

Degrowth and Recession

The Same or Different?



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Economic Degrowth for Ecological

Sustainability and Social Equity

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Motivating Questions

- “The US might be heading into a recession but think of how much pollution will be kept out of the landfills as fewer shoppers cruise the malls 24-7 for something to do.”
(Recent comment on CBC News)
 - ***Are recessions good for the environment?***

- “As it happens, the country has just gone through a real-life tryout of ‘zero growth’... The period is remembered, of course, not as an episode of zero growth but as the worst recession since the 1930s.” (Fortune Magazine, 1976)
 - ***Is a Steady State or Degrowth Economy different from a recession?***

To Answer These Questions...

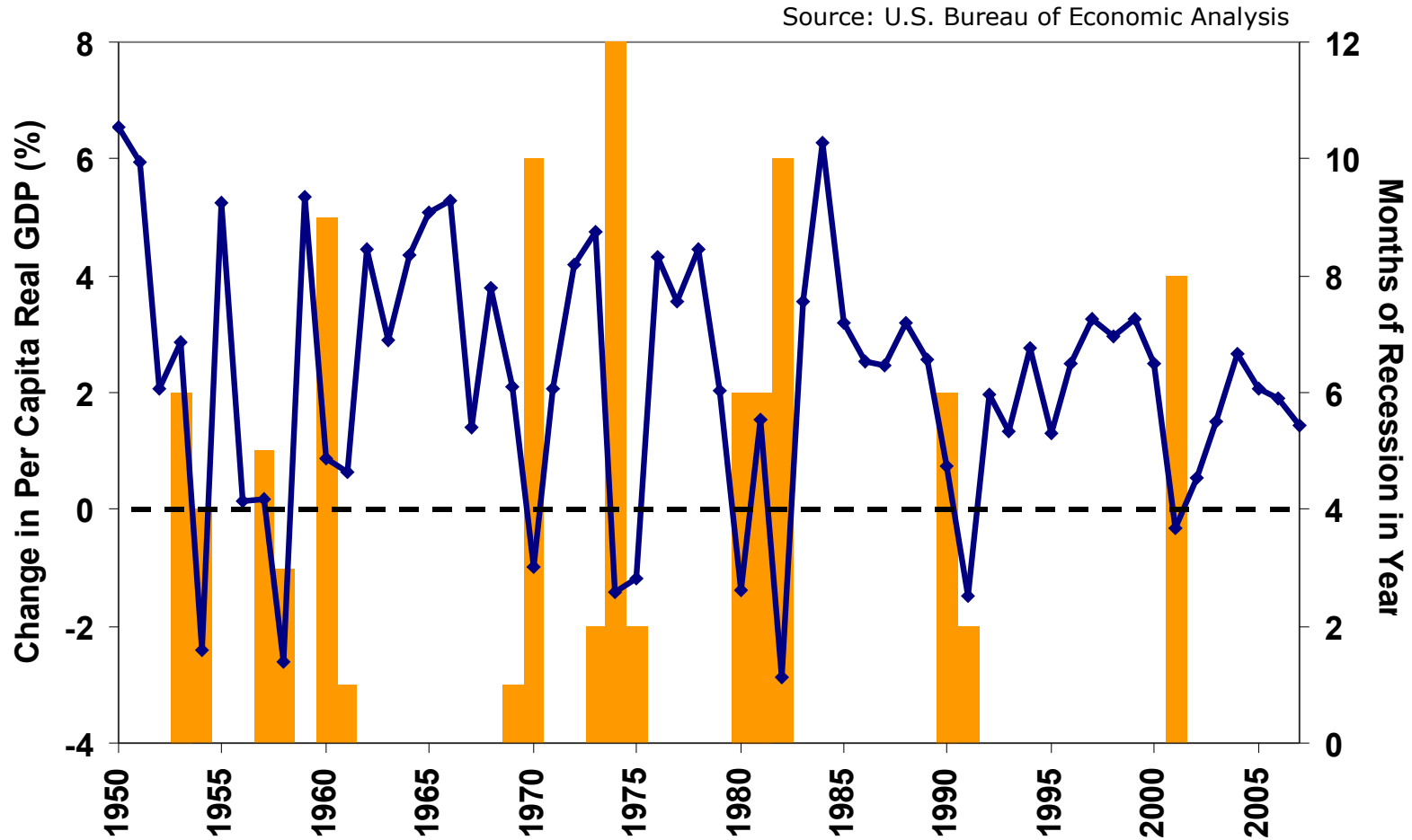
- Comparison of recessions in the U.S. with examples of “pseudo steady state” economies

- Quantitative analysis using indicators
 - Economic
 - Gross Domestic Product (GDP)
 - Unemployment
 - Inflation
 - Social
 - Life expectancy
 - Self-reported wellbeing
 - Environmental
 - Per capita CO₂ emissions
 - Per capita Ecological Footprint
 - Population growth

Recession: Some Definitions

- Two consecutive quarters of decline in real GDP
- “[A] significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP, real income, employment, industrial production, and wholesale-retail sales.” (NBER 2003)
- “A recession is when your neighbor loses his job; a depression is when you lose your job.” (Sidney J. Harris)

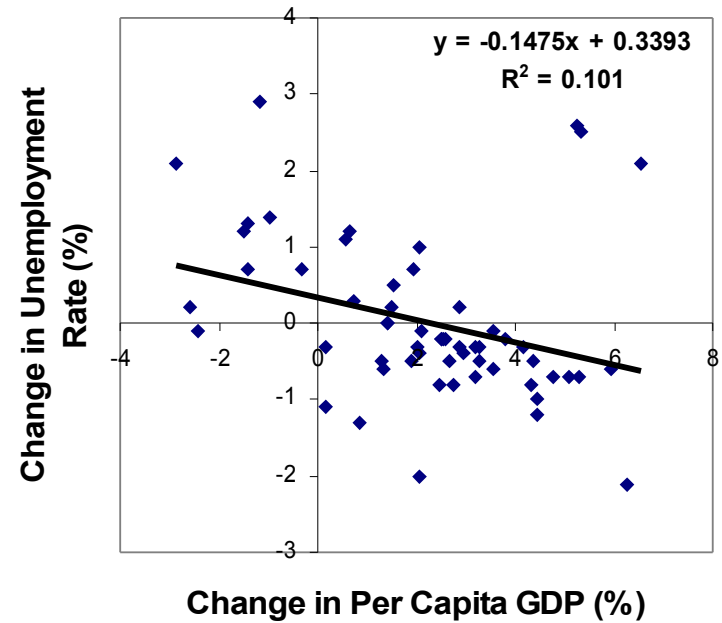
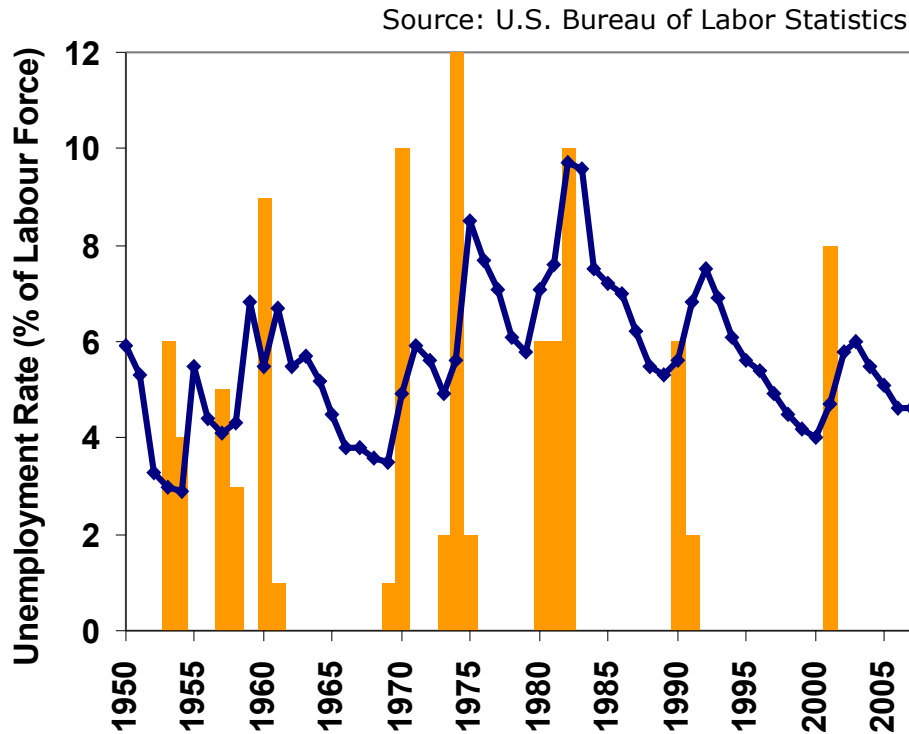
Recessions in the U.S. (1950–2007)



Recent Recessions in the U.S.

