



Stockholm+50

A healthy planet for the prosperity of all
– our responsibility, our opportunity

2 - 3 June 2022

WORLD ENVIRONMENT DAY

JUNE 5

ONLY ONE EARTH

**In the universe are billions of galaxies,
In our galaxy are billions of planets,
But there is Only One Earth.**

**It's time for bold choices.
It's time for urgent action.
It's time for a better future on a healthy planet.**

**Where will you be
in 50 years from now?**

**What will our planet Earth look like
in 50 years from now?**

- **Which is your responsibility?**



SVENSKA ARALSJÖSÄLLSKAPET

Swedish Aral Sea Society



13. The dilemma of our economic system

Lars Rydén
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Uppsala University

For Uzbekistan by Karakalpak State University and SASS
Master Course on Sustainable Development and Sustainability Science
Spring 2022

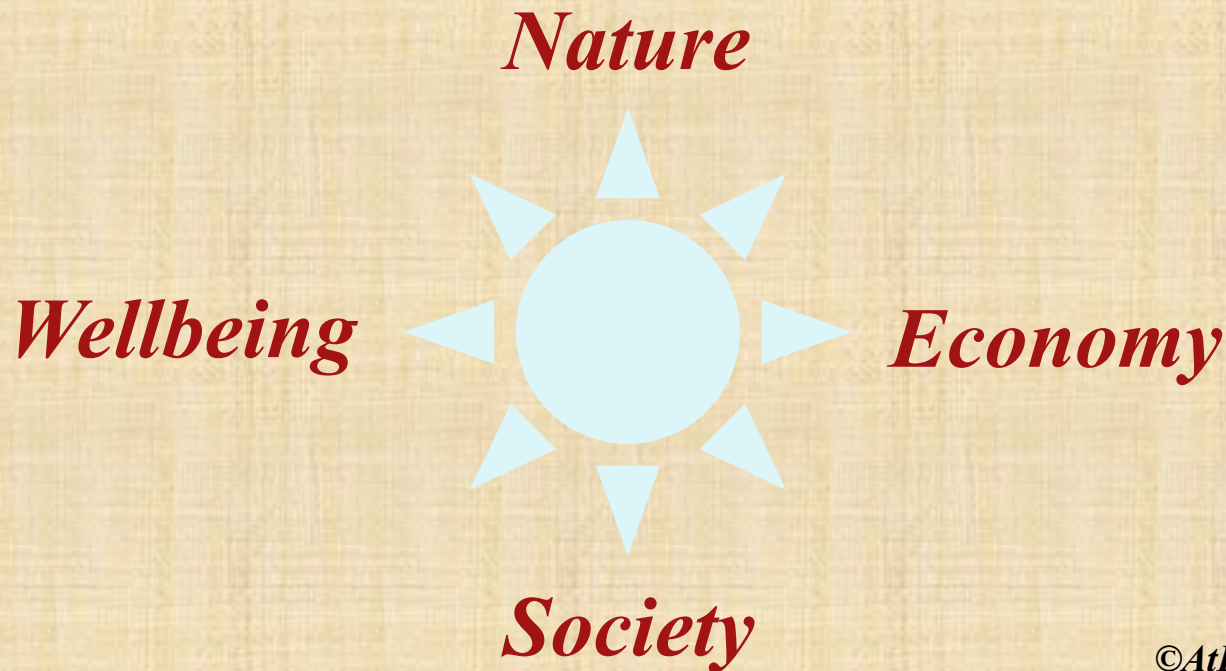
The frames of the system

- The classical system description with **3 dimensions** - ecological, social and economic dimensions, **the triple bottom line**.
- The compass with **4 dimensions**, is better, especially for the social dimension.

The Compass:

A Sustainability Framework

Alan AtKisson, 2004



©AtKisson, Inc.

Uses: Introduce sustainability ... assess it ...
develop sustainability indicators ... communicate results ...



Private property



Limited government



Freedom of choice



Motive of self-interest



Competition



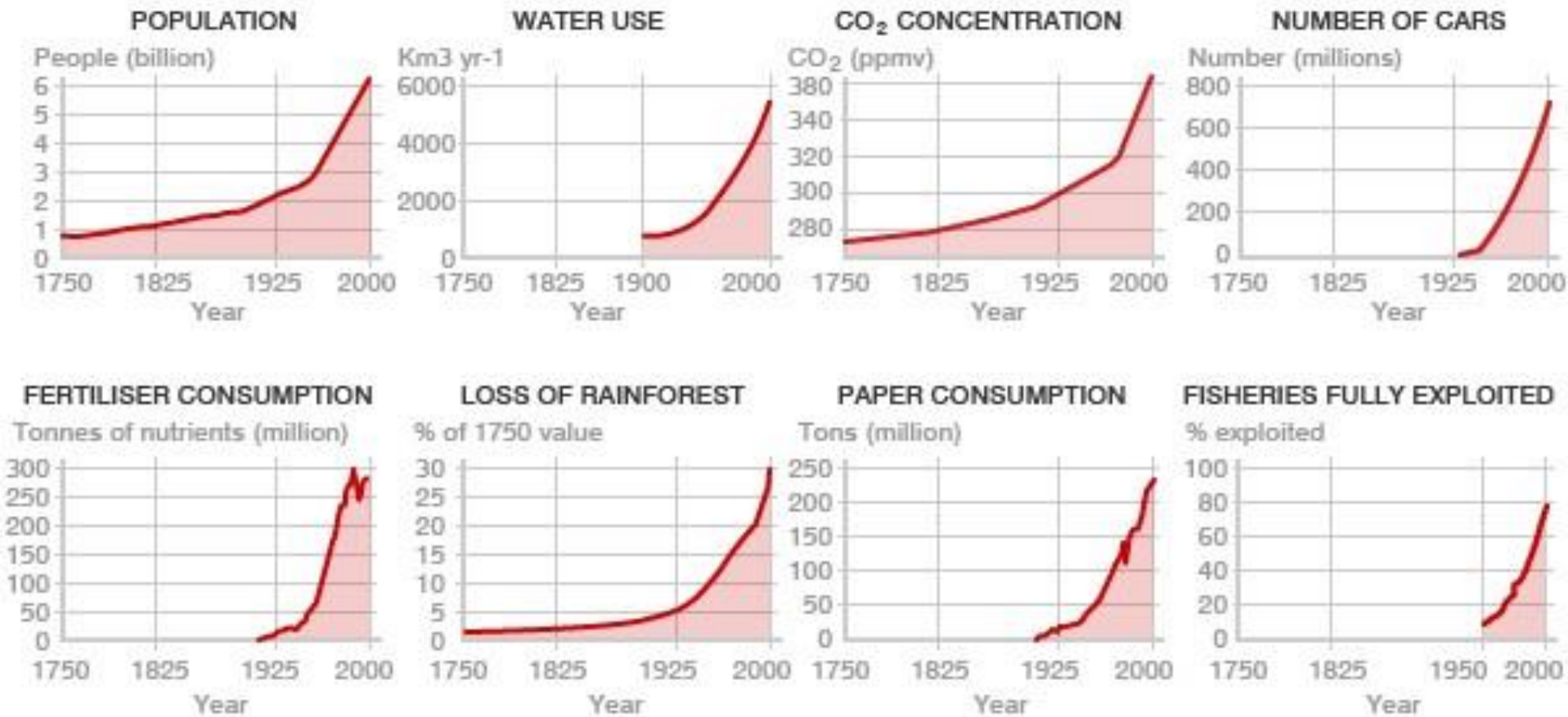
System of markets and prices

CHARACTERISTICS OF A MARKET ECONOMY

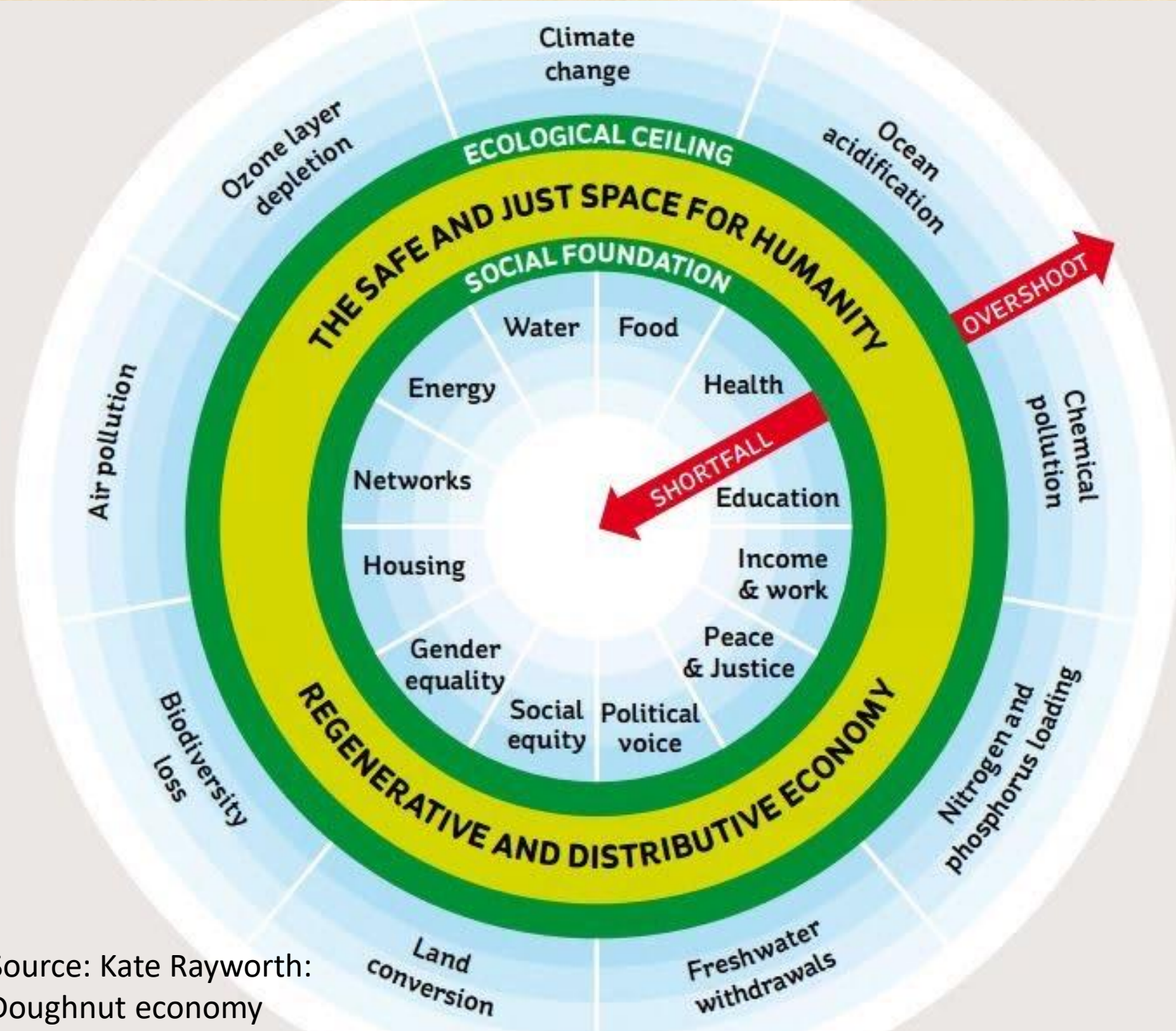
Economic growth

- The economy in the world, as GDP, has increased ca 14 times from 1900 to 2000, and is still increasing.
- BNP per capita has increased ca 4 times during this period.
- The increase is measured in procent. In absolute terms 3 % means a doubling after 24 years (exponential growth).
- Economic growth has been and still is the most important policy in all countries since (about) 1950s.
- Economic growth is strongly correlated with flow of resources, both for products and services.

