An evaluation of the methods used by European countries to compute their official house price indices*
Robert J. Hill, Michael Scholz, Chihiro Shimizu, and Miriam Steurer
Compléments en ligne / Online complements

Online complement C1 – Methods used in EU countries to calculate the HPI or OOHI

Eurostat provides information on the methodologies used by EU countries to compute their official House Price Indices (HPIs) at http://ec.europa.eu/Eurostat/cache/metadata/en/prc_hpi_inx_esms.htm.

For information on how EU countries construct their OOHIs (Owner Occupied Housing Indices for inclusion in the HICP) Eurostat provides the following link:

http://ec.europa.eu/Eurostat/web/hicp/methodology/metadata-and-national-practices.

In addition to these Eurostat links, the following information can be found on the Eurostat or individual NSI websites.

Country	Method for HPI	Information on method
Austria	Repricing	From Eurostat webpage: http://ec.europa.eu/Eurostat/cache/metadata/EN/prc_hpi_inx_esms_at.htm#comment_dset1488192033587
Belgium	Repricing	From Eurostat webpage: http://ec.europa.eu/Eurostat/cache/metadata/EN/prc_hpi_inx_esms_be.htm
Bulgaria	Stratified median	From Eurostat webpage: http://ec.europa.eu/Eurostat/cache/metadata/EN/prc_hpi_inx_esms_bg.htm#stat_pres1488192082348 Bulgarian NSI: http://www.nsi.bg/en/content/14379/%D0%BC%D0%B5%D1%82%D0%B0%D0%B4%D0%B0%D0%BD%D0%BD%D0%B8/house-price-index-hpi
Croatia	RTD	From Eurostat webpage: http://ec.europa.eu/Eurostat/cache/metadata/EN/prc_hpi_inx_esms_hr.htm#contact1488192095079
Cyprus	RTD	From Eurostat webpage: http://ec.europa.eu/Eurostat/cache/metadata/EN/prc_hpi_esms_cy.htm#accessibility_clarity1470212625558 Cystat.gov.cy also provides data based on OOH pilot study (complemented with estimates), link to Construction and Housing Statistics publications (for quarterly output prices index in construction – primarily used for self builders – and methodology).
Czech Republic	Stratified median	From Eurostat webpage: http://ec.europa.eu/Eurostat/cache/metadata/EN/prc_hpi_inx_esms_cz.htm#stat_pres1488192085615 There are some statistics in English (including description and methodology) available through these links: [1] and [2].
Denmark	SPAR	From Eurostat webpage: http://ec.europa.eu/Eurostat/cache/metadata/EN/prc_hpi_esms_dk.htm#accessibility_clarity1470212636238 Also, follow this link to the documentation of Statistics Denmark 'sales of real property' statistics
Estonia	Stratified median	From Eurostat webpage: http://ec.europa.eu/Eurostat/cache/metadata/en/prc_hicp_esms_ee.htm#meta_update1470212521107 More information via the Estonian NSI webpage: http://pub.stat.ee/px-web.2001/I_Databas/Economy/24Prices/XO_027.htm and Dwelling Price Index.
Finland	Repricing	From Eurostat webpage: (http://ec.europa.eu/Eurostat/cache/metadata/EN/prc_hpi_inx_esms_fi.htm#stat_pres1488192063623): The Finnish method is based on the doctoral thesis by Eugen Koev (2003): http://www.ottawagroup.org/Ottawa/ottawagroup.nsf/4a256353001af3ed4b2562bb00121564/3f17cfb9377ce63eca25727a00088293/$FILE/2004%208th%20Meeting%20-%20Koev%20Eugen%20-

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		%20Combining%20Classification%20and%20Hedonic%20Quality%20Adjustment%20in%20Constructing%20a%20House%20Price%20Index.pdf
France	RTD	From Eurostat webpage: http://ec.europa.eu/Eurostat/cache/metadata/EN/prc_hpi_inx_esms_fr.htm Insee provides more information on their website. In particular, explanations on their HPI method can be found via: https://www.insee.fr/fr/statistiques/2829290#documentation (in French) and http://www.insee.fr/en/ppp/sommaire/imet128-e-calculation-procedures-applied.pdf (English summary)
Germany	Hedonic Imputation	From Eurostat webpage: http://ec.europa.eu/Eurostat/cache/metadata/EN/prc_hpi_inx_esms_de.htm#stat_process1488192007811 Also, tables on house price indices are available in the GENESIS-Online data base under 'statistics by theme' at code number 61262.
Hungary	At the moment Repricing, but planning to switch to RTD	From Eurostat webpage: http://ec.europa.eu/Eurostat/cache/metadata/EN/prc_hpi_inx_esms_hu.htm From Statistics Hungary webpage: http://www.ksh.hu/apps/meta.objektum?p_lang=EN&p_menu_id=120&p_almenu_id=104&p_ot_id=100&p_obj_id=QSLA&p_session_id=42138786
Iceland	Stratification method	From Eurostat webpage: http://ec.europa.eu/Eurostat/cache/metadata/EN/prc_hpi_inx_esms_is.htm#stat_process1488192036854
Ireland	RTD	From Eurostat webpage: http://ec.europa.eu/Eurostat/cache/metadata/EN/prc_hpi_inx_esms_ie.htm#comment_dset1488192017208 The Irish method is also explained in: O'Hanlon, N. (2011). Constructing a national house price index for Ireland. Statistical and Social Inquiry Society of Ireland, 40, 167–196 (http://www.tara.tcd.ie/xmlui/bitstream/handle/2262/62349/o'hanlon%20pdf.pdf;jsessionid=9154965E69A20A0C9587D7985D4FF6DE?sequence=1)
Italy	Repricing	From Eurostat webpage: http://ec.europa.eu/Eurostat/cache/metadata/EN/prc_hpi_inx_esms_it.htm ISTAT website description: http://www.istat.it/en/files/2015/07/Methodological-note2015.pdf?title=House+prices+-+2+Jul+2015+-+Note+methodological.pdf
Latvia	Repricing	From Eurostat webpage: http://ec.europa.eu/Eurostat/cache/metadata/EN/prc_hpi_inx_esms_lv.htm#stat_process1488192088860 Additional information can be found via: http://www.csb.gov.lv/en/statistikas-temas/metodologija/house-price-index-36211.html
Lithuania	Stratified median	From Eurostat webpage: http://ec.europa.eu/Eurostat/cache/metadata/EN/prc_hpi_inx_esms_it.htm#stat_process1488192091950 method description (in Lithuanian) via: http://osp.stat.gov.lt/documents/10180/586325/HPI_methodology_2013.pdf/76adae82-f64f-4aad-a051-313776180103
Luxembourg	Repricing	From Eurostat webpage: http://ec.europa.eu/Eurostat/cache/metadata/EN/prc_hpi_inx_esms_lu.htm More information on the Luxembourg HPI method (in French): http://www.statistiques.public.lu/catalogue-publications/economie-statistiques/2010/44-2010.pdf
Malta	Planning to use RTD	Eurostat weblink: http://ec.europa.eu/Eurostat/cache/metadata/EN/prc_hpi_inx_esms_mt.htm#stat_process1488192020655

