
SEERMAP

South-East Europe Electricity Roadmap

SEERMAP: Summary of macroeconomic modeling

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14 September 2017



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Macroeconomic effects of decarbonisation are moderate at the regional level

- Decarbonisation
 - leads to moderate GDP (up to 1.5%) and even smaller employment gains (0.2%)
 - helps to improve the external position of the countries primarily due to higher domestic electricity production through renewables
 - does not affect household expenditures significantly with the exception of the ‚delayed’ scenario


Country results vary to a significant extent

- Macroeconomic gains are higher for smaller countries (BiH, KO, ME) and lower for larger, EU member states
- In countries with higher GDP effects debt positions also improve more significantly
- Household electricity expenditure in the scenarios primarily varies with the size of RES support required

Presentation outline

- I. What questions we want to answer?
- II. What is the methodology?
- III. What are the main results?

What questions we want to answer?

- Macroeconomic gains
 - To what extent decarbonisation contributes to higher level of GDP and employment?
 - Vulnerability
 - To what extent decarbonisation changes the sustainability of the fiscal and external positions?
 - Affordability
 - How does the burden of the electricity bill change for households due to decarbonisation?
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Which scenarios we compare?

- **Baseline**
 - ▶ In line with EU PRIMES
 - ▶ Only those power plants are built where the final investment decision has been made and later on the sector's investment rate is kept constant
- We compare the results of the core scenarios (,no target', ,decarbon', ,delayed') to the baseline



Structural macroeconomic models for 9 countries

- The following macroeconomic channels are taken into account
 - ▶ Energy investments
 - increase product and labor demand in the short term
 - increase the productive capacity of the economy through higher capital and better technology permanently
 - lower energy imports in case of RES due to domestic electricity production
 - ▶ Increasing RES penetration lowers Co2 revenues hence c.p. increase the budget deficit
 - ▶ RES support to producers and differing wholesale prices across the scenarios also affect the final retail price