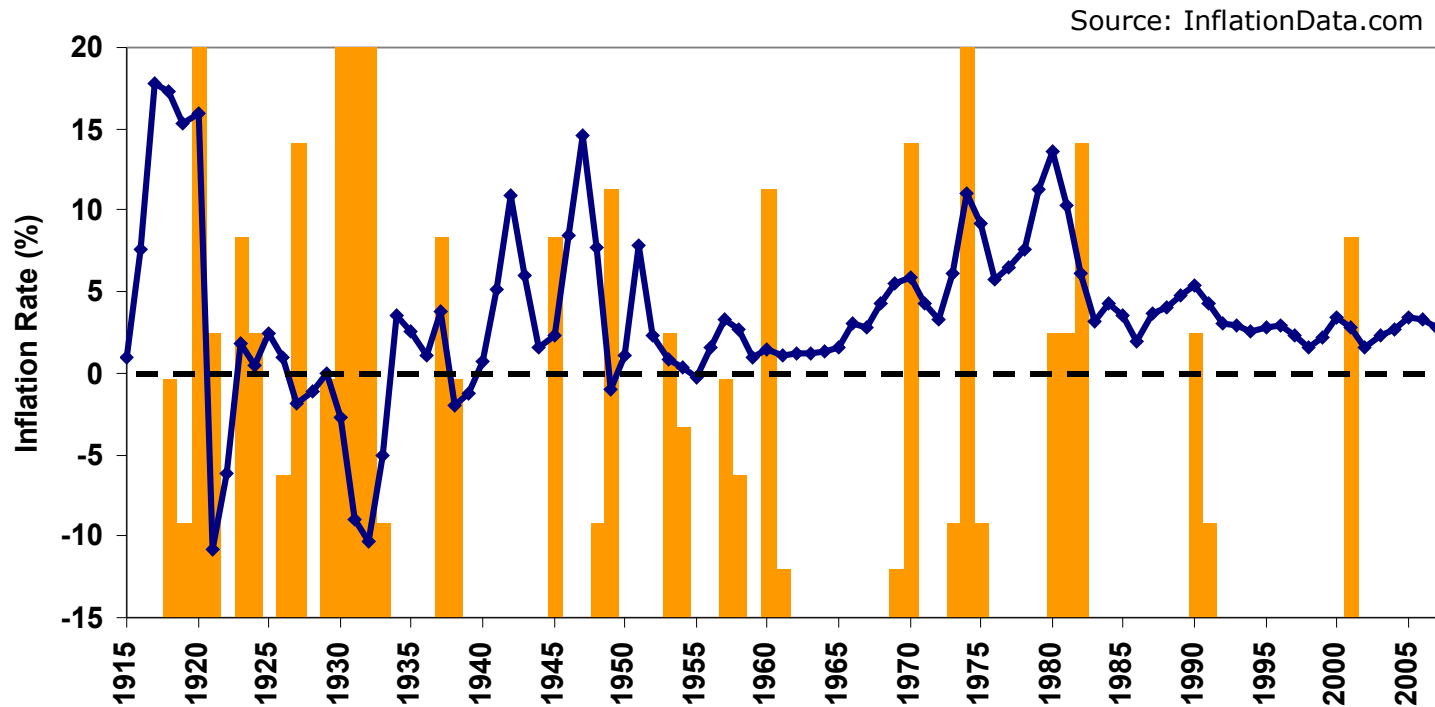
Start	End	Months	Cause
Nov 1973	Mar 1975	16	- Oil shock
Jan 1980	Jul 1980	6	- Oil shock
Jul 1981	Nov 1982	16	- Tight monetary policy to combat inflation - High interest rates
Jul 1990	Mar 1991	8	- Tight monetary policy - Savings-and-loan crisis - Fall in consumer confidence
Mar 2001	Nov 2001	8	- Bursting of the dot-com bubble - 9/11 terrorist attacks - Scandals (Enron/WorldCom)
2008 ?	?	?	- Sub-prime mortgage crisis - Housing market correction

Recession and Unemployment (U.S.)



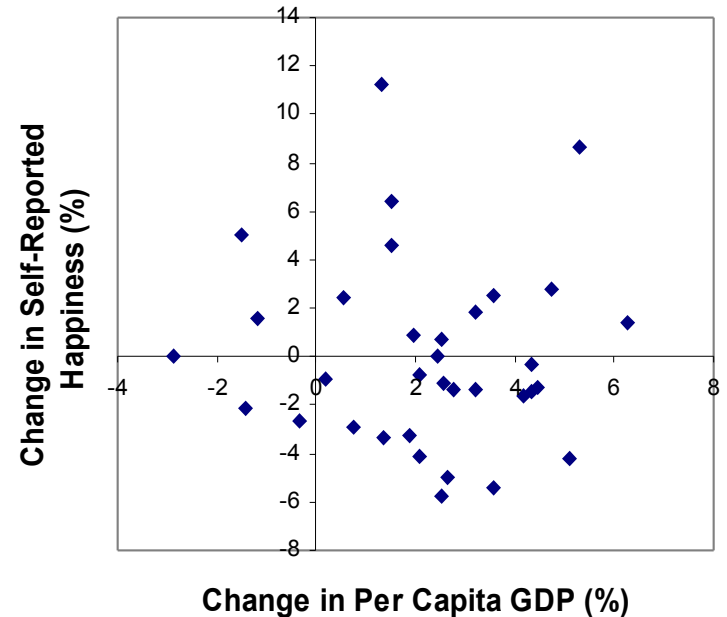
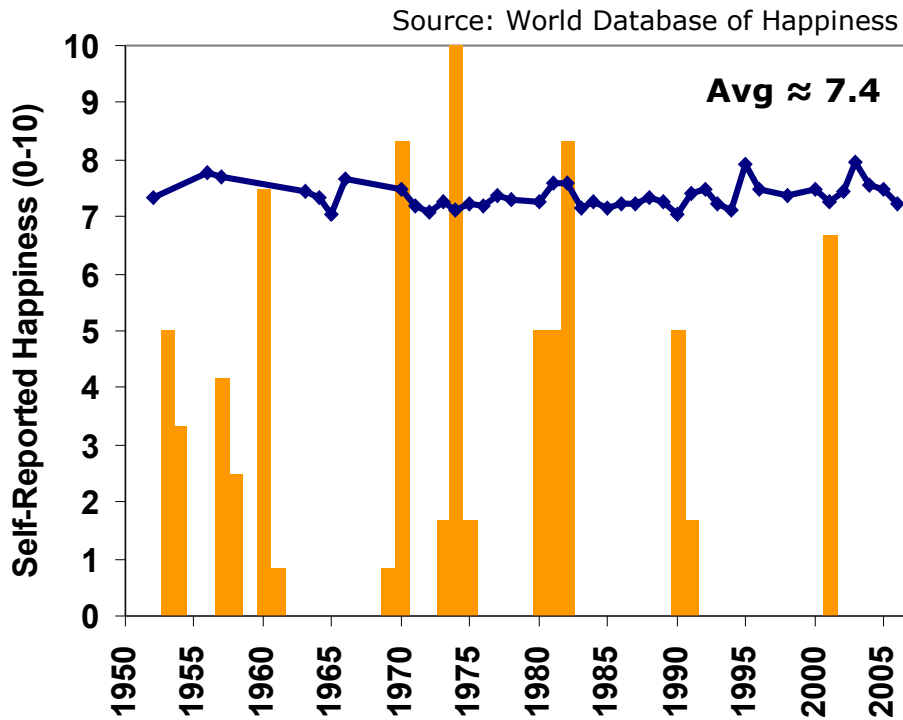
- Jobs are lost during recessions
 - "Okun's Law"

Recession and Prices (U.S.)



