (tsline bitcoin)

arima bitcoin in 1/365, arima(1,0,1)

predict bitcndyn3, dynamic (td(1/4/2019)) y

twoway (tsline bitcndyn3) (tsline bitcoin)

arima bitcoin in 1/365, arima(1,1,1)

predict bitcndyn4, dynamic (td(1/4/2019)) y

twoway (tsline bitcndyn4) (tsline bitcoin)

arima rd\_bitcoin in 1/365, arima(1,0,1)

arima bitcoin in 1/365, noconst arima(1,0,1)

arima bitcoin in 1/365, noconst arima(1,0,0)

predict bitcndyn5, dynamic (td(1/4/2019)) y

twoway (tsline bitcndyn5) (tsline bitcoin)

predict bitcndyn6, dynamic (td(1/5/2019)) y

twoway (tsline bitcndyn6) (tsline bitcoin)

ac rd\_bitcoin

pac rd\_bitcoin

arima rd\_bitcoin in 1/365, arima(1 9 10,0,0)

arima rd\_bitcoin in 1/365, ar(1 9 10)

arima rd\_bitcoin in 1/365, ar1 9 10)

arima rd\_bitcoin in 1/365, ar(1 9 10)

arima rd\_bitcoin in 1/365, ar(9 10)

predict bitcndyn7, dynamic (td(1/5/2019)) y

twoway (tsline bitcndyn7) (tsline bitcoin)

ac bitcoin

pac rd\_bitcoin

pac bitcoin

arima rd\_bitcoin in 1/365, arima (1 0 0)

arima bitcoin in 1/365, arima (1 0 0)

predict bitcndyn8, dynamic (td(1/5/2019)) y

twoway (tsline bitcndyn8) (tsline bitcoin)

arima bitcoin in 1/365, noconst arima (1 0 0)

predict bitcndyn9, dynamic (td(1/5/2019)) y

twoway (tsline bitcndyn9) (tsline bitcoin)

gen ln\_bitcoin=log(bitcoin)

twoway (tsline ln\_bitcoin)

twoway (tsline ln\_bitcoin) (tsline bitcoin)

twoway (tsline ln\_bitcoin)

ac d.ln\_bitcoin

pac d.ln\_bitcoin

arima rd\_bitcoin in 1/365, arima (1 0 0)

arima rd\_bitcoin in 1/365, noconst arima (1 0 0)

arima d.ln\_bitcoin in 1/365, arima (1 0 0)

arima d.ln\_bitcoin in 1/365, noconst arima (1 0 0)

arima rd\_bitcoin in 1/365, ar(9 10)

predict bitcndyn10, dynamic (td(1/5/2019)) y

twoway (tsline bitcndyn10) (tsline rdbitcoin)

twoway (tsline bitcndyn10) (tsline rd\_bitcoin)

arima rd\_bitcoin in 1/365, ar(1 2)

arima rd\_bitcoin in 1/365, ar(2)

arima rd\_bitcoin in 1/365noconst ar(2)

arima rd\_bitcoin in 1/365 noconst ar(2)

arima rd\_bitcoin in 1/365, noconst ar(2)

arima rd\_bitcoin in 1/365, noconst arima (2;0;1)

arima rd\_bitcoin in 1/365, noconst arima (2 0 1)

predict bitcndyn11, dynamic (td(1/5/2019)) y

twoway (tsline bitcndyn11) (tsline rdbitcoin)

twoway (tsline bitcndyn11) (tsline rd\_bitcoin)

arima bitcoin in 1/365, noconst arima (1 0 0)

predict bitcndyn12, dynamic (td(1/5/2019)) y

twoway (tsline bitcndyn12) (tsline bitcoin)

twoway (tsline bitcndyn12) (tsline rd\_bitcoin)

twoway (tsline bitcndyn12) (tsline rd\_bitcoin)

twoway (tsline bitcndyn12) (tsline bitcoin)

