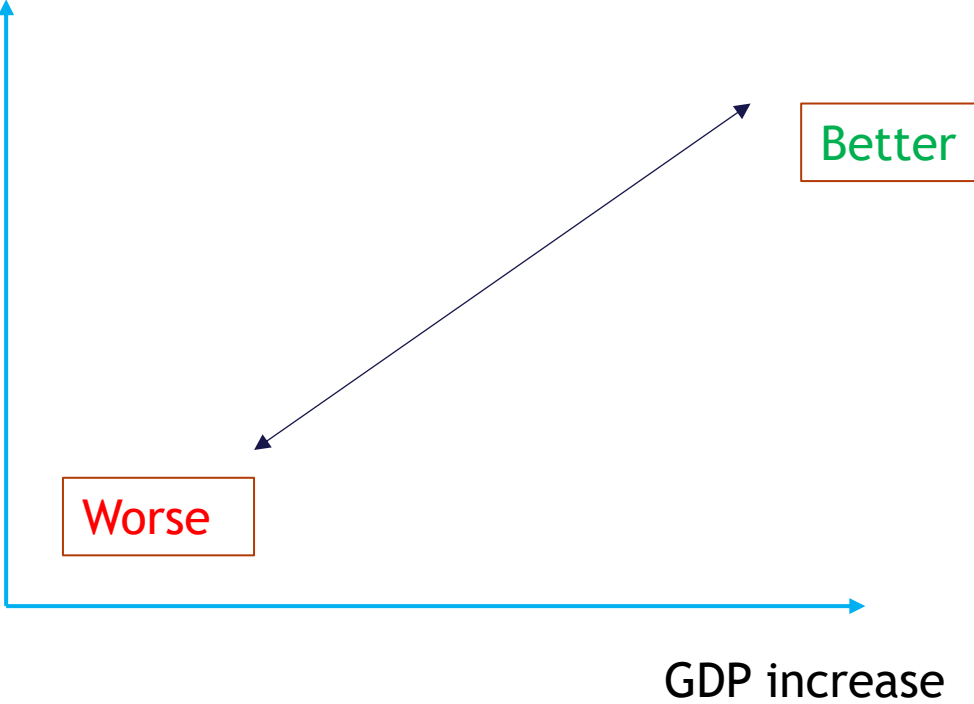


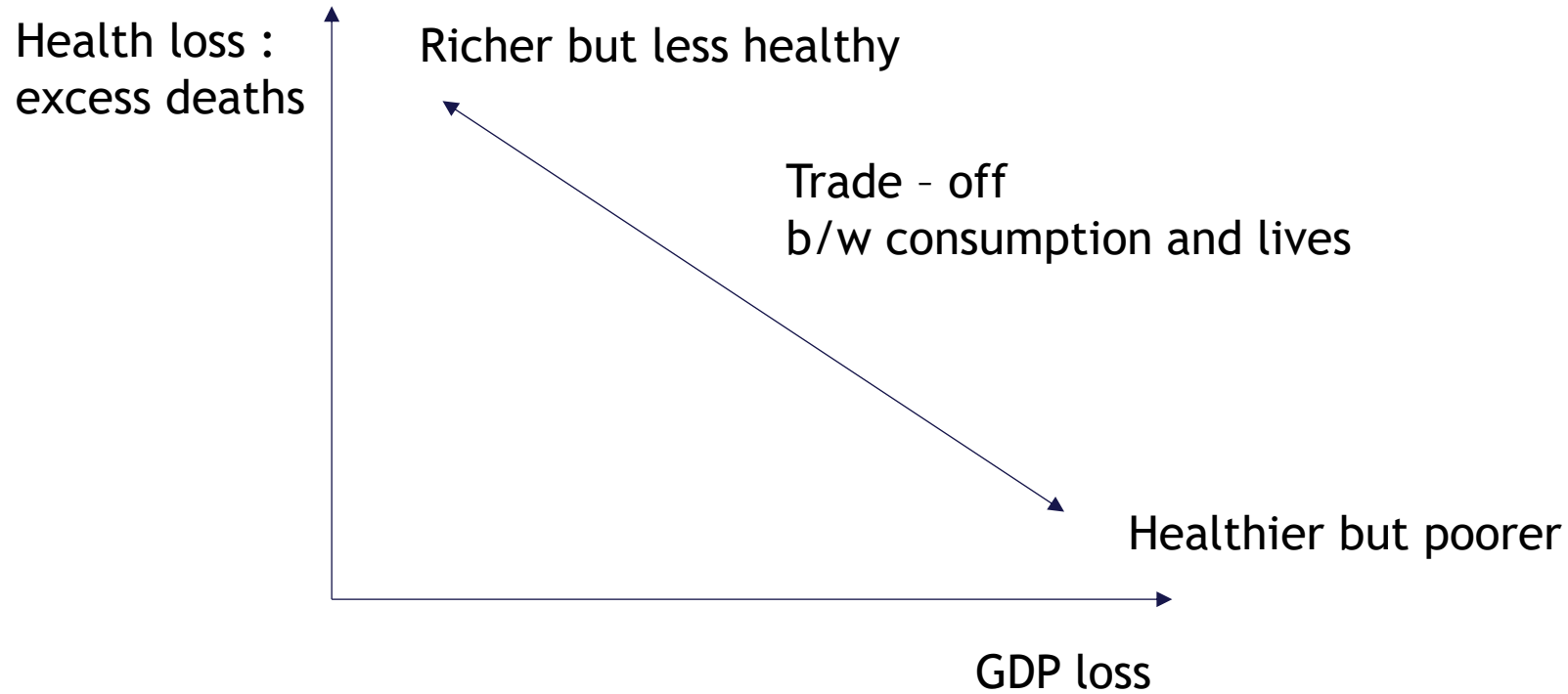
Analysis of behaviour, GDP and mortality during COVID-19 pandemic 2020-2022

