THE EFFECT OF INSTITUTIONS ON EUROPEAN HOUSING MARKETS: AN ECONOMIC ANALYSIS

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THE EFFECT OF INSTITUTIONS ON EUROPEAN HOUSING MARKETS: AN ECONOMIC ANALYSIS

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CONTENTS

Abstract

This book focuses on the effects of formal (regulatory) institutions and institutions of enforcement on the housing markets in Spain and in Europe. The book is organized through a sequence of four research studies (chapters 2 to 5) plus an introductory summary chapter (chapter 1) and a chapter setting out the conclusions (chapter 6). The book is completed with a Spanish version of the introductory and the concluding chapters (chapters 7 and 8). Specifically, Chapter 2 presents a discussion of the literature relating to institutions and their effect on the functioning of the economy. It also identifies some recent work related to the specific institutions affecting the European and Spanish housing markets. Chapter 3 provides an economic analysis of the effects of post-war regulations on European residential tenancy markets. The research concludes that both rent control and compulsory lease periods theoretically entail some negative effects for the weight of the tenancy market in the economy. Chapter 4 focuses on the functioning of the judicial system in Spain since 1966, providing a measure of its degree of formalism and a discussion of its level of efficiency. The study concludes that formalism has diminished in Spain, especially since 2000, although no aggregate improvements exist in the case of tenancy market. Chapter 5 provides econometric estimates of the effect of judicial inefficiency on the share of residential property in the Spanish economy. In order to do that, a panel is constructed with up to three measures of inefficiency for the Spanish provinces during the last decade. This study concludes that judicial inefficiency has had a positive, although minor, impact on the property share in Spain. From the studies carried out in this book, it may be concluded that institutions matter in the functioning of the housing markets in Spain and in Europe.

JEL Classification: K12, K40, K41, L51, N4, O10, R21, R31.

Keywords: institutions, contract enforcement, development, judicial efficiency, procedural formalism, property market, rent control, tenancy contracts, tenancy market, compulsory terms.

Resumen

El objetivo de este libro es analizar los efectos de las instituciones en el funcionamiento de los mercados de vivienda tanto en España como en Europa. Para ello, el libro aporta cuatro estudios (los capítulos 2 al 5), que analizan tanto las instituciones introducidas a través de la regulación (instituciones formales) como las instituciones de ejecución. Junto a ello, el libro contiene un resumen (capítulo 1) y una sección de conclusiones (capítulo 6). El libro se completa con una versión en español del resumen (capítulo 7) y las conclusiones (capítulo 8). Concretamente, el capítulo 3 presenta una discusión sobre la literatura de las instituciones y su efecto en el funcionamiento general de la economía. Este mismo capítulo también analiza algunos trabajos recientes que aplican estas conclusiones al caso específico de los mercados inmobiliarios. El capítulo 4 estudia los efectos de la normativa de alquileres posterior a la II Guerra Mundial en los mercados de arrendamiento tanto en España como en otros países europeos. El capítulo concluye que el control de la renta del alquiler, así como la extensión obligatoria de los contratos, implican, según un modelo teórico, una reducción en el peso del mercado de alquiler en la economía. El capítulo 5 analiza el funcionamiento del sistema judicial en España desde 1966, proporcionando una medida de su grado de formalismo y una discusión sobre su nivel de eficiencia. El capítulo concluye que el grado de formalismo ha disminuido en España especialmente desde el año 2000. Sin embargo, no han existido mejoras relevantes en el caso de los conflictos relacionados con el mercado de alquiler. El capítulo 6 presenta una estimación econométrica de los efectos de la ineficiencia judicial en la estructura del mercado de vivienda en España. Para ello se ha construido un panel que incluye tres medidas diferentes de la ineficiencia judicial en todas las provincias españolas durante la última década. El estudio concluye que la ineficiencia judicial tiene un efecto positivo, aunque de una entidad reducida, en el peso del mercado de vivienda en propiedad en España. De los estudios incluidos en este libro se podría concluir que las instituciones importan en el funcionamiento de los mercados de vivienda tanto en España como en Europa.

Clasificación JEL: K12, K40, K41, L51, N4, O10, R21, R31.

Palabras clave: instituciones, ejecución de contratos, desarrollo económico, ineficiencia judicial, formalismo, mercado de alquiler, mercado de propiedad, control de rentas, contratos de alquiler, plazos obligatorios.

