

Chapter 4: Notarial databases

The Notaires-INSEE indices are calculated from transaction prices recorded in the notarial databases.³⁵

4.1 Description of databases

There are two notarial databases:

- The “BIEN” database, managed by the PNS (Paris Notaires Services), covers the Paris Region. It was started in 1989 for Paris, 1991 for the inner suburbs (*Petite couronne*) and 1996 for the outer suburbs (*Grande couronne*); it has been used as a source for the indices since 1991.
- The “Perval” database, managed by ADSN (*Association pour le développement du service notarial*, a subsidiary of the Notariat), covers the Provinces and French overseas *départements*. It was set up in 1994.

The bases record transactions concerning all types of property, not only apartments and houses, but also buildings, business premises, land, garages, vineyards, and other agricultural properties. In August 2013, they contained 14.2 million records for transactions between 1990 and 2012 (Table 4.1). Every year, about 500,000 new transactions are added for used apartments and houses (25% in the Paris Region and 75% in the Provinces), which are suitable for inclusion in the calculation of the Notaires-INSEE indices. The use of the notarial databases and the calculation of the indices are governed by agreements between the CNIP (*Chambre interdépartementale des notaires de Paris*) or the CSN (*Conseil supérieur du notariat*) and INSEE.³⁶

Articles 15 and 16 of law no.2011-331 of 28 March 2011 require a new public service obligation on the part of the legal profession. This law amends the legal provisions of the two laws that define the status and organisation of the profession of notary in France. Until 2011, the public service mission of the notariat was defined by article 1 of order no. 45-2590 of 2 November 1945 which defined their status: “Notaries are public officers, authorised to record any instrument or contract the parties which are obliged, or may wish, to invest with the authenticity associated with public authority instruments, and to guarantee their date, keep them safe, and issue principal and additional copies”. From now on, the transmission of information about property transactions against payment to the CSN becomes a public service duty for notaries. In addition, this same law defines the activity of centralising and disseminating data collected by the CSN as a public service duty.

Until 2009, the transmission of data from notarial offices was paper-based. In 2010 the switch was made to electronic methods, which will ultimately enable the system to be much more flexible. In 2013, almost half of all records received by the databases arrived via electronic means. The introduction of electronic transmission has meant that waiting periods for sending in deeds have been reduced. There is at present one major drawback, however: data coding is now done by the notarial offices, rather than by the database administrators as was the case previously, and many more corrections are required now than with the paper deeds.

4.2 Delay in incorporating transactions

The time between the signing of a deed and the transaction being incorporated into the notarial databases obviously determines the responsiveness of the indices.

The target in 2013 in the Paris Region is a waiting period of 30 days to process data and add them to the database, after reception of the deeds. In 2012, the average total waiting period was 82 days.

In the Provinces, in 2010, the waiting time for processing was longer than in 2009 (127 days compared with 112), as the number of transactions had increased more rapidly than the facilities available for processing them. However, the backlog in processing the deeds was cleared by the end of 2011 (89 days in the second half-year of 2011). In 2012, the average was 76 days (54 to receive the deeds, 22 to input the data and incorporate them into the database).

Notaries have set themselves minimum stocks of non-coded deeds in hand, to ensure that the data coders have a steady stream of work. The minimum stock is around 30,000 deeds in the Provinces and should drop to 20,000

³⁵ For details on the transmission of data from deeds, cf. Appendix 1.

³⁶ The agreements are reproduced in Appendices 7 and 8.

by the end of 2013; in the Paris Region, the volume of non-coded deeds should be between 3,000 and 5,000 paper deeds and between 2,000 and 5,000 electronic deeds when the operation gets up to speed.

