Science for sustainability – Challenges of the “post-truth era”

Prof. Dr. Ottmar Edenhofer

10 Year Anniversary Symposium
International Master Study Programme: Global Change Management
HNE Eberswalde
30 June 2017
Main challenge: Inclusive transformation
First step: Understanding capitalism as a complex system
available now:

www.mcc-berlin.net/klimabuch
Three Narratives of Capitalism and Economic Growth

1. Economic Growth as a Narrative of Liberation

2. Capitalism and Growth as a Narrative of Exploitation and Alienation

3. The Challenge of the Global Commons – Overuse of natural resources, Shortage of public infrastructure
International Panel on Social Progress

• “If social sciences exist, is it not, precisely, because analyzing action, institutions, social relations, structures, can help to build a better world?” (Calhoun & Wieviorka 2013).

• Over 200 leading academics and researchers from all around the world will produce the final report in 2017.

• Topics include: Democracy, Poverty, Inequality and Well-Being, Governance, Security, Global Health, Gender, Urbanization, Education.

https://www.ipsp.org/
What is capitalism?

**Capitalism** is an economic system based on three key institutions:

- private property rights,
- markets and
- firms

These institutions have been implemented differently in different countries leading to a wide *variety of capitalist systems*.

Capitalism can create positive or negative *externalities* that have an effect on both the *environment* and *society*. The balance of power between *government, markets* (including firms, private property rights) and *civil society* determines the degree to which these *market failures* can be remedied.
Three Narratives of Capitalism and Economic Growth

1. Economic Growth as a Narrative of Liberation

2. Capitalism and Growth as a Narrative of Exploitation and Alienation

3. The Challenge of the Global Commons – Overuse of natural resources, Shortage of public infrastructure
Capitalism as the force underlying current prosperity

GDP per capita

Population in extreme poverty

- East Asia and Pacific
- Europe and Central Asia
- Latin America and the Caribbean
- Middle East and North Africa
- South Asia
- Sub-Saharan Africa

Snower (2014)
Fair rules as the basis for development

- When investors are safe from expropriation, they generate wealth
- Governments required to set rules which align private and social objectives
Institutions matter!

- Sound rules (institutions) unleash market forces
- Market forces make difference between Malthusian trap and growth

Acemoglu et al. (2005)
Technological Change and Globalization

- Technological change
- Secure intellectual property rights
- Incentives for innovation
- Free trade

https://corporate.ford.com/company/history.html
Global income inequality decreased

- Decrease in the Gini coefficient since 2000 for all measurement concepts
- (concept 1: between per cap. GDP; concept 2: between per cap. GDP weighted by population size; concept 3: between households on a global scale)

Low prices for exhaustible resources

- When innovation is rewarded, new extraction technology is developed
- Improved extraction technology keeps resource prices low
Three Narratives of Capitalism and Economic Growth

1. Economic Growth as a Narrative of Liberation

2. Capitalism and Growth as a Narrative of Exploitation and Alienation

3. The Challenge of the Global Commons – Overuse of natural resources, Shortage of public infrastructure
Power imbalances ...

... in favor of large corporations and banks, at the expense of national governments

- Tax evasion and competition may lead to situations in which the provision of public goods is lacking.
- Powerful groups are able to procure advantages by means of lobbying.
- Economic bonds in the financial system, e.g. profits, become privatized, losses become socialized; opaque financial products.
Declining public wealth

Share of public wealth in national wealth

Alvaredo (2016): Global Inequality Dynamics: New Findings from WID.world
Increasing inequality

Figure 9.8. Income inequality: Europe vs. the United States, 1900-2010

The top decile income share was higher in Europe than in the U.S. in 1900-1910; it is a lot higher in the U.S. in 2000-2010. Sources and series: see piketty.pse.ens.fr/capital21c.
Income share of labor is declining – the distribution of primary assets should be the main focus

Bottom 50% income share in China, the US and France

Distribution of pretax national income (before taxes and transfers, except pensions and UI) among adults. Corrected estimates combining survey, fiscal, wealth and national accounts data. Equal-split-adults series (income of married couples divided by two).


