

Seminar to Advanced Macroeconomics

Economic Growth, Life Satisfaction and Happiness

Outline

- Welfare and Happiness: The Easterlin Paradox
- GDP and standard of living measurement
- Limitations of GDP and an alternative: Human Development Index (HDI)
- Happy Planet Index (HPI)
- HPI in transition countries
- HPI~GDP correspondence

Welfare and Happiness?

- Typical economist: happiness related to utility and utility is increasing with consumption and consumption increasing with income.
- Thus happiness should be highly correlated with income.
- Happiness measurable? Yes: life satisfaction...
- Implication: increased income and increased consumption should increase happiness...

Welfare and Happiness?

- R. Easterlin (1974): "Does Economic Growth Improve the Human Lot? Some Empirical Evidence."
- Main conclusion later called as *Easterlin Paradox*: happiness data are typically stationary over time in spite of considerable increases in income.
- Implications:
 - 1) GDP is perhaps not an ideal measurement of standards of living.
 - 2) Rejection of the hypothesis that current income is the only argument in the utility function.

Welfare and Happiness - Explanations

- Happiness (or life satisfaction) related to more dimensions of life than purely consumption
- *And the free-time variable in the utility function doesn't help much...*
- Why: Motivation theories give the answer
- Implications of theories of motivations: life satisfaction depends on factors that are not related to economic factors directly.
- Allow to give structure to needs and wants.

Welfare and Happiness - Evidence

- Rafael di Tella and Robert MacCulloch (2005): „We find that the happiness responses of almost 400,000 people in the OECD during 1975-97 are: (Highlighted and separated into paragraphs by J.B.)
 - ♦ **positively correlated** with absolute income, the generosity of the welfare state and (weakly) with life expectancy;
 - ♦ **negatively correlated** with the average number of hours worked, measures of environmental degradation, crime, openness to trade, inflation and unemployment.“
- D. Kahnemann, A. Krueger: Developments in Measurement of Subjective Well-Being (Journal of Economic Perspectives, Winter 2006)

Welfare and Happiness

- We can measure welfare: GDP or some of the alternatives such as the Human Development Index (see Appendix 1 and 2)
- Can we measure happiness?
 - Happy planet index
 - Life satisfaction
 - ...

Happy Planet Index

- **Motivation** - “People across the world strive towards the same ultimate goal: living a good life. Different cultures pursue this goal in many different ways. However, they share one inescapable characteristic, namely a reliance on the resources of the planet to support their activities.”
- **Principles:** Most people want to live long and fulfilling lives, and the country which is doing the best is the one that allows its citizens to do so, whilst avoiding infringing on the opportunity of future people and people in other countries to do the same.
- Designed by the New Economic Foundation, a British think tank, first published in July 2006

Happy Planet Index

- Composite index with three dimensions
- *Life expectancy*
- *Life satisfaction* - using World Values Survey question: "All things considered, how satisfied are you with your life as a whole these days?"
- *Ecologic Footprint* (William Rees, prof. at the University of British Columbia) - the amount of natural resources required to sustain a given country's lifestyle. Large: more than fair share of resources

Happy Planet Index - Criticism

- Composite index with three dimensions: *Life expectancy*, *Life satisfaction*, *Ecologic Footprint*
- Cons:
- in fact measure of ecological efficiency
- no political freedom or human rights
- sources of data
- a bit arbitrary (what else shall be included or excluded from an index?)