III. What are the main results?

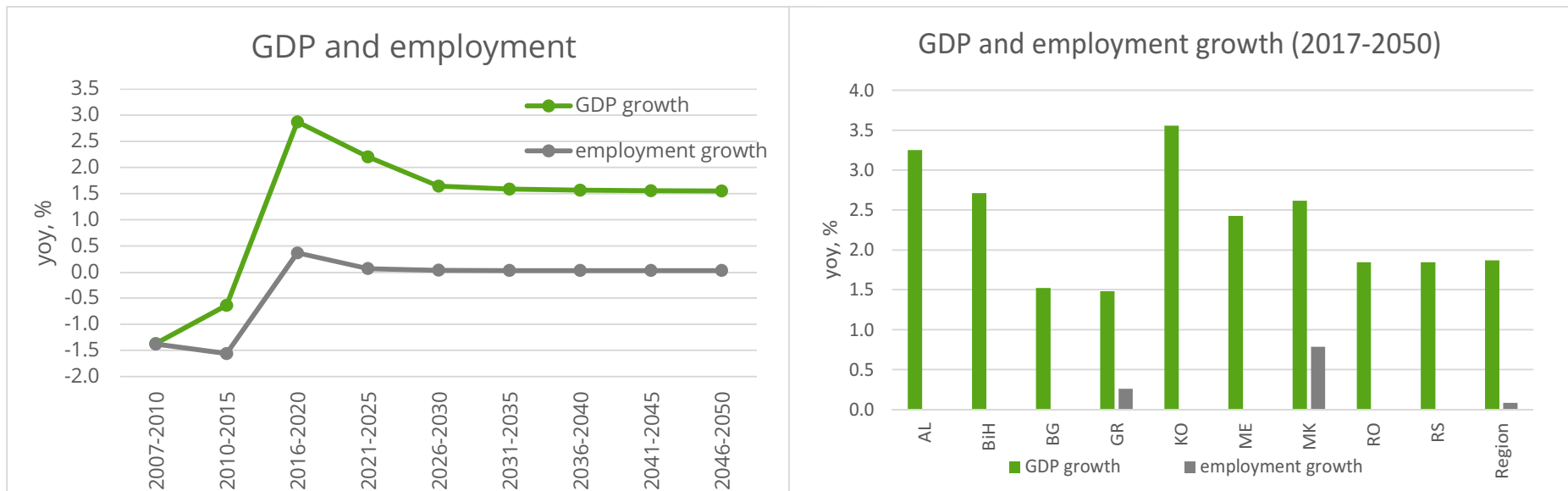


III.1. Macroeconomic gains



