El impacto de la globalización económica en el mercado habitacional Español

The impact ofeconomic globalization on the Spanish housing market

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Resumen

La industria de la construcción tiene un efecto de multiplicador en la economía de cada país. Dentro de dicha industria, la construcción residencial es la más importante: e.g., en España había 687.000 nuevas unidades residenciales construidas en el 2004, que representan el 33% de producción en la industria de la construcción; estas cifras corresponden al 6% del producto nacional bruto. Las razones de este auge son: bajos intereses, aumento en las rentas de la familia, demanda de inmigrantes, cambios en estructura de la familia, alternativa atractiva de inversión, y demanda turística. De España, los precios de arriendo aumentaron más que en cualquier otro país de la unión europea durante los últimos años. Nuestro trabajo analizaba en forma estadística esta evolución y sus causas. Treinta tres variables fueron utilizadas y la matriz de correlación fue obtenida. Se encontró que las variables explicativas principales son: crecimiento de la población, niveles de ingresos, tipos de interés, y la inserción progresiva del país en la unión europea. España pertenece a la comunidad económica Europea, que implica una tendencia a estandarizar la economía de los once países que la abrazan; los ingresos medios per capita de la comunidad económica Europea son más altos que el de España, así una nivelación es inevitable, incluso en el mercado de arriendo. Esta globalización económica influencia la evolución de los precios de arriendo a través de mercados financieros, los movimientos migratorios y turísticos, y crecimiento urbano.

Palabras Clave: Edificación habitacional, precios, construcción, globalización

Abstract

Construction industry has a multiplier effect on the economy of each country. Within the construction industry, residential building is the most important: e.g., in Spain, there were 687,000 new residential units built in 2004, which represent 33% of production in construction industry; these figures correspond to 6% of the Gross National Product. The reasons for this boom are: low interest rates, increase of family incomes, demand from immigrants, changes in family structure, perception of housing as an attractive investment alternative, and demand for tourist housing. In Spain, housing prices increased more than in any other country of the European Union during last years. Our work analyzed statistically this evolution and its causes. Thirty three variables were used and a correlation matrix was obtained. It was found that the main explanatory variables were: population growth, income levels, interest rates, and the progressive involvement of the country in the European Union. Spain belongs to the Euro zone, which implies a tendency to standardize the economy of the eleven countries that embrace it; the average income per capita of the Euro zone is higher than that of Spain, thus a smooth leveling is unavoidable, even in the housing market. This economic globalization influences the housing prices evolution through financial markets, migratory and tourist movements, and urban growth.

Keywords: Housing, prices, construction, globalization

1. Introducción

The construction industry and the housing market

Construction industry has specific peculiarities that shape up the structure and operation of the market. The final product consists on an infrastructure built in a tangible location. Therefore, the activity is carried out in the same place where the product will be unavoidably immobile; this implies the spatial dispersion of the productive process. The product is unique, as a consequence of a specific contract that has a beginning and an end. There are physical variables that condition the productive process: geography, geology, use of natural materials, local weather, urban planning, etc. There are diverse alternative productive processes, and most of them are not susceptible to mechanization.

It is accepted a major division in construction industry between building and civil work. The former

includes most of the industry, around two thirds of it, depending on the country. New residential and non-residential buildings (commercial, industrial, governmental, etc.), and renovation and maintenance of buildings are included.

The dynamic among the actors in construction industry is influenced by the national regulatory context. It includes [Winch (2000)]: legal system, zoning regulations, construction procedures, labor market rules, and procurement policies of each country. The client may be a public agency or a private promoter. Generally, the public agency promotes civil works, whereas the private client promotes buildings. Of course, this generalization is not always true; sometimes public clients promote buildings (public health, educational, administrative, etc.) and private clients promote urban developments. Legal system and procurement policies affect mainly public works (construction promoted by public agencies), whereas zoning and labor market regulations affect private clients.

Real estate (or property) market is the economic environment where land (legalized or not) and buildings can be sold or purchased according to the rules of liberalism and the regulations of each country. If we consider only residential buildings, we may call it "housing market"; that is the expression that we are going to use from now on. Property developers and real estate agencies generate the demand, being families the final consumers. In the Spanish housing system there is a strong prevalence for owning rather than renting property; European trends go in the same direction.

