sok-2011-Seminar 2

Oddmund

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getwd()
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[1] "C:/Users/OddVi/OneDrive/Dokumenter/Studier/SOK-2011/Oppgaver"

```
# A tibble: 6 x 6
  country            region                      income     iso2c iso3c gdppc0
  <chr>              <chr>                       <chr>       <chr> <chr>  <dbl>
1 Aruba              Latin America & Caribbean    High income AW    ABW   1.52e4
2 Afghanistan        South Asia                   Low income  AF    AFG   3.60e2
3 Angola             Sub-Saharan Africa           Lower midd~ AO    AGO   2.66e3
4 Albania            Europe & Central Asia        Upper midd~ AL    ALB   1.74e3
5 Andorra            Europe & Central Asia        High income AD    AND   3.44e4
6 United Arab Emirates Middle East & North Africa High income AE    ARE   1.14e5

  country                      region      income iso2c iso3c year     gdppc
1   Aruba Latin America & Caribbean High income    AW    ABW 1986 15221.85
2   Aruba Latin America & Caribbean High income    AW    ABW 1987 17697.52
3   Aruba Latin America & Caribbean High income    AW    ABW 1988 21036.39
4   Aruba Latin America & Caribbean High income    AW    ABW 1989 23491.66
5   Aruba Latin America & Caribbean High income    AW    ABW 1990 24007.50
6   Aruba Latin America & Caribbean High income    AW    ABW 1991 25097.27
  poptot   gdppc0
1  64553 15221.85
2  64450 15221.85
3  64332 15221.85
4  64596 15221.85
5  65712 15221.85
6  67864 15221.85
```

```
  country                        region         income iso2c iso3c year       gdppc
1   Aruba Latin America & Caribbean High income    AW   ABW 1986 15221.85
2   Aruba Latin America & Caribbean High income    AW   ABW 1987 17697.52
3   Aruba Latin America & Caribbean High income    AW   ABW 1988 21036.39
4   Aruba Latin America & Caribbean High income    AW   ABW 1989 23491.66
5   Aruba Latin America & Caribbean High income    AW   ABW 1990 24007.50
6   Aruba Latin America & Caribbean High income    AW   ABW 1991 25097.27
  poptot   gdppc0 gdpgrowth avg_gdpgrowth
1  64553 15221.85        NA      2.401681
2  64450 15221.85 16.263941      2.401681
3  64332 15221.85 18.866278      2.401681
4  64596 15221.85 11.671573      2.401681
5  65712 15221.85  2.195805      2.401681
6  67864 15221.85  4.539317      2.401681


# A tibble: 6 x 10
  country         region income iso3c iso2c  year poptot  gdppc gdppc0 avg_g~1
  <chr>           <chr>  <chr>  <chr> <chr> <dbl>  <dbl>  <dbl>  <dbl>   <dbl>
1 Aruba           Latin~ High ~ ABW   AW     2019 1.06e5 31763. 1.52e4    2.40
2 Afghanistan     South~ Low i~ AFG   AF     2019 3.78e7   584. 3.60e2    3.05
3 Angola          Sub-S~ Lower~ AGO   AO     2019 3.24e7  2570. 2.66e3   0.157
4 Albania         Europ~ Upper~ ALB   AL     2019 2.85e6  4543. 1.74e3    2.79
5 Andorra         Europ~ High ~ AND   AD     2019 7.63e4 39414. 3.44e4   0.389
6 United Arab Emir~ Middl~ High ~ ARE  AE     2019 9.21e6 43785. 1.14e5   -2.18
# ... with abbreviated variable name 1: avg_gdpgrowth
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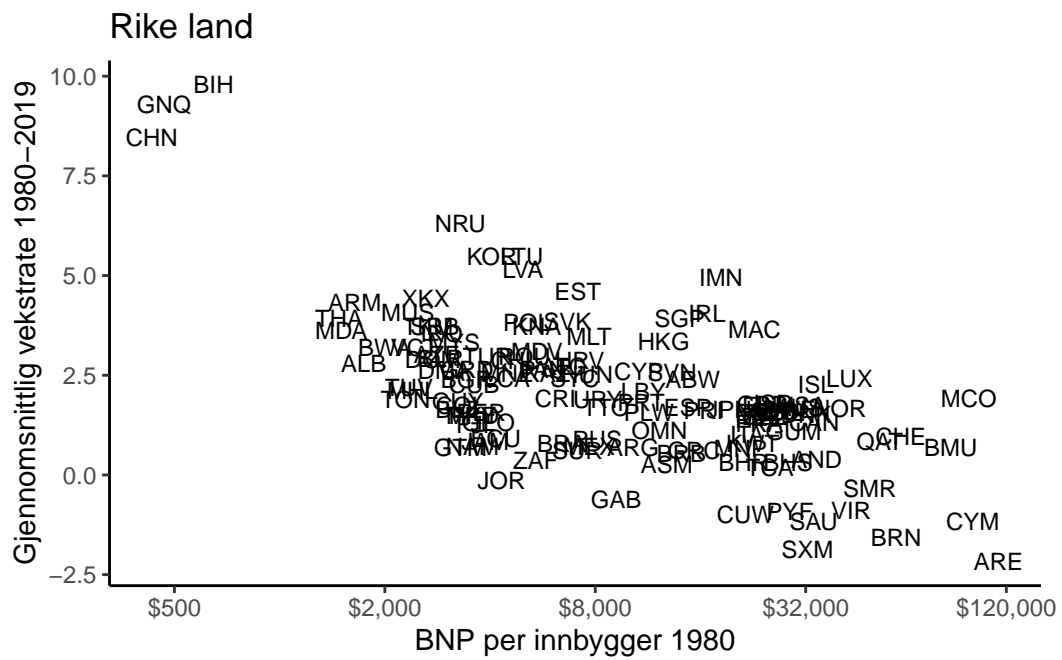
Oppgave 1

Lag 1 graf for land i kategorien "High income" og "Upper middle income", og en graf for alle land i verden. Grafen skal vise sammenhengen mellom BNP per innbygger i 1980 og gjennomsnittlig årlig vekstrate i BNP per innbygger i perioden 1980-2019. Ser prediksjonen fra Solow-modellen ut å være riktig?

Løsning

Graf 1: Inntekter i klassene "High income" og "Upper middle income",

Graf med tittel "Rike land". Y-akse: Gjennomsnittlig vekstrate 1980–2019. X-akse: BNP per innbygger 1980.

Graf 2: Alle land og alle inntektsklasser

Alle land

(Scatter plot: y-axis "Gjennomsnittlig vekstrate 1980–2019" ranging from -5.0 to 10.0; x-axis "BNP per innbygger 1980" with values $500, $2,000, $8,000, $32,000, $120,000. Country codes plotted include BIH, GNQ, CHN, MMR, BTN, NRU, KOR, FJI, EST, IMN, MAC, ISL, LUX, MCO, BMU, SSD, ARE, CYM, BRN, SXM, and many others.)