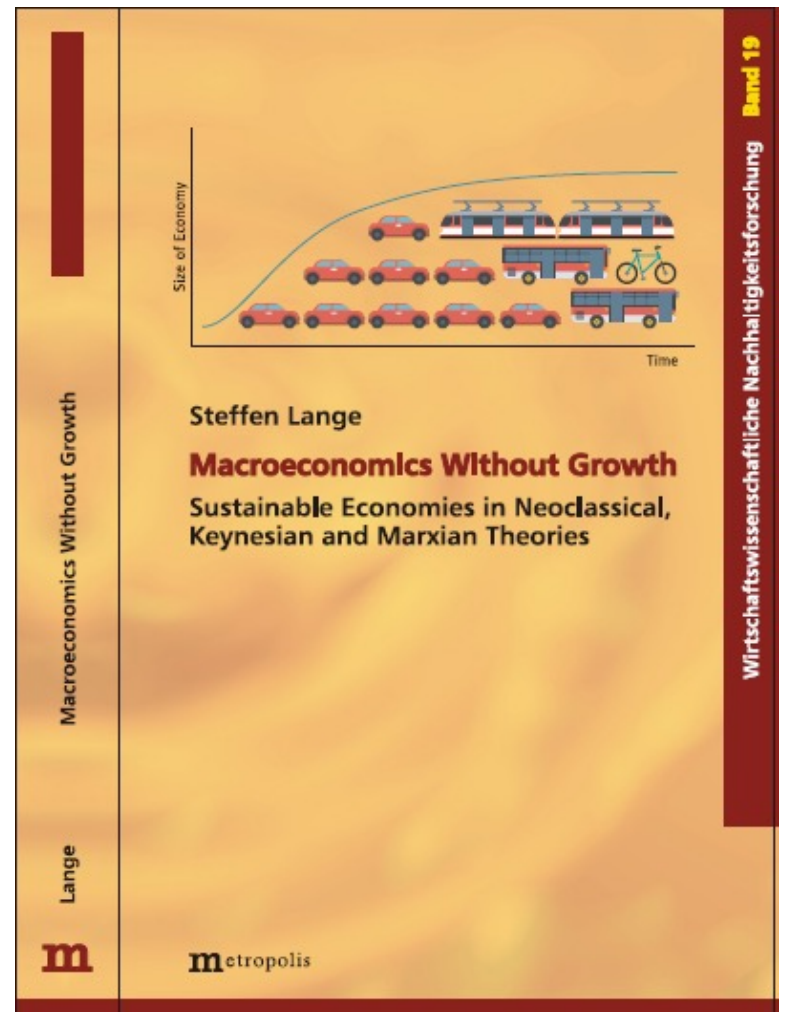


# Macroeconomics Beyond Growth

Online-Workshop: De-growth, zero growth and/or green growth?  
Macroeconomic implications of ecological constraints

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# Research method

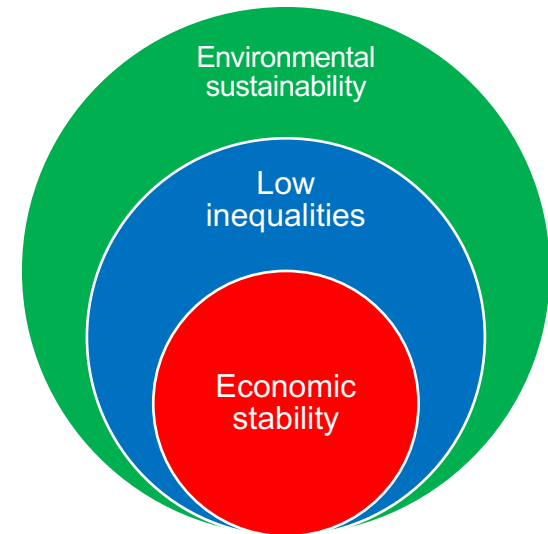
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## Research question:

Which macroeconomic conditions lead to sustainable economies without growth?

## Method:

1. Conditions for each single theory
2. Conditions for each school of economic thought
3. Conditions based on the three schools of thought



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# Research method

Table 22.1: Relations Between Theoretical Statements and Pluralist Strategies

Relations between theoretical statements		Pluralist research strategies	
(1)	$\Rightarrow\Leftarrow$	Identical	} (a) Integration
(2)	$\nearrow\searrow$	Convergent	
(3)	$\uparrow\uparrow$	Compatible	
(4)	OO	Neutral	} (b) Division of labour
(5)	$\nwarrow\swarrow$	Divergent	} (c) Diversification
(6)	$\Leftrightarrow$	Contradictory	
			} (d) Test of conflicting hypothesis

Adapted from [Dobusch and Kapeller \(2012\)](#), p. 1050).