Table 4.1 - Records in notarial databases, by year of transaction

Metropolitan France					
Year of transaction	Number of records	Incl. apartments and houses	Incl. used apartments and houses	Used apartments	Used houses
1990	105,186	82,475	54,227	41,027	13,200
1991	154,485	114,236	90,180	52,737	37,443
1992	279,572	195,304	165,453	85,085	80,368
1993	327,631	227,823	195,929	95,225	100,704
1994	394,505	281,141	236,020	114,531	121,489
1995	402,567	280,963	242,414	109,178	133,236
1996	557,948	412,273	365,524	159,694	205,830
1997	555,070	397,629	345,942	150,894	195,048
1998	645,241	467,347	409,326	183,282	226,044
1999	787,764	571,815	493,771	227,086	266,685
2000	778,810	560,500	510,719	236,243	274,476
2001	780,481	571,173	515,391	242,854	272,537
2002	754,277	556,753	496,082	238,902	257,180
2003	802,454	588,543	515,064	250,533	264,531
2004	823,556	598,580	517,971	254,352	263,619
2005	851,706	623,377	533,046	264,876	268,170
2006	853,088	621,774	528,903	265,762	263,141
2007	855,971	621,867	528,480	264,472	264,008
2008	740,125	521,952	441,499	218,401	223,098
2009	627,281	454,096	370,111	180,816	189,295
2010	778,846	591,965	489,837	237,719	252,118
2011	719,914	534,713	463,821	224,390	239,431
2012	626,746	458,612	406,714	190,773	215,941
Total	14,203,224	10,334,911	8,916,424	4,288,832	4,627,592

Source: BIEN and PERVAL databases - August 2013

Table 4.2 – Records in PERVAL database, by year of transaction

Provinces					
Year of transaction	Number of records	Incl. apartments and houses	Incl. used apartments and houses	Used apartments	Used houses
1990	41,476	27,500	23,619	11,341	12,278
1991	97,448	67,126	56,323	24,275	32,048
1992	220,889	147,032	123,075	51,224	71,851
1993	265,316	176,123	150,620	58,891	91,729
1994	314,822	214,935	179,791	69,771	110,020
1995	330,619	222,636	192,180	70,194	121,986
1996	436,646	310,901	276,769	97,984	178,785
1997	433,432	296,838	259,422	91,109	168,313
1998	503,638	349,206	307,319	112,883	194,436
1999	606,950	421,348	364,425	138,231	226,194
2000	605,940	416,751	381,083	146,593	234,490
2001	607,127	426,318	385,757	151,799	233,958
2002	576,602	406,180	361,322	143,985	217,337
2003	615,992	429,736	375,242	151,370	223,872
2004	622,696	428,530	368,987	147,973	221,014
2005	643,823	447,509	380,739	155,639	225,100
2006	653,110	453,308	381,721	160,336	221,385
2007	661,782	458,936	385,306	161,772	223,534
2008	581,206	389,982	326,399	135,229	191,170
2009	491,910	340,026	273,998	112,013	161,985
2010	596,982	434,569	359,958	146,287	213,671
2011	564,361	402,584	351,476	145,198	206,278
2012	493,752	346,968	310,787	122,682	188,105
Total	10,966,519	7,615,042	6,576,318	2,606,779	3,969,539

Source: PERVAL database - August 2013

Table 4.3 – Records in BIEN database, by year of transaction

Paris Region					
Year of transaction	Number of records	Incl. apartments and houses	Incl. used apartments and houses	Used apartments	Used houses
1990	63,710	54,975	30,608	29,686	922
1991	57,037	47,110	33,857	28,462	5,395
1992	58,683	48,272	42,378	33,861	8,517
1993	62,315	51,700	45,309	36,334	8,975
1994	79,683	66,206	56,229	44,760	11,469
1995	71,948	58,327	50,234	38,984	11,250
1996	121,302	101,372	88,755	61,710	27,045
1997	121,638	100,791	86,520	59,785	26,735
1998	141,603	118,141	102,007	70,399	31,608
1999	180,814	150,467	129,346	88,855	40,491
2000	172,870	143,749	129,636	89,650	39,986
2001	173,354	144,855	129,634	91,055	38,579
2002	177,675	150,573	134,760	94,917	39,843
2003	186,462	158,807	139,822	99,163	40,659
2004	200,860	170,050	148,984	106,379	42,605
2005	207,883	175,868	152,307	109,237	43,070
2006	199,978	168,466	147,182	105,426	41,756
2007	194,189	162,931	143,174	102,700	40,474
2008	158,919	131,970	115,100	83,172	31,928
2009	135,371	114,070	96,113	68,803	27,310
2010	181,864	157,396	129,879	91,432	38,447
2011	155,553	132,129	112,345	79,192	33,153
2012	132,994	111,644	95,927	68,091	27,836
Total	3,236,705	2,719,869	2,340,106	1,682,053	658,053

Source: BIEN database - August 2013

4.3 Coverage rate

The notarial databases have until now been supplied with data on a voluntary basis, and they are not exhaustive; the coverage rate, defined here as the ratio of known amounts in the databases to true transaction amounts, is therefore not 100%.

