

# On Insee’s blog post ‘Yes, Insee does take housing into account in inflation!’

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In an [Insee Blog](#)<sup>1</sup> entitled “*But yes, Insee does take housing into account in inflation*”, the chief of staff to the Director General of Insee responded on February 4, 2020, to Emmanuel Todd (2020)’s book “*The Struggles of Classes in France in the 21st Century*”, which challenged Insee’s calculation of price indices (and therefore living standards), particularly the insufficient inclusion of housing in these indices (Ourliac (2020))<sup>2</sup>. Several arguments were put forward to defend Insee’s choices, in particular the low weight of 6% assigned to rents in the French Price Index.

## About the “international methodological manual”

The Insee *Blog* first uses an argument from authority: the choices of the statistical institute would not be specific to France; they would follow the recommendations of an “international methodological manual” (IMF (2020)). The *Blog* thus states:

Insee’s choices are not specific to France: at the international level there exists a methodological manual prepared by all of these organizations, and at the European level a regulation that define how to calculate the CPI, shared by all of Insee’s counterparts abroad.

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<sup>1</sup>Following a [discussion](#) on February 3, 2022, on Twitter that questioned my “good faith” ([tweet](#)), I try here, if not to convince my interlocutor on the substance, at least to persuade him of my “good faith.” Having worked on this issue of housing inclusion in the Price Index for a long time (Geerolf (2018)), I feel legitimate in challenging the statements made in this *Blog*.

<sup>2</sup>In fact, this debate is much older, and neither Emmanuel Todd nor Philippe Herlin (2018) were the first to raise it. On October 23, 2007, Christine Lagarde, then Minister of the Economy, set up a commission on the measurement of purchasing power, chaired by Alain Quinet, which resulted in a [report](#) that already mentioned this issue (Quinet (2008)). This report also drew on the [report](#) no. 73 of the Conseil d’Analyse Économique, cited in Philippe Herlin’s book (Moati and Rochefort (2008)).

This passage implies that the exclusion of owner-occupied housing in particular—the main subject of the *Blog* post—would be part of the recommendations in international methodological manuals. However, this is not the case: the methodological manual referred to in the *Blog* is publicly available [online](#). And nowhere in its 509 pages does it recommend excluding owner-occupied housing from the calculation of the Consumer Price Index (Indice des Prix à la Consommation), i.e., to follow Insee’s method. . . . On the contrary, this manual presents five different methods for addressing the problem of owner-occupied housing in the Consumer Price Index: four ways of including it, and a fifth method consisting of not including it. It does not make a recommendation.

Moreover, the methodological manual mentioned is not the most comprehensive on this specific issue of including housing in the Consumer Price Index: there exists a manual dealing more specifically with the question of including housing costs in the Consumer Price Index, published by Eurostat (Eurostat (2017)) and entitled “*Technical Manual on Owner-Occupied Housing Price Indices and House Price Indices*.” And what does this manual say? It is rather critical of the non-inclusion of housing in the Price Index adopted by French official statistics, as can be seen in Figure 1 below (sorry for the English): according to this manual, not including owner-occupied housing can be considered as leading to an index that is too “narrow” in scope, and elsewhere in the manual it even recommends using this method only in the case of an insufficient statistical apparatus. And indeed, France is one of the few countries in Europe not to include owner-occupied housing in the Price Index for its national index.

Furthermore, as can be seen in this table, the choice to exclude owner-occupiers’ housing expenditures from the CPI (Indice des Prix à la Consommation, IPC) would correspond to the choice to account for only “monetary transactions” in the CPI. Yet the French CPI does not meet this requirement either. Indeed, Insee includes in the CPI health expenditures reimbursed by social security, which are not part of “household consumption” but rather “individualizable public administration consumption.” This has no theoretical justification (in that case, why not also include other individualizable public consumption services, which are “free” for the user: education, culture, social action?). Thus, the scope of the CPI does not even correspond to “monetary transactions” as described here in the Eurostat manual, which could at least have justified the exclusion of imputed rents — for example, if the CPI were used solely for monetary policy, and not as a cost-of-living index. The French CPI thus appears as a hybrid index, which to our knowledge has no equivalent. Moreover, the inclusion of health expenditures also contributes to underestimating inflation in France, because the prices of reimbursed medicines tend to fall, particularly thanks to “quality effects.” One can measure this underestimation by comparing it to the Harmonized Index of Consumer Prices (HICP, Indice des Prix à la Consommation Harmonisé, IPCH) calculated at the European level, which does not have this problem (the difference is about +5% since 1996).

The *Blog* also claims that:

Insee’s choices are not specific to France.

