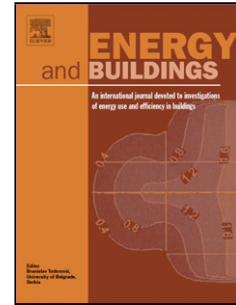


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Economic impact of changing thermal regulation. An application to the city of Lisbon

Carlos Oliveira Cruz¹, Cristina Matos Silva², Pascal Valentin Dias³, Inês Teotónio⁴

¹Assistant Professor, CERIS/ICIST, Instituto Superior Técnico, Universidade de Lisboa, Av. Rovisco Pais, 1049-001 Lisbon, Portugal

E-mail: oliveira.cruz@tecnico.ulisboa.pt [Corresponding author]

²Assistant Professor, CERIS/ICIST, Instituto Superior Técnico, Universidade de Lisboa, Av. Rovisco Pais, 1049-001 Lisbon, Portugal

E-mail: cristina.matos.silva@tecnico.ulisboa.pt

³Graduate Student, Instituto Superior Técnico, Universidade de Lisboa, Av. Rovisco Pais, 1049-005 Lisbon, Portugal

E-mail: pascal.weber@tecnico.ulisboa.pt

⁴Graduate Student, Instituto Superior Técnico, Universidade de Lisboa, Av. Rovisco Pais, 1049-005 Lisbon, Portugal

E-mail: ines.teotonio@tecnico.ulisboa.pt

Abstract

Over the last years there have been frequent changes to buildings' thermal legislation, to cope with increasing environmental restrictions and a wider consumer awareness. This work has a twofold objective: 1 – provide an overall methodology to evaluate changes in buildings' thermal regulations; 2 – to assess the economic merit of these regulatory changes, which have a profound economic impact especially on homeowners, tenants and the global urban real estate market, but also on the society through wider environmental impacts. The literature has provided several contributions at the scale of buildings, but few at the scale of cities (or even regions). This paper uses the city of Lisbon (Portugal) as a case study to test the methodology and determine the economic impact of the changes made in the thermal legislation by the Government. The economic assessment was made at 3 levels: financial analysis, economic analysis and social-economic analysis. It was found that the new regulation brings not only environmental benefits but also economic benefits in long term at both individual and social level. It was furthermore concluded that the impact of those benefits are geographically uneven, and old areas of the city with worse energy ratings have better economic indicators.

Keywords: Economic Evaluation; Thermal Regulation; Energy certificates; Cost-benefit analysis; Energy Efficiency.

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