

ECONOMIC SURVEY OF THE EURO AREA 2005:

ILLUSTRATIVE ESTIMATES OF THE IMPACT OF OWNER OCCUPIED HOUSING COSTS ON INFLATION

This is an excerpt of the OECD Economic Survey of the euro area, 2005 from Box 2.4 in Chapter 2. More technical detail is available in Annex 2.A2 to Chapter 2.

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1. A direct method based on the concept of user costs has been used to assess the impact of home-owners' housing costs on inflation. The implicit price of housing services for owner-occupiers is estimated by calculating the user cost associated with their housing capital valued at market prices. Examples of official price indices incorporating owner-occupied housing costs calculated in this way include the US private consumption deflator and the Icelandic CPI. Another method used by statistical agencies consists of imputing rents to home-owners on the basis of rental market data. Such measures of owner-occupied housing costs have weaker conceptual foundations than the user cost approach because they are affected by the frequent disequilibria between rental and owner-occupier markets (Verbrugge, 2004). In addition, time series for rental market conditions are missing in several euro area countries and when they exist, the data on paid rents have to be adjusted for the important differences between rented and owned housing (Kurz and Hoffman, 2004). For a majority of euro area countries, the information needed to perform this operation is not publicly available.

2. The user cost of owner-occupied housing is calculated following a method proposed by Poterba (1992) and summarised below in equation (1). UC stands for user costs, i^e for the effective, after-tax nominal mortgage interest rate, τ for the property tax rate on owner occupied houses, d for the depreciation rate, m for the ratio of maintenance cost to property value, r for the risk premium on residential property and π for the expected rate of increase in dwelling prices. The primary data source for house prices (P) and mortgage rates is the European Mortgage Federation (2000-04 issues) with the *OECD Economic Outlook No. 77* database used as the source for interest rates. Property tax rates are taken from ECB (2003). The calculation of effective, after-tax mortgage interest rates follows the method outlined by van den Noord (2005). Parameter values for d , m and r and the estimation of π as a moving average of consumer price inflation are taken from Poterba (1992). *OECD Economic Outlook No. 77* data underlie the calculation of π .

$$UC = (i^e + \tau + d + m + r - \pi)P \quad (1)$$

3. Owner-occupied housing user costs are then combined with the HICP to produce an illustrative estimate of "complete" consumer price inflation. The indices for the HICP and estimated user costs have been weighed together using the breakdown of household final consumption expenditure in the *OECD Annual National Accounts* database.

Table 2.4. Complete inflation estimates

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Austria												
HICP	3.2	2.7	1.6	1.8	1.2	0.8	0.5	2.0	2.3	1.7	1.3	2.0
Estimated complete inflation	2.6	3.0	1.9	1.5	0.7	0.9	0.8	2.7	0.8	1.2	0.7	1.2
Belgium												
HICP	2.5	2.4	1.3	1.8	1.5	0.9	1.1	2.7	2.4	1.6	1.5	1.9
Estimated complete inflation	1.7	4.3	0.2	1.0	2.1	-1.7	6.7	3.4	1.6	2.5	2.1	2.0
Finland												
HICP	3.3	1.6	0.4	1.1	1.2	1.4	1.3	3.0	2.7	2.0	1.3	0.1
Estimated complete inflation	-1.8	0.3	-1.1	1.5	5.7	3.0	1.8	3.8	1.1	1.1	1.0	1.9
France												
HICP	2.2	1.7	1.8	2.1	1.3	0.7	0.6	1.8	1.8	1.9	2.2	2.3
Estimated complete inflation	0.4	2.2	1.9	1.1	1.0	0.2	2.1	3.2	1.7	2.4	2.5	3.5
Germany												
HICP	4.4	2.7	1.7	1.2	1.5	0.6	0.6	1.4	1.9	1.3	1.0	1.8
Estimated complete inflation	4.0	5.4	0.9	1.1	1.6	0.3	2.1	1.5	1.1	1.0	0.5	1.2
Greece												
HICP	14.4	10.9	8.9	7.9	5.4	4.5	2.1	2.9	3.7	3.9	3.4	3.0
Estimated complete inflation	14.1	10.7	6.5	9.7	6.3	6.0	2.7	1.2	3.9	5.3	3.8	2.4
Ireland												
HICP	1.4	2.3	2.5	2.2	1.2	2.1	2.5	5.3	4.0	4.7	4.0	2.3
Estimated complete inflation	0.4	3.3	3.4	2.8	4.0	3.5	2.9	8.5	1.8	3.6	2.7	3.1
Italy												
HICP	4.5	4.2	5.4	4.0	1.9	2.0	1.7	2.6	2.3	2.6	2.8	2.3
Estimated complete inflation	5.4	3.5	6.8	0.5	-0.1	0.6	3.9	4.6	2.0	3.1	3.2	3.2
Netherlands												
HICP	1.6	2.1	1.4	1.4	1.9	1.8	2.0	2.3	5.1	3.9	2.2	1.4
Estimated complete inflation	1.1	2.4	2.2	2.2	2.8	2.4	4.4	3.7	4.4	3.6	2.2	2.0
Portugal												
HICP	5.9	5.0	4.0	2.9	1.9	2.2	2.2	2.8	4.4	3.7	3.3	2.5
Estimated complete inflation	3.8	3.7	5.7	2.2	0.9	1.3	2.6	4.7	3.2	3.4	2.5	3.5
Spain												
HICP	4.9	4.6	4.6	3.6	1.9	1.8	2.2	3.5	2.8	3.6	3.1	3.1
Estimated complete inflation	3.3	4.5	6.0	2.0	2.2	2.1	3.1	6.3	3.1	3.4	4.1	4.0
Euro area												
HICP	3.4	2.8	2.6	2.3	1.7	1.2	1.1	2.1	2.4	2.3	2.1	2.1
Estimated complete inflation	3.1	4.0	3.0	1.5	1.5	0.9	2.8	3.4	2.0	2.5	2.4	2.7

4. The methodology underpinning the results shown in **Table 2.4** involves a certain number of questions which would have to be looked at carefully before any decision to implement it operationally. First, the results have been derived after making a number of methodological choices detailed in **Annex 2.A2** and the numerical values are partly dependent on these choices. Secondly, in the absence of harmonised data, the mortgage rates and house price statistics underlying the calculations are not directly comparable across countries. Thirdly, as an inflation measure of this kind factors in the costs of housing services to owners who are servicing variable rate mortgages, it is directly affected by interest rate changes.

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