According to Alcaide et al. (1982), the main characteristics of the housing market are:
• Two sub-markets co-exist: consumption (housing services) and investment market (building).
• Housing is a heterogeneous product, from the point of view of the quality and the quantity.
• Final products are immobiles, thus each metropolitan area constitutes an independent market.
• Prices can not be compared to each other easily, therefore the market is quite imperfect.
• Supply can not be modified easily, because construction of new units takes time and it depends on the stock.
• Supply and demand respond slowly, since they operate with important time retards. There is a time delay from taking the decision to the effective supply of new units. Time is needed to buy land, legalize it, and urbanize it; and additional time is required for design housings, build them, and commercialize them. Demand reaction

to changes in rent, prices, credits, etc., is also slow because moving households is difficult and expensive.
• Purchasing depends on credit to finance the property acquisition, because paying-offs and interests are linked to the transaction.
• Housing market deals not only with buying, but also renting.
• Public sector may exercise some kind of control on the property market: legal policies, zoning regulations, subsidized housing, etc.

Residential building represents one third of the total Spanish construction industry, whereas civil works (24%), building renovation and maintenance (25%) and non residential building (18%), complete the whole. In 2004, 687,000 new more units were built in Spain. That represents 6% of the Gross Domestic Product (GDP) and 19% of the Gross Fixed Capital Formation (GFCF). 10% of new residential homes were financially subsidized by state or regional governments. Housing value supposes around two thirds of the total families' wealth and it is a guarantee to one third of the total assets of banks and credit unions. On the other hand, consumption and investment in housing are 58% and 7% of Spanish GDP, respectively (SEOPAN, 2005).

Nevertheless, the most remarkable data are the evolution of prices in the Spanish housing market during last years. From 1976, the price has been multiplied by sixteen, nominally, and by two, actually. Internationally, Spain would be one of the three countries of the Organization for the Economic Co-operation and Development with long term higher growth of housing prices. Recently, the evolution is also remarkable with an actual growth of 55% from 1998 to 2002 (Martínez and Maza, 2003).

Tourist areas affect housing market too. Spain is the second European country with the largest amount of visiting tourists: fifty millions per year. Of these, nearly one million have bought houses in Spain. 80% of them are Germans and British citizens (Kozak, 2002; Ministerio de Economía y Hacienda, 2003).

2. Methodology

Economic theory states that the balance between supply and demand is reached by the selling price of the product; that would only happen in a perfect market that it does not actually exist, specially when referring to the housing market. There are not explicit equations for explaining supply and demand relationships, and even

if there were, the effects of the economic policies of each country and the interactions among countries affect them. Therefore, the first step in our methodology is to identify the most significant variables that induce the housing price. Later on, we will interrelate them using a correlation matrix that will show the relationships among the previously selected variables. From the analysis of the matrix, we can draw conclusions regarding the current situation of the Spanish housing market and, consequently, the impact of globalization on it.

In our analysis, housing price is the dependent variable (endogenous), whereas independent variables (exogenous) have to be chosen. In order to improve the selection of variables, we settle down, aprioristically, several groups of variables in such a way that allows us to choose the most important, depending on the results obtained from the data analysis. There are two groups of fundamental explanatory variables: supply and demand. Taking into consideration the imperfect operation of the housing market, these two are accompanied by other four groups of variables that supplement them: cost, income, financing, and environment (Table 1).

Although the investigation is focused on the Spanish housing market, we have to consider the significant influence of the European Union for the simple fact that the country belongs to a community with common economic and political objectives. Eleven of the countries of the Union are using the same currency: the Euro; they form the Euro zone. New adhesions (to the Union and to the Euro zone) are coming shortly. For this reason, the data search for group 7 (environment) is not made only for Spain, but also for the other fourteen countries that were part of the European Union in 2003; we call them EU15.

Table 1. Pre-selection of variables

Type	Group of variables
Dependent	1. Price
Independent	2. Supply
	3. Demand
	4. Costs
	5. Income
	6. Financing
	7. Environment

3. Variables and Data

Thirty three variables were selected. They are displayed in Table 2, grouped in the seven categories previously established. The assigned code is shown too.