Conceptual framework: Health and production

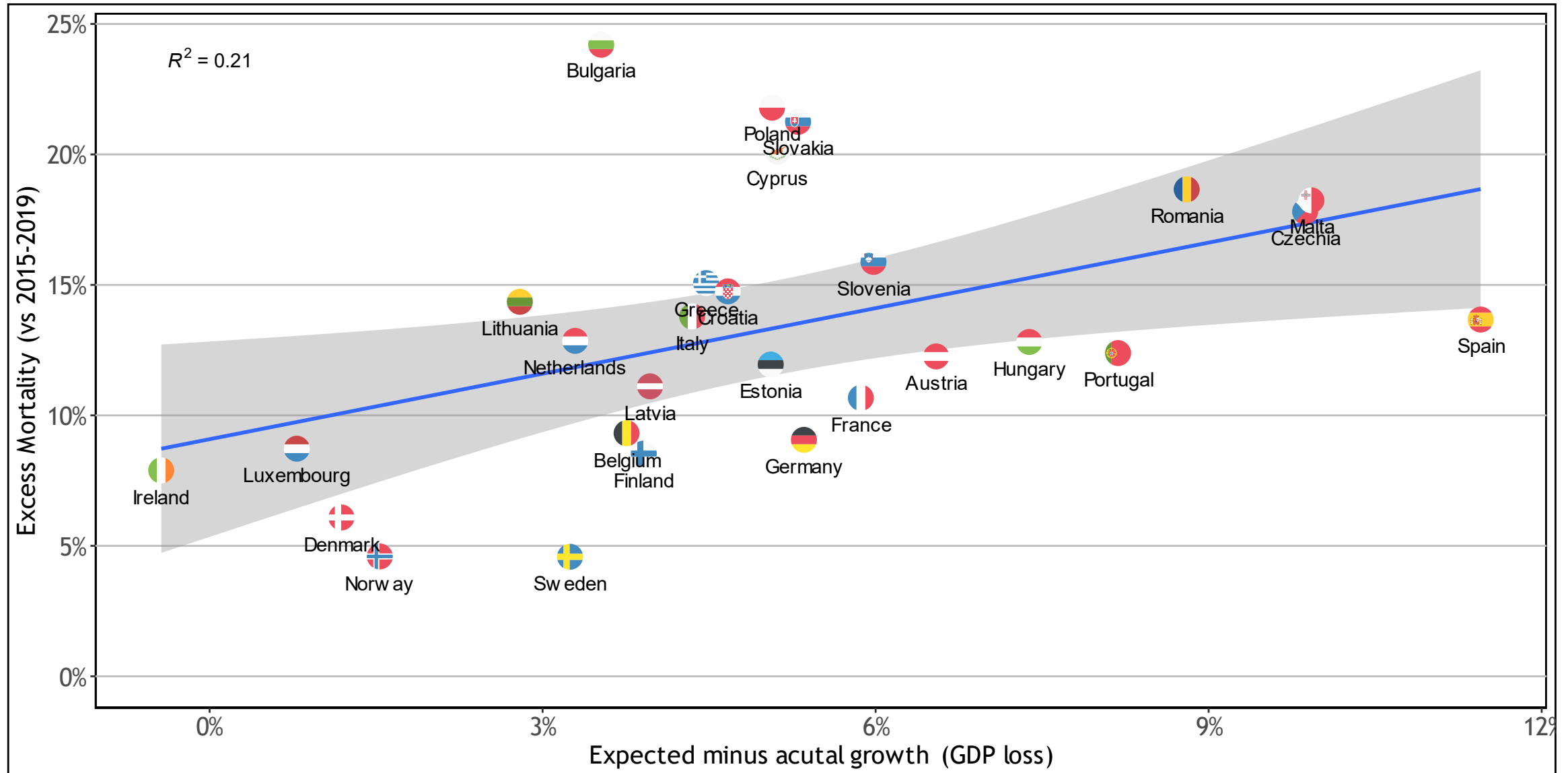
Health gain:
Reduced
excess
mortality



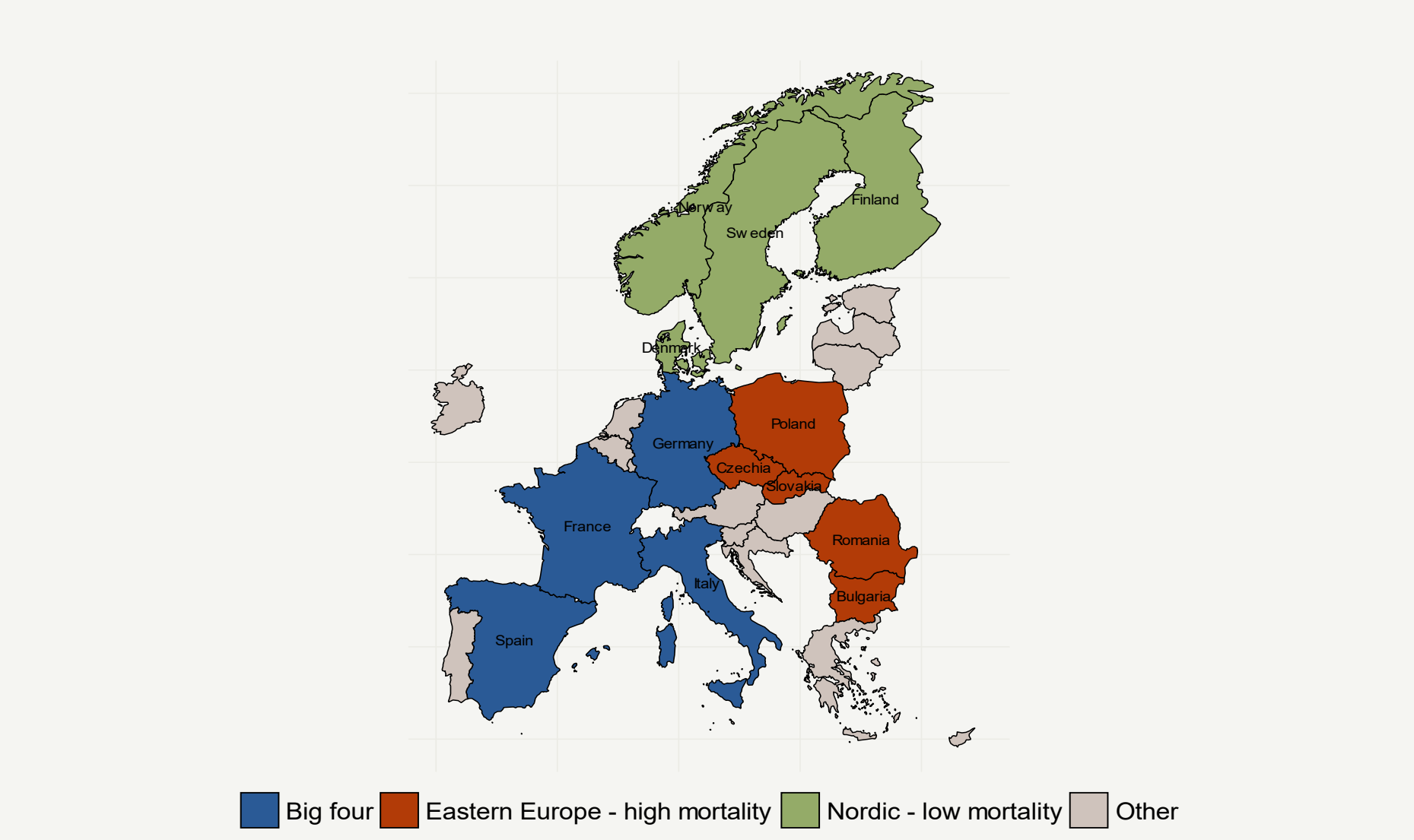