Exponential Growth



SOURCE: International Geosphere-Biosphere Programme (Steffen et al 2004)

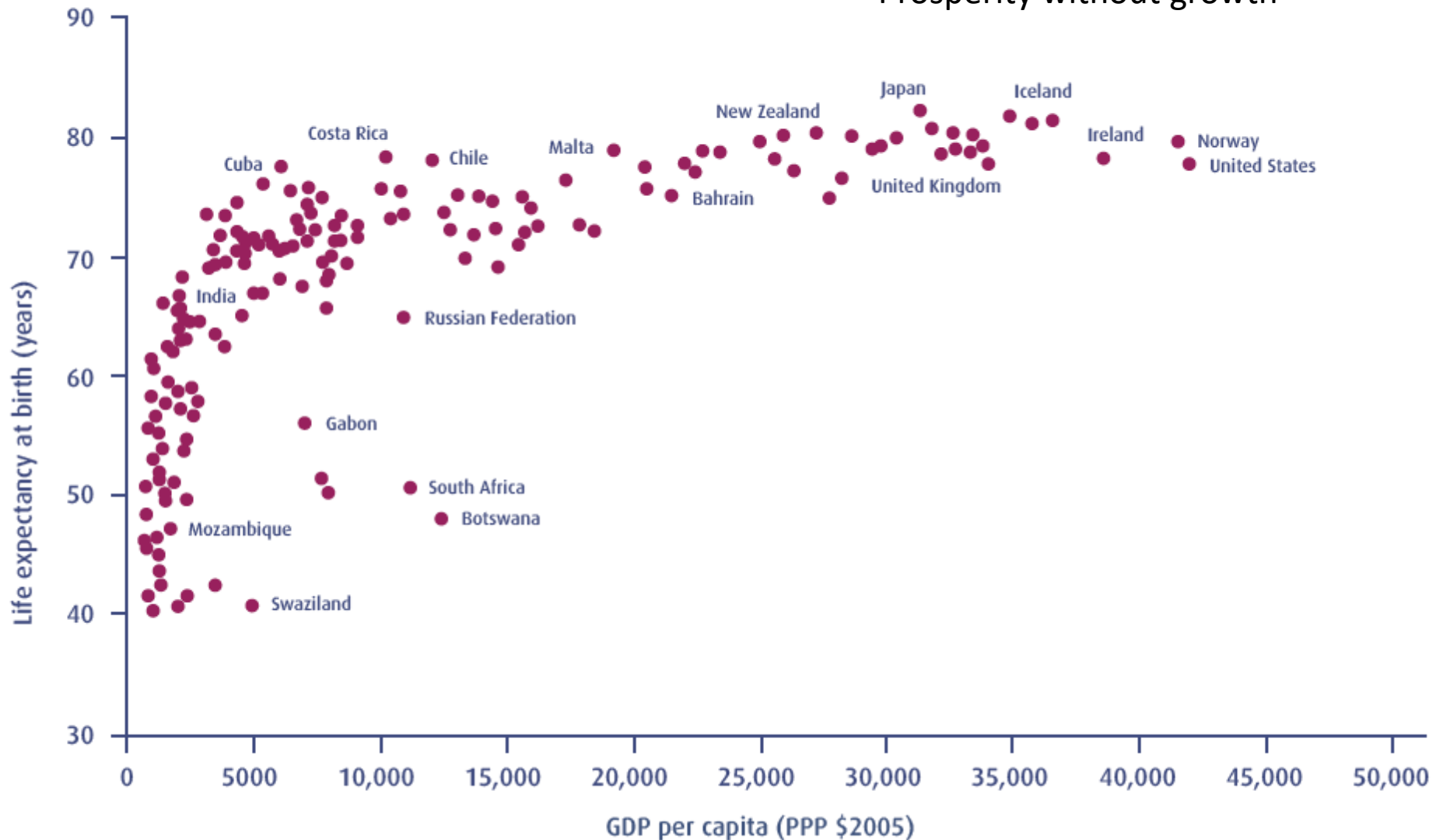


Source: Kate Rayworth:
Doughnut economy

Life expectancy vs income

Figure 8 Life expectancy at birth vs average annual income¹⁶

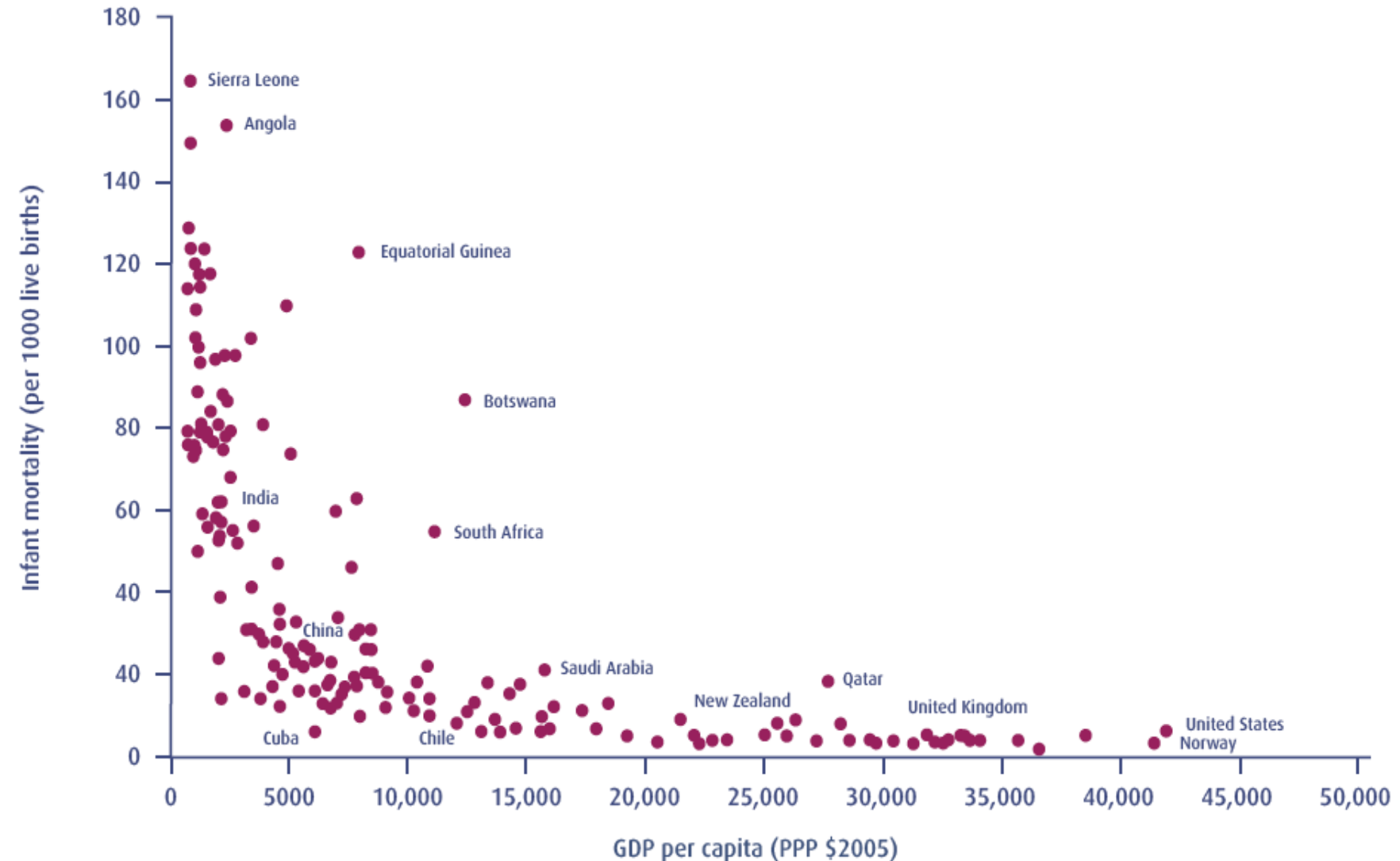
Source: Tim Jackson
Prosperity without growth



Infant mortality vs income

Figure 9 Infant mortality vs per capita income¹⁷

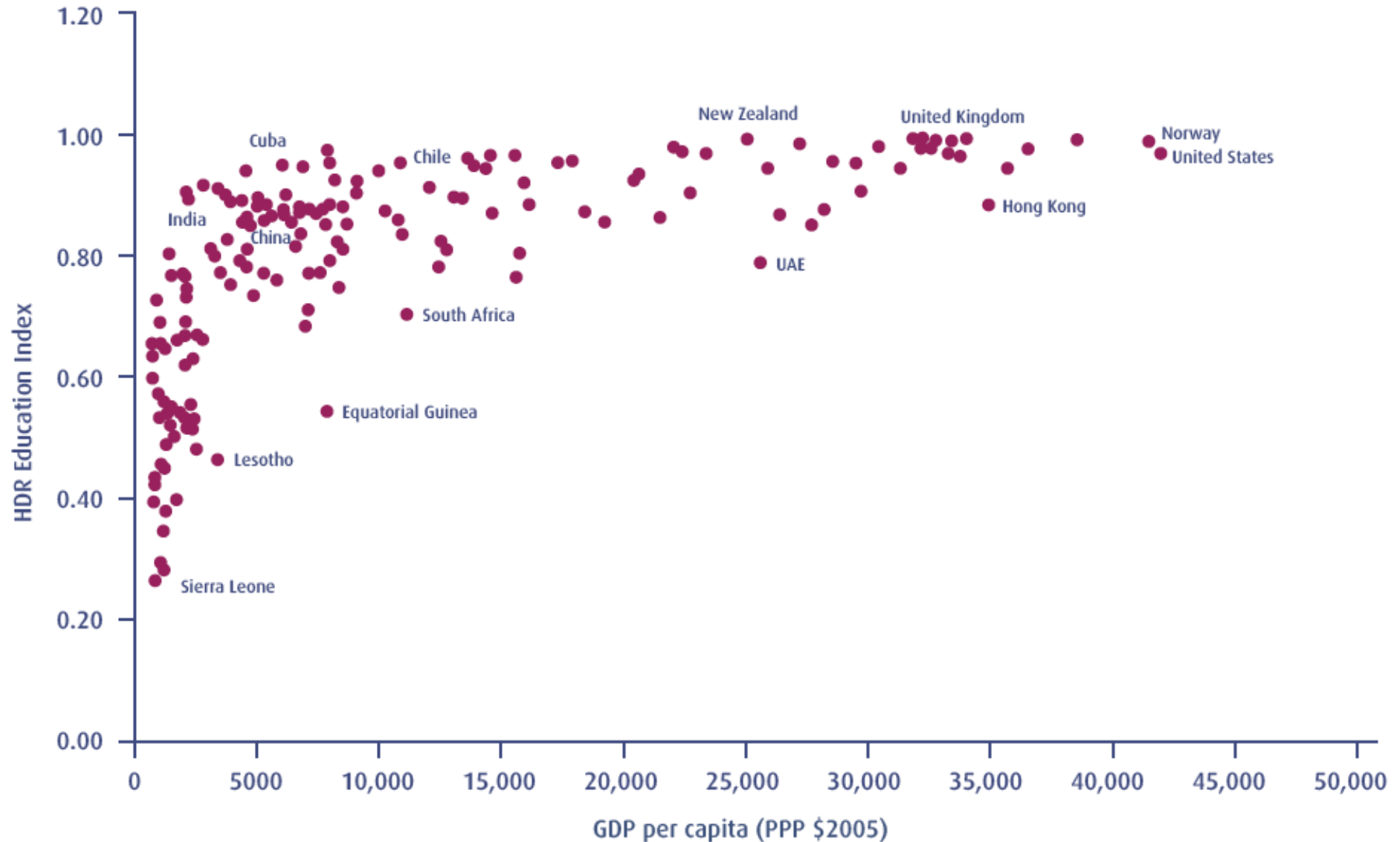
Source: Tim Jackson Prosperity without growth



