



SPECIALISTS IN
EMPIRICAL ECONOMIC
RESEARCH

A horizontal teal bar with the text 'PD_DE' in white, sans-serif font.

PD_DE

PortableDyme_Germany

Anke Mönnig

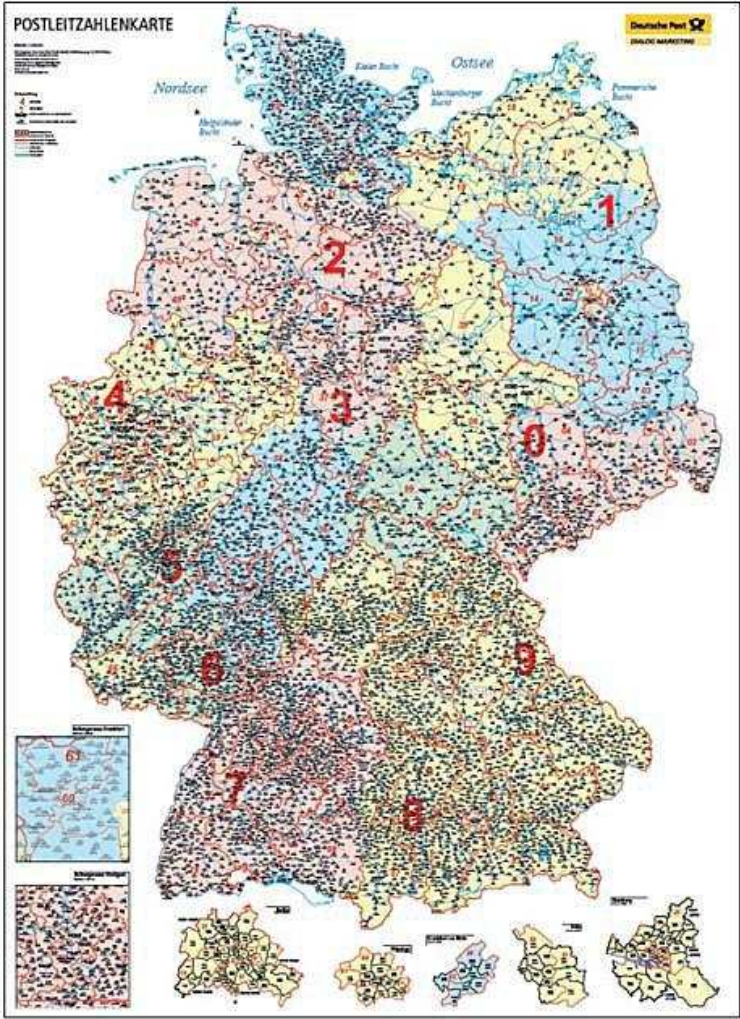
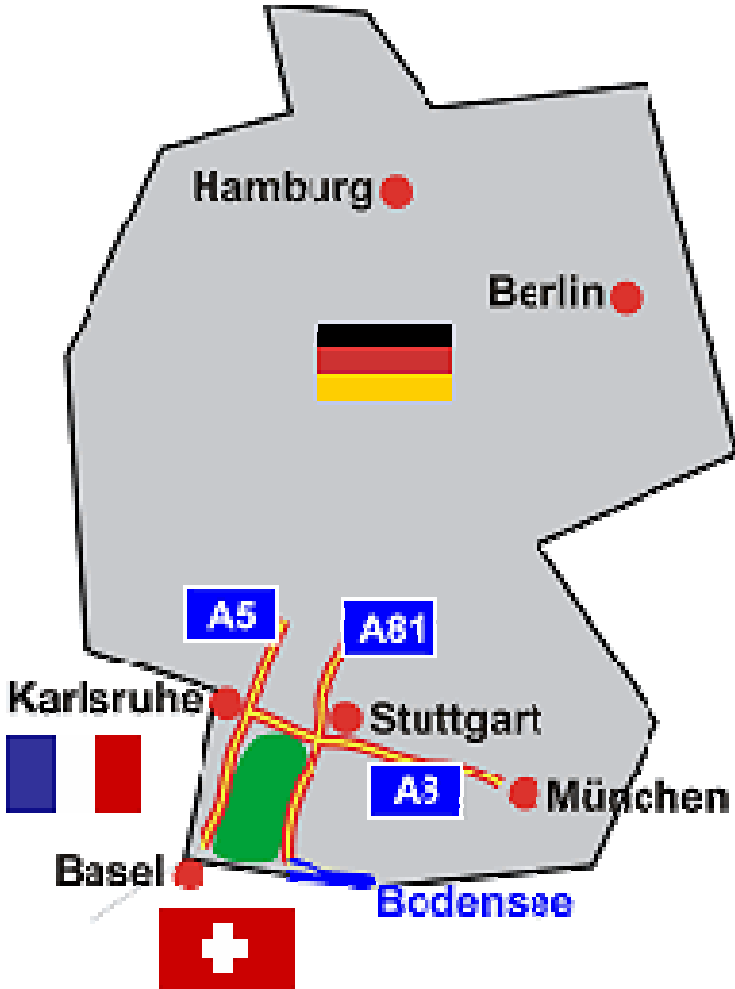
Content