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# Neoclassical theories (general)

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## Relation to existing research:

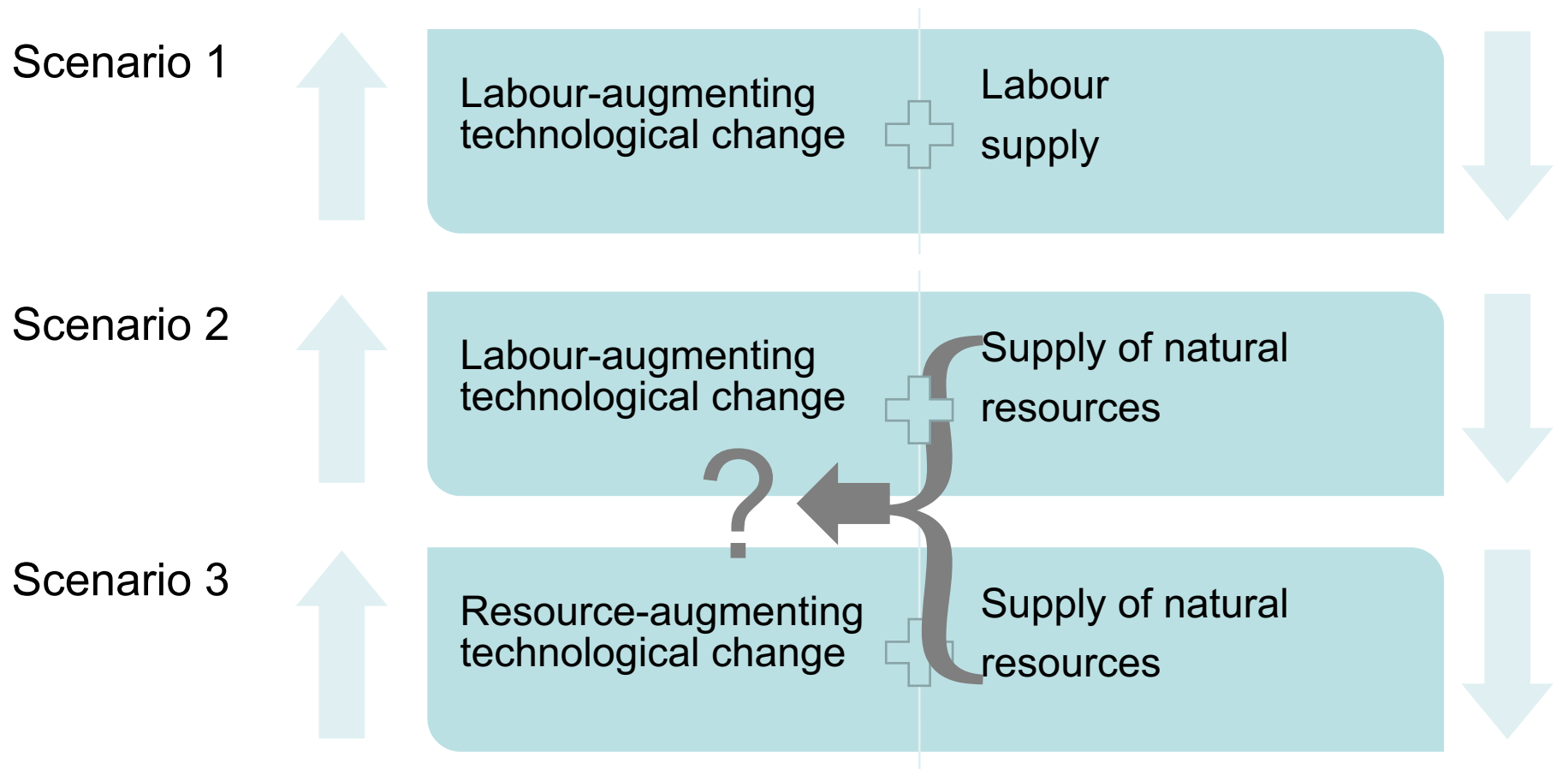
- First rigorous investigation of economies without growth (exceptions working paper by Irmen and interview by Solow)
- Similar results:
  - Zero growth is feasible.
  - No instabilities

## General conditions:

- Constant aggregate supply: The sum of the developments of the supplies and productivities of the production factors (capital, labour, natural resources) have to balance each other out.
  - Capital (accumulation) is not important.