Knowing the coverage rate is important, for two main reasons. First, if a certain type of transaction were under-recorded and changes in these prices showed a specific profile, the index would be biased.³⁷ This would happen if the notaries' behaviour in forwarding information to the databases varied with the characteristics of property-price changes. Hence the importance of knowing the coverage rate by property type and by geographic area. Second, it is interesting *per se* to be aware of the number of real-estate transactions in order to monitor their trends. This cannot be done using only the transactions recorded in the notarial databases unless the coverage rate is constant. At present it does fluctuate and is likely to increase further mainly because notaries are now legally obliged to supply information to the databases.

In the absence of exhaustive national data on sales of used housing by dwelling type, we must take an indirect approach. There are three possibilities: using an *ad hoc* survey, using a breakdown of notarial deeds or using tax data.

- *Ad hoc* survey

Existan, a survey of local tax offices carried out every year in the 1990s by the Ministry for Infrastructure, has been an invaluable tool. Sampling was based on paper documents held by the tax offices. The survey continued until 2000, and covered all of France; since then, it has been abandoned when the tax departments have moved on to computerisation (and the paper documents have disappeared), for cost reasons and pending the extraction of data from the asset database compiled by the tax offices. This survey categorised different types of property

³⁷ We can minimise this potential bias by choosing a reference stock whose structure is not too different from the stock that can be determined from censuses. In fact, two issues are interrelated. First, the reference stock must give an unbiased picture of all transactions; the issue here is the representativeness of the notarial databases, of which the coverage rate is only one factor. Second, the reference stock must also be an acceptable proxy for the housing stocks, as the purpose of the index is to measure the change in (theoretical) value of the housing stocks (see Chapter 1) and not only the value of flows of traded goods. This second issue justifies the comparison (by structure) of the reference stock with the census. See tables in paragraph 4.4.5.

(apartments, houses, entire buildings) as well as the characteristics of the buyers and sellers. It allowed comparisons, by *département*, of the number of transactions in notarial databases with those recorded by the survey, and hence gave an estimate of coverage rates.

- Breakdown of notarial deeds

For the Paris Region, the BIEN database is linked to a survey on notarial office activity which gives a monthly breakdown, by *département*, of the number of notarial deeds, and hence of transactions. We estimate the coverage rate of the database from the ratio of the number of deeds recorded in the database to the total number of deeds of sale signed. Thus, in 2010, the overall coverage rate was 82% in the Paris Region (86% for Paris, 82% for the inner suburbs and 79% for the outer suburbs). However, the breakdown of the deeds does not differentiate between transactions concerning new properties and those concerning used properties, nor does it distinguish dwellings in different types of property; in addition, the location taken into account is that of the notarial office and not that of the property.

For the Provinces, there are no figures for the number of deeds; we therefore have to use a different method to estimate the coverage rate.

- Tax data

Since Existan was discontinued, we have used tax sources to estimate coverage rates.³⁸ The basic information consists of the amount of transfer-tax revenue (*droits de mutation*) collected in each *département* and according to departmental taxation rates (currently 3.8% or 0.6%). The 0.6% tax assessment basis includes properties transferred free of charge (donations) and can therefore not be used. The 3.8% bracket, however, (calculated by dividing the revenue from taxation by 3.8%) can be compared with the same tax assessment base in the notarial databases. The result³⁹ is the coverage rate (in monetary value terms) of the notarial databases for all properties taxed at 3.8%: used dwellings, used business real estate and land not subject to VAT, with a few exceptions. By applying certain approximations, we can determine a coverage rate for used housing alone.⁴⁰

Using the above procedure, the coverage rate of the notarial databases for existing dwellings in 2010 was estimated at 63% for all of France (Corsica and overseas *départements* included), 80% for the Paris Region and 56% for the Provinces. It varies greatly from one *département* to another: in 2010, excluding Corsica and overseas *départements* and territories, it was under 30% in 7 *départements*, between 30 and 50% in 34 *départements*, between 50% and 70% in 40 *départements* and more than 70% in 13 *départements* (Figure 4.1).

