

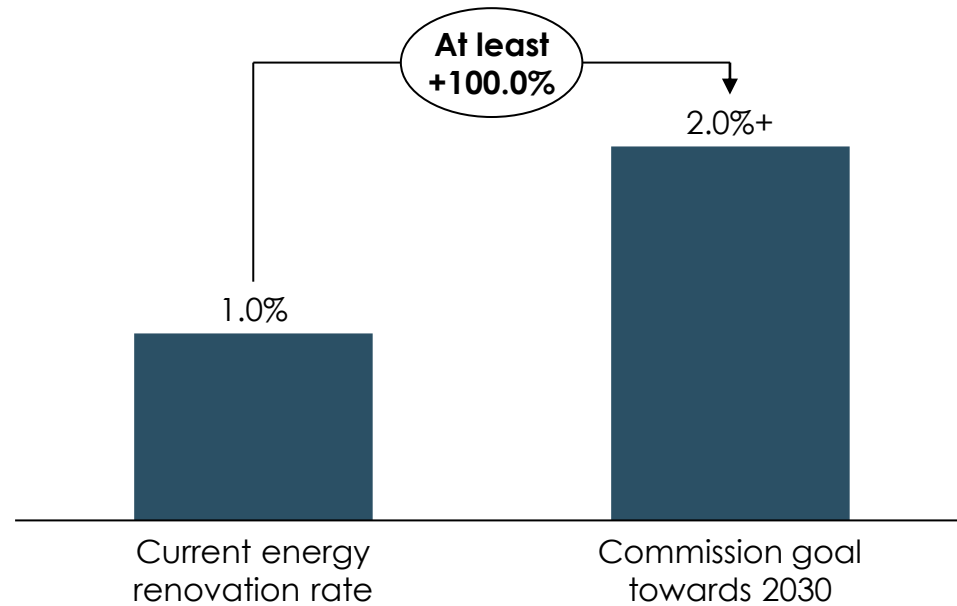
# FINANCING THE TRANSITION TO A CARBON- NEUTRAL ECONOMY

Two opportunities and two challenges right now for  
boosting energy renovation of the housing sector