Outcomes : Health and Production



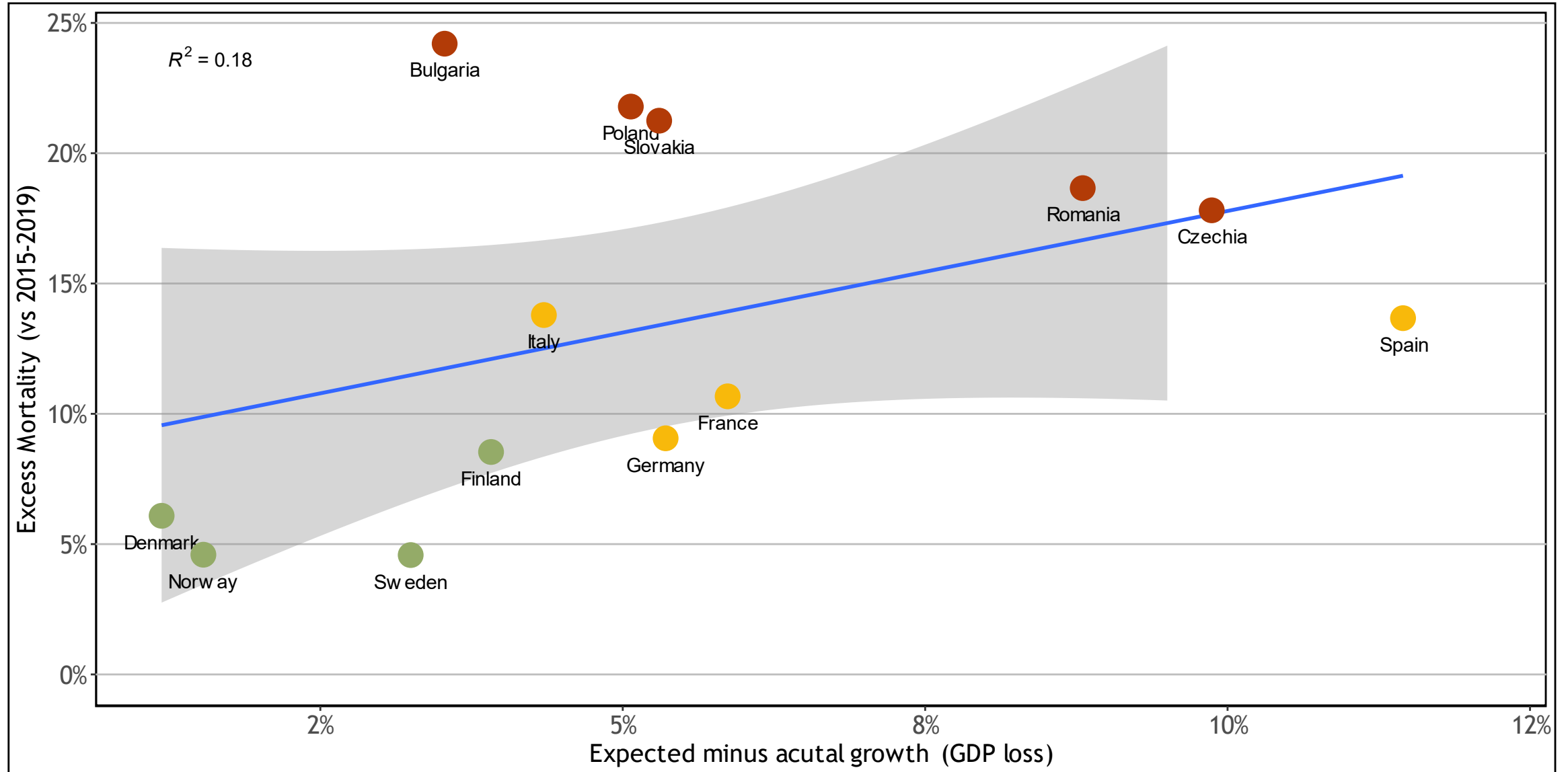
Excess mortality (y) and GDP loss (x) 2020 – 2022 all countries (EU+Norway)