A low coverage rate does not in itself pose a statistical problem, provided that the number of records exceeds a given threshold; what is more problematic is the fact of not knowing whether the deeds recorded in the database are representative of all transactions or whether they are biased. This would happen, for instance, if some notarial offices never sent in deeds relating to particular markets or if some notaries did not send in the deeds concerning a certain category of client.⁴¹ Partial comparisons made so far give no reason to think that there is any significant bias, except in the few *départements* with the lowest coverage rate.

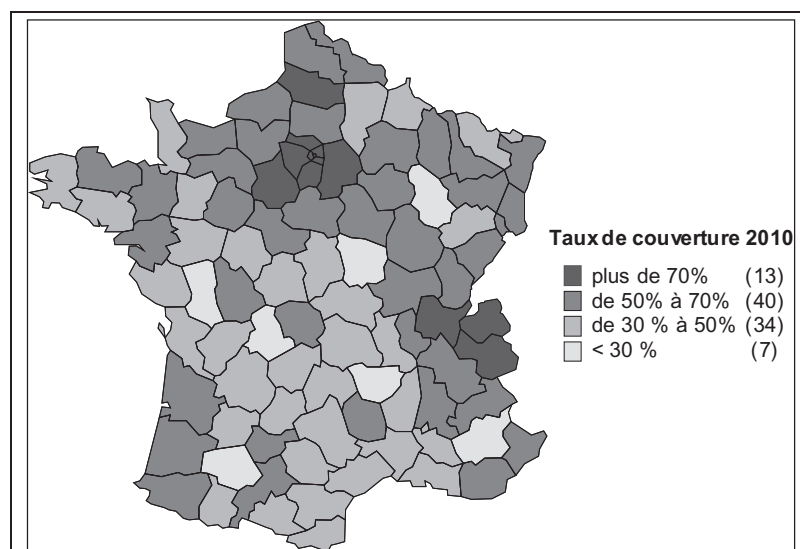
³⁸ Results from the two sources were compared for 1997. Transaction numbers and values were identical to within 1% for all of France, with some wider gaps observed in certain *départements*.

³⁹ Deeds are signed on average 1.7 months before the transfer taxes are recorded in the mortgage register. We compare the value of the deeds that actually appear in the notarial databases for month *n* with the value of taxes recorded by the Directorate General for Public Finances (DGFIP) for month *n*+2.

⁴⁰ Details of calculations and the results are given in Appendix 1.

⁴¹ In the Provinces, according to the database administrators, returns for houses and apartments are usually of good quality. The same is not always true for other types of property and some offices never or seldom send in information on the deeds for rural properties (agricultural land and vineyards), however, these properties are not included when constructing the indices. In the Paris Region, it is possible, again according to the database administrators, that exceptional properties (e.g. very expensive) are transmitted less frequently than the more common transactions (because of the purchaser, or even the notary).

Figure 4.1 - Estimated coverage rate of notarial databases, for existing dwellings, by department, 2010



Lecture : Les taux de couverture sont calculés en montants de transactions.
Source : Bases Perval et BIEN

4.4 Scope of coverage of indices, data quality

4.4.1 Defining the scope

The scope of the Notaires-INSEE indices is confined to existing dwellings as defined for tax purposes (apartments or houses subject to registration duties and not to VAT). New dwellings are therefore not included.

We also exclude dwellings that are considered to be non-standard such as rooms, attics, lofts, workshops, *concierges'* lodgings, manors, large properties, town houses.

The dwelling must be unoccupied at the time of sale, intended for residential purposes only and acquired with full property rights by a private individual or a real-estate company.⁴² We therefore remove dwellings when the period of occupancy by a third party or by the seller exceeds six months, as we consider that, given the regulations on rental leases, these dwellings usually sold below the going price.

Lastly, we consider only private sales, i.e. excluding auction sales.

4.4.2 Transactions used for the calculation

The transactions selected must also have the following characteristics:

- for apartments:
 - the number of rooms must be fewer than 9,
 - the habitable space is between 10 sq. m. and 200 sq. m.,
 - the sale price is between €1,500 and €5,000,000,
 - the price per sq. m. is less than €25,000.
- for houses:
 - the number of room is fewer than 13,
 - the habitable space is between 20 sq. m. and 300 sq. m.,
 - the plot size (including the floor space of the house) is more than 9 sq. m.,

⁴² Numbers of dwellings sold by type of purchaser are given in Appendix 9, Tables A9.1 and A9.2.

