

PhD in Business Economics
Enhancing Energy Efficiency in the Residential Sector

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Abstract

Residential real estate accounts for approximately one-fifth of global energy demand, which has driven policy makers around the world to introduce policies aimed at improving energy efficiency in this industry. An important cornerstone in many policies are energy labels, which were introduced to promote uniformity and transparency for buyers and sellers – as it becomes easier to get an understanding of the energy efficiency of a specific building. The long-term goal of these policies is to raise acceptance for energy efficient measures with households, landlords and financial institutions. In this dissertation, we study the relationship between these energy labels and property values, as well as the functionality of the EPC-label itself, employing different quality measures and methods. The papers in this dissertation build on data provided by Immoweb, which allowed us to evaluate both the sales and rental market in Flanders – an important contribution to the literature, as previous research always evaluated these markets separately. The only exception is *Chapter 4*, where we use a dataset from Realo to study the rental market in Belgium. The empirical findings from these papers can be summarized in two overarching conclusions. First, energy efficiency positively influences perceived property quality, translating itself into higher prices or shorter time on market. Second, the valuation of energy efficiency differs significantly between owners and tenants. The different attitudes towards energy consumption result in stronger price effects in the selling market compared to the rental market. We also find that, despite these differences, both markets would benefit from a rescaling of the EPC-label and the implementation of more targeted policies that address locational disparities. The results justify the need for a (supra) national standardized framework for the calculation of EPC scores and labels. Aligning with these policy implications, future research should continue to refine and optimise model development to aid in determining the most appropriate metrics for energy efficiency evaluation.