Information and Incentives for Energy Efficiency

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Improvements in energy efficiency are expected to be key in reducing energy consumption and global carbon emissions. Yet, and despite substantial policy supports to energy efficiency pro-grams, the energy savings actually achieved lag behind expectations. The literature on the energy-efficiency gap has highlighted imperfect information as one important reason for why agents fail to exploit profitable investments in energy efficiency. For instance, in the rental market, landlords face weak incentives to invest in energy efficiency whenever lack of reliable information about the house's energy efficiency makes tenants unwilling to pay more for more efficient houses. Thus, failure to capitalize energy efficiency investment leads landlords to underinvest. In order to address this market failure, most jurisdictions have introduced energy certificate (EC) programs that provide reliable information about the dwellings' energy efficiency.

Several empirical studies have confirmed the existence of an efficiency rent premium that allows landlords to cash in the returns of their investments. Yet, despite the gains that many landlords would obtain from disclosing their ECs, disclosure rates remain low in most residential markets, even in those in which disclosure is mandatory. In this paper, recently published in *Energy Economics*, Xueying Bian and Natalia Fabra build a model that helps explain the link between the low disclosure rates of ECs and the weak incentives to disclose them. More specifically, their model combines search frictions with asymmetric information over the houses' energy efficiency to create predictions about the owners' incentives to disclose the energy certificates. Their model predicts that more efficient houses are rented at higher prices than less efficient houses, and houses with an EC obtain a premium over houses without. In markets with higher observed disclosure rates of ECs, the rent premium of the houses with energy certificates is relatively higher. This effect is more pronounced the higher the observed energy efficiency.

The theoretical predictions are illustrated with empirical evidence from the Spanish rental market, with emphasis on two issues (i) the reasons underlying the low disclosure rates of ECs in the rental market, and (ii) the link between the initial disclosure rates and the incentives for further disclosure. The empirical findings show that **the most efficient houses (with A or B labels) obtain a 7% rent premium as compared to the least efficient houses (with F or G labels), while the efficiency rent premium of houses with labels C, D or E is 5%.** Interestingly, the rental prices for houses without energy certificates significantly decrease with the disclosure rate of such certificates in the housing local market. In particular, a 1% increase in the disclosure rate triggers a 6% reduction in the rental price of the unlabeled houses. Hence, a push in the disclosure rate (e.g. through policies that promote awareness of the EC regulation), would imply a boost to disclosure, which would in turn reduce the rent of the unlabeled houses, further encouraging landlords to disclose their energy certificates •

Further reading

Bian, X. and N., Fabra (2020)" Incentives for Information Provision: Energy Efficiency in the Spanish Rental Market" Energy Economics 90, available here.