

HOCHSCHULE OSNABRÜCK  
UNIVERSITY OF APPLIED SCIENCES

# Well-being and Scarcity

## Navigating Covid, Energy Sanctions and Climate Policy

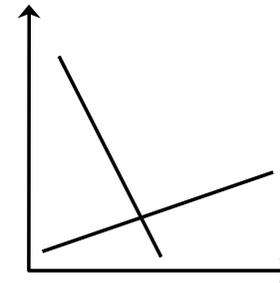
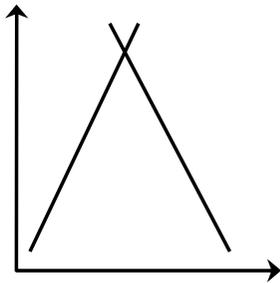
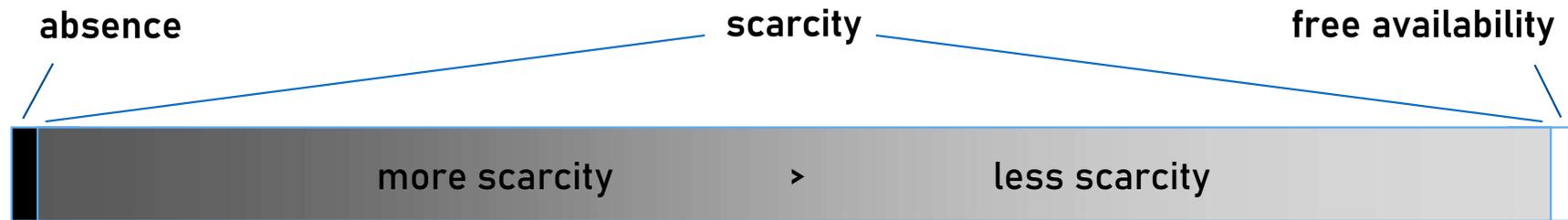
Johannes Hirata

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# Two meanings of scarcity

1. descriptive meaning: “limitation in relation to demand” (Lionel Robbins 1932, p. 45)
  - every good that has a price is scarce by definition
2. normative meaning: shortage, i.e. inadequacy of supply

# Descriptive scarcity: relative



# Normative scarcity: shortage



- “skilled labor shortage”
- “water scarcity”
- “goods becoming scarce due to supply chain disruptions”

# Three crises of increasing scarcity

1. Covid
2. Russian energy
3. Climate

## Exogenous scarcity shocks

- overwhelmed capacity (e.g. hospitals)
- supply chain disruptions

## Endogenous scarcity measures

- lockdowns, spacing rules etc.
- boycott of Russian energy
- carbon certificates etc.

# Covid

- deliberate supply restrictions of certain goods as least bad option
  - travel, entertainment, stores etc.
- surge in demand also increased scarcity for certain goods
  - webcams etc.
  - hospital beds
- inaction would have meant *unacceptable* scarcity of hospital capacities
- distinction was made between temporarily dispensable goods and critical goods

# War in Ukraine

- increasing scarcity as a direct consequence of the war (car parts, grain)
- increasing scarcity as a consequence of potential boycotts (coal, oil and gas)

# Global warming

- there are compelling normative reasons to reduce burning of fossil fuel, numbers of livestock etc. → more scarcity
- technological progress can in principle reconcile a reduction of carbon emissions with increasing goods consumption → not necessarily increase in scarcity of final goods

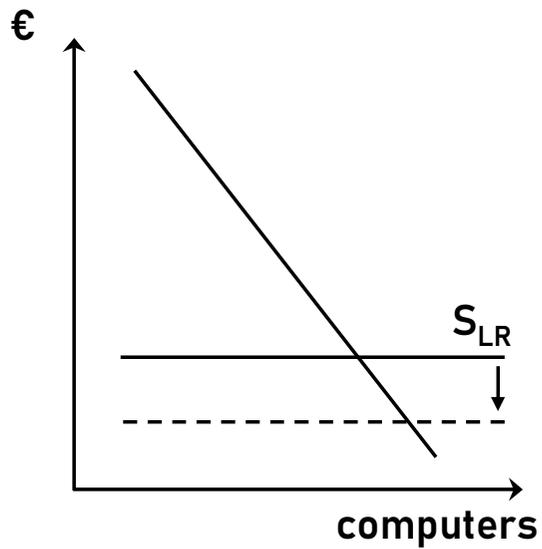
# Policy choices

- technological progress and substitution
  - no direct policy variable, not always quickly available
  - opportunity costs (esp. time)
- possible tradeoffs of one scarcity against another
  - one good vs. another (virus)
  - cross-country tradeoffs (war, development)
  - inter-temporal tradeoffs (carbon)