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Netherlands	SPAR	From Eurostat webpage: http://ec.europa.eu/Eurostat/cache/metadata/EN/prc_hpi_esms_nl.htm#accessibility_clarity1477561095670 Additional information by Statistics Netherlands can be found via: http://statline.cbs.nl/StatWeb/publication/?DM=SLEN&PA=71533ENG
Norway	Repricing	From Eurostat webpage: http://ec.europa.eu/Eurostat/cache/metadata/EN/prc_hpi_inx_esms_no.htm A description of the method (in Norwegian) is available via: http://www.ssb.no/a/publikasjoner/pdf/notat_201210/notat_201210.pdf (for formula see page 28)
Poland	Stratified median	From Eurostat webpage: http://ec.europa.eu/Eurostat/cache/metadata/EN/prc_hpi_inx_esms_pl.htm#contact1488192047334
Portugal	RTD	From Eurostat webpage: http://ec.europa.eu/Eurostat/cache/metadata/EN/prc_hpi_inx_esms_pt.htm#stat_process1488192060402 The compilation methodology of the HPI is available on the website of Statistics Portugal: www.ine.pt (in Portuguese only). The Portuguiese HPI method is based on the following paper: R. Evangelista and Â. Teixeira, "Using Different Administrative Data Sources to Develop House Price Indexes for Portugal", March 2014
Romania	Average characteristics	Description of method in: http://www.insse.ro/cms/files/arhiva_buletine2015/bsp_12.pdf
Slovakia	Stratified median	From Eurostat webpage: http://ec.europa.eu/Eurostat/cache/metadata/EN/prc_hpi_inx_esms_sk.htm#stat_process148819203045
Slovenia	Repricing	From Eurostat webpage: http://ec.europa.eu/Eurostat/cache/metadata/EN/prc_hpi_inx_esms_si.htm#stat_process1488192067083 A description of the methodology that is used for the compilation of the HPI is available via: http://www.stat.si/StatWeb/Common/PrikaziDokument.ashx?IdDatoteke=8346
Spain	Average characteristics	From Eurostat webpage: http://ec.europa.eu/Eurostat/cache/metadata/EN/prc_hpi_inx_esms_es.htm A description of the Spanish HPI method can also be found via: http://www.ine.es/buscar/searchResults.do?searchType=DEF_SEARCH&tipoDocumento=&searchString=hpi+method&SearchButton=Search (in Spanish) and http://www.ine.es/daco/daco42/ipv/metodologia.pdf (in Spanish)
Sweden	SPAR	From Eurostat webpage: http://ec.europa.eu/Eurostat/cache/metadata/EN/prc_hpi_inx_esms_se.htm#stat_process1488192050466 Information on the "Swedish Real Estate Price Index", a closely related index to HPI, can be found via: http://www.scb.se/en/finding-statistics/search/?query=real+estate+price+index
UK	Hedonic imputation	From Eurostat webpage: http://ec.europa.eu/Eurostat/cache/metadata/EN/prc_hpi_inx_esms_uk.htm The summary definition of the model and index formula can be found in Annex A to F of the following link: http://www.ons.gov.uk/ons/guide-method/user-guidance/prices/hpi/official-house-price-statistics-explained.pdf Further description of model also available via: http://www.ons.gov.uk/ons/guide-method/user-guidance/prices/hpi/hedonic-model.pdf

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Online complement C2

Table C2-1
Sydney - Estimated shadow prices - 2003

	Min	1Q	Median	3Q	Max	
Residuals:	-2,207	-0,11789	-0,00379	0,10745	2,47241	
Coefficients:	Estimate	Std. Error	t-value	Pr(>|t|)		
(Intercept)	1,30E+01	5,06E-02	257,57	2,00E-16	***	
as.factor(BED)2	1,06E-01	2,35E-02	4,511	6,47E-06	***	
as.factor(BED)3	2,21E-01	2,33E-02	9,516	2,00E-16	***	
as.factor(BED)4	3,28E-01	2,35E-02	13,984	2,00E-16	***	
as.factor(BED)5	3,68E-01	2,41E-02	15,277	2,00E-16	***	
as.factor(BED)6	3,94E-01	2,72E-02	14,492	2,00E-16	***	
as.factor(BATH)2	9,12E-02	3,70E-03	24,607	2,00E-16	***	
as.factor(BATH)3	2,31E-01	5,76E-03	40,094	2,00E-16	***	
as.factor(BATH)4	3,78E-01	1,21E-02	31,359	2,00E-16	***	
as.factor(BATH)5	6,51E-01	2,53E-02	25,76	2,00E-16	***	
as.factor(BATH)6	6,06E-01	5,73E-02	10,566	2,00E-16	***	
AREA	3,14E-04	5,58E-06	56,18	2,00E-16	***	
as.factor(POSTCODE)4	2,43E-01	5,57E-02	4,354	1,34E-05	***	
as.factor(POSTCODE)6	6,67E-02	5,45E-02	1,225	0,22075		
as.factor(POSTCODE)7	5,55E-02	5,55E-02	0,999	0,317817		
as.factor(POSTCODE)9	3,79E-02	5,69E-02	0,666	0,505487		
as.factor(POSTCODE)10	-5,30E-02	5,64E-02	-0,939	0,347653		
as.factor(POSTCODE)11	-8,86E-02	5,41E-02	-1,635	0,101959		
as.factor(POSTCODE)12	6,64E-01	4,86E-02	13,684	2,00E-16	***	
as.factor(POSTCODE)13	4,61E-01	4,99E-02	9,247	2,00E-16	***	
as.factor(POSTCODE)14	8,84E-01	5,37E-02	16,481	2,00E-16	***	
as.factor(POSTCODE)15	6,20E-01	5,14E-02	12,066	2,00E-16	***	
as.factor(POSTCODE)16	8,42E-01	5,12E-02	16,435	2,00E-16	***	
as.factor(POSTCODE)17	5,20E-01	4,92E-02	10,573	2,00E-16	***	
as.factor(POSTCODE)19	1,04E+00	6,50E-02	15,953	2,00E-16	***	
as.factor(POSTCODE)20	8,05E-01	5,64E-02	14,258	2,00E-16	***	
as.factor(POSTCODE)21	8,89E-01	5,00E-02	17,781	2,00E-16	***	
as.factor(POSTCODE)22	5,17E-01	4,82E-02	10,736	2,00E-16	***	
as.factor(POSTCODE)23	2,84E-01	5,35E-02	5,32	1,05E-07	***	
as.factor(POSTCODE)24	3,82E-01	5,46E-02	6,994	2,74E-12	***	
as.factor(POSTCODE)25	6,01E-01	5,13E-02	11,724	2,00E-16	***	
as.factor(POSTCODE)26	2,87E-01	4,81E-02	5,975	2,33E-09	***	
as.factor(POSTCODE)27	1,20E-01	5,00E-02	2,397	0,016529	*	

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	Min	1Q	Median	3Q	Max	
as.factor(POSTCODE)28	2,07E-01	5,09E-02	4,06	4,92E-05	***	
as.factor(POSTCODE)29	1,75E-01	4,91E-02	3,572	0,000354	***	
as.factor(POSTCODE)30	1,59E-01	5,12E-02	3,114	0,001846	**	
as.factor(POSTCODE)31	8,26E-02	4,70E-02	1,758	0,078739	.	
as.factor(POSTCODE)32	4,05E-01	4,82E-02	8,403	2,00E-16	***	
as.factor(POSTCODE)33	2,91E-02	4,81E-02	0,605	0,545361		
as.factor(POSTCODE)34	3,08E-02	5,52E-02	0,559	0,576446		
as.factor(POSTCODE)35	-2,19E-01	5,06E-02	-4,334	1,47E-05	***	
as.factor(POSTCODE)36	1,62E-01	6,37E-02	2,536	0,011211	*	
as.factor(POSTCODE)37	2,53E-01	4,84E-02	5,22	1,80E-07	***	
as.factor(POSTCODE)38	3,27E-01	5,09E-02	6,433	1,27E-10	***	
as.factor(POSTCODE)39	6,89E-02	5,09E-02	1,352	0,176471		
as.factor(POSTCODE)40	1,15E-02	5,02E-02	0,228	0,819314		
as.factor(POSTCODE)42	5,45E-01	5,53E-02	9,847	2,00E-16	***	
as.factor(POSTCODE)44	4,24E-01	5,77E-02	7,351	2,03E-13	***	
as.factor(POSTCODE)45	5,59E-01	5,25E-02	10,65	2,00E-16	***	
as.factor(POSTCODE)46	3,09E-01	6,37E-02	4,847	1,26E-06	***	
as.factor(POSTCODE)47	3,26E-01	4,83E-02	6,745	1,56E-11	***	
as.factor(POSTCODE)48	2,63E-01	4,77E-02	5,518	3,46E-08	***	
as.factor(POSTCODE)49	1,18E-01	4,97E-02	2,365	0,018016	*	
as.factor(POSTCODE)50	2,86E-01	4,82E-02	5,937	2,93E-09	***	
as.factor(POSTCODE)51	2,38E-01	4,92E-02	4,846	1,27E-06	***	
as.factor(POSTCODE)52	1,23E-01	4,97E-02	2,472	0,013428	*	
as.factor(POSTCODE)53	1,60E-01	5,00E-02	3,193	0,001412	**	
as.factor(POSTCODE)54	1,03E-01	5,51E-02	1,873	0,061058	.	
as.factor(POSTCODE)55	-1,91E-02	4,84E-02	-0,394	0,693711		
as.factor(POSTCODE)56	-1,11E-01	4,76E-02	-2,336	0,019483	*	
as.factor(POSTCODE)57	-1,52E-01	4,75E-02	-3,196	0,001397	**	
as.factor(POSTCODE)58	-1,76E-01	4,76E-02	-3,699	0,000217	***	
as.factor(POSTCODE)59	-4,16E-01	4,84E-02	-8,596	2,00E-16	***	
as.factor(POSTCODE)60	-4,65E-01	5,31E-02	-8,749	2,00E-16	***	
as.factor(POSTCODE)62	-5,27E-01	5,98E-02	-8,82	2,00E-16	***	
as.factor(POSTCODE)63	-5,26E-01	6,06E-02	-8,673	2,00E-16	***	
as.factor(POSTCODE)65	-2,01E-01	6,44E-02	-3,116	0,001838	**	
as.factor(POSTCODE)66	-1,73E-01	5,02E-02	-3,458	0,000545	***	
as.factor(POSTCODE)67	-1,69E-01	4,89E-02	-3,446	0,000569	***	
as.factor(POSTCODE)68	-1,22E-01	4,92E-02	-2,49	0,012796	*	
as.factor(POSTCODE)69	8,05E-01	4,73E-02	17,025	2,00E-16	***	
as.factor(POSTCODE)70	5,36E-01	5,55E-02	9,643	2,00E-16	***	
as.factor(POSTCODE)71	6,22E-01	5,35E-02	11,635	2,00E-16	***	

