

# **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  
50 years from now?**

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

- **Which is your responsibility?**



# SVENSKA ARALSJÖSÄLLSKAPET

Swedish Aral Sea Society



## 13. The dilemma of our economic system

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**Master Course on Sustainable Development and Sustainability Science  
For Uzbekistan by SASS and Karakalpak State University Spring 2023**

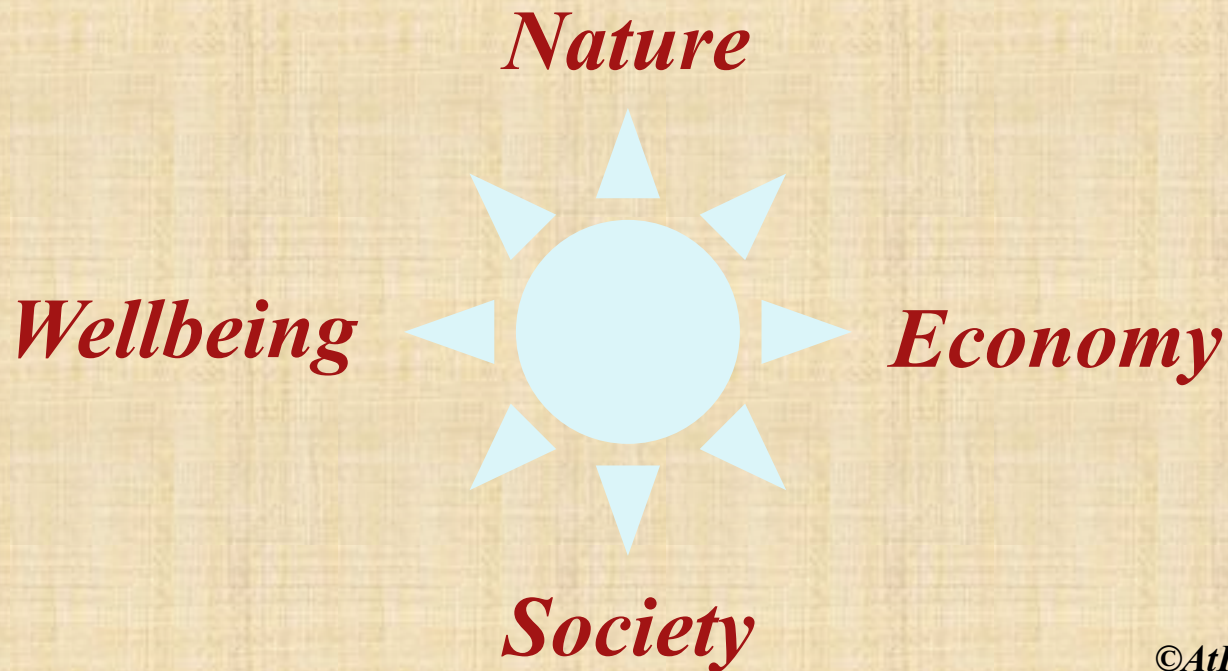
# The frames of the system

- The classical system description has **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*



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





Private property



Limited government



Freedom of choice



Motive of self-interest



Competition



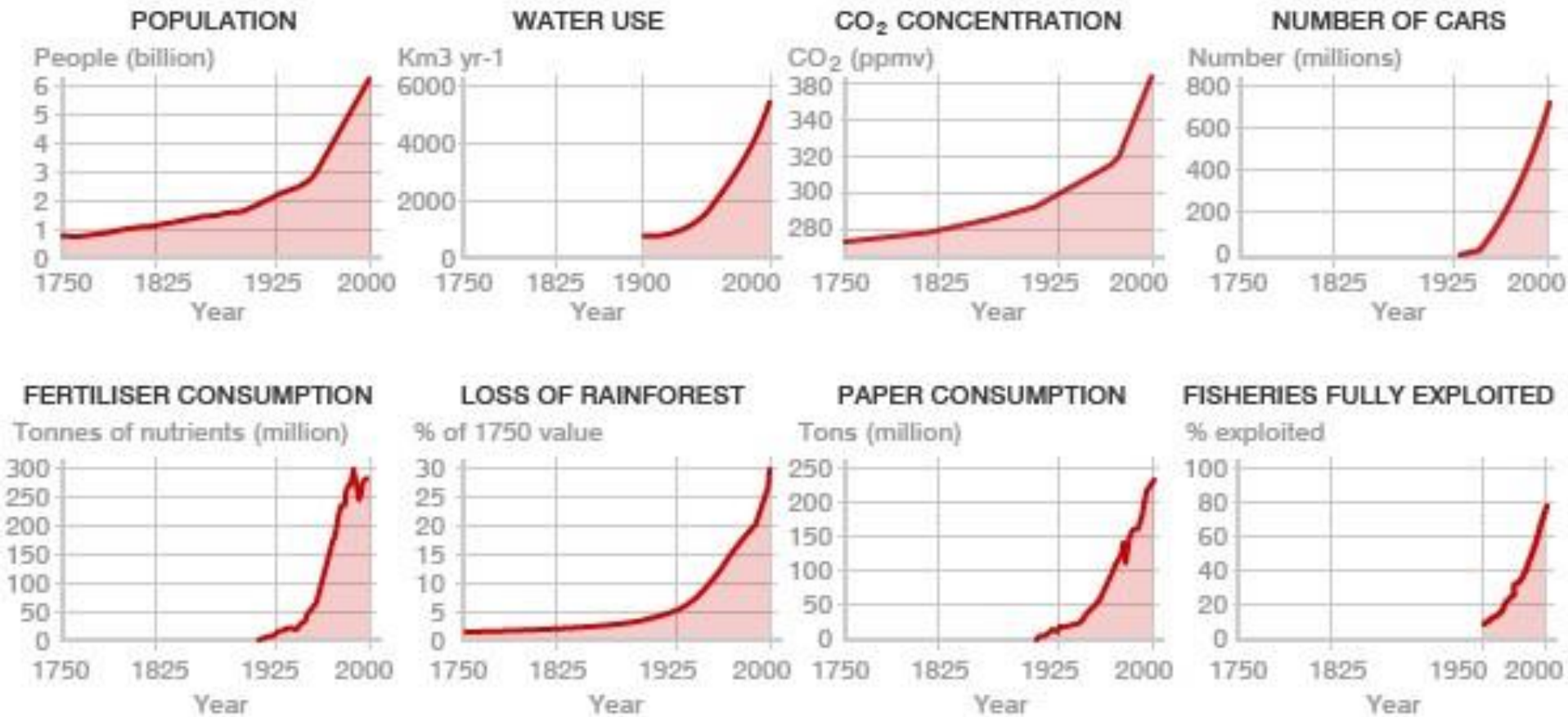
System of markets and prices

# CHARACTERISTICS OF A MARKET ECONOMY

# Economic growth

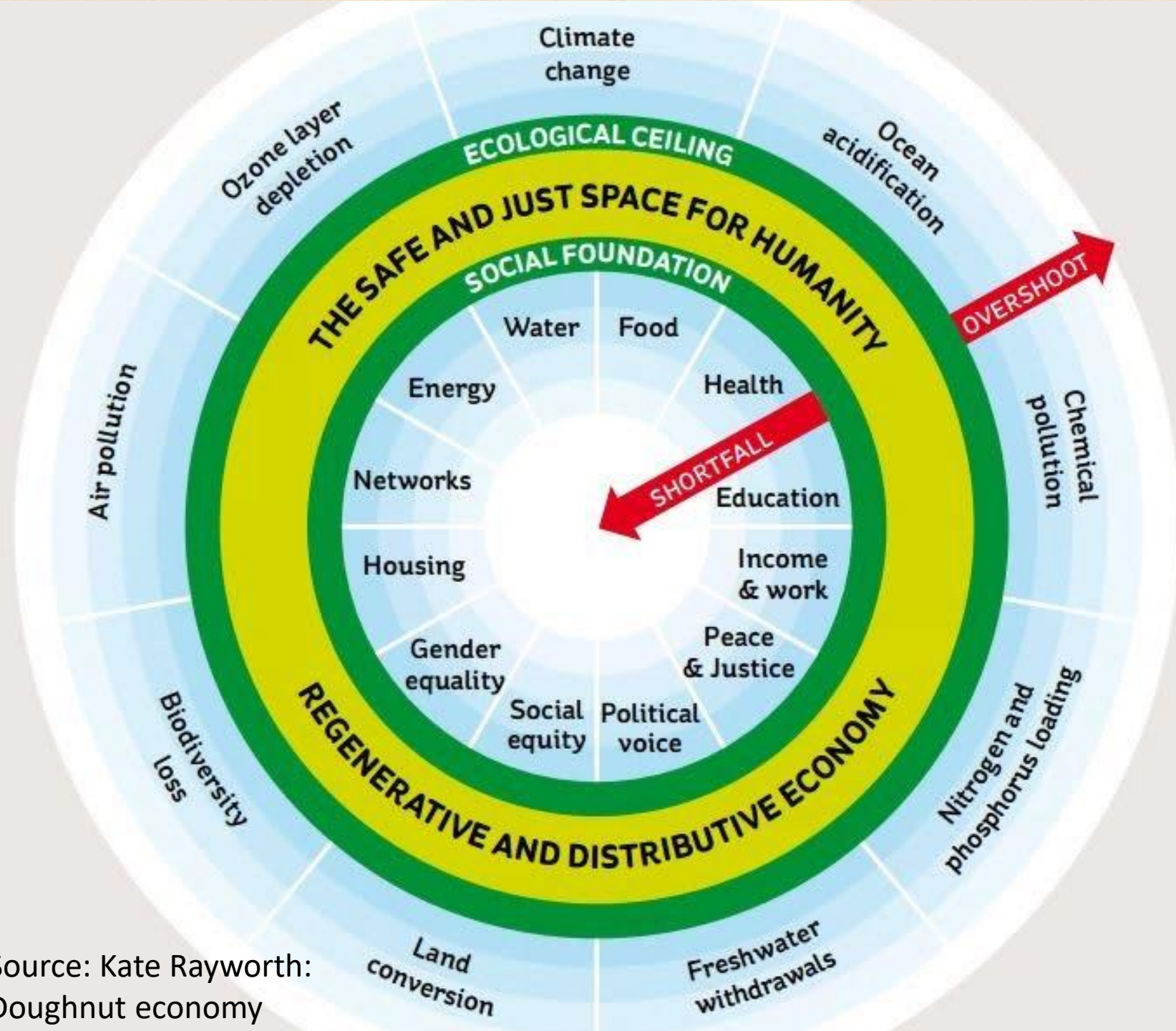
- The economy in the world, as GDP, has increased ca 14 times from 1900 to 2000, and is still increasing.
- BNP per capita has increased ca 4 times during this period.
- The increase is measured in procent. In absolute terms 3 % means a doubling after 24 years (exponential growth).
- Economic growth 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.
- Growth can not continue forever on a limited planet!