Education vs income

Figure 10 **Participation in education vs income per capita**¹⁸

Source: Tim Jackson
Prosperity without growth



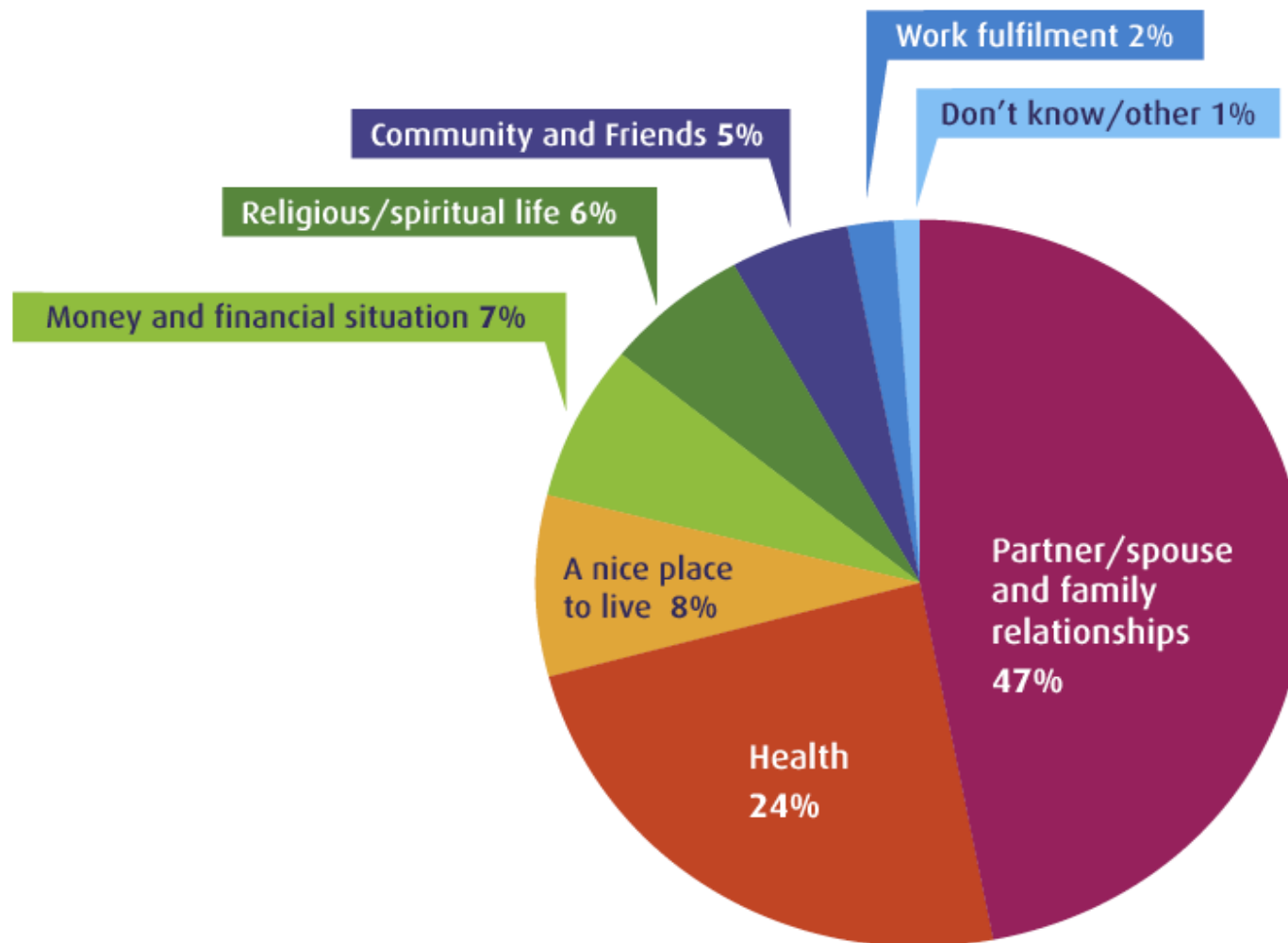
Happiness vs income

Figure 6 **Happiness and average annual income**¹⁵

Source: Tim Jackson Prosperity without growth



Figure 5 **Factors influencing subjective wellbeing (happiness)**⁷



Source: Tim Jackson Prosperity without growth

**Why then do
we want to be
richer instead
of happier?**

How to measure the progress of a country?

- Today GDP (Gross Domestic Product) is the norm. But it only measures the total economic activities, good as well as bad.
- We need a measure of welfare, happiness or development.
- Examples include Genuin Progress Indicator, Social Development Index, others.

World Happiness Report 2022

<https://worldhappiness.report/>

- Trends in Conceptions of Progress and Well-Being
- Chapter three of the World Happiness Report 2022 surveys the growing interest in the measurement and understanding of happiness and what makes societies happy. Interest in happiness and subjective well-being is rising, while interest in income and consumption is falling.
- Where is Uzbekistan in the report?

Dimensions of development

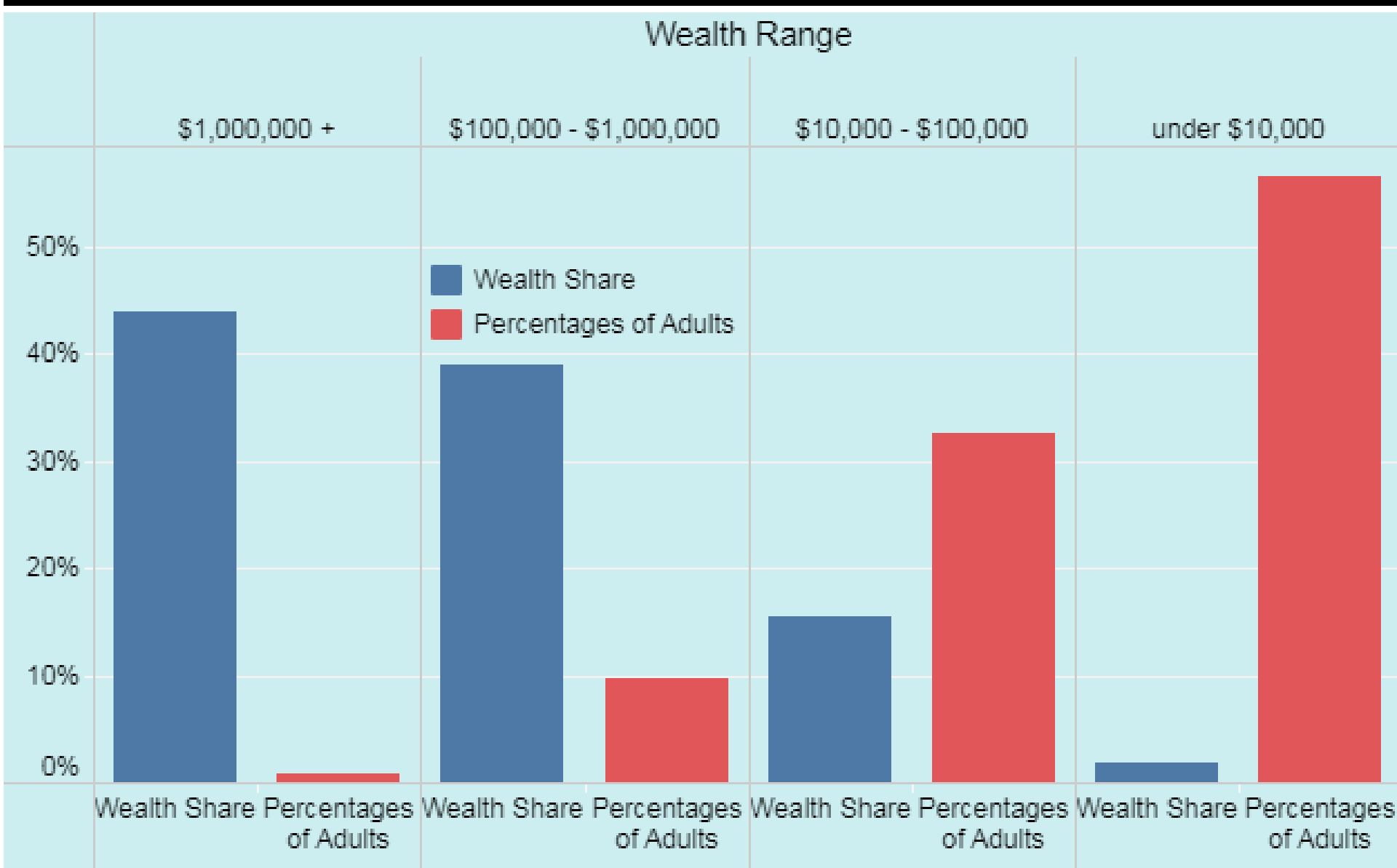
Dimensions	Means	Goals
Human rights	+	+++
Environment	+	++
Governance	++	+
Economic growth	+++	0
Education	++	+
Health	+	++
Culture	+	+++

Unequal Wealth distribution

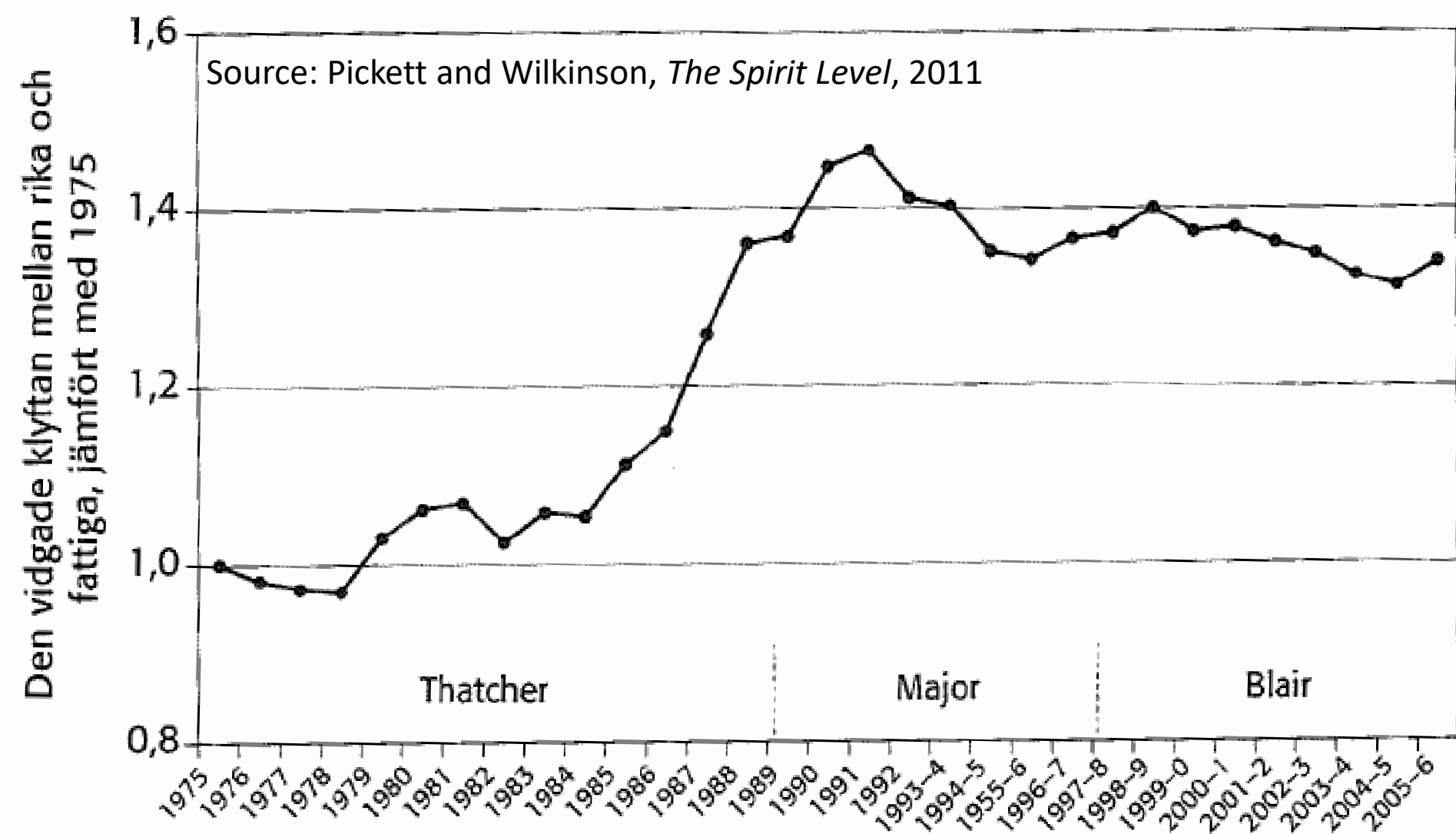
- The richest 1% owned 40% of global assets in the year 2000 (*World Institute for Development Economics*)
- The wealthiest 1% owns 46% of the world's wealth (*Los Angeles Times*).
- A January 2014 report by claims that the 85 wealthiest individuals in the world have a combined wealth equal to poorest 3.5 billion people (*Oxfam*).

