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Stock of non-resident owned dwellings in Spain¹

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¹ This paper was prepared for the meeting. The views expressed are those of the authors and do not necessarily reflect the views of the BIS, the IFC or the central banks and other institutions represented at the meeting.

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Work in progress to measure the stock of non-resident owned housing in Spain

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Abstract

The investment in real estate by non-residents has been a rising phenomenon during the past couple of decades, especially across European countries. Tourist destinations have been particularly affected, as is the case of Spain, where around 10% of total house purchases is currently by non-residents. Nevertheless, this phenomenon is not easy to measure, and the entry into force of the Single Euro Payments Area made Spain abandon the methodology in place to identify these transactions. New reporting standards, geared to corporations' operations, made it difficult to capture real-estate stocks and flows with significantly lower values. Therefore, data collection schemes had to be complemented with other sources that are not free from difficulties either. Our current investigation pivots on Tourism primary statistics that identify owners by the number of travellers staying at their own dwellings; the valuation is made through administrative records. The methods considered are examined in the context of the International (Balance of Payments and International Investment Position) and National Accounts framework.

Keywords: residential real estate, household housing wealth, dwellings, non-residents, international investment position, balance of payments, Spain

JEL classification: C82; E01; R21; R31

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1. Introduction

The purchase of a house in a country other than that of residence is a phenomenon that has risen in recent decades, encouraged by the improvement in economic well-being and worldwide labour mobility, which is especially relevant in the European Union. In Spain this market has developed significantly, it has been revitalised in recent years and is closely related to the demand for tourist homes.

This paper presents the work in progress to measure the value of the stock of residential real estate located in Spain and owned by non-resident households based on Tourism primary statistics. The research is motivated by the lack of specific information on the phenomenon, given the relevance that it has acquired.

The work required the elaboration of a thorough inventory of the related available data sources, and was developed in close collaboration with the National Statistics Institute (INE by its Spanish abbreviation), in respect of the advice on the sources and methods to be used, following principles of efficiency and consistency of the Spanish statistical infrastructure. In this respect, the method described makes an intensive use of the primary statistics available and guarantees consistency between International (IA) and National Accounts (NA).

The paper is organised as follows. Section 2 reviews the statistical treatment of non-resident owned dwellings. The third section presents some figures on the significance of this type of investment in Spain. Section 4 summarises the compilation of the Balance of Payments and International Investment Position Statistics in Spain, with a focus on this specific topic. Section 5 compiles an inventory of the related data sources. The sixth section explains the estimation method under study. And finally, section 7 draws some conclusions and offers some reflexions.

2. Statistical treatment

The recording of stocks and flows related to ownership of second homes abroad in the IA and NA framework should be discussed on the basis of fundamental macroeconomic concepts. Firstly, the economic values involved: the dwelling, the provision and consumption of services, and the related income flows. Secondly, the actors involved: the owner and the occupier, who are often the same. And finally, the related transactions or processes: buying, selling, rental and occupation.

To summarise, any **dwelling** is regarded as an economic asset or factor of production in its capacity to contribute to the production of dwelling services consumed by its occupiers, and this output is supposed to be allocated to the country where the house is physically situated. Thus, this asset will be recorded in the National Balance Sheet of the country of location in any case and, whenever the rest of the world is involved, it will also give rise to a liability in the International Investment Position (IIP).

Focusing on non-resident owners of dwellings, two cases can be distinguished:

- The dwelling is owned by the non-resident through a legal entity that is resident in the country where the house is situated. In this case the ownership is represented by holdings in the capital of the legal entity in hands of the non-resident and it is recorded in the IIP as a financial asset of the owner, either as Direct investment or as Portfolio investment, depending on the economic motivations and patterns of behaviour.
- The dwelling is directly owned by a non-resident. In this case it should be noted that, according to international statistics standards, non-residents do not directly own homes located in another country and a notional unit is deemed to exist that owns the house. In general, if a non-resident unit has a long-term lease on an immovable asset such as a building, this is associated with it undertaking production in the economy where it is located. The non-resident unit is treated, therefore, as the owner of the notional resident unit and not of the building, which is owned by the economy where it is located. In this case, the asset would be recorded in the IIP of the owner as Direct investment abroad.

As regards the **provision and consumption of dwelling services**, there could be two possible situations depending on the occupier of the dwelling. It is assumed that the dwelling is situated in country A and the owner in country B:

- The occupier and owner of the dwelling are not the same person. If it is occupied by a resident in country A, the use is recorded as household final consumption expenditure in the NA of country A. If it is occupied by a non-resident in country A, the dwelling services will have to be recorded in the BP as an export of travel services by country A (and an import by the country of residency of the occupier matched by household final consumption in the NA of the same country).
- The occupier and owner of the dwelling are one and the same person. In this case, for the period the dwelling is occupied, a debit in Direct investment income in the Balance of Payments (BP) of country A is imputed (a credit in country B), which in turn is used to pay rental services recorded as an export of travel services in the BP of the same country (an import in country B). This treatment guarantees no impact on the net lending/net borrowing of the nation, as the increase in investment income payments/receipts is compensated by an equivalent increase in travel services receipts/payments.

As already mentioned, the dwelling is considered a factor of production so that it contributes to generating **income** for its owner. Thus, in those cases where the dwelling is owned by a non-resident, an income flow from the country where the property is established to the owner country has to be recorded in the BP and the NA whenever the house is occupied, either by the owner or by another agent. In particular, the country where the property is located will impute a debit in the Primary income (Direct investment income in BP and Property income in NA).

It should be emphasised that, by definition, a second home is not occupied full-time by its owner and in many cases is inhabited for long periods of time. This causes effects in income and consumption. Without production of dwelling services the generation of income to the owner will not be possible, and nor will consumption take place.

It is also worth noting that in this specific case of second homes abroad the implementation of the residency criteria poses many difficulties, because it often involves highly mobile individuals that have close connections with two or more

territories, and because factors such as location of dwellings, employment, citizenship, migration status, income tax status or location of dependent family members may point to different economies. This issue, as we will see in the following sections, is relevant when exploring the approaches available.

3. Investment in real estate in Spain

The real estate sector in Spain has been an engine of the economy for many years, and although the economic crisis greatly affected this sector, the latest indicators show renewed dynamism in this market with the significant participation of international investors.

The housing stock estimates made by the Ministry of Public Works accounted for 25.6 million dwellings in Spain in 2016, of which 26% (6.5 million houses) were non-main dwellings (empty houses or secondary residences). These non-main dwellings are concentrated on the Mediterranean and Southern Coasts (Catalonia, Community of Valencia, Murcia and Andalusia), accounting for more than half of the non-main dwellings.

Statistics compiled by the General Council of Notaries paint a similar picture, with the number of purchases made by foreigners growing at a rate of 10% in both 2016 and 2017, and the purchases made by non-resident foreigners at 9% and 8% in 2016 and 2017, respectively, resulting in a total number of 46,894 transactions by non-resident foreigners, and 53,200 by resident foreigners in 2017.

Two-thirds of the total purchases were made by Community citizens, most notably from the United Kingdom (14.3% of total purchases), France (8.4%), Germany (8.1%) and Romania (6.8%). Outside the European Union (EU) the main buyers were from Morocco (5.7%), China (5.2%) and Russia (3.1%).