1 Summary: The effect of institutions on European housing markets: an economic analysis[1]

1.1 Introduction

All over the 20th Century, and especially during its second half, the tenancy market has lost weight in all the European economies. Chart 3.1 graphs the weight of the tenancy market over the total number of principal residences in 12 European countries for the most recent years.[2] In this context it should be noted that the reduction in the weight of the tenancy market is especially extreme in Spain. The first Census providing data on this respect (1970) showed that the proportion of residences in the property market was around 60% (property share of 63,4%). In 2008, in several Spanish provinces the property share was above 94% (Castellón, Soria o Lugo).

The economic literature has shown that a too weak tenancy market may imply several inefficiencies for the functioning of the economy. Those inefficiencies are mainly caused by the reduced mobility of workers [Hardman and Ionnides (1999), and Barceló (2006)]. In fact, in Europe, it could be observed that economies with stronger tenancy markets, such as France or Germany, also have higher interregional mobility of workers [Maclennan *et al*. (1998) and Barceló (2006)]. More importantly, the economic literature stresses that economies with lower mobility of workers also suffer higher unemployment rates [Layard *et al*. (1991)].

Several factors may have affected the evolution of the tenancy and the property shares over the last decades. Among those are the interest rates that have fallen down [Blanco and Restoy (2007)], the liberalization of the banking sector since 1980 that may have played an indirect role [Iacoviello and Minetti (2003), and Kumbhakar and Lozano-Vivas (2004)] or the increase in income per capita in all European economies.

However, apart from those factors, which in fact have been extensively studied by the economic literature, others, as for instance those that could be grouped as "institutional determinants" may have also played an important role (chapter 2 provides a general discussion on the importance of institutions in economic performance). Among them are the regulations (the so-called "formal institutions"), such as the tenancy Laws, and the mechanisms created to enforce the contracts signed by private parties in the housing markets, such as the judicial system.

The research papers included in this book aim to analyze the economic effects of the regulations affecting the European (and therefore, the Spanish) tenancy markets and the ef-

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1. An earlier version of the papers included in this book was defended as a doctoral thesis (Ph.D. dissertation) in the Department of Economic History and Institutions at Universidad Carlos III de Madrid on December 15, 2009. The thesis was supervised by Stefano Battilossi (Universidad Carlos III de Madrid). The dissertation committee was composed by Leandro Prados de la Escosura (Chairman) (Universidad Carlos III de Madrid), Fernando Gómez Pomar (secretary) (Universitat Pompeu Fabra), Francisco Cabrillo (Universidad Complutense de Madrid), Luis Garicano (London School of Economics and Political Science) and Nuno Garoupa (University of Illinois). The thesis also had a double external evaluation by Georg von Wangenheim (Universität Kassel) and Lucia Dalla Pellegrina (Bocconi University). The thesis obtained an "European doctoral mention" ("Doctor Europeus") as a result of those evaluations and the research visits or positions held at at the European University Institute (Florence, Italy) (2004-2005) and the Department of Economics at the University of Iowa (2005 and 2008). I wish to express my gratitude to Stefano Battilossi for his excellent work as director. I also wish to acknowledge and thank the work of the two external reviewers and, of course, the comments and criticisms of the dissertation committee which have been partially taken into account in this "Estudio Económico". I am also indebted to Beth Ingram and R. Ravikumar (University of Iowa), for their generosity in allowing me to use the resources of the Department of Economics of that University. I am also indebted for their comments and suggestions to Santos Pastor, Rocío Albert, Pablo Hernández de Cos, Angel Estrada, Llanos Matea, Paloma Lopez-Garcia, Maria Gil, Carmen Martínez Carrascal, Jorge Martínez Pagés, Michael Bolliger, Raquel Vegas, Javier Jareño, Aitor Lacuesta, Julio García Durán, Pilar Arróniz, Philip Hill, Fernando Ferrer, Mario de las Heras, David Cabido and Eduardo López Román. The papers included in this book were presented at various conferences and seminars (listed at the beginning of each chapter) and benefited from the comments of the attendees. **2.** "Principal residences" include the dwellings where individuals have their permanent or main home. Those residences can be owned (87,1% in 2007 in Spain following the data of the Ministry of Housing), rented (11,2%) and used as a result of a transfer or non-lucrative cession (1,6%).

fects of inefficiency in the enforcement institutions that are available in those markets. On the one hand, too restrictive rules applying to the tenancy contracts may introduce severe disincentives for the landlords to participate in the market. On the other, too slow or costly procedures to enforce the same contracts may exert the same effects, yielding as a result a reduced share of tenancy in the economy.