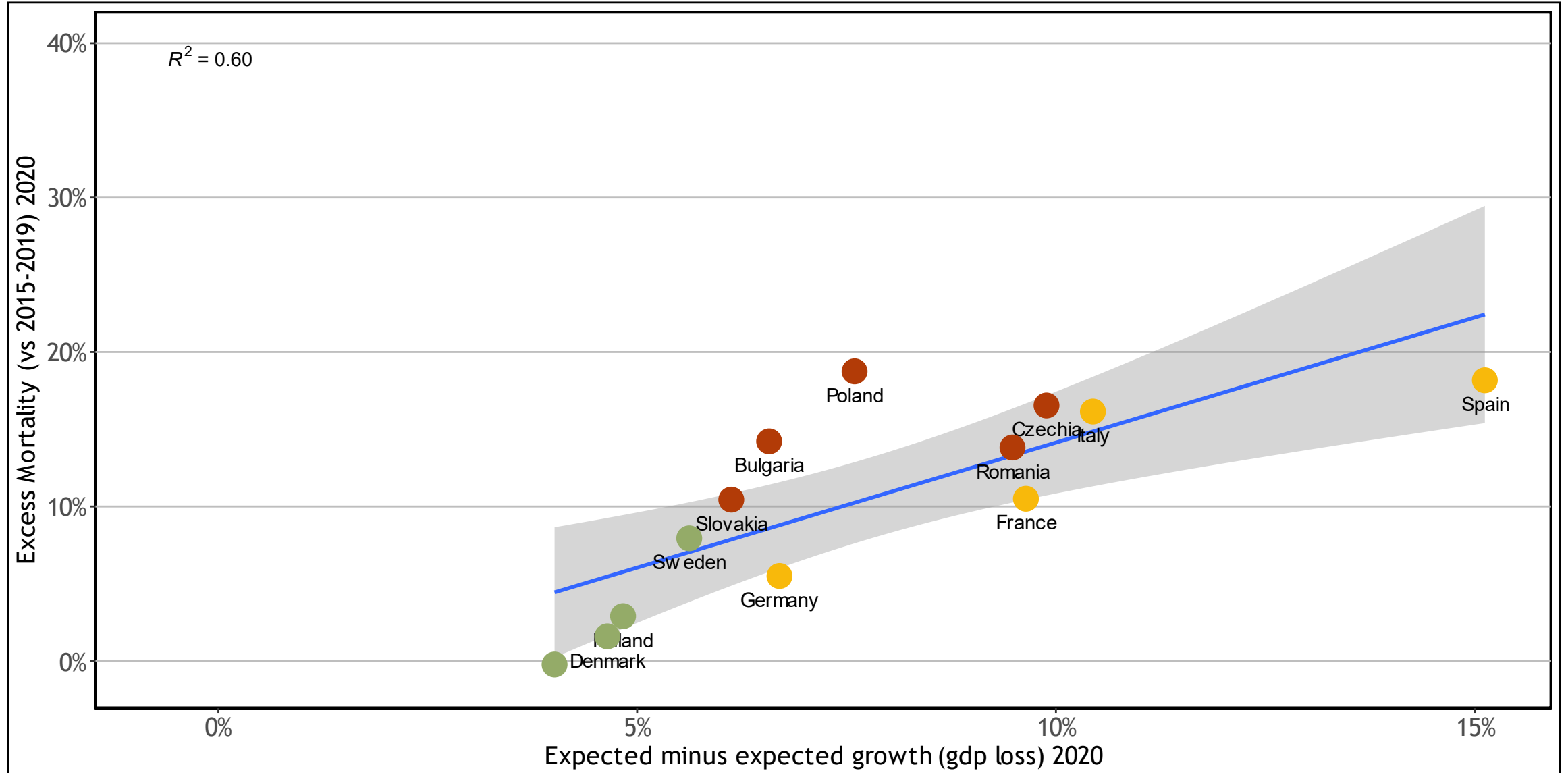
Countries that we are looking closer at



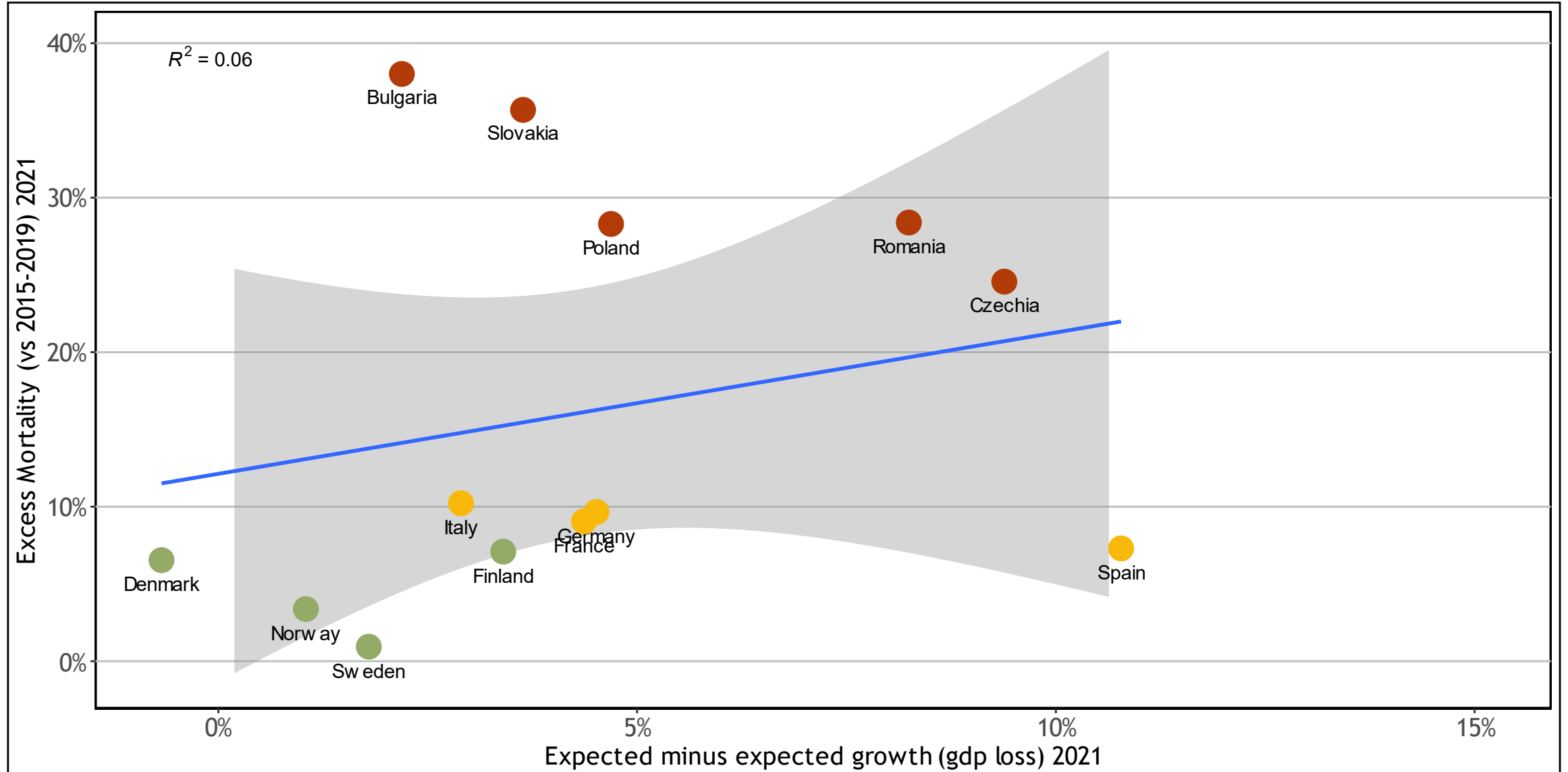
Excess mortality (y) and