Furthermore, according to Tourism basic statistics² 4.9 million travellers that entered our country in 2017 stayed at their own house, 6% of the total. They were mostly from EU countries (27% from the United Kingdom, 19% from France, 13% from Germany, 6% from Belgium, 5% from the Netherlands), and staying in Community of Valencia (31%), Andalusia (19%), Catalonia (17%) and the Balearic and Canary Islands (13% and 8%).

Finally, the Banco de España (BE by its Spanish abbreviation) estimates in its '*housing market indicators*'³ that the number of dwellings in Spain is 25.1 million in 2016, 1.36 per household, of which 77.1% are owner-occupied, 16.3% rented, and 6.5% free-let and other; household real-estate wealth is estimated to represent 425.6% of GDP in 2017 (78% of total household wealth).

² Source: National Statistics Institute (INE), *Tourist Movement on Borders Survey-FRONTUR*.

³ https://www.bde.es/webbde/es/estadis/infoest/si_1_5e.pdf

Time-sharing agreements

The popularity of time-sharing peaked in Spain in the 1990s. Some studies ranked Spain as the country with the second-highest number of time-share units after the USA. On the information provided to us by the EGATUR tourism expenditure survey, which includes a question on the type of accommodation used by tourists, it was observed that in 2016 and 2017 around 400,000 tourists stayed in time-share units, representing around 0.5% of total tourists and 2.5% of those staying in non-market accommodation.

Time-sharing works on the basis of an agreement under which each participant uses a dwelling for a certain period of time. Spanish legislation (Law 4/2012) considers inappropriate the Spanish term “*multipliedad*” (literally “multiple ownership”), and refers to this phenomenon as “rights to use immovable property in turn, particularly for tourism purposes”. The law stipulates that housing units held in Spain under a time-share scheme must be included in a public deed and registered in the real estate registry. In this registry it must be clearly stated who is the “original” owner (the person who sells that usage right), from which it follows that what is exercised over the housing unit is a usage right, rather than ownership. It is not a case of ownership of real estate, because a housing unit cannot be “purchased” as a time-share scheme.

Based on the above, it is considered that time-sharing should not be included in the stock of housing of non-residents in Spain, since, as mentioned above, what is purchased is a usage right, rather than ownership of the housing unit. According to ‘*Table 10.3. Treatment of Alternative Time-Share Arrangements*’ in the Balance of Payments and International Investment Position Manual (BPM6), payments for rights to use are equivalent to prepaying for accommodation services (recorded in trade credit and advances); after initial acquisition, the prepayment is drawn down, and imputed accommodation services should be recorded in travel.

4. Balance of Payments and International Investment Position statistics in Spain

The BE has been responsible for compiling the BP since 1991. In the early 1990s a closed data collection system was put in place that covered almost all the transactions with the rest of the world. This system was based on two pillars: data from financial entities registered with BE and direct reporting. In the case of registered financial entities, deposit institutions reported to BE all transactions with non-residents on their own account or that of their customers settled through the entity; and other financial entities reported to BE when they carried out transactions with non-residents on behalf of customers. In the case of external transactions settled through accounts abroad (accounts in credit institutions, mutual accounts, inter-company accounts and cash pooling) and compensation operations, the resident involved is obliged to report the external transactions directly to BE. This practice is commonly known as ITRS – International Transaction Reporting System.

Nevertheless, economic and financial integration led to an increasing number and complexity of transactions, making it more difficult to cover all the information needed without raising the cost of collecting data, both for compilers and reporters, and the quality of settlements statistics began to be questioned. Thresholds to declare individually the transactions were subsequently raised, to €12,500 in 2001 and to €50,000 euros in 2007; and other information sources were progressively added to improve the data reported through ITRS (Foreign Investment Register, Travel Survey, Money Transfer Operator, Depository Entities, etc.). Finally, the entry into force of the Single Euro Payments Area closed down the ITRS, which was replaced by a number

of different sources, with a more intense use of direct reporting and of administrative registers.

The case of residential real estate, together with other international transactions involving households, were particularly affected by the closing down of ITRS. The nature of real-estate operations and their lower transaction value compared to other financial flows made it difficult to capture them in the new reporting system oriented to corporations' operations.

The methodology that followed the ITRS, and that currently in place, relies on administrative data on transactions, taking purchases of real estate made by non-residents from the Ministry of Public Works, and sales from the Tax Authorities. The stock in the IIP is calculated by the accumulation of these transactions.

Nonetheless, the shortcomings of this method (the valuation of the stock at market prices, the lack of any anchor to reference the stock, or the use of fiscal residency, among others) led us to open an avenue of research to reconsider the estimation method, focusing on the stock level from which transactions, revaluations and other changes in volume could be derived.

As regards related income flows and the provision and consumption of accommodation services, explicit receipts and payments are reported to the BE through: a) the general data collection system for financial operations (which, as already mentioned, does not capture correctly household transactions of this kind); and b) the border spending survey EGATUR, which is the basic information source for the travel services recorded in the BP and in the NA. Concerning imputed accommodation services when the property is temporarily occupied by its owner, these flows are estimated by INE – NA Department and provided to BE. NA estimates combine information on overnight stays by travellers in their own home, average household size and average rental expenses in secondary homes. The information sources are the border spending survey EGATUR, data published by Eurostat on the size of households in the EU, the Household Expenditure Survey (EPF, by its Spanish abbreviation)⁴, and data from the Population and housing census and the Continuous Household Survey (ECH, by its Spanish abbreviation).

5 Data sources on real estate

This section offers an overview of the available real estate data sources, including those on which the study is based⁵.

1. General Council of Notaries. Includes information regarding all the purchase and sales carried out by a notary in the national territory on a quarterly basis, of both new and second-hand dwellings, and regardless of the form of payment, whether in cash or with credit. The information available includes the number of transactions, the purchase value, the average surface area and the average price

⁴ EPF data corrected against the purchasing power parity index of the main counterparty countries and the consumer price index.

⁵ Among the sources analysed not included in the estimation, the tax sources are still under analysis with the purpose of integrating them into the described methodology in the near future, either as a lower limit to the estimations, or as a tool to monitor transactions.

per square meter, identifying the location of the real estate, and the nationality and the fiscal residence of the purchaser.

2. Property Register. Provides information on the purchases and sales of residential real estate in the national territory recorded in the Property Register. The information available includes the number of transactions, the purchase value, the average surface area and the average price per square meter, identifying the location of the real estate and the nationality of the purchaser.
3. Ministry of Public Works.
 - a. Housing stock estimates for principal and non-principal dwellings. The main dwellings can be identified with the Labour Survey micro data compiled by INE.
 - b. Real estate transactions by fiscal residency of the buyer, using data provided by the General Council of Notaries.
4. Ministry of Finance.
 - a. Tax Agency. Non-residents, both individuals and entities, are taxed by the Income Tax of Non-residents (IRNR by its Spanish abbreviation). In particular, non-resident taxpayers who are natural persons, holders of urban real estate located in Spain, for their own use, and not affected by economic activities or vacated, are taxed for the imputed income of urban real estate for own use (form 210). The taxable base comprises the cadastral value of the assets, which features on the receipt of the tax on Real Property (IBI by its Spanish abbreviation). The BE requested Tax Agency data on the income from properties reported in form 210 in order to cross-check the information with that which the BE was using in its BP estimates. The steps followed in the study were: definition of the population framework, cross-checking with the cadastral information and breakdown of different groups of interest.
 - b. Real Estate Cadastre. This is an administrative record whose main purpose is to provide information for tax control. The cadastral description of the property includes a physical description of the real estate (location, surface area, use, cadastral value) and legal and economic characteristics of the owner (not including residency).
5. Ministry of Economic Affairs and Competitiveness - Foreign Investment Register. Covers foreign investments and disinvestments, above €1.5 million if Spanish abroad and €3 million if foreign in Spain; this threshold does not apply if their source or destination is a tax haven⁶. Royal Decree 664/1999, the Ministerial Order of 28 May 2001 and the Ministerial Resolution of 21 February 2002 make it compulsory to file the transactions and set a maximum time period of one month from the date of execution of the investment for reporting the information. The parties required to report Spanish investments abroad are natural persons resident in Spain (Spaniards or foreigners with domicile or principal residence in Spain) and legal persons with a registered office in Spain. The parties required to report foreign investments in Spain are natural persons not resident in Spain (Spaniards or foreigners, those domiciled abroad or who have their principal residence abroad) and legal persons with a registered office

