

```

*clear data
clear
*import data
use "C:\Users\Gtjohnso\Documents\gdp_cons_exp.dta"
*start log
log using "C:\Users\Gtjohnso\Documents\Pset4_2.smcl", replace

*15 How many times life exp is reported
sum life_exp_birth

*#16 gdp 2022
sum gdp_per_cap if year == 2022

*#17 estimate model
reg c_per_cap gdp_per_cap

*#18 make a var that measures GDP in $1,000 and new regression
g gdp_per_cap_1000 = gdp_per_cap / 1000
reg c_per_cap gdp_per_cap_1000

*19 Predict 2021
predict predicted_conspercapita if year==2021, xb
*list predicted amount
list predicted_conspercapita if year==2021

*20 model c
reg life_exp_birth gdp_per_cap_1000

*22 Estimate model
*Exclude 2000
reg c_per_cap gdp_per_cap if year < 2000
*include 2000
reg c_per_cap gdp_per_cap if year >= 2000

log close

{smcl}
{com}{sf}{ul off}{txt}{.-}
      name: {res}<unnamed>
      {txt}log: {res}C:\Users\Gtjohnso\Documents\Pset4_2.smcl
      {txt}log type: {res}smcl
      {txt}opened on: {res}27 Feb 2024, 12:51:36
{txt}
{com}.
. *15 How many times life exp is reported
. sum life_exp_birth

{txt}      Variable {c |}      Obs      Mean      Std. Dev.      Min
Max
{hline 13}{c +}{hline 57}
life_exp_b~h {c |}{res}      62      74.86617      2.969659      69.77073
78.84146

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{txt}
{com}.
. *#16 gdp 2022
. sum gdp_per_cap if year == 2022
```

```
{txt}      Variable {c |}      Obs      Mean      Std. Dev.      Min
Max
{hline 13}{c +}{hline 57}
{space 1}gdp_per_cap {c |}{res}      1      59995      .
59995      59995
```

```
{txt}
{com}.
. *#17 estimate model
. reg c_per_cap gdp_per_cap
```

```
{txt}      Source {c |}      SS      df      MS      Number of obs
={res}      76
{txt}{hline 13}{c +}{hline 34}      F(1, 74)      = {res} 29997.02
{txt}      Model {c |} {res} 7.7449e+09      1 7.7449e+09
{txt}Prob > F      = {res} 0.0000
{txt}      Residual {c |} {res} 19105896.7      74 258187.793 {txt}R-
squared      = {res} 0.9975
{txt}{hline 13}{c +}{hline 34}      Adj R-squared      = {res} 0.9975
{txt}      Total {c |} {res} 7.7640e+09      75 103519620
{txt}Root MSE      = {res} 508.12
```

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{txt}{hline 13}{c TT}{hline 11}{hline 11}{hline 9}{hline 8}{hline
13}{hline 12}
{col 1} c_per_cap{col 14}{c |}      Coef.{col 26} Std. Err.{col 38}
t{col 46} P>|t|{col 54} [95% Con{col 67}f. Interval]
{hline 13}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline 13}{hline 12}
{space 1}gdp_per_cap {c |}{col 14}{res}{space 2} .7210489{col 26}{space
2} .0041632{col 37}{space 1} 173.20{col 46}{space 3}0.000{col 54}{space
4} .7127536{col 67}{space 3} .7293442
{txt}{space 7}_cons {c |}{col 14}{res}{space 2}-2247.574{col 26}{space 2}
155.0177{col 37}{space 1} -14.50{col 46}{space 3}0.000{col 54}{space 4}-
2556.453{col 67}{space 3}-1938.695
{txt}{hline 13}{c BT}{hline 11}{hline 11}{hline 9}{hline 8}{hline
13}{hline 12}
{res}{txt}
{com}.