GDP loss (x) 2020 - 2022 selected countries



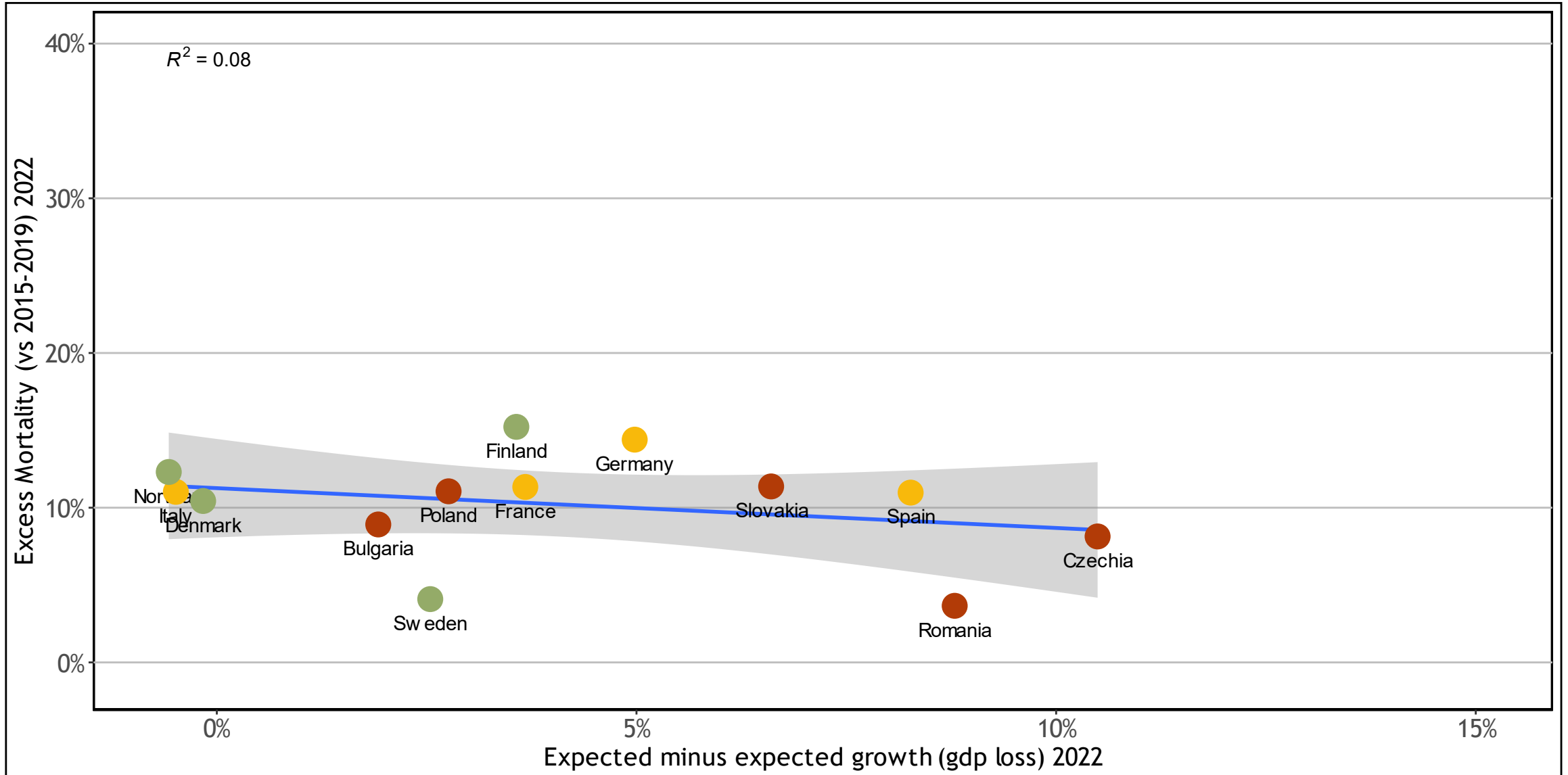
Excess mortality (y) and GDP loss (x) 2020 selected countries