⁶ As defined in Royal Decree 1080/91 of 5 July 1991.

abroad, and foreign sovereign government agencies. The Register offers information on: holder of the investment, country of residence of the holder, country of location of the real estate, type of real estate, end-use, right acquired/transferred, area (land or construction), location, cadastral reference, amount of the planned or implemented investment/settlement, type of settlement (full or partial).

6. National Statistics Institute (INE by its Spanish abbreviation).
 - a. Population and housing census 2011. Provides information on the characteristics of dwellings in Spain (average useful surface area of main dwellings).
 - b. Housing Price Index (IPV by its Spanish abbreviation). The IPV is a chained Laspeyres Index that collects information on housing sales recorded in the above-mentioned General Council of Notaries, which contains, among other data, the official prices for all of the purchases and sales occurring in Spanish territory, and correspond to the value of the property deed of the dwelling⁷.
 - c. Tourism primary statistics: described in section 6.1.

6. Estimation

The work in progress to measure the stock of non-resident owned dwellings in Spain pivots on Tourism primary statistics to identify the number of houses, and in particular in the travel surveys described below. The valuation is made through administrative records, which contain price information depending on the location of the dwelling.

This method does not cover commercial investments, which are of less relevance in Spain and are usually channelled indirectly via resident entities (that should not be recorded as investment in real estate in BP/IIP but as investment in equity, under the appropriate heading, which is generally Direct investment).

6.1 Tourism primary statistics

INE compiles Tourist Movement on Borders Survey (FRONTUR) and Tourist Expenditure Survey (EGATUR) with the aim of measuring the number of non-resident visitors who enter or leave Spain each month, disclosing the main characteristics of the trips (destination, accommodation type⁸, country of residence, purpose of travel, etc.) and determining how much tourists and same-day visitors spend.

⁷ All the notarial information is centralised and the Notarial Certification Agency is responsible for providing the data to the different users, among which INE.

⁸ Types of accommodation: Market (paid accommodation fee): (a) Hotel or aparthotel; (b) Lodge, hostel, motel, inn, guest house; Holiday apartments; (c) Full dwelling rental; (d) Rented rooms in private homes, (e) Rural tourism accommodation; (f) Hostel; (g) Camp Site; (h) Cruise ship; (g) Other Collective accommodation. Non-Market (unpaid accommodation): (i) Owner-occupied dwelling; (j) Dwelling of family or friends (free); (k) Shared-use dwelling (timeshare); (l) House-Exchange; (m) Other non-market accommodations

The population under study consists of non-residents in Spain who enter or leave our country whether or not they have stayed overnight, and those who pass through our country in transit. The theoretical population framework consists of people (residents and non-residents) crossing the borders into Spain. There is no framework for selecting the sample in the traditional sense used in sample surveys. Given this particularity, the hypothesis of considering the population scope as matching the sample design population frame was taken as a starting point. When defining the sample design population frame, various sources of information and administrative records are used, according to the means of entering our country (whether travellers arrive by road, airport, port or rail). This is the basis used for estimating flows of entry into Spain. The total of non-resident travellers in Spain is estimated using the FRONTUR survey and this information is in turn used to obtain the population which will be used to calculate data for the EGATUR survey (which provides information on tourism expenditure of non-resident visitors).

Although the information for grossing up the data corresponds to the data on entries into Spain; the surveys are conducted when travellers leave the country (for operational reasons and because more information is available ex-post), thus considering that the population under study is made up of non-resident visitors who leave Spain during the month under study by any of the four entry/departure routes.

This survey has the advantage of having a residence criterion that fits the practical rule recommended by statistical standards, i.e. being present for one year or more in a territory, as opposed to tax and administrative resources with fiscal residence criteria. Moreover, it is important to note that this survey is used by NA for the estimation of imputed accommodation services, and therefore helps provide for consistency between both estimations. Finally, it should be highlighted that Tourism primary statistics fall under an EU regulation that guarantees their quality and availability.

6.2 Number of dwellings

The number of dwellings in Spain owned by non-residents is approximated by the number of travellers that stay at their own house when visiting the country, in any of the stages of their trip⁹.

To this end, some adjustments have to be made in order to move from the number of visitors' entries to the number of dwellings to ensure that every house is only counted once. First, we have to correct for the times the same tourist enters our country (frequency); and second, we have to adjust for the number of tourists staying in the same dwelling (size of the group).

Frequency

The framework for the estimation is the natural year, to ensure that all the population is covered regardless of when they enter the country; therefore, a transformation is needed to convert monthly into yearly data.

To avoid counting more than once the same tourist who enters repeatedly at different times of the year, the number of tourists is divided by the times they stay

⁹ If the tourists stay in their own dwelling in more than one stage of their trip, every stage is included as long as they are not in the same location.

they enter the country: the number of tourists visiting Spain quarterly will be divided by 4, those who come once a semester divided by 2, and so on, and those who come once a year would not need any adjustment.

Problems arise when tourists visit Spain for the first time and the future frequency is unknown, in which case they are assumed to visit Spain yearly. When tourists declare they enter Spain less than once a year, it is assumed they come every two years, and a multiple of 2 is applied.

Size of the group

The number of tourists is adjusted for the number of people they travel with, assuming that each group is staying in the same house. Various alternatives were considered, based on what tourists report when asked about the size of the group they travel with or on other statistics: (i) the size of the group reported by tourists resulted in a final adjustment equivalent to a size of 1.8 to 2.1 people per dwelling (final adjustment from 0.48 to 0.55) depending on the year; (ii) the average size of the group, equivalent to a size of 2.07 to 2.7 people (final adjustment 0.37-0.48) depending on the year; (iii) the average size of the group was 2.2 for the whole period 2004-2017 (adjustment of 0.45); (iv) the median group was 2 in every year (adjustment of 0.5); (v) and the average size of the European household was 2.3 people as from 2014¹⁰ (adjustment of 0.43).

The chosen adjustment is the size of the household in the EU published by Eurostat, as this is a more conservative approach (the resulting number of houses would be lower). It is consistent with NA estimates on imputed accommodation services included in travel, it is not subject to abrupt fluctuations, and it is an appropriate measure to characterise the households that tend to buy properties in Spain, i.e. families from the EU.

6.3 Estimated average price of houses

According to international standards, the valuation of dwellings should be made at market prices at each moment in time. Various options were considered, including direct and indirect estimations: a direct estimation by defining the average price per house based on purchase prices recorded by the General Council of Notaries and the Property Register; and an indirect estimation based on average surface area per house and average price per square meter. In all cases the geographical situation of the dwelling was considered in regional (Autonomous Community) terms.

