

Consumption problematic; efficiency and rebounds

Dr. Andrius Plepys, IIIIEE



(courtesy Dr. Oksana Mont, IIIIEE)

iiiee the international institute for industrial environmental economics at Lund University

Consumption expansion

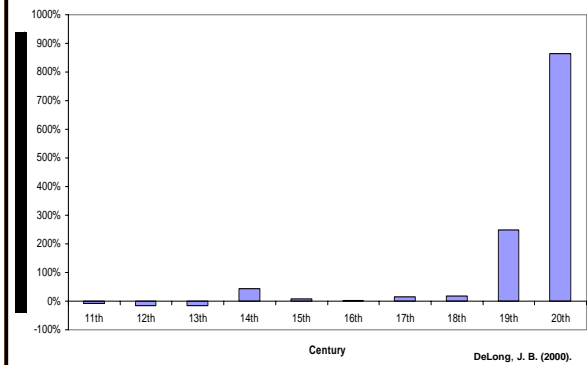
World consumption has expanded at an unprecedented pace over the 20th century, with private and public consumption expenditures reaching \$24 trillion in 1998, twice the level of 1975 and six times that of 1950.

In 1900 real consumption expenditure was barely \$1.5 trillion.



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Growth in Real World GDP per Capita, 1000-Present



20% population use
80% of resources

80% population use
20% of resources



www.FootprintNetwork.org

Supersize Everything!

7-Eleven soda

- 1980: 0.90 kg
- 2000: 1.78 kg

McDonald's French fries

- 1980: 110 g
- 2000: 200 g

Supermarkets

- 1972: 2,200 m²
- 2000: 4,100 m²



from: Dr. Oksana Mont, IIIIEE/LU, Sweden

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Supersize Everything!

Cruise lines

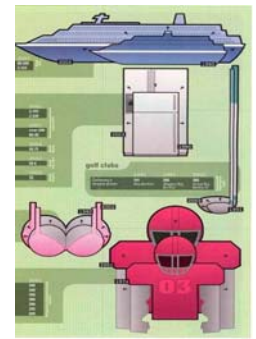
- 1985: 46,052 tons
- 2002: 88,500 tons

Refrigerator width inside

- 1980: 53 cm
- 2002: 78 cm

NFL players: average weight

- 1974: 115 kg
- 2000: 146 kg



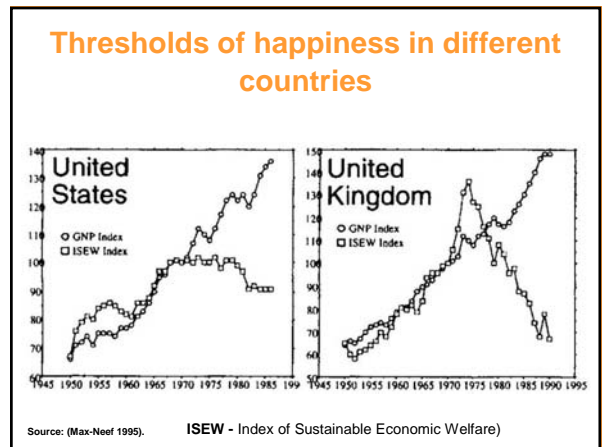
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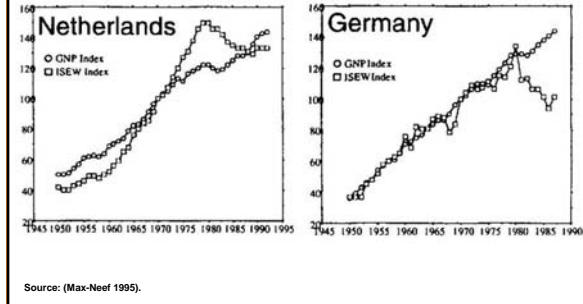
Global annual expenditures on products and investments need for different social goals

Product	Annual spending	Social or economic goals	Investment needed to achieve it
Makeup	\$18 billion	Reproductive health care for all women	\$12 billion
Pet food in Europe and United States	\$17 billion	Elimination of hunger	\$19 billion
Perfumes	\$15 billion	Universal literacy	\$5 billion
Ocean cruises	\$14 billion	Clean water for all	\$10 billion
Ice cream in Europe	\$11 billion	Immunizing every child	\$1.3 billion