. *#18 make a var that measures GDP in $1,000 and new regression
. g gdp_per_cap_1000 = gdp_per_cap / 1000
{txt}(1 missing value generated)
```

```
{com}. reg c_per_cap gdp_per_cap_1000
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```
{txt}      Source {c |}      SS      df      MS      Number of obs
={res}      76
{txt}{hline 13}{c +}{hline 34}      F(1, 74)      = {res} 29997.01
{txt}      Model {c |} {res} 7.7449e+09      1 7.7449e+09
{txt}Prob > F      = {res} 0.0000
{txt}      Residual {c |} {res} 19105906.3      74 258187.923 {txt}R-
squared      = {res} 0.9975
```

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{txt}{hline 13}{c +}{hline 34}    Adj R-squared    ={res}    0.9975
{txt}          Total {c |} {res} 7.7640e+09          75    103519620
{txt}Root MSE          =    {res} 508.12

{txt}{hline 15}{c TT}{hline 11}{hline 11}{hline 9}{hline 8}{hline
13}{hline 12}
{col 1}      c_per_cap{col 16}{c |}          Coef.{col 28}    Std. Err.{col 40}
t{col 48}    P>|t|{col 56}          [95% Con{col 69}f. Interval]
{hline 15}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline 13}{hline 12}
gdp_per_c~1000 {c |}{col 16}{res}{space 2} 721.0489{col 28}{space 2}
4.163185{col 39}{space 1} 173.20{col 48}{space 3}0.000{col 56}{space 4}
712.7536{col 69}{space 3} 729.3442
{txt}{space 9}_cons {c |}{col 16}{res}{space 2}-2247.574{col 28}{space 2}
155.0177{col 39}{space 1} -14.50{col 48}{space 3}0.000{col 56}{space 4}-
2556.453{col 69}{space 3}-1938.694
{txt}{hline 15}{c BT}{hline 11}{hline 11}{hline 9}{hline 8}{hline
13}{hline 12}
{res}{txt}
{com}.
. *19 Predict 2021
. predict predicted_conspercapita if year==2021, xb
{txt}(76 missing values generated)

{com}. *list predicted amount
. list predicted_conspercapita if year==2021
{txt}
    {c TLC}{hline 10}{c TRC}
    {c |} {res}predic~a {txt}{c |}
    {c LT}{hline 10}{c RT}
75. {c |} {res}40296.11 {txt}{c |}
    {c BLC}{hline 10}{c BRC}

{com}.
. *20 model c
. reg life_exp_birth gdp_per_cap_1000

{txt}          Source {c |}          SS          df          MS          Number of obs
={res}          62
{txt}{hline 13}{c +}{hline 34}    F(1, 60)          = {res}    694.15
{txt}          Model {c |} {res} 495.152172          1    495.152172
{txt}Prob > F          ={res}    0.0000
{txt}    Residual {c |} {res} 42.7990013          60    .713316688    {txt}R-
squared          ={res}    0.9204
{txt}{hline 13}{c +}{hline 34}    Adj R-squared    ={res}    0.9191
{txt}          Total {c |} {res} 537.951173          61    8.81887169
{txt}Root MSE          =    {res} .84458

{txt}{hline 15}{c TT}{hline 11}{hline 11}{hline 9}{hline 8}{hline
13}{hline 12}
{col 1}life_exp_birth{col 16}{c |}          Coef.{col 28}    Std. Err.{col 40}
t{col 48}    P>|t|{col 56}          [95% Con{col 69}f. Interval]
{hline 15}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline 13}{hline 12}

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gdp_per_c~1000 {c |}{col 16}{res}{space 2} .2324843{col 28}{space 2}
.008824{col 39}{space 1} 26.35{col 48}{space 3}0.000{col 56}{space 4}
.2148337{col 69}{space 3} .2501349
{txt}{space 9}_cons {c |}{col 16}{res}{space 2} 66.04979{col 28}{space 2}
.3513986{col 39}{space 1} 187.96{col 48}{space 3}0.000{col 56}{space 4}
65.34689{col 69}{space 3} 66.75269
{txt}{hline 15}{c BT}{hline 11}{hline 11}{hline 9}{hline 8}{hline
13}{hline 12}
{res}{txt}
{com}.