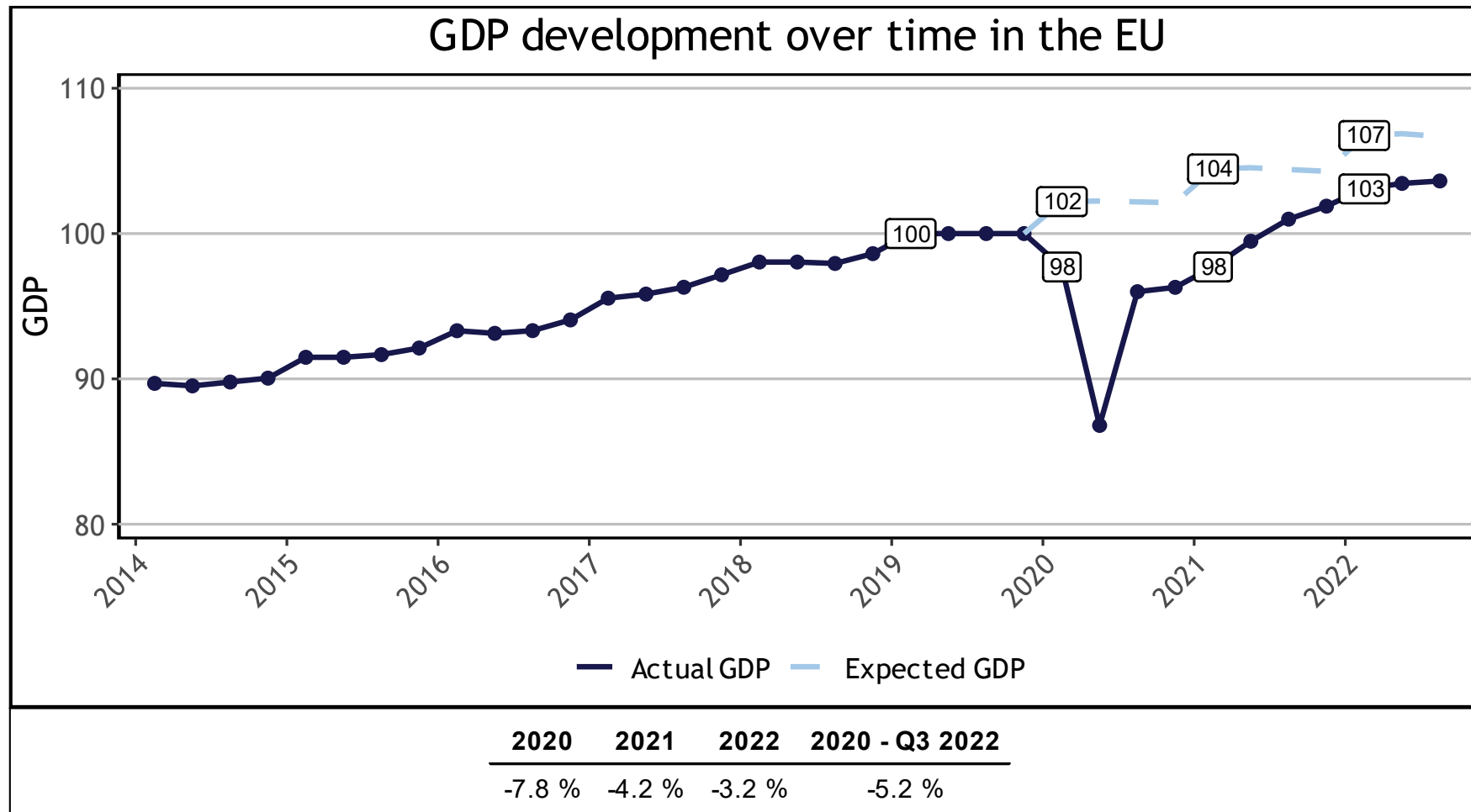
Excess mortality (y) and GDP loss (x) 2021 selected countries