Direct estimation

The General Council of Notaries includes information regarding all the purchase and sales carried out in the national territory on a quarterly basis, of both new and second-hand dwellings, and regardless of the form of payment, whether in cash or with credit.

The Property Register compiles the Real Estate Registry Statistics, which count on the participation of practically all Spanish Property Registries (1,102 offices distributed throughout Spanish territory). It includes in practice all mortgage transfers and originations registered in the Spanish Property Registries. However, although the

¹⁰ Average household size for the European Union current composition (EU28) from EU-SILC survey, 2.3 people since 2014, 2.4 people from 2008 to 2013.

registration of the sale in the property registry is advisable, it is not mandatory; the purchaser need not register it in the registry, or may do so after the deed of sale.

Average residential real estate price

2016 data in euro

Table 1

	Option 1	Option 2	Option 3.1	Option 3.2	Option 3.3	Option 3.4	% of tourists in own dwellings
Surface area data	Notaries	Property Register	Census	Census	Property Register	Property Register	
Price data	Notaries	Property Register	Ministry Public Works	Notaries	Ministry Public Works	Notaries	
Weighted total	144,853	137,743	173,172	160,284	137,504	127,143	
Andalusia	127,833	124,297	148,610	137,861	123,447	114,518	24%
Aragon	103,633	107,169	137,989	108,755	112,298	88,507	1%
Asturias	106,367	103,048	134,565	108,741	109,731	88,673	1%
Balearic Islands	268,184	221,044	270,491	279,702	217,480	224,886	12%
Canary Islands	127,306	120,770	160,091	163,230	113,858	116,090	11%
Cantabria	128,157	131,997	173,079	133,111	136,001	104,595	1%
Castile-Leon	92,955	98,452	129,530	89,592	111,812	77,338	1%
Castile-La Mancha	88,026	83,754	121,664	87,757	107,896	77,826	0%
Catalonia	167,542	165,970	200,756	176,694	162,368	142,907	16%
Valencia	108,103	108,219	146,323	128,069	111,604	97,681	25%
Extremadura	74,786	73,103	112,550	69,420	100,504	61,990	0%
Galicia	106,343	109,393	155,304	112,200	121,882	88,054	1%
Madrid	200,294	202,073	246,169	213,475	206,219	178,830	2%
Murcia	94,065	96,776	124,524	106,207	101,995	86,992	5%
Navarre	135,077	132,207	166,126	153,507	135,551	125,254	0%
Basque Country	195,944	205,046	253,259	231,671	204,550	187,114	1%
Rioja	102,002	93,402	127,354	106,970	106,192	89,195	0%

Indirect estimation

To complement and check the accuracy of the data provided by the General Council of Notaries and the Property Register, a reconstruction through available sources on average surface area and average price per square meter was made.

Combinations 3.1 and 3.2 (see table 1) were based on the average surface area available in the Census conducted by INE in 2011 and average prices per square meter provided by the Ministry of Public Works and The General Council of Notaries.

Combinations 3.3 and 3.4 were based on average surface area reported in the Property Register and prices provided by the Ministry of Public Works and The General Council of Notaries.

Table 1 shows the results of all the approximations for the year 2016. Combinations based on the Census provided significantly higher prices than the alternatives proposed; estimates based on average surface area reported by the Property Register were in line, but below direct estimates. Comparing data from notaries and property registers, both showed similar figures, these being slightly higher in the case of notaries.

Finally, the valuation obtained from the notary register was considered the most appropriate, because it corresponds to the value of the property deed of the dwelling, not the appraisal, it is used by INE to construct the IPV and there is no lag between the formalisation of the operation and the date of registration, as is the case with the Property Register.

5.3 Results

The final calculation of the housing stock assigns to the number of dwellings identified by means of the tourist surveys an average annual value per location of the property.

In the validation process, some volatility was observed in the number of dwellings, reflecting an erratic evolution at certain moments in time. To correct the volatility the reference period for the questionnaire was extended from 1 calendar year to 24 months using moving averages.

Concerning average house prices, the level and evolution of the data provided by the General Council of Notaries was consistent with all the other information sources consulted, and no adjustment was made for the time series.

The results of the exercise with the specifications detailed above showed a final stock of approximately 1 million dwellings in 2017, valued at over €160 billion. Developments in the period under study (2004–2017) and the adjustments made to correct for volatility are shown in table 2.

Results

Considering European household size and General Council of Notaries prices

Table 2

Year	Number of dwellings				Average price (€, weighted)		Stock at market prices (€m)			
	Unadjusted	% y-o-y	24-month moving average	% y-o-y	% y-o-y		Unadjusted	% y-o-y	Based on the moving average	% y-o-y
2004	1,128,441		1,128,441		140,534		158,584		158,584	
2005	1,079,307	-4%	1,103,874	-2%	161,202	15%	175,647	11%	177,946	12%
2006	1,061,571	-2%	1,070,439	-3%	179,523	11%	189,250	8%	192,169	8%
2007	1,093,195	3%	1,077,383	1%	189,430	6%	207,203	9%	204,089	6%
2008	993,055	-9%	1,043,125	-3%	194,102	2%	193,426	-7%	202,473	-1%
2009	1,027,456	3%	1,010,256	-3%	186,500	-4%	194,428	1%	188,412	-7%
2010	989,288	-4%	1,008,372	0%	181,482	-3%	177,804	-9%	183,002	-3%
2011	990,287	0%	989,787	-2%	172,363	-5%	172,929	-3%	170,603	-7%
2012	942,289	-5%	966,288	-2%	162,030	-6%	153,805	-11%	156,568	-8%
2013	1,051,652	12%	996,971	3%	151,914	-6%	156,576	2%	151,454	-3%
2014	1,135,193	8%	1,093,423	10%	147,176	-3%	165,254	6%	160,925	6%
2015	929,163	-18%	1,032,178	-6%	149,973	2%	159,358	-4%	154,799	-4%
2016	1,094,574	18%	1,011,868	-2%	148,037	-1%	188,738	18%	149,794	-3%
2017	1,125,797	3%	1,110,185	10%	149,473	1%	196,730	4%	165,943	11%

7. Conclusions and reflexions

In an attempt to improve the quality of the BP/IIP statistics, the approximation under study could provide a more comprehensive approach to adapt real estate statistics to economic reality, pursuing a direct estimation that would avoid the calculation of the stock by accumulation of flows and focusing on the number of houses in terms of their characteristics and their valuation at market prices.

The calibration of the parameters and accuracy in the house price data sources are essential in the calculation, and any variation in the parameters or in the average prices assigned has a significant impact on the estimates.

This exercise was coordinated with INE, both with the data providers (Tourism primary statistics producers) and with the final users (NA producers). The definition of the parameters coincide with those used by NA when estimating the imputed rent on tourist dwellings. Moreover, the data source on housing prices, the General Council of Notaries, coincides with that used by INE for the estimation of the IPV.

Nonetheless, other works are under way, the results of which have not yet been included in this article, and alternative avenues of complementary research have been considered:

- a. The exchange of information with the tax authorities has continued, although conclusive results have not yet been reached.
- b. An analysis of bilateral asymmetries is under way with the main counterpart countries, for which there are still no results.

Forthcoming future challenges to be tackled:

- a. Fine-tuning of the geographical location of the dwellings moving from the level of Autonomous Community (17 plus two autonomous cities) to that of province (50) in order to better isolate second houses for valuation.
- b. Measurement of commercial investment in real estate and, in relation to this, the phenomenon of investment in tourist apartments to rent on platforms such as AirBnB. The Foreign Investment Register could be explored to this end.