- the sale price is more than €1,500,
- (only in the Provinces) the sale price is less than €15,000,000⁴³.

Table 4.4 – Number of observations excluded at each stage (2009-2010 reference stock)

	Paris Region		Provinces	
	Apartments	Houses	Apartments	Houses
Number of transactions entered	116,544	40,857	205,791	224,696
Dwellings occupied (partially or totally)	10,454 (6.6%)		18,822 (4.4%)	
Use other than residential	2,413 (1.5%)		10,416 (2.4%)	
Other than full property rights	1,321 (0.8%)		230 (0.1%)	
Type of transaction other than private sale	1,081 (0.7%)		174 (0.0%)	
Purchaser out of scope (=other than individuals, real estate companies, SCI and unknown)	2,733 (1.7%)		7,529 (1.7%)	
Property not fully second-hand	27,590 (17.5%)		72,498 (16.8%)	
Apartments excl. studios, duplex, triplex, standard apartments with no information	1,007 (1.2%)		913 (0.7%)	
Apartments where number of rooms and floor space not provided	none ⁴⁴		4,921 (3.8%)	
Apartments with 9 rooms and more	30 (0.0%)		73 (0.1%)	
Apartments of 1 to 9 sq.m.	23 (0.0%)		145 (0,1%)	
Apartments of at least 201 sq.m.	308 (0.4%)		290 (0.2%)	
Apartments priced at more than €25,000/sq.m.	9 (0.0%)		32 (0.0%)	
Apartments priced at €1,500 or less	none		299 (0.2%)	
Apartments priced at €5,000,000 or more	14 (0.0%)		3 (0.0%)	
Houses out of scope (=other than town houses, detached houses, villas, farms and unspecified)		412 (0.5%)		8 182 (4.0%)
House where number of rooms and floor space not provided		none		19,749 (9.8%)
Houses with 13 rooms and over		13 (0.0%)		346 (0.2%)
Houses of 1 to 19 sq.m.		7 (0.0%)		95 (0.0%)
Houses of at least 301 sq.m.		72 (0.2%)		665 (0.3%)
House with plot size 0 to 9 sq.m.		8 (0.0%)		1,885 (0.9%)
Houses priced at €1,500 or under		none		516 (0.3%)
Houses priced at €15,000,000 or over				2 (0.0%)
Number of valid transactions for purposes of calculating indices	79,264 (68.0%)	32,057 (78.5%)	178,657 (86.8%)	180,568 (80.3%)

⁴³ In the Paris Region the selection is made beforehand, when codification is carried out. All sale deeds for houses with a price of more than 3.5 times the median current price (obtained by multiplying the median price in Q4 2000, base period of the indices V2 Notaries - Insee, by the evolution of the index) are checked by a coder; all houses with a price of over 7 million euros are also checked by a coder.

⁴⁴ In the Paris Region, the number of rooms is estimated when this information is not provided (cf. Table 4.7)

4.4.3 Available variables

More and more deeds are codified in the notarial offices and transmitted electronically. The others are still transmitted in paper format : photocopies of extracts from deeds or standardised mortgage documents [*documents hypothécaires normalisés*: DHN), accompanied by further information not given in the documents sent. Deeds are then codified by the database administrators. However, variables are sometimes not properly filled in and are not used in the hedonic models. The explanatory variables used in the models are described in Table 4.5.