Excess mortality (y) and GDP loss (x) 2022 selected countries

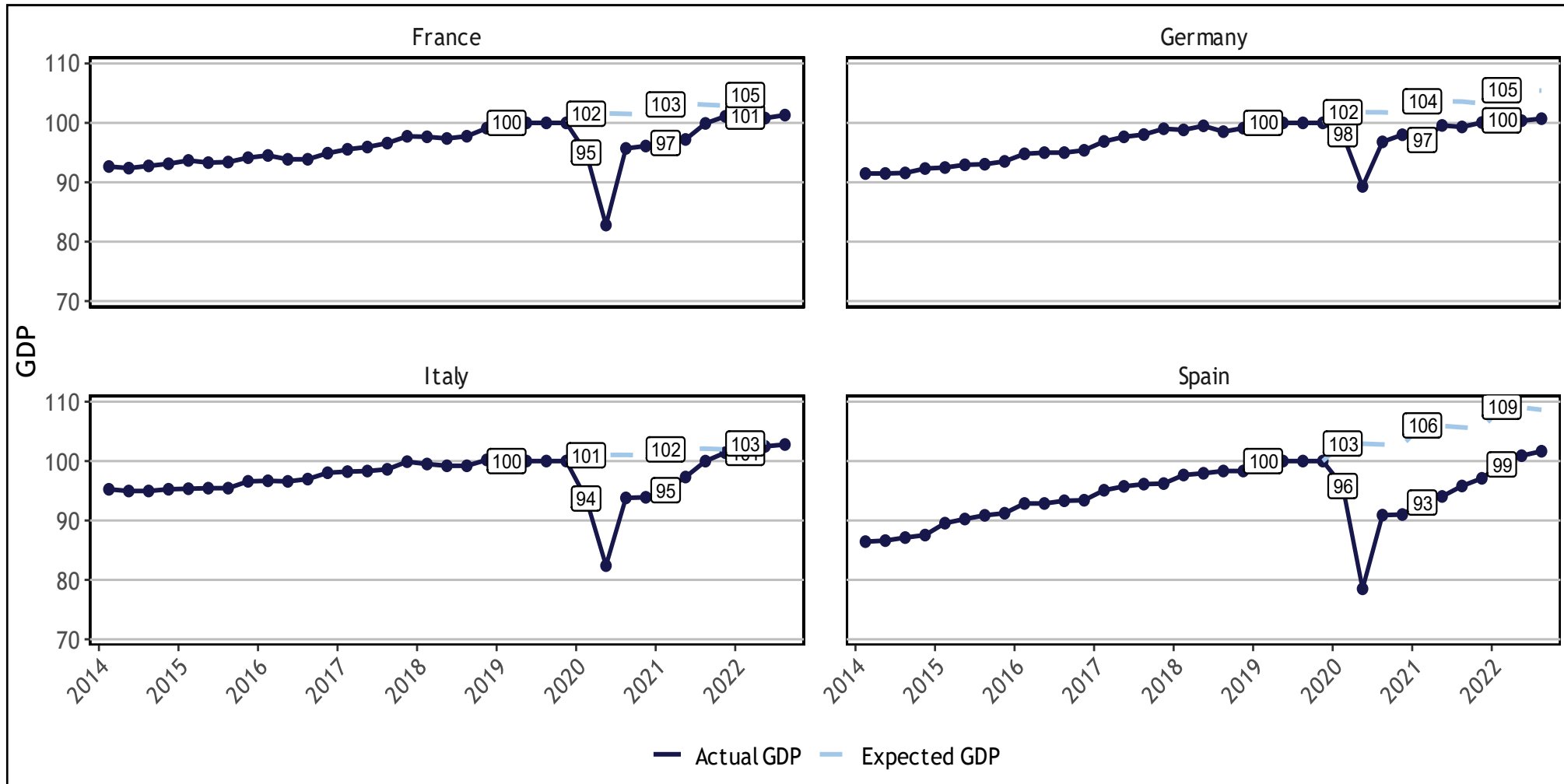


GDP EU

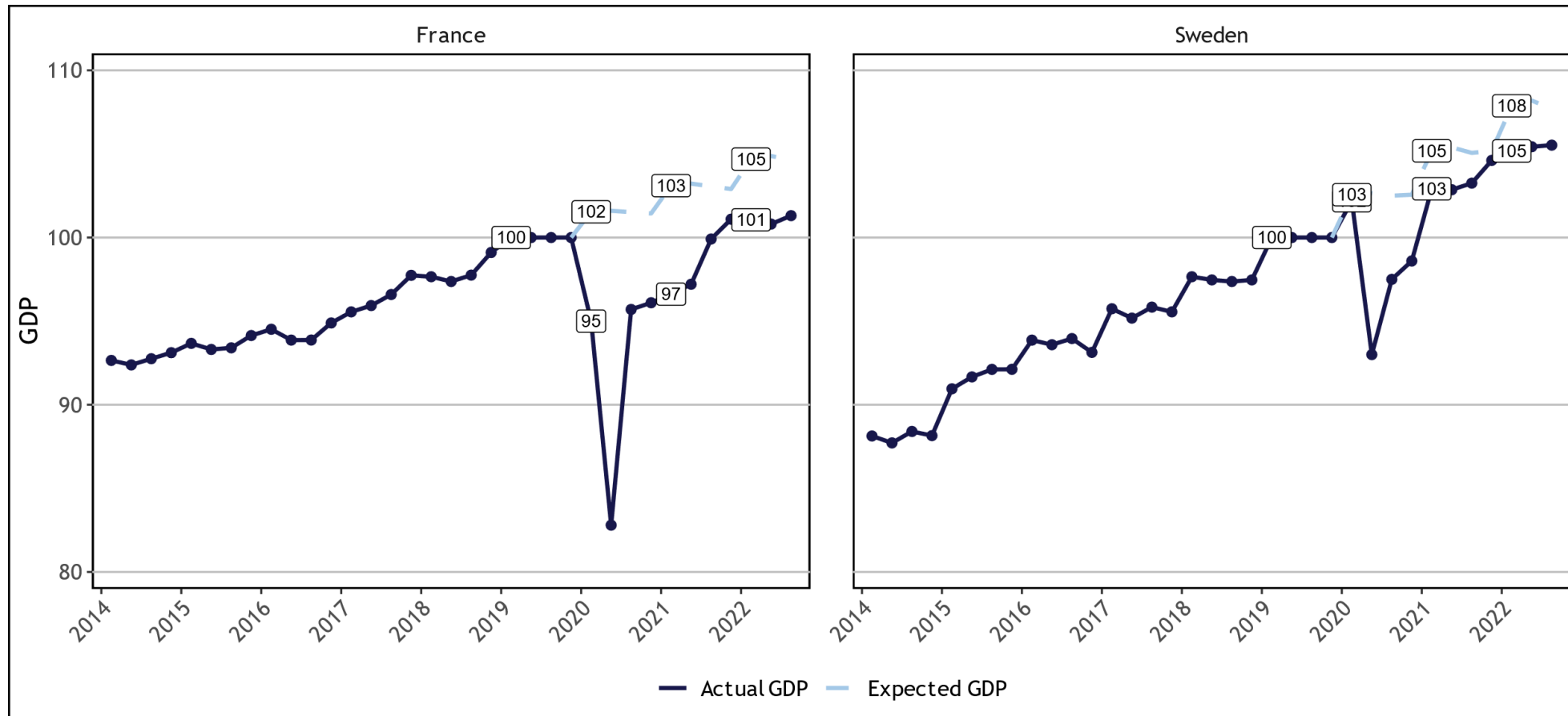


Considering the average growth rate during 2015 - 2019, the economy was smaller in 2022 than it would have been without the covid related decline in 2020. In that sense, the economy did not recover in 2022.