Figure 1: Link between the method of including owner-occupied housing and the purpose of the Price Index

Table 1: Relationship between the choice of the OOH approach and CPI purposes

Approaches to OOH	Primary purpose of CPI	OOH price definition underlying the approach	Comments
<b>Acquisition</b>	Measure the change through time of the total expenditure associated to <i>all monetary transactions</i> made by households for acquiring goods and services for consumption purposes	Acquisition cost of a dwelling made by a household for own occupancy	Approach more in accordance with the definition of an 'inflation index'. No need for imputed prices.
<b>Use</b>	Measure the change through time of the <i>total value of all goods and services</i> that were <i>actually consumed</i> by households	Opportunity cost associated with the use of a dwelling by a household for own purpose	Approach more in accordance with the 'Cost-Of-Living' Index (COLI) framework. Imputed prices are needed.
<b>Payment</b>	Measure the change through time of the <i>total payments</i> made for all goods and services by households	Cash outlays associated with the own-occupied dwelling	Approach more appropriate for the evaluation of money income. Also for a COLI. No need for imputations.
<b>Exclusion of OOH</b>	Measure the change through time of the total expenditure associated to <i>all monetary transactions of consumer goods and services</i> made by households	–	Can be seen as being <b>too narrow</b> in its scope; a problem that could be overcome by the construction of the HEPI index.

Again, an examination of what is done elsewhere reveals that the complete exclusion of the cost of owner-occupied housing is a **very minority** choice internationally: most countries (for example, the United States or Germany) include imputed rents in their Consumer Price Index. In the U.S. CPI, imputed rents are included, as can be verified in the latest press release from the *Bureau of Labor Statistics* regarding the [price index](#) and reproduced in Figure 2: the Consumer Price Index for Urban Households includes imputed rents at a weight of 23.5%, which, added to the 7.6% for actual rents, makes 30.1%.

Similarly, the weight of rents is 20.7% in the German price index, and it includes the imputed rents of owner-occupiers, which can be verified by consulting the latest press release from the German statistical office *Destatis* regarding the price index for [January 2022](#), reproduced in Figure 3. In France, if imputed rents were included, the weight of rents in the CPI would also be about 21%, and not 6%.

Insee would also rely on a European-level regulation, which again [would justify its choice](#). It is indeed correct to say that at the European level, Eurostat's Harmonized Index of Consumer Prices (HICP, IPCH) does not for the moment include the cost of housing for owner-occupiers (imputed rents). But this is not proof of a European consensus on the subject, which does not exist: as Eurostat's methodological manual on this subject details, excluding owner-occupied housing from the CPI is considered a "narrow" method by Eurostat itself. This is why the inclusion of owner-occupied housing in the CPI has long been planned, i.e. since the HICP was established, and an experimental index in this direction has recently been calculated at the European level. Finally, and most importantly, as already noted, most European countries include owner-occupied housing in their consumer price index, first and foremost Germany. The non-inclusion of imputed rents in the HICP is therefore not a sign of European consensus on this subject, but probably of a lowest-common-denominator logic. (Without having more precise information on this point, one can imagine that France did not push in this direction.) Finally, the objective of the HICP is not in any case the same as that assigned to the national CPI: the HICP serves monetary policy in the Eurozone, and is not intended to be used for indexation purposes. *Destatis* [explains](#) thus the difference between a national CPI, which is used mainly for compensation and cost-of-living measurement, and the HICP, which measures inflation for monetary policy purposes.

The suspicion of interference by the Ministry of Economy and Finance over Insee in the calculation of inflation is ridiculous; it primarily reflects a total ignorance of the conditions under which the methodology of the CPI is developed.

Since neither the methodological manuals nor the aforementioned regulations are as definitive as the *Blog* claims — quite the contrary — and since France appears rather isolated on this subject at the international level, it does not seem a priori impossible that the choice of one method over another is made on political grounds, or at least not strictly on the theory of price index construction.

An objective could, for example, be to save on social expenditures, since the Consumer Price Index is used to index pensions, minimum social benefits, etc. The goal of saving money is not

Figure 2: Case of the United States

**Table 1. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by expenditure category, December 2021**  
[1982-84=100, unless otherwise noted]