# Exponential Growth



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



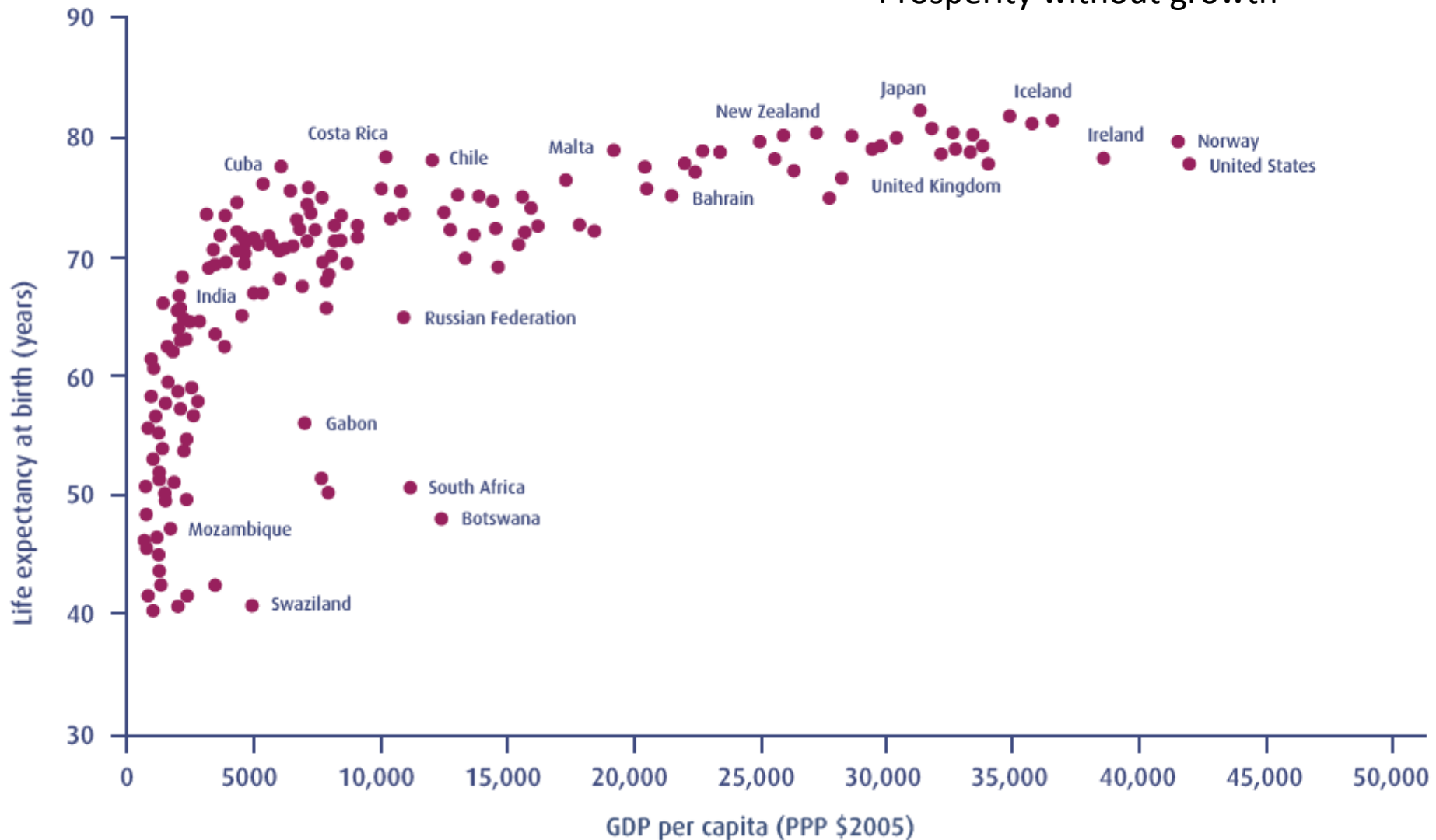


Source: Kate Rayworth:  
Doughnut economy

# Life expectancy vs income

Figure 8 Life expectancy at birth vs average annual income<sup>16</sup>

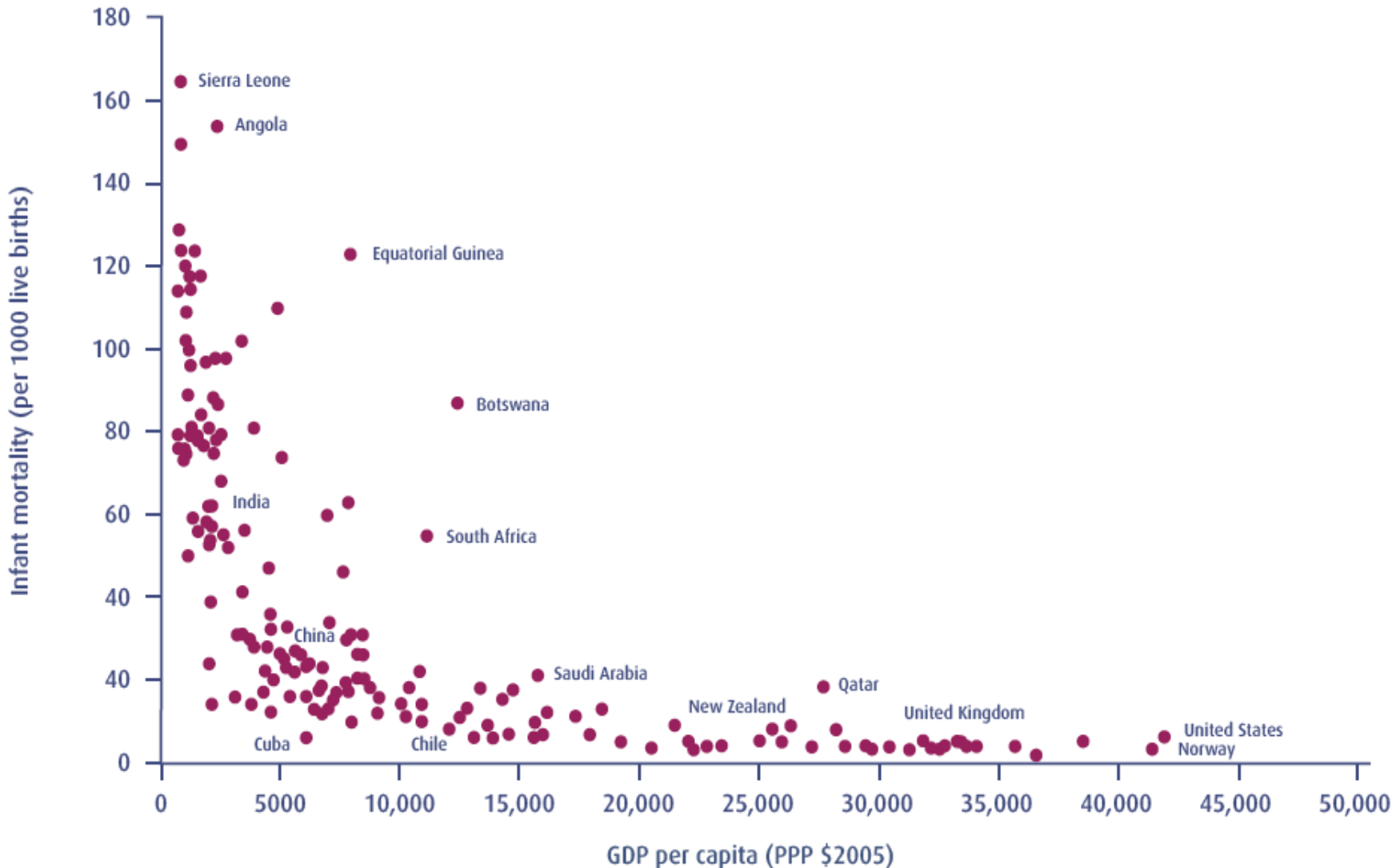
Source: Tim Jackson  
Prosperity without growth