Happy Planet Index

- „And the winner is...?!?“

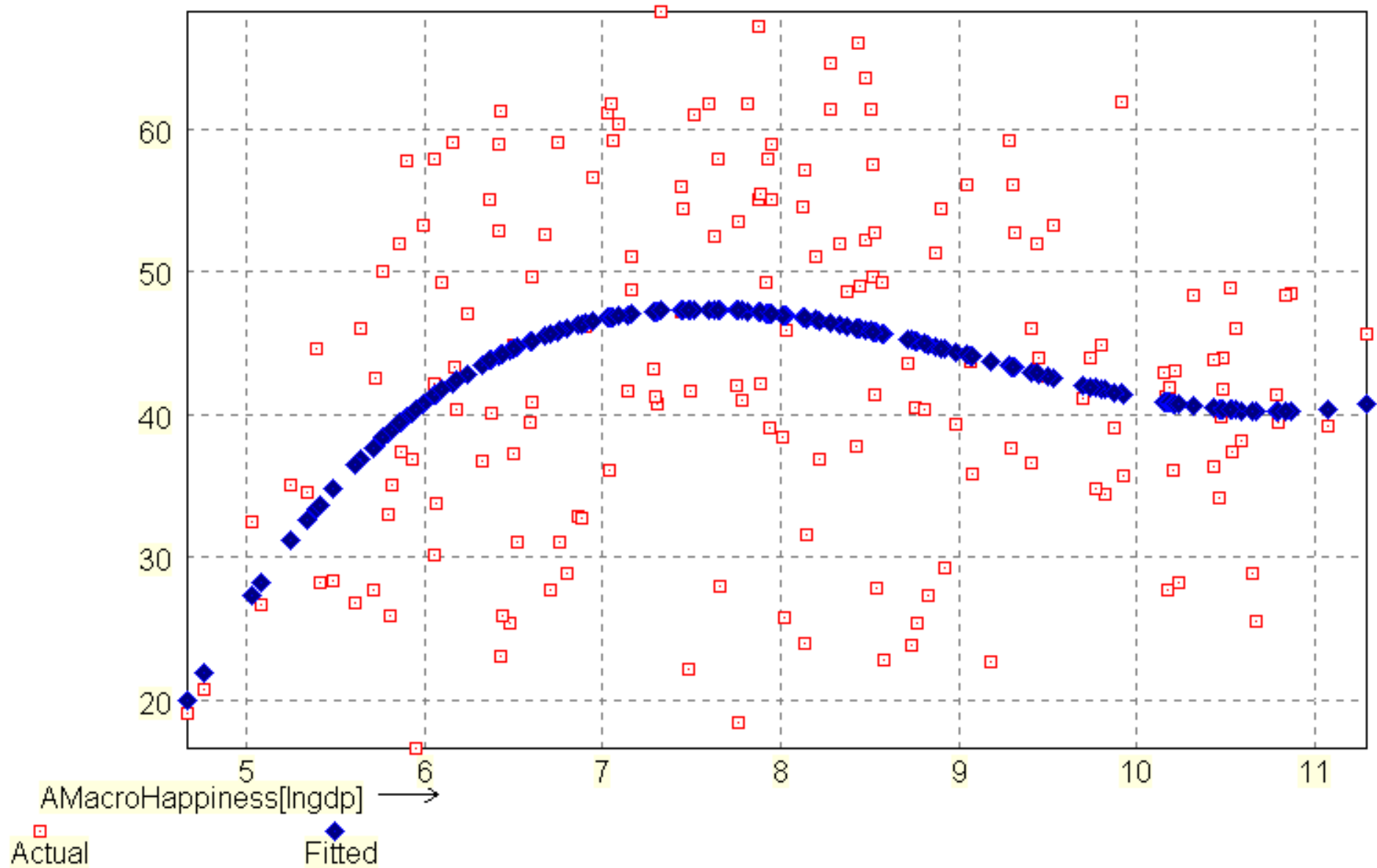
Happy Planet Index (2006 numbers)

- Czech Republic: 128 of 178 with life satisfaction 6,4, life expectancy 75,6 and ecological footprint 5.
- Similar: Togo, Kenya, France, Armenia
- Slovakia: 132 (5,4; 74; 3,6)
- U.S.A.: 150 (7,4; 77,4; 9,5) – around Burkina Faso, Lithuania, Cote d'Ivoire and Rwanda
- Germany: 81 (7,2; 78,7; 4,8) – Slovenia, Oman, Croatia, Lebanon
- Related concept: Gross National Happiness (Became normative aim of economic policy in Bhutan already! The reason was to meet the traditional ethics with modernization.) http://en.wikipedia.org/wiki/Gross_national_happiness

HPI~GDP Correspondence

- HPI dependent
- Absolute value or logarithms?
- PPP results were very similar.
- Linear or Polynomial?