# Opportunity 1: Renovating the housing stock, massive potential at low costs

## Annual energy renovation rate

Percent of EU building units per year



**EU building mass**  
220 million building units in the EU (85% of total) were built before 2001

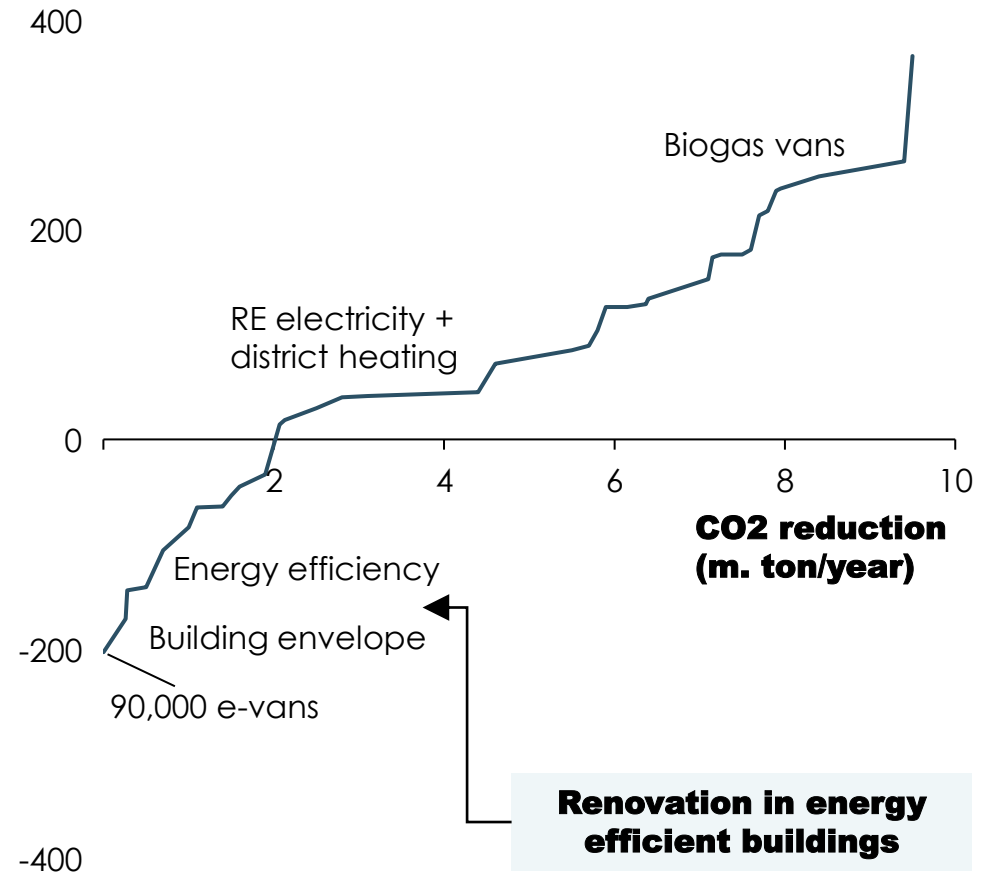


**Commission goal**  
35 million building units renovated by 2030 reducing energy consumption by 14%

Source: European Commission (2020): A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives

## Marginal Abatement Cost curve

EUR/ton CO<sub>2</sub>

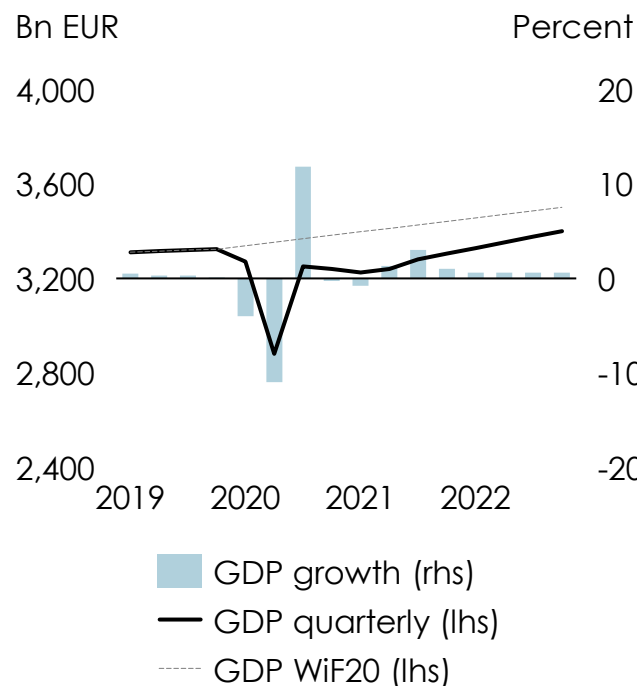


**Renovation in energy efficient buildings**

Note: The graph is representing the Danish economy  
Source: Copenhagen Economics based on Ea Energianalyse (2019)

# Opportunity 2: A lot of spare capacity while governments really need low cost boost to the economy

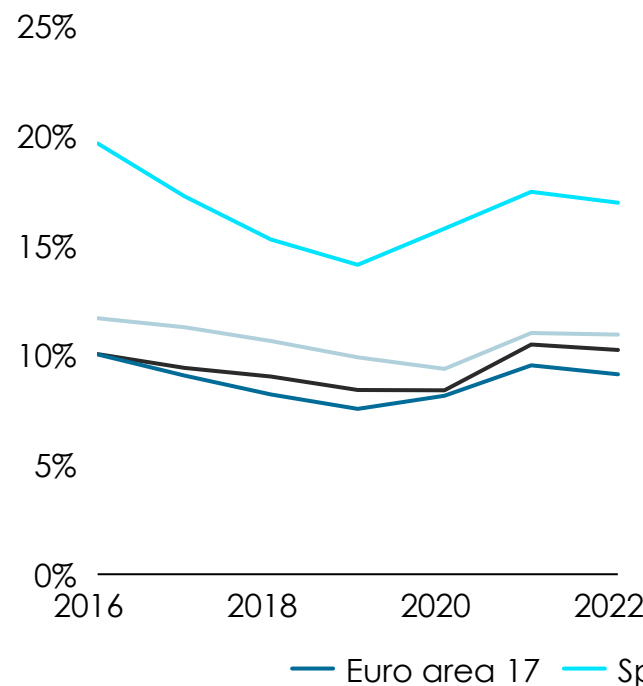
## Production way below potential



Source: European Commission European Economic Forecast Winter 2021 (Interim), Figure 1.15