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	Min	1Q	Median	3Q	Max
as.factor(POSTCODE)72	3,41E-01	5,12E-02	6,651	2,96E-11	***
as.factor(POSTCODE)73	3,17E-01	4,82E-02	6,572	5,07E-11	***
as.factor(POSTCODE)74	4,41E-01	5,83E-02	7,558	4,22E-14	***
as.factor(POSTCODE)75	5,48E-01	5,45E-02	10,058	2,00E-16	***
as.factor(POSTCODE)76	2,56E-01	5,09E-02	5,042	4,63E-07	***
as.factor(POSTCODE)77	6,69E-02	5,09E-02	1,315	0,188396	
as.factor(POSTCODE)78	-1,53E-02	4,79E-02	-0,319	0,750064	
as.factor(POSTCODE)79	-1,00E-01	4,94E-02	-2,027	0,04268	*
as.factor(POSTCODE)80	-1,09E-02	5,00E-02	-0,218	0,827783	
as.factor(POSTCODE)81	-1,04E-01	5,74E-02	-1,817	0,069215	.
as.factor(POSTCODE)82	6,81E-02	5,33E-02	1,276	0,201813	
as.factor(POSTCODE)83	3,74E-02	6,68E-02	0,56	0,575417	
as.factor(POSTCODE)85	1,27E-01	5,12E-02	2,487	0,01288	*
as.factor(POSTCODE)86	4,59E-02	4,87E-02	0,944	0,345424	
as.factor(POSTCODE)87	5,12E-01	5,91E-02	8,669	2,00E-16	***
as.factor(POSTCODE)88	4,88E-01	5,08E-02	9,615	2,00E-16	***
as.factor(POSTCODE)89	1,26E-01	5,17E-02	2,44	0,01471	*
as.factor(POSTCODE)90	-7,82E-02	4,84E-02	-1,616	0,106	
as.factor(POSTCODE)91	-1,73E-01	5,09E-02	-3,397	0,000683	***
as.factor(POSTCODE)92	-1,92E-01	5,05E-02	-3,791	0,00015	***
as.factor(POSTCODE)93	-3,64E-01	5,34E-02	-6,816	9,56E-12	***
as.factor(POSTCODE)94	-4,35E-01	5,62E-02	-7,737	1,05E-14	***
as.factor(POSTCODE)95	-3,50E-01	4,98E-02	-7,03	2,12E-12	***
as.factor(POSTCODE)96	-3,49E-01	4,91E-02	-7,101	1,27E-12	***
as.factor(POSTCODE)97	-1,92E-01	5,09E-02	-3,772	0,000162	***
as.factor(POSTCODE)98	-3,23E-01	4,80E-02	-6,736	1,66E-11	***
as.factor(POSTCODE)99	-1,93E-01	4,85E-02	-3,985	6,78E-05	***
as.factor(POSTCODE)100	-1,52E-01	4,99E-02	-3,049	0,002298	**
as.factor(POSTCODE)101	-3,29E-01	4,95E-02	-6,64	3,21E-11	***
as.factor(POSTCODE)102	-3,92E-01	4,95E-02	-7,915	2,57E-15	***
as.factor(POSTCODE)103	-1,50E-01	5,20E-02	-2,879	0,003997	**
as.factor(POSTCODE)105	2,99E-02	6,37E-02	0,469	0,639216	
as.factor(POSTCODE)106	-2,67E-02	5,50E-02	-0,486	0,626732	
as.factor(POSTCODE)107	1,01E-02	5,45E-02	0,185	0,853572	
as.factor(POSTCODE)108	-1,57E-01	5,31E-02	-2,96	0,003082	**
as.factor(POSTCODE)109	1,29E-01	5,64E-02	2,293	0,021877	*
as.factor(POSTCODE)110	3,04E-01	4,86E-02	6,25	4,18E-10	***
as.factor(POSTCODE)111	-9,25E-02	5,55E-02	-1,666	0,095685	.
as.factor(POSTCODE)112	1,94E-01	4,92E-02	3,933	8,41E-05	***
as.factor(POSTCODE)113	-2,60E-02	5,52E-02	-0,471	0,637658	

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	Min	1Q	Median	3Q	Max	
as.factor(POSTCODE)115	-4,68E-01	5,11E-02	-9,167	2,00E-16	***	
as.factor(POSTCODE)116	-6,25E-01	5,12E-02	-12,215	2,00E-16	***	
as.factor(POSTCODE)117	-5,18E-01	6,25E-02	-8,287	2,00E-16	***	
as.factor(POSTCODE)118	-5,12E-01	5,05E-02	-10,143	2,00E-16	***	
as.factor(POSTCODE)119	-5,67E-01	4,65E-02	-12,18	2,00E-16	***	
as.factor(POSTCODE)120	-6,47E-01	5,01E-02	-12,926	2,00E-16	***	
as.factor(POSTCODE)121	-7,29E-01	4,69E-02	-15,544	2,00E-16	***	
as.factor(POSTCODE)122	-7,68E-01	4,63E-02	-16,572	2,00E-16	***	
as.factor(POSTCODE)123	-3,80E-01	5,90E-02	-6,451	1,13E-10	***	
as.factor(POSTCODE)124	-3,80E-01	5,15E-02	-7,379	1,64E-13	***	
as.factor(POSTCODE)125	-4,94E-01	5,35E-02	-9,234	2,00E-16	***	
as.factor(POSTCODE)126	-4,69E-01	4,65E-02	-10,087	2,00E-16	***	
as.factor(POSTCODE)127	-4,05E-01	4,69E-02	-8,63	2,00E-16	***	
as.factor(POSTCODE)128	-4,73E-01	4,63E-02	-10,236	2,00E-16	***	
as.factor(POSTCODE)129	-4,50E-01	5,47E-02	-8,234	2,00E-16	***	
as.factor(POSTCODE)131	-3,78E-01	5,87E-02	-6,445	1,18E-10	***	
as.factor(POSTCODE)133	-4,99E-01	4,82E-02	-10,371	2,00E-16	***	
as.factor(POSTCODE)134	-5,91E-01	4,89E-02	-12,08	2,00E-16	***	
as.factor(POSTCODE)135	-5,77E-01	5,04E-02	-11,437	2,00E-16	***	
as.factor(POSTCODE)137	-7,07E-01	4,96E-02	-14,26	2,00E-16	***	
as.factor(POSTCODE)138	-6,80E-01	4,83E-02	-14,089	2,00E-16	***	
as.factor(POSTCODE)139	-7,18E-01	4,79E-02	-15,001	2,00E-16	***	
as.factor(POSTCODE)140	-7,96E-01	6,15E-02	-12,947	2,00E-16	***	
as.factor(POSTCODE)141	-7,47E-01	4,67E-02	-15,994	2,00E-16	***	
as.factor(POSTCODE)142	-6,82E-01	4,61E-02	-14,791	2,00E-16	***	
as.factor(POSTCODE)143	-5,61E-01	4,78E-02	-11,745	2,00E-16	***	
as.factor(POSTCODE)144	-3,99E-01	6,86E-02	-5,818	6,01E-09	***	
as.factor(POSTCODE)145	-5,65E-01	4,83E-02	-11,697	2,00E-16	***	
as.factor(POSTCODE)148	-6,14E-01	4,74E-02	-12,945	2,00E-16	***	
as.factor(POSTCODE)149	-6,92E-01	5,19E-02	-13,333	2,00E-16	***	
as.factor(POSTCODE)151	-4,65E-01	4,90E-02	-9,489	2,00E-16	***	
as.factor(POSTCODE)152	-2,93E-01	5,69E-02	-5,144	2,71E-07	***	
as.factor(POSTCODE)153	-3,23E-01	5,43E-02	-5,946	2,78E-09	***	
as.factor(POSTCODE)154	-1,61E-01	5,26E-02	-3,056	0,002247	**	
as.factor(POSTCODE)155	-2,65E-01	5,55E-02	-4,764	1,91E-06	***	
as.factor(POSTCODE)156	-5,03E-01	5,52E-02	-9,125	2,00E-16	***	
as.factor(POSTCODE)157	-4,48E-01	4,94E-02	-9,073	2,00E-16	***	
as.factor(POSTCODE)158	-5,50E-01	5,67E-02	-9,709	2,00E-16	***	
as.factor(POSTCODE)159	-5,26E-01	5,40E-02	-9,734	2,00E-16	***	
as.factor(POSTCODE)160	-5,41E-01	5,17E-02	-10,472	2,00E-16	***	