Expenditure category	Relative importance Nov. 2021	Unadjusted indexes			Unadjusted percent change		Seasonally adjusted percent change		
		Dec. 2020	Nov. 2021	Dec. 2021	Dec. 2020-Dec. 2021	Nov. 2021-Dec. 2021	Sep. 2021-Oct. 2021	Oct. 2021-Nov. 2021	Nov. 2021-Dec. 2021
All items.....	100.000	260.474	277.948	278.802	7.0	0.3	0.9	0.8	0.5
Food.....	13.990	270.023	285.507	286.966	6.3	0.5	0.9	0.7	0.5
Food at home.....	7.722	251.253	266.384	267.555	6.5	0.4	1.0	0.8	0.4
Cereals and bakery products.....	0.978	283.735	295.909	297.279	4.8	0.5	1.0	0.8	0.4
Meats, poultry, fish, and eggs.....	1.840	264.475	299.228	297.604	12.5	-0.5	1.7	0.9	-0.4
Dairy and related products.....	0.746	231.740	233.157	235.442	1.6	1.0	0.2	0.2	0.7
Fruits and vegetables.....	1.305	306.506	318.436	321.931	5.0	1.1	0.1	1.0	0.9
Nonalcoholic beverages and beverage materials.....	0.909	177.539	185.119	186.723	5.2	0.9	0.8	0.2	0.8
Other food at home.....	1.942	218.534	229.643	230.809	5.6	0.5	1.2	1.0	0.6
Food away from home <sup>1</sup> .....	6.269	299.369	315.481	317.372	6.0	0.6	0.8	0.6	0.6
Energy.....	7.542	198.155	259.100	256.207	29.3	-1.1	4.8	3.5	-0.4
Energy commodities.....	4.304	198.997	302.635	296.391	48.9	-2.1	6.2	5.9	-0.6
Fuel oil <sup>1</sup> .....	0.114	231.044	333.899	325.879	41.0	-2.4	12.3	3.5	-2.4
Motor fuel.....	4.115	194.996	297.841	291.510	49.5	-2.1	6.1	6.1	-0.5
Gasoline (all types).....	4.027	193.990	296.571	290.185	49.6	-2.2	6.1	6.1	-0.5
Energy services.....	3.238	206.758	227.874	228.199	10.4	0.1	3.0	0.3	-0.1
Electricity.....	2.412	214.375	227.588	227.974	6.3	0.2	1.8	0.3	0.3
Utility (piped) gas service.....	0.825	180.767	224.225	224.366	24.1	0.1	6.6	0.6	-1.2
All items less food and energy.....	78.468	269.226	282.754	283.908	5.5	0.4	0.6	0.5	0.6
Commodities less food and energy commodities.....	20.768	145.317	159.426	160.850	10.7	0.9	1.0	0.9	1.2
Apparel.....	2.669	114.434	122.383	121.068	5.8	-1.1	0.0	1.3	1.7
New vehicles.....	3.884	149.091	164.511	166.653	11.8	1.3	1.4	1.1	1.0
Used cars and trucks.....	3.419	150.891	200.209	207.164	37.3	3.5	2.5	2.5	3.5
Medical care commodities <sup>1</sup> .....	1.487	377.921	379.483	379.611	0.4	0.0	0.6	0.1	0.0
Alcoholic beverages.....	0.993	259.397	264.957	265.410	2.3	0.2	-0.2	0.0	0.5
Tobacco and smoking products <sup>1</sup> .....	0.617	1,199.508	1,298.746	1,308.024	9.0	0.7	1.9	0.9	0.7
Services less energy services.....	57.700	346.808	358.722	359.559	3.7	0.2	0.4	0.4	0.3
Shelter.....	32.393	327.702	339.997	341.241	4.1	0.4	0.5	0.5	0.4
Rent of primary residence.....	7.583	344.455	354.526	355.931	3.3	0.4	0.4	0.4	0.4
Owners' equivalent rent of residences <sup>2</sup> .....	23.509	337.695	349.152	350.508	3.8	0.4	0.4	0.4	0.4
Medical care services.....	6.987	564.201	577.076	578.555	2.5	0.3	0.5	0.3	0.3
Physicians' services <sup>1</sup> .....	1.777	391.807	408.843	408.644	4.3	0.0	0.0	0.4	0.0
Hospital services <sup>3</sup> .....	2.154	355.232	367.479	366.854	3.3	-0.2	0.5	-0.3	0.2
Transportation services.....	5.046	312.959	327.749	326.063	4.2	-0.5	0.4	0.7	-0.3
Motor vehicle maintenance and repair <sup>1</sup> .....	1.080	309.888	325.076	324.688	4.8	-0.1	1.5	0.0	-0.1
Motor vehicle insurance.....	1.560	545.376	568.239	567.875	4.1	-0.1	0.0	-0.8	-1.5
Airline fares.....	0.619	205.983	215.159	208.954	1.4	-2.9	-0.7	4.7	2.7

<sup>1</sup> Not seasonally adjusted.

<sup>2</sup> Indexes on a December 1982=100 base.

<sup>3</sup> Indexes on a December 1996=100 base.

Figure 3: Case of Germany

04	Wohnung, Wasser, Strom, Gas und andere Brennstoffe	Housing, water, electricity, gas and other fuels	324,70
041	Wohnungsmiete, einschl. Mietwert von Eigentümerwohnung	Rentals for housing including rental value of owner-occupied housing	207,26
0411	Nettokaltmiete	Net rent	196,32
04110	Nettokaltmiete	Net rent	196,32
0411011200	Nettokaltmiete Wohnung bis 70 m <sup>2</sup> , gebaut bis 1948	Net rent, dwelling up to 70 m <sup>2</sup> , built till 1948	
0411014300	Nettokaltmiete Wohnung über 70 m <sup>2</sup> , gebaut bis 1948	Net rent, dwelling more than 70 m <sup>2</sup> , built till 1948	
0411021400	Nettokaltmiete Wohnung bis 70 m <sup>2</sup> , gebaut ab 1949	Net rent, dwelling up to 70 m <sup>2</sup> , built from 1949	
0411024300	Nettokaltmiete Wohnung über 70 m <sup>2</sup> , gebaut ab 1949	Net rent, dwelling more than 70 m <sup>2</sup> , built from 1949	
0411024600	Nettokaltmiete Einfamilienhaus	Net rent, one-family house	

necessarily objectionable in itself — but at the very least it should be acknowledged and, if necessary, debated democratically. Furthermore, one may wonder whether the underestimation of the official Consumer Price Index is a good way to achieve budgetary savings, and whether it would not be healthier and more transparent to explicitly assume official de-indexations, if that is the intended political objective. In any case, is the suspicion of interference really as “ridiculous” as claimed, and can one truly assert that it reflects a “total ignorance”? # The Purchase of a Dwelling as Investment Expenditure

Having reviewed the arguments from authority, let us now turn to the substantive reasoning. Is it economically justified to exclude owner-occupied housing from the CPI (Indice des Prix à la Consommation, IPC)? According to the *Blog*, the decision not to include rents in the CPI would be logical, insofar as the purchase of a dwelling would correspond to investment expenditure. Thus, Insee’s *Blog* asserts that owner-occupiers who no longer have mortgage payments would have no housing expenses other than utilities (water, gas, electricity).