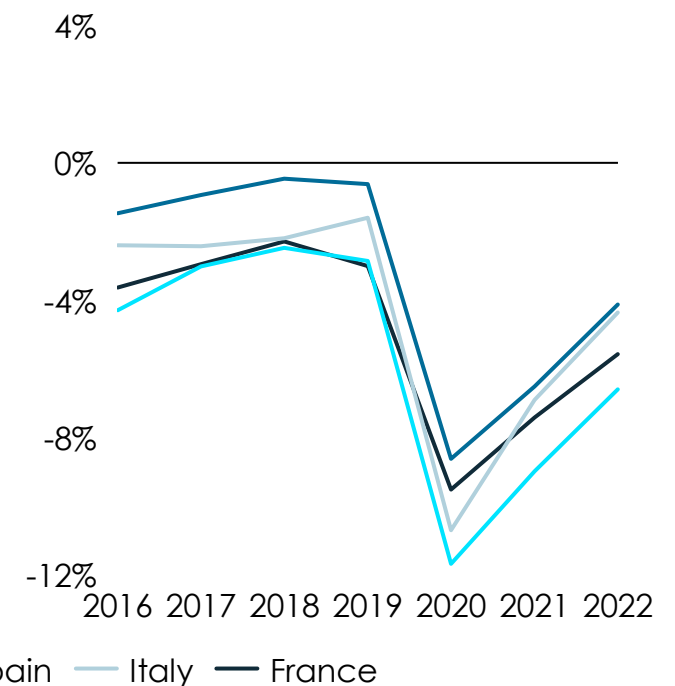
## Unemployment rates high and rising

% of labour force



## Governments have limited space for costly recovery packages

Public budget balance, % of GDP



Source: OECD Economic Outlook 108 database

# Challenge 1: Taxonomy proposal may block private finance flowing to renovation

Existing buildings:

- at least EPC A

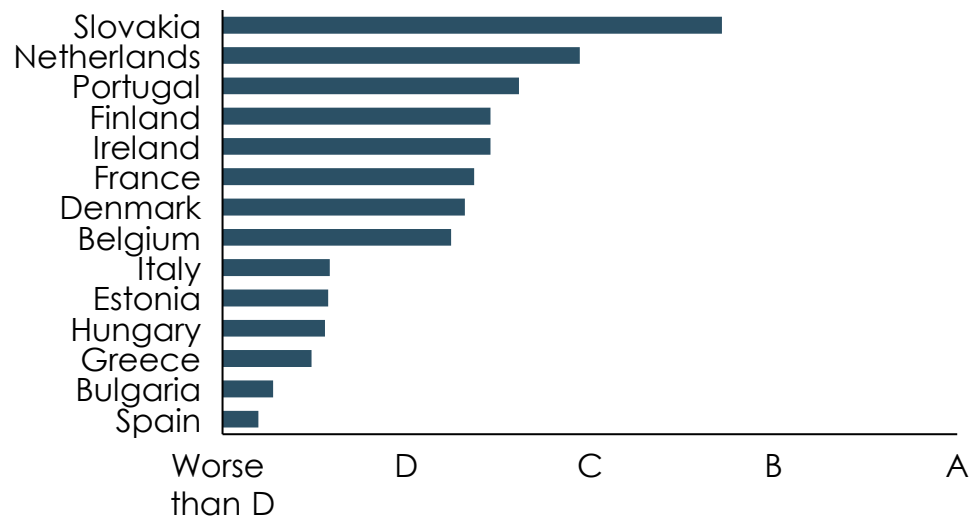
New Buildings:

- Near Zero Energy Building (NZEB) (or higher)

Setting too high standards may stop financing because it is simply too costly to attain standards