GDP big four



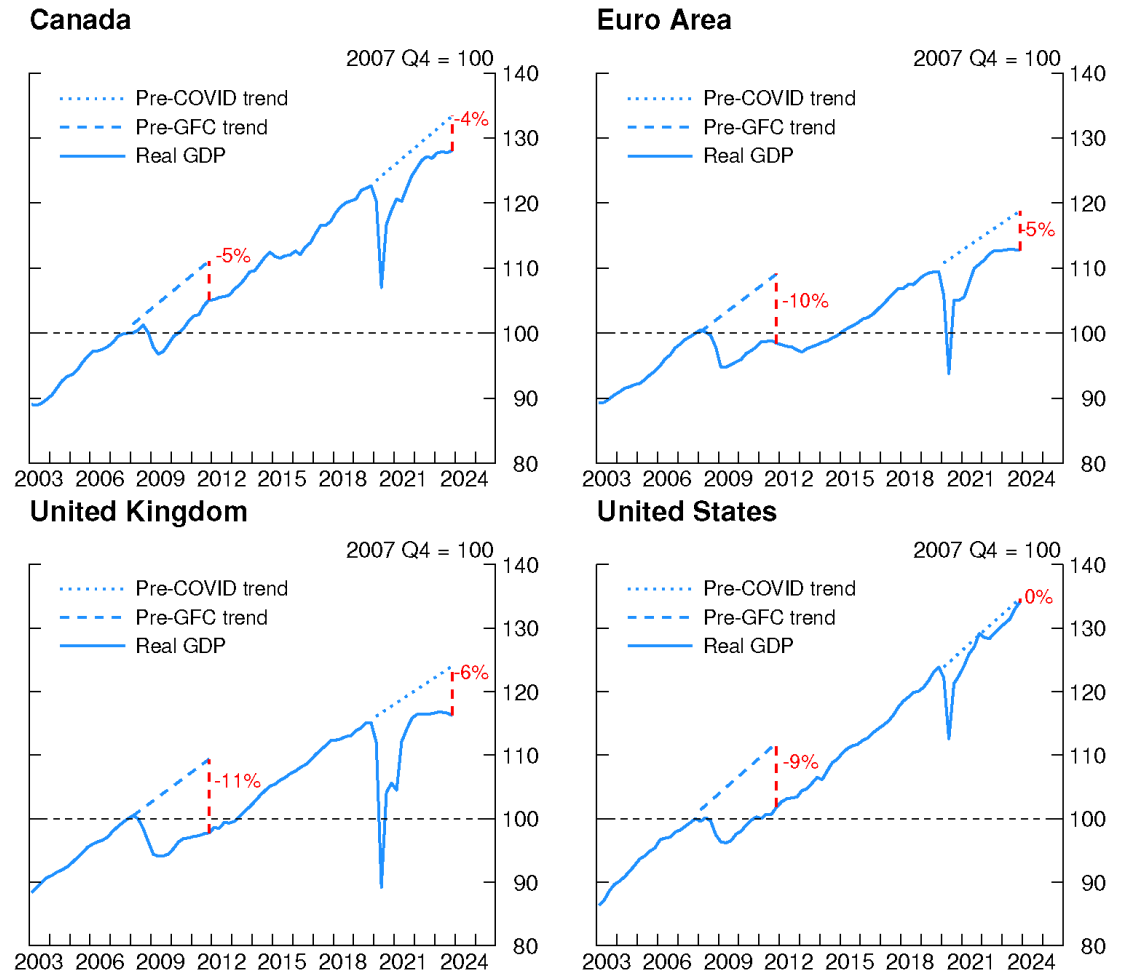
Actual vs expected GDP growth in France and Sweden (based on the average 2015 - 2019)



GDP article by fed: GDP loss after GFC and Covid

- Labor Market much more dynamic in the US:

“While such [labour support] policies mitigated staggering unemployment rates towards the beginning of the pandemic in the euro area and the U.K., they also restricted the ability of the economy to adapt through sectoral reallocation.”



Conclusions (1)

- Non Pharmaceutical Intervention (NPI) was not a successful measure for reducing mortality.
 - We could not establish a significant negative relationship between NPI and excess mortality.
 - We found a positive correlation between NPI and excess mortality in the EU
 - Same results as in another European analysis - “Interestingly, our analysis failed to identify a significant relationship between the stringency of nonpharmaceutical interventions implemented by European countries and excess mortality.” Lancet article on excess mortality, Pizzato et al (2024).

Conclusions (2)

- The aim of the NPI was to reduce the spread of disease; however, the interventions and the behavioral changes also came at a costs, both in terms of quality of life and production losses.
- In Norway and Sweden, two countries with the lowest levels of excess mortality, the health loss for the general population for two months with significant restrictions, outweigh the health loss for three years excess mortality
 - QALY loss due to excess mortality during the Covid-19 period (**three years**) is estimated to 45,000 for Sweden and 30,000 for Norway.
 - QALY loss for the general population (GP) in April 2020 and January 2021 (**two month**) are estimated to about 100,000 for Sweden and 70,000 for Norway. This is mainly explained by fear of the family's financial situation, but also to fear of health loss.

For the next pandemic

- Do not panic – Interventions should rely on scientific evidence
- Effective interventions also include costs that could be both resources lost but also health related quality of life loss
- Economists should be experts in how to understand the balance between effectiveness and costs
- However, "it is always too early to make an appraisal, until it suddenly is too late". (Martin Buxtons law)

Our publication plan

1. Covid-19 pandemic across the EU: how did we adapt our physical interaction?
2. Covid-19 pandemic across the EU: what was the GDP cost of NPIs and change in behaviour?
3. Behaviour and mortality in the Nordic countries during the covid-19 pandemic
4. QALY loss during covid-19 in Sweden and Norway

- ありがとう
- (Arigatō)