# Neoclassical theories (scenarios)

Three scenarios on how zero growth might look like:





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# Keynesian theories (general)

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## **Relation to existing research:**

- Few investigations on economies without growth exist and they are always limited to one specific theory (e.g. Binswanger, Rosenbaum).

## **General conditions:**

- Constant effective demand -> appropriate interplay between aggregate supply and aggregate demand

# Keynesian theories (scenarios)

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## Scenario 1:

### Conditions:

#### 1. Increases in labour productivity are used for reductions in average working hours

instead of wage increases.

- Constant wage income
- Constant consumption
- Constant employment

#### 2. Constant government spending

- Constant demand for final goods

#### 3. Zero net investments: $I = \delta K$

- Aggregate demand and aggregate supply stay constant
- $S = 0$

#### 4. No continuous accumulation of assets by one group

## Scenario 2:

- Different technological change instead of reductions in average working hours

## Scenario 3:

- Sectoral change instead of reductions in average working hours

## Scenario 4:

- Different technological change and sectoral change

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# Marxian theories (general)

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## **Relation to existing research:**

- Several investigations on economies without growth exist – also by major authors (Foster, Magdoff, Harvey).
- End of capitalism.

## **General conditions:**

- Central institutions need to change (ownership, general framework of the market).

# Marxian theories (scenarios)

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## Scenario 1: Competitive economies without growth

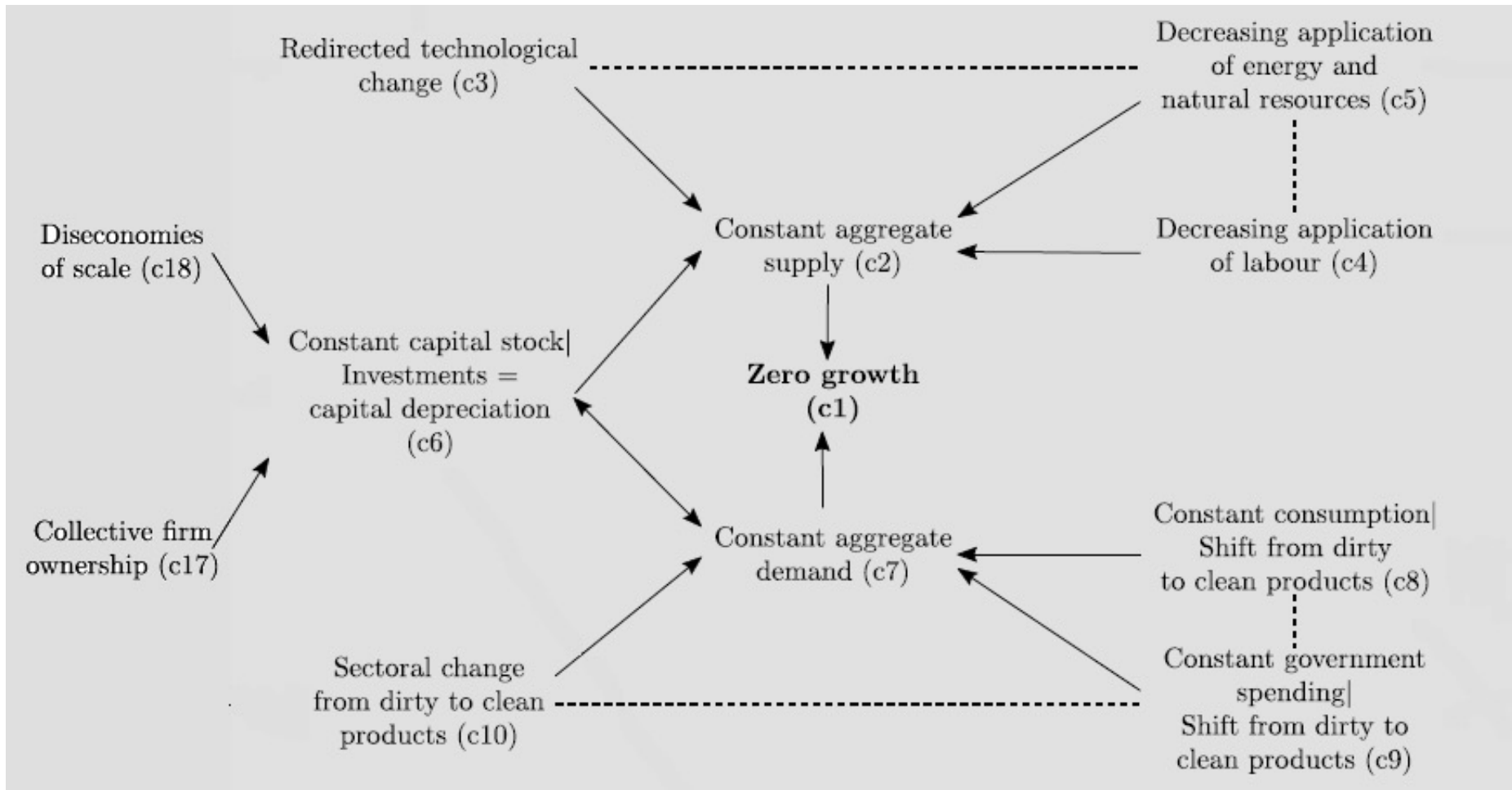
- **Conditions:**
  - Price competition
  - Collective ownership
  - Diseconomies of scale
  - Expensive energy and cheap labour