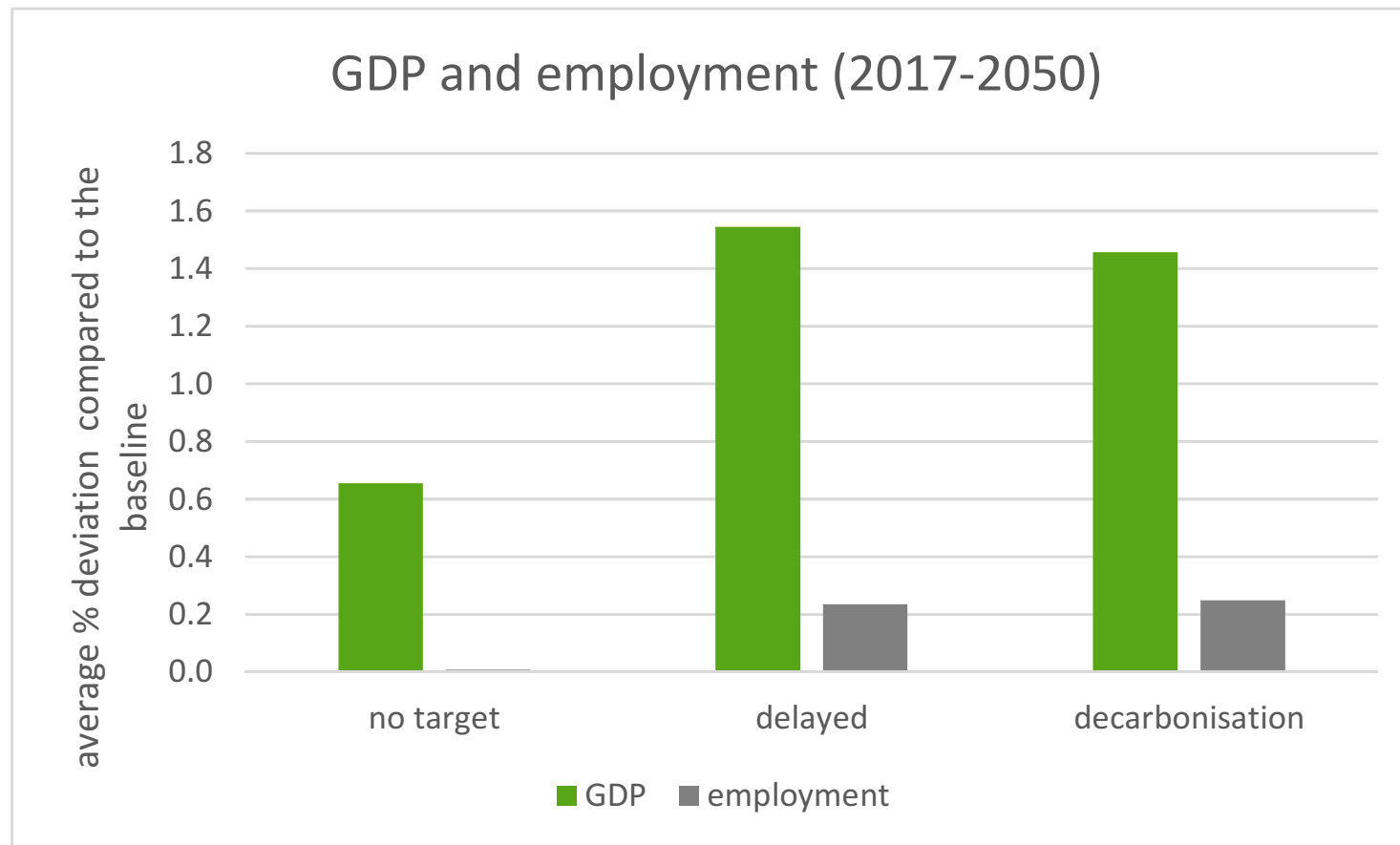
Baseline scenario

Slowdown in GDP