The Richest 1% Own 44% of the World's Wealth

Global adult population and share of total wealth by wealth group, 2019



Sources: Credit Suisse Global Wealth Report, 2019

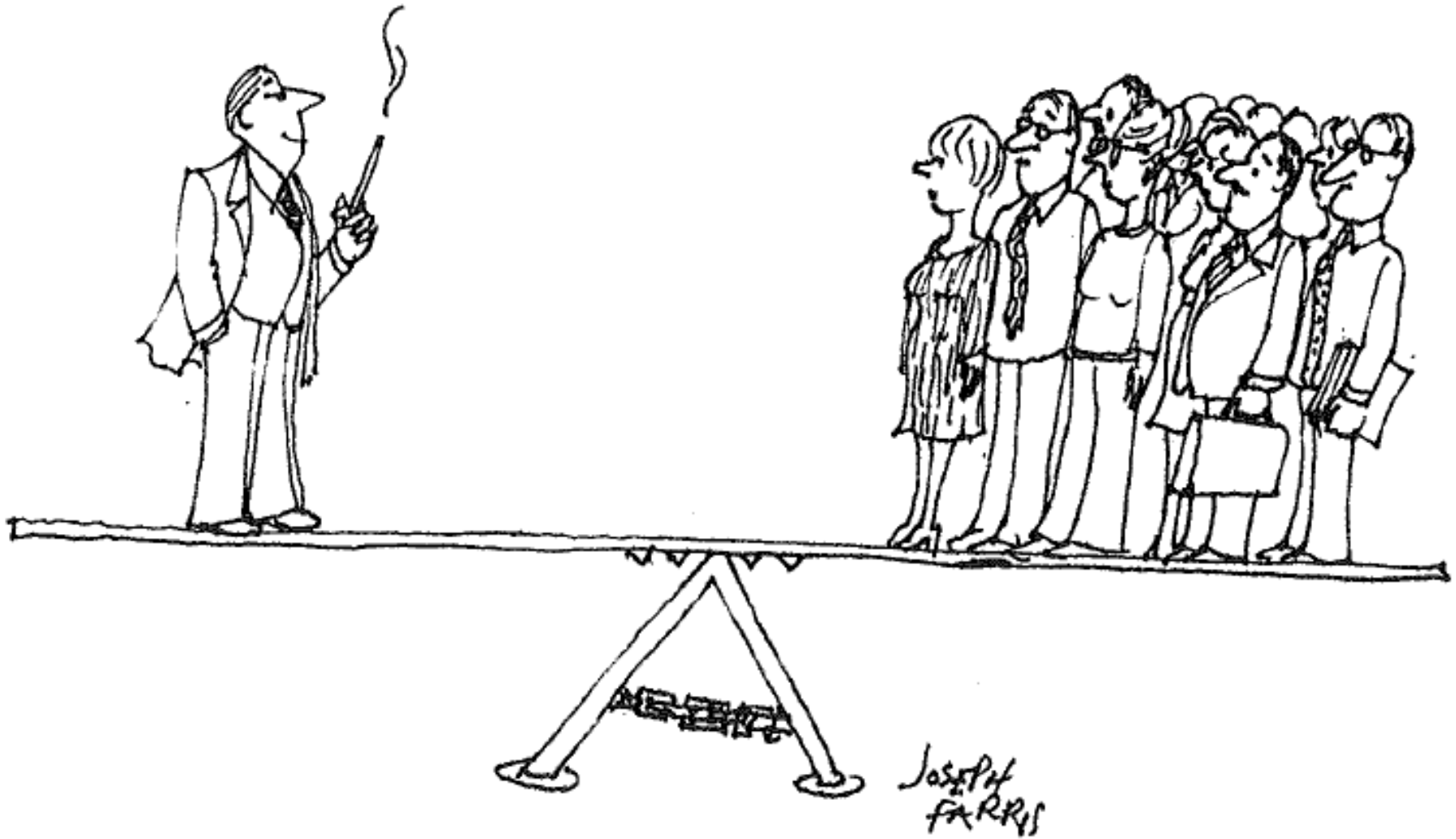


FIGUR 16.1. Den växande klyftan mellan inkomsterna för de rikaste och fattigaste tio procenten i Storbritannien från 1975 (= 1) till 2005-2006.

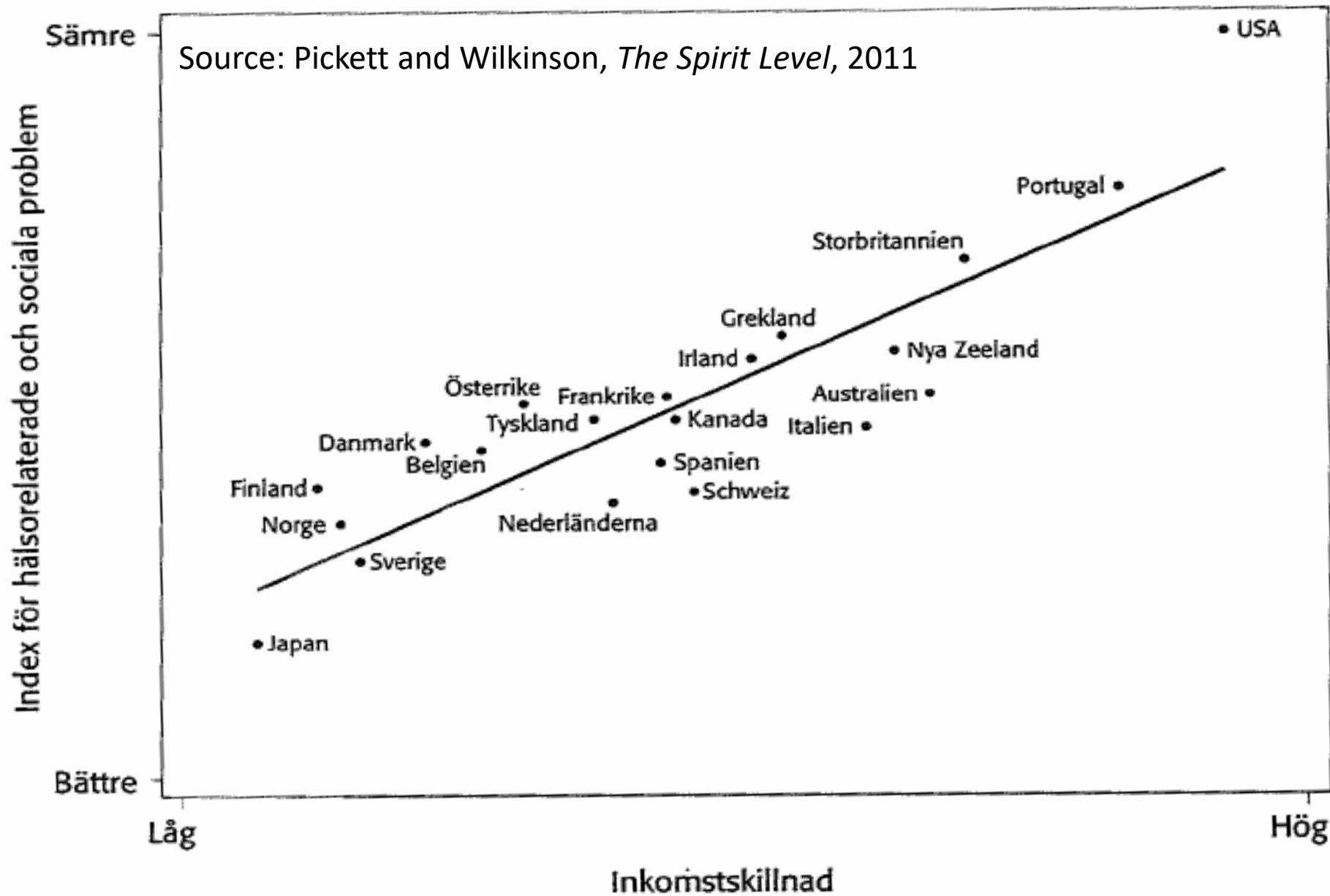
“The neoliberal projektet”

(Ross Jackson, 2012)

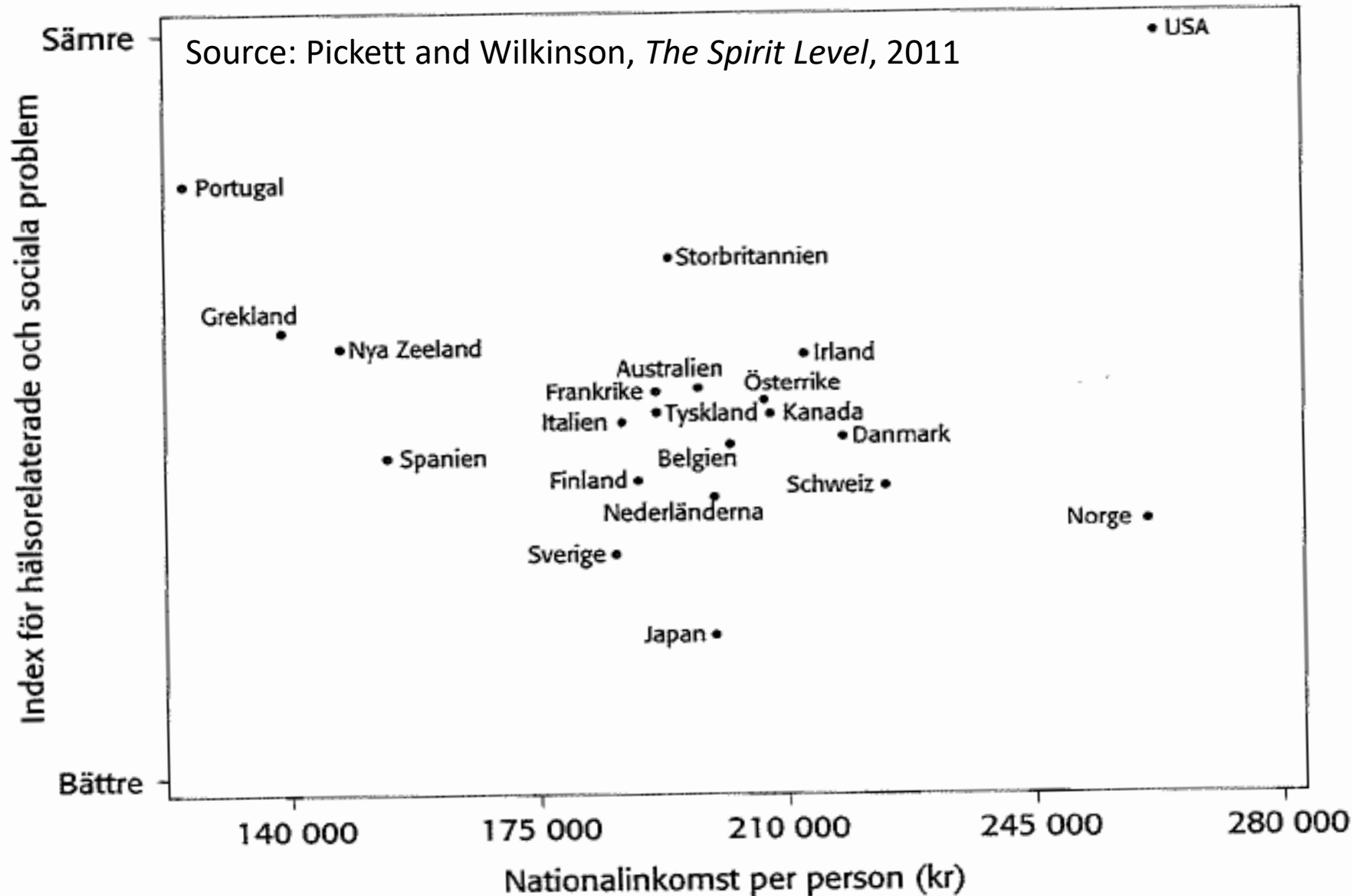
- Started with Margret Thatcher and Ronald Reagan 1980.
- Supports big business with deregulation, reduced taxes and privatisation.
- Leads to increased consumption and a loan-based economy, as well as uneven distribution of income and wealth.
- Leads to requirements of increased progress marginals and short term economy.
- Banks: trading with derivatives and speculation economy