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Compléments en ligne / Online complements

	Min	1Q	Median	3Q	Max	
as.factor(POSTCODE)161	-4,67E-01	4,93E-02	-9,484	2,00E-16	***	
as.factor(POSTCODE)162	-3,89E-02	5,57E-02	-0,699	0,484867		
as.factor(POSTCODE)163	-9,80E-02	4,87E-02	-2,012	0,044223	*	
as.factor(POSTCODE)164	-2,79E-01	5,50E-02	-5,072	3,97E-07	***	
as.factor(POSTCODE)165	-1,13E-01	5,03E-02	-2,251	0,024399	*	
as.factor(POSTCODE)166	-2,06E-01	4,88E-02	-4,21	2,56E-05	***	
as.factor(POSTCODE)167	-1,68E-01	5,31E-02	-3,155	0,001609	**	
as.factor(POSTCODE)168	-2,51E-01	5,20E-02	-4,831	1,36E-06	***	
as.factor(POSTCODE)169	-3,11E-01	4,86E-02	-6,383	1,77E-10	***	
as.factor(POSTCODE)170	-4,35E-01	5,03E-02	-8,632	2,00E-16	***	
as.factor(POSTCODE)171	-5,38E-01	5,19E-02	-10,378	2,00E-16	***	
as.factor(POSTCODE)172	-3,93E-01	5,05E-02	-7,781	7,47E-15	***	
as.factor(POSTCODE)173	-4,33E-01	6,96E-02	-6,217	5,15E-10	***	
as.factor(POSTCODE)174	-1,29E-01	5,12E-02	-2,524	0,011605	*	
as.factor(POSTCODE)175	-1,64E-02	5,05E-02	-0,325	0,744995		
as.factor(POSTCODE)176	-1,70E-01	5,30E-02	-3,202	0,001367	**	
as.factor(POSTCODE)177	1,21E-01	5,30E-02	2,282	0,022523	*	
as.factor(POSTCODE)178	-1,75E-01	5,04E-02	-3,475	0,000512	***	
as.factor(POSTCODE)179	9,90E-02	4,93E-02	2,009	0,044595	*	
as.factor(POSTCODE)180	-2,02E-01	5,69E-02	-3,543	0,000396	***	
as.factor(POSTCODE)181	-8,42E-02	4,97E-02	-1,695	0,090141	.	
as.factor(POSTCODE)182	1,34E-01	5,06E-02	2,643	0,008213	**	
as.factor(POSTCODE)183	-8,31E-02	5,70E-02	-1,459	0,144643		
as.factor(POSTCODE)184	-2,60E-01	5,17E-02	-5,031	4,92E-07	***	
as.factor(POSTCODE)185	-1,57E-01	5,20E-02	-3,021	0,002524	**	
as.factor(POSTCODE)186	-1,68E-01	5,10E-02	-3,288	0,001011	**	
as.factor(POSTCODE)187	3,20E-02	4,83E-02	0,663	0,507386		
as.factor(POSTCODE)188	1,22E-01	4,87E-02	2,497	0,012529	*	
as.factor(POSTCODE)190	-3,04E-01	4,84E-02	-6,285	3,32E-10	***	
as.factor(POSTCODE)191	-4,24E-01	4,77E-02	-8,877	2,00E-16	***	
as.factor(POSTCODE)192	-3,29E-01	4,76E-02	-6,917	4,72E-12	***	
as.factor(POSTCODE)195	-9,15E-01	5,02E-02	-18,252	2,00E-16	***	
as.factor(POSTCODE)197	-9,20E-01	4,59E-02	-20,073	2,00E-16	***	
as.factor(POSTCODE)198	-9,09E-01	5,07E-02	-17,935	2,00E-16	***	
as.factor(POSTCODE)199	-8,13E-01	4,93E-02	-16,483	2,00E-16	***	
as.factor(POSTCODE)200	-8,98E-01	4,76E-02	-18,866	2,00E-16	***	
as.factor(POSTCODE)201	-7,22E-01	4,63E-02	-15,596	2,00E-16	***	
as.factor(POSTCODE)204	-7,70E-01	4,91E-02	-15,674	2,00E-16	***	
as.factor(POSTCODE)205	-7,30E-01	4,71E-02	-15,507	2,00E-16	***	
as.factor(POSTCODE)206	-9,06E-01	4,71E-02	-19,24	2,00E-16	***	

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	Min	1Q	Median	3Q	Max	
as.factor(POSTCODE)208	-8,66E-01	4,85E-02	-17,842	2,00E-16	***	
as.factor(POSTCODE)209	-8,31E-01	4,69E-02	-17,709	2,00E-16	***	
as.factor(POSTCODE)210	-1,01E+00	6,15E-02	-16,345	2,00E-16	***	
as.factor(POSTCODE)211	-8,01E-01	5,17E-02	-15,482	2,00E-16	***	
as.factor(POSTCODE)212	-7,92E-01	5,87E-02	-13,5	2,00E-16	***	
as.factor(POSTCODE)213	-8,07E-01	4,71E-02	-17,11	2,00E-16	***	
as.factor(POSTCODE)215	-8,06E-01	6,60E-02	-12,218	2,00E-16	***	
as.factor(POSTCODE)216	-8,29E-01	4,73E-02	-17,516	2,00E-16	***	
as.factor(POSTCODE)217	-9,45E-01	4,72E-02	-20,04	2,00E-16	***	
as.factor(POSTCODE)218	-7,93E-01	4,69E-02	-16,888	2,00E-16	***	
as.factor(POSTCODE)219	-7,02E-01	6,05E-02	-11,589	2,00E-16	***	
as.factor(POSTCODE)220	-7,09E-01	4,71E-02	-15,045	2,00E-16	***	
as.factor(POSTCODE)221	-7,77E-01	5,51E-02	-14,119	2,00E-16	***	
as.factor(POSTCODE)222	-8,05E-01	5,05E-02	-15,942	2,00E-16	***	
as.factor(POSTCODE)223	-8,12E-01	4,95E-02	-16,398	2,00E-16	***	
as.factor(POSTCODE)224	-5,66E-01	4,68E-02	-12,099	2,00E-16	***	
as.factor(POSTCODE)226	-1,07E+00	4,61E-02	-23,091	2,00E-16	***	
as.factor(POSTCODE)227	-6,71E-01	5,53E-02	-12,126	2,00E-16	***	
as.factor(POSTCODE)228	-8,27E-01	5,11E-02	-16,201	2,00E-16	***	
as.factor(POSTCODE)230	-8,64E-01	5,59E-02	-15,469	2,00E-16	***	
Residual	standard error on 25312 degrees of freedom		0,225			
Multiple	R-squared:		0,8362			
	Adjusted R-square:		0,8348			
F-statistic:			609,5	on 212 and 25312 degrees of freedom		
p-value:	<	2,20E-16				

