

How can macroeconomics inform the transition to bioeconomy?

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Outline and learning objectives

- Global challenges and the concept of the bioeconomy: from a fossil-fuel based economy to a bio-based economy – EXPLAIN transition?
- Why is this relevant for sustainable development – decision makers
- Need to measure stuff
- The principles of macroeconomics – a brief overview, what is macroeconomics and how can it help us to understand growth, fluctuations and balance, modelling helps to support policy design,
- Macroeconomic tools and the transition : macro
- Understand how macroeconomics can help to explain the transition from a fossil-fuel based economy to bio-based economy
- ADD TWITTER UND SOCIAL MEDIA STUFF AT END, PINGO...

Transitions in the economy

- Show graph, from agricultural to industrial to...
- Big Picture of Macroeconomics – a way to measure aggregate behavior and to inform decision makers, helps policy,
- GDP als Beiepsie, one way to measure output and wealth...other indicators that really important for well-being, we will discuss them..
- Trend in GDP, Anteil von fossil-buels bio-based – transito in...
- Macro can help us to measure the impact of bio-based inputs on aggregate bheaviob – based on that we can inform decioisn makers..
- Why important for policies= SDGs challenges, feed the world takle climate change, good polcieise need good information...

- Lewandofski book p. 244, nicht schlecht..., aber microfundiert,
- Lewandofski book p. 332, transformation, from schumpetarian perspective

Simple example with supply and demand..

Engage students_ plan monthly coffee table, they should be sustainability and growth,, exchange and meeting, discuss and so on...

- Cake from starbucks to data as whole...
- Zeige kette
- Large part to produce goods was fossil fuels...

Show empirically and with figures the transition to bioeconomy

- Over time a graph that shows how , Joachim von Braun, GDP and agriculture, global agenda , show what was in past, fossil fuels, nowadays renewables, production
- If you look at classical teaching: most macroeconomic neglect
- What is the bioeconomy
- What is macroeconomics: a classical supply model, about indicators, GDP: tells you how product, indicator of wealth...
- How can macroeconomic tools inform about transition

Bioeconomy

- Show pictures with figures and graphs
- Give definitions
- Problem: not measured yet, neglected by traditional macroeconomics, or economy

PINGO

Interactive part

What is macroeconomics...

- Ideas taught at the macroeconomics principles level should satisfy two goals. First, they should be simple enough to be both *understandable and memorable* for the beginning student. Second, they should be *consistent* both with the modern economy and with the macroeconomic models of this economy that are used in practice for policy evaluation.
- Jan börner..
- Nochmal buch von typen anschauen...
- <https://books.google.de/books?id=Deg3DwAAQBAJ&pg=PA95&dq=bioeconomy,+macroeconomics&hl=de&sa=X&ved=0ahUKEwizjoijkafpAhXLyKQKHbneCHsQ6AEIKzAA#v=onepage&q=bioeconomy%2C%20macroeconomics&f=false>