

IN-DEPTH ANALYSIS

Requested by the ECON committee

Monetary Dialogue Papers, November 2021



Housing and the Cost of Living



Policy Department for Economic, Scientific and Quality of Life Policies
Directorate-General for Internal Policies
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PE 695.467 - November 2021

EN

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Monetary Dialogue Papers
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Abstract

The Harmonised Index of Consumer Prices (HICP), which constitutes the sole official measure of inflation in the euro area, leaves out an important part of household expenditure, namely the cost of owner-occupied housing (OOH). Most other developed economies include estimates of OOH in their consumer price index. The existing, even if imperfect, indicator available today from Eurostat should be included immediately in the HICP. It is unacceptable that Eurostat and the Commission have not been able to produce a better OOH indicator in the 18 years since the ECB first flagged the importance of housing costs in 2003.

This paper was provided by the Policy Department for Economic, Scientific and Quality of Life Policies at the request of the committee on Economic and Monetary Affairs (ECON) ahead of the Monetary Dialogue with the ECB President on 15 November 2021.

This document was requested by the European Parliament's committee on Economic and Monetary Affairs (ECON).

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Original: EN

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Manuscript completed: November 2021

Date of publication: November 2021

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This document was prepared as part of a series on "Housing and the Cost of Living", available on the internet at:

<https://www.europarl.europa.eu/committees/en/econ/econ-policies/monetary-dialogue>



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For citation purposes, the publication should be referenced as: Gros, D., Shamsfakhr, F., 2021. *Housing and the Cost of Living*, Publication for the committee on Economic and Monetary Affairs, Policy Department for Economic, Scientific and Quality of Life Policies, European Parliament, Luxembourg.

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LIST OF ABBREVIATIONS

ECB	European Central Bank
GDP	Gross domestic product
HICP	Harmonised Index of Consumer Prices
HPI	House Price Index
OOHPI	Owner-Occupied Housing Price Index
OOH	Owner-occupied housing

EXECUTIVE SUMMARY

- **Housing represents an important part of household budgets.** But the cost of housing is not properly measured in the official inflation statistics that the European Central Bank (ECB) uses.
- **The Harmonised Index of Consumer Prices (HICP) currently takes into account only "actual rent paid",** not the cost of owning one's own home.
- **A consumer price index that neglects the cost of owner-occupied housing fails to measure the living cost for appropriately 70 % of the population (this is the average EU home ownership rate).**
- **Rent has a low weight in the HICP (7 %)** due to a combination of two factors: the relatively high rate of homeowners in the euro area and smaller size of rented units.
- **The costs of owner-occupied housing (OOH) are not equal to house prices,** which are considered in asset prices, but to the services the house delivers to its occupants.
- **Measuring the housing services of owner-occupied accommodation is difficult, but not impossible.**
- **The net acquisition approach and the rental equivalence approach, as two potential methods for including OOH costs in consumer price baskets, have already been implemented by several countries across the world.** Neither of these two measures is clearly superior, but using an imperfect one is clearly better than ignoring OOH altogether.
- **The HICP without OOH has been misleading materially for some time and is likely to become an ever more misleading measure of actual inflation as felt by families in the years ahead.**
- **For over 10 years, Eurostat has provided an index of the cost of owner-occupied housing but it has largely been ignored.**
- **Reforming the HICP to include the cost of OOH is long overdue.** It would be sufficient to incorporate the existing index provided by Eurostat into the HICP. Formally this is a competence of Eurostat (and the Commission) which could be taken soon. The ECB would then have little choice but adapting the way it measures its price stability target.

1. INTRODUCTION

One of the recurring observations, for decades now, has been that inflation has shown up in asset prices, rather than consumer prices. The position of the European Central Bank (ECB), as reconfirmed in its latest monetary policy strategy review, is that asset prices are more of a concern for financial stability than price stability, which should, in turn, be addressed by macroprudential policies, rather than monetary policy (ECB, 2021a). The ECB admits that asset price bubbles could eventually destabilise the economy and thus affect prices in the medium term (ECB, 2003). Therefore, monetary response to asset prices could sustain both financial and monetary stability (see Borio and Lowe, 2002). However, the orthodox position of central bankers is that asset price inflation should be dealt with by macroprudential tools (see also Svensson, 2018).

We do not want to take a side in this discussion but note that the 2 % target for inflation adopted by major global central banks was chosen as the value at which households plan their expenditure without factoring large price increases. For housing this is no longer the case in the euro area today.

For many households, housing-related costs are the major expenditures. But the Harmonised Index of Consumer Prices (HICP), the ECB's measure of inflation and the cost of living, only includes the actual rents paid by tenants and thus leaves out the housing (services) costs borne by owners who live in their own homes. The ECB already recognised this problem in 2003¹; yet little has been done in the meantime to deal with this issue. In its most recent policy review, the ECB has formally proposed to include the cost of owner-occupied housing (OOH)² in the consumer price index, for which it targets an inflation rate of 2 %³.