For 8 out of 10 households (including 4 tenants and 4 homeowners with no more mortgage payments), housing expenses are exclusively consumption expenditures (rent, water, gas, electricity, routine maintenance), and are therefore fully accounted for in the CPI;

According to this statement, the 40% of owners without mortgage payments would see their housing costs fully accounted for in the CPI, since for them, these would consist only of utilities — that is, expenditures on water, gas, electricity, and routine maintenance. This, however, is a reasoning error. Indeed, the occupant of a dwelling *does* “consume” the rent they would have to pay if they were tenants of the same dwelling: by occupying the dwelling they own rather than renting it, they forego an income, which is the strict economic equivalent of a rent, and which is in fact a consumption expenditure. Another way to see this is that they also forego income compared to a stock market investment or a life insurance policy, in which case they would receive dividends or interest each year. Moreover, while they do not pay rent, they must in return pay for maintenance and improvement works on the dwelling, contribute to building association funds for shared works, etc. Indeed, Insee calculates each year the “[imputed rents](#)” that owner-occupiers implicitly pay to themselves, which are treated as consumption expenditures in the national accounts.

For example, as shown in Figure 4 in the table below from *France, Portrait Social 2021* (p. 201), actual and imputed rents amounted to €272.9 billion in 2020, of which €78.7 billion were actual rents and €194.2 billion imputed rents — i.e. about 2.5 times more imputed than actual rents. These rents are presented as “consumption associated with housing services,” making it difficult to justify their exclusion from the Consumer Price Index. If actual rents weigh 6% in the CPI, then imputed rents should weigh about  $2.5 \times 6 = 15\%$ , and the total of actual and imputed rents 21%, which is exactly what we observe in Germany.

Figure 4: Actual and imputed rents

### ► 1. Composantes de la dépense de logement

	en milliards d'euros courants						
	1990	2000	2010	2015	2018	2019	2020
Consommation associée au service de logement	123,7	195,3	299,1	337,3	353,6	361,4	364,7
Loyers (réels et imputés)	87,5	143,6	221,9	250,5	262,7	268,2	272,9
dont loyers réels	27,3	43,7	65,2	72,8	76,1	77,4	78,4
Énergies et eau	20,6	28,9	44,3	49,2	52,3	53,3	53,3
Charges	15,6	22,8	32,9	37,7	38,6	39,9	38,5
Locaux d'hébergement	2,2	3,8	5,9	8,1	9,0	9,3	9,5
Subventions d'exploitation aux producteurs (hors bonifications)	0,1	0,2	0,1	0,2	0,2	0,3	0,3
Charges des producteurs liées aux logements vacants	1,1	1,6	2,4	3,1	3,4	3,5	3,5
<b>Dépenses courantes de logement</b>	<b>127,2</b>	<b>200,9</b>	<b>307,5</b>	<b>348,7</b>	<b>366,1</b>	<b>374,5</b>	<b>378,0</b>
Investissement en logements neufs	37,7	44,7	66,1	56,8	70,6	73,6	58,4
Gros travaux d'entretien-amélioration	22,9	31,7	44,1	47,1	50,0	50,6	47,4
Frais et droits dans l'ancien, avantages fiscaux	5,5	7,5	14,0	15,8	19,0	20,7	20,4
<b>Dépenses d'investissement</b>	<b>66,2</b>	<b>83,8</b>	<b>124,2</b>	<b>119,8</b>	<b>139,6</b>	<b>144,9</b>	<b>126,2</b>
<b>Dépenses de logement</b>	<b>193,4</b>	<b>284,8</b>	<b>431,8</b>	<b>468,5</b>	<b>505,7</b>	<b>519,4</b>	<b>504,2</b>
Part dans le PIB (en %)	18,4	19,3	21,6	21,3	21,4	21,3	21,9

**Lecture :** en 2020, les ménages ont investi 58,4 milliards d'euros en logements neufs.

**Sources :** Insee, comptes nationaux, base 2014 ; SDES, compte du logement.

This choice to assign an imputed rent to owner-occupiers and to treat it as consumption may appear theoretical, but it is anything but arbitrary: it even appears to be the only possible choice. Consider two dwellings, A and B, identical in all respects, owned respectively by Mr. A and Mr. B. Does the consumption of housing differ if Mr. A rents B's dwelling and vice versa, or if each occupies their own dwelling? No, of course not! Yet if we follow Insee's reasoning, housing consumption would be zero in one case, and two rents in the other<sup>3</sup>. Likewise, it is hard to see why the method of calculating the Consumer Price Index should differ between the two cases.