# Infant mortality vs income

Figure 9 Infant mortality vs per capita income<sup>17</sup>

Source: Tim Jackson Prosperity without growth

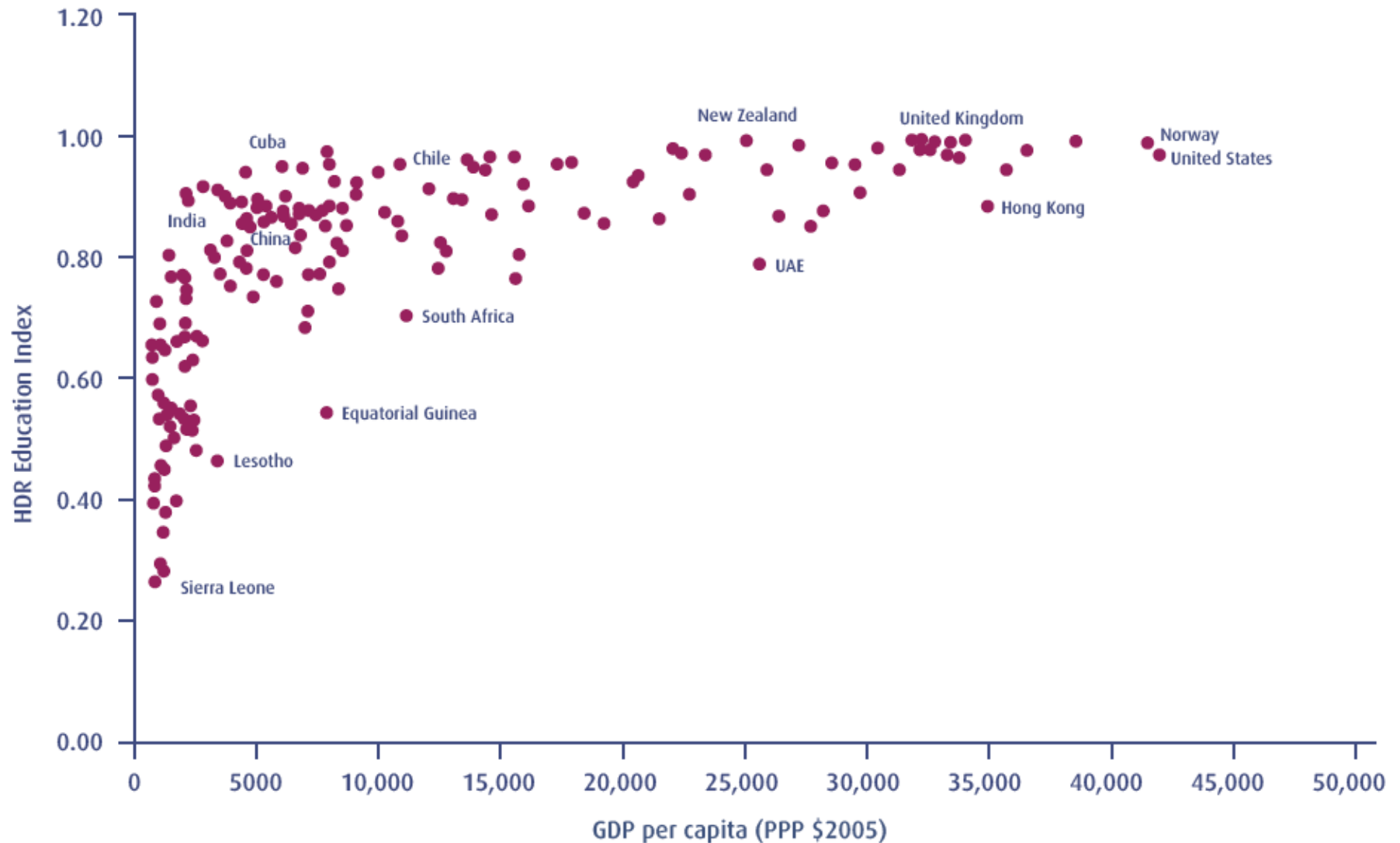


# Education vs income

Figure 10 **Participation in education vs income per capita**<sup>18</sup>

Source: Tim Jackson

Prosperity without growth





# Happiness vs income

Figure 6 **Happiness and average annual income**<sup>15</sup>

Source: Tim Jackson Prosperity without growth