Alvaredo (2016): Global Inequality Dynamics: New Findings from WID.world
Inequality and social mobility

The Great Gatsby Curve: More inequality is associated with less mobility across the generations

Inequality and class differences

More inequality, fewer class differences

Low income classes:

• resist more distribution
• prefer free markets
• oppose regulation
• favor tax cuts
• believe in small government

Conjecture: Egalitarianism is perceived as the attitude of losers; dignity becomes more important than well-being.
Materialism and the loss of meaning

Meaning of Life

GDP per capita (2007) log scale

Oishi und Diener (2014)
The revolt of the white men

Landscape of societal values: hypothesis

Material welfare

Liberty

Perfection/purity/sanctity

Social order

Equality

Natural capital

0 20 40 60 80 100
The revolt of the white men

Landscape of societal values: hypothesis

- Material welfare
- Liberty
- Equality
- Natural capital
- Social order
- Perfection/purity/sanctity

Growth proponents
The revolt of the white men

Landscape of societal values: hypothesis
The revolt of the white men

Landscape of societal values: hypothesis

- Growth proponents
- Left-wing
- Greens

Material welfare

Liberty

Perfection/purity/sanctity

Social order

Equality

Natural capital

Material welfare
The revolt of the white men

Landscape of societal values: hypothesis

- Material welfare
- Liberty
- Perfection/purity/sanctity
- Social order
- Equality
- Natural capital

Growth proponents
Left-wing
Greens
Cons, Republicans
The revolt of the white men

Landscape of societal values: hypothesis

- Growth proponents
- Left-wing
- Greens
- Cons, Republicans
- Libertarians
The revolt of the white men

Landscape of societal values: hypothesis

- Growth proponents
- Left-wing
- Greens
- Cons, Republicans
- Libertarians
- Education & self-realization
The revolt of white (less educated) angry men

**Despite low income**
- No redistribution
- Free market
- Deregulation
- Tax cuts
- Small government

**Cultural values**
- Opposing liberal lifestyle / LGBT agenda
- Nationalism
- Social order / against immigration
- Religious principles: sanctity / purity / dignity
- Pro death penalty / against abortion
- Anti-establishment

Bannon-Trump Narrative: Scapegoating (I)

- **Domestic Policy:** Destruction of elites and the checks and balances; „Deal-Maker-in-Chief“, „Commander-in-Chief“.

- **International Policy:** Trade conflicts, war between China and US

- **Trumponomics:** Tax cuts, infrastructure program, increasing public debt and increasing interest rates; imports from Europe and China will become cheaper, prices for exports will increase = appreciation of the dollar. Ironically, this policy will make protectionism as a scapegoating strategy feasible.
Bannon-Trump Narrative: Scapegoating (II)

- **Science:** „Truth“ is a mobile army of arguments in political battles; there is useful and dangerous science. Science is dangerous when it leads potentially to regulation.

- **Cultural values:** The agenda of the white, angry Americans; Scapegoating at the international and the national level is the main cultural metaphor. In a highly fragmented society scapegoats can always be found and blamed.
Ambitious climate policy requires leaving the majority of fossil fuel reserves untapped.
Three Narratives of Capitalism and Economic Growth

1. Economic Growth as a Narrative of Liberation

2. Capitalism and Growth as a Narrative of Exploitation and Alienation

3. The Challenge of the Global Commons – Overuse of natural resources, Shortage of public infrastructure and social commons
Global Commons as the Wealth of Nations

1) Avoid overuse of global natural resources

2) Ensure public investment and expenditures
Natural and social global commons as the new wealth of nations

Globalization causes overarching environmental problems to worsen, calling for international cooperation.

A shortage of public infrastructure and social capital exists across countries.
Infrastructure investment

- Purely domestic carbon pricing revenues for 2°C target would be sufficient to finance infrastructure investment needs in many countries.
- Even higher domestic potential if some redistribution across national borders.

Franks et al (in prep.)
Environmental taxes as just taxes

- Revenues accruing from environmental taxes can be used to lower other taxes.
- A reformed tax system can lead to a more equal income distribution.
- More redistribution allows for higher environmental taxes.

Klenert et al. (2016)
Make globalisation just (again?)

• **International agreements** and multilateral institutions
  - UNFCCC Climate Agreement
  - Prevention of ruinous tax competition
  - Securing minimum standards within the social system

• Giving the debate about **free trade, externalities and technological change** a new direction: **Fairness** is important!

• A new balance between **science, government, market and civil society** (e.g. just taxes, reasonable investment strategies, taming financial markets)
A new model of enlightenment

Science rests not only on **epistemological values** (e.g. consistency, coherence, simplicity)...

... but also on **ethical values** like universality, inclusiveness, democracy, freedom. These values have to resonate with the values of societies.

Science has **never** been a **value-free enterprise**.

There are only facts with values!