growth, mostly stable employment

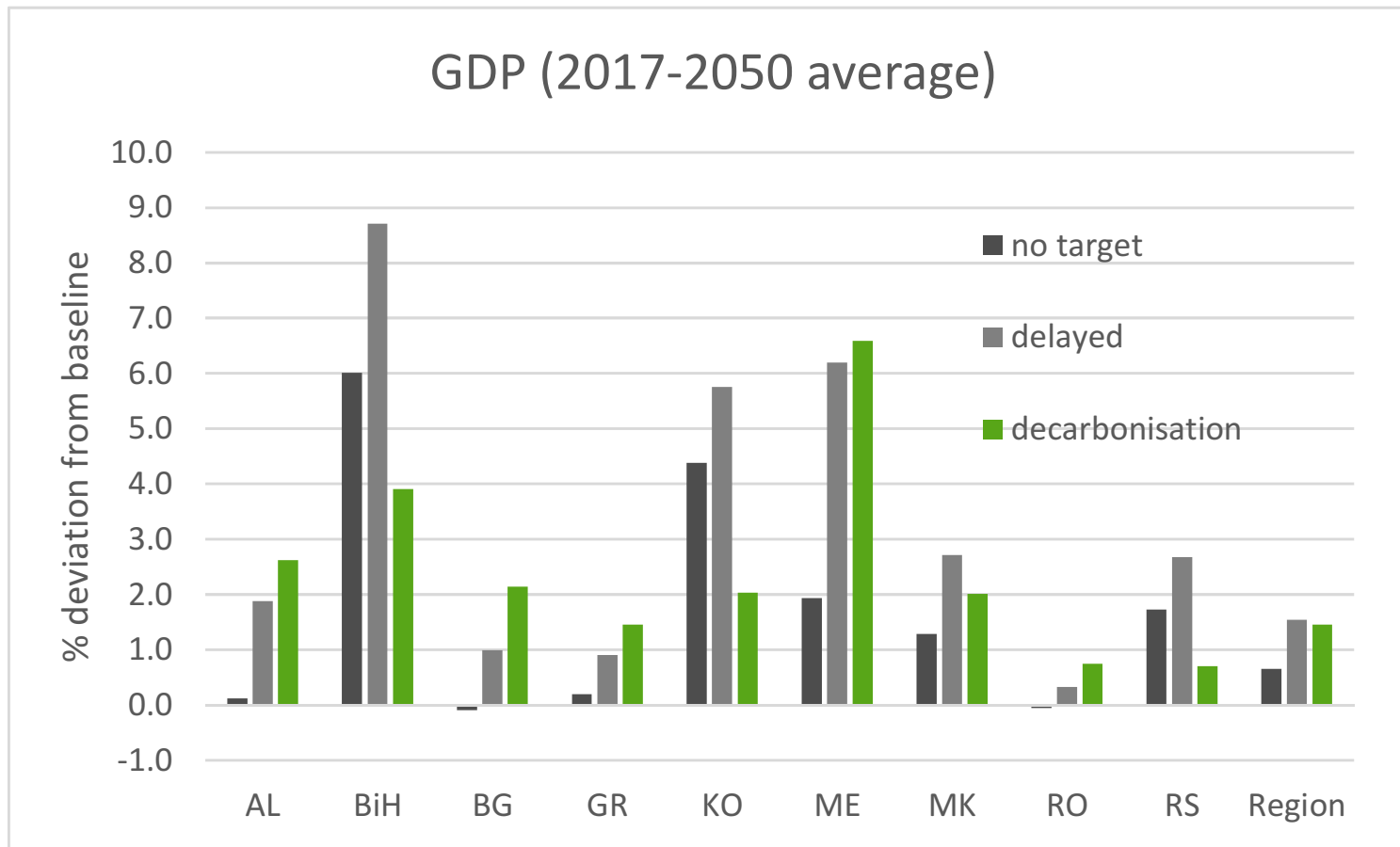


The core scenarios...

