

# **The Economic Linkages of Subsidised Residential Housing Construction in Vienna**

## **Summary**

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## Summary

Using a mix of grants, loans, and allowances, the City of Vienna, via *Wiener Wohnbauförderung*, subsidized a construction volume of 774 Mio. € to provide new housing, plus an additional 349 Mio. € to adapt and improve the existing housing stock (annual averages, 2005-2009)<sup>1</sup>. On average, these construction volumes financed 6,600 new and 13,700 adapted and improved housing units per year, directly employing some 5,100 and 3,000 workers, respectively. Directly, this results in Value Added of about 290 Mio. € (in the case of the construction of new housing) and 160 Mio. € (in the case of adaptations and improvements).

Per 1 Mio. € of construction volume, 8 ½ workers are employed in adaptation and improvement, but only some 6 ½ workers in the construction of new housing. As a percentage of construction volume, however, purchases of intermediate goods are higher in the construction of new housing (63% vs. 54%).

*Tabelle 1: Summary of direct, indirect, and induced effects*

Ø 2006-2009 in [Mio. €]

	New Housing	Adaptations and Improvements
construction volume	774.0	348.7
housing units	6,565	13,684
direct effects (contractors):		
Value Added	287	159
Employment	5,150	3,000
purchases of intermediate inputs	487	190
Total economic effects (direct, indirect und induced):		
Value Added	1,095	515
Employment	14,800	7,150
Taxes	270	127
Social Security Contributions	195	91

Source: MA50, own calculations.

<sup>1</sup> The system of housing subsidies in Vienna rests on three „pillars“: subsidies aimed at the construction of new housing; subsidies aimed at the renovation and adaptation of the existing housing stock; plus direct grants to individuals, mainly in the form of allowances towards rents. In the present paper, this last pillar was not analysed, as it does not bear a direct link to construction.

In the course of the economic cycle, these direct effects lead to indirect and induced effects. Indirect effects are brought about by intermediate consumption, i.e. purchases of goods and services (to be used in the production process) by the firms which are directly involved in the construction works. Induced effects are brought about through final demand, mainly private consumption financed by wages and income generated by the direct and indirect effects. These so-called “multiplier effects” were estimated using an integrated regional Input-Output model of the Austrian economy (MultiREG). This model estimates the sectoral and regional linkages between 32 industries (and 32 commodities) in the 9 Austrian provinces (“Bundesländer”).

As a result, a total impact on Austrian value added (or Gross Domestic Product, GDP) of about 1 Bio. € (employing about 15,000 workers) is estimated in conjunction with the construction of new housing, and a further 0.5 Bio. € in conjunction with the adaptation and improvement of the existing housing stock (connected with the utilization of some 7000 workers). The effect on employment, though, cannot be interpreted as “additional jobs”; rather, it is the number of jobs (measured in full time equivalents) which is typically connected with the estimated effect on value added. It has to be noted that the quite large difference in labour effects between the construction of new housing and adaptations (6.6 vs. 8.5 jobs per 1 Mio. € of construction volume) becomes much less pronounced (at least in relative terms) when also including indirect and induced effects: 19.1 and 20.5 economy-wide jobs are connected with the construction of new housing and adaptations and improvements, respectively. The main reason is the aforementioned higher share of intermediate demand in the construction of new housing (implying that relatively more jobs are generated through indirect effects).

Although all of the construction work takes place in Vienna, the economic effects are spread over all 9 provinces; in fact, Vienna’s share in the total effect on GDP is estimated to be only around 50%. An additional 20% are estimated for Niederösterreich (Austria’s largest province and Vienna’s neighbour region), with a further 13% for Oberösterreich. The reasons for this are inter-regional linkages (predominantly “imports” from other regions, but also commuting, which leads to a re-distribution of income between place of work and place of residence, and which is especially pronounced between Vienna and Niederösterreich,).

Tax revenues from direct, indirect and induced effects are estimated to amount to 400 Mio. € with an additional 300 Mio. € of Social Security Contributions. Some two thirds of the tax revenue consists of federal taxes; but even from the remaining regional and local taxes, Vienna’s share is only about 19%. This is due to the fact that all taxes are collected by the federal state, only later to be shared out according to an essentially fixed allocation formula (this formula is negotiated between the federal, regional and local governments every 5 years and codified in the “Finanzausgleichsgesetz”).

The effects as reported here cannot be related directly to the grants provided by *Wiener Wohnbauförderung*, as this paper did not inquire into the question of additionality (i.e., the affect of the subsidies on the total construction volume); accordingly, rather than “effects of the subsidy”, they have to be interpreted as “effects of subsidized construction work”. They are also “incomplete” with respect to (construction) work which is related to but not covered by the housing construction itself

(for example, adaptations to infrastructure elements like sewage or transport systems). Similarly, “enabling” effects (like the positive effect on local living and business conditions brought about by the subsidized projects) are beyond the scope of this analysis.