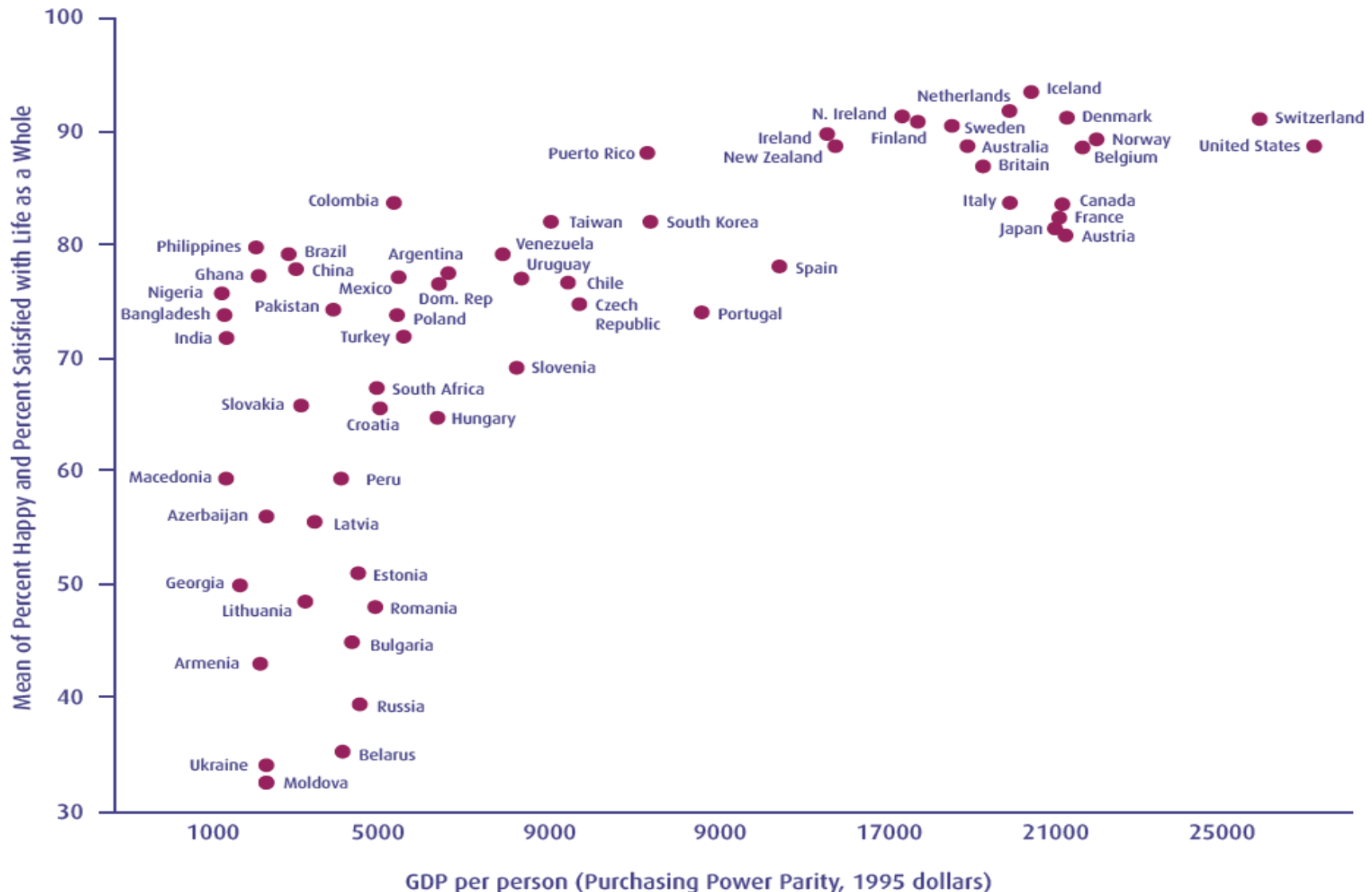
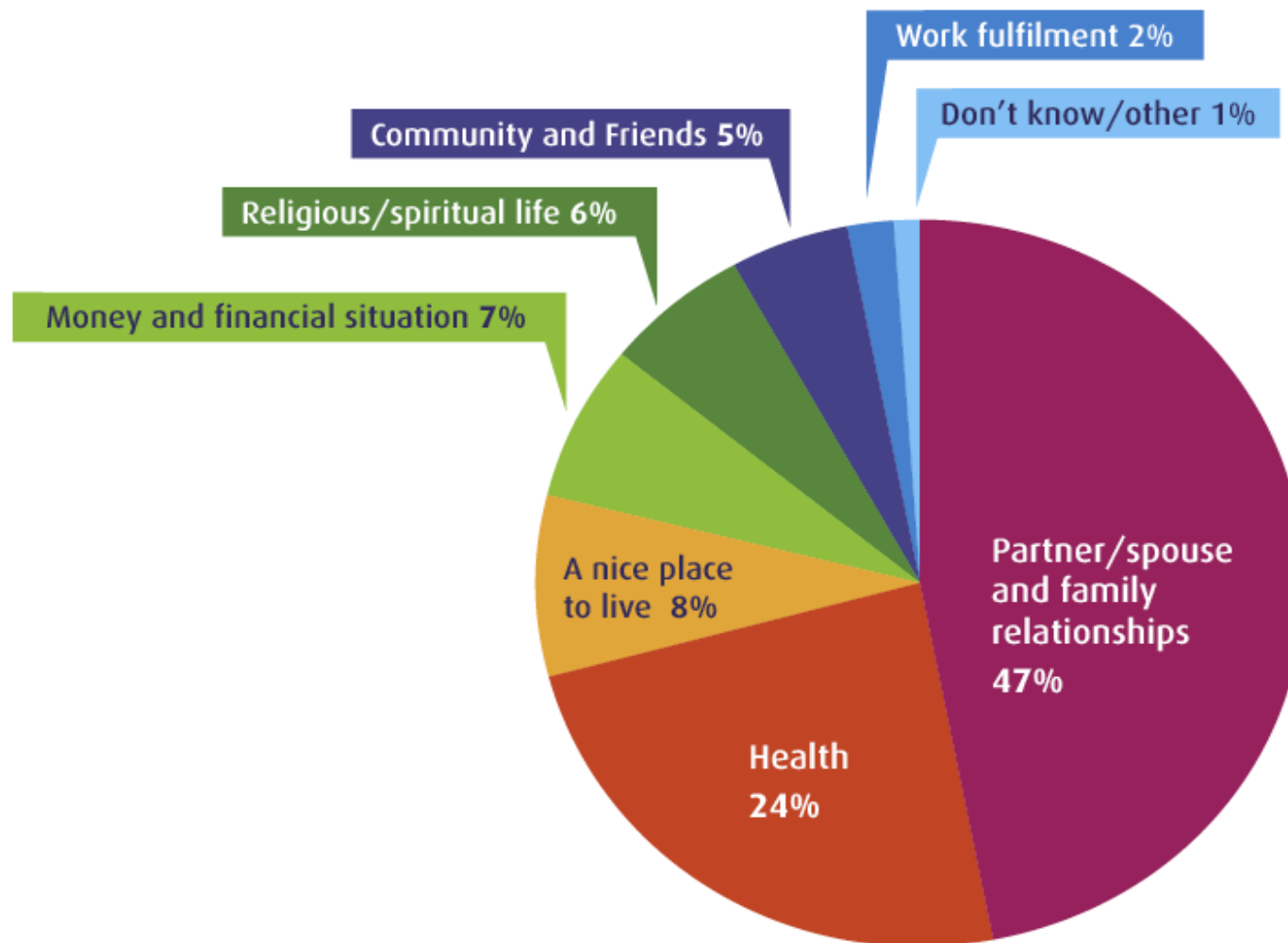


Figure 5 **Factors influencing subjective wellbeing (happiness)**<sup>7</sup>



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 2023

<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.

# Dimensions of development

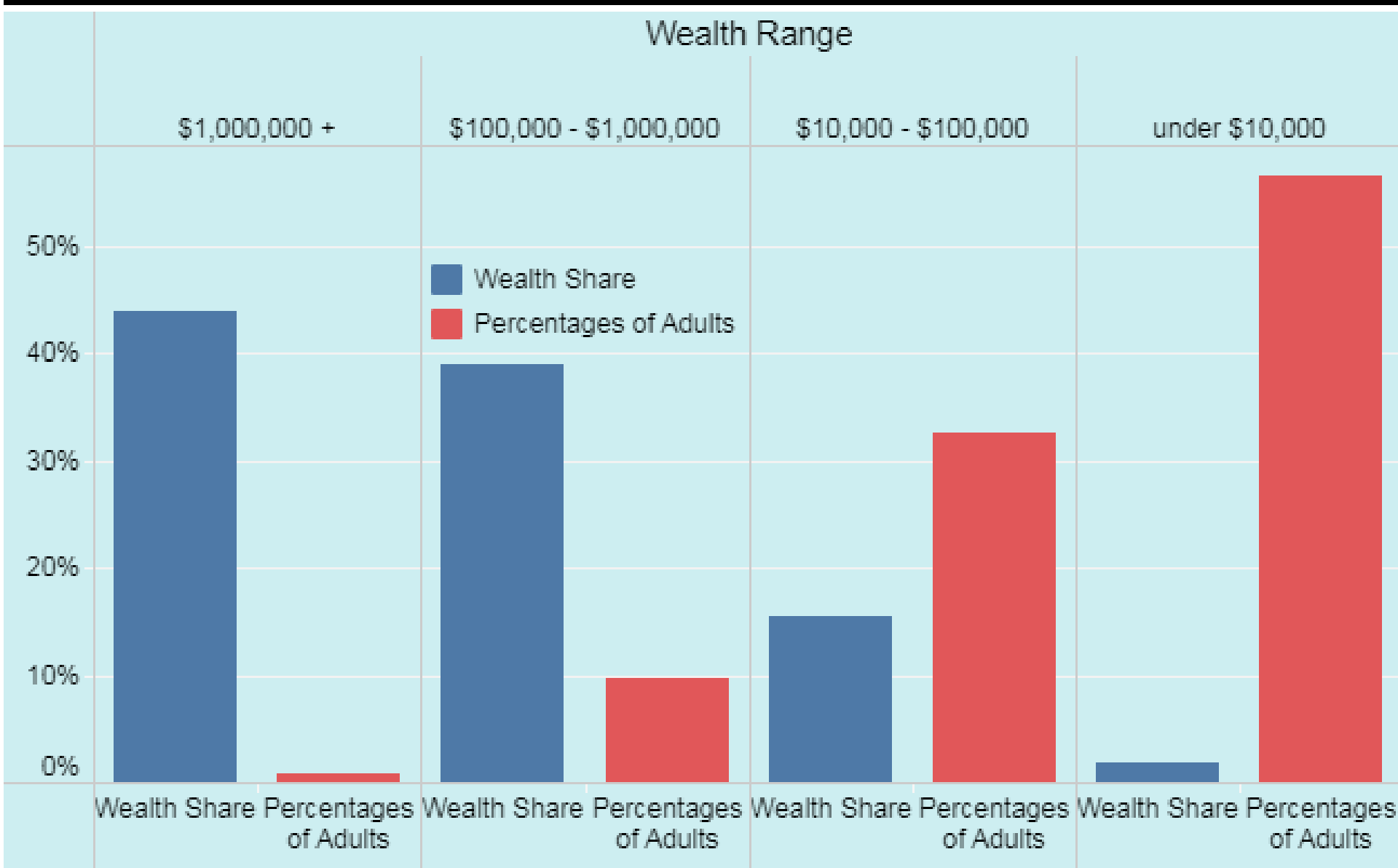
Dimensions	Means	Goals
Human rights	+	+++
Environment	+	++
Governance	++	+
Economic growth	+++	0
Education	++	+
Health	+	++
Culture	+	+++