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Central Bank Statistics

BANK FOR INTERNATIONAL SETTLEMENTS

IFC - Central Bank of Armenia Workshop on "*External Sector Statistics*"

Dilijan, Armenia, 11-12 June 2018

Stock of non-resident owned dwellings in Spain¹

Esther Martín, Elena Nieto and Gregorio Portillo,

Bank of Spain

¹ This presentation was prepared for the meeting. The views expressed are those of the authors and do not necessarily reflect the views of the BIS, the IFC or the central banks and other institutions represented at the meeting.

WORK IN PROGRESS TO MEASURE THE STOCK OF NON-RESIDENT OWNED DWELLINGS IN SPAIN

Esther Martín, Elena Nieto, Gregorio Portillo

Balance of Payments Division, Bank of Spain

IFC – CENTRAL BANK OF ARMENIA WORKSHOP ON EXTERNAL SECTOR STATISTICS

Dilijan, Armenia

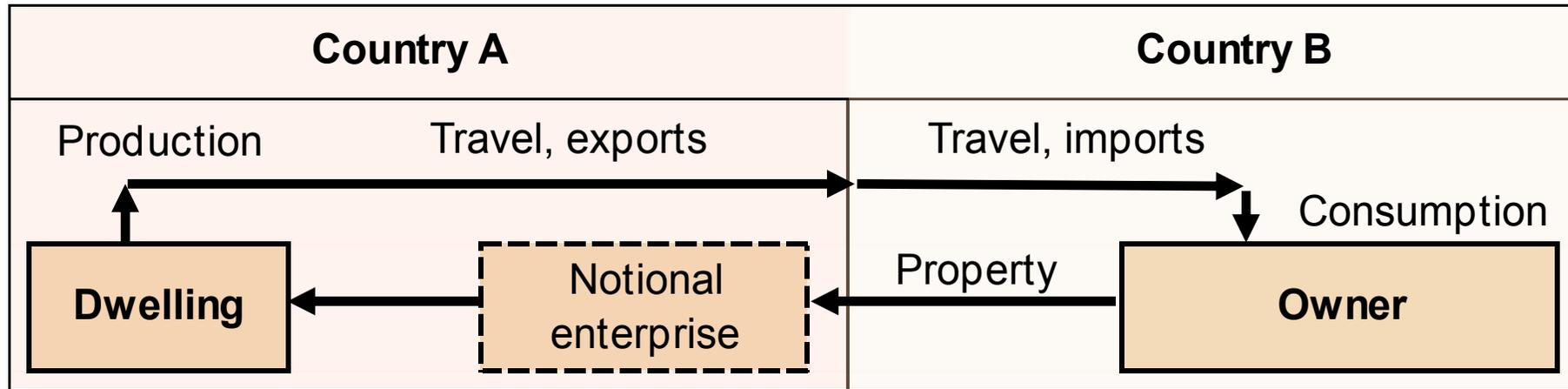
11 June, 2018

OUTLINE



- 1 Measurement of real estate in FDI: international standards
- 2 Investment in real estate in Spain
- 3 Current methodology and motivation to search for alternatives
- 4 Available data sources
- 5 Estimation based on tourism statistics
- 6 Challenges ahead

MEASUREMENT OF REAL ESTATE IN FDI: INTERNATIONAL STANDARDS

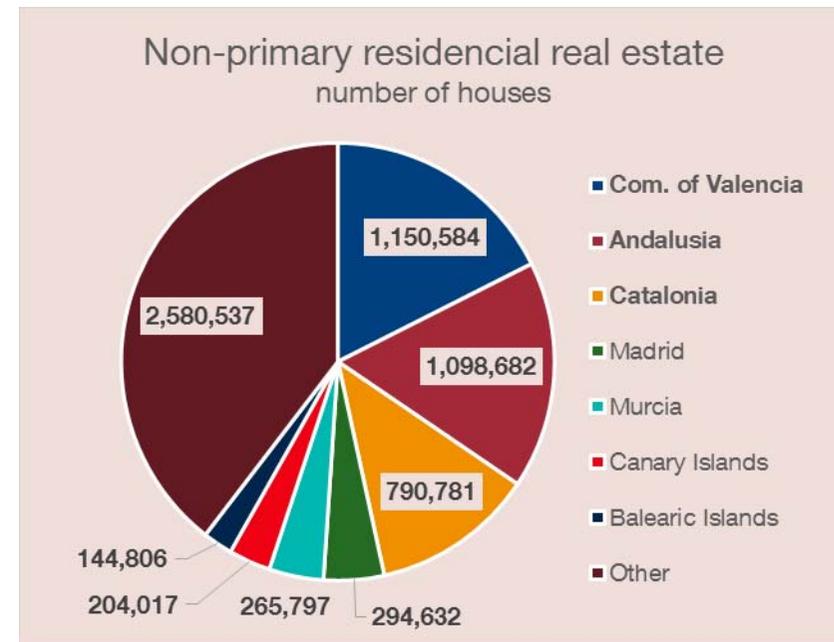
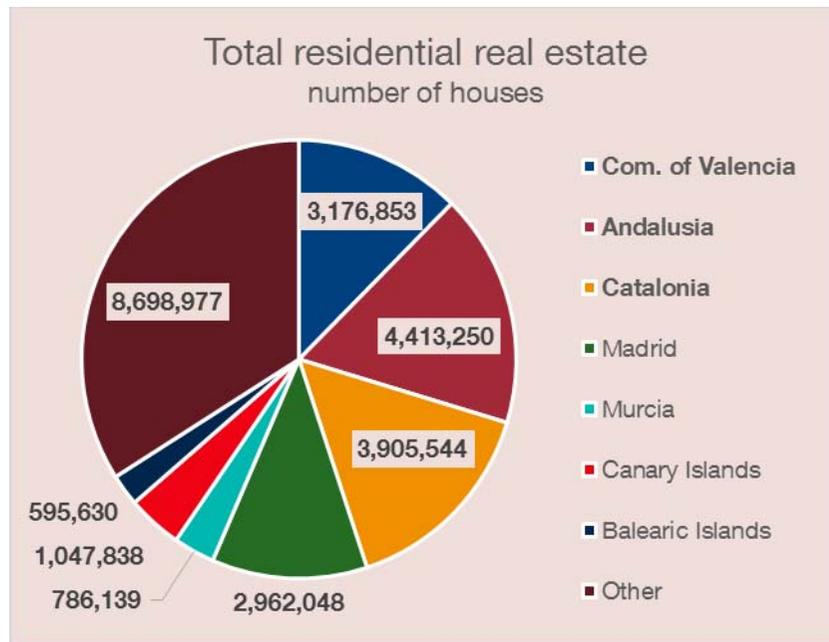


Financial Account / IIP (Country A)	
Net incurrance of financial liabilities	Net acquisition of financial assets
Direct investment (notional unit)	Other investment (currency and deposits)
Current Account (Country A)	
Exports	Imports
Travel (acomodation services provided to the owner, imputed based on market prices)	Primary income (direct investment income)

INVESTMENT IN REAL ESTATE IN SPAIN: HOUSING STOCK ESTIMATES



- **25.6 million dwellings in Spain, 26% non-main dwellings (6.5 million)**
- **Secondary dwellings in main touristic regions**