1. **Overview**
2. **Modelling approach and results for main GDP components**
3. **Outlook**

1. Overview

Overview

- ▶ Building a model – from rough to tough...



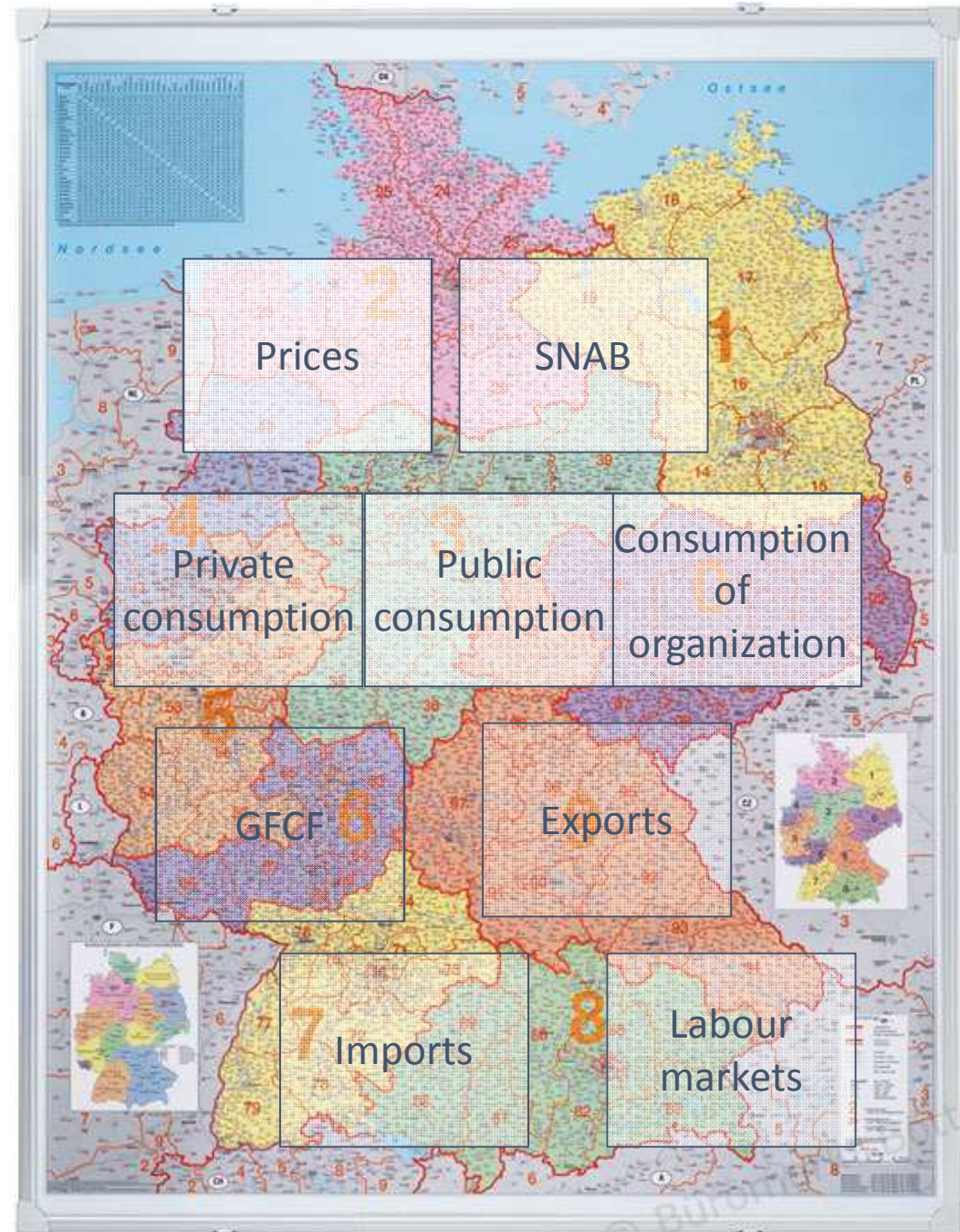
Overview

- ▶ It's about the right balance, when to go into detail.
- ▶ It depends on many framing issues:
 - ⇒ data availability
 - ⇒ time availability
 - ⇒ knowledge availability
 - ⇒ availability of technology
 - ⇒ research question
 - ⇒ ...

- ▶ A solution may be a combination of rough and tough components
- ▶ For instance PD_DE