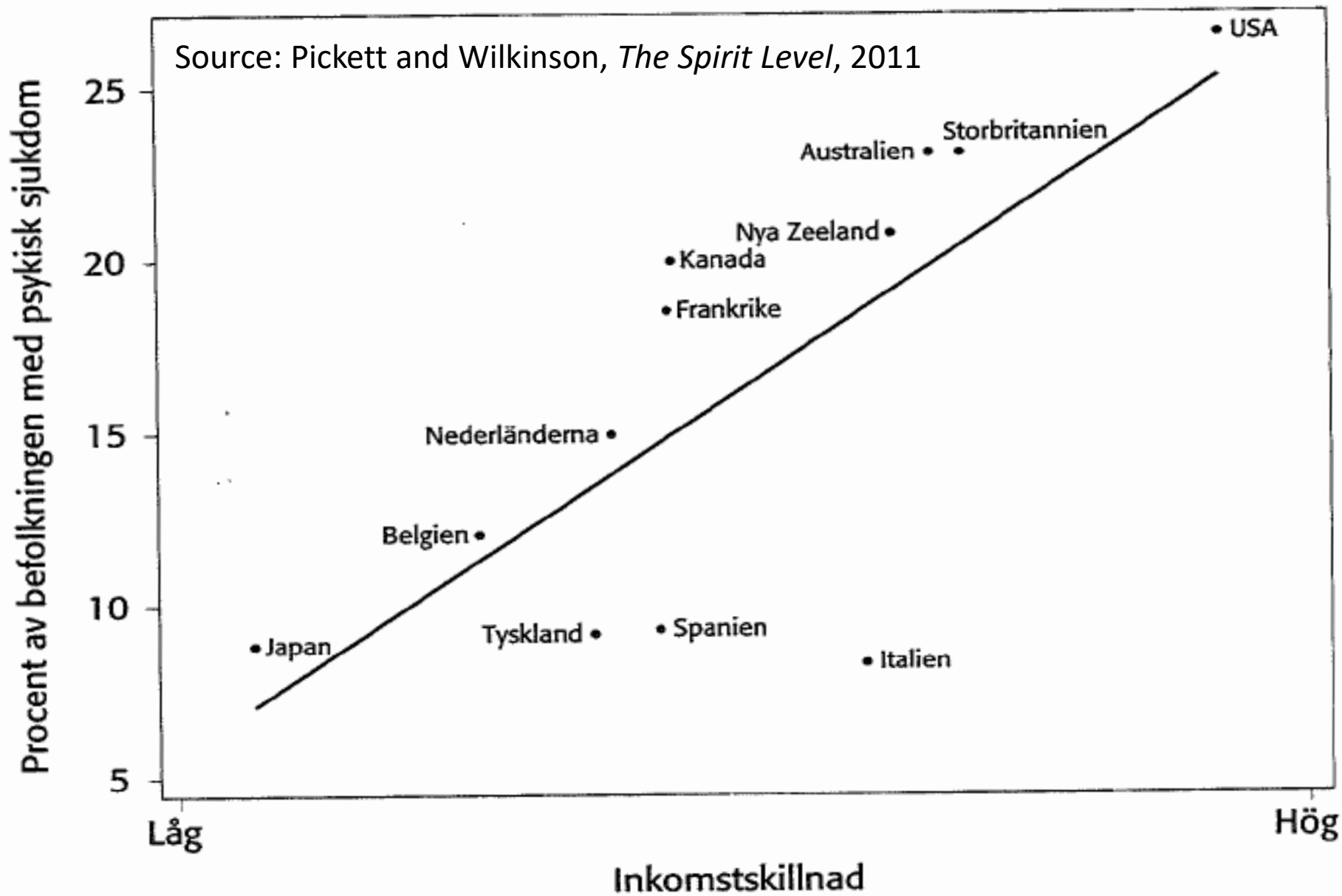
Source: Pickett and Wilkinson, *The Spirit Level*, 2011



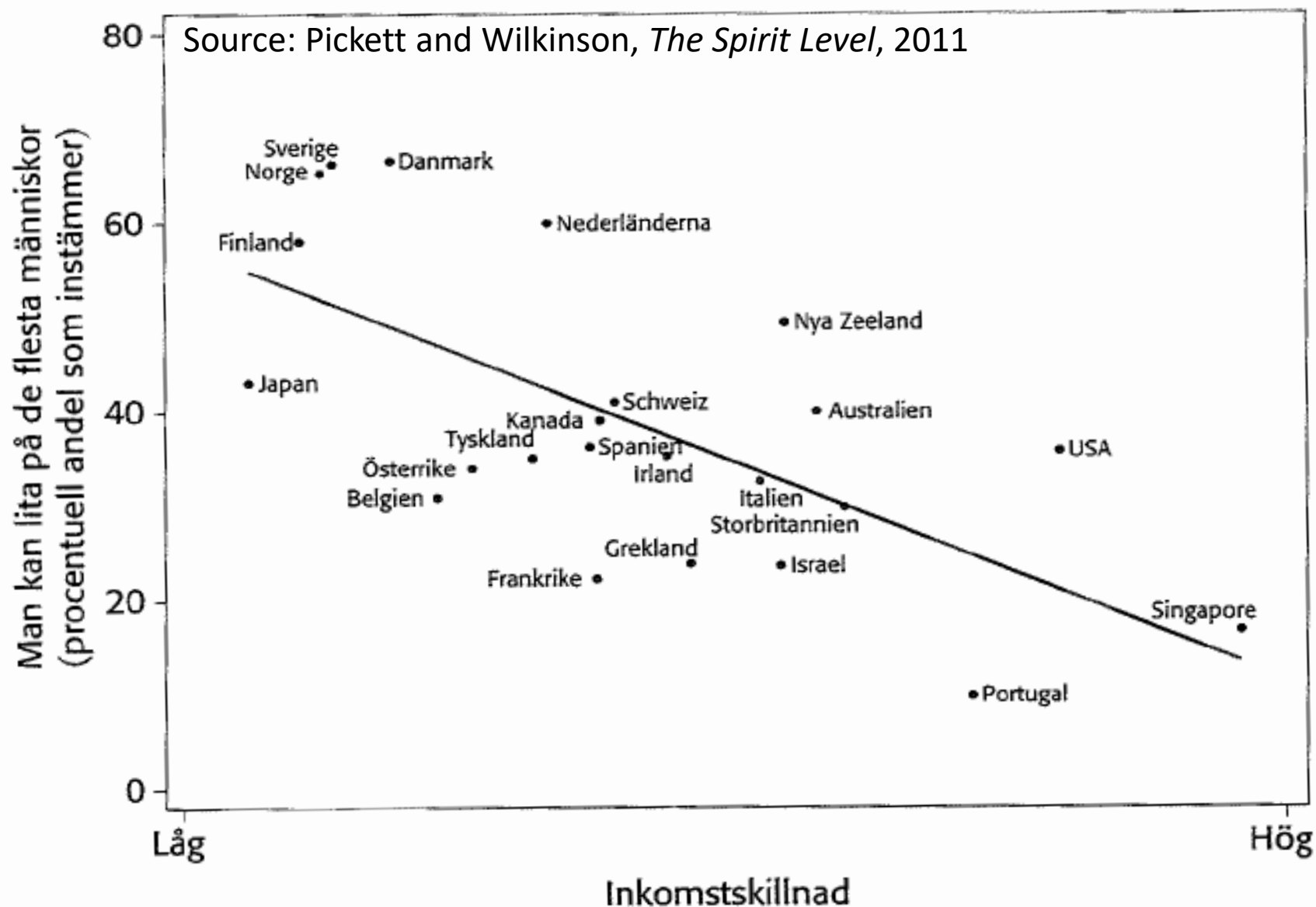
FIGUR 2.2. Bland rika länder har hälsorelaterade och sociala problem ett nära samband med ojämlikhet.



FIGUR 2.3. Hälsorelaterade och sociala problem har endast ett svagt samband med den genomsnittliga nationalinkomsten per person bland rika länder.



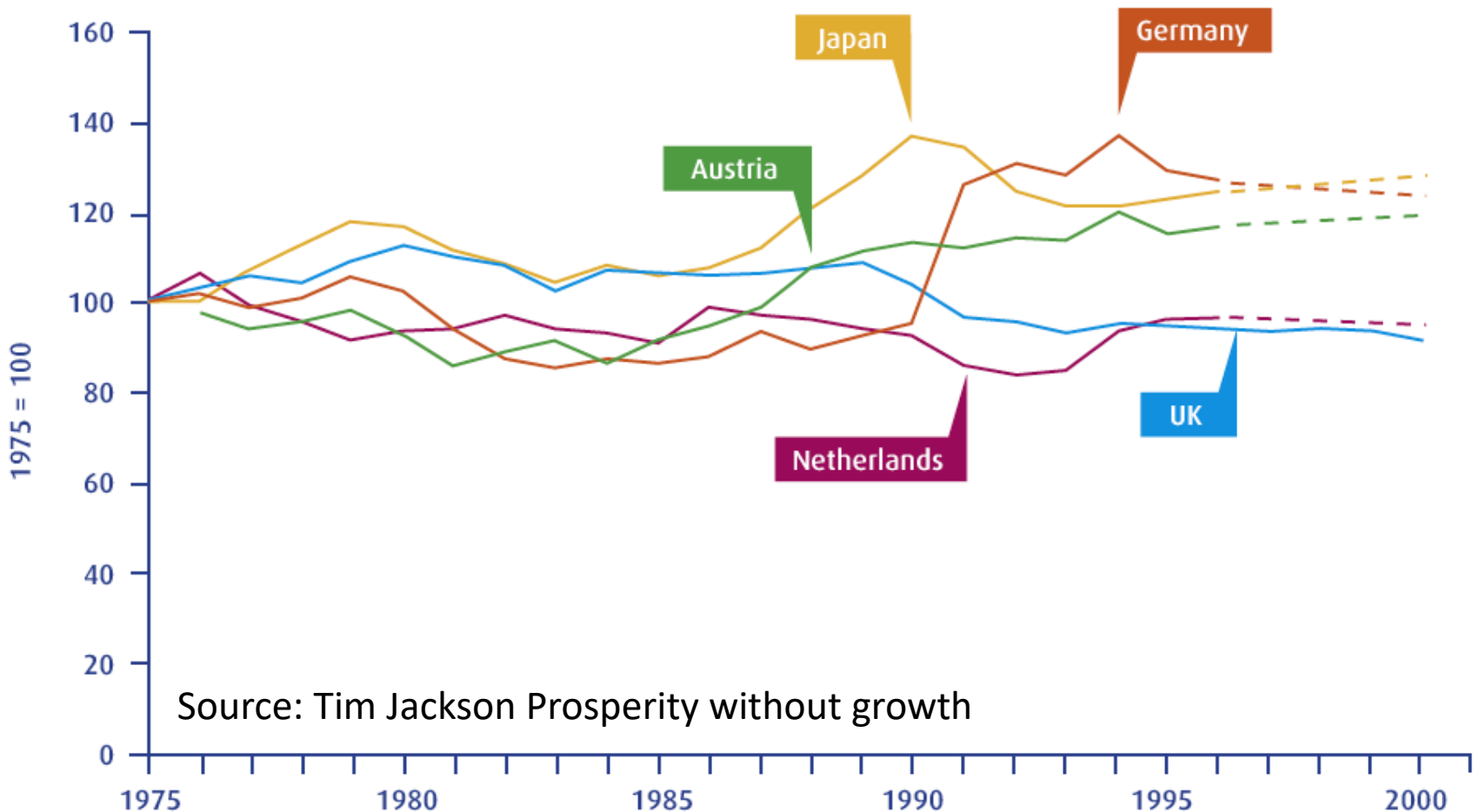
FIGUR 5.1. I mer ojämlika länder lider fler av psykisk ohälsa.