Table C2-2
Tokyo - Estimated shadow prices - 2002

Residuals:	Min	1Q	Median	3Q	Max	
	-0,40403	-0,0826	-0,00259	0,07784	0,60209	
Coefficients:	Estimate	Std. Error	t-value	Pr(>|t|)		
(Intercept)	4,413798	0,140363	31,446	< 2e-16		***
I(log(S))	1,05579	0,029926	35,28	< 2e-16		***
ts	-0,0118	0,00223	-5,29	2,28E-07		***
tt	-0,00303	0,001654	-1,83	0,068153		.
as.factor(City.Code)13102	-0,35623	0,079633	-4,473	1,07E-05		***
as.factor(City.Code)13103	-0,07491	0,077853	-0,962	0,336649		
as.factor(City.Code)13104	-0,25781	0,081973	-3,145	0,001817		**
as.factor(City.Code)13105	-0,27628	0,084002	-3,289	0,001118		**
as.factor(City.Code)13106	-0,64729	0,081276	-7,964	2,96E-14		***
as.factor(City.Code)13107	-0,70919	0,091356	-7,763	1,14E-13		***
as.factor(City.Code)13108	-0,64804	0,077933	-8,315	2,68E-15		***
as.factor(City.Code)13109	-0,36827	0,082746	-4,451	1,18E-05		***
as.factor(City.Code)13110	-0,11086	0,082259	-1,348	0,178698		
as.factor(City.Code)13111	-0,30546	0,084348	-3,621	0,000341		***
as.factor(City.Code)13112	-0,16009	0,082705	-1,936	0,053787		.
as.factor(City.Code)13113	0,037748	0,089476	0,422	0,673399		
as.factor(City.Code)13114	-0,37918	0,098057	-3,867	0,000134		***
as.factor(City.Code)13115	-0,25545	0,084281	-3,031	0,002638		**
as.factor(City.Code)13116	-0,3731	0,083629	-4,461	1,13E-05		***
as.factor(City.Code)13117	-0,51581	0,093251	-5,531	6,63E-08		***
as.factor(City.Code)13118	-0,49937	0,087168	-5,729	2,34E-08		***
as.factor(City.Code)13119	-0,61115	0,087097	-7,017	1,37E-11		***
as.factor(City.Code)13120	-0,47517	0,101058	-4,702	3,84E-06		***
as.factor(City.Code)13121	-0,73563	0,083	-8,863	< 2e-16		***
as.factor(City.Code)13122	-0,77603	0,100203	-7,745	1,28E-13		***
as.factor(City.Code)13123	-0,58514	0,087869	-6,659	1,20E-10		***

Residual standard error:	0.145 on 319 degrees of freedom		
Multiple R-squared:	0,8733	Adjusted R-squareds	0,8633
F-statistic:	87.92 on 25 and 319 degrees of freedom		
p-value:	< 2.2e-16		

Online Complement C3

Table C3-1

Estimates of price indices for houses in Sydney (2003Q1=1), according to different methods

	RP1	RP2	RP3	AC	DIL	DIP	DIT	RTD2Q	RTD4Q	RTD5Q	MIX-PC	MIX-RX
2003Q1	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003Q2	1.038	1.038	1.037	1.039	1.038	1.038	1.038	1.038	1.039	1.039	1.033	1.059
2003Q3	1.097	1.097	1.096	1.102	1.098	1.099	1.099	1.099	1.098	1.098	1.111	1.125
2003Q4	1.126	1.126	1.125	1.127	1.128	1.127	1.127	1.127	1.127	1.127	1.129	1.148
2004Q1	1.128	1.128	1.126	1.131	1.131	1.129	1.130	1.131	1.129	1.130	1.146	1.147
2004Q2	1.109	1.109	1.108	1.111	1.113	1.110	1.111	1.112	1.110	1.110	1.091	1.108
2004Q3	1.094	1.094	1.094	1.098	1.100	1.099	1.099	1.099	1.096	1.096	1.083	1.112
2004Q4	1.099	1.099	1.100	1.102	1.106	1.104	1.105	1.105	1.102	1.102	1.097	1.119
2005Q1	1.084	1.084	1.082	1.086	1.090	1.087	1.088	1.088	1.085	1.084	1.074	1.079
2005Q2	1.071	1.071	1.068	1.074	1.076	1.074	1.075	1.075	1.072	1.072	1.044	1.074
2005Q3	1.062	1.062	1.060	1.066	1.068	1.065	1.066	1.066	1.063	1.063	1.047	1.076
2005Q4	1.065	1.065	1.064	1.070	1.070	1.067	1.069	1.069	1.067	1.066	1.072	1.106
2006Q1	1.059	1.059	1.057	1.065	1.065	1.062	1.063	1.064	1.060	1.060	1.057	1.078
2006Q2	1.072	1.072	1.069	1.078	1.077	1.075	1.076	1.077	1.074	1.073	1.078	1.107
2006Q3	1.065	1.065	1.064	1.073	1.073	1.070	1.071	1.072	1.068	1.067	1.092	1.098
2006Q4	1.069	1.069	1.065	1.074	1.073	1.071	1.072	1.072	1.070	1.069	1.094	1.103
2007Q1	1.072	1.072	1.070	1.080	1.079	1.078	1.079	1.079	1.075	1.074	1.109	1.124
2007Q2	1.101	1.101	1.095	1.107	1.105	1.105	1.105	1.105	1.102	1.101	1.139	1.191
2007Q3	1.124	1.124	1.122	1.135	1.133	1.133	1.133	1.133	1.129	1.127	1.204	1.239
2007Q4	1.148	1.148	1.141	1.153	1.152	1.152	1.152	1.152	1.148	1.147	1.205	1.230
2008Q1	1.131	1.131	1.135	1.147	1.144	1.147	1.146	1.146	1.142	1.140	1.211	1.259
2008Q2	1.119	1.112	1.115	1.128	1.124	1.127	1.126	1.126	1.121	1.120	1.203	1.235
2008Q3	1.094	1.096	1.099	1.111	1.108	1.111	1.109	1.109	1.106	1.104	1.160	1.190
2008Q4	1.085	1.090	1.093	1.101	1.101	1.105	1.103	1.103	1.100	1.098	1.137	1.162
2009Q1	1.099	1.110	1.113	1.114	1.114	1.124	1.119	1.119	1.118	1.117	1.137	1.121
2009Q2	1.142	1.142	1.149	1.155	1.153	1.164	1.158	1.159	1.155	1.152	1.180	1.170
2009Q3	1.175	1.179	1.185	1.192	1.190	1.200	1.195	1.196	1.191	1.189	1.241	1.245
2009Q4	1.228	1.217	1.227	1.233	1.230	1.242	1.236	1.236	1.235	1.232	1.302	1.334
2010Q1	1.263	1.258	1.269	1.276	1.274	1.285	1.280	1.280	1.277	1.274	1.366	1.368
2010Q2	1.293	1.287	1.295	1.302	1.301	1.311	1.306	1.307	1.304	1.301	1.399	1.391
2010Q3	1.287	1.285	1.293	1.301	1.300	1.310	1.305	1.306	1.302	1.299	1.373	1.383
2010Q4	1.295	1.285	1.295	1.303	1.303	1.311	1.307	1.308	1.304	1.301	1.365	1.415
2011Q1	1.293	1.290	1.302	1.309	1.309	1.317	1.313	1.313	1.310	1.307	1.389	1.419
2011Q2	1.291	1.287	1.297	1.304	1.305	1.311	1.308	1.309	1.305	1.302	1.359	1.398
2011Q3	1.278	1.280	1.287	1.292	1.293	1.301	1.297	1.298	1.296	1.293	1.321	1.347
2011Q4	1.272	1.279	1.286	1.289	1.291	1.300	1.295	1.296	1.294	1.292	1.339	1.348
2012Q1	1.285	1.277	1.290	1.297	1.300	1.307	1.303	1.304	1.300	1.297	1.343	1.382
2012Q2	1.288	1.279	1.293	1.301	1.303	1.310	1.307	1.307	1.303	1.300	1.347	1.390
2012Q3	1.291	1.289	1.298	1.304	1.309	1.315	1.312	1.313	1.308	1.306	1.342	1.371
2012Q4	1.313	1.301	1.318	1.324	1.327	1.335	1.331	1.332	1.328	1.325	1.377	1.405
2013Q1	1.330	1.324	1.339	1.347	1.352	1.357	1.354	1.355	1.350	1.347	1.408	1.439
2013Q2	1.375	1.366	1.382	1.390	1.395	1.400	1.398	1.398	1.394	1.390	1.453	1.486
2013Q3	1.443	1.433	1.449	1.458	1.463	1.469	1.466	1.466	1.462	1.458	1.530	1.549
2013Q4	1.514	1.502	1.519	1.531	1.536	1.542	1.539	1.540	1.534	1.530	1.613	1.681

2014Q1	1.565	1.562	1.579	1.591	1.597	1.602	1.599	1.599	1.593	1.589	1.676	1.735
2014Q2	1.617	1.609	1.627	1.638	1.646	1.649	1.647	1.648	1.642	1.637	1.704	1.753
2014Q3	1.677	1.668	1.685	1.695	1.702	1.708	1.705	1.706	1.702	1.697	1.752	1.844
2014Q4	1.748	1.737	1.757	1.770	1.777	1.781	1.779	1.780	1.774	1.769	1.819	1.871

Note: The hedonic methods are as follows: RP1 = Repricing without updating; RP2 = Repricing where the base period is updated every five years; RP3 = Repricing where the base period is updated every year; AC = Average characteristics; Double imputation Laspeyres = DIL; Double imputation Paasche = DIP; Double imputation Törnqvist = DIT; RTD2Q = Rolling time dummy with a 2 quarter rolling window; RTD4Q and RTD5Q have 4 and 5 quarter rolling windows; the stratified median methods are as follows: MIX-PC = Mix adjusted stratified by postcode; MIX-RX = Mix adjusted stratified by Residex region. Period: 2002-2014.
Coverage: Houses in Sydney, Australia.
Sources: Australian Property Monitors; authors' calculations.