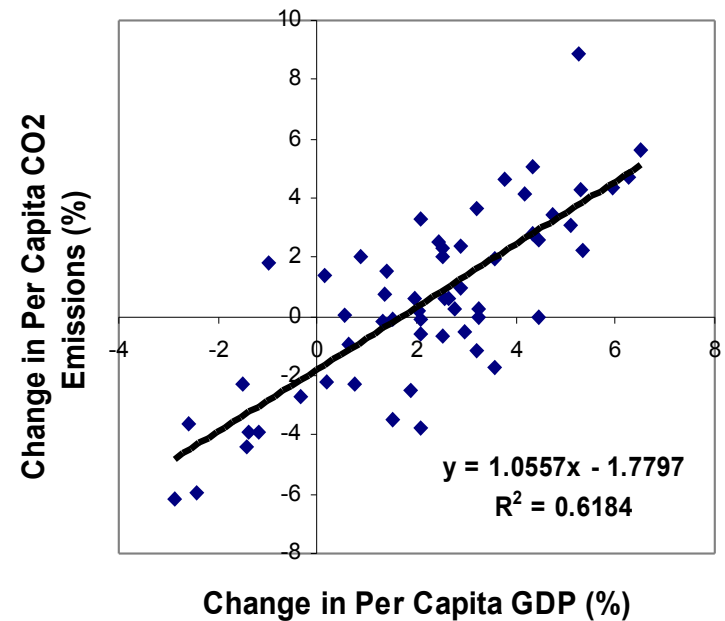
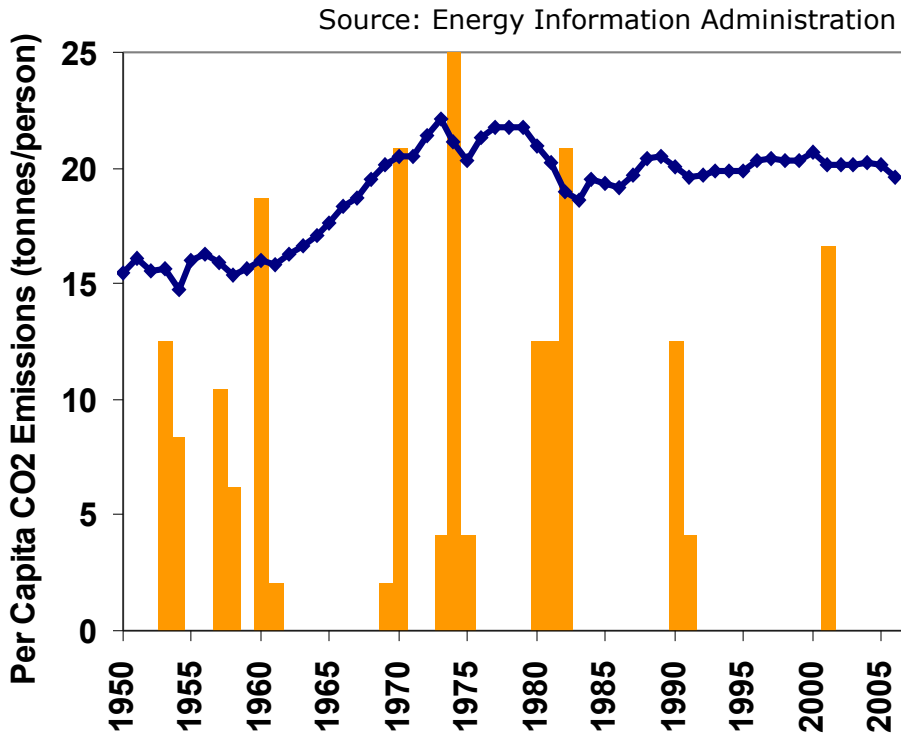
- Prices may increase *or* decrease during a recession (i.e. inflation *or* deflation)

Recession and Happiness (U.S.)



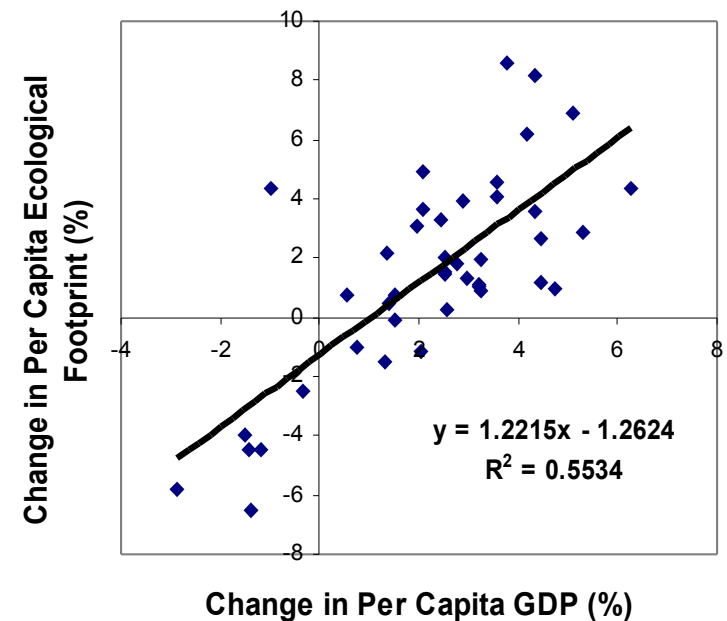
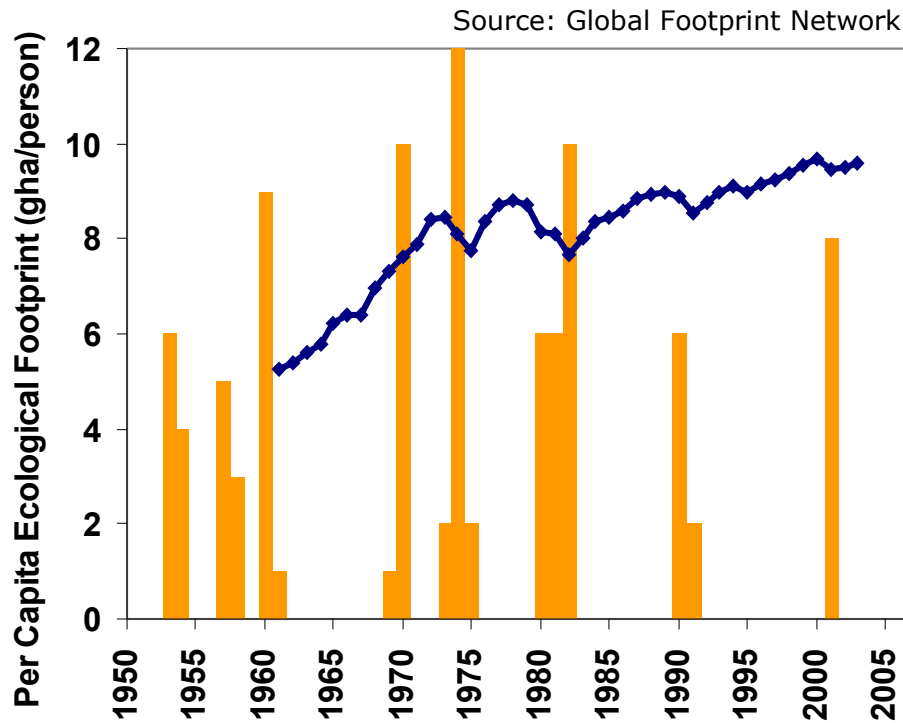
- There is no clear relationship between recessions and self-reported happiness

Recession and CO₂ Emissions (U.S.)