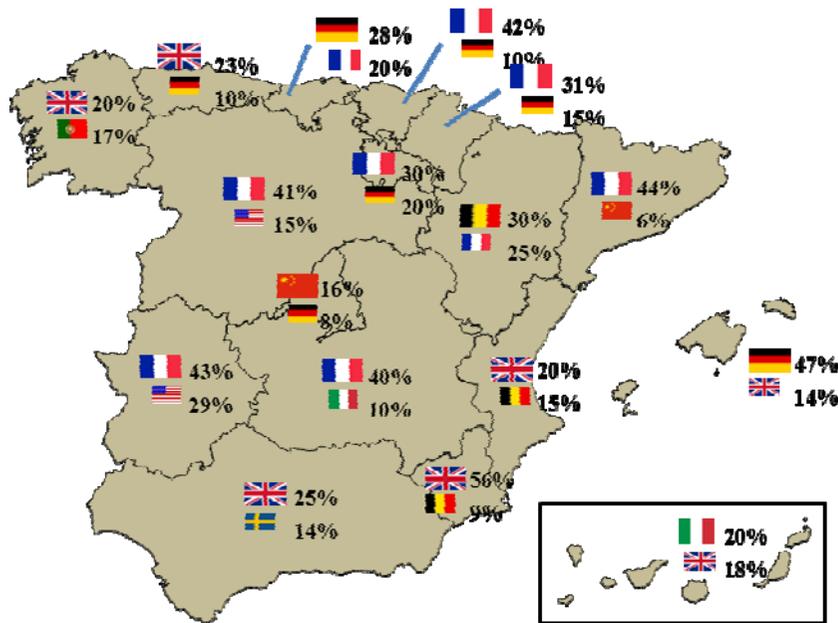
Source: Ministry of Public Works. Housing stock estimates
2016 data

INVESTMENT IN REAL ESTATE IN SPAIN: ACQUISITIONS OF NON RESIDENTS/FOREIGNERS

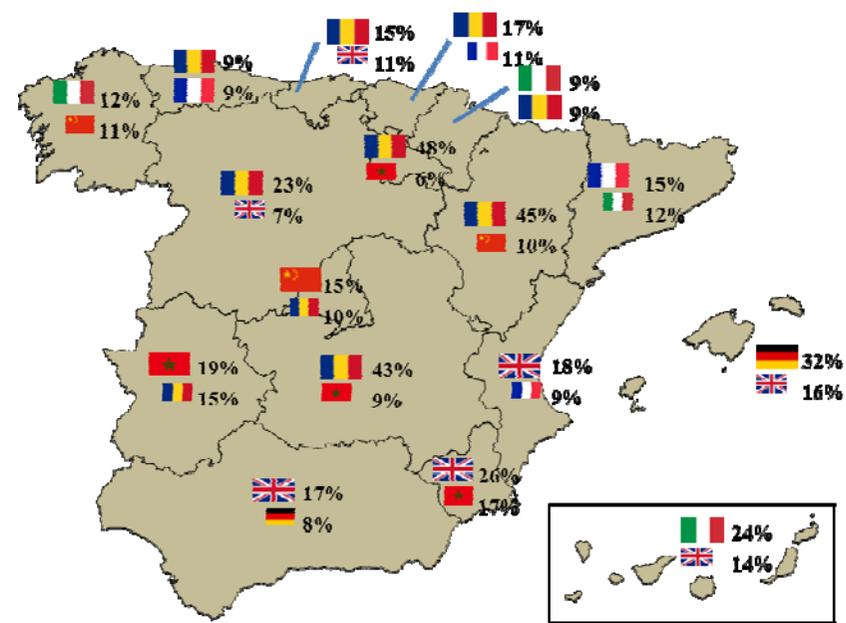


- **2/3 of total purchasers from EU countries:** United Kingdom (14%), France (9%), Germany (8%), Romania (7%), Italy (7%), Belgium (6%)
- **Outside the EU:** Morocco 6%, China 5%, Russia 3%
- **Challenges: residency vs. nationality**

SHARE OF TRANSACTIONS BY NON-RESIDENT FOREIGNERS
2017/S2



SHARE OF TRANSACTIONS BY RESIDENT FOREIGNERS
2017/S2

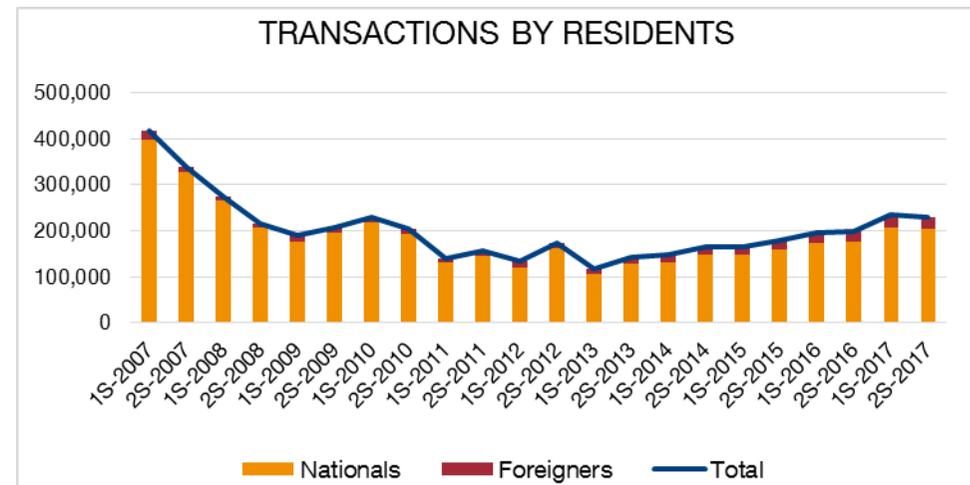
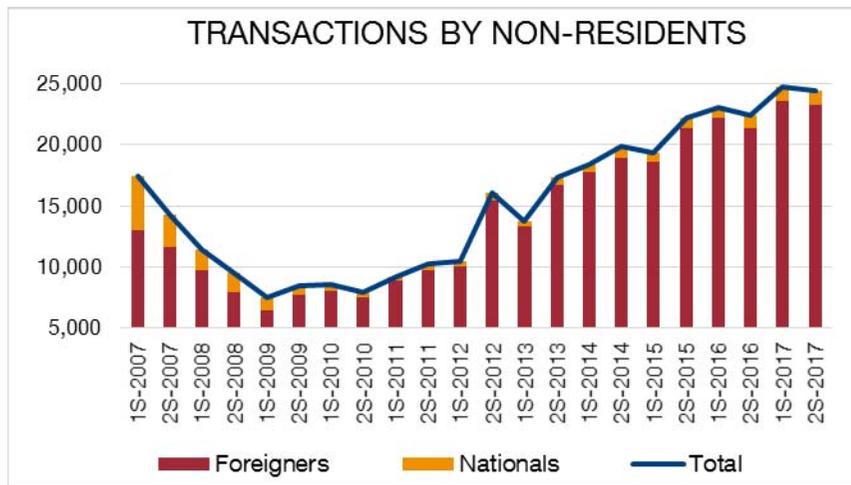


Source: General Council of Notaries and CIEN
Fiscal residency

INVESTMENT IN REAL ESTATE IN SPAIN: ACQUISITIONS OF NON RESIDENTS/FOREIGNERS (II)



- **Foreigners made 100,095 transactions in 2017:**
 - 46,894 by non-residents
- **Nationals made 413,719 transactions in 2017:**
 - 2,257 by non-residents