1.2 The effect of "formal institutions" on the European housing markets

The regulations affecting the tenancy markets are similar in the different European countries and usually introduce two types of restrictions which aim to protect the tenant. On the one hand, they usually introduce "rent control" rules which usually limit the increase in the rent paid by the tenant to the increase in the Consumer Price Index (CPI) after the first year of the tenancy relation. On the other hand, several other rules protect the tenant against eviction for a certain number of years. As a result, the tenant decides how long he wants to stay in the dwelling paying a limited rent to the landlord. In Spain those rules can be found in the Law 29/1994, of 24th November.[3] Chapter 3 of this book provides a survey of those restrictions for 12 European countries.

The effects of rent control have been extensively studied both theoretically [Basu and Emerson (2000), Raess and Ungern-Sternberg (2002), and Basu and Emerson (2003)] and empirically, especially for the case of the USA [Johnson (1951) and Sims (2007)]. However, the measures that protect the tenant against eviction are typically European, and probably because of that they have not received the same attention. The same could be said about the specific "European" rules of "rent control" that were already designed for markets with positive rates of inflation.

1.2.1 THE INSTITUTIONS OF HOUSE TENANCY MARKETS IN POST-WAR WESTERN EUROPE: AN ECONOMIC ANALYSIS

Chapter 3 of this book aims to analyze the effects of the typically European tenancy Law restrictions in the tenancy markets. First of all the chapter provides a summary of those regulations in 12 European countries, analyzing specifically the case for Spain, Finland, Italy and the UK. From that analysis it is possible to conclude that the restrictions were affecting the market almost for all the period in what a reduction in the tenancy weight in the economy was observed. Moreover, over the second half of the 20th century, the rules were similar in all the countries and suffered a similar evolution from a liberal conception of the tenancy relations to a more interventionist one. Then, chapter 3 analyzes theoretically the effects of those restrictions adapting a previously proposed model of Basu and Emerson (2000).

Following the model, the tenancy market is affected by an asymmetric information problem as landlords have limited information about the number of years that tenants want to stay in their dwellings. As it was already said, the Law protects the tenant for a certain period against eviction, thus the tenant decides how long he wants to stay (with a maximum term established by the Law). More importantly, the landlord cannot freely increase the rent during that time due to the rent control rules. Year after year, until the relation reaches the maximum term of protection established by the Law, the conditions contracted by the tenant and the landlord get outdated with respect to market conditions. As a result, if the rents in the market increase at a higher rate than the allowed rent increase by the "rent control" rules (usually the average CPI), the landlord will always suffer a real rent reduction.

As conclusions, chapter 3 shows that both types of restrictions (rent control and protection against eviction) were affecting the tenancy contracts all over Europe during the second half of the 20th century. Then, following a theoretical model that exploits an asymmet-

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3. *Ley de Arrendamientos Urbanos*.

ric information mechanism, the chapter shows that those restrictions may imply some negative effects for the tenancy market, as those rules may imply an increase in the equilibrium rent and may disincentive some of the tenants from participating in the market.

1.3 The effect of "enforcement institutions" in the housing markets: the role of the judicial system

Landlords may also be affected by deficient enforcement institutions, such as a slow or costly judicial system. For instance, if the landlord is confronted to a non-paying or delinquent tenant he may decide to use the judicial system to evict the tenant or to ask for the lost rents. If it is too costly to use it, he may decide not to participate in the tenancy market any more.

The economic literature analyzing the enforcement institutions has stressed several undesired effects of an inefficient judicial system. For instance, it may increase the proportion of credit restricted enterprises or it may reduce the entry rate of new enterprises [Padilla and Requejo (2000), Jappelli *et al*. (2005), Desai *et al*. (2005) and Padilla *et al*. (2007)]. However, the same literature has not paid the same attention to the effects of an inefficient judicial system in the housing markets. Casas Arce and Saiz (2006), provide an international perspective of this problem analyzing the effect of "judicial formalism" on the housing tenure decision. "Judicial formalism" can be understood as a measure of procedural complexity of a judicial system. It aims to approximate the difficulty to use the system through a measure of the number and complexity of the procedures needed to have a case solved in a court. Djankov *et al*. (2003) found that formalism is related to higher cost and time invested to solve a conflict. Nevertheless, "formalism" is just an indirect measure of judicial inefficiency. The literature lacks some more efforts to measure the effects of judicial inefficiency on the housing markets using direct efficiency measures. Specifically no research can be found measuring the effects of a slow judicial system in the property and tenancy shares in Spain even though direct rates of judicial resolution or judicial congestion can be constructed. This book tackles those problems in its fourth and fifth chapters analyzing the Spanish judicial system in the long run (chapter 4) and analyzing its relation with the functioning of the housing market in Spain (chapter 5).