## Scenario 2: Monopolistic economies without growth

- **Conditions:**
  - Monopolistic competition
  - Collective ownership
  - Hindering the sales effort
  - Expensive energy and cheap labour
- Zero growth compatible with a combination of market regulation and collective firm ownership



# Synthesis





# Role of digitalization

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## **Neoclassical:**

- Digital technologies lead to less increases in labour productivity

## **Post-Keynesian:**

- Digital technologies increase income inequality and thereby dampen consumption demand

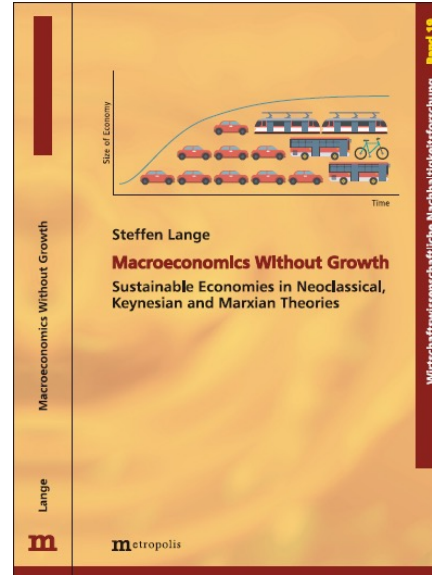
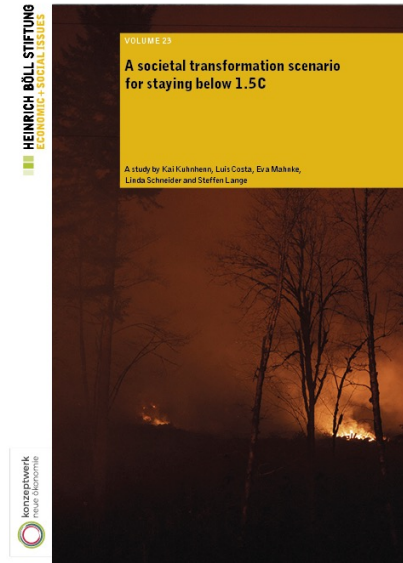
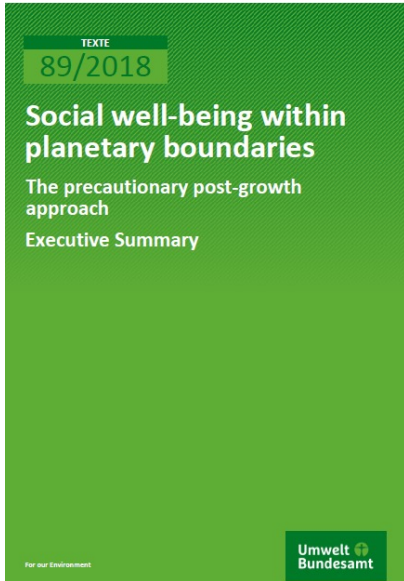
## **Neo-Marxian: Digitalization supports monopolization**

- Low consumption demand
- Concentration of political power
- Role of sales effort

## **Ecological Economics**

- Embodied energy of digital devices
- (In-)ability of digital technologies to increase conversion rate from exergy to useful work

**Digitalization does not change conditions for zero growth in principle. However, the concrete measures differ (e.g. collective firm ownership of platforms or regulation of the sales effort online).**



Thank you.

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