



Castles in the Sky?

Over the past 10 years (1991:Q4 through 2001:Q4), the average price of single-family homes has increased by 15 percent relative to the average bundle of goods and services (as measured by the index of personal consumption expenditure less food and energy—the core PCE). Although homeowners enjoy an increase in wealth as their dwellings appreciate, their opportunity costs of shelter increase as well. The imputed rent of a house is approximately the product of the market value of the house and the interest rate. Hence, the percentage increase in the value of the house roughly equals the percentage increase in the price of shelter. The question is whether house price inflation really makes households better off.

Let us start out with a homeowner who receives a constant stream of labor income per period—his wage. For simplicity, let us break down total consumption into shelter and all other consumption goods. The household's situation is depicted in the figure below, where the solid line represents his budget constraint given his current wealth as defined by the value of his home and the present value of the future wage income. Suppose that the household's most preferred combination of shelter and other consumption is point Q.

Now assume that the price index of houses increases relative to the price index of all other consumption goods. With the household's income and the dollar price of all other consumption goods constant, his wealth increases; but so does the price of shelter relative to all other consumption goods. If the household keeps living in the same house, he keeps consuming the same combination of shelter and all other consumption goods. Hence, in consumption terms, the increase in wealth does not make him better off.

Clearly, point Q is not optimal anymore. Because the price of shelter has increased (relative to all other consumption goods), the household faces a new budget constraint—the dashed line in the figure below. Along

the new budget line, the most preferred combination lies to the southeast of point Q—otherwise the household would have chosen one of the points northwest of point Q in the first place. The new most preferred combination consists of less shelter (that is, a smaller house) and more consumption of all other goods.

In summary, if the household does not substitute other consumption for shelter—possibly because of high transactions costs in the housing market—the household is no better off than before. On the other hand, if the household responds to the change in the relative price of shelter, he is unambiguously better off. Finally, it should be mentioned that there is a plethora of other (positive or negative) wealth effects ensuing from house price inflation. For instance, an appreciation of the home expands the household's borrowing capacity because he is able to provide more collateral and can thus borrow more and at a lower rate. On the other hand, home price inflation increases the property tax bill. These secondary effects are not captured by the figure below.

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