1.3.1 A CHARACTERIZATION OF THE JUDICIAL ENFORCEMENT OF CONTRACTS IN SPAIN IN THE PERIOD 1966-2008: ANALYSIS WITH FORMALISM INDICES

Chapter 4 of this book constructs a measure of procedural formalism for the Spanish judicial system in the long run. In order to do that, the methodology proposed by Djankov *et al*. (2003) has been applied after being adapted to the characteristics of the Spanish Civil Procedural Laws.

While Djankov *et al*. (2003) showed their results just for a year and for a very specific procedure (as they fixed the amount in dispute), the fourth chapter of this book provides results for the period 1966-2008 and analyzes all the possible civil procedures in Spain (therefore, the chapter does not fix the amount in dispute, allowing for a richer analysis of the judicial system). Moreover, it corrects the results using real utilization rates of the different procedures for the period 1995-2006. Then, the chapter also provides a long run measure of procedural formalism for the specific case of a tenancy conflict, such as the one originated by a non-paying tenant.[4]

As it was already discussed, even though the measure of "formalism" provides a profound analysis of how the Civil Procedural Law (CPL) of a country is designed it is just an indirect way to measure judicial efficiency. Following that idea, and taking into account that in Spain it is possible to construct direct measures of efficiency (through the computation of judicial resolution, pendency and congestion rates for the last decade), the fourth chapter also provides a discussion on the effects of formalism on recent developments of the Spanish judicial efficiency.

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4. Tenancy conflicts in Spain have to be solved using a special procedure set up by the Civil Procedural Law.

The chapter concludes that judicial formalism in Spain has fallen since 1966. Moreover, the reductions in formalism would be particularly important since 2001 as a result of the introduction of the new CPL.[5] However, this indirect or theoretical improvements in the judicial system seems to have implied also an increase in the number of conflicts arriving to the Spanish courts, increasing the workload of the system and thereby increasing their rates of congestion and pendency (and reducing the rate of resolution). Thus, the reduction in legal formalism would have indirectly caused a drop in the effective efficiency of the system.

Regarding the particular result for the special procedures directed to solve tenancy conflicts, the chapter does not find any significant improvements in their rate of formalism, unlike what was observed for the civil justice system as a whole.

1.3.2 IS JUDICIAL INEFFICIENCY INCREASING THE HOUSE PROPERTY MARKET WEIGHT IN SPAIN? EVIDENCE AT THE LOCAL LEVEL

The fifth chapter of this book aims to quantify the effects of judicial inefficiency in the rates of home ownership in Spain. In order to do that, an econometric model exploiting interprovincial differences both in judicial efficiency and property shares over the last decade (2001-2007) is applied to the problem, therefore employing panel data techniques.

In this chapter, judicial efficiency rates are calculated both for the "declaratory" stage and the execution stage of the procedures needed to evict a non paying tenant and in three different ways (in the form of a resolution rate, of a pending cases rate and of a congestion rate). Also, several controls are introduced in the econometric model in order to take into account several other factors affecting the tenancy and property shares in the Spanish provinces that are not captured by the figures of the judicial system. That is the case of the user cost of housing (or the housing prices), the population density, the proportion of young population in the province or the wealth of the provincial population among others.

The chapter concludes, after estimating the model through two-stage generalized method of moments techniques (two-step GMM) and applying several tests of robustness, that an increased judicial inefficiency implies an increase in the rate of home ownership in the Spanish provinces. In other words, when the landlords face greater difficulties to enforce their contracts, many of them will choose to leave the rental market. As it may be expected, such effect is small compared with many other factors affecting the housing tenure decision (such as income).

1.4 Conclusions

Beyond the specific results of each of the chapters of this book, it is possible to confirm that "institutions" affect the functioning of the Spanish and European housing markets. Therefore the analysis of institutions should always be addressed in the economic analysis of those markets. Moreover, very recent events confirm how "institutions" are becoming an important part of the analysis performed by different public administrations when they aim to address the problems of the tenancy and property markets in Spain. For instance, the Ministry of Housing of Spain (2008 and 2009) has claimed that excessive protection of the tenants and the slowness of the courts when resolving disputes involving non-payment of rents would be reducing the rental market in Spain. Moreover, in November 2009 the Parliament passed a Law that changes the regulation of some of those aspects.[6] This analysis and the initiatives for reforming the regulations of the market are beyond the traditional economic analysis that was usually based in taxation measures or the provision of public housing.