...lead to moderate GDP gains at the regional level



Significant country variation

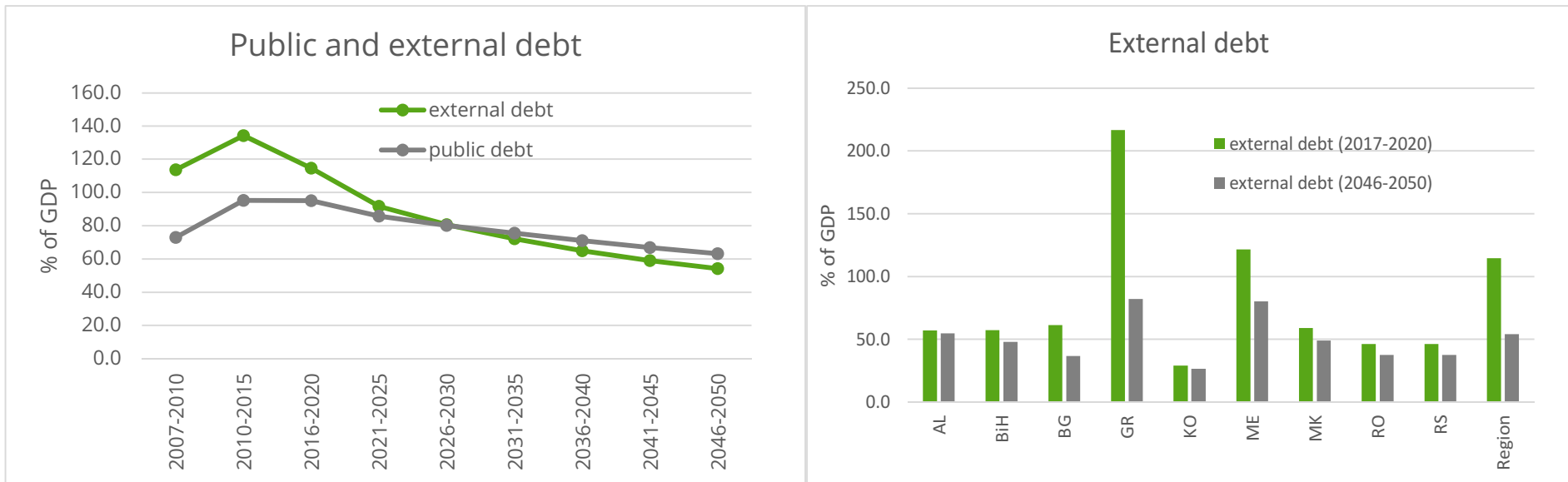


III.2. Vulnerability



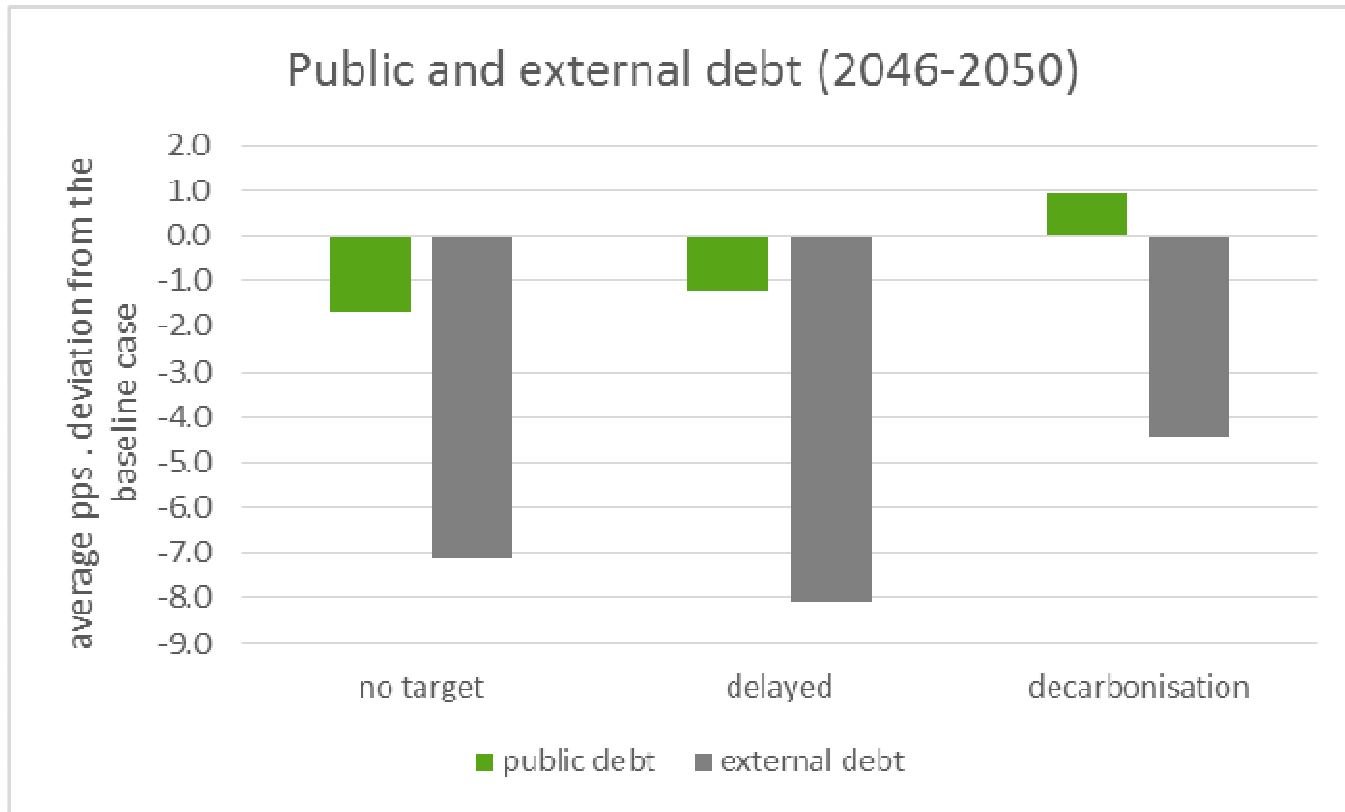
Baseline scenario