The key issue is then how to measure the cost of housing. Economists distinguish between the value of a house (or apartment) as an asset and the services (shelter) that the house yields to those who live in it. Therefore, consumer price indices do not contain house prices (which are asset prices) but estimates of the cost of the services that housing yields. That is also the case for the euro area. The HICP thus rightly neglects house price inflation, which arguably, if not caused, is at least encouraged by an ultra-accommodative monetary policy stance.

Measuring the cost of living in one's own home is important, as this is the situation of a large majority of the population. The average share of home ownership in the EU is close 70 % (as of 2019)⁴. An HICP that neglects OOH thus fails to measure the cost living appropriately for 70 % of the population. Home ownership rates of course differ considerably across Member States as discussed below, but the key for any common price index is the average home ownership ratio.

For more than 10 years, Eurostat has been putting together an index of the cost of owner-occupied housing, but this Owner-Occupied Housing Price Index (OOHPI) remains almost unknown, and little used. Here we use the OOHPI provided by Eurostat to calculate a measure of inflation that reflects the developments in the cost of housing. To this end, we calculate the approximate weight of OOH in the consumer price basket.

¹ ECB, 2003, *Background Studies for the ECB's Evaluation of its Monetary Policy Strategy*. Available at: https://www.ecb.europa.eu/pub/pdf/other/monetarypolicystrategyreview_backgrounden.pdf.

² Owner-occupier housing (OOH) costs represent those expenditures incurred by households when purchasing, maintaining and living in their own dwelling. According to the definition, the OOH index consists of the transaction costs related to acquisitions of dwellings (including new dwellings, existing dwellings new to the households, and other services related to the acquisition of dwellings), as well as ownership of dwellings (including major repairs and maintenance, insurance connected with dwellings, other expenditure).

³ In ECB speak on 8 July 2021: "Governing Council confirms that HICP remains appropriate price measure and recommends inclusion of owner-occupied housing over time."

⁴ Eurostat. Available at: <https://ec.europa.eu/eurostat/cache/digipub/housing/bloc-1a.html?lang=en>.

In what follows, we first briefly discuss the two main different ways to measure the cost of OOH (Section 2). Neither of the two approaches is clearly superior, as both have intrinsic advantages and difficulties. The approach preferred by the ECB (and already implemented by Eurostat) is certainly acceptable.

Next, in Section 3, we provide an overview of actual rents and home ownership across European countries and in the euro area. In Section 4, we present an estimate of a comprehensive HICP – including owner-occupied housing costs – using the euro area data. In Section 5, we examine the relationship between the house price index and OOH in the euro area. In the last section, we summarise our main remarks.

2. HOW TO MEASURE THE COST OF OWNER-OCCUPIED HOUSING?

In general, two methods are commonly considered for incorporating the owner-occupied housing cost in inflation indices: the "net acquisition" and "rental equivalence" approaches.

The rental equivalence approach measures the evolution of the rents which owners would have to pay if they rented their accommodation. This means it is not based on actual prices or actual monetary transactions but imputed ones.

The net acquisition approach measures the price paid by households for new accommodation from outside the household sector. It is thus based on actual monetary transactions, but excludes transactions between households, which on net have no influence on the income available to the household sector. The net acquisition approach thus treats houses like other durable goods (e.g. cars, see below).

In the rental equivalence approach, imputed rents or rental equivalents are estimated rents assigned to households that own and occupy their accommodation. The ECB argues that there are complications in measuring the owners' equivalent rent, since rented dwellings are not quite comparable with owner-occupied dwellings, especially in the locations where these two markets are segregated. Also due to possible long-term rental contracts, as well as rent controls by governments, the imputed rents do not precisely reflect the real dynamics of the housing market. Therefore, the ECB considers net acquisition as the favoured approach, as it can better read the housing market conditions. Despite the fact that it contains an investment element that cannot be disentangled from the consumption component (ECB, 2021a)⁵.

The net acquisition approach seems to fit better with the overall philosophy of the HICP:

"Public understanding is also facilitated by the fact that the HICP is compiled according to the "acquisition approach", i.e. it includes only items whose purchases involve prices based on actual monetary transactions between the household sector and other sectors in the economy, therefore excluding non-market goods and services." (ECB, 2021a)

This is also the reason by the OOHPI series provided by Eurostat was developed based on the net acquisition approach.

By contrast, Australia and New Zealand have implemented the net acquisition approach by including the purchase of new dwellings by owner-occupiers in the CPI, besides actual rents, maintenance services and utilities.

Several other countries have already integrated the OOH costs into inflation measures based on the rental equivalence approach. Among major advanced economies, the UK, US, Canada and Japan have included the imputed rents for housing (besides actual rents) in their national CPI⁶.