# 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*).

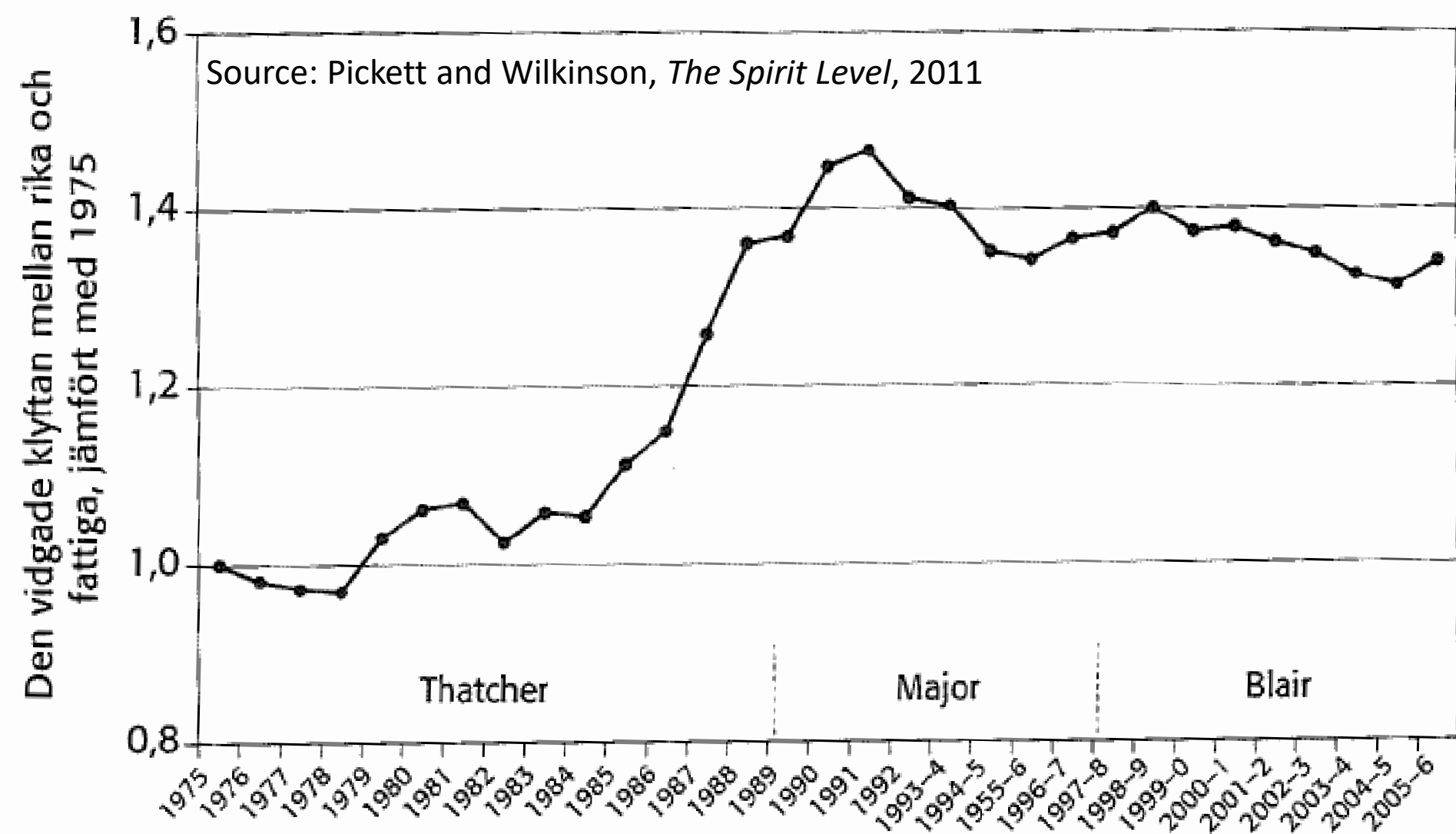
# The Richest 1% Own 44% of the World's Wealth

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



Sources: Credit Suisse Global Wealth Report, 2019



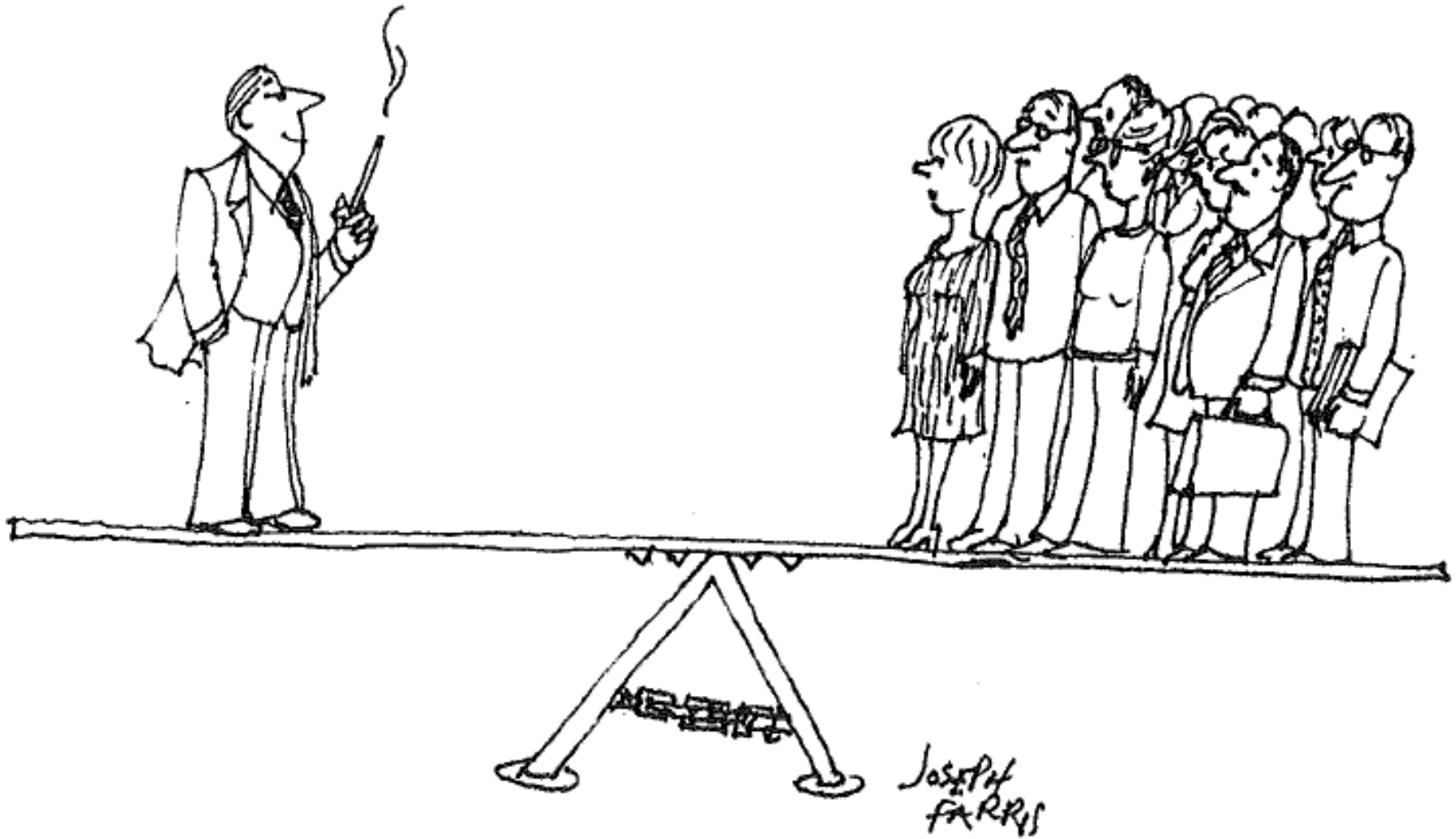


FIGUR 16.1. Den växande klyftan mellan inkomsterna för de rikaste och fattigaste tio procenten i Storbritannien från 1975 (= 1) till 2005-2006.