gradual decline in debt levels

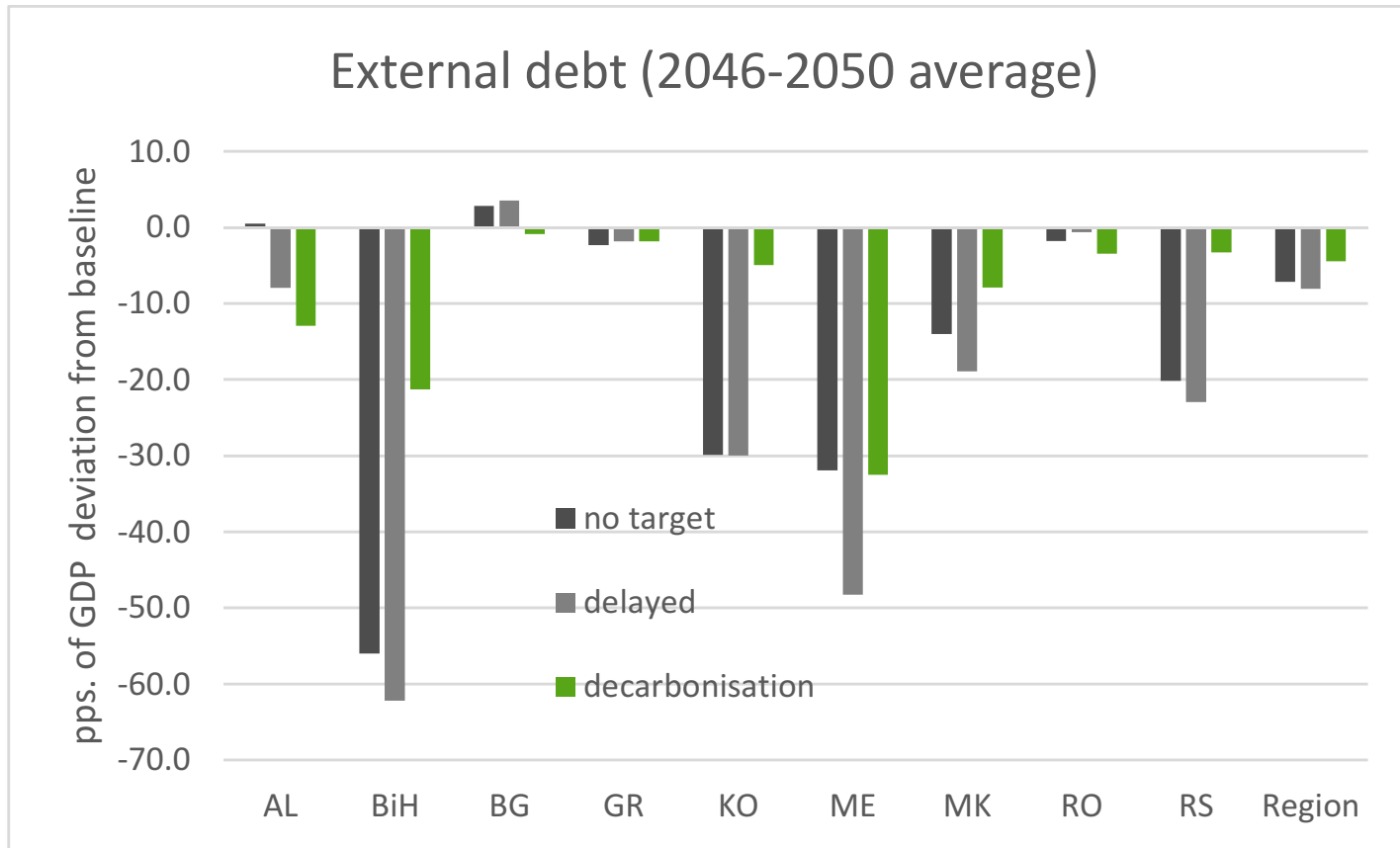


Core scenarios

External debt declines significantly, while the effect on public debt is moderate at the regional level



