CEE Growth & Development

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Growth and Development in CEE

Growth of...

- GDP
  - small *vs* big nations
- GDP per capita
  - ageing *vs* young population
- GDP per worker
  - *no objection?*
- GDP per square metre
  - US vs Japan
- Green GDP
  - too political (?)
- GDP *vs* GNP
  - convenience or politics
  - GNI and Diaspora

Growth and Development in CEE

GDP: Problems

- GDP
  - lie, big lie, and statistics
  - PPP
  - shadow economy
  - home production
- Welfare and Happiness
- Gross National Happiness
  - sustainable development
  - cultural values
  - natural environment
  - good governance.

- According to the findings of the Happiness Index, the country's teens are, on the whole, happy campers - outranked only by those in Armenia and Macedonia. Israel tied for third place with Holland, Iceland and Spain.
  –*The Times of Israel* (Sept. 5, 2012)

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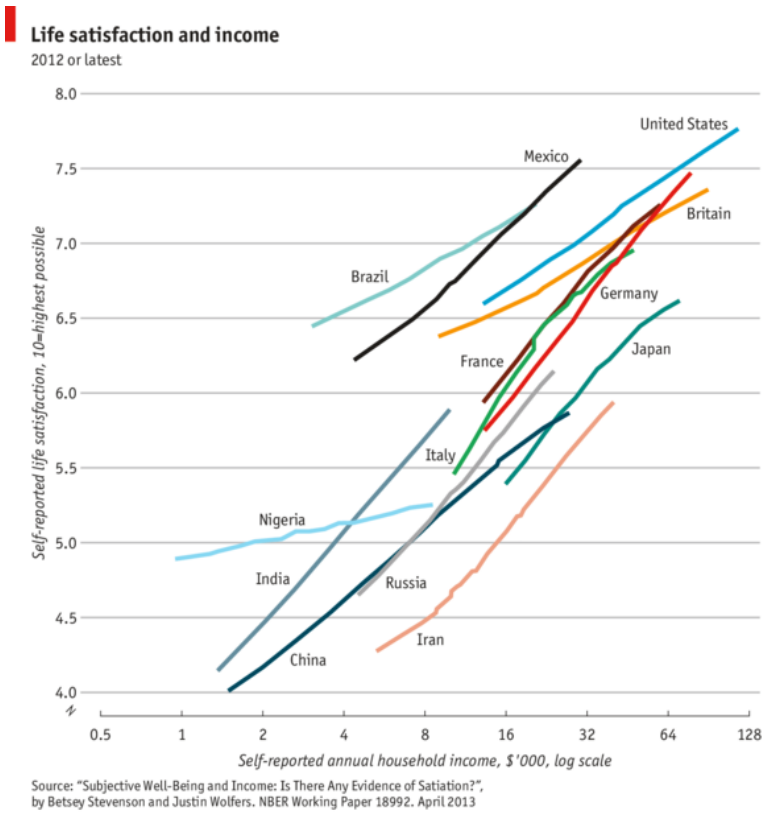

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- HDI
  - GDP pc, plus
  - Education
  - Life expectancy
  - $\frac{x-\min(x)}{\max(x)-\min(x)}$
- Non-material consumption
  - Culture
  - Nationalism
  - other values

Growth and Development

Basic working assumption

Growth in *GDP per worker* is the best *economic indicator* of *Economic Growth.*

Problem

- *USA*

$$\begin{aligned} GDPpc &= €35000 \\ GroRt &= 4pct \end{aligned}$$

- *Czech Republic*

$$\begin{aligned} GDPpc &= €20000 \\ GroRt &= 9pct \end{aligned}$$

Q: In how many years will the Czech Republic have production equal to that of the USA (if both keep on their growth rates).

Solution

Equal production

$$
\begin{aligned}
y_{t+n}^{US} &= y_{t+n}^{Cz} \\
y_t^{US}\left(1+g^{US}\right)^n &= y_t^{Cz}\left(1+g^{Cz}\right)^n \\
\ln y_t^{US} + n\ln\left(1+g^{US}\right) &= \ln y_t^{Cz} + n\ln\left(1+g^{Cz}\right) \\
\ln\frac{y^{US}}{y^{Cz}} &= n\ln\frac{1+g^{Cz}}{1+g^{US}} \\
n &= \left(\ln\frac{35}{20}\right) / \left(\ln\frac{1.09}{1.04}\right)
\end{aligned}
$$

$\ln\frac{35}{20} = 0.5596$ *and* $\ln\frac{1.09}{1.04} = 0.047$

Equal production in $n = 11.9$ *years!*