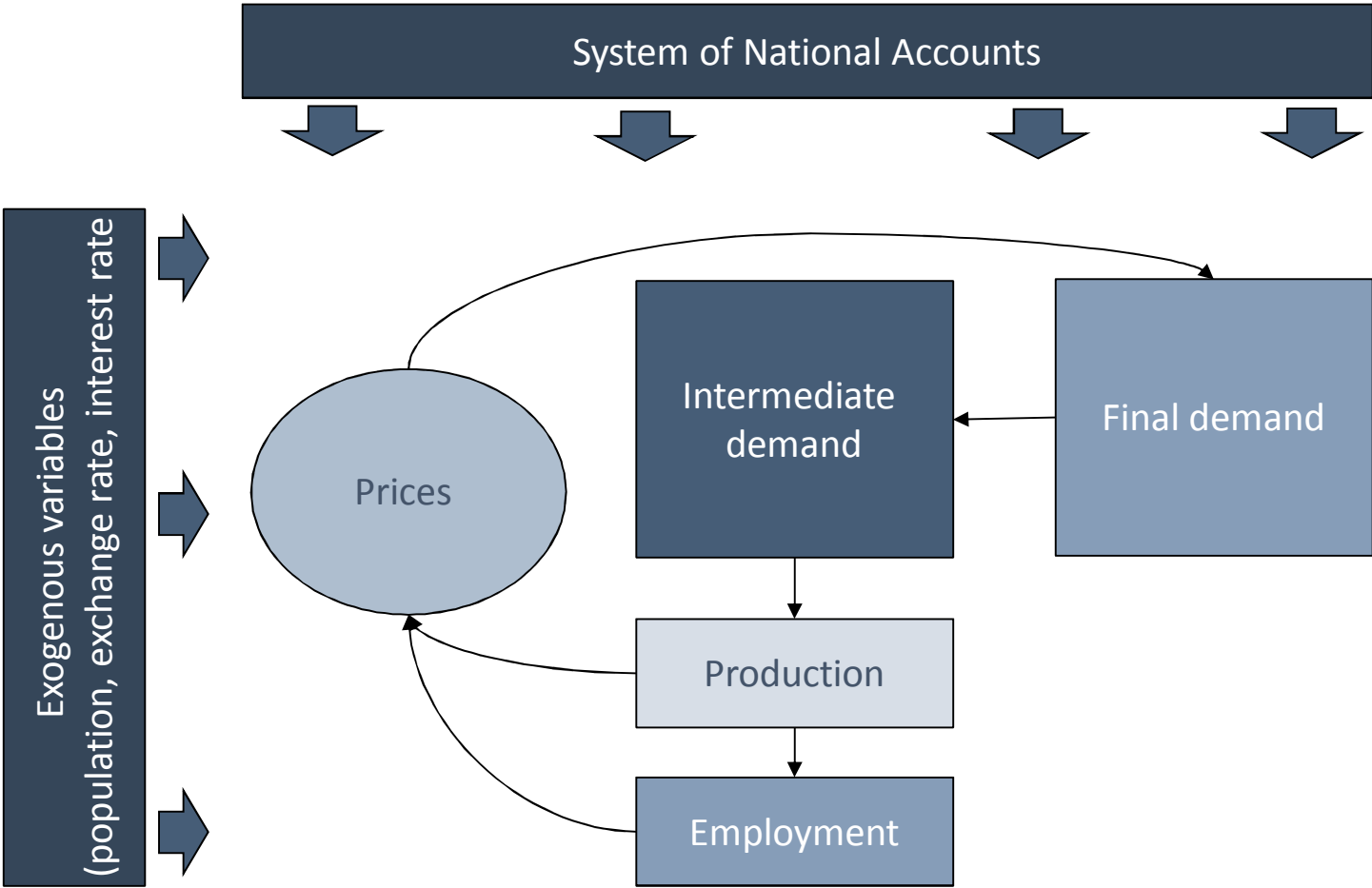
Overview

- ▶ Economic components are differently modelled



Overview

- ▶ Basic structure



Overview in more detail

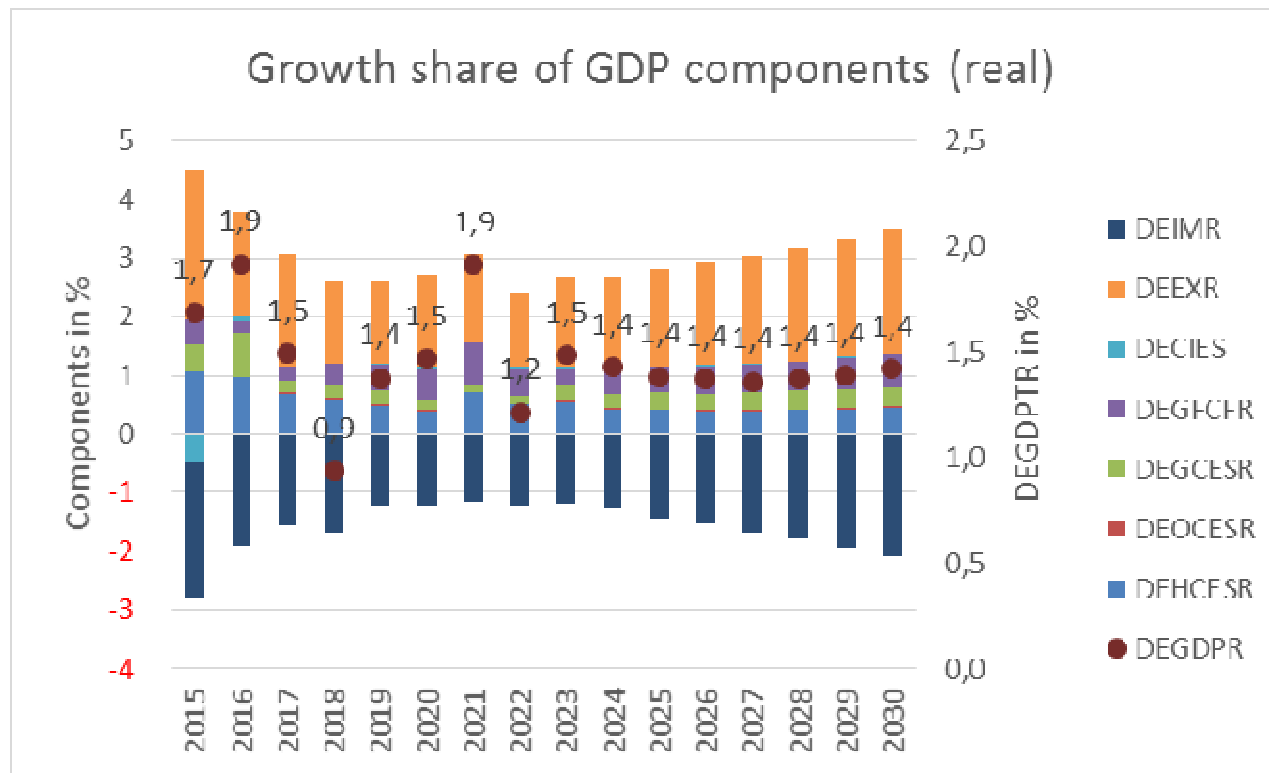
- ▶ Exogenous variables
 - ⇒ Population,
 - ⇒ Interest rate,
 - ⇒ World trade, import prices, exchange rates
- ▶ Bottom-up (mostly)
- ▶ Totally integrated
- ▶ Estimation of parameters
- ▶ Demand driven with price responsiveness