Spanish data, used in groups 1 to 6, were obtained from different sources: Banco de España (2005), Bolsas y Mercados Españoles (2005), Instituto Nacional de Estadística (2005a) (2005b), Martínez and Maza (2003), Ministerio de Economía y Hacienda (2005), Ministerio de Fomento (2001) (2004a) (2004b), and Seopan (2005). The Statistical Office of the European Commission (EuroStat) publishes harmonized data on each one of the countries of the European Union and Switzerland (European Commission, 2004). Inside EuroStat, the BACH Project (Bank for the Accounts of Companies Harmonized) holds information of accounts from most of the European countries, United States, and Japan (Eurostat, 2005). Additional data from the European Union were obtained from Ball (2005), European Central Bank (2005), and Trilla (2001).

We selected temporal series from year 1990 to year 2003. We have not included year 2004 because many data are not available yet. We have the additional problem of the multiple source of data, mainly for the different European countries, even though data are channeled through the EUROSTAT office. Although data are harmonized, the characteristics of each one of the countries are reflected in the data: construction industry, fiscal system, weather conditions, etc. We agree with Gujarati (2003), who affirms that "the results of the research are only as good as the quality of the data".

4. Results

The coefficient of correlation measures the degree of association between two variables (or the sample co-variation between them). Some of its properties are (Gujarati, 2003):

• It lies between the limits of −1 and +1.
• If the two variables are statistically independent, then the coefficient of correlation is zero; however, the opposite is not true.

Calculating each one of the coefficients, a correlation matrix was formed among the thirty three variables (Table 3). The statistical software used was SPSS (copyright SPSS Inc.).

Table 2. Description of variables

Type	Group of variables	Concept	Code
Dependent	1. Price	Housing price per square meter	PPV
Independent	2. Supply	Building production	OPE
		Interior gross product	OPI
		Housings' stock	OSV
	3. Demand	Population growth	DCP
		Immigration flows	DFI
		Consumption prices ratio	DIP
		Stock exchange ratio (Madrid index)	DIB
		Number of divorces	DND
		Number of households	DNH
		Number of marriages	DNM
		Active population	DPA
		Unemployed population	DPP
		Employed population	DPO
	4. Cost	Cost of construction	CIC
		Cost of land	CPS
	5. Income	Labor wages in construction	RCL
		Interior gross product per capita	RPC
		Annual gross wage	RSA
	6. Financing	Interest rates for mortgage	FIH
		Inverse interest rates for mortgage	FII
	7. Environment (data from countries of the EU15)	Labor wages in construction	ECL
		Population growth	ECP
		Consumption prices ratio	EIP
		Cost of construction	EIE
		Number of divorces	END
		Number of households	ENH
		Number of marriages	ENM
		Unemployed population	EPP
		Housing price per square meter	EPV
		Interior gross product per capita	EPI
		Interest rates for mortgage	EIH
		Inverse interest rates for mortgage	EII

