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# An alternative for GDP

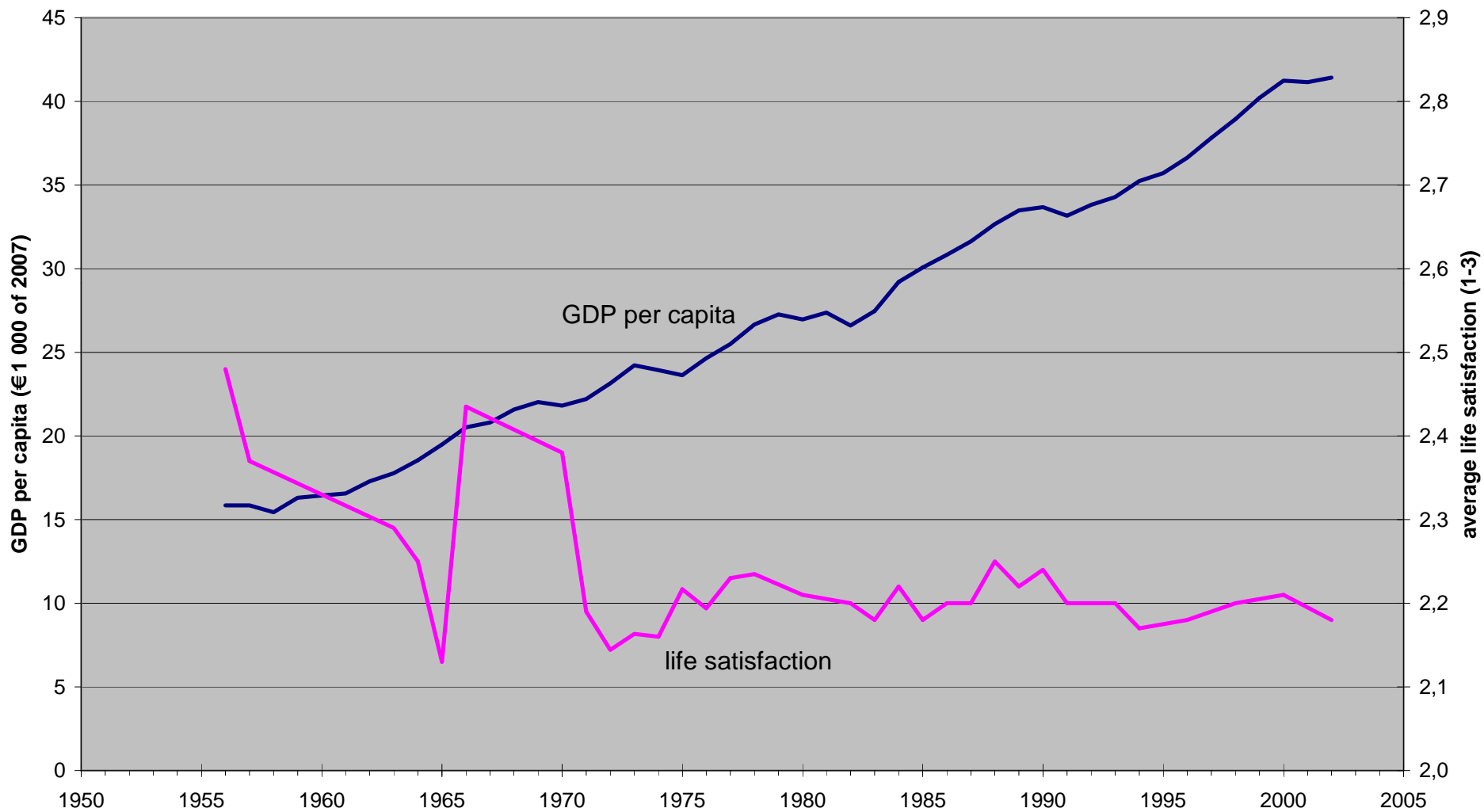
Paul de Beer

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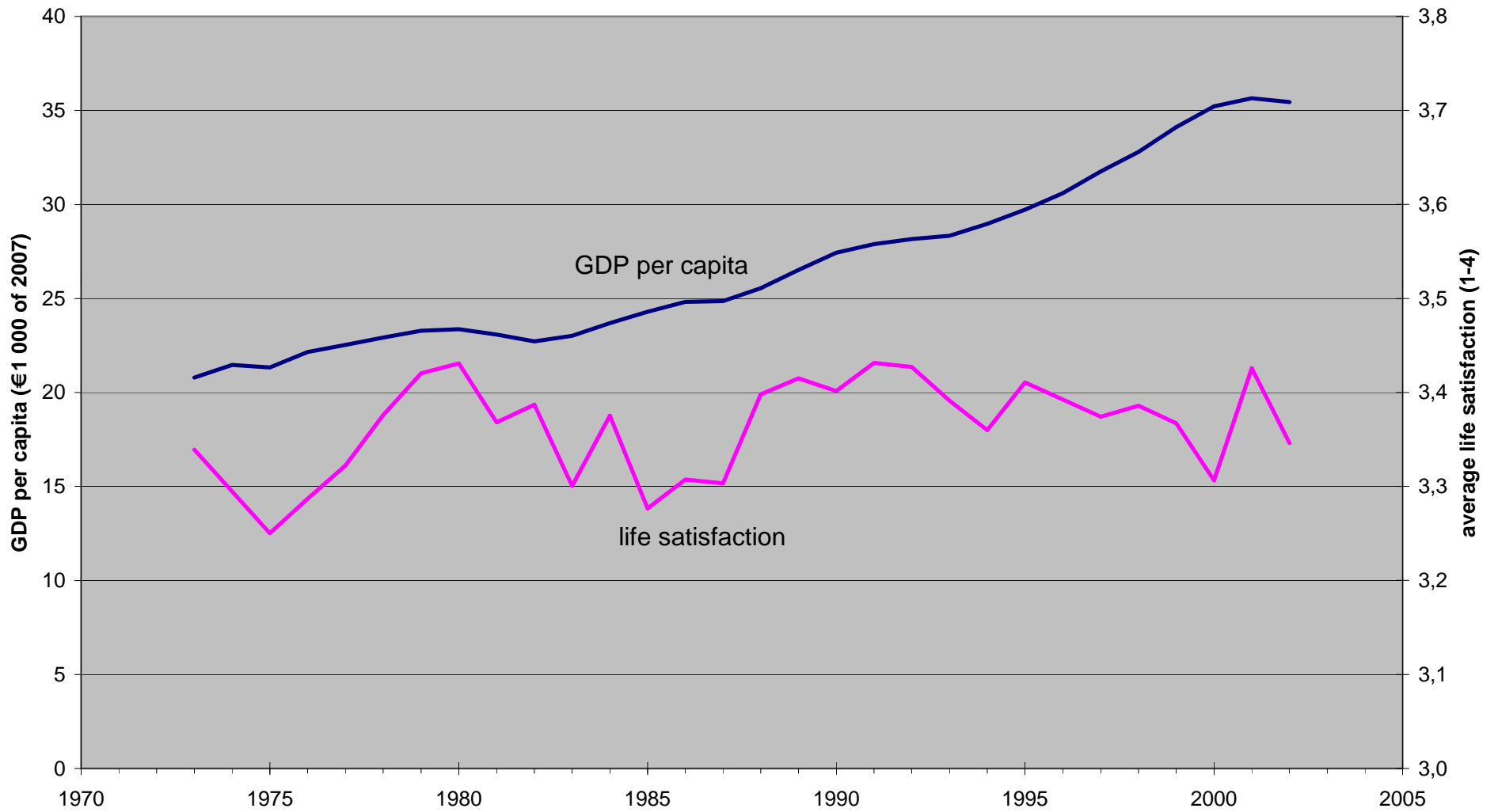
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## GDP per capita and life satisfaction in the USA, 1956-2002



## GDP per capita and life satisfaction in the Netherlands, 1973-2002



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# Two indicators needed

1. Sustainability index
2. Quality of life index

Index 1 is a constraint

Index 2 is a goal (to be maximized)

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# Quality of life index

- Based on the capability approach of Amartya Sen and Martha Nussbaum
  - See also: Ingrid Robeyns and Robert J. van der Veen (2007), *Sustainable quality of life*, MNP Report 550031006/2007, <http://www.mnp.nl/en/publications/2007/Sustainablequalityoflife.html>
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# Criteria for the quality of life index

- objective factors that affect people's capabilities (not: subjective well-being, satisfaction, happiness)
  - sensitive to (government) policies
  - comparable between countries
  - comparable over time and available annually
  - covers domains that are generally acknowledged as vital
  - comprehensible for the general public
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# Vital life domains

1. physical integrity and well-being
2. material well-being
3. access to public services
4. civic participation
5. leisure
6. quality of living environment

N.B. Nussbaum distinguishes 10 domains, Robeyns & Van der Veen 13 domains

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# Suggestions for implementation (1)

1. *physical integrity and well-being:*

100% - incidence of serious diseases, handicaps, accidents, victim of crime, imprisonment

2. *material well-being:*

average standardized disposable income in purchasing power parities (PPP)

3. *access to public services:*

percentage of GDP spent on education, health care, public transport, housing and culture

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## Suggestions for implementation (2)

4. *civic participation:*

percentage of population aged 20-65 that has a paid job + percentage of population aged 20 and over that does voluntary work

5. *leisure:*

average number of leisure hours per week for the population aged 20-65

6. *quality of living environment:*

country side as percentage of total land area + index for air quality + index for water quality

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# Calculation of the overall index

## First year:

- Calculate normalized Z-score for each domain (mean = 0, standard deviation = 1)
- Calculate average score over all domains
- Calculate list of ranking for general use

## Consecutive years:

- Calculate domain scores relative to mean and standard deviation in year 1
  - Calculate average score over all domains
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