We note that one could also regard the gyrations of the price of used cars in the US as another example for the question of asset versus consumer prices. One could argue that a sale of a used car between two consumers represents a financial transaction, not consumption – similar to a sale of a "used"

⁵ According to Regulation (EU) 2016/792 Article 3(3) only "household final monetary consumption expenditure" can be included in the HICP, which basically rules out rent equivalence approach. This would mean that an amendment of the regulation would have been needed if the rent equivalent approach had been chosen (We wish to thank Drazen Rakic for pointing this out to us).

⁶ Other countries following the same approach are Austria, Australia, Czechia, Colombia, Denmark, Finland, Iceland, Israel, Netherlands, New Zealand, Norway, Mexico, Slovak Republic, South Africa, Sweden.

house⁷. The used cars item has a weight of close to 3 % in the US consumer basket, with used car prices up 30 %, this element added about one full percentage point to measured inflation (including core inflation) in the summer and autumn of 2021. This element is likely to be temporary as used cars (in contrast to used houses) can be reproduced rather quickly, implying that the price of used cars should soon fall back to its usual relationship with new car prices as soon as the temporary, post-COVID factors (e.g. rebuilding of rental fleets) abate.

⁷ However, if most used cars are traded through dealerships, the statistics would record the acquisition of used cars by households as an acquisition from outside the household sector, whereas the sales of cars to the dealers would simply enter household income. This is of course different from housing for which sales between households are recorded directly.

3. RENTS AND THE COST OF HOUSING IN THE EURO AREA

One aspect of the cost of housing is already included in the HICP the ECB uses, but only in the form of "actual rent paid", i.e. the payments by householders who do not own their residence⁸. This item has only a low weight, namely around 6.5 % for the euro area, on average. This low value is surprising at first sight since it is well known that housing is one of the most important parts of the cost of living. Very few households spend only 6 % of their income on rent. For example, in Germany it is estimated that the *Kaltniete* (i.e. rent without heating) absorbs typically 20 % of income⁹. And a recent ECB report documents that for a significant proportion of the population total housing costs represent over 40 % of income (ECB, 2021b).

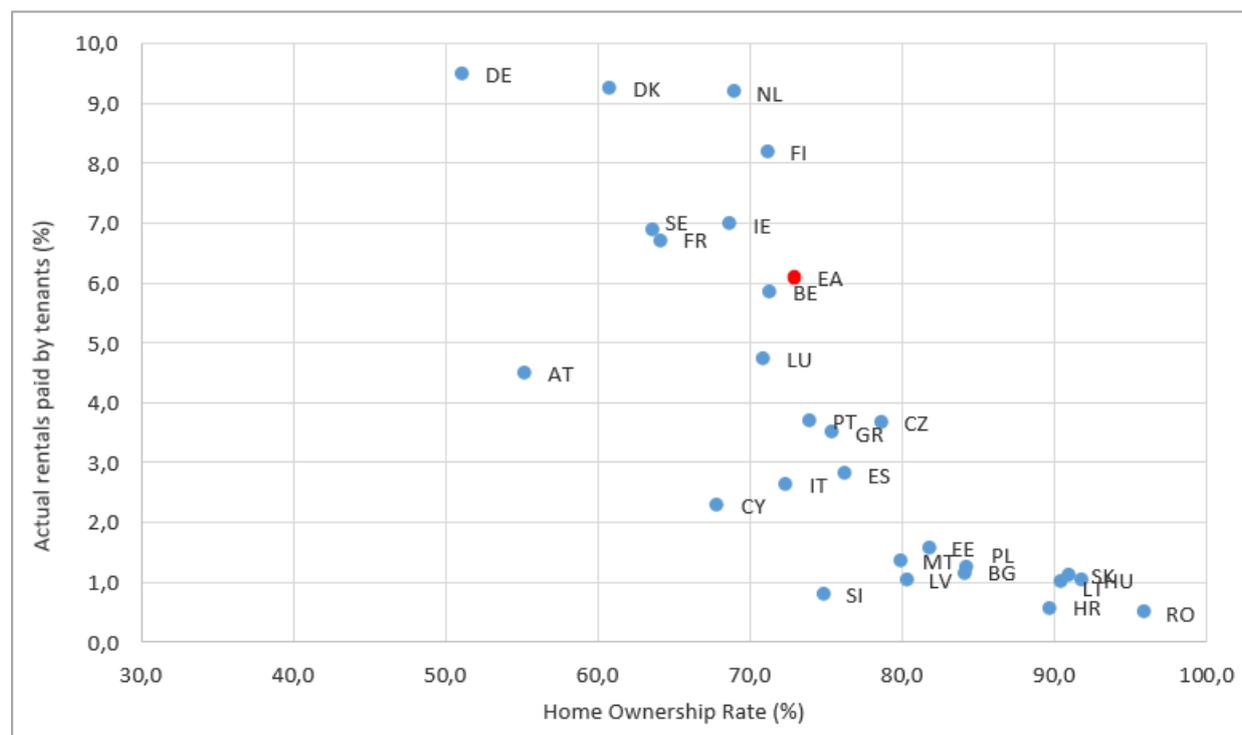
The HICP weights are calculated from national accounts expenditure data and household budget surveys. Only the rent actually paid by people who do not live in a house they own enters in the calculation. The weight for "actual rent paid" (as for any other item) is obtained by dividing the total expenditure on rents paid by those who do not own their own place of living (about 30 % of the total population) by total consumption expenditure, i.e. the consumption expenditure of the entire population, including the owner-occupiers. The implicit rent that owner-occupiers receive is simply ignored. This implies that the weight of actual rent paid will be close to zero in countries where almost everybody lives in owner-occupied dwellings. This is indeed the case in eastern European Member States. For example, in Romania, the home ownership ratio is over 90 % and the weight of actual rent paid in the HICP for Romania is below 1 % (around 0.005). More in general, one would expect a close relationship between homeownership and the ratio of owner occupation.