<sup>3</sup>Only the purchase of *new* housing corresponds to investment in the economic sense. This amounted to €58.4 billion in 2020, a sum smaller than both implicit and actual rents (and this was already true before 2020, before Covid-19). By contrast, the purchase of an *existing* dwelling is not “investment” in the proper sense, even if the word is used loosely in everyday language: “investment” does not have the same meaning in macroeconomics (and national accounting), where it signifies an increase in the capital stock, as it does in common usage. The purchase of an existing dwelling is not investment expenditure, nor consumption expenditure for that matter, just as the purchase of an LVMH share on the secondary market has no counterpart in the national accounts. The *Blog* author here seems to confuse “flows” and “stocks.” By contrast, the ownership of an existing dwelling does imply a consumption of housing services, either by the tenant or by the owner-occupier.

## Including Imputed Rents: A Negligible Effect on the Measurement of Inflation?

The *Blog* then asserts that, in any case, increasing the weight of housing in the CPI (Indice des Prix à la Consommation, IPC) to take imputed rents (loyers imputés) into account would have only a very limited effect on the measurement of inflation:

Any convention can be questioned (and should be, regularly, since economic thought, social norms, or the socio-economic context prevailing at the time of their adoption also evolve). In the case of housing expenditures, one could, for example, wish to bring tenants and owners closer together, or even include the purchase of dwellings. Insee recently did so transparently, with a publication that addresses all these questions; it shows in particular that, beyond theoretical and methodological controversies, different conventions would have only a negligible effect on the measurement of inflation.

This Insee publication (Leclair, Rougerie, and Thélot (2019)) would in itself deserve a separate discussion, and another note. A few quick remarks, however. First, neither the choice of the period nor the presentation of results is neutral: this publication, for example, claims that rents evolve at a rate similar to that of the CPI, while presenting a graph that makes visual comparison difficult — see Figure 5. To the naked eye, there are a few tenths of a percentage point of difference between the CPI and the CPI including imputed rents, but the small gap is supposed to attest to the idea that rents evolve in roughly the same way as the CPI.

If one examines the price index since 1990, as provided by Insee, and compares it to the evolution of actual rents (loyers effectifs), it is far from obvious that rents have increased at the same pace as the CPI — see Figure 6. For example, starting in 1990 (the first year for which the CPI with 2015 base is available), the 30-year difference is about 20 points: around +60% for the Consumer Price Index versus about +80% for “actual rents.” This comparison shows that one must rigorously define what is meant by “negligible effect” before claiming that different conventions would not matter. What counts as a significant difference? Indeed, even a few tenths of a percentage point each year add up to a large difference when accumulated over decades.

Moreover, the Consumer Price Index is used very broadly: for the indexation of pensions already in payment, many social benefits, the minimum wage (SMIC), but also numerous private contracts (such as alimony payments, etc.). Even a 2% difference over 30 years can represent several hundred euros each year for modest retirees — which is hardly negligible for many households.

In addition, one may question whether the evolution of “actual rents” is not underestimated by Insee. The “Loyers et Charges” survey used by Insee to measure rents is of rather poor quality, especially when compared with the resources devoted to measuring the CPI (only 4,300 dwellings surveyed, with a restricted scope — for example, furnished dwellings are excluded,