FIGUR 4.1. I mer jämlika länder är andelen som instämmer i att "man kan lita på de flesta människor" högre.

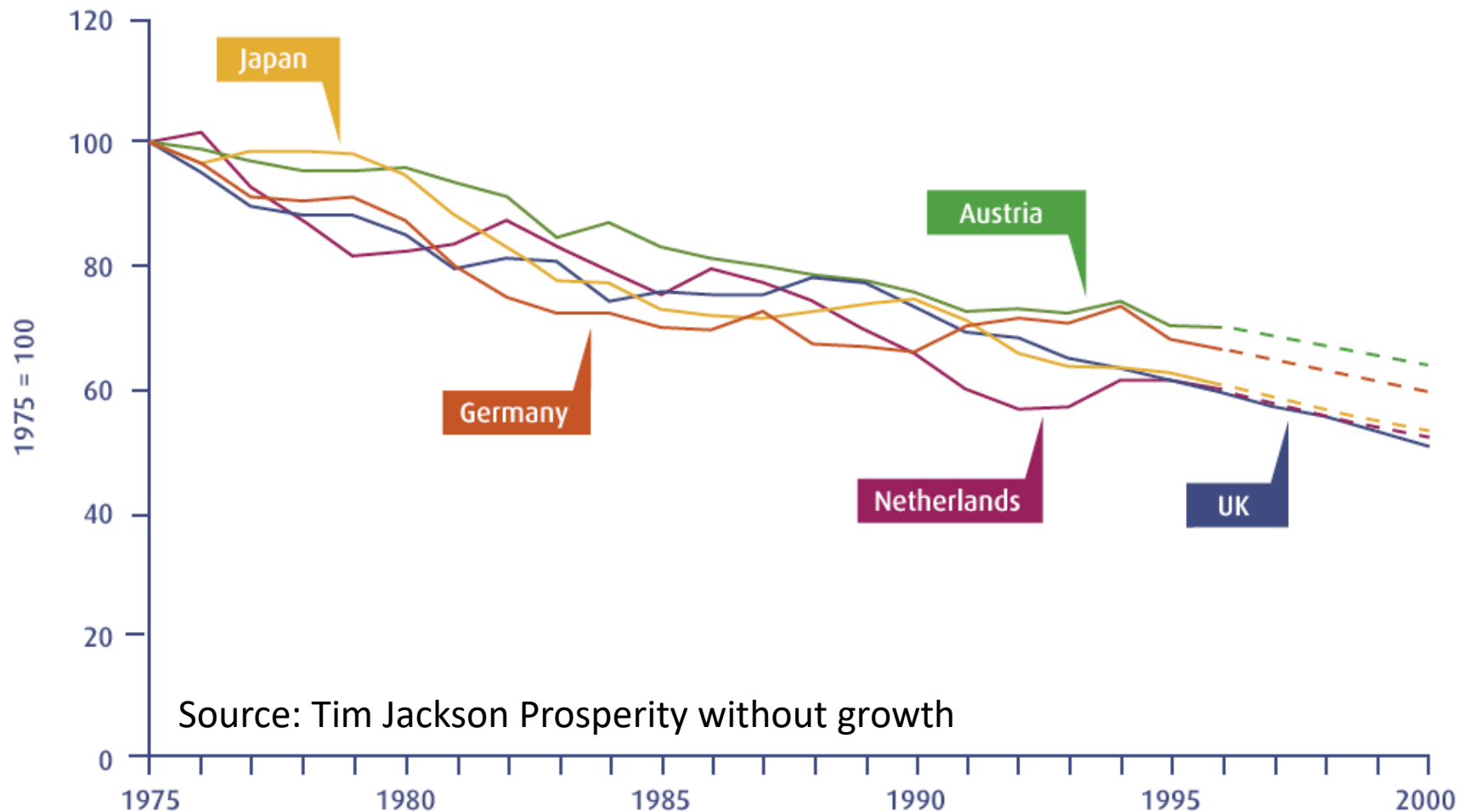
Decoupling ?

Figure 15 **Direct Material Consumption in OECD Countries: 1975–2000**¹⁰



Relative decoupling

Figure 12 **Relative Decoupling in OECD countries 1975–2000**⁷



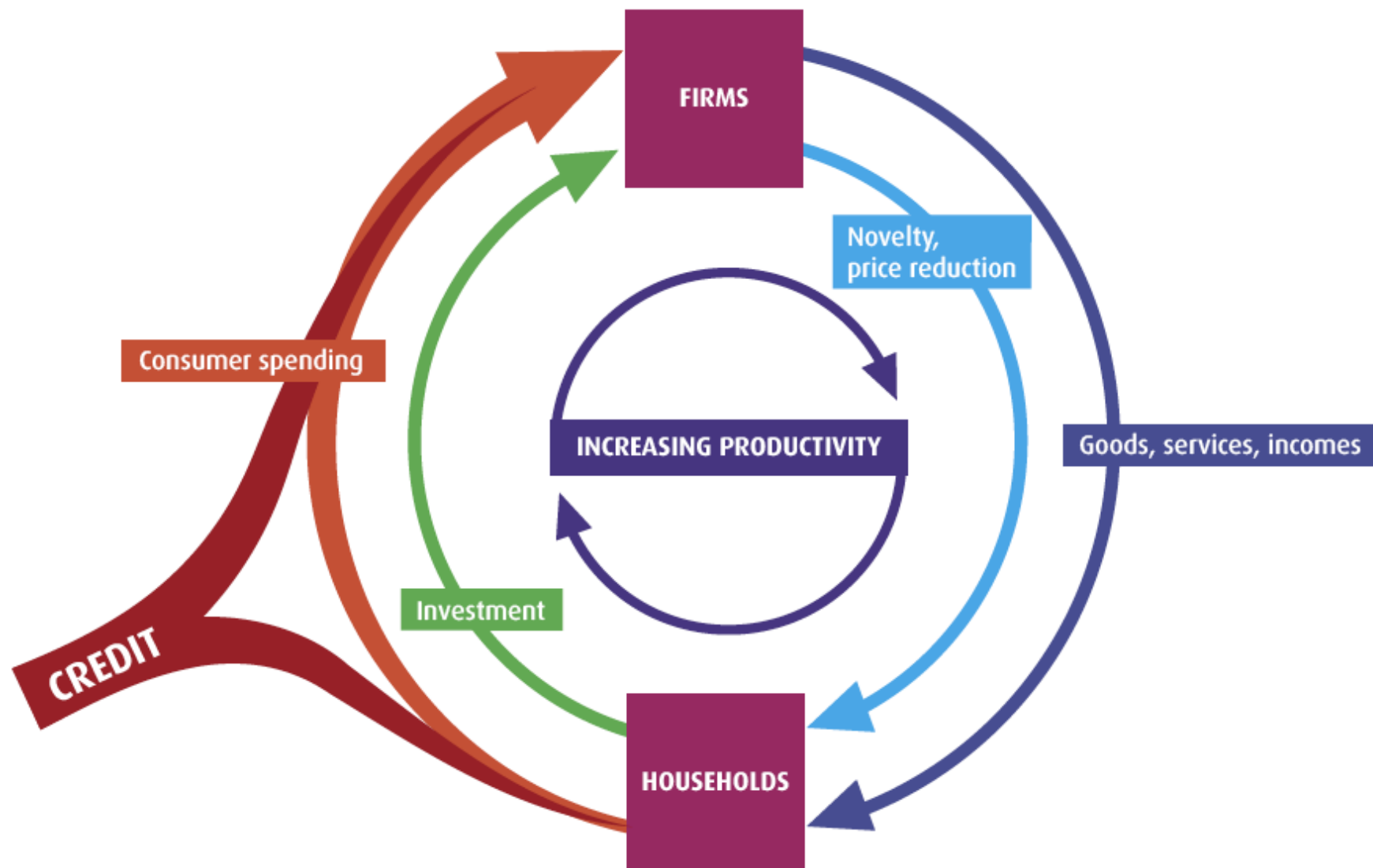
The rebound effect

Relative decoupling is counteracted by a fast increase in consumption.

Absolute decoupling we did not see so far.

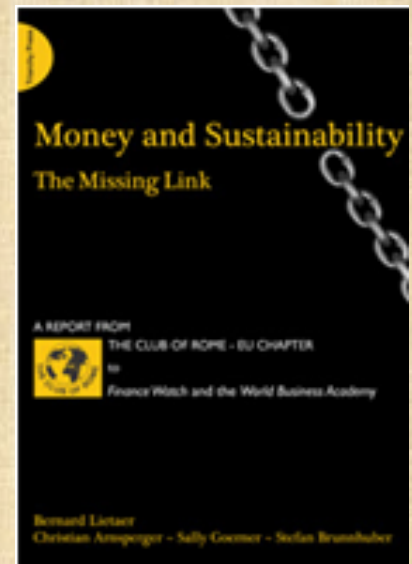
Figure 18 **The 'Engine of Growth' in Market Economies**

Source: Tim Jackson
Prosperity without growth



Our financial system is incompatible with sustainability in several ways

1. It causes boom and bust cycles in the economy
2. It produces short-term thinking
3. It requires unending growth
4. It concentrates wealth
5. It destroys social capital
6. It is 98% speculative
7. It lacks monetary diversity



<http://www.clubofrome.org/cms/wp-content/uploads/2012/05/Money-and-Sustainability-the-missing-link-Executive-Summary.pdf>

Between 1970 and 2010 there were 145 banking crises, 208 monetary crashes and 72 sovereign-debt crises-in other words, a staggering **total of 425 systemic crises**. These crises have hit more than 150 countries.

‘Discounted cash flow’ is standard practice in any investment evaluation. Because **bank-debt money carries interest**, the discounting of all future costs or incomes inevitably leads to short-term thinking.

The process of compound interest or interest on interest imposes **exponential growth** on the economy. Yet exponential growth is unsustainable in a finite world.

The middle class is disappearing worldwide, with **wealth flowing to the top and increasing poverty at the bottom**. It generates social problems are detrimental to economic growth and democracy.

Social capital is built on mutual trust and results in collaborative action, but money tends to promote **selfish and non-collaborative behaviours**.