This is indeed what one can observe across the EU. Figure 1 illustrates the relation between the two measures (weights of actual rents in the HICP and the homeownership ratio), based on available data from 2019. It is visible that, in general, the share of housing rents in the countries with higher homeownership ratios are relatively lower, which confirms our assumption about the reason for the low weight of rents in the HICP. The red dot refers to the euro area average.

⁸ The HICP also contains mainly of ancillary costs of housing, such as heating and the cost of repairs (plumbers, painters, etc.). We concentrate here on the "pure" cost of housing or rather on the "shelter" service provided by an apartment or house.

⁹ Destatis, 2018, *Miete und Mietbelastungsquote von Hauptmieterhaushalten*. Available at: <https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Wohnen/Tabellen/mietbelastungsquote.html>.

Figure 1: Actual rental paid by tenants (in terms of corresponding weights in the HICP) and homeownership rate, across EU countries, and the euro area average



Source: Authors elaboration based on data from Eurostat and Statista.

The pairwise correlation between two measures across this sample of countries is found to be -0.85, and statistically significant at the 1 % level. The line of best fit indicates that a 10 percentage point increase in the home ownership ratio is associated with a 2.5 percentage point decrease in the weights assigned to the actual rents in the HICP.

If owner-occupied housing and rented accommodation were otherwise equal, one could find the weight of the implicit rental earned by owners by multiplying the weight for actual rent paid with the inverse of $(-1+1/\text{home ownership ratio})$. But rental accommodations are generally smaller. Data from Germany suggest that owner-occupied units are about 70 % larger than rental units¹⁰ and the available data from Italy suggest that they are 50 % larger^{11,12}. This has implications for the weight OOH should be given in the HICP.

If one considers owner-occupied housing costs as the owners' equivalent rent, one could start with the weight of rent actually paid in the HICP, which is 6.5 %. The homeownership ratio in the euro area is about 71 % (in 2019, this ratio changed very little over time). Multiplying 6.5 % by roughly 2.45 $(0.71/(1-0.71))$ yields 15.9 for a putative OOH rental equivalent – if the size of the unit were the same.

However, as mentioned above, owners typically have larger (and probably more expensive) units. If owned units are worth 50 % more than rented units (on average, as the data for Germany and Italy suggest), one would have to multiply the 15.9 % by 1.5, arriving at a share for OOH of around 24 % –

¹⁰ Destatis, 2021, *Wohnen*, Auszug aus dem Datenreport 2021. Available at: https://www.destatis.de/DE/Service/Statistik-Campus/Datenreport/Downloads/datenreport-2021-kap-7.pdf?__blob=publicationFile.

¹¹ Italian Ministry of Economy and Finance, 2019, *Gli Immobili in Italia*. Available at: https://www1.finanze.gov.it/finanze3/immobili/contenuti/immobili_2019.pdf.

¹² Fiscooggi, 2020, *Mercato delle locazioni: la fotografia dell'Omi sul 2020*. Available at: <https://www.fiscooggi.it/rubrica/immobili/articolo/mercato-delle-locazioni-fotografia-del-omi-sul-2020>.

almost equal to the weight of OOH in the US consumer price index (for owners' equivalent rent). Similarly, the rate of home ownership is quite comparable on both sides of the Atlantic (equal to 65.8 % in 2020, in both the US and euro area, according to the US Census Bureau and Eurostat).