- ▶ All data taken from Eurostat, except world trade and raw material prices (IMF)

2. Modelling Approach and results for main GDP components

Results

- ▶ Return to longterm average growth path of around 1.5%.
- ▶ At the start: strong private consumption.
- ▶ Investment are than recovering and contribute more to growth.
- ▶ A positive foreign trade balance can be observed most of the time.



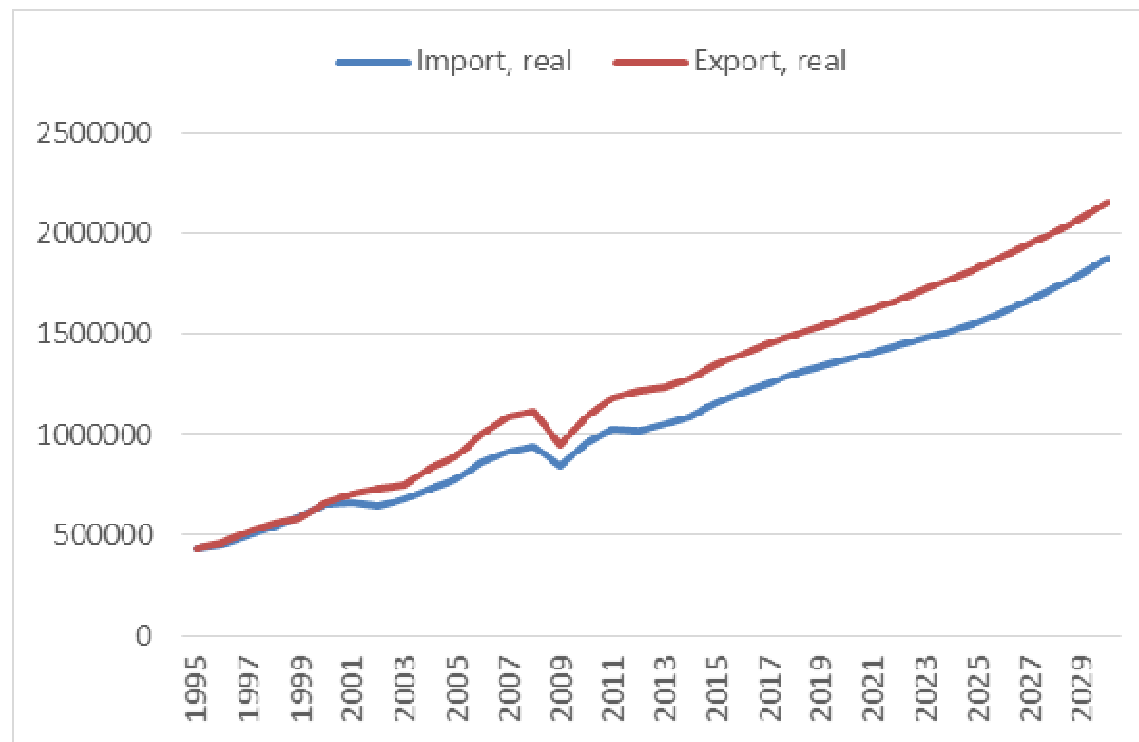
Foreign trade balance

- ▶ Import demand
 - ⇒ estimated in nominal terms on industry level
 - ⇒ depend on domestic nominal production (+)