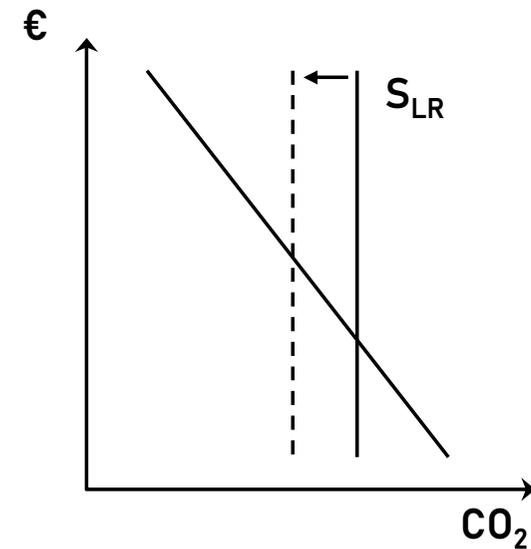
# Climate policies

- long history of very moderate measures
- common theme: no measures that would lead to a significant increase of scarcity
  - when increasing scarcity is likely, compensation is often offered
  - objective shortage for a small group is often reason enough to not carry through or to offer compensation for everyone → inequality matters
- reductions in CO<sub>2</sub> emissions better not exceed technological progress → no increase in energy scarcity
- cap and trade leads to absolute limitation → positional competition

# Positional competition



textbook model

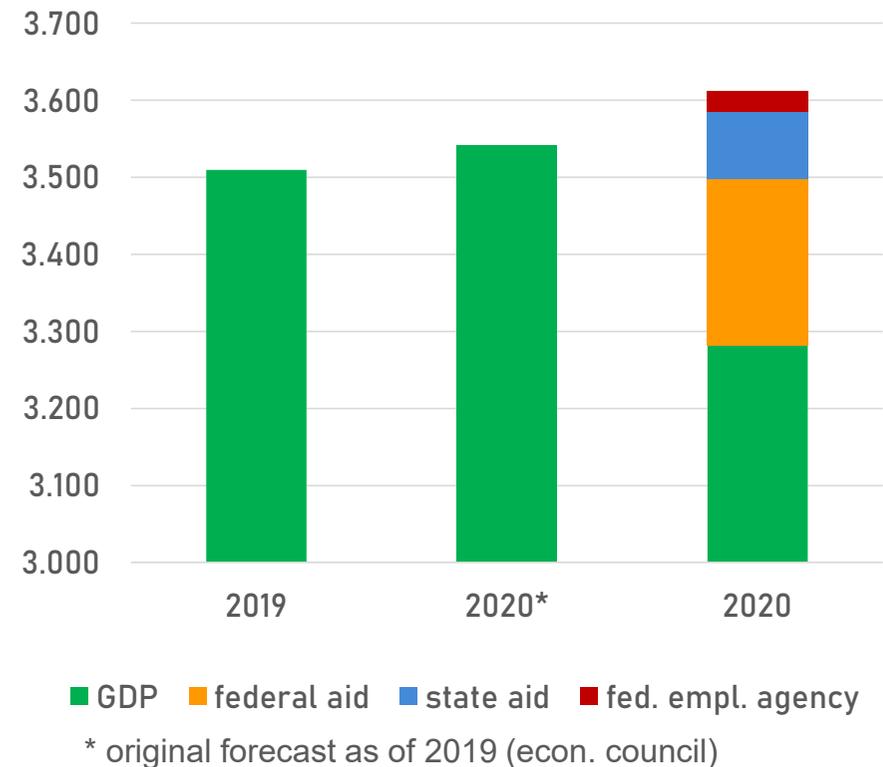


positional good

# Policy responses: Covid

- increased scarcity was countered with financial aid
- budgeted aid was equivalent to 2.9% GDP growth (forecast in 2019: 0.9%)
- aid ex post: +1.5%
  - GDP -4.6%
  - labor income -0.7%
  - disposable household income +0.3%
  - hh. consumption -5%
  - hh. savings rate 16.1% (after 10.8%)

German GDP 2019 and 2020 including budgeted aid (in constant 2020 €, bn)