4. ACTUAL INFLATION TAKING INTO ACCOUNT OOH

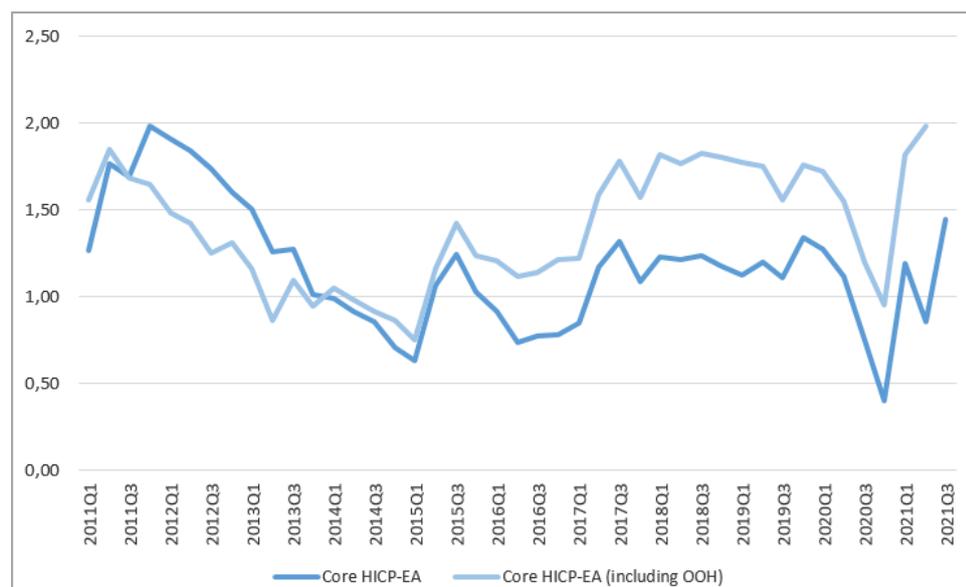
If the OOH was integrated into the HICP with the weight calculated above, the measured inflation rate for the euro area would have been 40-50 basis points higher over the last years, moving measured inflation much closer to 2%. Figure 2 shows the core inflation rate and the core inflation rate that would result if one added OOHPI with a weight of 24% to the existing core inflation rate (core defined as all items minus energy and food).

The figure suggests that the addition of OOH would lift a "full core" inflation rate to "close to", but not yet fully to 2%. This was already noted by Yves Mersch¹³, when he observed that the actual inflation rate would have been very close to 2% on average, over the period 2016-2019.

With the COVID-19 crisis, even core inflation has become more variable, so it is difficult to say whether an "all inclusive" HICP would today be close to 2% on a forward-looking basis. Overall HICP inflation is now (fall 2021) above 2%, but most of this is due to higher energy prices. The ECB still projects HICP inflation to return to only 1.7% and 1.5% in 2022 and 2023 (provided energy prices stabilise). Over the last quarters the OOHPI has been increasing at a rate of 3-4%. This implies that properly measured inflation projections should be about 0.6 to 0.7 percentage point higher, leading to inflation projections above 2% over the medium term.

Moreover, one should consider the fact that house prices are continuing to increase rapidly – now at 6.8% in 2021Q2 per annum. This could mean that the pace of increase in the cost of owner-occupied housing also increases. In the following, we thus investigate the relationship between house prices and the OOH indicator as put together by Eurostat.

Figure 2: Core inflation with and without taking into account the cost of owner-occupied housing, 2011Q1-2021Q3



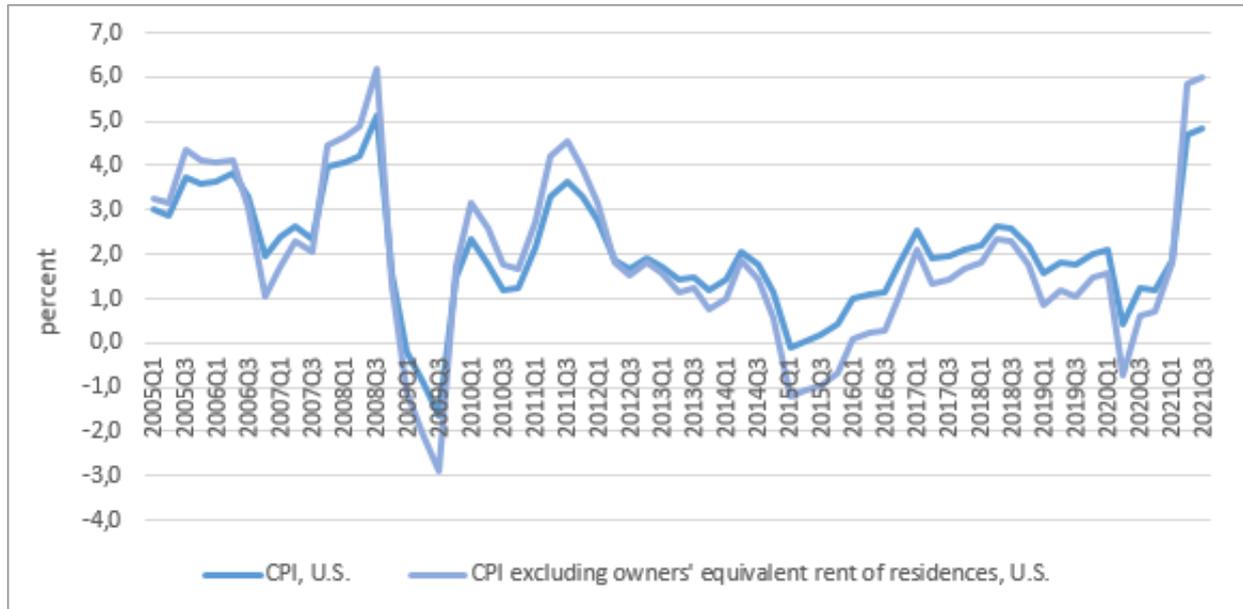
Note: The core HICP including the owner-occupied housing price index has been compiled by the authors using HICP country weights for the euro area excluding Greece. The latest data available for OOHPI is 2021Q2, and for HICP 2021Q3.