arima bitcoin in 1/365, noconst arima (1 1 0)

arima rd\_bitcoin in 1/365, arima (0 0 1)

arima rd\_bitcoin in 1/365, noconst arima (0 0 1)

arima rd\_bitcoin in 1/365, arima (1 0 0)

arima rd\_bitcoin in 1/365, arima (8 0 0)

arima rd\_bitcoin in 1/365, noconst arima (8 0 0)

arima d.bitcoin in 1/365, noconst arima (8 0 0)

arima d.bitcoin in 1/365, noconst ar (5 8)

arima d.bitcoin in 1/365, noconst ar (5 8) ma(1)

arima d.bitcoin in 1/365, noconst ar (8) ma(1)

arima d.bitcoin in 1/365, noconst ar (8) ma(2)

arima d.bitcoin in 1/365, noconst ar (8) ma(3)

arima d.bitcoin in 1/365, noconst ar (9) ma(3)

arima d.bitcoin in 1/365, noconst ar (8)

estat ic

arima bitcoin in 1/365, noconst arima (1 0 0)

estat ic

arima rd\_bitcoin in 1/365, noconst arima (8 0 0)

arima rd\_bitcoin in 1/365, noconst ar (8)

arima rd\_bitcoin in 1/365, noconst ma (1)

arima d.bitcoin in 1/365, noconst ar (1)

estat ic

arima bitcoin in 1/365, noconst ar (1 8)

estat ic

arima bitcoin in 1/365, noconst ar (1) ma (7)

estat ic

arima bitcoin in 1/365, noconst ar (1 7)

estat ic

arima bitcoin in 1/365, ar (1 7)

estat ic

arima bitcoin in 1/365, noconst ar (1)

estat ic

estat ic

arima bitcoin in 1/365, arima (1 0 0)

estat ic

arima d.bitcoin in 1/365, ar (1 8)

estat ic

arima bitcoin in 1/365, ar (1 8)

estat ic

arima bitcoin in 1/365, ar (1 7)

estat ic

predict bitcoin\_prediction, dynamic (td(1/5/2019)) y

predict bitcoin\_prediction\_y, dynamic (td(1/5/2019)) y

predict bitcoin\_prediction\_y, dynamic (td(1/5/2019)) yhat

predict bitcoin\_prediction\_yhat, dynamic (td(1/5/2019)) yhat

predict bitcoin\_prediction\_yhat, dynamic (td(1/5/2019)) s.e

predict bitcoin\_prediction\_e, dynamic (td(1/5/2019)) yhat

list date bitcoin\_prediction\_y bitcoin

list date bitcoin\_prediction\_y bitcoin in 366/368

list date bitcoin\_prediction\_y bitcoin in 366/388

twoway (tsline bitcoin\_prediction\_y) (tsline bitcoin)

forecast, MAPE

MAPE

fctstats

generate str var42 = "=" in 1

drop var42

predict double bitcoin\_prediction\_yhat, residuals dynamic(3)

predict bitcoinprediction\_yhat, dynamic (td(1/5/2019)) residuals

dfuller ethereum, regress lags(0)

dfuller ethereum, drift regress lags(0)

dfuller ethereum in 1/365, regress lags(0)

dfuller ethereum in 1/365, drift regress lags(0)

dfuller ethereum in 1/365, noconstant regress lags(0)

arima ethereum in 1/365, arima(1,0,0)

arima ethereum in 1/365, noconstant arima(1,0,0)

estat ic

arima ethereum in 1/365, arima(1,0,0)

estat ic

arima ethereum in 1/365, ar(1 5)

arima ethereum in 1/365, ar(1 6)

arima ethereum in 1/365, ar(1 9)

predict ethereum\_yhat, dynamic (td(1/5/2019)) y

predict ethereum\_ehat, dynamic (td(1/5/2019)) residuals

list date ethereum\_yhat ethereum\_ehat ethereum in 366/388

twoway (tsline ethereum y\_hat) (tsline ethereum)