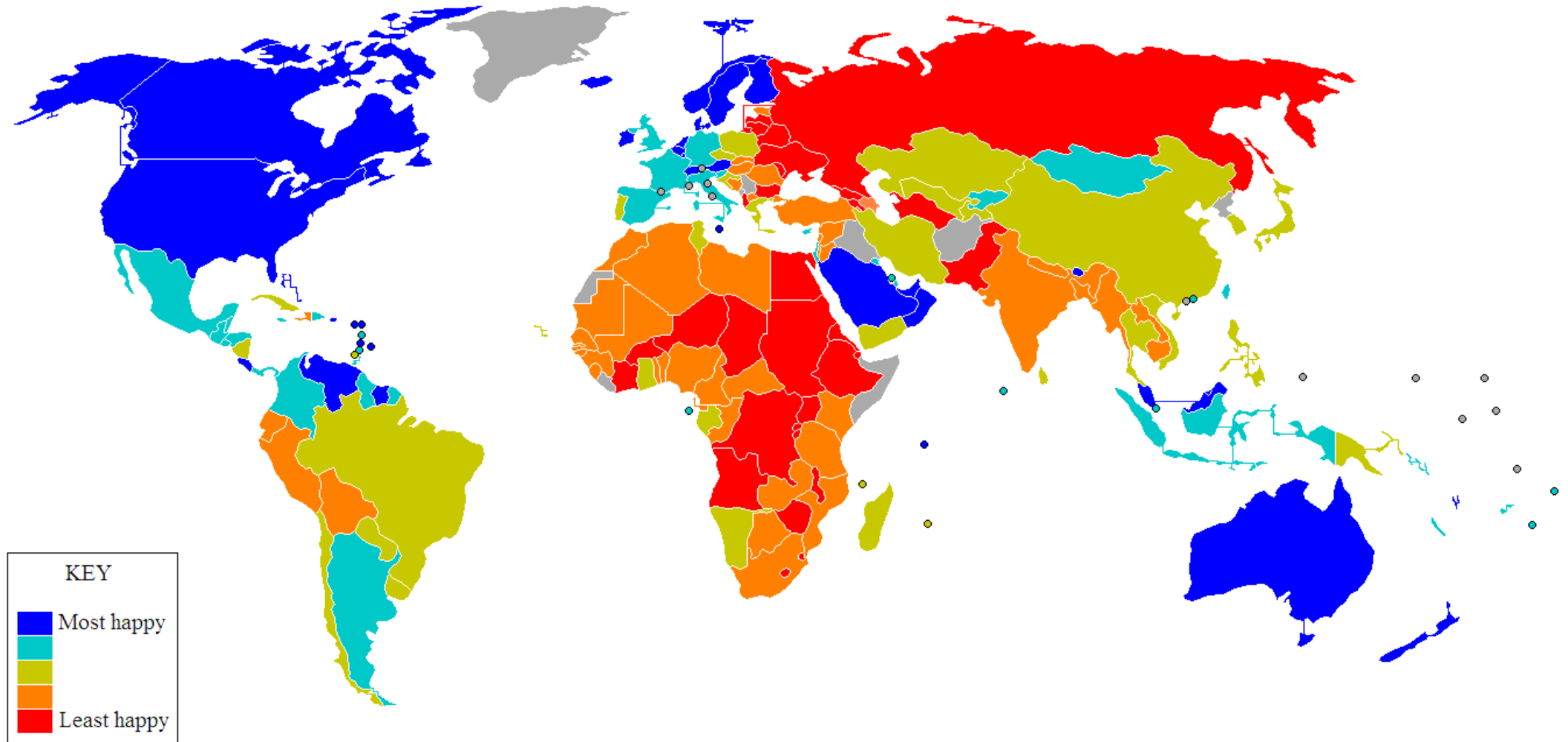
HPI~GDP Correspondence



Life Satisfaction Dimension

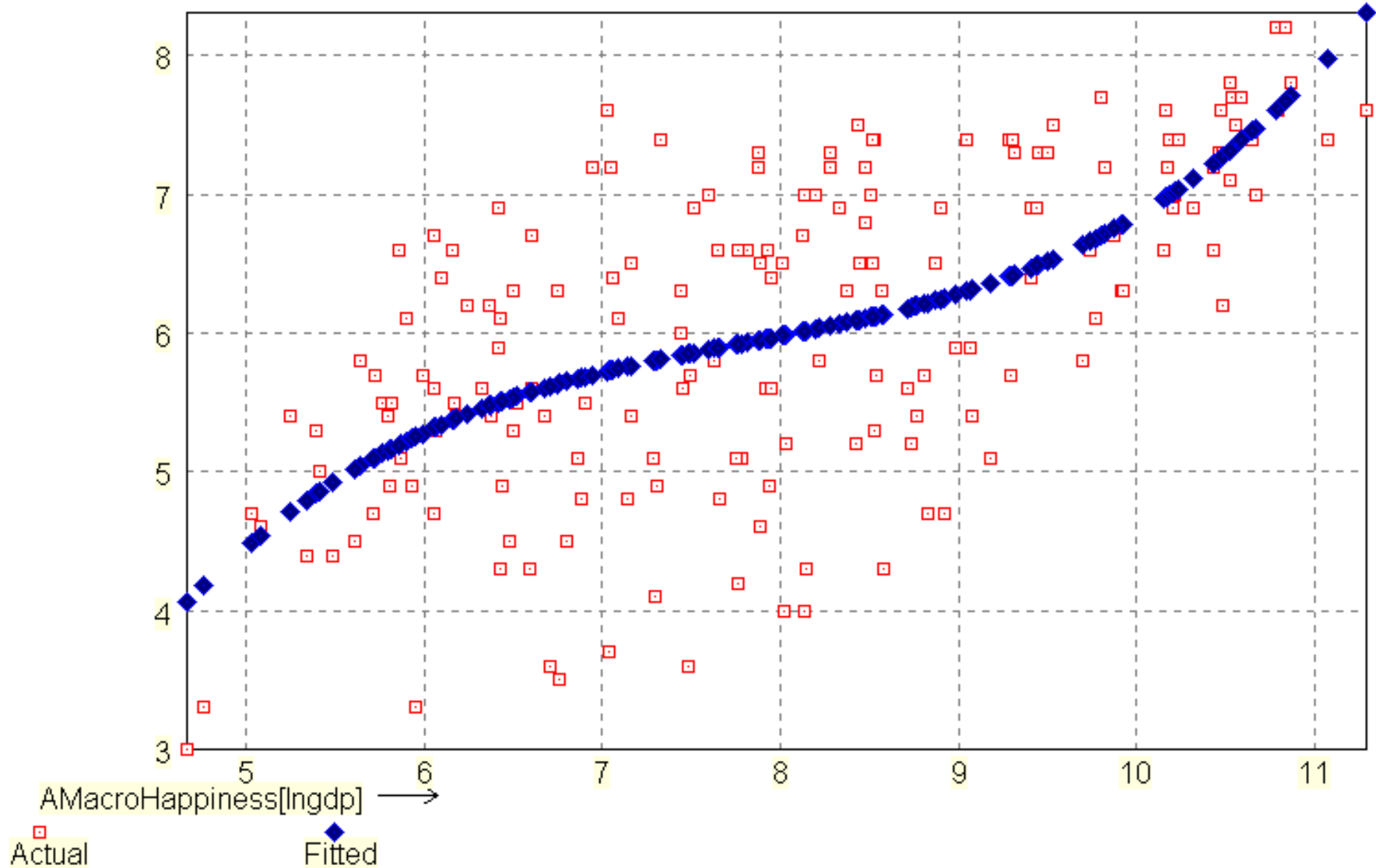
- Derived from questionnaires
 - All things considered, how satisfied would you say you are with your overall life these days?
 - How satisfied are you with your personal relationships?
 - If you work or study, how often do you find your work... interesting?
 - ... stressful?
- + views about the society:
 - optimistic about future, trust to other people etc.
- + controlling questions whether your answers are consistent
- Calculate your own HPI! Visit <http://www.itint.co.uk/hpisurvey/>