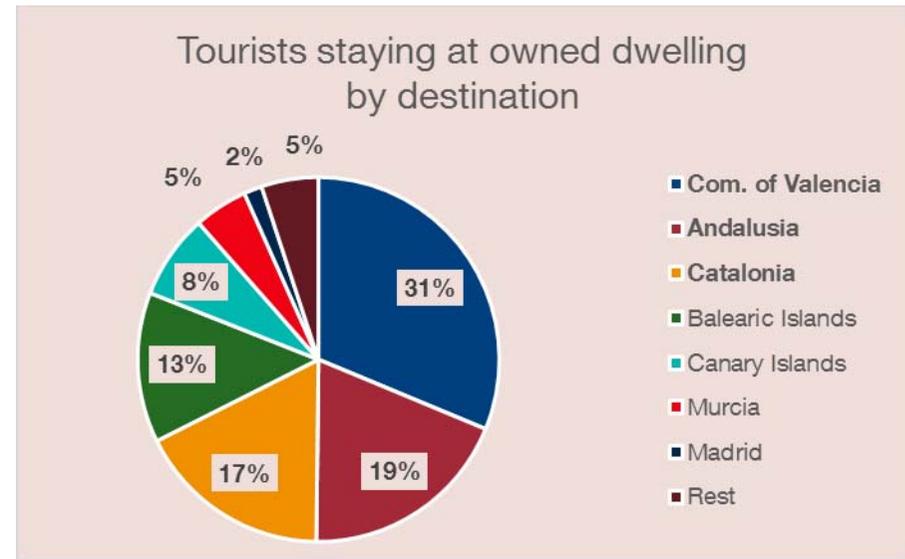
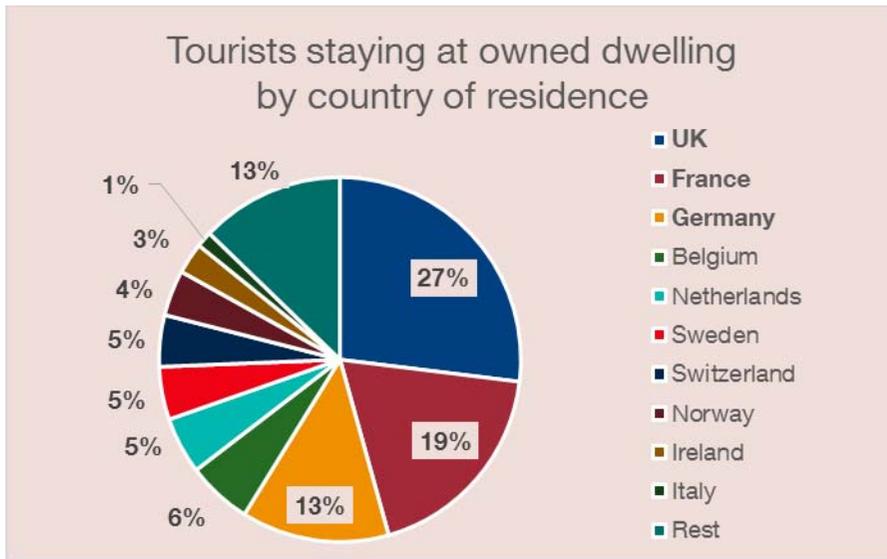
Source: General Council of Notaries and CIEN
Fiscal residency

INVESTMENT IN REAL ESTATE IN SPAIN: TOURISM SURVEYS



- **81.8 million tourist entered Spain in 2017, 4.9 million stayed at their owned dwelling**
- **Concentration by:**
 - Countries of residency: European countries (United Kingdom, France & Germany)
 - Location: Mediterranean Coast (Valencia, Andalusia, Catalonia), and Balearic and Canary Islands

Statistical residence !



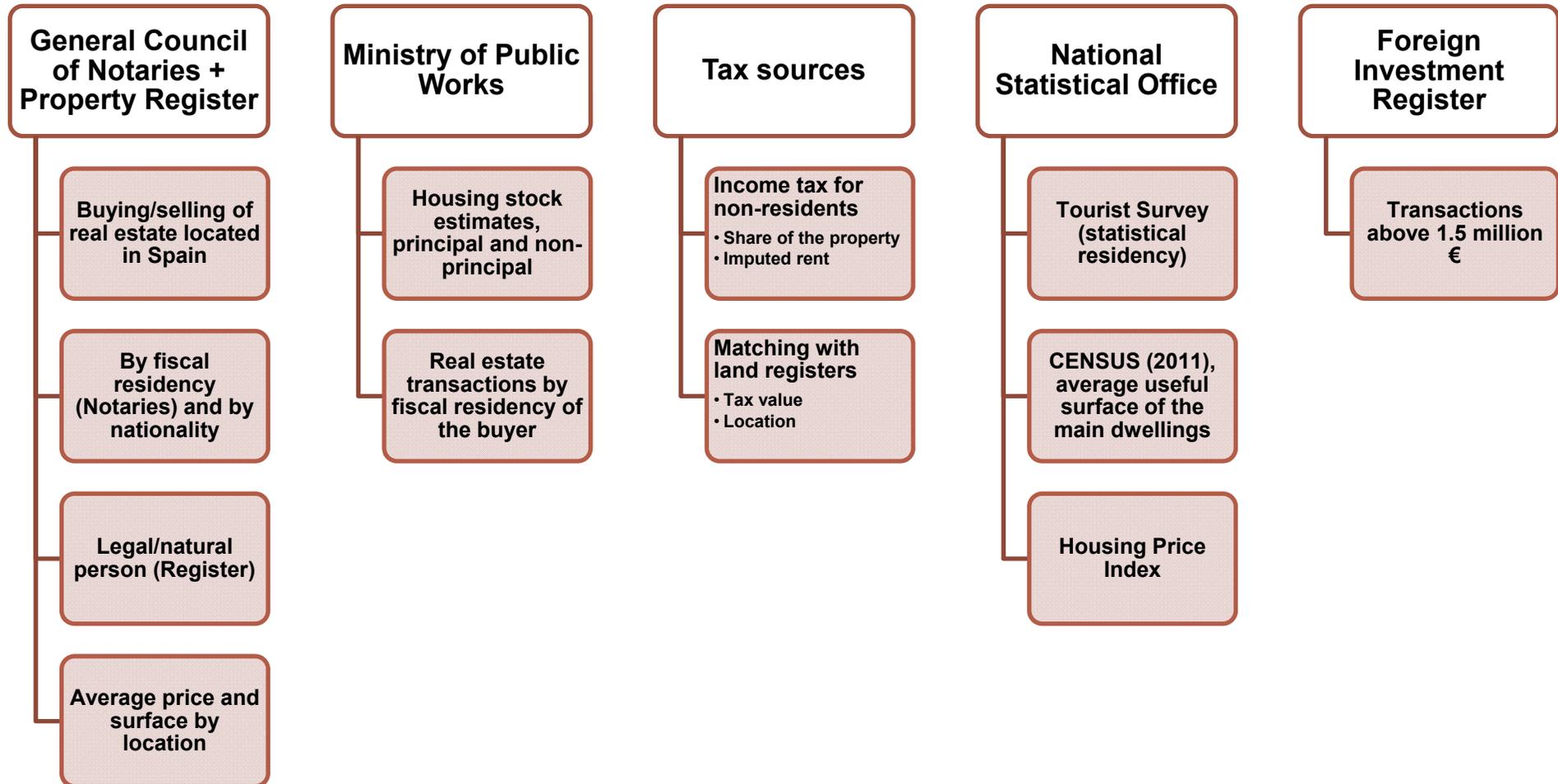
Source: National Statistical Office (INE), Tourist Movement on Borders Survey Frontur 2017 data

