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Session 2: House price indices (HPIs)

Alternative approaches for resale housing price indexes

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The use of hedonic regression models on the sales of detached housing units is widespread in the real estate literature. However, these models usually only focus on single detached homes and do not address the need to decompose the sale price into structure and land components. In the international System of National Accounts, it is necessary to obtain separate estimates for the price and quantity of housing structures and the land that these structures sit on. The builder's model accomplishes this decomposition but it has only been applied to Dutch and Japanese data. This paper will apply the builder's model to data on sales of detached houses in Richmond, British Columbia to test the robustness of the model. The property price indexes generated by the builder's model are also compared to the corresponding indexes generated by a traditional time product dummy hedonic regression model. The implied structure depreciation rates generated by both models are also compared. We find that if a sufficient number of housing characteristics are included in the hedonic regressions, the two approaches generate similar overall property price indexes and similar geometric depreciation rates.