- ▶ Export demand
 - ⇒ estimated in nominal terms on industry level
 - ⇒ depend on total world trade and exchange rate (+)

Foreign trade balance – results

- ▶ Since 2000, exports grow faster than imports
- ▶ Leading to a positive trade balance
- ▶ with an increasing growth share to GDP
- ▶ In the long run, the positive growth share remains



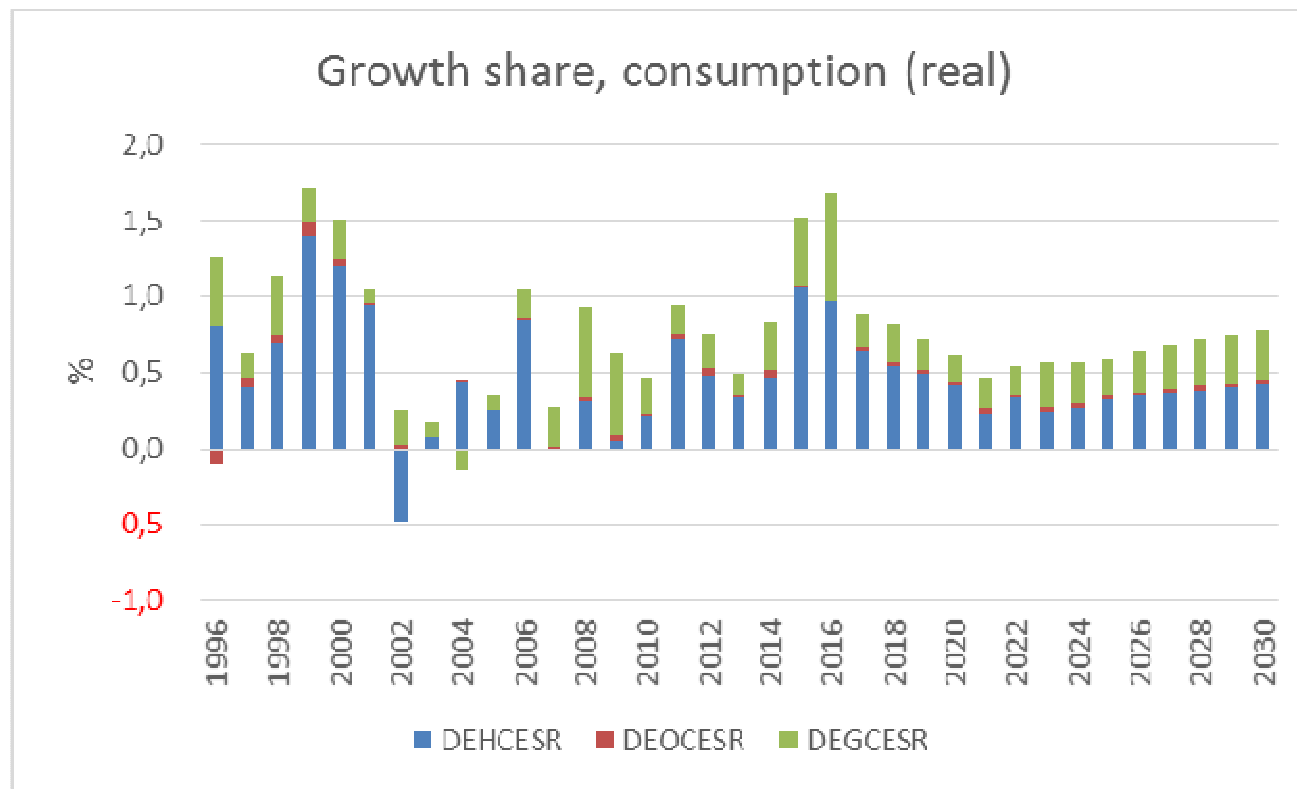
Consumption

- ▶ Private consumption demand
 - ⇒ estimated in real terms on product level
 - ⇒ depend on real disposable income

- ▶ State and private organisation expenditures
 - ⇒ exception from bottom-up approach
 - ⇒ top-down approach with constant shares for break-down on product level
 - ⇒ Both estimated in nominal terms

Consumption – results

- ▶ Growth share currently extremely high – for both private and government consumption
- ▶ Strong growth share of government expenditure do not sustain.