Life Satisfaction

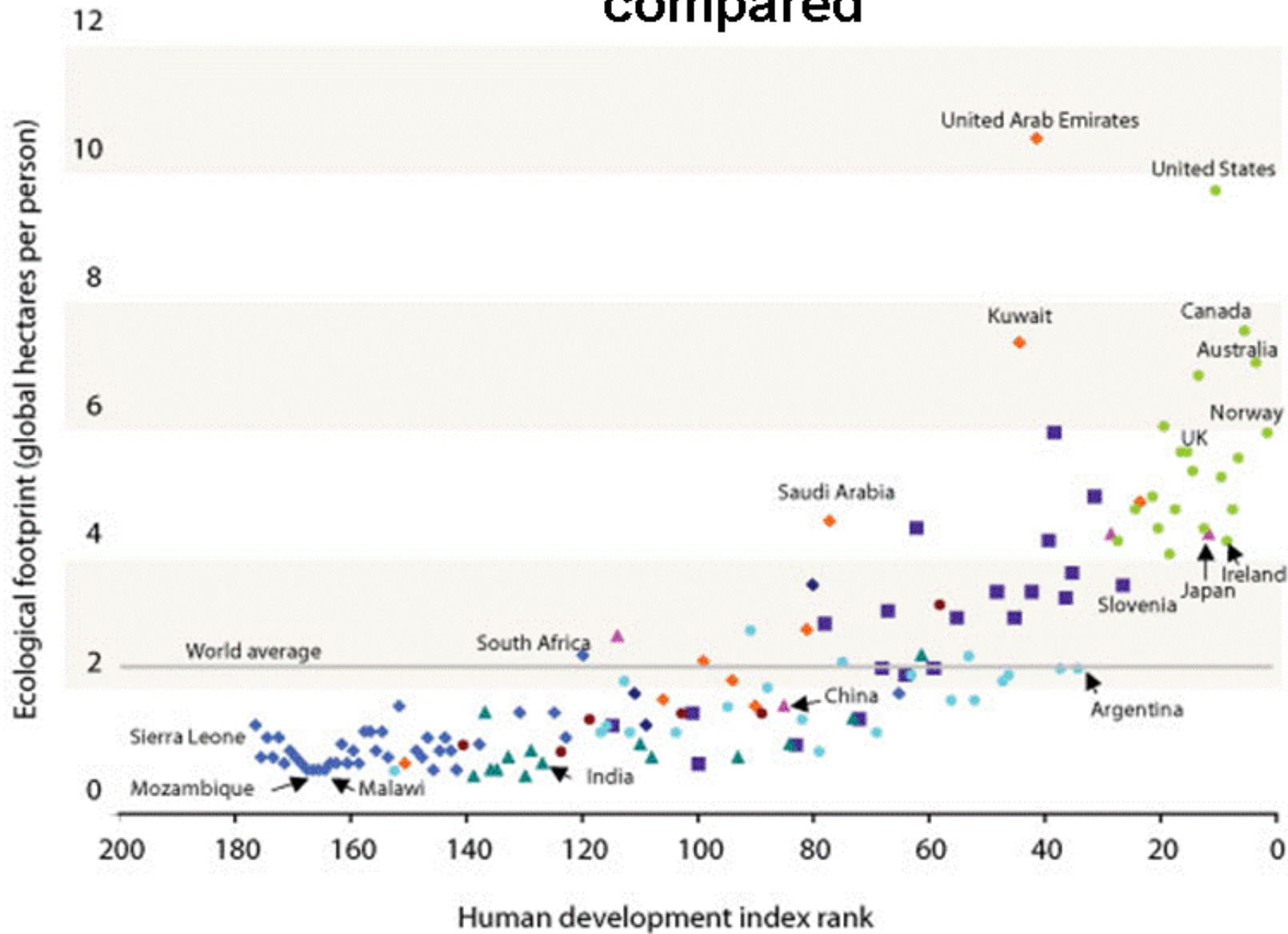


http://en.wikipedia.org/wiki/Happy_Planet_Index

HPI~LifeSat Correspondence



Human Welfare and Ecological Footprints compared



- ◆ Central Asia
- ▲ East Asia
- Latin America
- ◆ Middle East
- North Africa
- ▲ South & Southeast Asia
- ◆ Sub-Saharan Africa
- The West
- Eastern Europe

Source: Global Footprint Network (2006); United Nations Development Programme (2006).]