CURRENT METHODOLOGY AND MOTIVATION TO SEARCH FOR ALTERNATIVES



- **Current estimates in the Balance of Payments**
 - Until 2014, data from ITRS
 - 2014: entry into force of SEPA, end of ITRS recording
 - From 2014 onwards
 - *Purchases: Ministry of Public Works (fiscal non-residents)*
 - *Sales: Tax Authority (fiscal non-residents)*
- **Current estimates in the International Investment Position**
 - Accumulation of these transactions
- **Motivation to search for alternatives**
 - Valuation of the stock at market prices (which could be corrected with price indices)
 - Lack of anchor to reference the stock

AVAILABLE DATA SOURCES



ESTIMATION BASED ON TOURISM STATISTICS



➤ **Number of houses owned by non-residents:**

- Number of tourists that enter our country and stay in their owned dwelling
- Adjusting for the times they enter, and the size of the group/family
- Breakdown by property location (region) and residence of the tourist
- Statistical residence, regulation (EU) No 692/2011 asks for “tourism nights spent in non-rented accommodation”

➤ **Estimated average price of houses**

- Breakdown by property location (region)
- Sources: General Council of Notaries, Property Register, Ministry of Public Works, Census

ESTIMATION BASED ON TOURISM STATISTICS: NUMBER OF DWELLINGS



- **Number of houses based on the number of tourists that come to our country and stay in their own dwellings:**
 - Adjusting for the times they enter and for the size of the group/household

Frequency of visits to Spain	Numer of times a year	Adjustment	Size of the group	Size	Adjustment
Weekly	52	*0.019 = (1/52)	Size of the group they travel with	Variable with outliers [from 1 to 301]	Variable [final adjustment from 0.48 to 0.55]
Monthly	12	*0.083 = (1/12)			
Quarterly	4	*0.25 = (1/4)	Median size of the group	2 people	*0.5 = (1/2)
Semiannually	2	*0.5 = (1/12)	Average size of the group	Variable [from 2.07 to 2.71]	Variable [from 0.37 to 0.48]
Annually	1	*1			
Less frequently	0,5	*2	Average size of the group (2004-2017)	2.2 people	*0.45 = (1/2.2)
First time in Spain	1	*1	Average size of the european household	2.3 people	*0.43 = (1/2.3)

Results for 2017

Number of dwellings, millions

Number of tourists staying in their own house	Adjusted by frequency	Adjusted by frequency and group				
		Size of the group they travel with	Median size of the group	Average size of the group	Average size (2004-2017)	European household size
4,7	2,6	1,3	1,3	1,1	1,2	1,1
<i>adjustment ratio</i>	<i>55%</i>	<i>49%</i>	<i>50%</i>	<i>41%</i>	<i>45%</i>	<i>43%</i>

ESTIMATION BASED ON TOURISM STATISTICS: VALUATION



Average residential real estate price

Data referred to 2016, euros

	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3.1</i>	<i>Option 3.2</i>	<i>Option 3.3</i>	<i>Option 3.4</i>	<i>% of tourist in own dwellings</i>
<i>surface data</i>	<i>Notaries</i>	<i>Property Register</i>	<i>Census</i>	<i>Census</i>	<i>Property Register</i>	<i>Property Register</i>	
<i>price data</i>	<i>Notaries</i>	<i>Property Register</i>	<i>Ministry Public Works</i>	<i>Notaries</i>	<i>Ministry Public Works</i>	<i>Notaries</i>	
Weighted total	144.853	137.743	173.172	160.284	137.504	127.143	
Andalusia	127.833	124.297	148.610	137.861	123.447	114.518	24%
Aragon	103.633	107.169	137.989	108.755	112.298	88.507	1%
Asturias	106.367	103.048	134.565	108.741	109.731	88.673	1%
Balearic Islands	268.184	221.044	270.491	279.702	217.480	224.886	12%
Canary Islands	127.306	120.770	160.091	163.230	113.858	116.090	11%
Cantabria	128.157	131.997	173.079	133.111	136.001	104.595	1%
Castile-Leon	92.955	98.452	129.530	89.592	111.812	77.338	1%
Castile-La Mancha	88.026	83.754	121.664	87.757	107.896	77.826	0%
Catalonia	167.542	165.970	200.756	176.694	162.368	142.907	16%
Valencia	108.103	108.219	146.323	128.069	111.604	97.681	25%
Extremadura	74.786	73.103	112.550	69.420	100.504	61.990	0%
Galicia	106.343	109.393	155.304	112.200	121.882	88.054	1%
Madrid	200.294	202.073	246.169	213.475	206.219	178.830	2%
Murcia	94.065	96.776	124.524	106.207	101.995	86.992	5%
Navarre	135.077	132.207	166.126	153.507	135.551	125.254	0%
Basque Country	195.944	205.046	253.259	231.671	204.550	187.114	1%
Rioja	102.002	93.402	127.354	106.970	106.192	89.195	0%

ESTIMATION BASED ON TOURISM STATISTICS: OVERALL RESULTS



Results

Considering size of European household and General Council of Notaries prices

Year	Number of dwellings				Average price (€, weighted)		Stock at market prices (million €)			
	Unadjusted	% y-o-y	24-month moving average	% y-o-y		% y-o-y	Unadjusted	% y-o-y	Based on the moving average	% y-o-y
2004	1.128.441		1.128.441		140.534		158.584		158.584	
2005	1.079.307	-4%	1.103.874	-2%	161.202	15%	175.647	11%	177.946	12%
2006	1.061.571	-2%	1.070.439	-3%	179.523	11%	189.250	8%	192.169	8%
2007	1.093.195	3%	1.077.383	1%	189.430	6%	207.203	9%	204.089	6%
2008	993.055	-9%	1.043.125	-3%	194.102	2%	193.426	-7%	202.473	-1%
2009	1.027.456	3%	1.010.256	-3%	186.500	-4%	194.428	1%	188.412	-7%
2010	989.288	-4%	1.008.372	0%	181.482	-3%	177.804	-9%	183.002	-3%
2011	990.287	0%	989.787	-2%	172.363	-5%	172.929	-3%	170.603	-7%
2012	942.289	-5%	966.288	-2%	162.030	-6%	153.805	-11%	156.568	-8%
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ESTIMATION BASED ON TOURISM STATISTICS: CONCLUSIONS



- **Significant increase in our liabilities**
- **Relevance in setting the parameters (group size, moving averages...), conservative approach**
- **Coordination with the National Statistical Office (INE)**
 - **National Accounts Department**
 - *Imputed rent on the use of owned dwellings*
 - *Work in progress to measure non-financial assets*
 - **SG for Tourism, Science and Technology**
 - *Coherence with tourism statistics*

CHALLENGES AHEAD



- **Defining residency**
 - Administrative sources with nationality or fiscal residency
 - Tourist surveys with statistical residency
 - Problems with retired migrants with ties to their country of origin
- **Non-homogeneous dwellings**
- **Legal units**
 - Out of the scope of the survey
 - Information on flows, but not on stocks
- **Others:**
 - Parallel works with Tax Authorities
 - Bilateral comparisons: United Kingdom, Germany & France



Thank you

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