Table C3-2
Estimates of Price Indices for Apartments in Sydney (2003Q1=1), according to different methods

	RP1	RP2	RP3	AC	DIL	DIP	DIT	RTD2Q	RTD4Q	RTD5Q	MIX-PC	MIX-RX
2003Q1	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003Q2	1.016	1.016	1.018	1.017	1.018	1.015	1.016	1.016	1.016	1.017	1.019	1.039
2003Q3	1.048	1.048	1.051	1.051	1.046	1.050	1.048	1.048	1.049	1.049	1.050	1.081
2003Q4	1.064	1.064	1.068	1.064	1.060	1.066	1.063	1.063	1.065	1.065	1.078	1.097
2004Q1	1.054	1.054	1.061	1.051	1.047	1.056	1.051	1.051	1.054	1.054	1.061	1.093
2004Q2	1.042	1.042	1.051	1.045	1.037	1.047	1.042	1.042	1.044	1.043	1.075	1.089
2004Q3	1.038	1.038	1.048	1.040	1.032	1.046	1.039	1.039	1.040	1.039	1.072	1.099
2004Q4	1.028	1.028	1.035	1.026	1.017	1.033	1.025	1.026	1.028	1.027	1.065	1.109
2005Q1	1.035	1.035	1.043	1.033	1.023	1.040	1.031	1.031	1.034	1.034	1.067	1.090
2005Q2	1.022	1.022	1.032	1.022	1.013	1.029	1.021	1.021	1.025	1.025	1.041	1.071
2005Q3	1.022	1.022	1.032	1.021	1.013	1.030	1.022	1.022	1.025	1.024	1.054	1.097
2005Q4	1.021	1.021	1.030	1.017	1.009	1.027	1.018	1.018	1.022	1.022	1.040	1.061
2006Q1	1.012	1.012	1.024	1.013	1.004	1.024	1.014	1.014	1.018	1.016	1.064	1.049
2006Q2	1.026	1.026	1.036	1.023	1.015	1.034	1.025	1.024	1.028	1.027	1.049	1.076
2006Q3	1.019	1.019	1.030	1.017	1.008	1.029	1.019	1.019	1.022	1.021	1.034	1.060
2006Q4	1.031	1.031	1.038	1.023	1.012	1.038	1.025	1.025	1.031	1.030	1.054	1.071
2007Q1	1.017	1.017	1.029	1.015	1.002	1.032	1.017	1.017	1.022	1.020	1.026	1.047
2007Q2	1.042	1.042	1.052	1.038	1.025	1.055	1.040	1.040	1.045	1.044	1.063	1.088
2007Q3	1.065	1.065	1.079	1.065	1.050	1.083	1.066	1.066	1.071	1.070	1.098	1.109
2007Q4	1.092	1.092	1.105	1.090	1.073	1.109	1.091	1.091	1.097	1.096	1.132	1.133
2008Q1	1.086	1.086	1.104	1.086	1.070	1.110	1.090	1.090	1.096	1.095	1.109	1.136
2008Q2	1.068	1.070	1.088	1.073	1.054	1.098	1.076	1.076	1.080	1.079	1.084	1.119
2008Q3	1.064	1.066	1.084	1.068	1.050	1.094	1.072	1.072	1.076	1.076	1.072	1.123
2008Q4	1.055	1.068	1.086	1.064	1.048	1.097	1.072	1.072	1.079	1.079	1.088	1.110
2009Q1	1.078	1.095	1.113	1.088	1.073	1.125	1.098	1.098	1.105	1.106	1.106	1.135
2009Q2	1.114	1.126	1.146	1.121	1.105	1.161	1.132	1.132	1.138	1.138	1.133	1.167
2009Q3	1.156	1.166	1.185	1.160	1.142	1.202	1.171	1.170	1.178	1.178	1.170	1.205
2009Q4	1.192	1.198	1.225	1.199	1.177	1.245	1.210	1.210	1.218	1.218	1.239	1.292
2010Q1	1.231	1.242	1.266	1.241	1.218	1.289	1.253	1.252	1.259	1.258	1.271	1.308
2010Q2	1.261	1.265	1.290	1.267	1.241	1.313	1.277	1.275	1.283	1.283	1.296	1.349
2010Q3	1.265	1.269	1.294	1.270	1.244	1.318	1.280	1.279	1.287	1.287	1.296	1.345
2010Q4	1.279	1.282	1.308	1.284	1.259	1.332	1.295	1.294	1.302	1.302	1.311	1.353
2011Q1	1.297	1.300	1.326	1.300	1.274	1.349	1.311	1.310	1.319	1.319	1.324	1.351
2011Q2	1.308	1.315	1.337	1.309	1.283	1.363	1.323	1.321	1.330	1.331	1.316	1.379
2011Q3	1.293	1.300	1.324	1.295	1.268	1.352	1.309	1.308	1.317	1.318	1.320	1.365
2011Q4	1.297	1.313	1.332	1.303	1.274	1.361	1.317	1.315	1.325	1.327	1.307	1.345
2012Q1	1.313	1.316	1.349	1.319	1.289	1.382	1.335	1.333	1.342	1.343	1.358	1.430
2012Q2	1.321	1.325	1.354	1.323	1.293	1.388	1.340	1.339	1.348	1.349	1.361	1.405

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2012Q3	1.305	1.314	1.339	1.311	1.277	1.375	1.325	1.324	1.333	1.334	1.346	1.393
2012Q4	1.339	1.341	1.373	1.345	1.311	1.411	1.360	1.359	1.367	1.368	1.388	1.438
2013Q1	1.340	1.353	1.382	1.352	1.317	1.420	1.367	1.366	1.375	1.376	1.412	1.440
2013Q2	1.394	1.404	1.434	1.404	1.367	1.474	1.419	1.418	1.427	1.429	1.462	1.494
2013Q3	1.437	1.453	1.483	1.452	1.415	1.526	1.469	1.469	1.478	1.479	1.500	1.560
2013Q4	1.502	1.513	1.545	1.514	1.476	1.589	1.532	1.531	1.540	1.541	1.584	1.618
2014Q1	1.552	1.573	1.606	1.571	1.533	1.651	1.591	1.590	1.600	1.601	1.627	1.668
2014Q2	1.586	1.603	1.637	1.599	1.561	1.682	1.621	1.620	1.630	1.631	1.669	1.714
2014Q3	1.623	1.641	1.675	1.640	1.598	1.723	1.660	1.659	1.670	1.671	1.675	1.739
2014Q4	1.681	1.693	1.731	1.694	1.653	1.781	1.716	1.715	1.726	1.726	1.767	1.801

Note: The hedonic methods are again as follows: RP1 = Repricing without updating; RP2 = Repricing where the base period is updated every five years; RP3 = Repricing where the base period is updated every year; AC = Average characteristics; Double imputation Laspeyres = DIL; Double imputation Paasche = DIP; Double imputation Törnqvist = DIT; RTD2Q = Rolling time dummy with a 2 quarter rolling window; RTD4Q and RTD5Q have 4 and 5 quarter rolling windows; The stratified median methods are as follows: MIX-PC = Mix adjusted stratified by postcode; MIX-RX = Mix adjusted stratified by Residex region. Period: 2002-2014.
Coverage: Apartments in Sydney, Australia.
Sources: Australian Property Monitors; authors' calculations.