Table 3. Correlation matrix

	PPV	OPE	OPI	OSV	DCP	DFI	DIP	DIB	DND	DNH	DNM	DPA	DPP	DPO	CIC	CPS	RCL	RPC	RSA	FIH	FII	ECL	ECP	EIP	EIE	END	ENH	ENM	EPP	EPV	EPI	EIH	EII
PPV	1.00	0.95	0.88	0.83	0.98	0.97	0.80	0.57	0.79	0.93	0.35	0.90	-0.75	0.94	0.80	0.95	0.78	0.87	0.80	-0.67	0.83	0.86	0.78	0.76	0.89	0.51	0.71	-0.58	-0.80	0.94	0.86	-0.69	0.78
OPE	0.95	1.00	0.98	0.95	0.96	0.91	0.92	0.77	0.91	0.97	0.24	0.98	-0.71	0.98	0.93	0.99	0.91	0.96	0.92	-0.84	0.92	0.96	0.91	0.90	0.97	0.68	0.87	-0.67	-0.85	1.00	0.97	-0.85	0.90
OPI	0.88	0.98	1.00	0.96	0.93	0.88	0.98	0.83	0.97	0.98	0.06	0.99	-0.56	0.93	0.98	0.98	0.97	0.99	0.98	-0.92	0.95	0.99	0.98	0.97	0.99	0.79	0.93	-0.79	-0.79	0.99	0.99	-0.93	0.94
OSV	0.83	0.95	0.96	1.00	0.86	0.80	0.92	0.90	0.93	0.92	0.20	0.97	-0.60	0.93	0.93	0.94	0.94	0.95	0.92	-0.91	0.95	0.96	0.93	0.91	0.93	0.82	0.92	-0.67	-0.79	0.96	0.96	-0.91	0.94
DCP	0.98	0.96	0.93	0.86	1.00	0.99	0.88	0.62	0.86	0.96	0.20	0.94	-0.63	0.92	0.87	0.95	0.85	0.92	0.88	-0.76	0.88	0.92	0.86	0.85	0.97	0.64	0.78	-0.71	-0.76	0.90	0.85	-0.77	0.83
DFI	0.97	0.91	0.88	0.80	0.99	1.00	0.82	0.54	0.82	0.92	0.20	0.89	-0.59	0.87	0.80	0.94	0.80	0.86	0.83	-0.70	0.85	0.86	0.81	0.79	0.91	0.59	0.71	-0.69	-0.69	0.86	0.84	-0.71	0.79
DIP	0.80	0.92	0.98	0.92	0.88	0.82	1.00	0.82	0.98	0.95	-0.12	0.97	-0.40	0.84	1.00	0.93	0.99	0.99	1.00	-0.96	0.92	0.98	0.98	1.00	0.98	0.85	0.96	-0.72	-0.72	0.94	0.98	-0.95	0.92
DIB	0.57	0.77	0.83	0.90	0.62	0.54	0.82	1.00	0.82	0.73	0.02	0.82	-0.43	0.75	0.84	0.77	0.87	0.82	0.82	-0.91	0.89	0.81	0.84	0.83	0.78	0.76	0.89	-0.59	-0.62	0.79	0.85	-0.93	0.93
DND	0.79	0.91	0.97	0.93	0.86	0.82	0.98	0.82	1.00	0.94	-0.08	0.96	-0.39	0.83	0.98	0.92	0.98	0.98	0.98	-0.96	0.93	0.98	0.98	0.98	0.97	0.85	0.95	-0.88	-0.69	0.93	0.97	-0.94	0.92
DNH	0.93	0.97	0.98	0.92	0.96	0.92	0.95	0.73	0.94	1.00	0.09	0.98	-0.57	0.92	0.95	0.98	0.93	0.98	0.95	-0.87	0.92	0.98	0.95	0.94	0.94	0.73	0.89	-0.78	-0.79	0.98	0.97	-0.86	0.89
DNM	0.35	0.24	0.06	0.20	0.20	0.20	-0.12	0.02	-0.08	0.09	1.00	0.10	-0.76	0.40	-0.10	0.17	-0.11	0.01	-0.13	0.18	0.08	0.04	-0.13	-0.17	0.01	-0.24	-0.12	0.45	-0.45	0.20	0.05	0.13	0.04
DPA	0.90	0.98	0.99	0.97	0.94	0.89	0.97	0.82	0.96	0.98	0.10	1.00	-0.58	0.94	0.97	0.98	0.96	0.99	0.97	-0.91	0.95	0.99	0.97	0.95	0.99	0.79	0.92	-0.77	-0.79	0.99	0.99	-0.91	0.94
DPP	-0.75	-0.71	-0.56	-0.60	-0.63	-0.59	-0.40	-0.43	-0.39	-0.57	-0.76	-0.58	1.00	-0.83	-0.42	-0.64	-0.39	-0.52	-0.40	0.30	-0.51	-0.51	-0.38	-0.35	-0.51	-0.07	-0.38	-0.02	0.79	-0.67	-0.55	0.36	-0.50
DPO	0.94	0.98	0.93	0.93	0.92	0.87	0.84	0.75	0.83	0.92	0.40	0.94	-0.83	1.00	0.85	0.95	0.83	0.90	0.84	-0.76	0.88	0.90	0.83	0.81	0.90	0.57	0.79	-0.52	-0.88	0.97	0.92	-0.78	0.86
CIC	0.80	0.93	0.98	0.93	0.87	0.80	1.00	0.84	0.98	0.95	-0.10	0.97	-0.42	0.85	1.00	0.93	0.99	0.99	1.00	-0.96	0.92	0.98	1.00	1.00	0.98	0.85	0.96	-0.85	-0.73	0.94	0.99	-0.95	0.92
CPS	0.95	0.99	0.98	0.94	0.97	0.94	0.93	0.77	0.92	0.98	0.17	0.98	-0.64	0.95	0.93	1.00	0.92	0.97	0.93	-0.86	0.95	0.96	0.93	0.91	0.98	0.72	0.87	-0.72	-0.79	0.99	0.96	-0.87	0.92