HPI in Transitional Countries

- HPI and forecasted HPI according to its GDP; data in parentheses – Life Satisfaction
- Forecasting migration??

Bulgaria	31,6 (4,3)	46,7 (6,1)
Czech Rep.	36,6 (6,4)	42,9 (6,5)
Estonia	22,7 (5,1)	43,7 (6,4)
Hungary	37,6 (5,7)	43,3 (6,4)
Latvia	27,3 (4,7)	44,9 (6,2)
Lithuania	29,3 (4,9)	44,6 (6,3)
Poland	39,3 (5,9)	44,4 (6,3)
Romania	37,7 (5,2)	46,1 (6,1)
Russia	22,8 (4,3)	45,6 (6,1)
Slovakia	35,8 (5,4)	44,0 (6,3)
Slovenia	44,0 (6,6)	41,9 (6,7)
Ukraine	22,2 (3,6)	47,3 (5,9)

Summary

- Relation between economic growth and life satisfaction might not be that straightforward as assumed in economics
- Easterlin paradox
- Happiness and well-being can be measured and used for economic analysis
- U-shaped relation with GDP and Happy planet index, but life satisfaction \sim GDP correspondence seems to be positive.

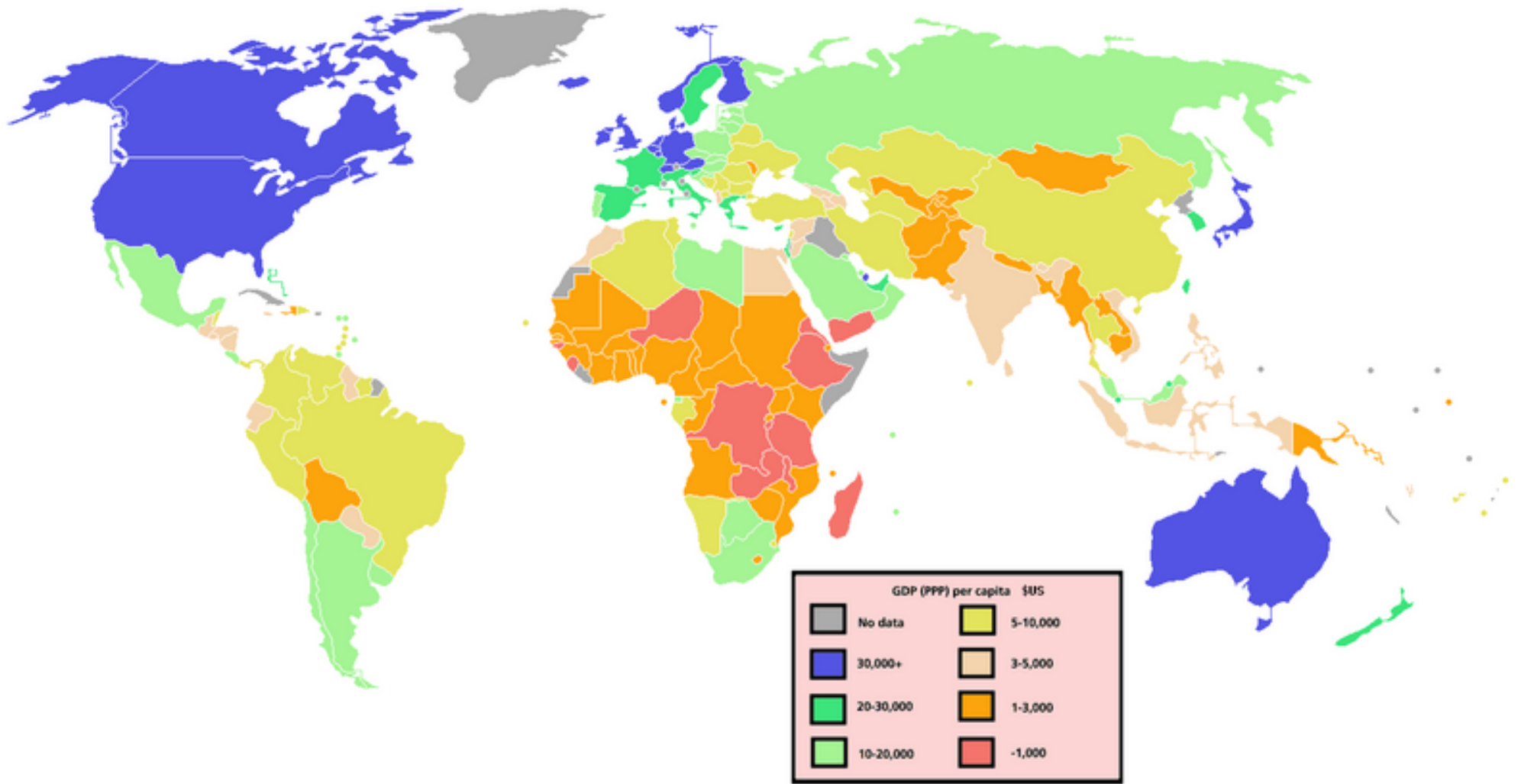
Appendix

- Gross Domestic Product – does it reflect standards of living properly?
- Alternatives to GDP: Human development index
- Theories of motivation

A1: GDP and Standards of Living