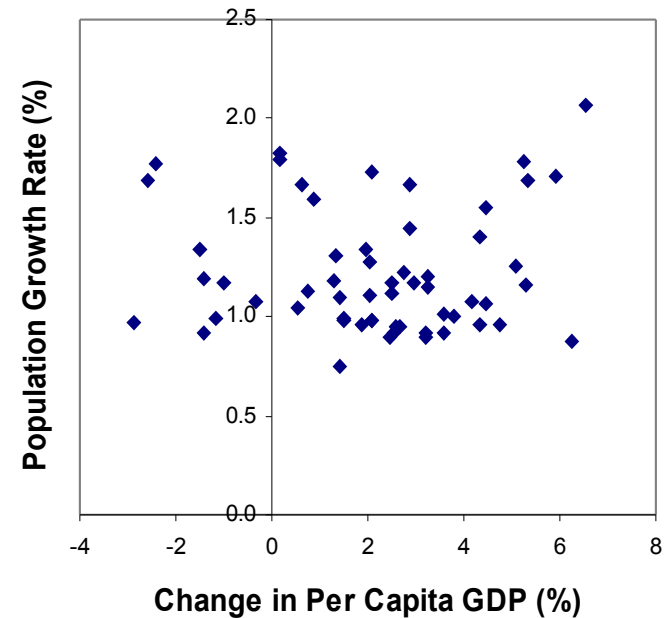
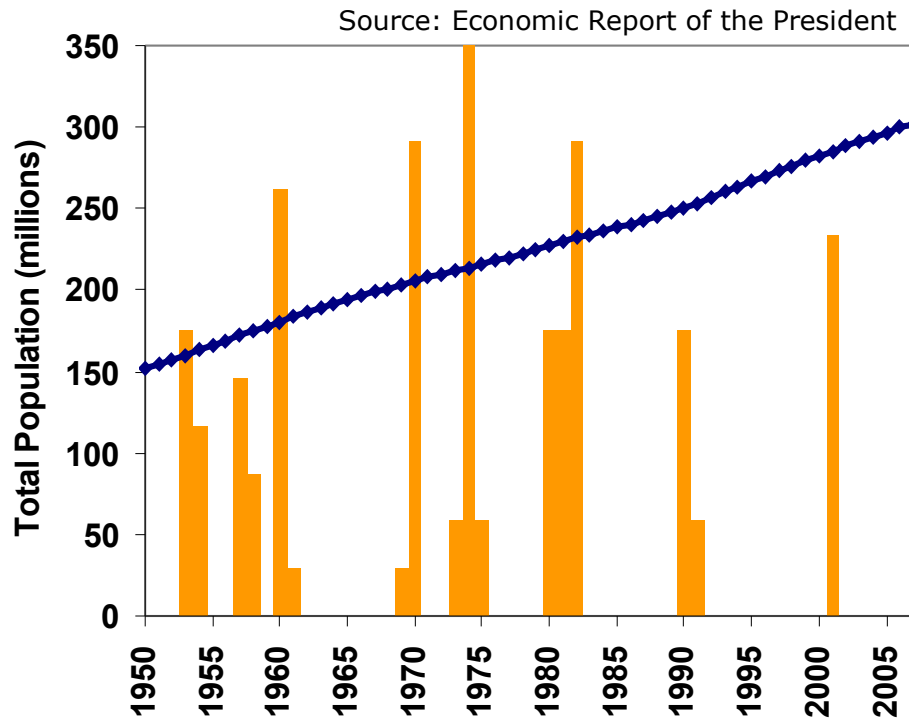
- Energy use and CO₂ emissions decrease during recessions

Recession and Ecol. Footprint (U.S.)



- Ecological footprint decreases during recessions

Recession and Population Growth (U.S.)



- Population continues to increase during recessions (mainly through immigration)

The Alternative: SSE or Degrowth

□ What is a Steady State Economy (SSE)?

- Constant population
- Constant stock of physical artefacts
- Constant rate of maintenance throughput
 - Energy and material flows are minimized and within ecological limits

} Daly's
Definition

□ What is Degrowth?

- My definition: the transition to a Steady State Economy
- Developed countries need to reduce their population, stocks, and throughput to:
 - Become environmentally sustainable
 - Make room for developing countries

In Search of a SSE or Degrowth...

- Are there any countries that come close to a Steady State Economy or Degrowth?

- My criteria:
 - Stable or decreasing population
 - Population growth rate $< 0.5\%/year$
 - Stable or decreasing energy/material throughput
 - Change in per capita energy use $< 0.5\%/year$
 - Change in per capita ecological footprint $< 0.5\%/year$
 - Politically stable
 - World Bank "Index of Political Stability" > 0

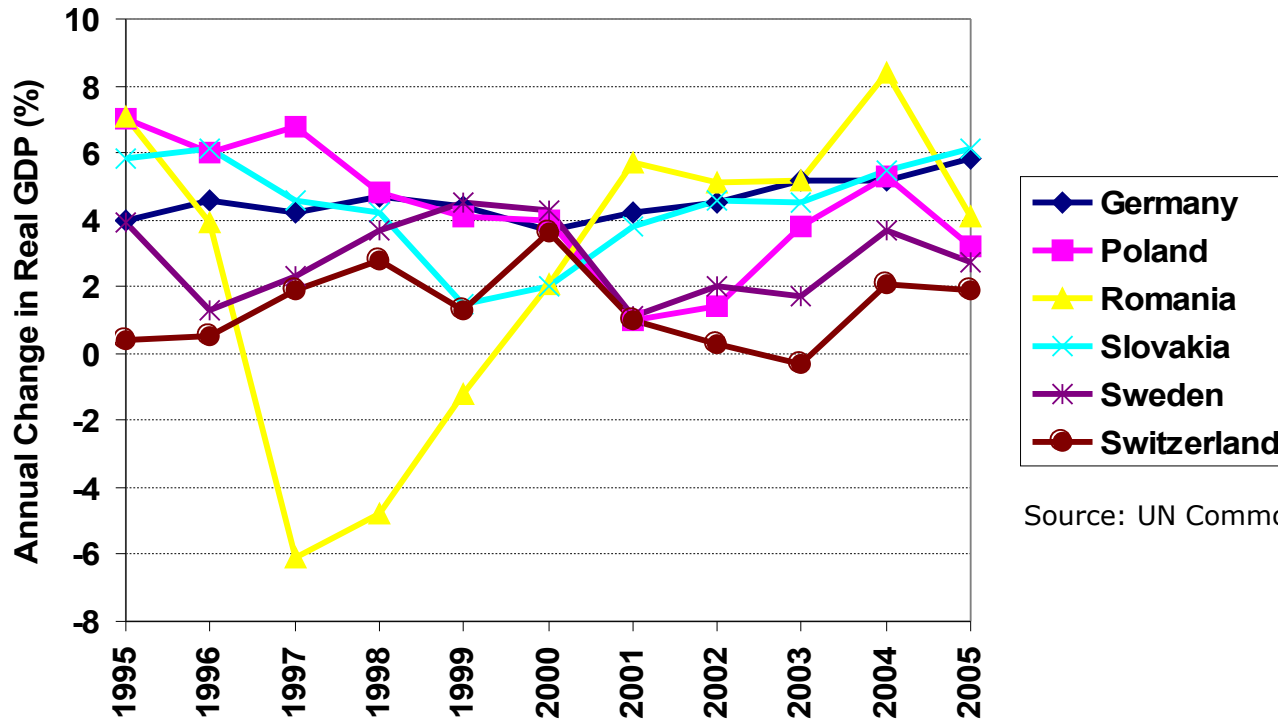
Countries Satisfying these Criteria

Country	Population Growth Rate (%/Year)	Energy Use Growth Rate (%/Year)	Ecological Footprint Growth Rate (%/Year)	Life Expectancy (Years)	Life Satisfaction (0-10)	Unemployment Rate (%)	GDP (2005\$ PPP)	Ecological Footprint (gha)
Germany	0.1	0.0	-0.8	78.7	7.2	9.4	29,461	4.5
Poland	-0.1	-0.1	-1.2	74.6	5.9	15.6	13,847	3.3
Romania	-0.5	-1.2	-0.7	71.3	5.0	7.1	9,060	2.4
Slovakia	0.0	-0.2	0.4	73.8	5.5	15.7	15,871	3.2
Sweden	0.2	0.3	0.3	80.1	7.7	5.9	32,525	6.1
Switzerland	0.4	-0.2	0.3	80.7	8.1	3.5	35,633	5.1
<i>Average</i>	76.8	6.6	10.3	23,148	4.0

- Data are for the period 1995-2005, and are per capita
- Averages are weighted by population

- Sources: UN Common Database, Energy Information Administration, Global Footprint Network, World Database of Happiness