Source: Authors' calculations based on data from Eurostat.

¹³ Mersch, Y., 2020, *Asset price inflation and monetary policy*, Keynote speech by Mersch, Member of the Executive Board of the ECB and Vice-Chair of the Supervisory Board of the ECB, at the celebration of INVESTAS' 60th anniversary. Luxembourg, 27 January 2020. Available at: <https://www.bankingsupervision.europa.eu/press/speeches/date/2020/html/ssm.sp200127~402c545954.en.html>.

In the case of the US, as illustrated in Figure 3 and Table 1, a large part of the relative "better" performance of the US in terms of inflation over the last five years of asset price inflation seems to have been due to the inclusion of OOH. Without OOH, the US inflation performance would have been very similar to that of the euro area.

Figure 3: Inflation in the US, CPI and CPI excluding owners' equivalent rent, 2005Q1-2021Q3



Source: Authors' calculations based on Federal Reserve Economic Data.

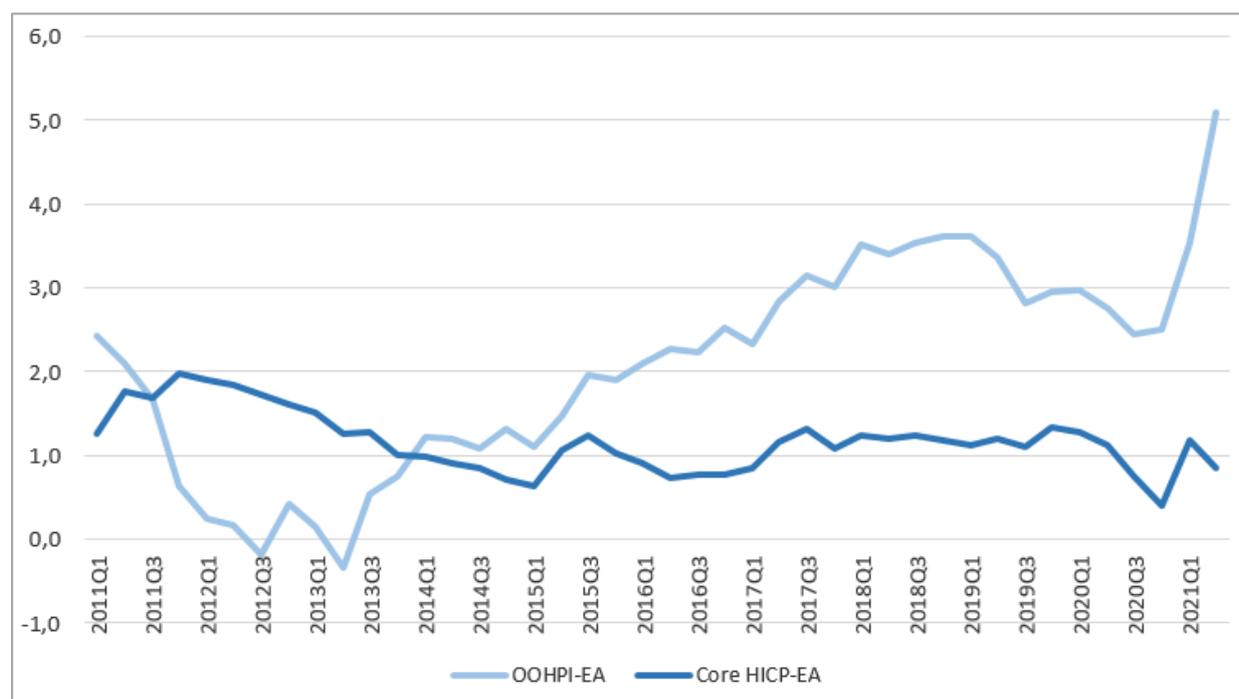
Table 1: Inflation in the US, difference between CPI and CPI excluding owners' equivalent rent (5, 10 and 10 years pre-COVID)

	CPI (%)	CPI excluding owners' equivalent rent (%)	Difference (p.p.)
Average 20 years pre-COVID	2.2	2.0	0.2
Average 10 years pre-COVID	1.7	1.4	0.3
Average 5 years pre-COVID	1.6	1.1	0.5

Source: Authors' calculations based on Federal Reserve Economic Data.