In 2010, the volume of foreign exchange transactions reached \$4 trillion *per day*. One day’s exports or imports of *all* goods and services in the world amount to about 2% of that figure. Which means that **98% of transactions on these markets are purely speculative**.

We have a **worldwide monetary monoculture** in which the same type of exchange medium is put into circulation in every country: a single national currency created through bank debt. Such a monoculture tends to spawn a brittle and unsustainable system.

BREAK

- How much growth was there in your economy last years?
- What about unequal distribution of wealth and poverty in your country?
- Do you have personal experience of corruption?

**How to make our economy
more sustainable?**

Prosperity

PLEASE FIND
ALTERNATIVE
ROUTE

without
growth?

The transition to a
sustainable economy

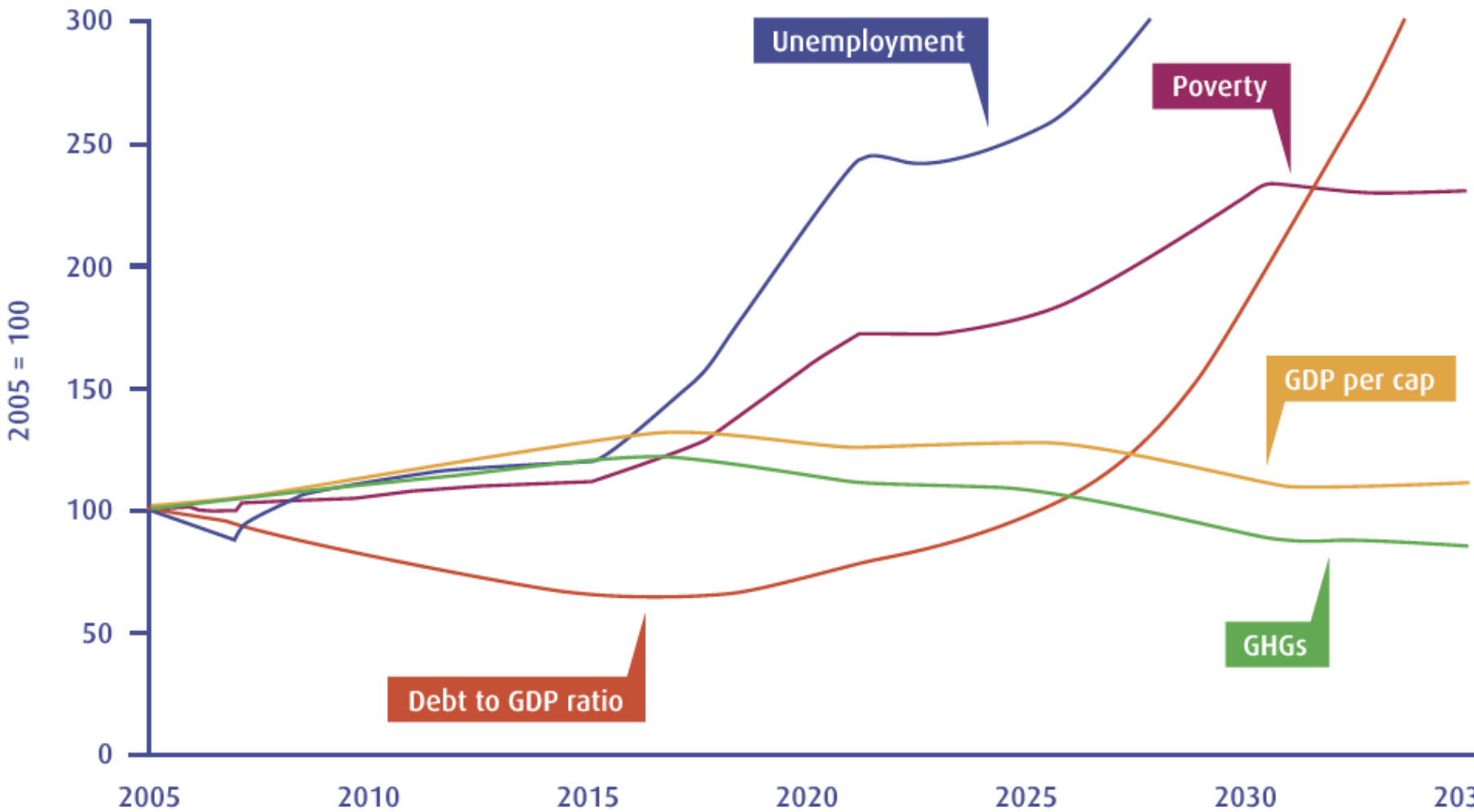
Economic Scenario building

A key element is the balance between supply and demand, and the importance of this balance for labour employment.

To attempt a stabilisation of economic output by altering the role or relative importance of key variables (such as consumption, investment, public spending and so on) within the basic macro-economic model.

Based on Peter Victor *Managing Without Growth*, Elgar 2008

Figure 19 **A Low-Growth Scenario for Canada: Collapse**



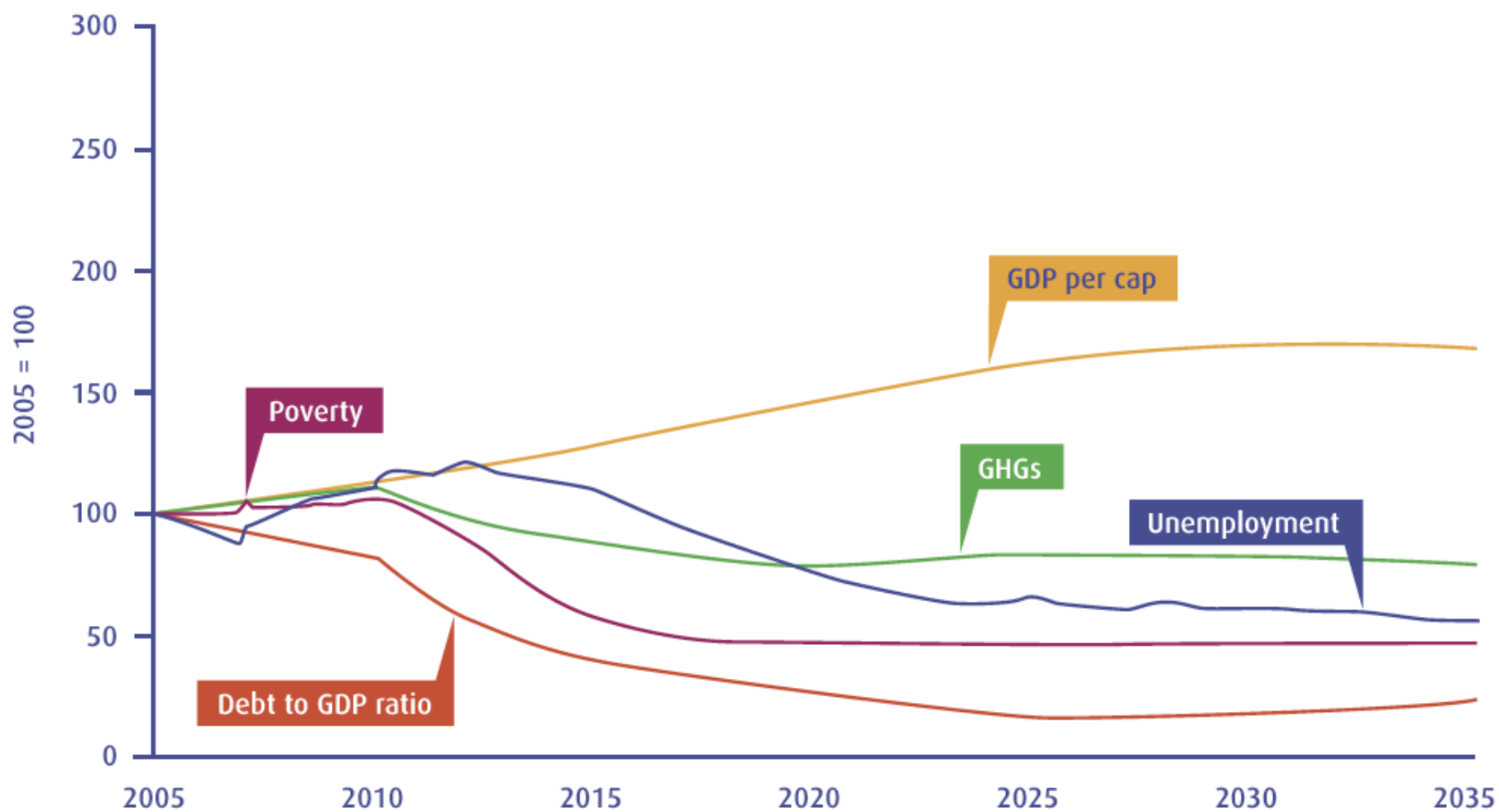
Collapse scenario

Changing key input variables – particularly those which are known to be drivers of growth, such as labour participation and investment rates.

Income stabilization has only been achieved at the cost of spiraling unemployment, rising poverty and escalating public sector debt.

This scenario represents the unpalatable form of social (and economic) collapse that politicians fear the most.

Figure 20 **A Low Growth Scenario for Canada: Resilience**



Resilience scenario

GDP per capita is around 70% higher in 2035 than it was in 2005. But most of the growth occurs in the first 20 years of the scenario.

As economic stabilization comes into effect, income growth is gradually reduced from 1.8% a year to less than 0.1% a year.

During the final years, the national income is effectively stabilised.

Resilience scenario – what did they do?

Net business investment is reduced in the Resilience scenario, and there has been a shift in investment **from private to public** goods, implemented through changes in taxation and public spending.

Unemployment is avoided in the Resilience scenario by **reducing both the total and the average number of working hours** and sharing the work more equally across the available workforce, as labour productivity is assumed to increase.

Sustainability window: the **savings ratio is increased** and more of the national income is allocated to investment, the flexibility to achieve the transition is higher,

Three roads to a green inclusive economy

- Energy-efficient economy
- Bio-economy
- Recycling economy

The first steps

- **Green tax reform**— tax resources instead of work; resources are limited, work “unlimited”.
- **Exchange BNP** as a measure of national progress — instead use welfare, happiness or similar.
- **Protection of the environment** is much more important than economic growth — no growth on the expense of environmental degradation.
- From consumption of things to the **consumption of services**

Investments

1. **Individual** – irredeemably myopic. We favour today too much over tomorrow, in ways which, to an economist, appear entirely inexplicable under any rational rate of discounting of the future.
2. **Companies** – at most five years horizon, payback time is minimized, investment options carefully avoid risks.
3. **Public sector** – long term, pay back time may be 50 years, risks are taken.

Governance

In summary, it emerges that governments must now engage urgently in several interrelated tasks:

- 1) develop and apply a robust macro-economics for sustainability
- 2) redress the damaging and unsustainable social logic of consumerism
- 3) establish and impose meaningful resource and environmental limits on economic activity.

Tools for transition to a green economy:

- pricing externalities
- eliminating perverse subsidies
- enforcing regulatory standards
- redirecting investment flows
- promoting equity and social protection
- fulfilling oft-repeated pledges about international co-operation and assistance
- recognizing common but differentiated responsibilities

Which are the differences between the current (brown) economy and a future (green, inclusive) economy?

Current economy	Green economy
GDP growth: more economic activity the aim	‘Beyond GDP’: prosperity the aim
Focus on the near future (short-termism)	Long-termism
Maximisation of return	Safeguarding of long-term incomes
Shareholder value	Stakeholder value: benefit to society
Extraction of natural resources	Management of natural resources
Linear production systems	Circular production systems
Short-life products for sale	Long-life services: the ‘performance economy’
Efficiency measured in monetary terms (e.g. cost-benefit analysis, CBA)	Multidimensional efficiency (e.g. multi-criterion analysis, MCA)
Micro- and macrorationality highly divergent	Micro- and macrorationality highly congruent

Pricing externalities

- *All environmental costs* should be included.
- *Polluter Pays Principle* should be used.
- There are methods for converting them into monetary values.
- *The state* is acting to collect the payments.