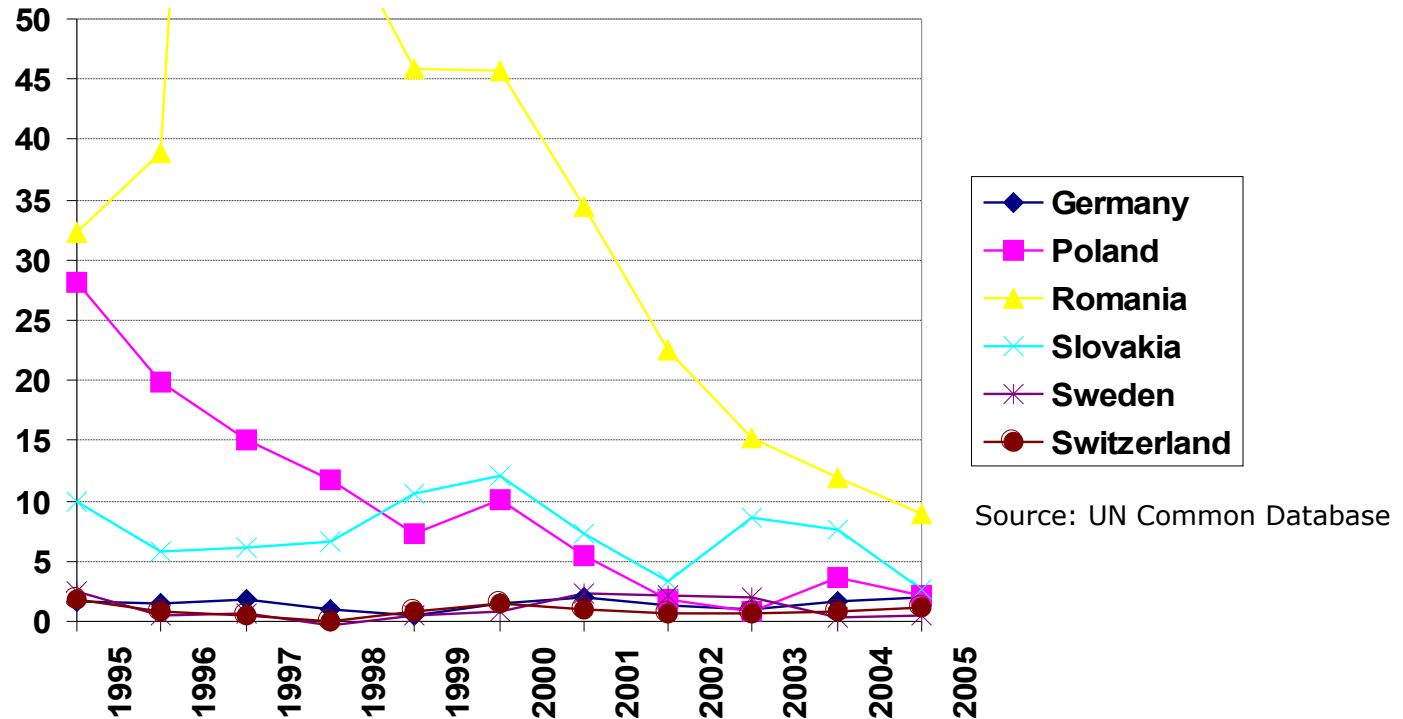
SSE and GDP



Source: UN Common Database

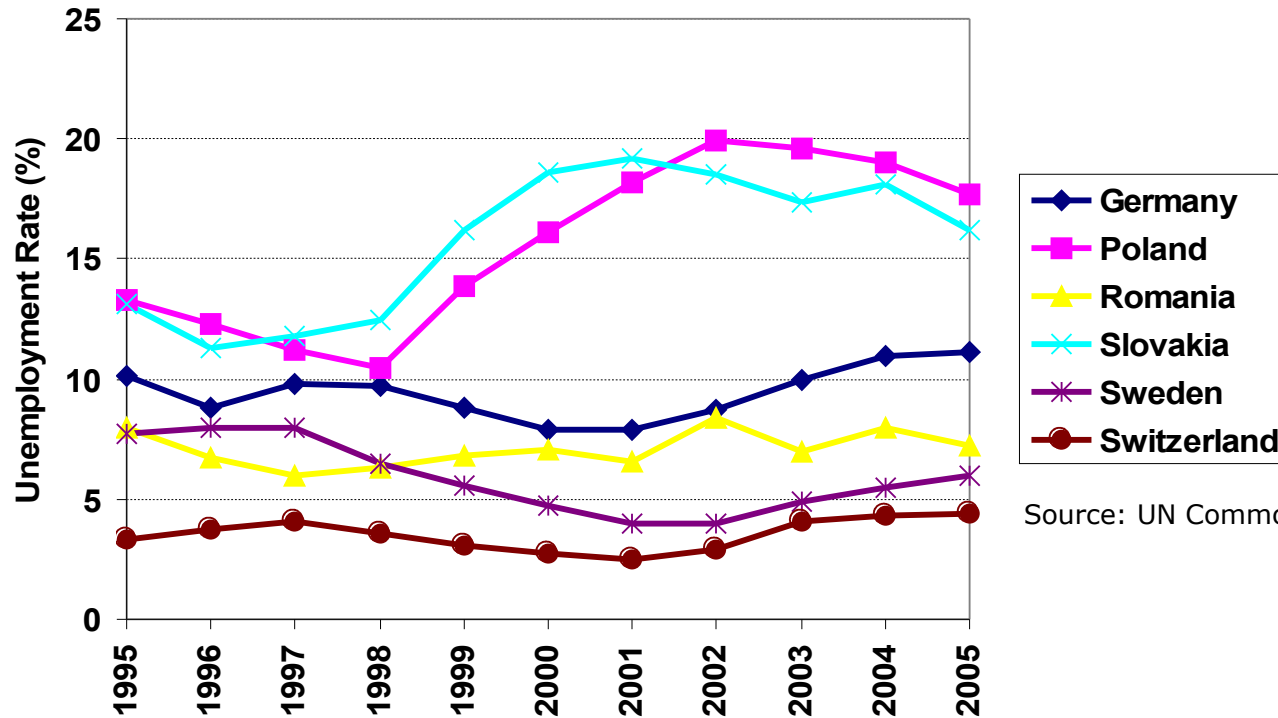
- Most countries still show positive growth in GDP
 - SSE ≠ Recession
- In a SSE, GDP can grow (temporarily) through efficiency gains. After this, only qualitative growth is possible

SSE and Inflation



- Inflation varies widely between more affluent and less affluent countries
 - Transition from communism to capitalism; unrelated to SSE?
- Convergence to low inflation?