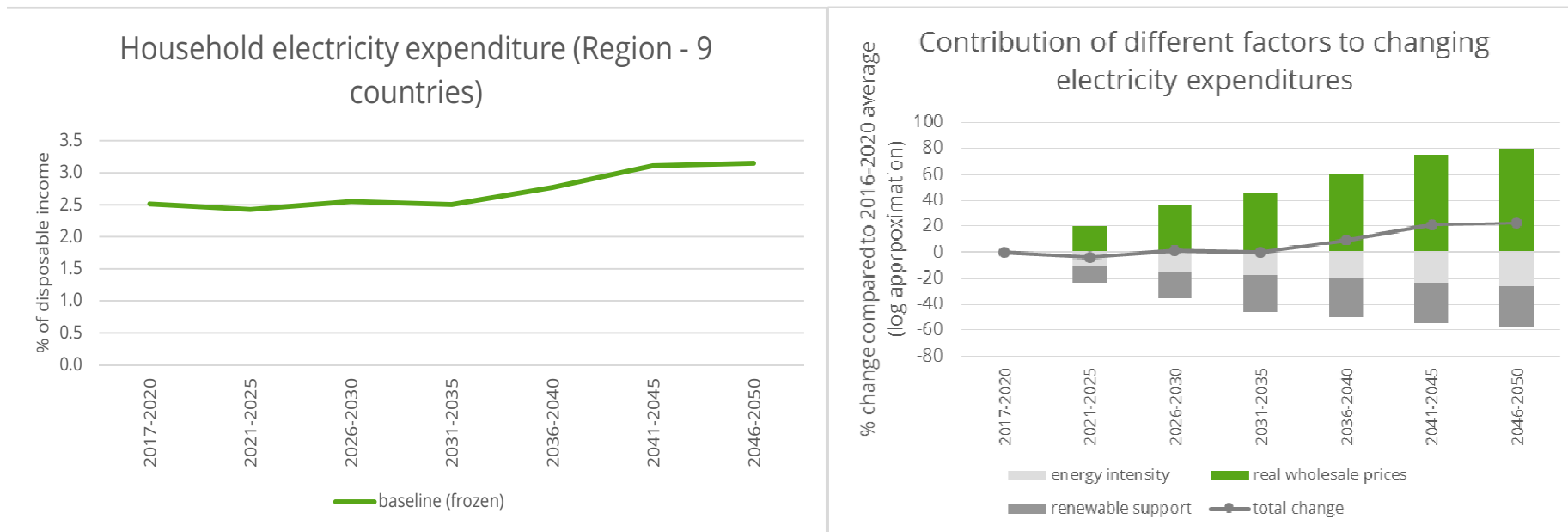
Again significant country variation



III.3. Affordability

Baseline scenario

Household electricity expenditure slightly increases at the regional level

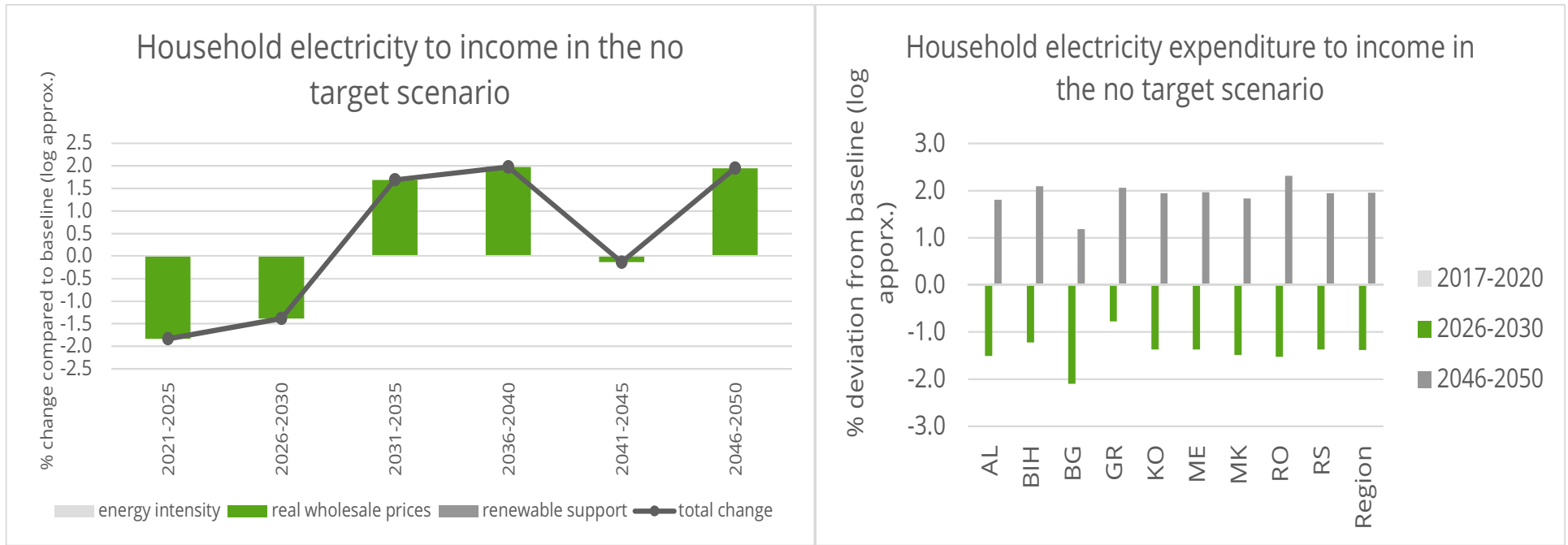


The increase of real wholesale prices is mostly counteracted by improving energy intensity and declining renewable support



