FINANCING THE TRANSITION TO A CARBON-NEUTRAL ECONOMY

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

Bauhaus Seminar
22 February 2021
Opportunity 1: Renovating the housing stock, massive potential at low costs

**Annual energy renovation rate**
Percent of EU building units per year

- Current energy renovation rate: 1.0%
- Commission goal towards 2030: At least +100.0%
- 2.0%+

**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%

**Marginal Abatement Cost curve**
EUR/ton CO$_2$

- RE electricity + district heating
- Energy efficiency
- Building envelope
- 90,000 e-vans
- Biogas vans

**CO2 reduction (m. ton/year)**

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

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**

- Bn EUR
  - 4,000
  - 3,600
  - 3,200
  - 2,800
  - 2,400

- Percent
  - 25%
  - 20%
  - 15%
  - 10%
  - 5%
  - 0%

- Year
  - 2019
  - 2020
  - 2021
  - 2022

**Unemployment rates high and rising**

- % of labour force
  - 25%

**Governments have limited space for costly recovery packages**

- Public budget balance, % of GDP
  - 4%

**Source**

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

Average EPC label in 14 EU countries:

Way below the threshold proposed

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Worse than D

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

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

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

Few will qualify

Percent of houses renovated

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<td>2020</td>
<td>12%</td>
<td>23%</td>
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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

**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)

**Take a broad approach to implementation:**

**Winners with the smart approach:**
- Climate, quality of housing, economy, public finances and notably lower income families
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