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Table C3-3
Estimates of Price Indices for Apartments in Tokyo (1986Q4=1), according to different methods

	RP1(qd)	RP1	RP2	RP3	AC	DIL	DIP	DIT	RTD2Q	RTD4Q	RTD5Q	MIX
1986Q4	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1987Q1	1.181	1.180	1.180	1.223	1.175	1.179	1.169	1.174	1.173	1.185	1.190	1.175
1987Q2	1.336	1.336	1.336	1.331	1.338	1.326	1.332	1.329	1.329	1.346	1.347	1.339
1987Q3	1.383	1.384	1.384	1.363	1.372	1.366	1.382	1.374	1.374	1.397	1.395	1.382
1987Q4	1.302	1.302	1.302	1.280	1.304	1.295	1.306	1.301	1.300	1.318	1.316	1.390
1988Q1	1.267	1.268	1.268	1.249	1.284	1.265	1.272	1.268	1.267	1.285	1.282	1.324
1988Q2	1.269	1.268	1.268	1.235	1.268	1.252	1.260	1.256	1.256	1.272	1.272	1.275
1988Q3	1.272	1.269	1.269	1.240	1.283	1.259	1.265	1.262	1.262	1.279	1.278	1.236
1988Q4	1.310	1.311	1.311	1.273	1.313	1.289	1.292	1.291	1.291	1.309	1.307	1.360
1989Q1	1.377	1.382	1.382	1.356	1.394	1.367	1.368	1.367	1.368	1.387	1.384	1.434
1989Q2	1.438	1.446	1.446	1.419	1.460	1.427	1.429	1.428	1.429	1.449	1.446	1.501
1989Q3	1.522	1.533	1.533	1.502	1.541	1.510	1.513	1.511	1.512	1.534	1.531	1.620
1989Q4	1.690	1.703	1.703	1.644	1.683	1.647	1.652	1.650	1.650	1.676	1.674	1.741
1990Q1	1.844	1.858	1.858	1.774	1.815	1.778	1.784	1.781	1.782	1.812	1.811	1.898
1990Q2	1.875	1.889	1.889	1.809	1.852	1.814	1.821	1.818	1.819	1.851	1.850	1.935
1990Q3	1.847	1.866	1.866	1.806	1.846	1.809	1.816	1.813	1.814	1.846	1.844	1.866
1990Q4	1.729	1.740	1.740	1.689	1.730	1.697	1.702	1.699	1.700	1.729	1.727	1.693
1991Q1	1.670	1.685	1.685	1.651	1.693	1.656	1.660	1.658	1.659	1.688	1.686	1.650
1991Q2	1.632	1.647	1.647	1.616	1.657	1.622	1.627	1.624	1.625	1.653	1.651	1.633
1991Q3	1.571	1.585	1.585	1.573	1.614	1.580	1.584	1.582	1.583	1.609	1.608	1.615
1991Q4	1.491	1.505	1.505	1.483	1.520	1.486	1.491	1.489	1.490	1.516	1.514	1.461
1992Q1	1.441	1.455	1.471	1.449	1.487	1.454	1.460	1.457	1.458	1.483	1.481	1.493
1992Q2	1.396	1.412	1.432	1.411	1.446	1.416	1.419	1.418	1.418	1.442	1.440	1.461
1992Q3	1.357	1.372	1.388	1.367	1.402	1.372	1.376	1.374	1.374	1.398	1.396	1.409
1992Q4	1.297	1.311	1.329	1.310	1.340	1.311	1.316	1.314	1.314	1.338	1.336	1.373
1993Q1	1.264	1.282	1.299	1.280	1.308	1.281	1.286	1.284	1.284	1.307	1.306	1.322
1993Q2	1.238	1.257	1.279	1.259	1.287	1.260	1.266	1.263	1.263	1.285	1.284	1.282
1993Q3	1.185	1.210	1.244	1.227	1.254	1.227	1.232	1.230	1.230	1.251	1.249	1.246
1993Q4	1.168	1.186	1.216	1.197	1.225	1.199	1.204	1.202	1.202	1.223	1.221	1.211
1994Q1	1.123	1.143	1.179	1.161	1.188	1.162	1.168	1.165	1.165	1.186	1.184	1.205
1994Q2	1.098	1.118	1.152	1.128	1.157	1.132	1.136	1.134	1.134	1.154	1.153	1.162
1994Q3	1.047	1.071	1.114	1.091	1.117	1.094	1.098	1.096	1.096	1.115	1.114	1.152
1994Q4	0.988	1.012	1.058	1.038	1.061	1.038	1.043	1.041	1.041	1.059	1.058	1.103
1995Q1	0.931	0.954	0.998	0.981	1.004	0.981	0.987	0.984	0.984	1.002	1.000	1.019
1995Q2	0.875	0.901	0.945	0.925	0.945	0.924	0.929	0.927	0.927	0.943	0.942	0.977
1995Q3	0.828	0.853	0.901	0.882	0.901	0.881	0.885	0.883	0.883	0.899	0.898	0.932
1995Q4	0.798	0.826	0.878	0.860	0.879	0.860	0.862	0.861	0.861	0.876	0.875	0.906
1996Q1	0.786	0.816	0.877	0.861	0.879	0.860	0.862	0.861	0.861	0.876	0.876	0.904
1996Q2	0.776	0.810	0.871	0.854	0.870	0.853	0.854	0.853	0.853	0.868	0.867	0.934
1996Q3	0.771	0.804	0.868	0.850	0.867	0.849	0.849	0.849	0.849	0.864	0.863	0.900
1996Q4	0.754	0.791	0.858	0.847	0.864	0.846	0.846	0.846	0.846	0.860	0.860	0.884
1997Q1	0.753	0.794	0.861	0.850	0.867	0.848	0.848	0.848	0.848	0.862	0.862	0.864
1997Q2	0.734	0.775	0.843	0.833	0.847	0.829	0.831	0.830	0.830	0.844	0.844	0.839
1997Q3	0.737	0.777	0.836	0.826	0.842	0.823	0.825	0.824	0.824	0.838	0.838	0.880
1997Q4	0.722	0.765	0.821	0.811	0.825	0.807	0.808	0.808	0.808	0.821	0.821	0.843
1998Q1	0.716	0.757	0.811	0.802	0.815	0.797	0.799	0.798	0.798	0.811	0.811	0.825
1998Q2	0.693	0.740	0.801	0.791	0.803	0.785	0.787	0.786	0.786	0.799	0.799	0.817