RCL	0.78	0.91	0.97	0.94	0.85	0.80	0.99	0.87	0.98	0.93	-0.11	0.96	-0.39	0.83	0.99	0.92	1.00	0.98	0.99	-0.98	0.95	0.97	1.00	0.99	0.97	0.87	0.96	-0.87	-0.70	0.93	0.98	-0.97	0.95
RPC	0.87	0.96	0.99	0.95	0.92	0.86	0.99	0.82	0.98	0.98	0.01	0.99	-0.52	0.90	0.99	0.97	0.98	1.00	0.99	-0.93	0.94	0.99	0.98	0.98	0.99	0.80	0.95	-0.82	-0.79	0.98	1.00	-0.94	0.94
RSA	0.80	0.92	0.98	0.92	0.88	0.83	1.00	0.82	0.98	0.95	-0.13	0.97	-0.40	0.84	1.00	0.93	0.99	0.99	1.00	-0.96	0.93	0.98	1.00	1.00	0.98	0.84	0.96	-0.87	-0.71	0.94	0.98	-0.95	0.93
FIH	-0.67	-0.84	-0.92	-0.91	-0.76	-0.70	-0.96	-0.91	-0.96	-0.87	0.18	-0.91	0.30	-0.76	-0.96	-0.86	-0.98	-0.93	-0.96	1.00	-0.94	-0.93	-0.97	-0.96	-0.91	-0.88	-0.95	0.84	0.60	-0.87	-0.93	0.98	-0.94
FII	0.83	0.92	0.95	0.95	0.88	0.85	0.92	0.89	0.93	0.92	0.08	0.95	-0.51	0.88	0.92	0.95	0.95	0.94	0.93	-0.94	1.00	0.94	0.94	0.92	0.94	0.80	0.90	-0.75	-0.68	0.94	0.94	-0.94	0.98
ECL	0.86	0.96	0.99	0.96	0.92	0.86	0.98	0.81	0.98	0.98	0.04	0.99	-0.51	0.90	0.98	0.96	0.97	0.99	0.98	-0.93	0.94	1.00	0.98	0.97	0.99	0.82	0.95	-0.81	-0.79	0.97	0.99	-0.92	0.92
ECP	0.78	0.91	0.98	0.93	0.86	0.81	1.00	0.84	0.98	0.95	-0.13	0.97	-0.38	0.83	1.00	0.93	1.00	0.98	1.00	-0.97	0.94	0.98	1.00	1.00	0.98	0.87	0.97	-0.87	-0.70	0.93	0.98	-0.96	0.94
EIP	0.76	0.90	0.97	0.91	0.85	0.79	1.00	0.83	0.98	0.94	-0.17	0.95	-0.35	0.81	1.00	0.91	0.99	0.98	1.00	-0.96	0.92	0.97	1.00	1.00	0.97	0.86	0.96	-0.89	-0.69	0.92	0.97	-0.96	0.92
EIE	0.89	0.97	0.99	0.93	0.95	0.91	0.98	0.78	0.97	0.94	0.01	0.99	-0.51	0.90	0.98	0.98	0.97	0.99	0.98	-0.91	0.94	0.99	0.98	0.97	1.00	0.79	0.92	-0.83	-0.76	0.98	0.98	-0.91	0.92
END	0.51	0.68	0.79	0.82	0.64	0.59	0.85	0.76	0.85	0.73	-0.24	0.79	-0.07	0.57	0.85	0.72	0.87	0.80	0.84	-0.88	0.80	0.82	0.87	0.86	0.79	1.00	0.82	-0.80	-0.46	0.71	0.78	-0.82	0.78
ENH	0.71	0.87	0.93	0.92	0.78	0.71	0.96	0.89	0.95	0.89	-0.12	0.92	-0.38	0.79	0.96	0.87	0.96	0.95	0.96	-0.95	0.90	0.95	0.97	0.96	0.92	0.82	1.00	-0.80	-0.69	0.89	0.95	-0.97	0.94
ENM	-0.58	-0.67	-0.79	-0.67	-0.71	-0.70	-0.87	-0.59	-0.88	-0.78	0.45	-0.77	-0.02	-0.52	-0.85	-0.72	-0.87	-0.82	-0.87	0.84	-0.75	-0.81	-0.87	-0.89	-0.83	-0.80	-0.80	1.00	0.39	-0.70	-0.78	0.81	-0.74
EPP	-0.80	-0.85	-0.79	-0.79	-0.76	-0.69	-0.72	-0.62	-0.69	-0.79	-0.45	-0.79	0.79	-0.88	-0.73	-0.79	-0.70	-0.79	-0.71	0.60	-0.68	-0.79	-0.70	-0.69	-0.76	-0.46	-0.69	0.39	1.00	-0.84	-0.81	0.65	-0.70
EPV	0.94	1.00	0.99	0.96	0.96	0.91	0.94	0.79	0.93	0.98	0.20	0.99	-0.67	0.97	0.94	0.99	0.93	0.98	0.94	-0.87	0.94	0.97	0.93	0.92	0.98	0.71	0.89	-0.70	-0.84	1.00	0.98	-0.88	0.92
EPI	0.86	0.97	0.99	0.96	0.90	0.84	0.98	0.85	0.97	0.97	0.05	0.99	-0.55	0.92	0.99	0.96	0.98	1.00	0.98	-0.93	0.94	0.99	0.98	0.97	0.98	0.78	0.95	-0.78	-0.81	0.98	1.00	-0.94	0.94
EIH	-0.69	-0.85	-0.93	-0.91	-0.77	-0.71	-0.95	-0.93	-0.94	-0.86	0.13	-0.91	0.36	-0.78	-0.95	-0.87	-0.97	-0.94	-0.95	0.98	-0.94	-0.92	-0.96	-0.96	-0.91	-0.82	-0.97	0.81	0.65	-0.88	-0.94	1.00	-0.98
EII	0.78	0.90	0.94	0.94	0.83	0.79	0.92	0.93	0.92	0.89	0.04	0.94	-0.50	0.86	0.92	0.92	0.95	0.94	0.93	-0.94	0.98	0.92	0.94	0.92	0.92	0.78	0.94	-0.74	-0.70	0.92	0.94	-0.98	1.00