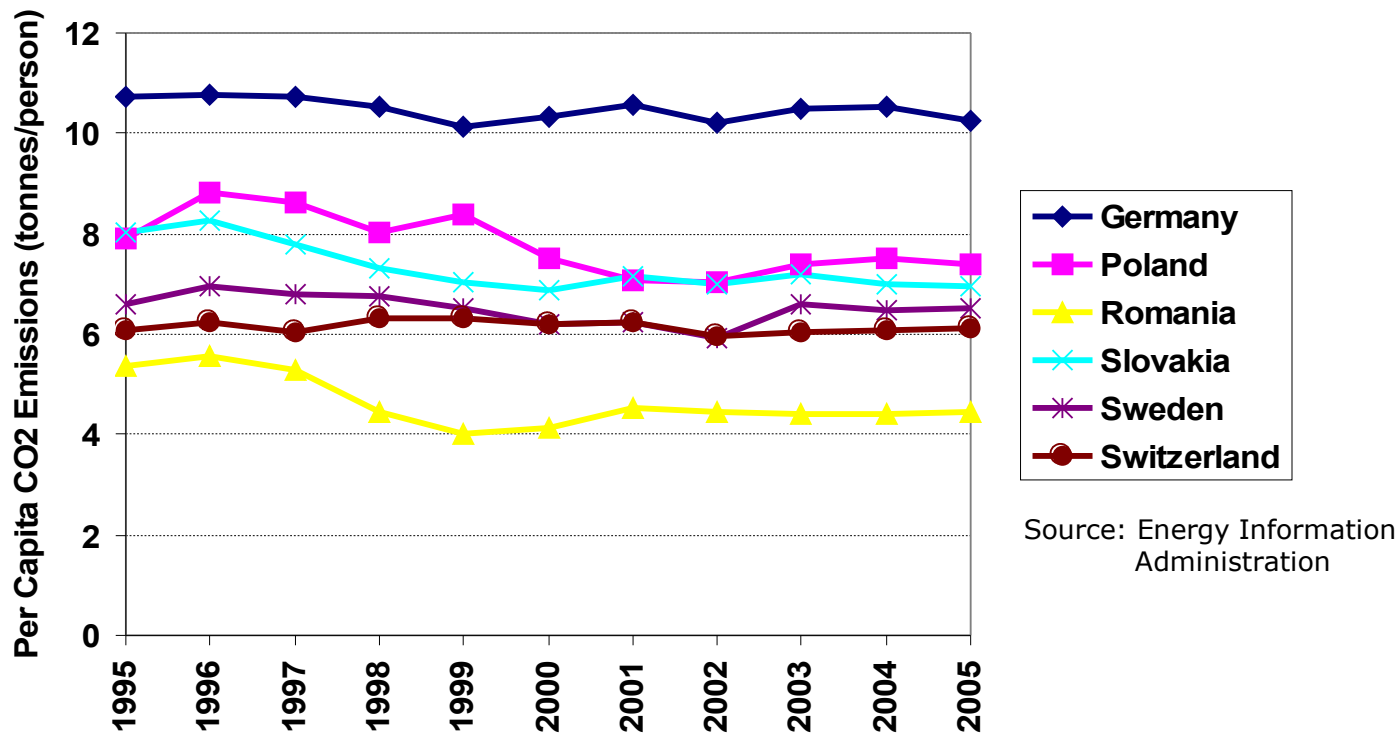
SSE and Unemployment



Source: UN Common Database

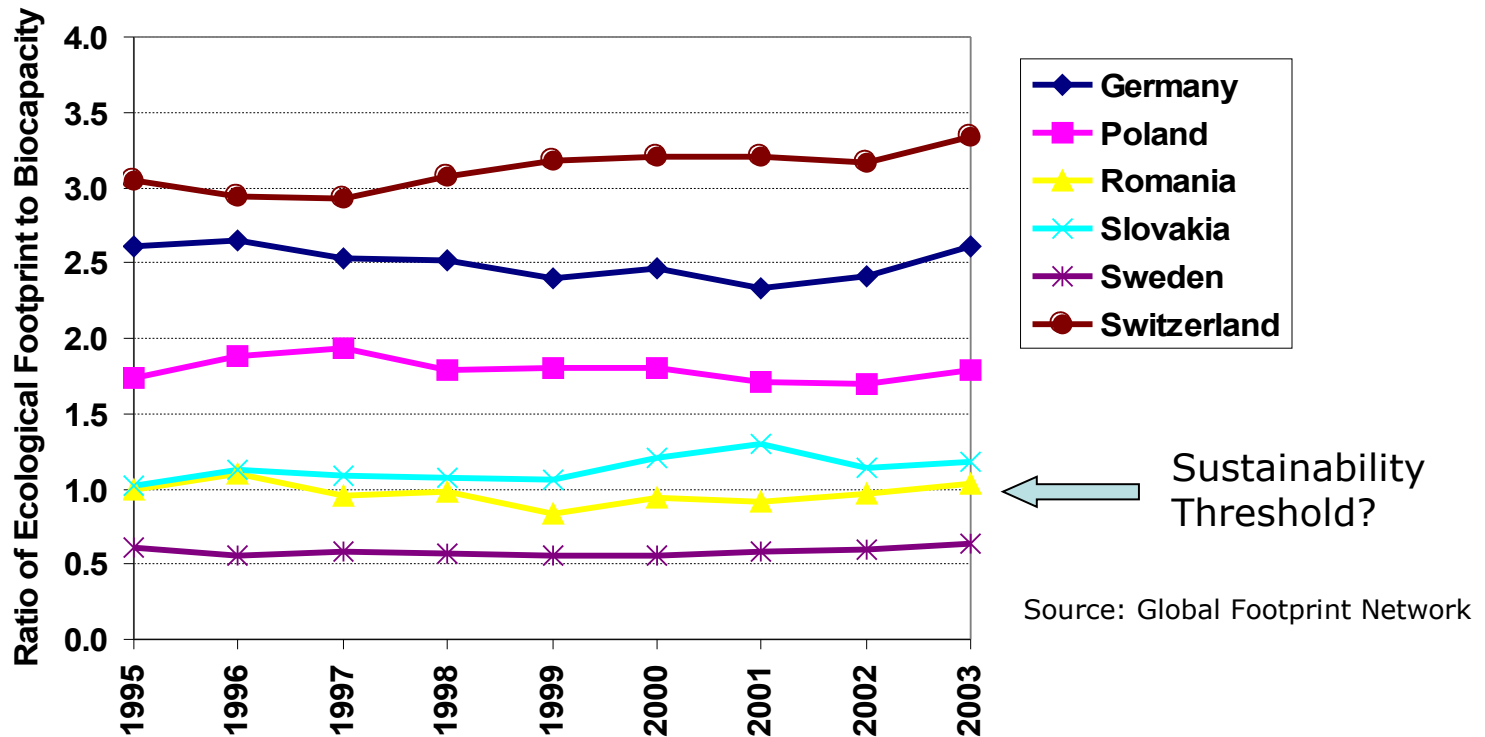
- Wide variation in unemployment rates
- Some countries have low unemployment, so it is possible in a SSE

SSE and CO₂ Emissions



- CO₂ emissions are relatively constant or decreasing
- Limiting the material/energy input to the economy results in a limit on emissions (1st Law of Thermodynamics)

SSE and Ecological Footprint



- ❑ Only Sweden and Romania have ecological footprints less than their national areas
- ❑ Stable does not mean sustainable!

Comparison: SSE and Recession

□ Similarities

- Environmental pressure is reduced
 - Lower energy use, CO₂ emissions, ecological footprint

□ Differences

- Population increases in a growth economy, exacerbating unemployment during recession
- GDP may continue to grow for some time in a SSE (through efficiency gains)
- Low unemployment is possible in a SSE
- Recession is a transient phenomenon (the failure of a growth economy), whereas SSE is a long term solution

Conclusions

- A few countries have managed to achieve a “pseudo-SSE”
 - Indicators for these countries are encouraging
 - How would things look if the steady state were an active policy instead of an incidental outcome?
- Degrowth/SSE and Recession are *not* the same thing
 - Need to educate policy makers, the media, and the average citizen
 - GDP is not a meaningful indicator in a SSE

Merci!



Questions?

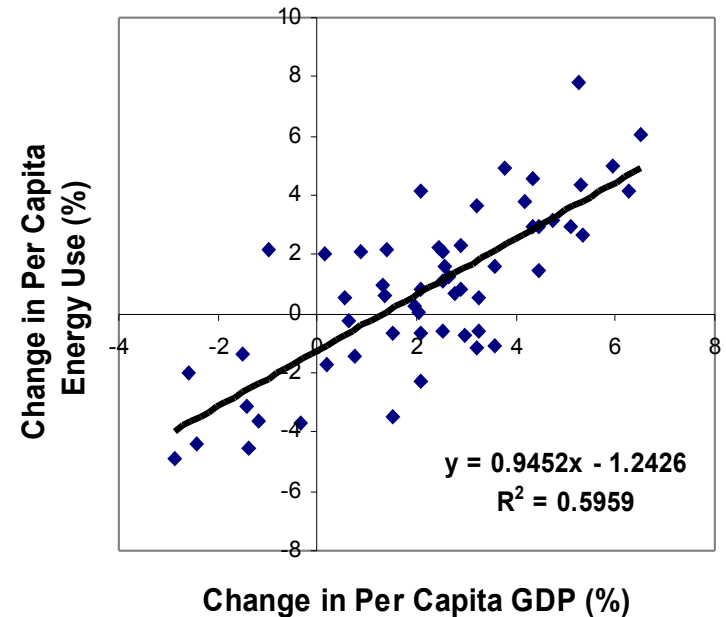
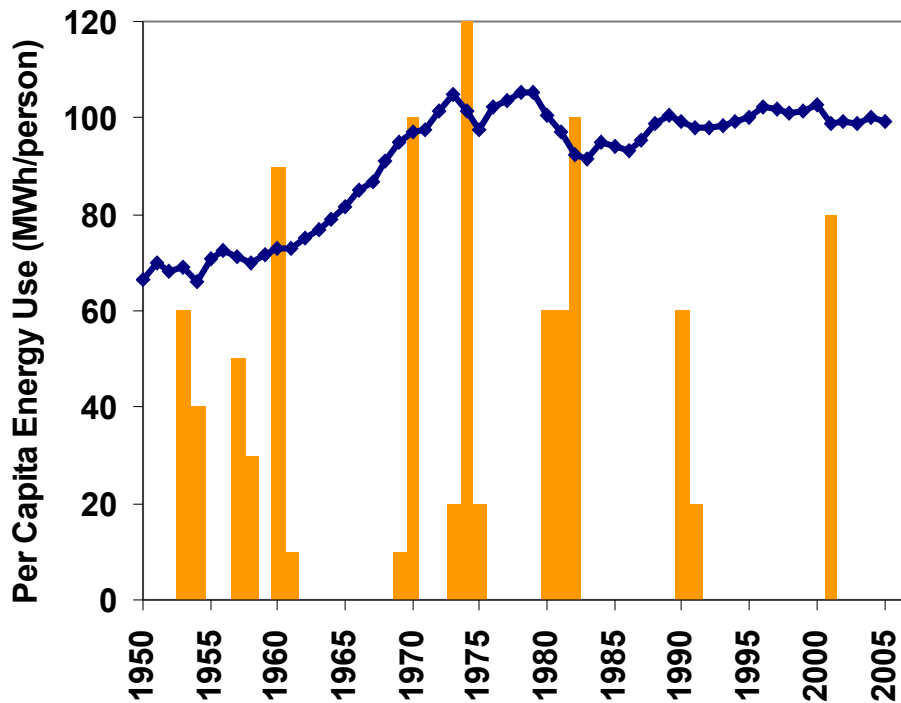
Characteristics of Recession