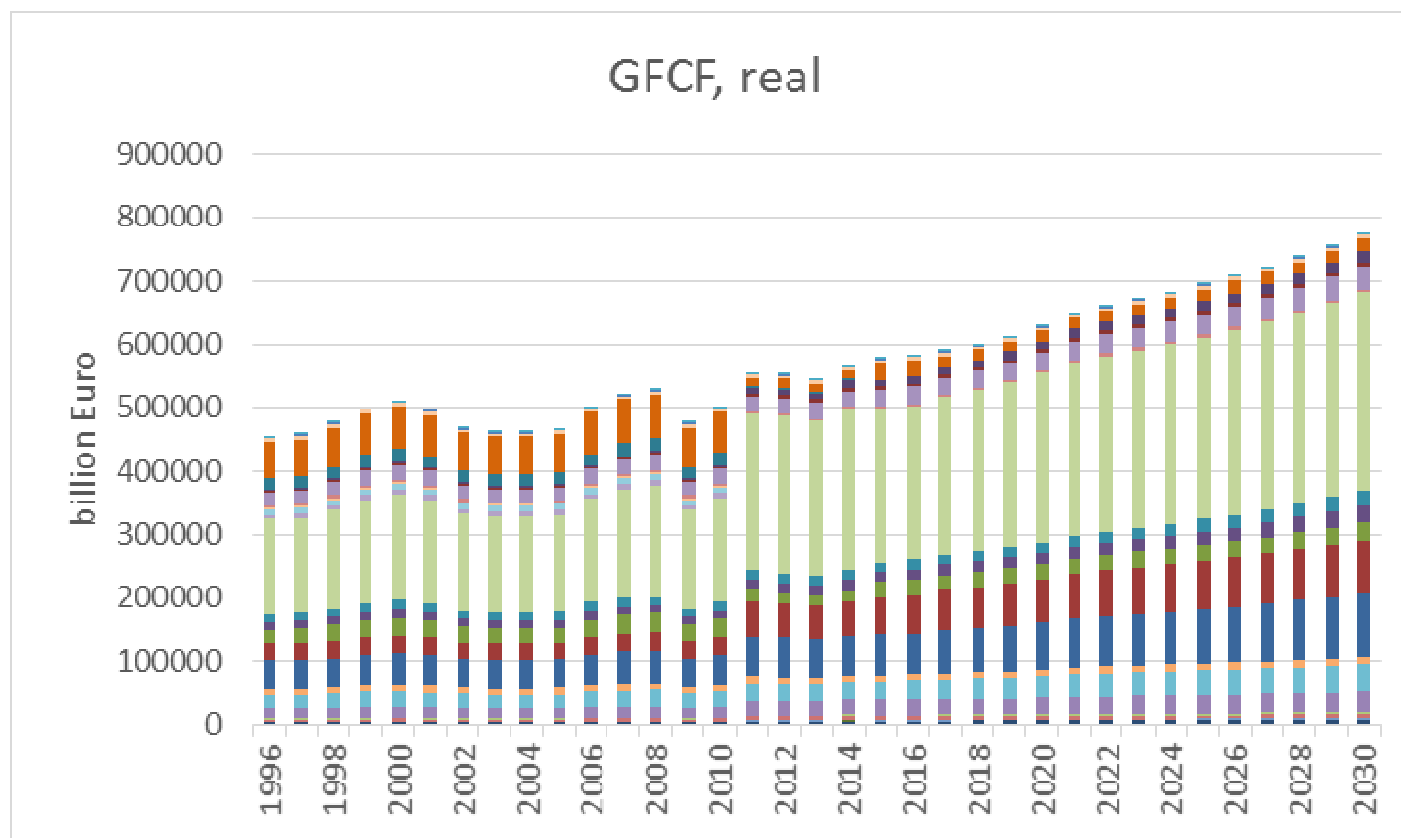


Gross fixed capital formation

- ▶ by investing industry
- ▶ estimated in real terms
- ▶ depend on real output (+)
- ▶ using constant bridge matrix for transforming on product level