Figure 5: CPI vs. CPI including imputed rents

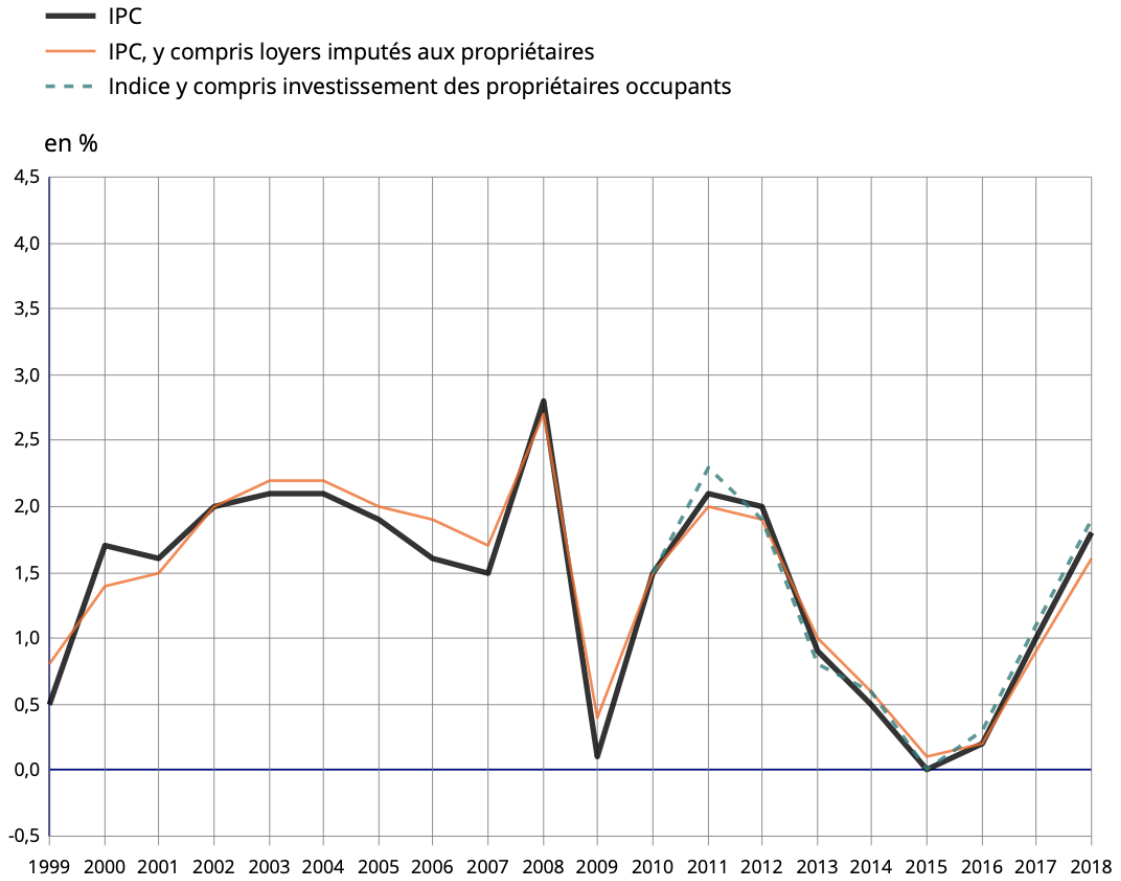
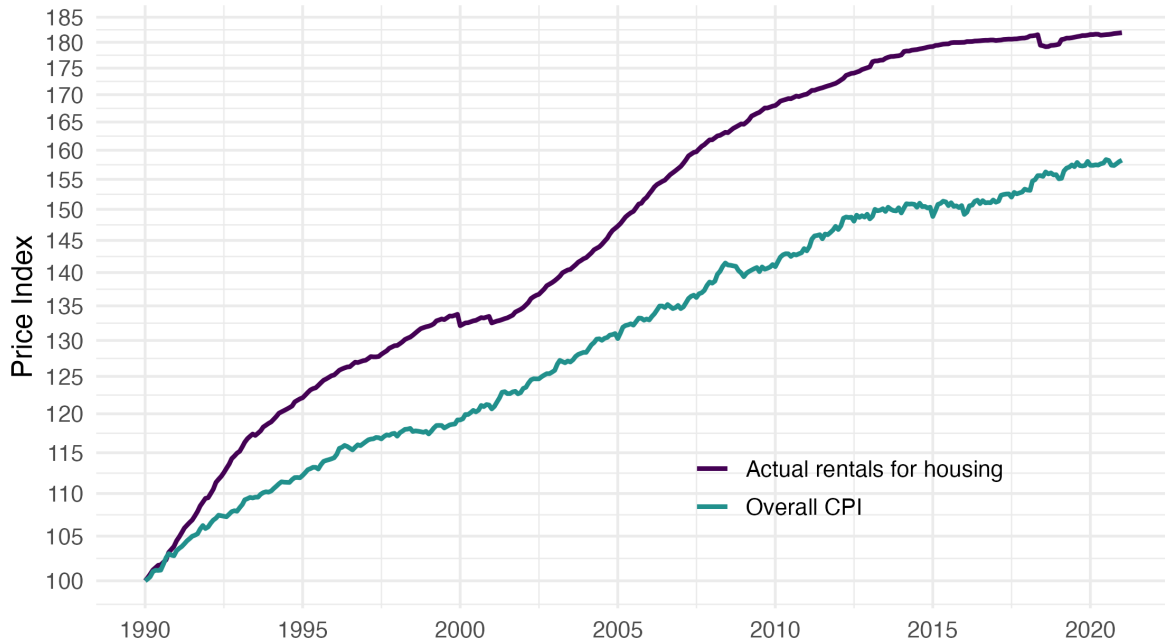


Figure 6: CPI vs. actual rents, 1990–2021



even though they represent a growing share of the rental market, partly for tax reasons). Such a survey would probably be considered unacceptable if the weight of rents in the CPI were 21% instead of 6%. Indeed, the cost of this survey, €1.2 million per year, compared with the cost of calculating the CPI, around €17 million per year, is about 6%. Furthermore, there are reasons to think it leads to an underestimation of rent increases. First, because the Paris Region Rent Observatory (Observatoire des Loyers de l'Agglomération Parisienne, OLAP), for example, finds higher rent increases than the “Loyers et Charges” survey, as has been repeatedly noted in administrative reports (e.g., CGEDD (2013)). To our knowledge, this issue has still not been corrected. If the weight of rents were 21% instead of 6%, one would expect the quality of this survey (especially its sampling) to be significantly improved, the divergences with OLAP to be explained, and furnished rentals no longer to be excluded from its scope.

Finally, calculating imputed rents from actual rents raises issues in the French context, where tenant rents are tightly regulated in some metropolitan areas, and rent increases are also capped. In this context (i.e., after around 2010), one may question whether the rents in the rental market can still serve as a reference for owner-occupiers, who are not subject to the same freezes and controls.

