clear

\*set more off

cd C:\EigeneDateien\FH\Finance\Angewandte\Daten

capture log close

log using dax\_tages.log, replace

use dax\_tages.dta, clear

\* Alles stetige Tagesrenditen ln(pt)- ln(pt-1)

pause off

gen zeit= date(datum,"DMY")

format zeit %td

gen time =\_n

drop if time > 2895

tsset zeit

gen dax\_2 =dax^2

tsline dax, title(Stetige Renditen)

pause

sum dax, detail

tabstat dax, statistics( mean sd semean median kurtosis skewness ) columns(variables) format(%6.4f)

sktest dax

tsline dax\_2, title(Stetige Renditen quadriert)

pause

tsset time

ac dax

pause

ac dax\_2

wntestq dax\_2, lags(40)

pause

/\* Renditen Leverage Effekt\*/

corr dax l.dax

corr dax\_2 l.dax

corr dax\_2 l2.dax

/\*

rolling vola\_30=r(sd), saving(vola\_30) window(30): summarize dax, detail

rolling vola\_60=r(sd), saving(vola\_60) window(60): summarize dax, detail

rolling vola\_150=r(sd), saving(vola\_150) window(150): summarize dax, detail\*/

tssmooth exponential ewma\_rm= dax\_2, parms(0.06) forecast(1)

gen vol\_ewma\_rm=sqrt(ewma\_rm\*52)

arch dax, arch(1/2)

arch dax, arch(1/3)

arch dax, arch(1/4)

arch dax, arch(1/1) garch(1/1)

arch dax, arch(1/2) garch(1/2)

arch dax, arch(1/1) garch(1/1) tarch(1/1)

predict garch\_, variance

gen vol\_garch=sqrt(garch\_\*52)

sum vol\_garch vol\_ewma\_rm

twoway (tsline vol\_ewma\_rm) (tsline vol\_garch), ytitle(Volatilit�ten) title(Vola Berchnung Vergleich)

arch basf, arch(1/1) garch(1/1) tarch(1/1)