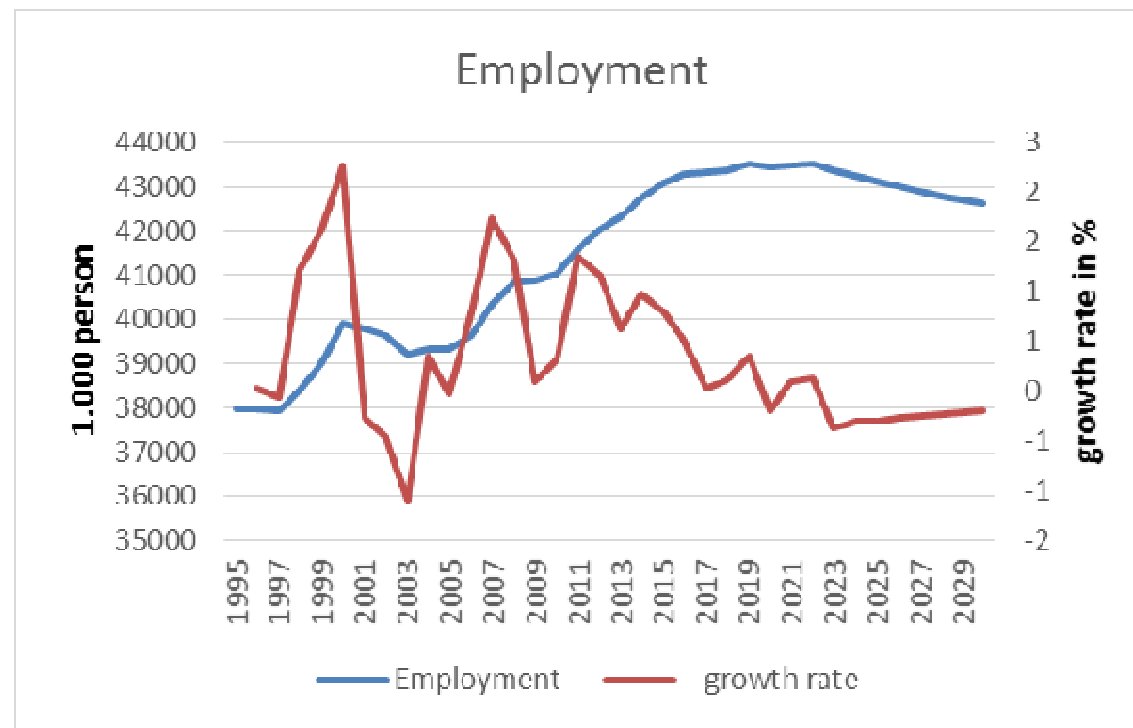
Gross fixed capital formation – results

- ▶ Main driver construction and construction works.
- ▶ Wait-and-see position in investment in equipment disperse in the long run.
- ▶ Especially for automotives and machineries n.e.c..



Labour market

- ▶ estimated on industry level
- ▶ depend on real output (+) and real wages (-)
- ▶ labour market in good position – increasing employment
- ▶ in the long run decline due to decreasing population



3. Outlook

Outlook

- ▶ Model could get „more tough“ in some aspects
- ▶ E.g.
 - ⇒ Private consumption by consumption purposes
 - ⇒ Price modelling
 - ⇒ Optimize regression results



SPECIALISTS IN
EMPIRICAL ECONOMIC
RESEARCH

www.gws-os.com

Gesellschaft für Wirtschaftliche Strukturforschung mbH

Heinrichstr. 30

49080 Osnabrück

Tel + 49 (0) 541 40933-XXX

Fax + 49 (0) 541 40933-110

name @ gws-os.com