## The Case of Mortgage Holders (propriétaires accédants)

The main objection lies in Insee's omission of imputed rents (loyers imputés), which applies to all homeowners. But for the sake of completeness, one may also mention the specific case of mortgage holders (propriétaires accédants). On this subject, the Insee *Blog* states the following:

For the 2 out of 10 remaining households who are mortgage holders, the “cost of housing” also takes the form of mortgage repayments, which are indeed not included in the CPI (Indice des Prix à la Consommation, IPC). However,

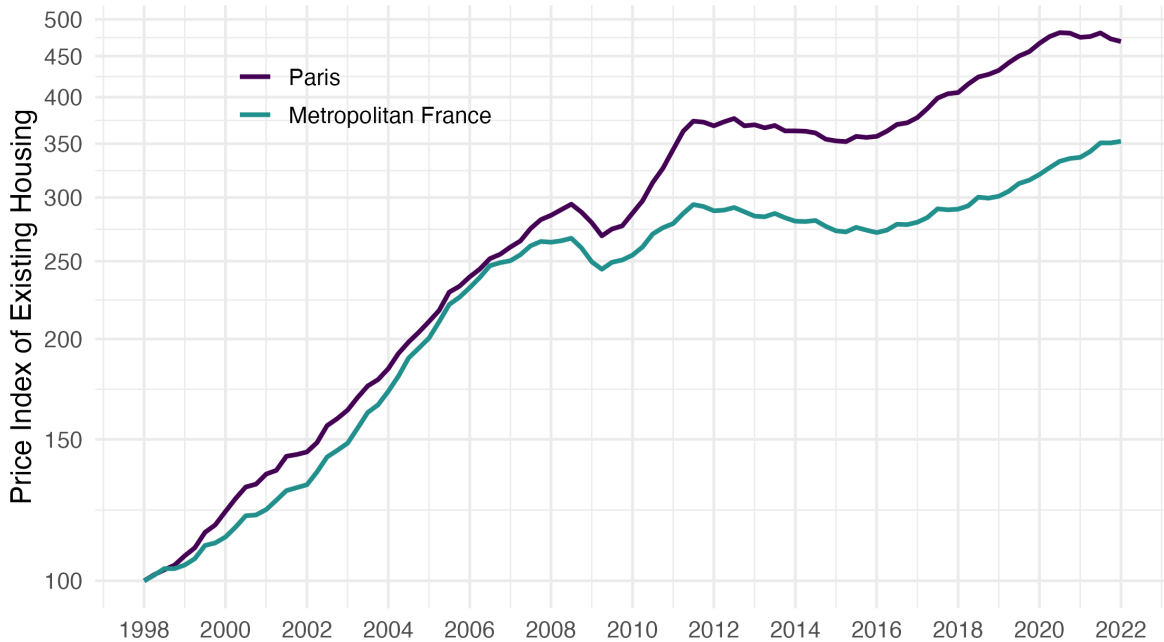
- the share of these repayments corresponding to interest is directly deducted from their income, and therefore is included in the measurement of purchasing power (for a standard 20-year mortgage at a 2% rate, this represents about 1/6 of monthly payments over the whole duration of the loan, nearly double in the early years);
- in the end, only the repayment of the principal is excluded from the measurement of purchasing power, on the grounds that it is an investment expenditure corresponding to the accumulation of real estate wealth (and symmetrically, the proceeds from the sale of real estate are not counted as additional income in the measurement of purchasing power).

This excerpt from the *Blog* unfortunately creates more confusion than clarity, although it is admittedly not an easy topic. First, the distinction made by the *Blog* between the share of repayments corresponding to interest and that corresponding to principal has little meaning. According to this accounting convention, only interest payments reduce income, while principal repayments are considered the accumulation of housing wealth. This is incorrect for several reasons. First, because the “true” cost of borrowing is closer to a real interest rate (nominal interest rate minus inflation) than to a nominal rate. When inflation is higher, nominal rates are also higher (as in the 1980s), which increases nominal interest payments, even though the real cost of borrowing is lower. Moreover, the level of interest payments depends on the down payment and the outstanding principal, whereas the consumption of housing corresponds to imputed rents regardless of the amount of the loan still outstanding (in reality, closer to the real interest rate multiplied by the total value of the apartment or house).

That said, it is true that not all mortgage repayments correspond to housing consumption, and in economic theory, part of these repayments is generally seen as savings accumulation (this is probably what the *Blog* refers to with the term “investment expenditure,” even though there is no investment strictly speaking). In this sense, it is not legitimate to include the full amount of mortgage repayments in the CPI, but only the share corresponding to imputed rents — which is not currently done. End of story? No, it is not that simple. Indeed, the reasoning below implicitly assumes that no one is forced to buy rather than rent, and that the act of buying always amounts to a joint decision to consume a given quantity of imputed rents (housing services) and to save at a certain level. In practice, however, most people do not perceive homeownership this way, which creates a disconnect between the economic/statistical

