Challenges with regard to the acceptance of energy-related refurbishments in Germany
Mitigation as a joint mission

- comprehensive energetic renovations of (almost) the entire building stock necessary by 2050
  - switch to renewable energies plus reduction of energy consumption = renovation of building envelope
  - Renovation rate at least 2% by 2050 (currently around 1%)
- achieving climate protection targets dependent on owners
  - energy-saving measures prescribed for the renovation of individual components (EnEV/GEG) - but at a moderate level
  - buildings owned by a large number of owners who have to be motivated
  - many residential buildings in the hands of private owners
Extrapolation of current energy-related refurbishment rates

based on refurbishment rates of single-family houses in Germany

not only quantity but also quality inadequate (renovation level)

source: Weiß/Dunkelberg 2010
Partitioning of the housing stock regarding type of owners

housing stock in Germany
40.5 m apartments

- owner-occupied
  17.3 m apartments

- rented by private owners
  15.4 m apartments

- rented by professional owners
  7.9 m apartments

ca. 19 m. in single-family homes and duplexes – mainly private owners

source: IÖW, based on data of Statistischen Bundesamts (2013)
Acceptance of energy-efficiency refurbishments

- acceptance of energy-related renovations - especially of insulation measures - is currently rather low in Germany
  - aesthetic / architectural reasons: "Disfigurement of Cities"
  - perceived dangers of the insulating materials: mould, algae, fire hazards, poisons, "do not let the house breathe"
  - opinion insulation is in sum ecologically negative (grey energy, disposal) or unnecessary (change to RE is enough)
  - High costs - Is it worth it? And: Who bears the costs?

=> many people have negative attitudes or are insecure
Numerous critical contributions in media

**Schluss mit dem Dämmwahn!**
Enough with the insulation madness (Die Zeit 28.10.2010)

**Die Burka fürs Haus**
The Burka for the house (FASZ 14.11.2010)

**Die große Lüge von der Wärmedämmung**
The big lie of thermal insulation (Welt 29.03.2013)
Owner-occupied buildings: financial barriers

- **economic viability**
  - additional benefits often not seen
  - long payback periods via saved energy costs
  - energy efficiency financially hardly relevant when buying real estate
  => uncertainty about the economic viability of the measures

- **financing**
  - high costs both for insulation of house and RE
  - often lack of capital and refusal of credit financing

- **financial barriers esp. a problem for elderly owners**
  - more than half of owners of single-family homes over 60 years old
Rented apartments: financial and social barriers

- landlord-tenant-dilemma:
  - landlord finances measures, tenants benefit from savings
  - but: costs of modernization can be added to rent (8% of investment costs annually) - increase in monthly net rent often higher than subsequent reduction in energy costs
  => cause of rent increase in controlled rental market

- social problems and thus low acceptance of refurbishments esp. in cities with already rising rents and high number of low-income households, e.g. Berlin:
  - more than 50% of households qualified for subsidized housing
  - housing cost 46% of income on an average
  - rents almost +100% in last 10 years
Socially acceptable refurbishments – target groups and possible measures

- **target group** are tenants who can no longer afford an apartment after the energetic refurbishment.
  - Transfer recipients (unemployment benefit, housing benefit)
  - Other households with low to medium incomes

- **possible measures**
  - Increase in transfer payments and/or circle of recipients
  - Reduction of rent increase through energy-related refurbishment
Measures to reduce rent increase through energy-related refurbishment

- good cost-benefit ratio - measures are largely refinanced through energy savings
- funding of energy-efficient refurbishment in general / especially for tenants with low incomes
  - subsidy lowers modernization allocation
- limitation of modernization allocation - reduction of amount, time, capping, hardship case control
- limitation of rent increase in general
  - existing law on rent control in tense residential areas ("Mietpreisbremse") excludes energy-related refurbishments
- in milieu protection areas ("Milieuschutzgebiete") only minimal energy efficiency measures allowed
Many thanks for your attention!

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