. *22 Estimate model
. *Exclude 2000
. reg c_per_cap gdp_per_cap if year < 2000

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{txt}          Source {c |}          SS          df          MS          Number of obs
={res}          53
{txt}{hline 13}{c +}{hline 34}      F(1, 51)          = {res} 25873.63
{txt}          Model {c |} {res} 1.8974e+09          1 1.8974e+09
{txt}Prob > F          = {res} 0.0000
{txt}          Residual {c |} {res} 3740083.27          51 73334.9662 {txt}R-
squared          = {res} 0.9980
{txt}{hline 13}{c +}{hline 34}      Adj R-squared    = {res} 0.9980
{txt}          Total {c |} {res} 1.9012e+09          52 36561192.6
{txt}Root MSE          = {res} 270.8

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{txt}{hline 13}{c TT}{hline 11}{hline 11}{hline 9}{hline 8}{hline
13}{hline 12}
{col 1}  c_per_cap{col 14}{c |}          Coef.{col 26}  Std. Err.{col 38}
t{col 46}  P>|t|{col 54}          [95% Con{col 67}f. Interval]
{hline 13}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline 13}{hline 12}
{space 1}gdp_per_cap {c |}{col 14}{res}{space 2} .6744616{col 26}{space
2} .004193{col 37}{space 1} 160.85{col 46}{space 3}0.000{col 54}{space
4} .6660437{col 67}{space 3} .6828794
{txt}{space 7}_cons {c |}{col 14}{res}{space 2}-1124.612{col 26}{space 2}
118.3603{col 37}{space 1} -9.50{col 46}{space 3}0.000{col 54}{space 4}-
1362.231{col 67}{space 3}-886.9941
{txt}{hline 13}{c BT}{hline 11}{hline 11}{hline 9}{hline 8}{hline
13}{hline 12}
{res}{txt}
{com}. *include 2000
. reg c_per_cap gdp_per_cap if year >= 2000

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{txt}          Source {c |}          SS          df          MS          Number of obs
={res}          23
{txt}{hline 13}{c +}{hline 34}      F(1, 21)          = {res} 2657.88
{txt}          Model {c |} {res} 207961245          1 207961245
{txt}Prob > F          = {res} 0.0000
{txt}          Residual {c |} {res} 1643106.58          21 78243.1707 {txt}R-
squared          = {res} 0.9922
{txt}{hline 13}{c +}{hline 34}      Adj R-squared    = {res} 0.9918
{txt}          Total {c |} {res} 209604352          22 9527470.53
{txt}Root MSE          = {res} 279.72

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{txt}{hline 13}{c TT}{hline 11}{hline 11}{hline 9}{hline 8}{hline
13}{hline 12}
{col 1}  c_per_cap{col 14}{c |}      Coef.{col 26}  Std. Err.{col 38}
t{col 46}  P>|t|{col 54}      [95% Con{col 67}f. Interval]
{hline 13}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline 13}{hline 12}
{space 1}gdp_per_cap {c |}{col 14}{res}{space 2}  .797539{col 26}{space
2} .0154698{col 37}{space 1}  51.55{col 46}{space 3}0.000{col 54}{space
4} .7653679{col 67}{space 3} .8297102
{txt}{space 7}_cons {c |}{col 14}{res}{space 2} -5955.78{col 26}{space 2}
810.5417{col 37}{space 1}  -7.35{col 46}{space 3}0.000{col 54}{space 4}-
7641.394{col 67}{space 3}-4270.166
{txt}{hline 13}{c BT}{hline 11}{hline 11}{hline 9}{hline 8}{hline
13}{hline 12}
{res}{txt}
{com}.
.
. log close
      {txt}name:  {res}<unnamed>
      {txt}log:   {res}C:\Users\Gtjohnso\Documents\Pset4_2.smcl
      {txt}log type: {res}smcl
      {txt}closed on: {res}27 Feb 2024, 12:51:37
{txt}{.-}
{smcl}
{txt}{sf}{ul off}

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