- Economic
 - GDP decreases
 - Production and consumption decrease
 - Investment decreases substantially
 - Prices may increase *or* decrease (i.e. inflation *or* deflation)
- Social
 - Unemployment increases (Okun's Law)
 - Happiness is unaffected?
- Environmental
 - CO₂ emissions decrease (energy use decreases)
 - Ecological footprint decreases
 - Population continues to increase

Characteristics of SSE

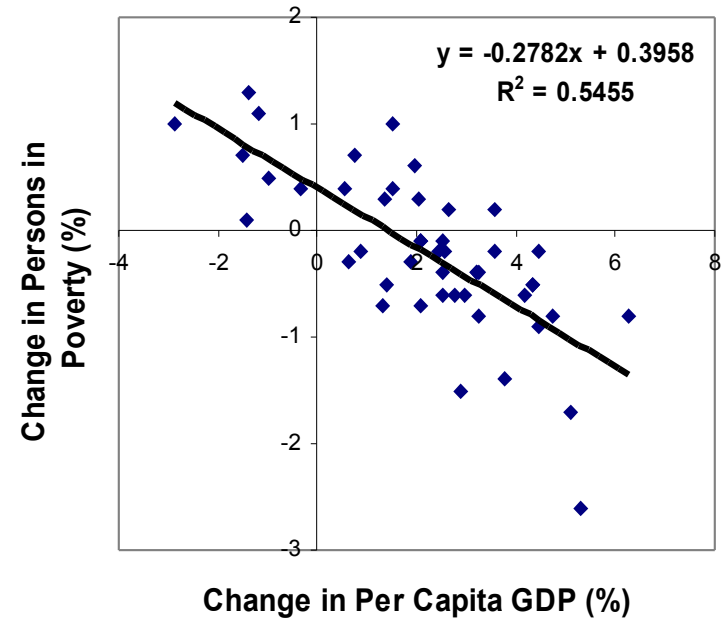
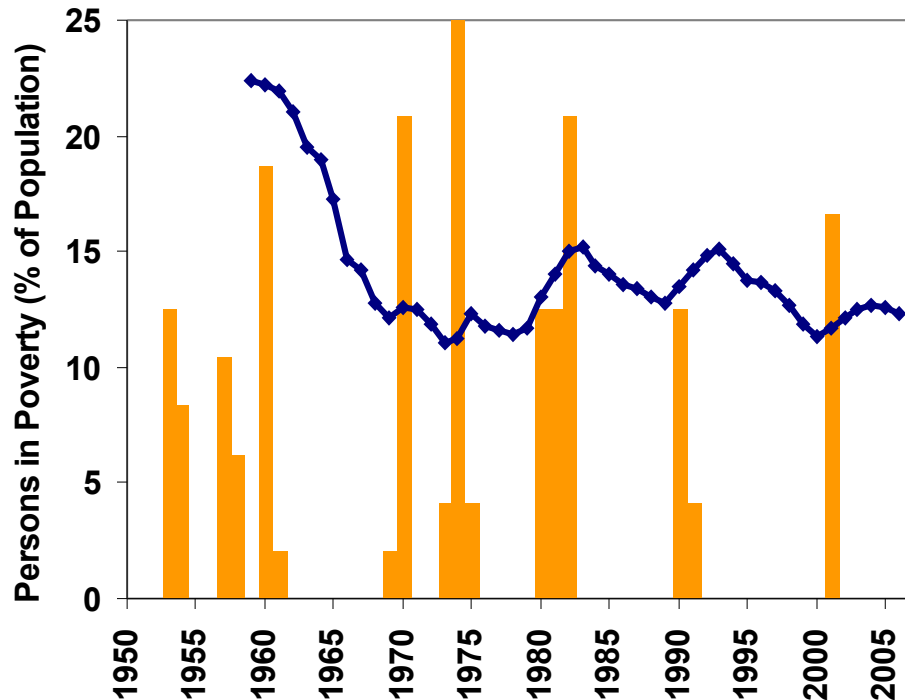
- Economic
 - Inputs to production (materials, energy, labour) are constant
 - GDP may continue to increase (in the short term)
 - Inflation is low (driven by resource prices in long run?)
- Social
 - Unemployment can be low or high
 - Life satisfaction ranges from average to high
- Environmental
 - CO₂ emissions are constant or decreasing
 - Ecological footprint is constant or decreasing
 - Population is constant or decreasing

Recession and Energy Use



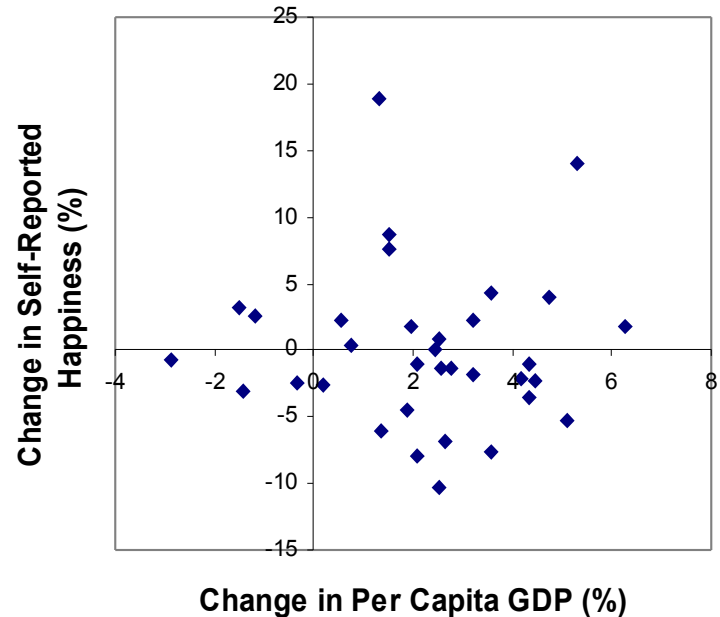
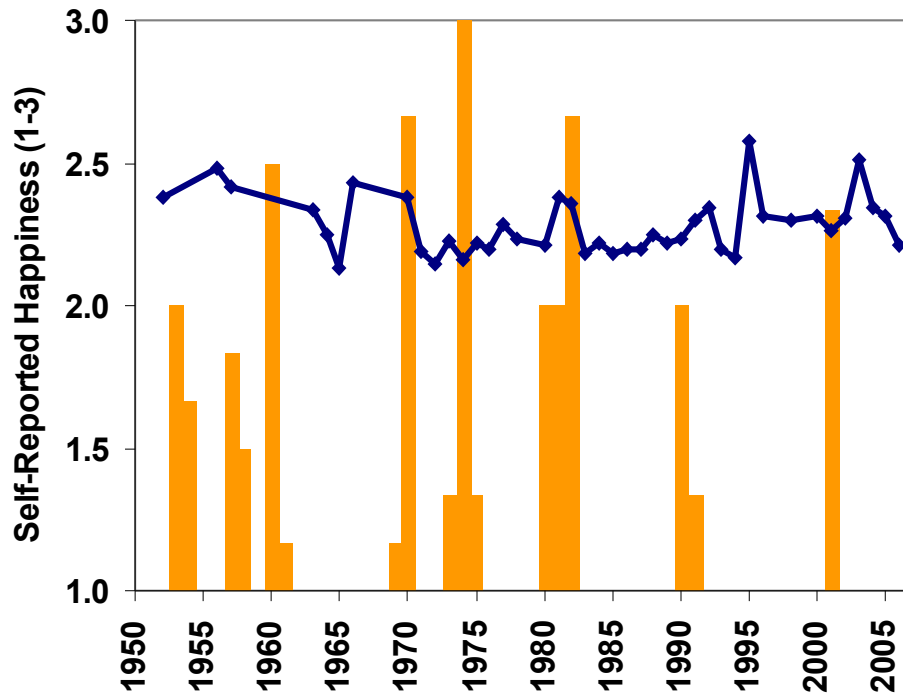
□ Energy use decreases during recessions

