APPENDIX - II

1 - Computation of Productivity Variables - Deviation Program:

Para fil, var
set safe off
use &fil
sort on & var to xx
use xx
set talk off
set stat off
store 0.00 to q1, q3, qd, cpd, p1, mean, n, se, ku, sel, kul

count to n
se = (n+1)/4
go int(se)
ku = &var
skip
q1 = ku + (se - int(se)) * (&var - ku)

sel = 3 * ((n+1)/4)
go int (sel)
ku1 = &var
skip
q3 = ku1 + (sel - int(sel)) * (&var - ku1)
qd = (q3 - q1) / 2
cqd = (q3 - q1) / (q3+q1)
sum & var to p1
mean = p1/n
go top
diff = 0.00
diff2 = 0.00
do while not eof ()
    diff = diff + (&var - mean)
    diff2 = diff2 + (&var - mean)**2
    skip
cnddo

sd = (diff2/n)**0.5
cov = (sd/mean)
clea

???????????????ANSWER????????????????
?
?q"Quartile Deviation :",(q3-q1)/2
?
?q"Co-Eff. Q.D :" ,cqd
?
?q"Mean :" ,mean
?
?q"Standard Deviation :" ,sd
?
?q"Co-Eff. of Varie. :" ,cov
?
???????????????END????????????????

opt = space(1)
use snrans
append blank
repl year with val (alltrim(fil))
repl vari with upper (var)
repl mqd with qd
repl MCQD with cqd
repl MMEAN with mean
repl msd with SD
repl MCV with cov

close all

clear all
2 - Correlation Analysis Program:

Para fil, var, var1
set safe off
set echo off
use &fil
set talk off
set stat off
store 0.00 to p1, p2, mean1, mean2, x, y, x2, y2, xy, r, xs, ys, x2s, y2s, xys
count to n
sum & var, & var1 to p1, p2
mean1 = p1/n
mean2 = p2/n
go top
do while not eof()
   x = & var - mean1
   xs = xs + (&var - mean1)
   y = &var1 - mean2
   ys = ys + (&var1 - mean2)
   x2 = x**2
   x2s = x2s + x**2
   y2 = y**2
   y2s = y2s + y**2
   xy = x*y
   xys = xys + (x*y)
skip
endo
doi
r = xys / (x2s * y2s)**0.5
clea
3. **Regression Analysis Program**: 

Para fil, var, var1
set safe off
use &fil
set talk off
set stat off
store 0.00 to p1, p2, mean1, mean2, x, y, x2, y2, xy, r, xs, ys, x2s, y2s, xys, reg
count to n
sum &var, &varl to p1, p2
mean1 = p1/n
mean2 = p2/n
go top
do while not eof()
    x = &var - mean1
    xs = xs + (&var - mean1)
    y = &varl - mean2
    ys = ys + (&varl - mean2)
    x2 = x**2
    x2s = x2s + x**2
    y2 = y**2
    y2s = y2s + y**2
    xy = x*y
    xys = xys + (x*y)
skip
endo
reg = xys / (y2s)
clea
?"Sum of X value : ",xs
?"Sum of X^2 value : ",x2s
?"Sum of Y value : ",ys
?"Sum of Y^2 value : ",y2s
?"Sum of XY^2 value: ",xys
?"Reg. X : ",reg

use rsnrans
append blank
repl year with val(alltrim(fil))
repl from with upper(var)
repl vari with upper(var1)
repl corl with reg

close all
clear all
return
use snrans
append blank
repl year with val(alltrim(fil))
repl vari with upper(var)
repl MMEAN with su/n
repl msd with SD
close all
clear all
4. **Trend Analysis Program**:

Para fil,var,var1

set safe off

fn = fil+"1"

fn1 = fil+"2"

use &fil

copy stru to &fn

use &fn

append from &fil for year >=1993 and year <=1997 and vari = upper(var)

sort on vari,year to &fn1

use &fn1

count to n

if (n/2) # int(n/2)

    go top

    dele

    pack

endif

set talk off

set stat off

store 0.00 to n,mid,suy,sux,suxy,sux2,midy,x,y,a,b

@10,10 say "Enter Year : " get pict "99999"

read

go top

count to n

mid = n/2

go int(mid)+1

midy = year

sum &var1 to suy

go top
use rsnrans
append blank
repl year with val(alltrim(fil))
repl from with upper(var)
repl vari with upper(var1)
repl corl with reg
close all
clear all
return
do while not eof()

    sux = sux + (year - midy)
    suxy = suxy + (year - midy)* &var1
    sux2 = sux2 + (year-midy)**2

    skip

endo do

a = suy / n
b = suxy / sux2
y = a+b*(x - midy)

?"Mid.of the Year    : ",midy
?"No.of Variable     : ",n
?"Sum of Y            : ",suy
?"sum of X            : ",sux
?"sum of XY           : ",suxy
?"sum of x2           : ",sux2
?"Value of A          : ",a
?"Value of B          : ",b
?"Value of Y          : ",y

wait"

use &fil index &fil
seek str (x,5)+ upper (var)
if not found ( )
    append blank
    repl year with x
    repl vari with upper(var)
    repl &var1 with y
else
    repl &var1 with y
endif

close all
clear all
5. **Calculation of Max, Min, Average Values Program**:

Para fil, var
set safe off
use & fil
index on & var to &fil

go top
mmi = & var
go bott
mma = & var
aver & var to x

use snravg
append blank
repl year with fil
repl vari with var
repl mi with mmi
repl ma with mma
repl avg with x
close all
clear all
6. Calculation of P, OHSAM, SH, TOTAL HOK:

Para fil, var
set safe off
use & fil
set talk off
set stat off
store 0.00 to n, su
count to n
sum &var to su

clea
use var index var
seek val(fil)
if not found()
    append blank
    repl year with val(alltrim(fil))
    repl &var with su
    repl novar with n
else
    repl &var with su
endif
close all
clear all
7. Calculation of Population Mean, Standard Deviation Program:

Para fil, var
set safe off
use &fil
set talk off
set stat off
store 0.00 to n, su, diff2
count to n
"No of Record :", n
sum &var to su
"Sum of", var, su
mean = su\'/n
"Mean Value :", mean

go top
diff1 = 0.00
diff2 = 0.00
do while not eof()
    diff1 = diff1 + (&var - mean)
    diff2 = diff2 + (&var - mean)**2
    
wait"
    skip
endo
diff1 = diff1 + (&var - mean)
endif
?"Sum of Diff1. Amount :", diff1
?"Sum of Diff2. Amount :", diff2
sum novar to n
"No of Total Record :", n
sd = (diff2/n)**0.5
?"Standard Deviation : ", sd
?"Mean Value : ", su\'/n
wait""