

RETURN ON ENERGY EFFICIENCY INVESTMENTS IN RENTAL PROPERTIES

MATTHEW COLLINS AND JOHN CURTIS



Return on energy efficiency investments in rental properties¹

Matthew Collins (ESRI, SEAI) and *John Curtis (ESRI, TCD)

ESRI Research Bulletins provide short summaries of work published by ESRI researchers and overviews of thematic areas covered by ESRI programmes of research. Bulletins are designed to be easily accessible to a wide readership.

OVERVIEW

Generally, residential tenants do not invest in energy efficiency, as the upkeep of rental properties is usually the landlord's responsibility. This research, which is based on a survey of tenants, finds that up to half of rental tenants are willing to pay more for properties with higher levels of energy efficiency. Of rental tenants willing to pay for better energy efficiency, on average they are willing to pay €38 per month extra in rent for a 1-grade improvement in the 15-grade Building Energy Rating (BER) scale for their existing rental properties. How much extra rent tenants are willing to pay varies across a number of circumstances but the factor that had the largest impact is information; information related to BER ratings and the potential savings in energy costs associated with better BER grades.

Information on the BER rating scheme and the associated potential energy cost savings have two impacts on tenants' willingness to pay for energy efficiency improvements. First, with additional information explaining BERs, including what a BER rating measures and how much a grade improvement along the BER scale can affect energy costs more tenants were willing to pay additional rent for energy efficiency improvements, rising from 38% of our survey sample to 55%. Second, the extra rent that tenants were willing to pay for a 1-grade BER improvement declined from €47/month to €38/month. This decline in willingness to pay occurs even among respondents that were willing to pay an additional rent of €47/month prior to learning more about BERs and associated potential energy cost savings. So, a higher proportion of tenants were willing to pay some extra rent for energy efficiency improvements but the amount that they are willing to pay declines, on average. This reduction in willingness to pay implies that in the absence of a good understanding of the potential energy cost

¹ This Bulletin summarises the findings from: Collins, M., and Curtis, J., "Rental tenants' willingness-to-pay for improved energy efficiency and payback periods for landlords", *Energy Efficiency*,: <https://doi.org/10.1007/s12053-018-9668-y>

*John.Curtis@esri.ie

savings associated with BER improvements tenants overvalue energy efficiency labels.

A substantial minority of tenants are unwilling to pay additional rent for energy efficiency improvements, between 45% and 62% in our sample. The predominant reason tenants indicated why they were unwilling to pay was that they could not afford higher rents. This reflects the current property market in Ireland with high rental rates.

When the extra rent that tenants are willing to pay is compared to the cost of associated energy efficiency improvements, the investment payback periods for most retrofit types (e.g. attic and cavity wall insulation, heating system upgrades) are relatively short. For the most energy inefficient properties (BER grades D-G) the investment payback periods are between 1 – 3 years when the Sustainable Energy Authority's (SEAI) energy efficiency retrofit grant is included, whereas the payback period of more energy efficient properties (BER grades A-C) averages between 2 – 4 years. Payback periods for retrofits comprising external wall insulation or solar panels are substantially longer.

BACKGROUND

The research is based on a survey of households and anonymised administrative data from SEAI's 'Better Energy Homes' energy efficiency grant scheme. In November 2016 a representative household survey collected information on rental tenants concerning their willingness to pay for properties with higher BER ratings. Using data from the 'Better Energy Homes' grant scheme average building costs of various energy efficiency retrofits was calculated, as well as the associated BER rating improvements. The research uses statistical methods to estimate tenants' willingness to pay additional rent for a 1-grade BER improvement and compares this with the actual cost and BER ratings data from the 'Better Energy Homes' grant scheme.

POLICY IMPLICATIONS

While the BER rating scheme is well established in the property market the research suggests that tenants' understanding could be improved. Improving tenants' knowledge of BER ratings and the associated potential energy cost savings could potentially influence their property decisions, increasing their demand for more energy efficient properties.

The majority of energy efficiency retrofits occur in owner-occupier properties and relatively few retrofits occur within the existing rental housing stock. This work suggests that tenants have a strong demand for more energy efficient properties and that landlords can profitably invest in energy efficiency upgrades. The policy challenge is to convince landlords to make such investments.

Whitaker Square,
Sir John Rogerson's Quay,
Dublin 2
Telephone **+353 1 863 2000**
Email **admin@esri.ie**
Web **www.esri.ie**
Twitter **@ESRIDublin**