Recession and Poverty



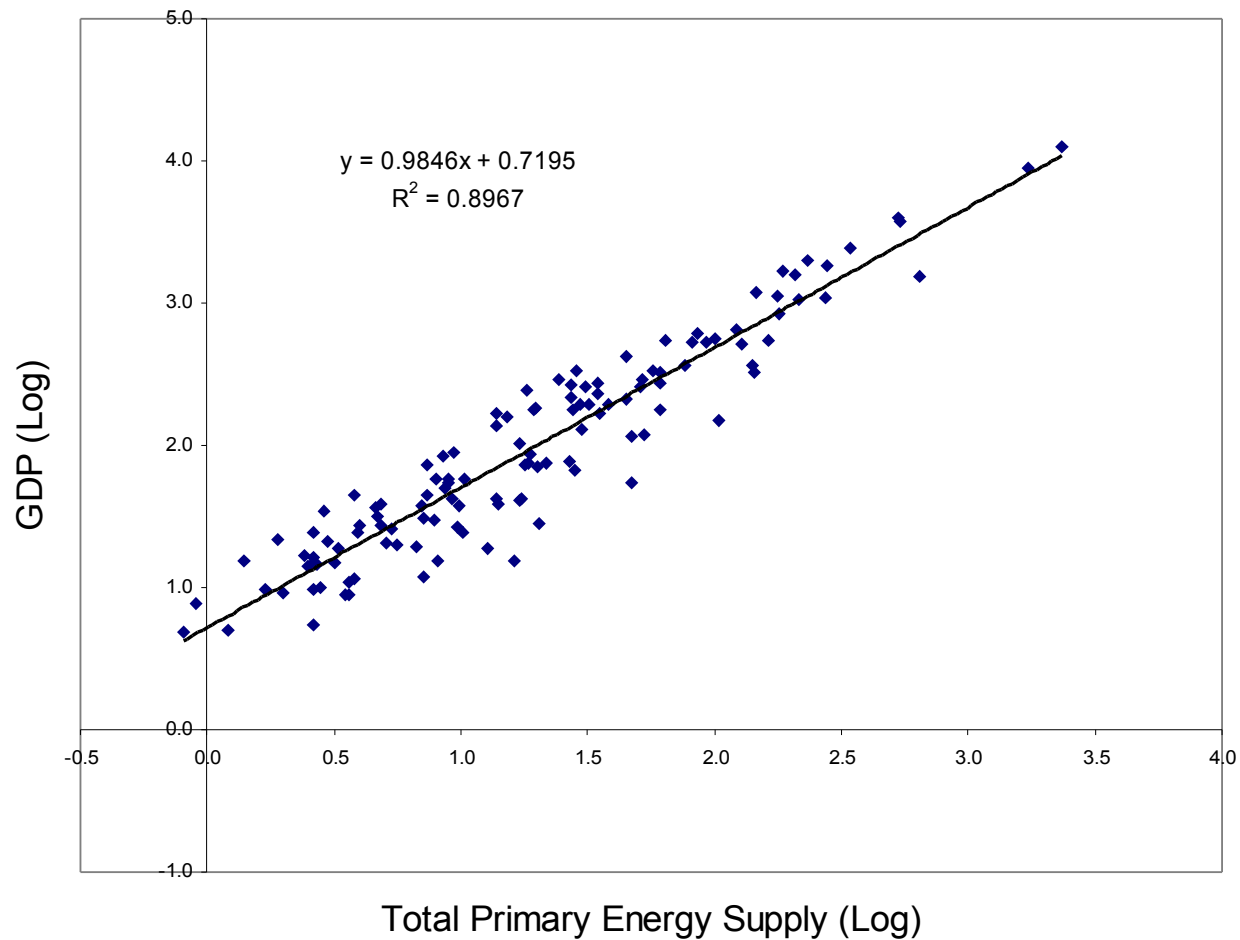
- Recessions increase the number of people living in poverty (based on income)

Recession and Happiness (1-3 Scale)

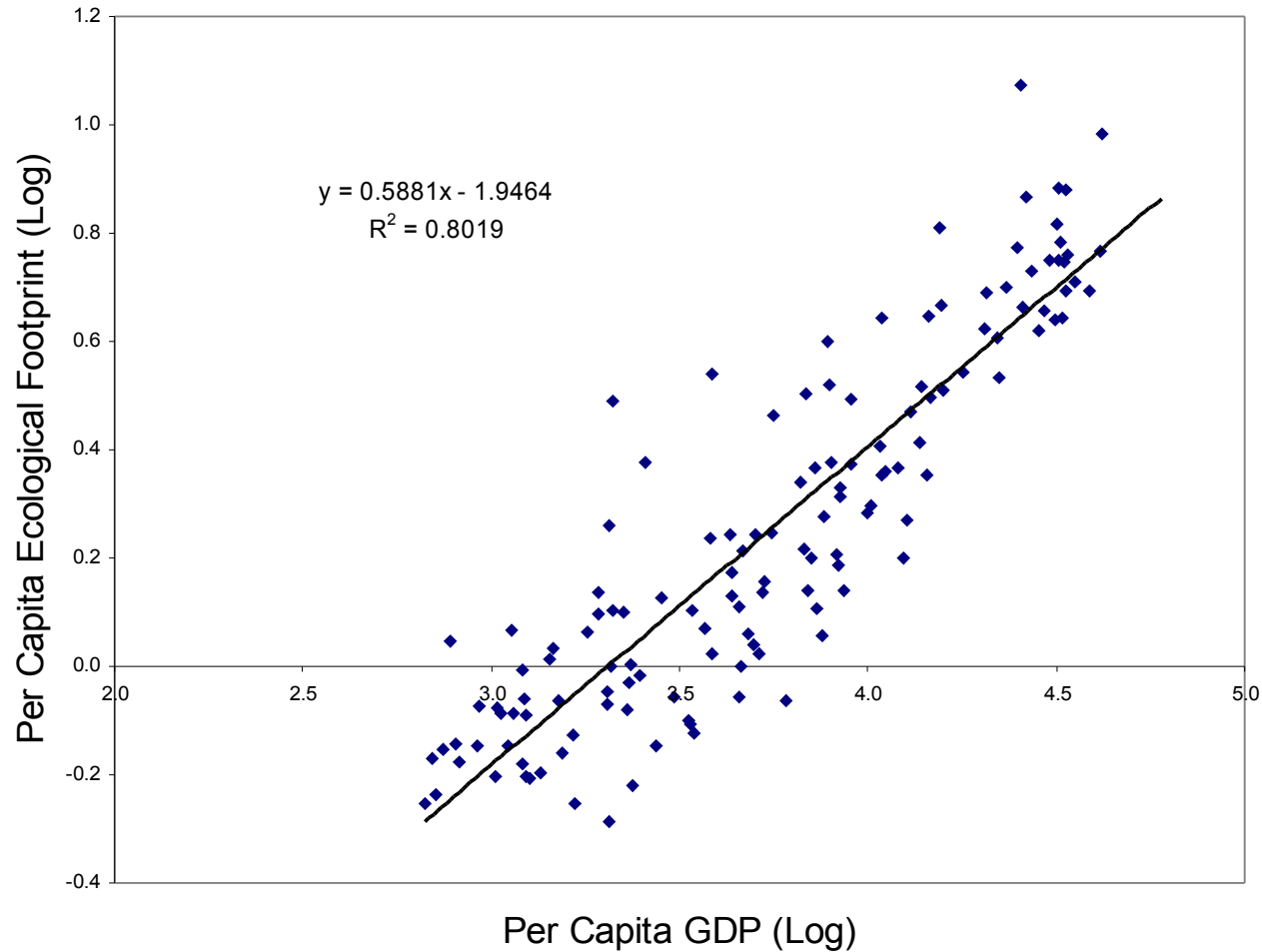


- There is no clear relationship between recessions and self-reported happiness

GDP and Energy Supply



Ecological Footprint and GDP



Recession as Motivator for SSE

- “A situation of nongrowth can come about in two ways: as the failure of a growth economy to grow, or as the success of conscious policies aiming at a SSE. No one denies that when a growth economy fails to grow, the result is unemployment and suffering. The main reason for advocating a SSE is precisely to avoid the suffering of a failed growth economy.” (Daly 1993)

Institutions in a SSE (Daly)

- Stable population
 - Transferable birth licences
 - Immigration policy
- Constant stock of physical artefacts sustained with minimum throughput
 - Depletion quotas
- Just distribution
 - Minimum income
 - Maximum income and maximum wealth