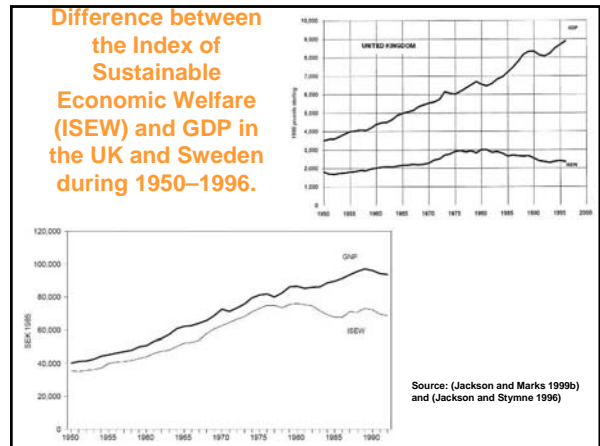
(Worldwatch Institute 2004)



Thresholds of happiness in different countries



Difference between the Index of Sustainable Economic Welfare (ISEW) and GDP in the UK and Sweden during 1950-1996.



Life satisfaction vs. GDP

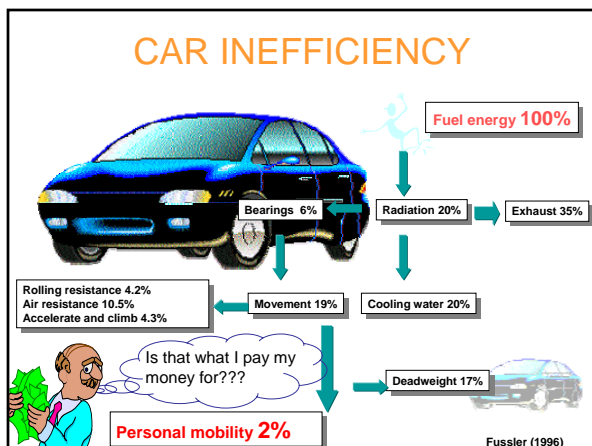


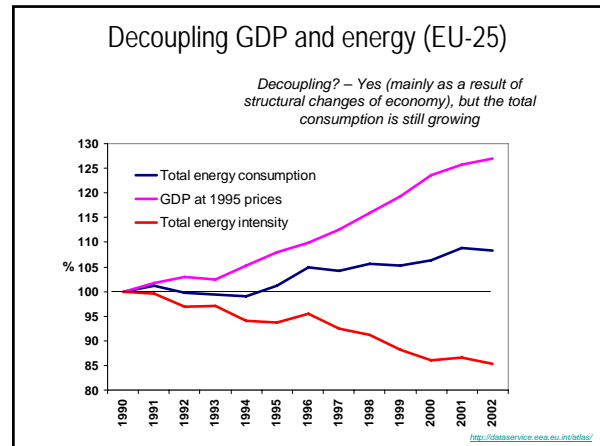
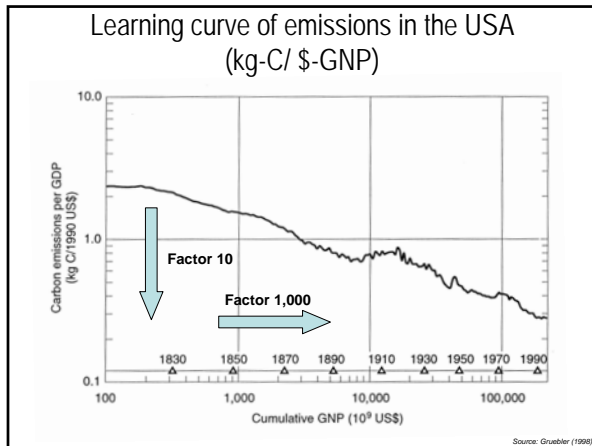
Globalisation challenges



The triangle of globalisation







Is eco-efficiency enough?

'Even if a cargo on a boat is distributed efficiently, the boat will inevitably sink under too much weight, even though it may sink optimally.'

(Daly, 1990)

- ### Drawbacks of eco-efficiency
- Rebound effects:
 - Examples:
 - Light, heating, fuel prices – economic rebounds
 - Refrigerators – increased energy efficiency per volume = bigger fridges
- Source: Oksana Mott (IME/LU)