Even though correlation does not imply causality; causality demands correlation. In our case, the causality derives from the behavior of the explanatory variables related to the economic model of supply and demand. It is not possible to apply Granger's causality test (Granger and Newbold, 1976) provided that we are not trying to carry out predictions of time series (Pulido, 2003).

5. Discussion and conclusions

Housing price is explained, basically, by the variables chosen in Table 4. Among the variables of the same group the multicolinearity makes them incompatible to each other. Hence, only one of them is selected per group of variables: always the one with highest coefficient of correlation.

Population growth, cost of land, and building production are the variables that have better coefficients, as it was expected. Housing price per square meter in the European Union has a very good coefficient; almost as good as the previously mentioned. Finally, interior gross product per capita and inverse interest rates for mortgage have coefficients higher than 0.80; that can be considered good enough.

More production in building construction stands for higher quantity of construction materials, more machinery, and more workers. If these are scarce, the price will increase and, consequently, the costs and the final price of the product will raise too. Linked to the supply group is the housings' stock that has a significant influence on the prices; the stock can act as an important yield between supply and demand.

The population boom of the sixties and seventies, and a more recent migratory flow (from South America, North Africa and East Europe) are demanding new homes. Changes in family structure (increment of divorces and families of one member, lengthening of life, etc.) have increased the number of households too. Population growth means augmenting demand of housing and, depending on the supply's elasticity of the product, the prices may go up or not. Anyway, in housing market, the supply is rigid, due to the time elapsed from purchasing the land to commercialize the building; certainly, the immobility of the product affects the supply too. Therefore, prices increase with more demand, because of this non-existent synchronization between supply and demand.

Another significant variable of the same group (demand) is the employed population. Families feel secure enough for purchasing a new home when some of the members are employed. This situation gives the families the stability they need to ask a bank for credit.