- Gross Domestic Product: the market value of all final goods and services produced within a country in a given period of time.
- Or – in terms of value added - the sum of value added at every stage of production of all final goods and services produced within a country in a given period of time.
- $GDP = C + I + G + NX$
- Methodology: System of National Accounts
- Nominal, real, per capita, PPP etc.

GDP and Standards of Living



GDP and Standards of Living

- Indicator of standard of living
- Pros: measured frequently, widely, consistently.
- Cons: production and economic activity but not standard of living as such (extreme example: country which exports 100% of its production, trade-off on the PPF)
- Thus GDP is a good proxy:
 - ♦ welfare positively correlated
 - ♦ labour productivity which implies higher wages and so consumption.

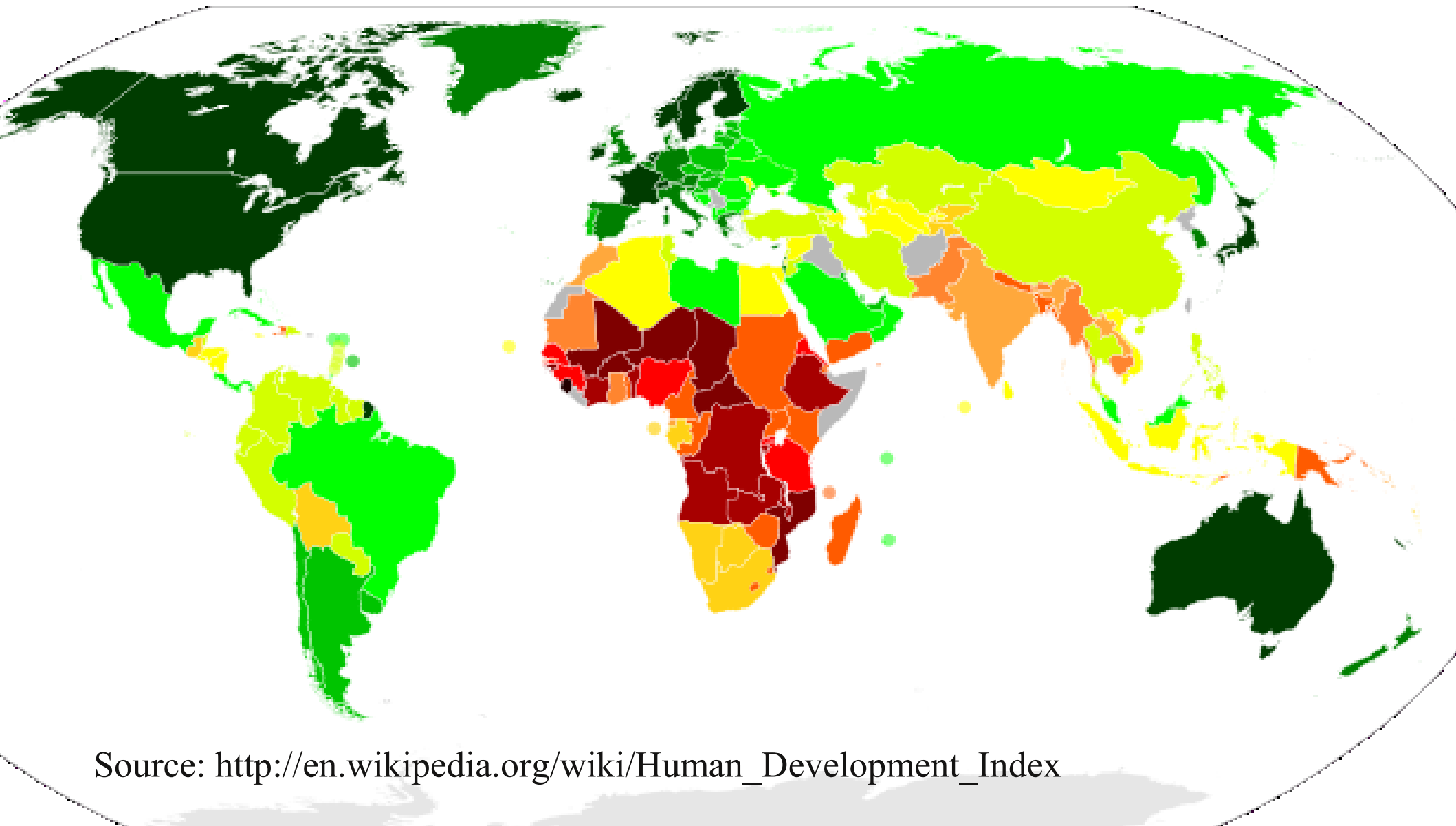
Limitations of GDP

- Further criticism: black market, barter, volunteer production (OpenSW), environmental aspects.
- Inferior production – military spendings, child work.
- Bubbles in prices (housing, natural resources)