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	RP1(qd)	RP1	RP2	RP3	AC	DIL	DIP	DIT	RTD2Q	RTD4Q	RTD5Q	MIX
1998Q3	0.680	0.722	0.784	0.775	0.787	0.769	0.772	0.771	0.771	0.784	0.783	0.833
1998Q4	0.676	0.718	0.773	0.764	0.775	0.757	0.761	0.759	0.759	0.771	0.771	0.811
1999Q1	0.667	0.712	0.770	0.760	0.771	0.753	0.756	0.754	0.754	0.767	0.766	0.821
1999Q2	0.651	0.699	0.763	0.754	0.764	0.745	0.749	0.747	0.747	0.760	0.760	0.813
1999Q3	0.637	0.685	0.748	0.739	0.748	0.731	0.735	0.733	0.733	0.746	0.745	0.780
1999Q4	0.641	0.688	0.741	0.730	0.740	0.723	0.727	0.725	0.725	0.737	0.736	0.800
2000Q1	0.639	0.686	0.731	0.721	0.732	0.713	0.716	0.715	0.715	0.727	0.726	0.748
2000Q2	0.617	0.670	0.731	0.720	0.727	0.711	0.712	0.712	0.712	0.724	0.724	0.799
2000Q3	0.628	0.677	0.724	0.714	0.723	0.706	0.709	0.707	0.707	0.720	0.719	0.761
2000Q4	0.616	0.668	0.715	0.705	0.712	0.695	0.699	0.697	0.696	0.709	0.709	0.751
2001Q1	0.605	0.661	0.719	0.707	0.714	0.696	0.701	0.699	0.698	0.711	0.710	0.785
2001Q2	0.609	0.663	0.710	0.702	0.710	0.690	0.696	0.693	0.693	0.705	0.705	0.765
2001Q3	0.605	0.665	0.716	0.707	0.714	0.693	0.699	0.696	0.696	0.709	0.708	0.785
2001Q4	0.607	0.665	0.715	0.706	0.712	0.692	0.698	0.695	0.695	0.707	0.706	0.778
2002Q1	0.599	0.660	0.716	0.707	0.713	0.693	0.699	0.696	0.696	0.709	0.708	0.790
2002Q2	0.603	0.665	0.718	0.709	0.715	0.694	0.700	0.697	0.697	0.710	0.709	0.781
2002Q3	0.588	0.651	0.720	0.711	0.718	0.696	0.703	0.699	0.699	0.713	0.712	0.791
2002Q4	0.594	0.661	0.726	0.717	0.723	0.701	0.708	0.705	0.704	0.718	0.717	0.787
2003Q1	0.583	0.648	0.715	0.706	0.711	0.689	0.698	0.694	0.693	0.706	0.706	0.781
2003Q2	0.591	0.652	0.716	0.707	0.712	0.689	0.700	0.694	0.694	0.708	0.707	0.800
2003Q3	0.594	0.666	0.725	0.716	0.719	0.697	0.709	0.703	0.703	0.716	0.715	0.761
2003Q4	0.600	0.667	0.723	0.715	0.720	0.698	0.707	0.702	0.702	0.715	0.714	0.768
2004Q1	0.587	0.658	0.718	0.709	0.713	0.693	0.701	0.697	0.697	0.709	0.708	0.763
2004Q2	0.608	0.669	0.730	0.722	0.727	0.706	0.714	0.710	0.710	0.723	0.722	0.824
2004Q3	0.608	0.673	0.728	0.718	0.722	0.701	0.711	0.706	0.706	0.719	0.718	0.878
2004Q4	0.617	0.681	0.734	0.725	0.729	0.707	0.717	0.712	0.712	0.725	0.724	0.848
2005Q1	0.622	0.687	0.738	0.729	0.734	0.712	0.721	0.717	0.717	0.729	0.728	0.850
2005Q2	0.624	0.689	0.744	0.734	0.737	0.717	0.726	0.721	0.721	0.734	0.733	0.859
2005Q3	0.623	0.691	0.757	0.746	0.747	0.726	0.737	0.732	0.731	0.745	0.744	0.874
2005Q4	0.638	0.709	0.766	0.754	0.757	0.734	0.748	0.741	0.741	0.754	0.753	0.880
2006Q1	0.646	0.717	0.769	0.760	0.764	0.741	0.754	0.747	0.747	0.760	0.759	0.915
2006Q2	0.645	0.724	0.787	0.777	0.780	0.757	0.771	0.764	0.764	0.776	0.775	0.900
2006Q3	0.683	0.762	0.822	0.812	0.816	0.791	0.805	0.798	0.798	0.811	0.810	0.908
2006Q4	0.708	0.794	0.848	0.839	0.844	0.818	0.831	0.825	0.824	0.838	0.837	0.952
2007Q1	0.744	0.823	0.873	0.863	0.868	0.842	0.857	0.850	0.849	0.864	0.862	1.005
2007Q2	0.776	0.856	0.910	0.901	0.908	0.878	0.895	0.887	0.886	0.901	0.899	1.053
2007Q3	0.791	0.873	0.921	0.911	0.918	0.887	0.906	0.897	0.896	0.911	0.910	1.085
2007Q4	0.810	0.888	0.925	0.915	0.922	0.891	0.909	0.900	0.899	0.914	0.913	1.136
2008Q1	0.826	0.899	0.929	0.919	0.927	0.895	0.913	0.904	0.903	0.918	0.917	1.121
2008Q2	0.797	0.871	0.912	0.903	0.910	0.881	0.898	0.889	0.889	0.903	0.901	1.069
2008Q3	0.765	0.851	0.886	0.876	0.880	0.852	0.874	0.863	0.862	0.875	0.874	1.040
2008Q4	0.749	0.832	0.863	0.853	0.856	0.827	0.852	0.839	0.839	0.852	0.851	0.950
2009Q1	0.734	0.815	0.846	0.835	0.840	0.806	0.837	0.821	0.821	0.833	0.832	0.954
2009Q2	0.738	0.819	0.849	0.839	0.845	0.808	0.840	0.824	0.824	0.835	0.835	0.967
2009Q3	0.754	0.841	0.872	0.861	0.869	0.830	0.862	0.846	0.846	0.858	0.858	0.986
2009Q4	0.778	0.858	0.887	0.878	0.884	0.847	0.878	0.862	0.862	0.875	0.875	1.013
2010Q1	0.782	0.874	0.909	0.895	0.902	0.865	0.896	0.880	0.881	0.894	0.894	0.976
2010Q2	0.778	0.874	0.915	0.904	0.909	0.874	0.904	0.889	0.889	0.903	0.903	0.994
2010Q3	0.767	0.876	0.930	0.918	0.922	0.885	0.919	0.902	0.902	0.917	0.917	1.005
2010Q4	0.774	0.873	0.927	0.916	0.923	0.883	0.918	0.901	0.901	0.915	0.915	0.976
2011Q1	0.809	0.907	0.931	0.915	0.921	0.884	0.918	0.901	0.902	0.916	0.916	1.012
2011Q2	0.771	0.871	0.906	0.890	0.892	0.856	0.895	0.875	0.878	0.891	0.890	0.974
2011Q3	0.732	0.843	0.901	0.887	0.893	0.853	0.899	0.876	0.876	0.888	0.887	0.961

An evaluation of the methods used by European countries to compute their official house price indices*

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Compléments en ligne / Online complements

	RP1(qd)	RP1	RP2	RP3	AC	DIL	DIP	DIT	RTD2Q	RTD4Q	RTD5Q	MIX
2011Q4	0.733	0.834	0.891	0.882	0.890	0.850	0.894	0.871	0.871	0.883	0.882	0.962
2012Q1	0.739	0.841	0.882	0.873	0.881	0.842	0.883	0.862	0.862	0.874	0.873	0.935
2012Q2	0.720	0.828	0.874	0.865	0.871	0.834	0.874	0.854	0.854	0.865	0.865	0.935
2012Q3	0.723	0.830	0.871	0.862	0.868	0.830	0.872	0.851	0.850	0.862	0.862	0.939
2012Q4	0.693	0.801	0.872	0.863	0.870	0.831	0.873	0.851	0.851	0.863	0.863	0.926
2013Q1	0.708	0.812	0.880	0.870	0.878	0.838	0.880	0.859	0.859	0.871	0.871	0.962
2013Q2	0.735	0.843	0.895	0.886	0.893	0.852	0.897	0.874	0.874	0.887	0.886	0.981
2013Q3	0.758	0.869	0.917	0.909	0.918	0.875	0.920	0.897	0.897	0.910	0.909	1.035
2013Q4	0.777	0.880	0.936	0.926	0.935	0.892	0.935	0.913	0.913	0.927	0.926	1.039
2014Q1	0.791	0.900	0.948	0.939	0.949	0.905	0.948	0.926	0.926	0.940	0.938	1.060
2014Q2	0.795	0.910	0.971	0.959	0.970	0.926	0.969	0.947	0.947	0.961	0.960	1.058
2014Q3	0.815	0.938	0.994	0.982	0.993	0.949	0.991	0.970	0.970	0.984	0.983	1.072
2014Q4	0.840	0.951	1.007	0.997	1.008	0.962	1.007	0.984	0.984	0.999	0.998	1.089
2015Q1	0.850	0.964	1.026	1.014	1.027	0.980	1.024	1.002	1.002	1.016	1.014	1.122
2015Q2	0.895	1.007	1.061	1.052	1.065	1.017	1.062	1.039	1.039	1.054	1.053	1.173
2015Q3	0.908	1.026	1.091	1.081	1.094	1.044	1.092	1.068	1.068	1.083	1.082	1.224
2015Q4	0.918	1.036	1.108	1.093	1.107	1.057	1.104	1.080	1.081	1.096	1.094	1.232
2016Q1	0.924	1.038	1.111	1.096	1.111	1.060	1.108	1.084	1.084	1.100	1.099	1.250
2016Q2	0.947	1.067	1.136	1.123	1.138	1.085	1.134	1.109	1.110	1.125	1.125	1.274

Note: The hedonic methods are as follows: RP1 (qd) = Repricing without updating where the impact of age and time to Tokyo central station are modelled using quadratics; RP1 = Repricing without updating; RP2 = Repricing where the base period is updated every five years; RP3 = Repricing where the base period is updated every year; AC = Average characteristics; Double imputation Laspeyres = DIL; Double imputation Paasche = DIP; Double imputation Törnqvist = DIT; RTD2Q = Rolling time dummy with a 2 quarter rolling window; RTD4Q and RTD5Q have 4 and 5 quarter rolling windows; the stratified median method is: MIX = Mix adjusted stratified by ward. Period: 1986-2016.

Coverage: Apartments in Tokyo, Japan.

Sources: Residential Information Weekly (RECRUIT, Co); authors' calculations.