Land is very important. It is the raw material where the building is going to be placed. Furthermore, land has to be legalized and urbanized according to state and local regulations. In many metropolitan areas the land that can be legalized is scarce, thus prices go up.

Rates of interest measure the opportunity cost of any investment. The current low rates, and the extension of paying-off terms, empower the families for more capacity of payment, hence, more purchases, not only housing but also many other assets. This situation favors an increase of prices. Some investors use the housing market as an alternative for investment, because other choices (i.e. stock exchange market) do not give the good results that they used to. In any case, the dropping off of rates may enlighten the raising price of housing, maybe in the same proportion than the diminution of interest rates.

In time, the European Union will match the levels of the citizens' life and the economies of the states members. Nowadays, the EU15 average housing price per square meter is still higher than the Spanish one. On the other hand, the growth of housing prices is higher than in EU15 countries because the Spanish reference level was very low. It is expected that the price keeps on raising till it reaches the average price of the western European countries, specially the eleven ones that have a unified currency (the Euro) since 2002: Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Portugal, and Spain. All of them, but Ireland and Portugal, have higher standard of life than Spain.

Table 4. Selected variables per group and coefficient of correlation

Type	Group of variables	Concept	Code	Coefficient
Dependent	1. Price	Housing price per square meter	PPV	1.00
Independent	2. Supply	Building production	OPE	0.95
	3. Demand	Population growth	DCP	0.98
	4. Costs	Cost of land	CPS	0.95
	5. Income	Interior gross product per capita	RPC	0.87
	6. Financing	Inverse interest rates for mortgage	FII	0.83
	7. Environment (EU15)	Housing price per square meter	EPV	0.94

In consequence, housings prices have augmented, and they will continue augmenting, because a growing demand exists. Basically, our analysis shows that the increment of the housing prices is based on:

- An increase of population and migratory flows, and changes in family structure.
- A convergence process among rent levels (increasing), interest rates (low), and favorable financing terms (i.e. long paying-off terms) that allow more families to assume the payment of a mortgage.
- The decreasing profitability of other alternative markets (i.e. stock exchange market).
- The strong impulse of demand of second homes.
- Belonging to an economic and political group as the European Union whose average income per capita (EU15) is higher than the Spanish one.

It is also very remarkable the derived effect of the involvement of Spain in the European Union, and specifically to the Euro zone. The common currency tends to standardize the economy of all countries. This affects the housing prices too, in spite of the immobility of the product and the behavior of each micro-market (i.e. metropolitan area). We have to keep in mind that the product can not move, but people can. Some of them tend to buy a second home in a tourist area (and most of the Spanish coast is) whenever they are able to invest.

The number of foreign residents setting up homes in Spain is increasing. For them the housing prices are still cheap, even though for Spanish citizens are too expensive. It is not only the pensioners who are looking at setting up homes abroad, but also many young families are leaving their native countries to go abroad and work at home in their new country of residence, thanks to the easy access to current information and communication technologies. Many foreign investors from mature domestic markets are coming to Spain to obtain the expected returns, particularly in the buy-to-let sector.

Spain still may be considered a developing economy. Its macro-economic ratios are far from United States, Japan, Germany, Britain, or France. Nevertheless, its economic growth in the last ten years is 50% higher than the average of the countries of the Euro zone. For Spain, even for Ireland and Portugal, the European Union has been a very positive bet, and the expectations for the future are good.

The Euro zone is a test for the future of humankind: eleven countries, with different laws, history, culture, language, etc., join together to share a common currency. This is affecting the economies of these countries more deeply than the European Union itself for the other fourteen countries that do not take part of the Euro zone. This is a real economic globalization taken to a micro level. The consequences can be observed daily: standardization and leveling is happening smoothly. Housing market is only one of the sectors affected. Economic globalization influences the housing prices evolution in each country through financial markets, migratory and tourist movements, and urban growth, among others.

In the near future more European countries will join the Euro zone and this economic micro-globalization will expand radically. This experiment should be an example for other developing countries in other parts of the world (i.e. MercoSur); therefore barriers among countries may disappear and communities may get closer. Maybe then, globalization will be a concept with positive connotations for developing economies.

6. References

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