Table 4.5 - Variables used to define dwelling quality

Variable	Number of modalities	Definition
- number of rooms (apartments)	5	"1 room" to "5 and+"
- number of rooms (houses)	5	"less than 3 rooms" to "7 rooms and+"
- floor of building and presence of lift (apartments only)	6	Ground floor, 1 st floor, 2 nd floor, 3 rd floor, 4 th floor or higher without lift, 4 th floor or higher with lift
- number of floors (houses only)	3	1, 2, 3 or more
- average living space per room by property size (apartments only)		For studios: 20 to 30 sq.m., two-room apartments: 17 to 24 sq.m., three-room apartments: 18 to 22 sq.m., four-room apartments and more: 17 to 21 m ²
- living space (houses only),		in sq.m.
- plot size (houses only)		in sq.m.
- number of garages or parking spaces	3	0, 1, 2 and +
- number of bathrooms	4	0, 1, 2 and +, not determined
- construction period	10	before 1850, 1850-1913, 1914-1947, 1948-1969, 1970-1980, 1981-1991, 1992-2000, 2001-2010, 2011-2020 ⁴⁵ , not determined
- date of transaction		
- presence of a balcony or terrace (apartments in the Provinces only)	2	yes/no
- number of buildings (houses in Paris Region only)	2	yes/no
- presence of a cellar (apartments)	3	yes/no, not determined
- presence of a cellar (houses in Paris Region only)	3	0, 1, 2 and +
- presence of a basement (houses in the Provinces only)	2	Yes, no
- condition of property (Provinces only)	3	good condition, needs work, needs renovation

Lastly, some variables, which are recent or perhaps where information is inaccurate, are not used for the moment but could be interesting to exploit in future:

- type of heating (whether there is central heating),
- energy rating (A to G according to the level of primary energy consumption),
- climate label (ratings A to G according to the level of greenhouse gas emissions),
- status of the buyer (first-time buyer or not),
- type of negotiation (with a notary, with an agency, private sale),
- type of renewable energy,
- materials used for construction (concrete, cut stone, metal materials, stone, brick, wood, earth, other),
- fact that the building has a building quality label (BBC, HQE, etc.),
- first sale of the property since its completion (yes/no),
- property occupied as a primary residence (yes/no), etc.

⁴⁵ This modality was created at the beginning of the 2010s and will be included in the hedonic models when there are sufficient observations.

4.4.4 Dealing with missing information

In order to be used in the calculations, a transaction must include at least the price of the property, the place where the transaction took place, the date, and also the type of property.

Information on at least one of the variables for surface area or number of rooms must be provided.

In other cases, variables may be imputed (by estimation or recoding, depending on the rules given in Table 4.7), or the missing value is processed as just that (Tables 4.6 and 4.7).

Table 4.6 – Share of observations where imputation applied

Property type and area	Living space	Number of rooms	Period of construction	Number of garages or parking spaces	Number of bathrooms	Floor or number of levels	Lift
<u>Collective</u>							
Paris	9.2	2.5	11.4	0.6	11.6	2.1	44.7
Inner suburbs	9.1	1.3	17.6	0.3	7.8	2.9	46.8
Outer suburbs	9.4	1.1	18.4	0.2	4.8	4.0	47.3
Provinces	6.9	3.3	44.6	26.8	4.9	5.5	62.4
<u>Individual</u>							
Paris, inner suburbs	59.4	2.0	69.8	5.4	6.6	0.7	N/A
Outer suburbs	51.7	1.1	52.3	4.0	3.7	0.6	N/A
Provinces	41.9	*	36.9	22.2	8.8	17	N/A

Scope: all valid transactions for purposes of calculating index, as in table 4.4, including observations not retained in estimation and reference stocks; 2007-2008

“*”: no imputation

“ N/A “: not applicable

Table 4.7 - Non-response by variable

Type of non-response	Geographic area	Modalities required	Action	Value if recoding/comment
Price	Paris Region, Provinces	Non-zero numeric value	Rejected	
Nature and use of property	Paris Region, Provinces	Apartment or house	Rejected	
Place of transaction	Paris Region, Provinces		Rejected	
Plot size (houses)	Paris Region, Provinces	Non-zero numeric value	Rejected	
Living space and number of rooms	Paris Region, Provinces		Rejected	Rejected if both variables missing
Living space (apartments)	Paris Region	Non-zero numeric value	Imputed	Econometric estimation according to number of bathrooms, number of rooms, period of construction, number of floors (or floor of building) and property type
Living space (apartments)	Provinces	Non-zero numeric value	Imputed	Observation rejected for constructing estimation or reference stocks; estimation in current year according to number of bathrooms, number of rooms and period of construction.
Living space (houses)	Paris Region	Non-zero numeric value	Imputed	Econometric estimation according to number of bathrooms, number of rooms, period of construction, number of floors (or floor of building), property type and plot size
Living space (houses)	Provinces	Non-zero numeric value	Imputed	Econometric estimation according to number of bathrooms, number of rooms, period of construction and number of floors
Number of buildings (houses)	Paris Region	Non-zero numeric value	Recoded	1 building
Number of bathrooms	Paris Region, Provinces	Non-zero numeric value	Recoded	Number of bathrooms unknown
Number of rooms	Paris Region	Non-zero numeric value	Imputed	Econometric estimation according to surface area and stratum and property type