twoway (tsline ethereum\_y\_hat) (tsline ethereum)

twoway (tsline ethereum\_yhat) (tsline ethereum)

dfuller litecoin, regress lags(0)

dfuller ethereum, drift regress lags(0)

dfuller litecoin in 1/365, regress lags(0)

dfuller litecoin in 1/365, drift regress lags(0)

arima litecoin in 1/365, arima(1,0,0)

estat ic

predict litecoin\_yhat, dynamic (td(1/5/2019)) y

predict litecoin\_ehat, dynamic (td(1/5/2019)) residuals

twoway (tsline litecoin\_yhat) (tsline litecoin)

list date litecoin litecoin\_yhat litecoin\_ehat

list date litecoin litecoin\_yhat litecoin\_ehat in 366/388

dfuller bitcoincash, regress lags(0)

dfuller bitcoincash, drift regress lags(0)

dfuller bitcoincash in 1/365, regress lags(0)

dfuller bitcoincash in 1/365, drift regress lags(0)

dfuller bitcoincash in 1/365, noconstant regress lags(0)

dfuller d.bitcoincash in 1/365, noconstant regress lags(0)

dfuller d2.bitcoincash in 1/365, noconstant regress lags(0)

dfuller bitcoincash in 1/365, regress lags(0)

dfuller bitcoincash in 1/365, drift regress lags(0)

dfuller bitcoincash in 1/365, noconstant regress lags(0)

estat ic

predict bitcoincash\_yhat, dynamic (td(1/5/2019)) y

predict bitcoincash\_ehat, dynamic (td(1/5/2019)) residuals

twoway (tsline bitcoincash\_yhat) (tsline bitcoincash)

predict ethereum\_yhat, dynamic (td(1/5/2019)) y

twoway (tsline ethereum\_yhat) (tsline ethereum)

arima litecoin in 1/365, noconst arima(1,0,0)

drop bitcoin bitcoincash\_yhat bitcoincash\_ehat

predict bitcoincash\_yhat, dynamic (td(1/5/2019)) y

predict bitcoincash\_ehat, dynamic (td(1/5/2019)) residuals

twoway (tsline bitcoincash\_yhat) (tsline bitcoincash)

twoway (tsline bitcoincash\_yhat) (tsline bitcoincash)

arima bicoincash in 1/365, noconst arima(1,0,0)

arima bitcoincash in 1/365, noconst arima(1,0,0)

drop bitcoin bitcoincash\_yhat bitcoincash\_ehat

drop bitcoincash\_yhat bitcoincash\_ehat

predict bitcoincash\_yhat, dynamic (td(1/5/2019)) y

predict bitcoincash\_ehat, dynamic (td(1/5/2019)) residuals

twoway (tsline bitcoincash\_yhat) (tsline bitcoincash)

list date bitcoincash bitcoincash\_yhat bitcoincash\_ehat in 366/388

dfuller dash in 1/365, regress lags(0)

dfuller d.dash in 1/365, regress lags(0)

dfuller d.d.dash in 1/365, regress lags(0)

dfuller dash, regress lags(0)

arima dash in 1/365, noconst arima(1,0,0)

arima dash in 1/365, arima(1,0,0)

arima dash in 1/365, drift arima(1,0,0)

arima dash in 1/365, ar (1 9)

arima dash in 1/365, drift arima(8,0,0)

arima dash in 1/365, arima(8,0,0)

arima dash in 1/365, ar (1 5)

predict dash\_yhat, dynamic (td(1/5/2019)) y

predict dash\_ehat, dynamic (td(1/5/2019)) residuals

twoway (tsline dash\_yhat) (tsline dash)

list date dash dash\_yhat dash\_ehat in 366/388

save "C:\Users\Stanislav.Rogachev\Documents\Stanislav A. Rogachev\Äàâûäîâè÷ Äàâèä\cryptocurrencies3005.dta"