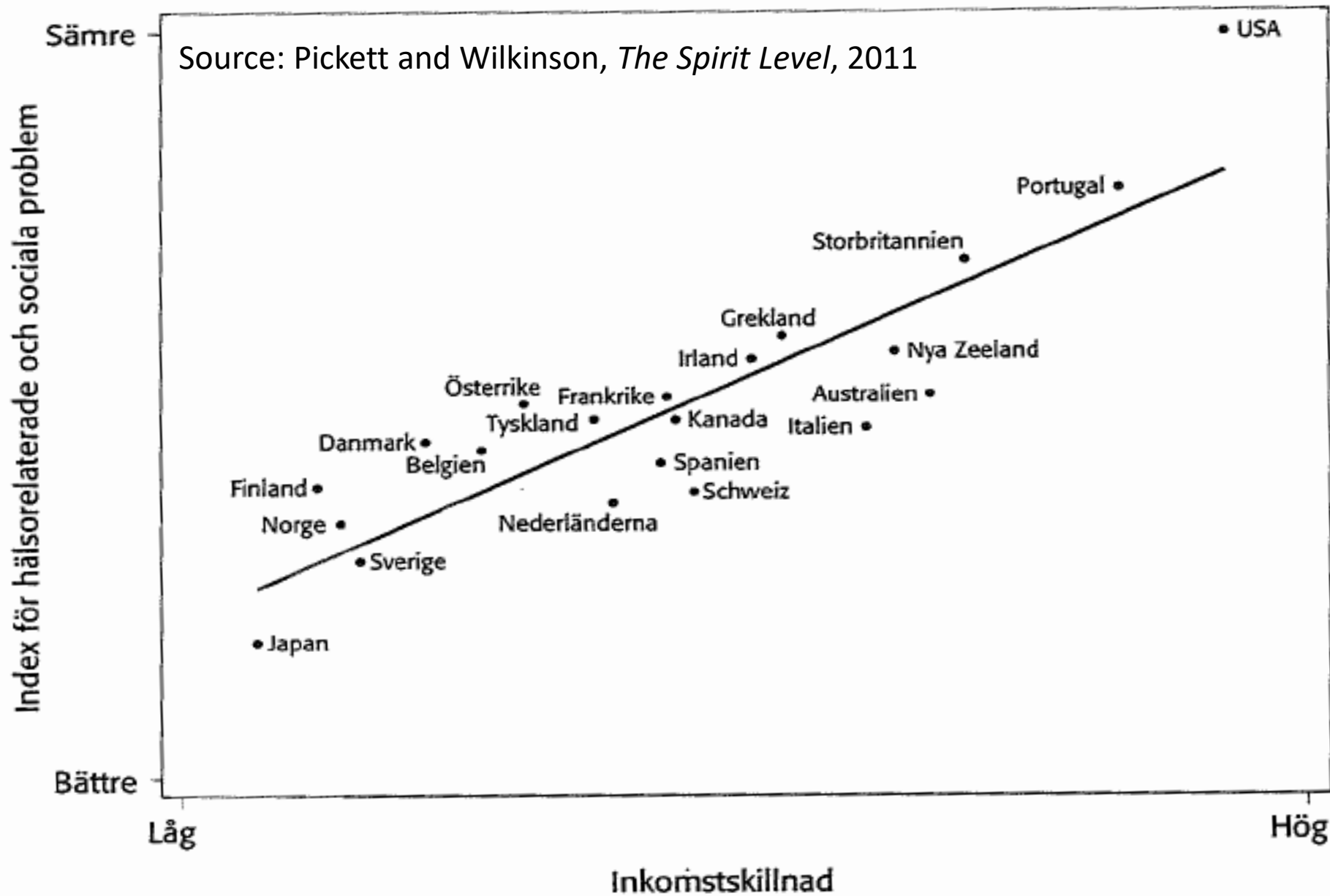
# **“The neoliberal projektet”**

**(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

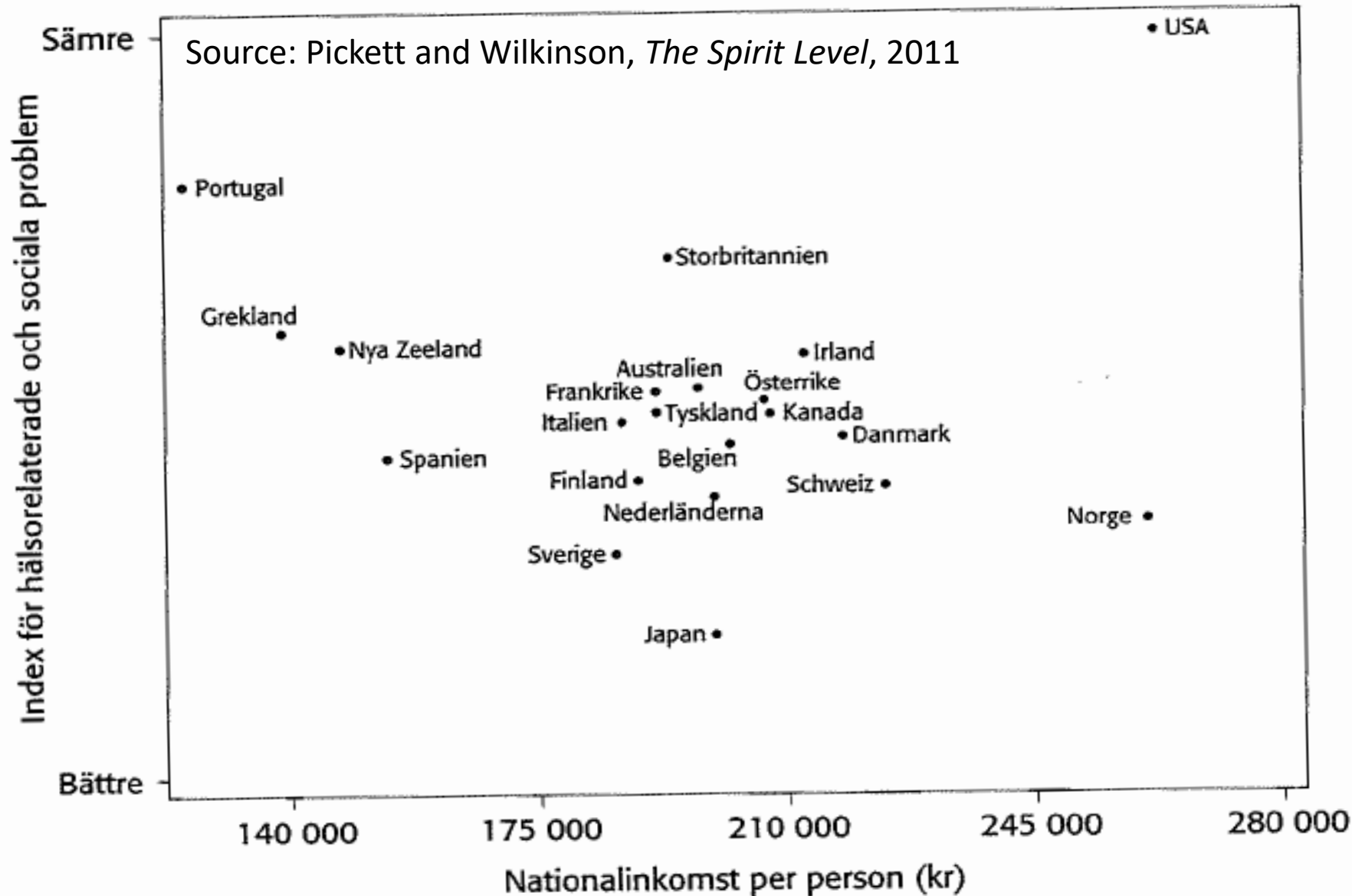


Source: Pickett and Wilkinson, *The Spirit Level*, 2011

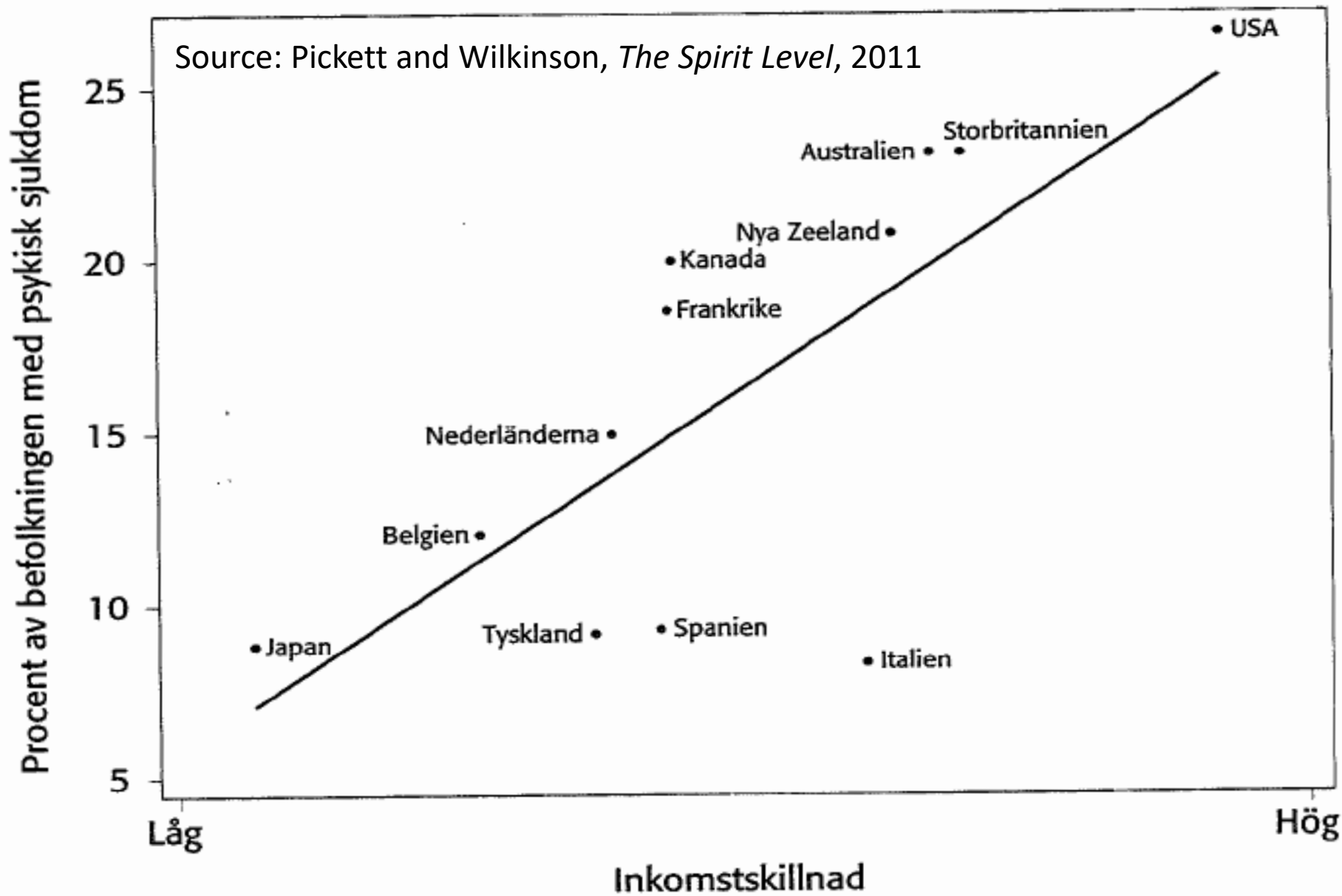


FIGUR 2.2. Bland rika länder har hälsorelaterade och sociala problem ett nära samband med ojämlikhet.