# Effects of financial aid

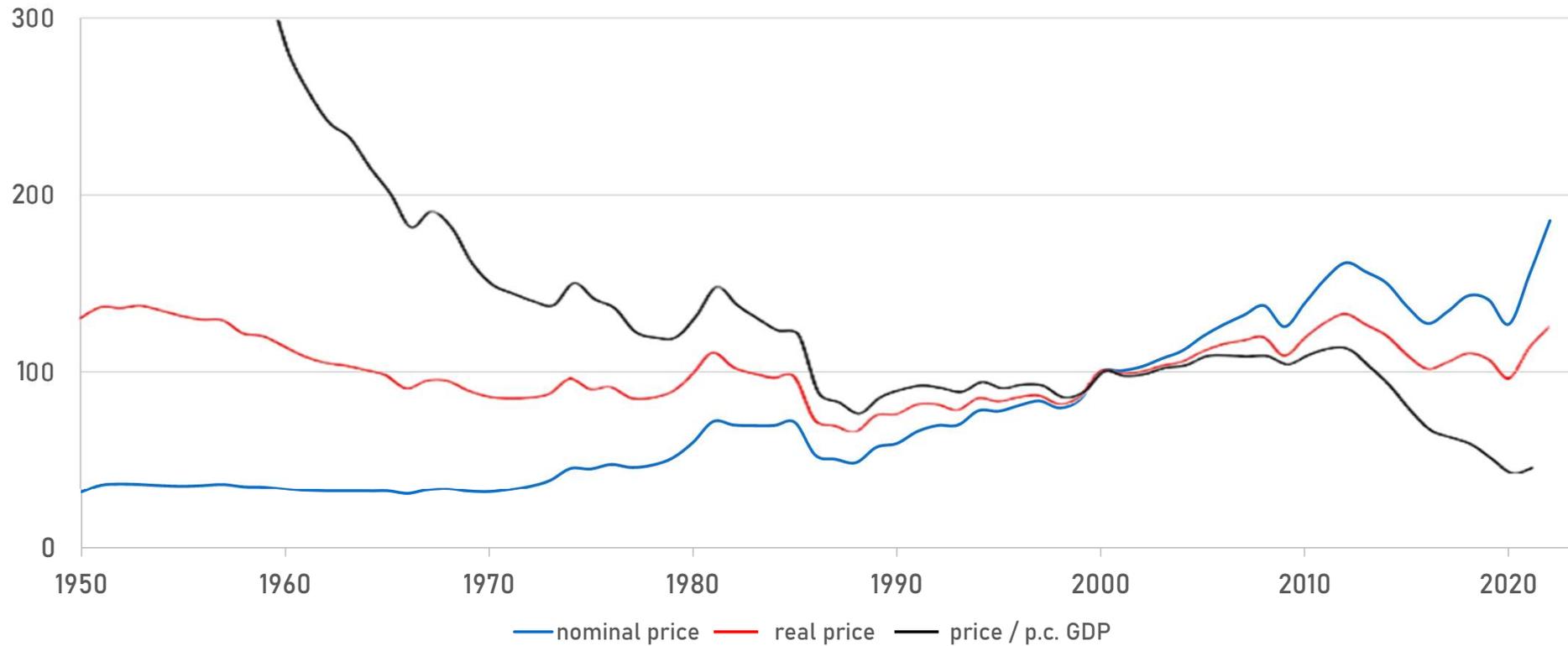
- avoid hardship for affected poor households, companies
- with demand restrictions:
  - more saving, delayed purchases
  - more demand for “pandemic goods”
  - rising asset prices and goods price inflation
- with negative supply shocks
  - outbidding of other countries
  - positional competition → rising prices, limited effect on consumption
- focus was on maintaining incomes and production
  - focus on production makes it a “patriotic duty” to consume

# Policy response to the war in Ukraine

- fear of gas shortage is key argument against gas boycott
- price increases partially countered by transfers and direct subsidies (e.g. rebate at the pump for 3 months)

# Fuel scarcity?

Fuel prices in Germany 1950-2022 (April)  
normalized (y2000=100)



# Wellbeing and scarcity

- wellbeing is an absolute concept
- scarcity can be relative or absolute
- scarcity is essential for wellbeing
  - the good life requires challenges
- lose connection between wellbeing and scarcity of goods
  - relative-income effect, adaptation etc.
- an increase in scarcity may lower wellbeing, but how bad is that exactly?
- hardship for low-income households is often matched by overconsumption by wealthy households → distribution (as in Sen's evidence on famines)

# Coping with increasing scarcity

- accepting and managing increasing scarcity would make a society much more resilient, just and enhance wellbeing
  - ex.: Japanese voluntarily saving energy after Fukushima
- ability to accept increasing scarcity would mean more freedom
- three key obstacles to accepting increasing scarcity
  1. excessive income inequality
  2. relative-income effects, adaptation
  3. culture of growth expectations

# Conclusion

- economics often uses scarcity also in a normative sense, suggesting that having less of something is a severe problem
- enormous material affluence has not brought us the freedom to opt for less of something
- focus on wellbeing and intrinsically valuable outcomes rather than consumption and production would promote resilience and wellbeing
- public discourse around affluence and scarcity needs to change, and academics need to lead this change