Eliminating perverse subsidies

- Today much state money is invested into fossil fuels in sectors with bad economy.
- These include fisheries and agriculture.
- Another sector is commuting support.
- (Much) less money is used for mitigation of greenhouse gases.

Redirecting investment flows

- Investments should support a sustainable development.
- Large sums are presently used for e.g. new oil fields, instead of renewable energy.
- Financing: risk capital, pension funds etc are important actors.

Ways to a sustainable economy

1. Out-phase non-renewable resources
2. Pay for environmental impacts
3. Recycle all resources
4. Use renewable resources within their reproduction rate

It is all profitable!

Circular Economy

The circular economy is

industrial economy with restorative material flows.

The materials flows

biological nutrients, designed to re-enter the biosphere safely,

technical nutrients, designed to circulate without entering the biosphere.

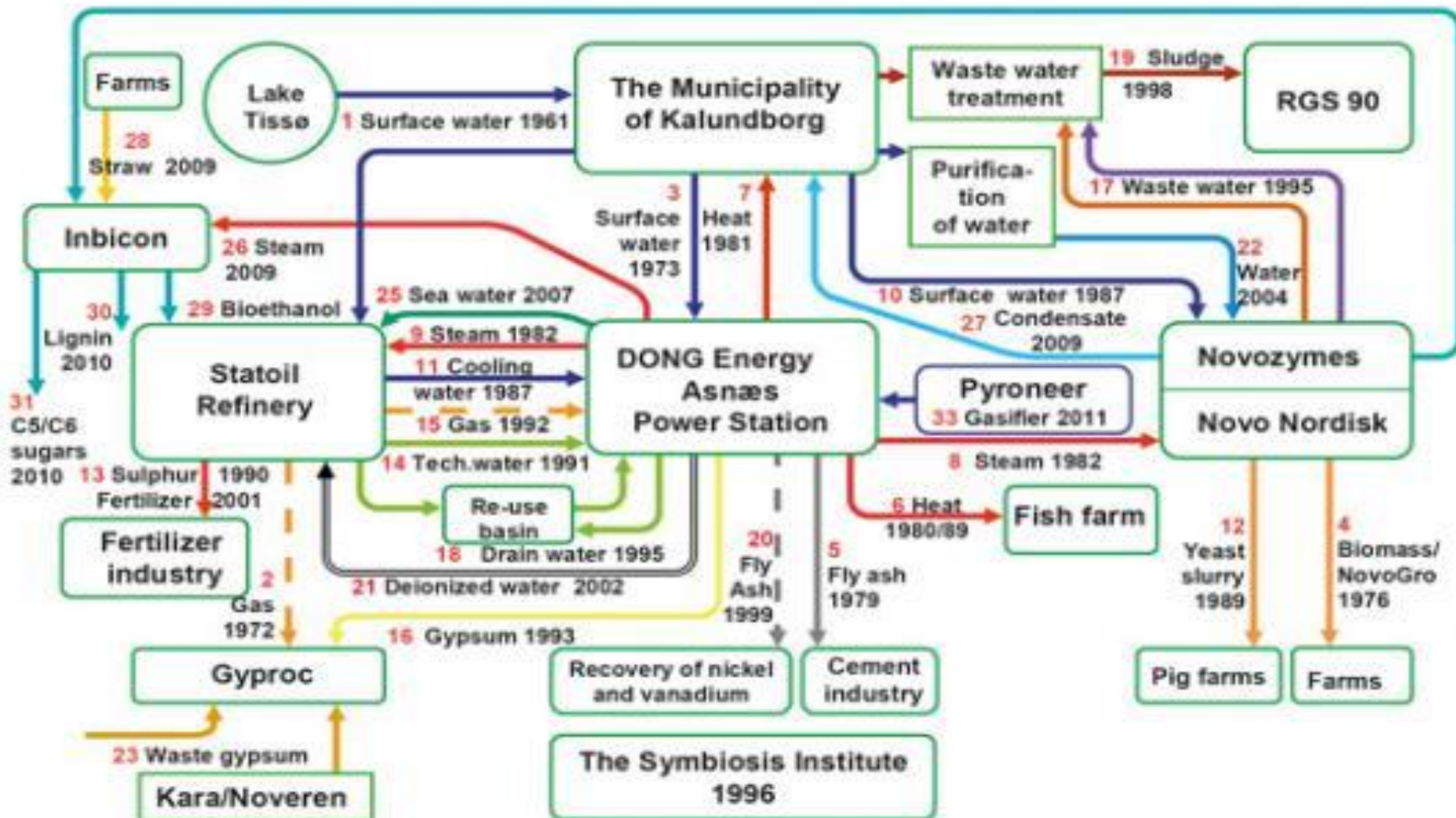
Improved resource use



Figure 3. View of four- and five-storey blocks in the Wollboden development.



Industrial symbiosis in Kalundborg

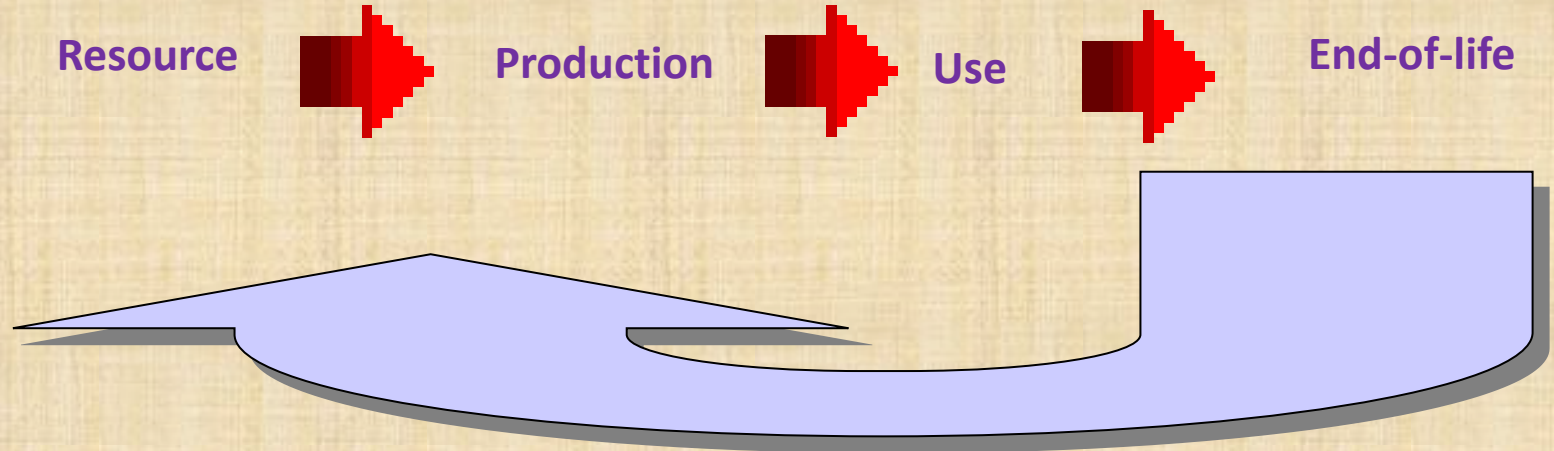


Cradle to Cradle

The *Cradle to Cradle* Design model considers that all material involved in industrial and commercial processes can be seen as nutrients and be used again for new production.

Recycle!

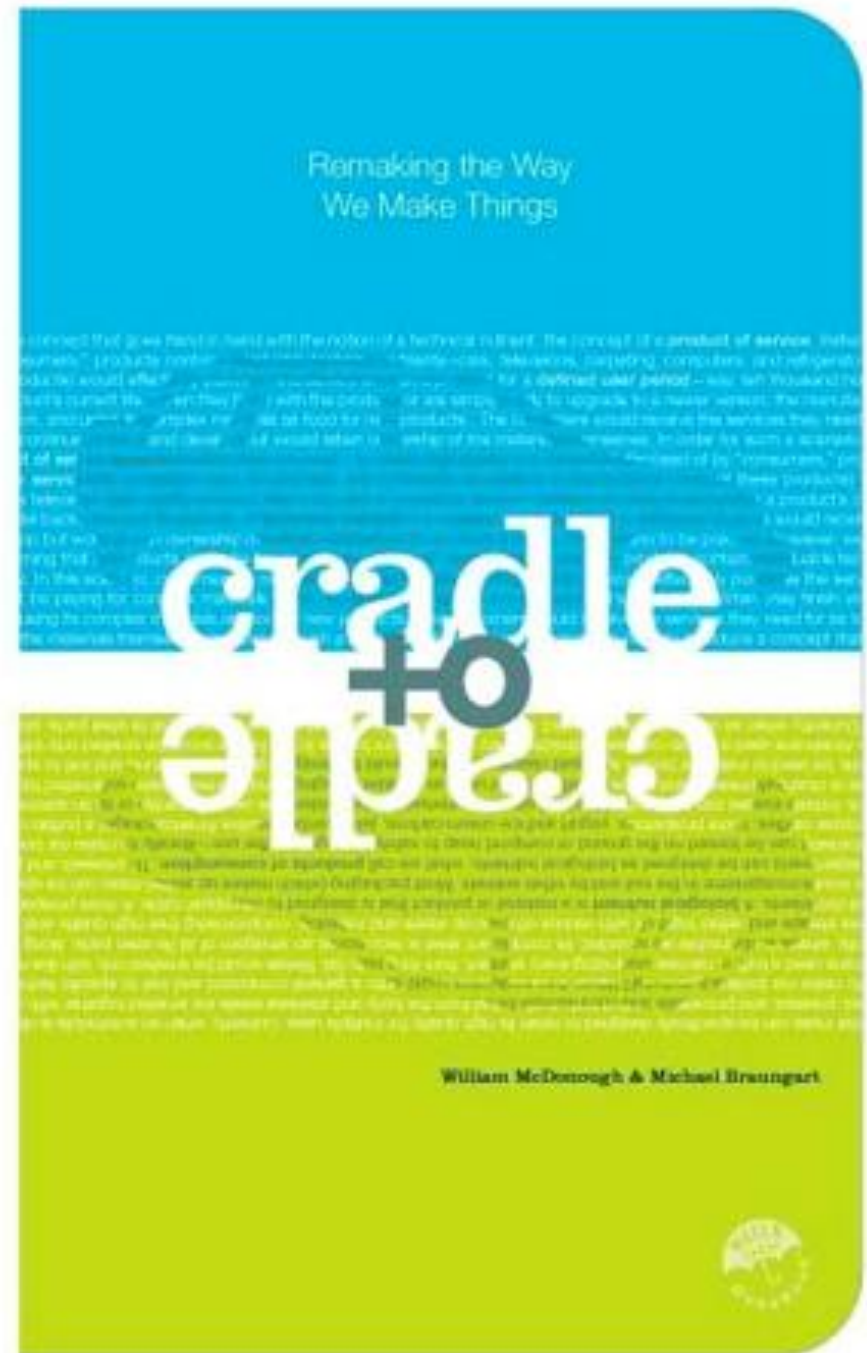
Cradle to Cradle C2C



Cradle to Cradle Products Innovation Institute

Developed by
Michael Braungart , Hamburg and
William McDonough, San Francisco

[http://www.mcdonough.com/
cradle_to_cradle.htm](http://www.mcdonough.com/cradle_to_cradle.htm)



Four models of a sustainable economy

**Economy of
sharing**

**Economy of self
production**

**Economy of
automation**

**Circular
Economy**

To read

Sustainable lifestyles and the dilemma of economic growth

- The Baltic University Programme Sustainable Development Course. *10a. Economy and ecology – a single system. 10b. The dilemma of economic growth. 10c. Tools for approaching a sustainable economy.*

<http://www2.balticuniv.uu.se>