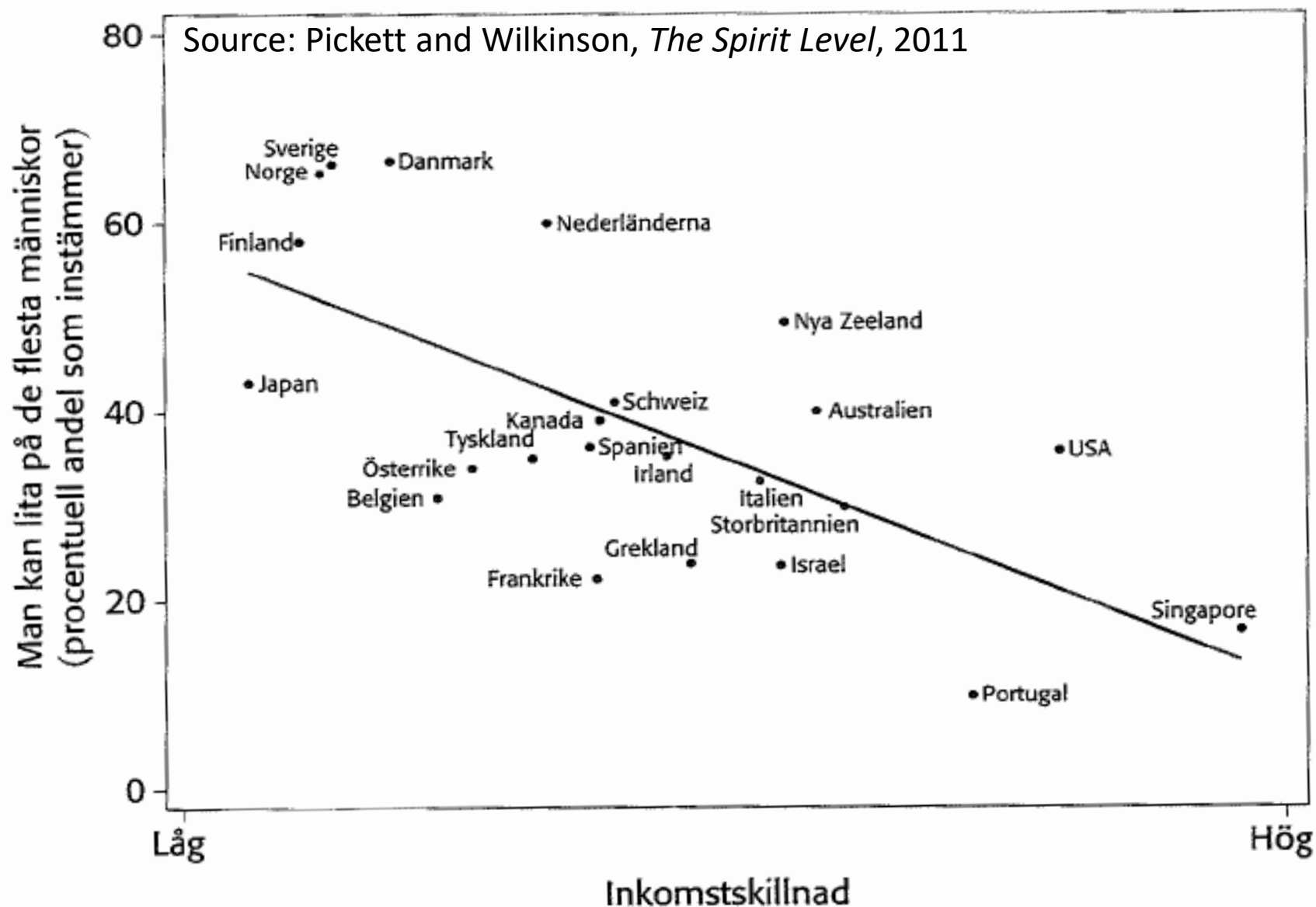




FIGUR 2.3. *Hälsorelaterade och sociala problem har endast ett svagt samband med den genomsnittliga nationalinkomsten per person bland rika länder.*



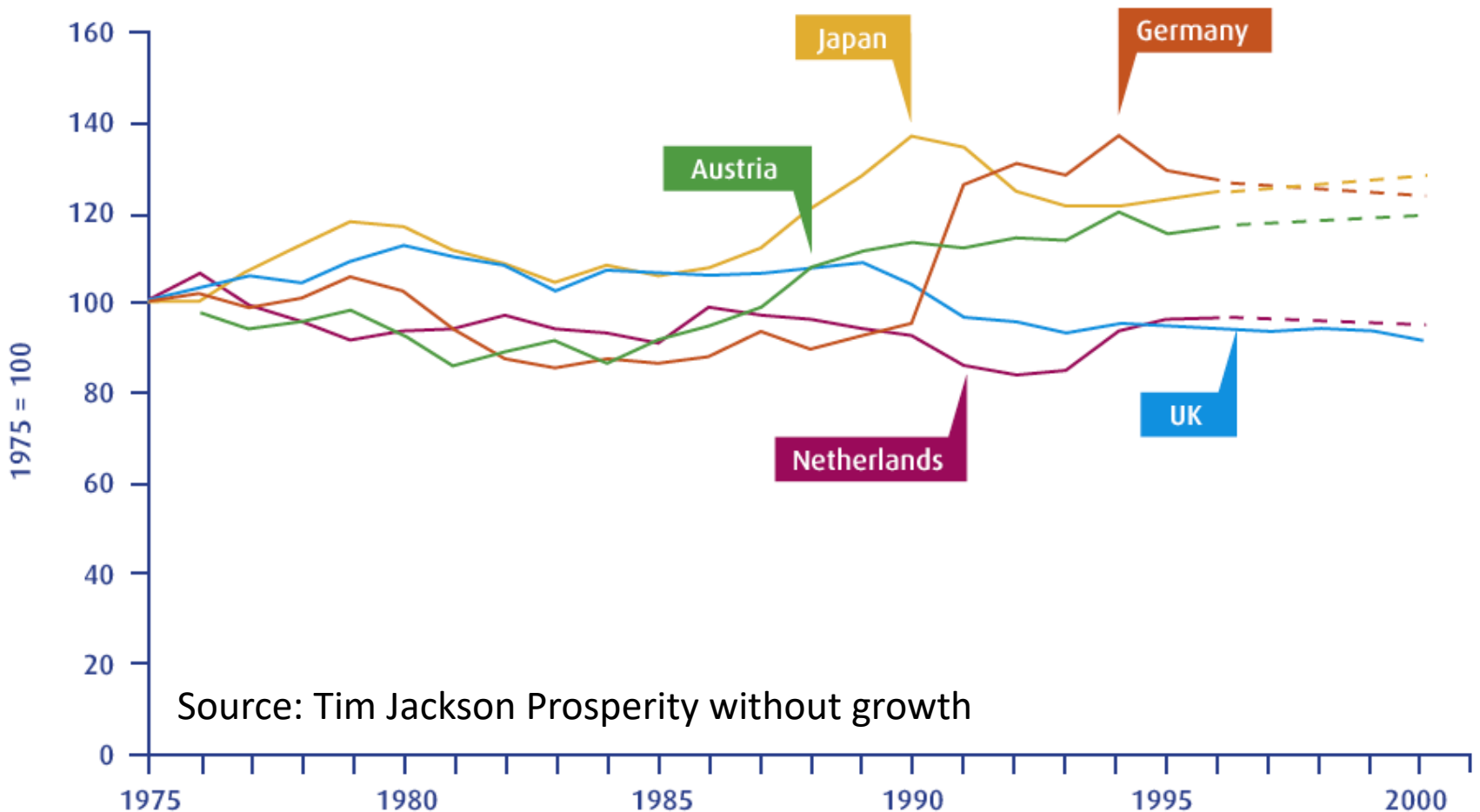
FIGUR 5.1. I mer ojämlika länder lider fler av psykisk ohälsa.