## Average EPC label in 14 EU countries:

**Way below the threshold proposed**

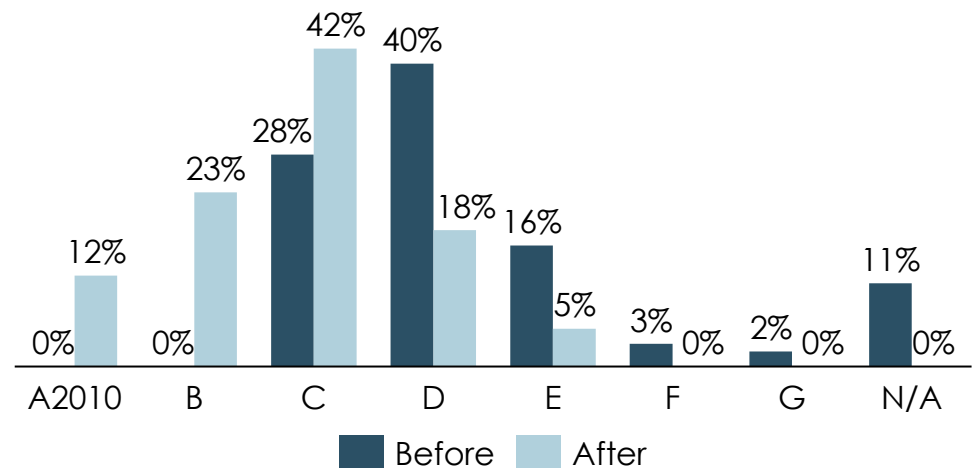


Source: Copenhagen Economics based on X-tendo (2020): Energy performance certificates assessing their status and potential, page 13

## Even after renovating large part of the Danish social housing stock:

**few will qualify**

Percent of houses renovated

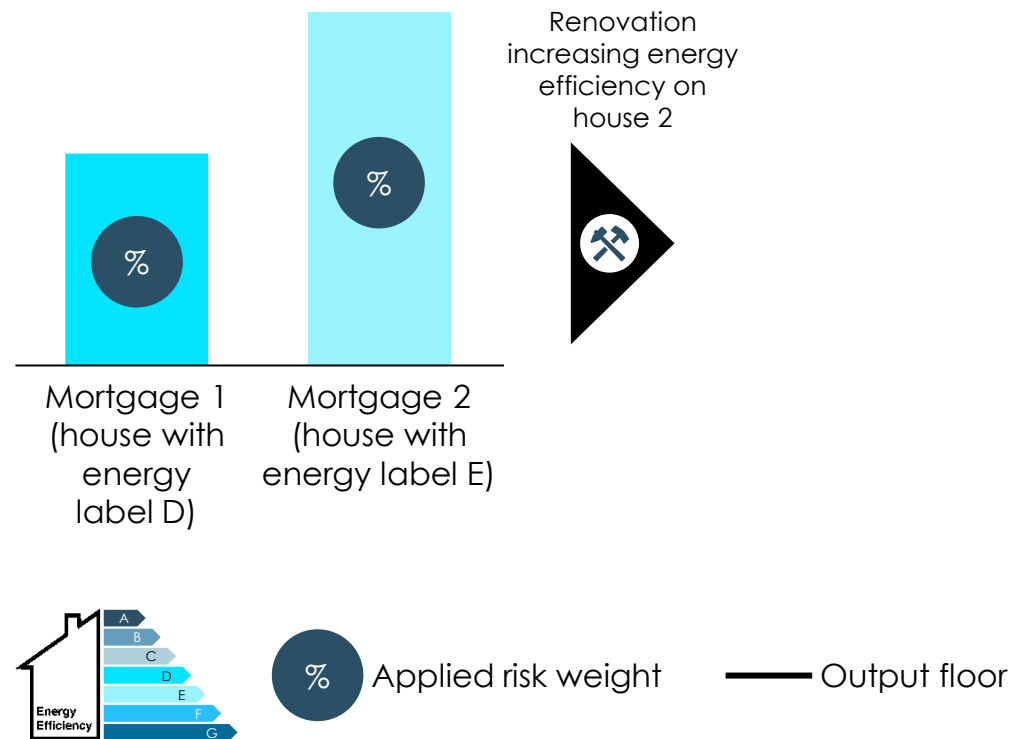


Note: Based on a sample and screening of social housing buildings in the National Building Funds renovation support system, 2020.

# Challenge 2: Output floor in Basel 4 proposal may reduce incentives to invest in energy renovation

## Mortgages' risk (estimated risk vs applied risk weights vs and applied output floor)

Estimated risk weights for prudential regulation



Possible to include mitigating factors in the capital requirement (Pillar II), i.e. an extra buffer on less energy efficient houses ("stress testing").

# Conclusions and recommendations



## Green Deal:

- € 750 billion to support climate, digitalisation and economic recovery over three years
- Golden opportunity for mobilising *private finance* with strained public finance and low hanging fruits



## Take a broad approach to implementation:

Taxonomy and Basel package:

- to support, not impede

Digitalisation as key:

- new business and verification models to reduce costs and increase speed

European Semester:

- Identify and address structural barriers that prevents finance to flow to deserving projects (rent regulation, foreclosure, effectiveness of legal system etc)



## Winners with the smart approach:

- Climate, quality of housing, economy, public finances and notably lower income families

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