A2: Human Development Index: An Alternative

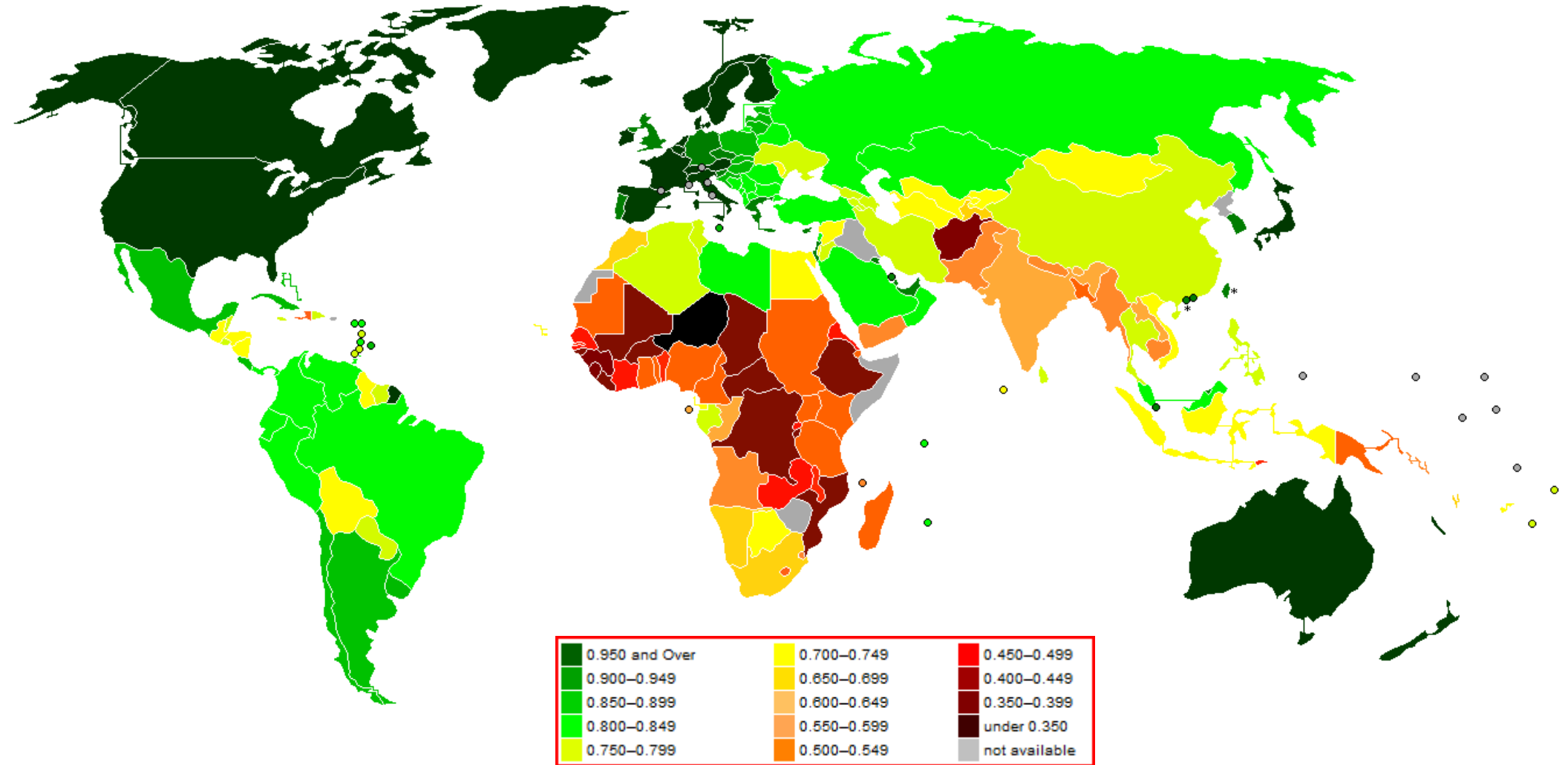
- Human Development Index (HDI): comparative measure of life expectancy, literacy, education, and standards of living (GDP in PPP) for countries worldwide
- Constructed by Mahbub ul Haq, Pakistanian economist, since 1990 used by the U.N.