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

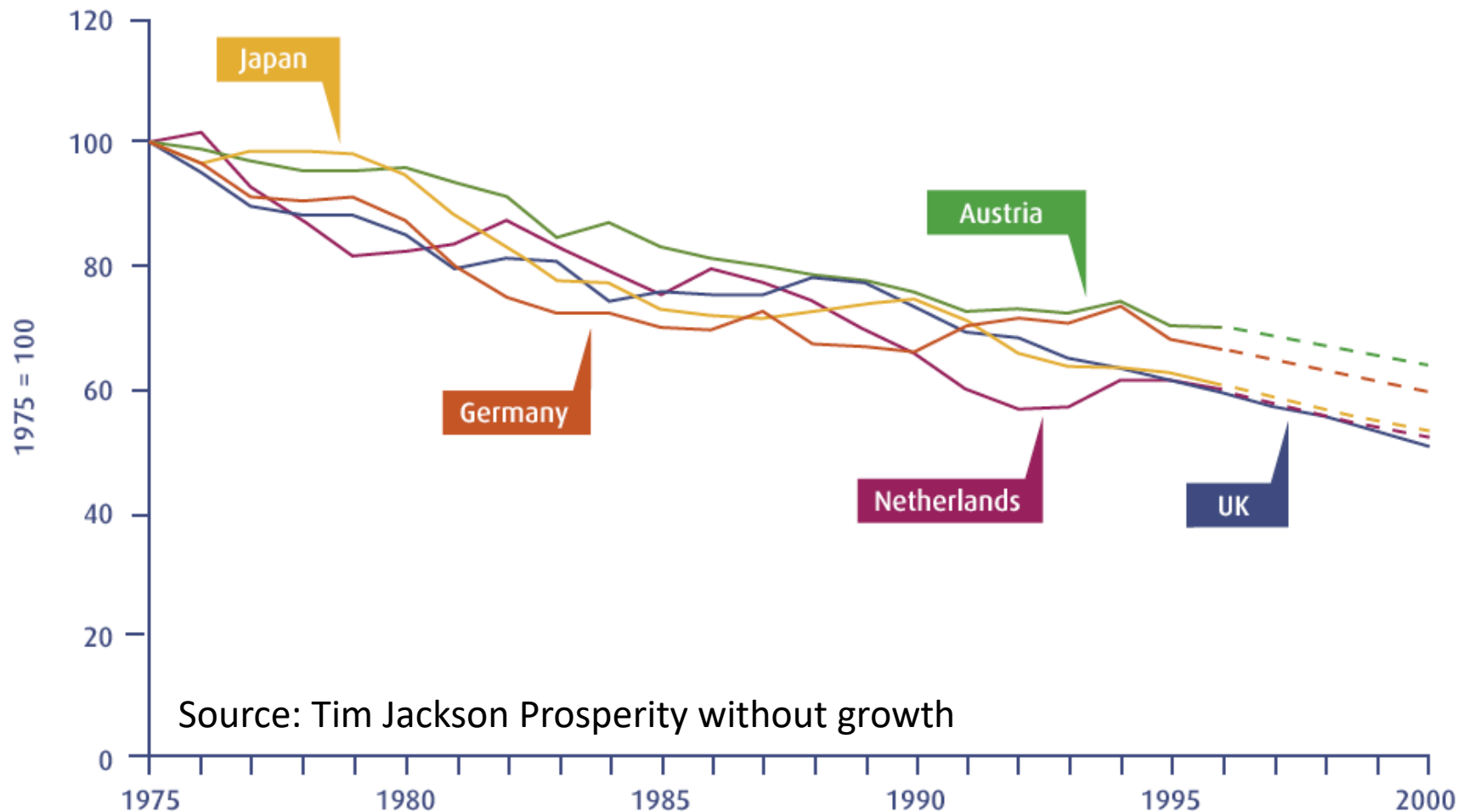
# Decoupling ?

Figure 15 **Direct Material Consumption in OECD Countries: 1975–2000**<sup>10</sup>



# Relative decoupling

Figure 12 **Relative Decoupling in OECD countries 1975–2000**<sup>7</sup>





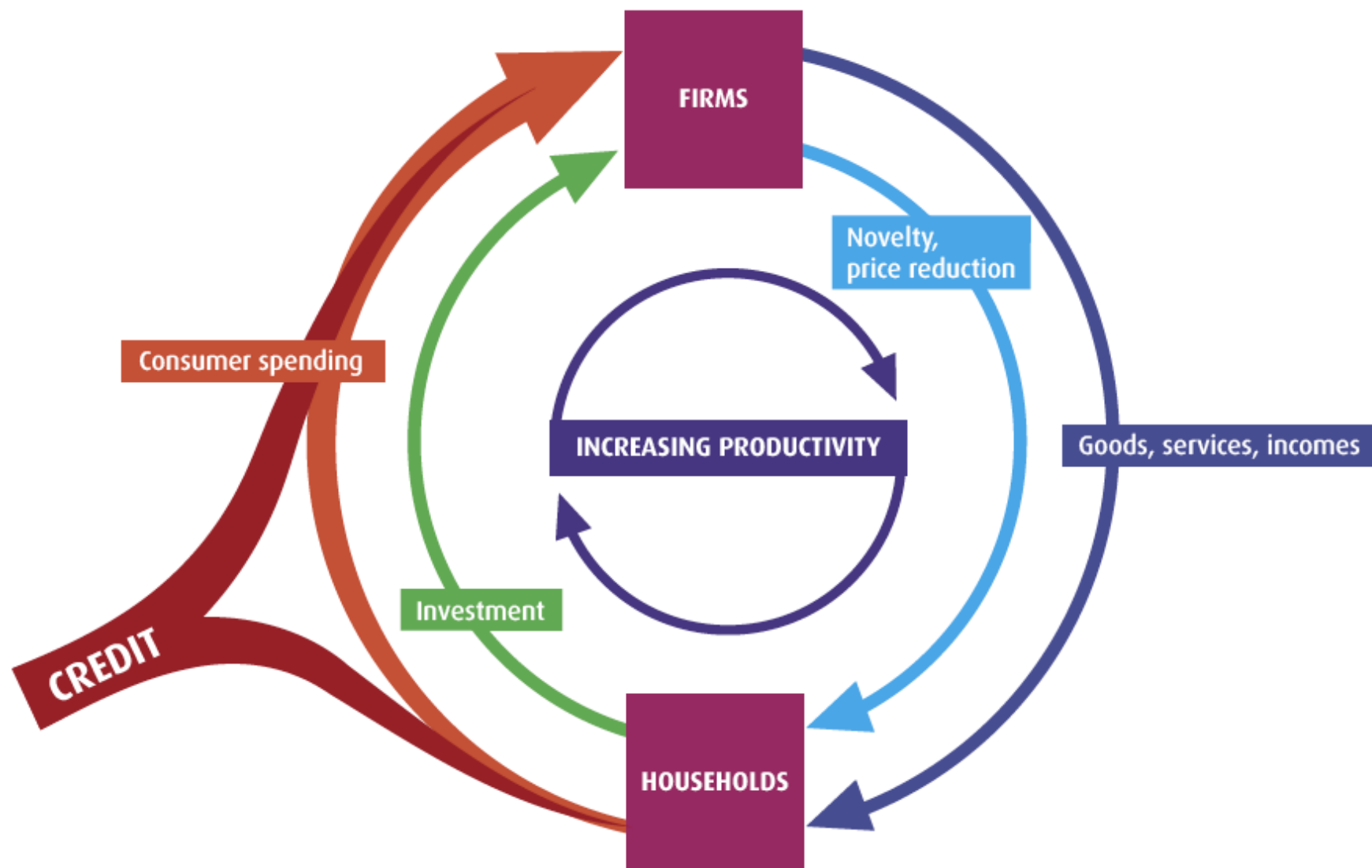
# The rebound effect

Relative decoupling is counteracted by a fast increase in consumption.

Absolute decoupling we did not see so far.

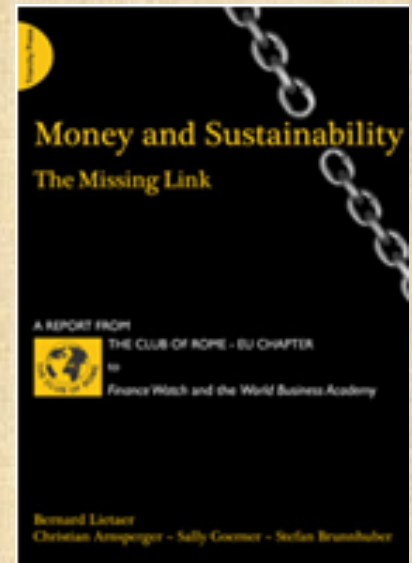
Figure 18 **The 'Engine of Growth' in Market Economies**

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?



# 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!**

# Four models of a sustainable economy

**Economy of  
sharing**

**Economy of self  
production**

**Economy of  
automation**

**Circular  
Economy**

# The first steps

- **Green tax reform**— tax resources instead of work; resources are limited, work “unlimited”.
- **Exchange GDP** 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**

## **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

# 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.



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

<b>Current economy</b>	<b>Green economy</b>
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 macro-rationality highly divergent	Micro- and macro-rationality 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.

# 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.*