Type of non-response	Geographic area	Modalities required	Action	Value if recoding/comment
Number of rooms	Provinces	Non-zero numeric value	Rejected	
Period	Paris Region, Provinces	10 date ranges	Recoded	1848-1969 for apartments; Period unknown for houses
Presence of lift (apartments)	Paris Region, Provinces	Yes/no	Recoded	Yes
Building floor (apartments)	Paris Region, Provinces	Non-zero numeric value	Recoded	Ground floor
Number of floors (houses)	Paris Region, Provinces	Non-zero numeric value	Recoded	2 floors
Number of cellars (apartments)	Paris Region	Numeric value	Recoded	0 (no cellar)
Number of cellars (apartments)	Provinces	Numeric value	Recoded	Number of cellars unknown
Number of cellars (houses)	Paris Region	Numeric value	Recoded	0 (no cellar)
Presence of basement (houses)	Provinces	Yes/no	Recoded	No
Number of garages (apartments)	Paris Region, Province	Numeric value	Recoded	0 (No garage)
Number of garages (houses)	Paris Region, Provinces	Numeric value	Recoded	1 garage for Paris Region 0 (No garage) for Provinces
Presence of balcony (apartments)	Provinces	Yes/no	Recoded	No
Presence of terrace (apartments)	Provinces	Yes/no	Recoded	No
Condition of property	Provinces	3 modalities	Recoded	Condition of property unknown

4.4.3 Structure of estimation stocks

In the following tables, we see the structure of the estimation stocks, according to the main variables used in the regressions. For comparison, percentages from the 2008 population census are given whenever possible.

Table 4.8 - Structure of estimation stock 2007-2008 and comparison with population census; Paris Region (apartments)

	Estimation stock 2007-2008		Stock in 2008 census (%)	
	Number	%		
Total	146,089			
Number of rooms				
1	22,329	15%	17%	
2	43,849	30%	29%	
3	42,627	29%	28%	
4	26,601	18%	17%	
5 or more	10,683	7%	9%	
Floor space				
<40 sq. m.	42,421	29%	31%	
40 to <70 sq. m.	64,673	44%	40%	
70 to <100 sq. m.	30,553	21%	22%	
100 <150 sq. m.	7,329	5%	6%	
150 sq. m. or more	1,113	1%	1%	
Construction period				Census periods
Not given	22,039	15%		
Before 1914	23,091	16%		
1914-1947	19,341	13%	38%	Before 1949
1947-1969	33,055	23%	32%	1949-1974
1970-1980	25,830	18%	11%	1975-1981
1981-1991	10,123	7%	5%	1982-1989
After 1991	12,610	9%	14%	1990 -
Bathrooms				
Not given	11,005	8%		
0	2,432	2%		
1	123,703	85%		
2 or more	8,949	6%		
Garage, parking space				
Not given	463	0%		
0	83,600	57%	52%	no
1	54,726	37%	48%	yes
2 or more	7,300	5%		

Table 4.9 - Structure of estimation stock and comparison with population census; Paris Region (houses)

	Estimation stock 2007-2008		Stock in 2008 census (%)	
	Number	%		
Total	55,792			
Number of rooms				
1 - 3	9,299	17%	17%	
4	13,732	25%	26%	
5	15,691	28%	28%	
6 or more	17,070	31%	29%	
Total				
Floor space				
<40 sq. m.	215	0%	2%	
40 to <70 sq. m.	7,109	13%	13%	
70 to <100 sq. m.	20,842	37%	37%	
100 to <150 sq. m.	22,470	40%	35%	
150 sq. m. or more	5,156	9%	13%	
Construction period				Census periods
Not given	31,411	56%		
Before 1914	2,524	5%		
1914-1947	4,818	9%	30%	before 1949
1947-1969	4,114	7%	27%	1949-1974
1970-1980	5,423	10%	13%	1975-1981
1981-1991	4,364	8%	13%	1982-1989
After 1991	3,138	6%	17%	1990-
Bathrooms				
Not given	1,756	3%		
0	464	1%		
1	35,468	64%		
2 or more	18,104	32%		
Garage, parking space				
Not given	2,213	4%		
0	15,425	28%	19%	no
1	33,545	60%	81%	yes
2 or more	4,609	8%		