It is evident that the housing cost in Europe is increasing rapidly. The OOHPI has been moving above 2 % p.a. over the last five years and, since 2017, it has been rising, on average, by more than 3 % – much above the core inflation rate (which excludes volatile elements such as energy). Over the last quarter it has shot up to 5 % and is likely to remain high because house prices continue to increase as well. See Figure 4 below.

Figure 4: The rising cost of (owner-occupied) housing compared with measured inflation in the euro area, 2011Q1 - 2021Q1



Source: Eurostat.

Note: The OOHPI published by Eurostat is not available for euro area average but for the member countries except for Greece. The index for the euro area shown here is calculated by the authors.

Figure 4 also shows that the cost of owner-occupied housing does not always increase faster than other prices. Until about 2014, OOH inflation was below the core inflation rate. This was probably due to the fact that after the bursting of the housing bubble in many parts of the euro area housing prices and costs declined (see also below).

5. HOUSE PRICES AND THE COST OF OWNER-OCCUPIED HOUSING

Public discussions about housing costs and inflation often conflate house prices, rents and the rent equivalent of OOH. House prices and the cost of OOH are conceptually distinct concepts. However, they are linked in reality. House prices seem to have a strong impact on OOH¹⁴.

According to IMF staff calculations, based on a cross-country estimate of the link between nominal house price growth and CPI rent inflation, a 1 percentage point year-on-year increase in nominal house prices in the quarter ahead is associated with a cumulative increase of 1.4 percentage point in annual rent inflation over a period of two years. The effect is estimated to persist for about three years (IMF, 2021).

In the following, we estimate the elasticity of owner-occupied housing costs to housing prices in the euro area. We use a panel dataset of 18 euro area countries (no data are available for Greece) over the period 2010Q1-2021Q1.

¹⁴ We also examined the possible relationship between house price index and actual rentals for housing index included in the HICP, across euro area countries. The estimated coefficients imply that the two measures are only marginally correlated, and the dynamics of rents seems to be different from that of house prices in the sample countries.

For robustness we use three different estimation methods: pooled OLS, fixed effects and random effects models. All are estimated using the year-on-year growth rates (in the form of log difference) of the OOHPI and House Price Index. As the output of Hausman test also confirms, no systematic and significant difference between fixed effects and random effects models exists, and the results delivered by both estimators are quite similar, and also close to the one from the pooled regression. We add a lagged dependent variable to account for the potentially slow adjustment of the OOH index to any shock¹⁵.

The coefficient on the lagged dependent variable suggests that about one half of any shock disappears within one quarter, implying that the full effect of any shock is felt within one year. The estimated coefficients show that the (short-term) elasticity of owner-occupied housing costs to housing prices in the euro area is around 0.15-0.17 (Table 2). Together with partial adjustment this implies that the long-run elasticity of OOH with respect to house prices is about 0.3-0.34.

Table 2: House prices and OOH, regression analysis

Dependent Variable: $\Delta \log(\text{OOH})$			
	Pooled-OLS	Fixed Effects	Random Effects
lagged $\Delta \log(\text{OOH})$	0.531	0.451	0.531
	(0.080) ^{***}	(0.114) ^{***}	(0.088) ^{***}
lagged $\Delta \log(\text{HPI})$	0.154	0.170	0.154
	(0.026) ^{***}	(0.028) ^{***}	(0.024) ^{***}
cons	0.008	0.009	0.008
	(0.002) ^{***}	(0.002) ^{***}	(0.003) ^{***}
R2	0.69	0.64	0.69
N	743	743	743

*** denotes significance level of 1 %.

Source: Authors' calculations based on data from Eurostat.

Note: Regression results for the sample 18 euro area countries for which data is available (only Greece missing), 2010Q1-2021Q1. Heteroskedastic-robust standard errors in parentheses.

The regression result suggests that the OOHPI is likely to continue rising at a considerable pace as housing inflation is now running at above 6 % in the euro area. If house prices increase by 6-7 %, the longer-term impact of 0.34 calculated above suggests a rate of increase in the OOH element of consumer prices of about 2-2.4 %. Combined with the estimated weight of OOH in a proper consumption basket of 24 %, this would mean an increase in measured inflation of about 0.5 to 0.6 percentage points (not far from the value observed over the last years). OOH inflation is thus likely to continue at a strong pace and have a significant impact of overall inflation as perceived by the majority of households.