interpretation and the lived experience of the majority of the population. For instance, many homebuyers do not think of the fact that buying implies accumulating more savings the higher housing prices are. Conversely, they view the inability to buy as downward mobility, and homeownership as a consumption good. And partly for good reasons: homeowners enjoy rights that tenants do not, meaning that renting and owning are not perfect substitutes in terms of consuming housing services. One consequence of this is that as housing prices rise, the effort rate (taux d'effort) and thus savings rise as well, since first-time buyers (primo-accédants) keep purchasing rather than renting, even when prices climb. For the economist, there is a paradox in this behavior: why should falling interest rates, which increase the present value of future rents, lead to a rise in household savings exactly equal to the increase in housing prices they generate? As one can see, for the first-time buyer, the amount of savings involved in purchasing is not a choice variable. In this context, excluding house price dynamics from the CPI can appear arbitrary. The difficulty is that including purchase prices in the CPI would potentially have a major effect on the index for first-time buyers: since 1998, the purchase price of existing homes has risen by about +250% in France, and by +375% in Paris — see Figure 7. By contrast, net sellers of housing have seen their living standards rise by the same amount that first-time buyers' standards of living have declined.

Figure 7: House price index for existing homes (Index 100 = 1998)



Finally, Insee has recently published many studies showing that falling nominal interest rates and longer loan maturities have helped sustain home affordability, even as house prices soared. Yet, much of this reasoning again rests on an error. It is true that lower real interest rates do reduce the cost of borrowing for buyers. However, the part of the decline in nominal rates that

comes from lower inflation does not reduce the cost of borrowing (a fall in inflation simply implies a smaller reduction in the effort rate over the life of the loan). Likewise, lengthening loan maturities also entails a loss of purchasing power, insofar as it keeps initial monthly payments stable in a context of rising house prices, but at the same time it extends the period during which disposable income is burdened by debt repayments.

## Conclusion: Does the CPI (IPC) Respond to “Social Demand”?

The Insee *Blog* concludes:

Finally, these recurring controversies over the measurement of inflation primarily reflect distributional conflicts related to the uses of this statistic, particularly in the indexation rules for rents, social benefits, child support payments, regulated savings rates, etc. But Insee’s role is to ensure that social demand is covered by the existing indices (for example, covering a restricted set of goods and services such as the CPI excluding tobacco — *IPC hors tabac* — or indices representative of certain household categories, such as the CPI for low-income households), (...).

Yes, inflation is of paramount importance for distributional conflicts! All the more reason, therefore, to openly debate how it is measured. In this permanently conflictual context, it remains unclear what exactly the term “social demand” (*demande sociale*) covers: the “social demand” of retirees is not the same as that of the State, and their interests may even be antagonistic. And that is precisely the core of the debate. The CPI does not appear to measure what it was designed for — namely, to index pensions and social benefits to the cost of living. Housing is not the only source of concern here: as mentioned earlier, one may also question how reimbursed health expenditures are accounted for. Or how quality is accounted for — which is especially difficult in the case of mobile phones or computers.

Finally, Insee mentions in this passage that it also calculates indices covering a restricted set of goods and services, such as the “CPI excluding tobacco” (*IPC hors tabac*). On this point, there is also reason to object on the basis of international methodological recommendations. The “CPI excluding tobacco” calculated by Insee is notably used for the revaluation of child support, pensions, and for calculating the *Garantie Individuelle de Pouvoir d’Achat* (GIPA) for civil servants. Yet, excluding tobacco from the price index is explicitly discouraged by the methodological manual cited by Insee (paragraph 2.22, p. 31)<sup>4</sup>.

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<sup>4</sup>“Finally, it should be noted that the deliberate exclusion of certain types of goods and services by political decision, on the grounds that the households to whom the index is intended should not buy these goods or services, or should not be compensated for the price increases of these goods and services, cannot be recommended because it exposes the index to political manipulation. For example, suppose it is decided that certain products such as tobacco or alcoholic beverages should be excluded from a CPI. **It is possible that, when taxes on products are increased, these products are deliberately selected for higher taxes in the knowledge that the resulting price increases would not be reflected in the CPI.** Such practices are not unknown.” The price of tobacco has indeed risen sharply in France since 1993, without

The point here is not to criticize Insee’s technical work, but rather the arguments developed in this *Blog*, which appear partial and, often, biased. It is possible that Insee today finds itself in the position of having to defend methodological choices made in the past (for instance, around 1993, regarding the indexation of pensions to the price index), at a time when the Institute may have been more exposed to political pressures than it is today. Nevertheless, the best way to avoid fueling conspiracy theories would be to be transparent on this issue, and to acknowledge that no, Insee does not account for homeowners’ housing costs at the right level<sup>5</sup> — and to own up to that if there is no intention to remedy it. This concerns the credibility of Insee and of official statistics more generally.

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leading to a parallel revaluation of minimum social benefits and pensions — a form of partial de-indexation.

<sup>5</sup>Was the title of the *Blog* originally that of the link <https://blog.insee.fr/mais-si-linsee-prend-bien-en-compte-le-logement-dans-linflation-et-au-bon-niveau/> “Mais si, l’Insee prend bien en compte le logement dans l’inflation **et au bon niveau**”? - “Insee takes into account housing in the CPI **at the correct level**”.