

## **Macroeconomic Effects of the German Government's Building Refurbishment Programme**

Topic: Input-output analysis for policy making 2

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The German government maintains a programme providing financial support for the refurbishment of buildings with the aim of reducing energy consumption and greenhouse gas emissions in the building sector. Lately this programme has received additional attention for three reasons: First, the government's new Energy Concept from 2010 incorporates a substantial expansion of building refurbishment activities. Second, the programme has been used as a tool for macroeconomic stabilization in the wake of the 2008/2009 financial crisis. Third, the government is concerned about the public deficit and all kinds of public expenditure are coming under increasing scrutiny.

The aim of our paper is to contribute to a fact-based discussion of the costs and benefits of the building refurbishment programme. We develop an extended input-output model (STEIN) to estimate the macroeconomic effects of the refurbishment measures that received funding and how they affect the public deficit, taking into account the revenue from income taxes and social security contributions (SSC) as well as taxes on products and production. Our findings indicate that the programme induces substantial public revenue mainly through income taxes and SSC which have to be weighed against the programme cost. We also estimate the distribution of public cost and public revenue between different levels of government (national level, federal state level and municipality level). If the refurbishment measures do not crowd out other investment projects, the net effect on the public deficit turns out to be positive.