¹⁵ Early inflation models and several empirical measures of inflation include lags in inflation process to feature and capture the persistence of inflation, as a key component of its dynamics (see Fuhrer, 2009). It is likely that the items which make up the OOH component suffer at least partially from similar frictions.

6. CONCLUSIONS

The primary task of the ECB is to ensure price stability. Price stability is attained when price increases are so small that consumers do not worry about prices being much higher in the future. This is no longer the case. Households feel the cost of housing, which is a major element of household expenditure, increasing at a rapid pace. However, the HICP which the ECB uses to measure includes only rents, but does not measure the cost of owner-occupied housing. This is in contrast to international practice since the consumption price indices of most developed countries include the cost of owner-occupied housing.

The HICP currently used measures only a small part of the cost of housing, namely "actual rent paid", whose weight in the HICP is only 6 % of total consumption. Households spend obviously more than just 6 % of their income on housing. The low weight of rents in the HICP is due to a combination of two factors: a relatively high rate of homeowners in the euro area (70 % own and owner-occupiers do not pay rent) and the smaller size of rented units. Adjusting for these two factors yields an estimate of the proper weight of housing of about 30 % in the HICP, of which OOH would be around 24 % (like in the US).

Our calculations suggest that over the next years the existing HICP will underestimate inflation by potentially about 0.5 to 0.6 percentagepoints. The current survey-based forecast for inflation two years out is at present 1.5 % and 1.8 % for the longer (5-year) term¹⁶. These forecasts are for the current HICP. Taking into account the full cost of housing would mean that professional forecasters expect a properly measured inflation rate of at least 2 % over the next two years and 2.3 over the longer term – making emergency bond purchases unnecessary. Acknowledging the cost of owner-occupied housing would thus have important implications for the stance of monetary policy.

The argument that the existing measure of Eurostat, the OOHPI cannot be used because it comes only at a quarterly frequency is not convincing. The ECB takes also other variables into account which appear only with quarterly frequency (e.g. real GDP growth), and the ECB updates itself its inflation forecasts only 4 times per year. Moreover, the Governing Council takes its monetary policy decisions only every 6 weeks. It would thus have the existing quarterly measure of the OOHPI available at every second monetary policy meeting. At any rate, it should not be difficult for Eurostat to quickly increase the frequency of its existing measure from quarterly to monthly, at least for the major Member States.

The strategy towards including OOH in the HICP, which stretches into the indefinite future is not convincing. Progress on measuring the cost of owner-occupied housing has been painfully slow, very little has been achieved over 15 years. No indicator of OOH will ever be perfect. But at this point is better to be approximately right (using the existing, imperfect indicator), than precisely wrong (ignoring housing costs for another decade).

Including OOH quickly in the inflation measure that the ECB targets would create a "communication problem", because it would indicate that the ECB is much closer to its target of (now) 2 % than perceived today on the basis of an HICP which does not include OOH.

If the ECB were to include OOH in its price stability definition at the present juncture it would have to acknowledge a "jump" in inflation of about ½ of a percentage point. This could lead to two types of criticisms: Some might argue that the ECB is changing the bar to make it easier to attain its target level of inflation. Others might argue that its past monetary policy has been unduly expansionary because it had under-estimated inflation. However, this communication problem should not be a reason to delay

¹⁶ ECB, 2021, HICP, Inflation forecasts. Available at: https://www.ecb.europa.eu/stats/ecb_surveys/survey_of_professional_forecasters/html/table_hist_hicp.en.html.

the implementation of including OOH *sine die*.

This paper has concentrated on the substantive arguments for taking the cost of owner-occupied housing into account when measuring inflation. Formally one should distinguish between two steps: i) including OOH costs in HICP which is the competence of Eurostat, and ii) the inclusion of OOH costs in decision-making on monetary policy. The first step could quickly be taken by Eurostat (under prodding from the Commission).

The ECB has promised that while waiting for the perfect OOH measure it will integrate the cost of owner-occupied housing in its analytical framework which informs monetary policy. This is of course something the ECB could do immediately. It is unlikely to amount to much more than a footnote to its reports. The size of the impact of OOH on inflation is so large that over the next few years it might justify a different direction for monetary policy.

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The Harmonised Index of Consumer Prices (HICP), which constitutes the sole official measure of inflation in the euro area, leaves out an important part of household expenditure, namely the cost of owner-occupied housing (OOH). Most other developed economies include estimates of OOH in their consumer price index. The existing, even if imperfect, indicator available today from Eurostat should be included immediately in the HICP. It is unacceptable that Eurostat and the Commission have not been able to produce a better OOH indicator in the 18 years since the ECB first flagged the importance of housing costs in 2003.

This paper was provided by the Policy Department for Economic, Scientific and Quality of Life Policies at the request of the committee on Economic and Monetary Affairs (ECON) ahead of the Monetary Dialogue with the ECB President on 15 November 2021.