HDI (2005, published in 2007)



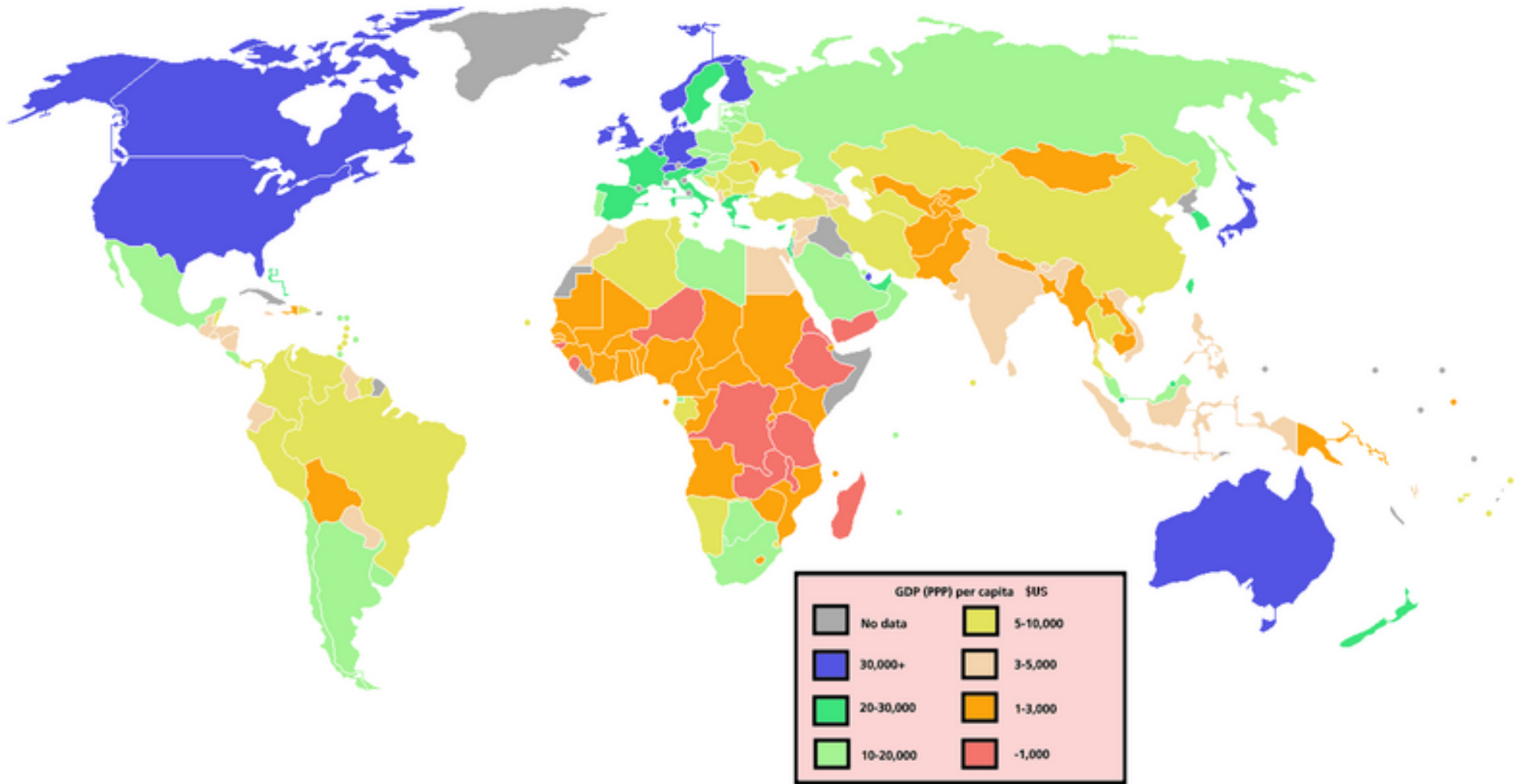
Source: http://en.wikipedia.org/wiki/Human_Development_Index

HDI (2007, published 2009)



Source: http://en.wikipedia.org/wiki/Human_Development_Index

GDP and Standards of Living



Human Development Index

- Top 30 countries:
- Norway, Australia, Iceland, Canada, Ireland, Netherlands, Sweden, France, Switzerland, Japan
- Luxembourg, Finland, the U.S., Austria, Spain, Denmark, Belgium, Italy, Licht., New Zealand
- the U.K., Germany, Singapore, Hong Kong, Greece, South Korea, Israel, Andorra, Slovenia, Brunei
- Czech Republic 36th
- http://en.wikipedia.org/wiki/List_of_countries_by_Human_Development_Index

A3: Theories of Motivation

- **Maslow's hierarchy of needs**

- The person advances to the next level of needs only after the lower level need is at least minimally satisfied:
- Physiological needs – Safety – Belongingness – Respect – Self actualization

- **Herzberg's two-factor theory**

- *Motivators*; (e.g. challenging work, recognition, responsibility) which give positive satisfaction, and
- *Hygiene factors*; (e.g. status, job security, salary and fringe benefits) that do not motivate if present, but, if absent, result in demotivation.

- Overview here: <http://en.wikipedia.org/wiki/Motivation>