Table 4.10 - Structure of estimation stock 2007-2008 and comparison with population census; Provinces (apartments)

	Estimation stock 2007-2008		Stock in 2008 census (%)	
	Number	%		
Total	222,026			
Number of rooms				
1	37,103	17%	13%	
2	59,507	27%	26%	
3	63,289	29%	32%	
4	44,909	20%	20%	
5 or more	17,218	8%	9%	
Floor space				
<40 sq. m.	57,044	26%	23%	
40 to <70 sq. m.	92,236	42%	42%	
70 to <100 sq. m.	57,146	26%	28%	
100 to <150 sq. m.	13,926	6%	6%	
150 sq. m. or more	1,674	1%	1%	
Construction period				Census periods
Not given	84,066	38%		
Before 1914	10,008	5%		
1914-1947	13,600	6%	30%	before 1949
1948-1969	38,941	18%	32%	1949-1974
1970-1980	34,231	15%	11%	1975-1981
1981-1991	22,384	10%	7%	1982-1989
after 1991	18,796	8%	20%	1990-
Garage, parking space				
0 or not given	118,872	54%	51%	no
1	91,965	41%	49%	yes
2 or more	11,189	5%		
Bathrooms				
0 or not given	9,860	4 %		
1	202,873	91 %		
2 or more	9,293	4 %		
Floor				
0 or not given	50,308	23%		
1	52,787	24%		
2	45,397	20%		
3	32,600	15%		
4 or more	40,934	18%		
Lift (floor > 3)				
No	3,043	7%		
Yes or not given	37,891	93%		
Cellar				
0 or not given	99,225	45%		
1 or more	122,801	55%		
Terrace or balcony				
No or not given	147,416	66%		
Yes	74,610	34%		
Condition of property				
Not given	113,718	51%		
Good	90,128	41%		
Needs work	14,973	7%		
Needs renovation	3,207	1%		

Table 4.11 - Structure of estimation stock 2007-2008 and comparison with population census; Provinces (houses)

	Estimation stock 2007-2008		Stock in 2008 census	
	Number	%	(%)	
Total	328,847			
Number of rooms				
1 to 3	65,115	20%	15%	
4	83,402	25%	28%	
5	87,586	27%	30%	
6 or more	92,744	28%	27%	
Total				
Floor space				
<40 sq. m.	2,703	1%	2%	
40 to <70 sq. m.	34,764	11%	11%	
70 to <100 sq. m.	115,433	35%	40%	
100 to <150 sq. m.	136,532	42%	35%	
150 sq. m. or more	39,415	12%	12%	
Construction period				Census periods
Not given	105,280	32%		
Before 1914	41,975	13%		
1914-1947	45,173	14%	35%	before 1949
1948-1969	38,267	12%	21%	1949-1974
1970-1980	42,099	13%	13%	1975-1981
1981-1991	28,212	9%	11%	1982-1989
after 1991	27,841	8%	20%	1990-
Garage, parking space				
0 or not given	124,530	38%	21%	no
1	170,351	52%	79%	yes
2 ou plus	33,966	10%		
Bathrooms				
0 or not given	21,389	7 %		
1	235,118	71 %		
2 or more	72,340	22 %		
Floors				
0 or not given	29,536	9%		
1	79,051	24%		
2	183,452	56%		
3 or more	36,808	11%		
Plot size				
<500 sq. m.	135,690	41%		
500-1,000 sq. m.	89,983	27%		
1,000-1,500 sq. m.	39,356	12%		
1,500-2,500 sq. m.	30,269	9%		
>2,500 sq. m.	33,549	10%		
Condition of property				
Not given	144,590	44%		
Good	122,674	37%		
Needs work	42,631	13%		
Needs renovation	18,952	6%		
Basement				
No or not given	251,234	76%		
Yes	77,613	24%		