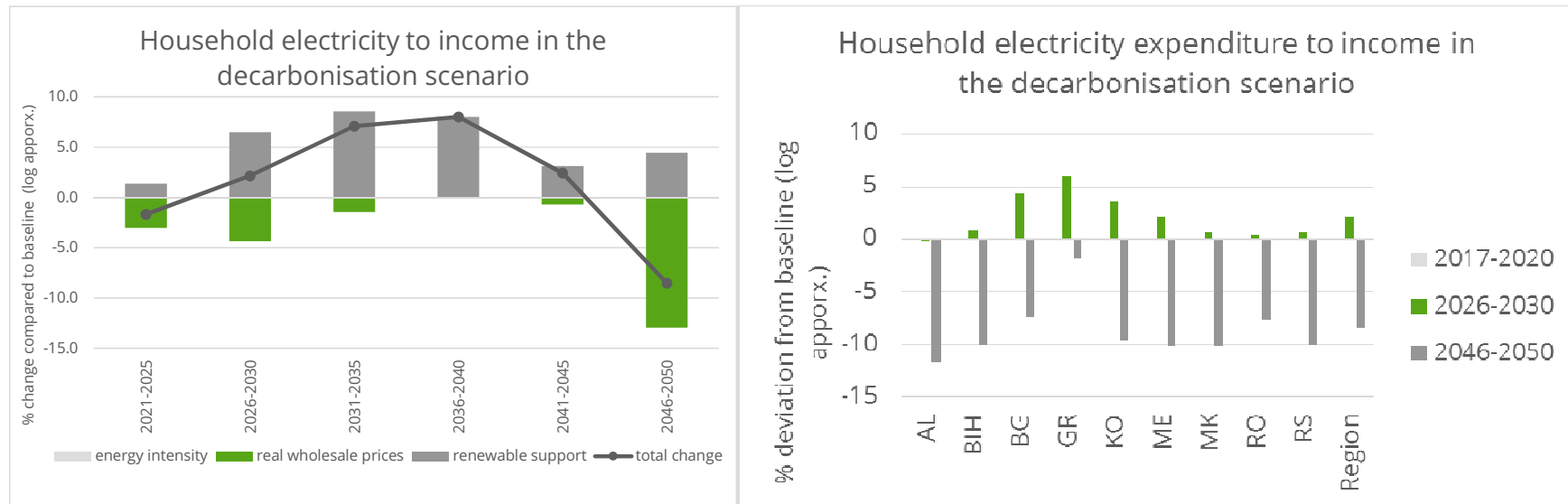
No target scenario

No significant change in household electricity expenditure



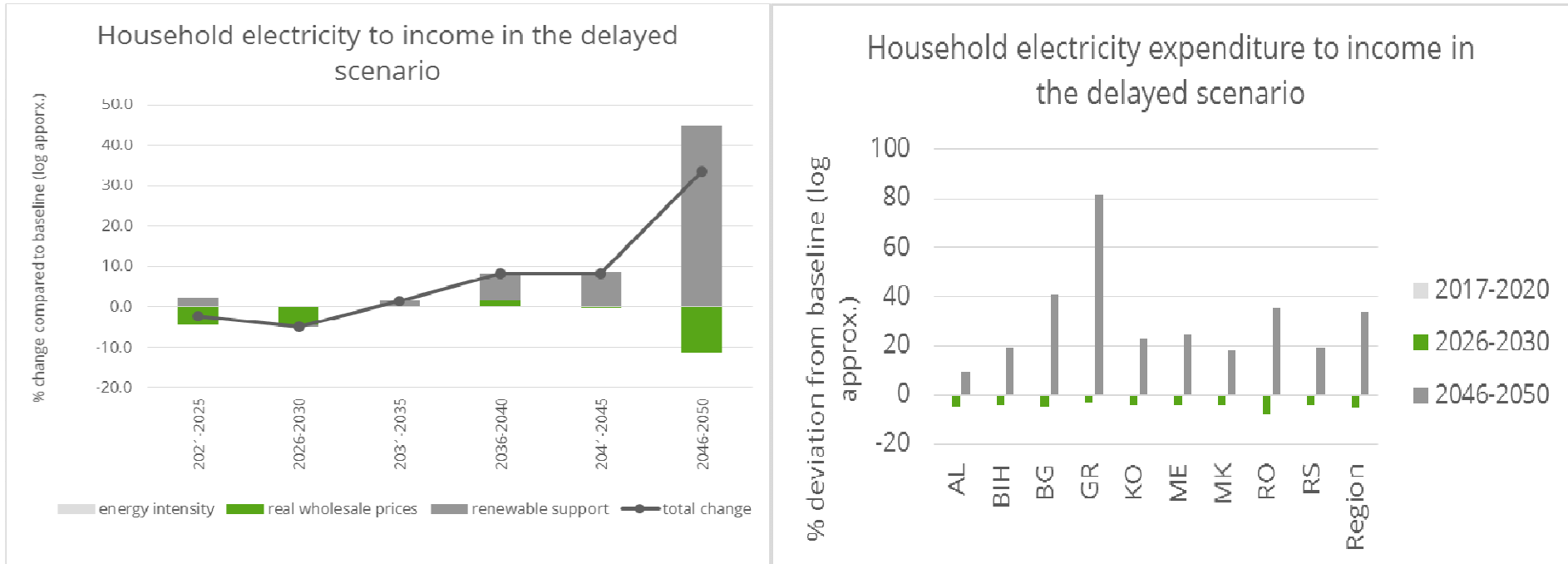
Decarbonisation scenario

Decline in household electricity expenditure at the end of the horizon due to lower real wholesale prices



Delayed scenario

High RES support leads to more significant increase in household electricity expenditure at the end of the projection horizon



Thank you! Questions?

