

# What next?

1) The Reduction of Consumption

2) Inequality, Social Responsibility and Directed Innovation

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# Content

Idea 1:

Reducing Consumption Levels

The environmental costs of inequality

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**Reducing Consumption Levels**

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# Motivation

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⇒ **this project focuses on a **reduction** of consumption**

# This Paper

## Research Question

What are the effects of a reduction in consumption on inequality and macro variables?

## Model

- neoclassical growth model: output and consumption determined by factor supply
- ⇒ Key to this paper: demand-determined production level allowing for excess supply of labour  
building on models of economic slack/ disequilibria, such as
- sectors differ with the degree of resource usage
  - households differ wrt the sector where they are employed ⇒ unequal effects
  - with basic needs questionable if reduction in consumption by one type implies reduction in resource usage



# How to model the reduction of consumption?

- deliberate reduction by households; by certain household types
- government policy  $\Rightarrow$  political economy

## Empirical analysis

- measure resource consumption by household
  - What household characteristic/ events determine consumption levels?
- $\Rightarrow$  Informs model on how a reduction of consumption can be implemented
- introduce reduction necessary to meet 1.5° warming goal
  - measure

## The environmental costs of inequality

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# Motivation

- due to climate change, we need to reduce the consumption of resources
- a rising willingness to spend for green products implies a *recomposition* of consumption towards less resource-intense goods
- but: **subjective basic needs** are high, preventing a demand-driven transition to green production

⇒ **How important are subjective basic needs in hampering a transition? How can a reduction be obtained? What are the economic consequences?**

# Motivation

Make model in first project a quantitative model:

(1) heterogeneous agents to capture distribution of income more accurately; (2) estimate social responsibility by household and **subjective** basic needs  $\Rightarrow$  households do not want to reduce the level of consumption beyond what they perceive as needed (will be a function of income); (3) introduce carbon cycle to account for dynamics in externality; (4) directed innovation  $\Rightarrow$  interaction with demand!

## Research Question

How important an obstacle are subjective basic needs and inequality for a transition to sustainable production?

$\Rightarrow$  empirical research has shown that income determines the level of resource consumption; Empirical work on how income inequality and CO<sub>2</sub> emissions relate and why; But, income inequality is also a factor that impacts a transition to sustainable production: subjective basic needs are a positive function of income  $\Rightarrow$  social