The ISEW for the Netherlands
1980-2008

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Outline

- Index of Sustainable Economic Welfare (ISEW)
- Simplifying the ISEW
- The S-ISEW for the EU-15 and the Netherlands
ISEW

- first developed by Herman Daly and John Cobb in 1989
- based on earlier efforts to have an ‘adjusted GDP’
- more recent efforts: GPI, MDP and NWI
- empirical translation of the criticism on GDP
ISEW

• a measure of economic welfare = the contribution of a nation’s economy to the well-being of its citizens

• not a measure of well-being, nor one of sustainability

• looks at costs and benefits of economic activities to determine the optimal physical scale of the economic system
ISEW

• Optimal physical

Threshold Hypothesis (Max-Neef):
“for every society there seems to be a period in which economic growth seems to bring about an improvement in the quality-of-life, but only up to a point - the threshold point - beyond which, if there is more economic growth, quality-of-life may begin to deteriorate.”
Methodology

- $ISEW =$
  - private consumption expenditures (+)
  - welfare losses from income inequality (-)
  - value of household work (+)
  - non-defensive public expenditures (+)
  - defensive private expenditures (-)
  - capital adjustments (+/-)
  - costs of environmental degradation (-)
  - depreciation of natural capital (-)
Methodology

• number of items in the ISEW methodology varies between 20 and 25

• e.g. in the Belgian ISEW study a total of 41 time series of data were needed

• lack of consistency among studies:
  ▸ list of items
  ▸ valuation methods
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A simplified ISEW?

• Would it be possible to reduce the number of items in the ISEW without affecting the outcome too much?

• Benefits:
  ‣ easier compilation
  ‣ highlight items that most urgently need an internationally agreed upon methodology (manual)
A simplified ISEW?

- proposal: omit those items that have low relative importances compared to others
- it was found that 11 items make up most of the ISEW totals in Belgium, the UK and the US (consistent set)
- each of the 8 categories of items is represented by at least one item in the S-ISEW
- important note: historical observations!
## S-ISEW Items

<table>
<thead>
<tr>
<th>S-ISEW =</th>
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<tr>
<td>Private Consumption Expenditures (+)</td>
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<tr>
<td>Welfare Losses from Income Inequality (-)</td>
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<tr>
<td>Value of Household Labour (+)</td>
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<td>Public Expenditures on Health and Education (+)</td>
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<td>Costs of Commuting (-)</td>
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<td>Costs of Air Pollution (-)</td>
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<td>Depletion of Non-renewable Energy Resources (-)</td>
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<td>Costs of Climate Change (-)</td>
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<td>Costs of Ozone Layer Depletion (-)</td>
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<td>Net Capital Growth (+/-)</td>
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<td>Changes in the Net International Investment Position (+/-)</td>
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S-ISEW for EU-15

• work in progress

• initial goals:
  ‣ EU-15: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, the United Kingdom
  ‣ 1980-200?
  ‣ consistent data sets (international agencies)
  ‣ methodology: adapted from Jackson et al, 1997
Preliminary Results

- S-ISEW/capita figures for 12 countries (out of a total of 15)
- (very) limited time frame
- numbers are expressed 2000€/capita
- based on internationally available data
Preliminary Results
Preliminary Results

• similar results as the ones found in the existing ISEW studies in EU-15 countries (Germany, Portugal, ...)

• no (clear) evidence to support the Max-Neef’s ‘Threshold Hypothesis’
S-ISEW Netherlands

- full compilation for the Netherlands
- data gaps: income inequalities, public expenditures on health and education, and air pollution
- CBS data
- 1980-2008
S-ISEW: Methodology

- Private Consumption Expenditures
  - Eurostat

- Value of Household Labour
  - time use: various sources (IATUR)
  - population 15-64: UNEP
  - shadow price: hourly wage rate of cleaning personnel (CPI)
S-ISEW: Methodology

- Income Inequality
  - Atkinson Index (epsilon = 0.8)
  - Income deciles: UNU-WIDER (WDII) + CBS

- Public Expenditures on Health and Education
  - OECD + CBS

- Costs of Commuting
  - Private expenses on transport: OECD
  - % for commuting
S-ISEW: Methodology

• Costs of Air Pollution
  ‣ emissions of pollutants: UNEP + regression
  ‣ MSC estimates: Jackson et al, 1997

• Depletion of Non-Renewable Resources
  ‣ TPES (non-renewable): OECD and UNEP
  ‣ replacement costs: Daly and Cobb, 1989
S-ISEW: Methodology

• Costs of Climate Change
  ‣ cumulative emissions since 1900: WRI
  ‣ MSC estimate: Cobb & Cobb, 1994 + time-dependent

• Costs of Ozone Layer Depletion
  ‣ emissions: own calculations (EU average or country-specific)
  ‣ MSC estimate: Jackson et al, 1997
S-ISEW: Methodology

• Net Capital Growth
  ‣ gross fixed capital formation and consumption of fixed capital: OECD

• Changes in the Net International Investment Position (NIIP)
  ‣ assets and liabilities (IIP): OECD
Results
Results

![Graph showing the trend of cancelled benefits and costs over time. The graph indicates a steady increase in both categories, with cancelled benefits generally surpassing cancelled costs.]}
Positive Items

The graph depicts the trends of various economic indicators from 1980 to 2008:
- **Private Consumption** (blue line)
- **Household Labour** (red line)
- **Public Expenditures** (green line)
- **Net Capital Growth** (purple line)

Key observations:
- Private Consumption shows a steady increase over the years.
- Household Labour has fluctuated but generally increased.
- Public Expenditures have seen a significant rise, especially after 2000.
- Net Capital Growth has been volatile, showing peaks and troughs.

The trends suggest an overall economic growth with notable public spending and private consumption increases.
Negative Items

![Graph showing trends in different negative items over time. The x-axis represents years from 1980 to 2008, and the y-axis represents a scale from 0 to 400. The graph includes lines for Income Inequality, Commuting, Air Pollution, Natural Capital Depletion, Climate Change, and Ozone Layer Depletion. Each line shows a different trend for each item.](image)
Thank you!

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