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5. The Parliament *(Cortes Generales)* passed a new Civil Procedural Law in 2000 (Law 1/2000 of 7th January). This Law entered into force in 8th January 2001. **6.** Law 19/2009 of 23rd of November *"de medidas de fomento y agilización procesal del alquiler y de la eficiencia energética de los edificios".*

2 The effect of institutions on economic performance

2.1 Institutions

As Coase (1992) and North (1981, 1990 and 1994)[1] highlighted, the explanation provided by modern economic theory of how the economy works, though precise and elegant, generally ignores two fundamental ingredients of the functioning of markets: institutions and time.[2] Therefore, modern economic theory fails to provide convincing answers for a multiplicity of economic problems. For instance, at the aggregate level, the neoclassical and subsequent theories fail to explain the persistent differences in income across countries even though they may work well explaining the economic performance in developed economies [North (1990)]. In other words, after accounting for the effect of capital and labour inputs and even after accounting for human capital and R+D, large differences in income remain across nations.[3] Recent developments in the economic literature argue that "institutions" play a critical role in those differences [Hall and Jones (1999) and Helpman (2008)].

At the microeconomic level, neoclassical theories sustain that prices are a suitable mechanism for signalling and representing the correct value of goods. That is true in an environment of perfect information, but prices rarely take into account the value of uncertain property rights and transaction costs [Coase (1960) and North (1990)]. Related to that, neoclassical theories are insufficient in explaining why intra-firm coordination and economic planning, at least at the enterprise level, are occasionally better than the pricing system coordinating the incentives of economic agents.[4]

North (1990 and 1994) defined "institutions" as the "rules of the game" or the "incentive structure" of a society. That structure is formed by humanly devised constraints that rule any interaction. Thus, the concept would include "formal constraints" (for instance, the Law in a specific country that defines the property rights and several policy interventions), "informal constraints" (such as conventions, codes of conduct[5] and, to a certain extent, "culture") and the mechanisms created to enforce them (such as a judicial system). Time (History) shapes those institutions and adapts them to new circumstances through shocks and learning.[6]

Individuals could reach to optimal contracts and could maximize their incomes without the need of an institutional guidance but only in the case of costless bargaining and full information [Coase (1960) and North (1994)]. But as Coase (1960) stressed, assuming a frictionless economy, with full information available, is very unrealistic. This argument was empirically supported by a number of studies, some of them for very partial markets [see, for instance, Demsetz (1968)] but also for the whole economy. Wallis and North (1986) found that in 1970 the size of the transaction sector in the United States (as percentage of GDP) was 54.7%.[7] Likewise Dollery and Leong (1998) found 48.5% for Australia in 1971 (59.5% in 1991),

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1. Ronald H. Coase and Douglas C. North won the Nobel prize in economics in 1991 and 1993 respectively. **2.** Geography should also be taken into account as other factor usually ignored by the economic literature. However it is not the focus of this book. See section 2.6 for a discussion on the topic. **3.** Neither the neoclassical exogenous growth models (Solow 1956-Swan 1956 and Ramsey 1928-Cass 1965 –Koopmans 1965) nor the endogenous (technological progress) growth theory (from the AK models to Lucas 1988) provide a convincing explanation of long term differences in economic development. **4.** The discussion about the comparative efficiency of central planned economies with respect to capitalism is long out of the question, at least since the fall of the Soviet Union. However, it can be stressed that some central planned economies (for instance, the Soviet Union just after the Second World War) experienced higher growth rates than their capitalist counterparts for significant periods of time. That fact brought about the controversial idea that central planning could be a more efficient economic system under certain circumstances (Schumpeter, 1950). **5.** Following article 1 of the Spanish Civil Code (1889), customs are a source of Spanish Law. **6.** In the words of Nicholas Crafts: *"History matters because institutions and policies are persistent but shocks change their implications for productivity"* (Ninth Figuerola Conference, Madrid, October 5th 2009 "The contribution of new technology to economic growth: lessons from economic history"). **7.** Transaction costs are appropiately captured as final goods and therefore they should be included in the GDP (Wallis and North, 1988).

Dagnino-Pastore and Farina (1999) 26.8% for Argentina in 1970 (34.5% in 1990) and Sulejewicz and Graca (2005) 49.7% for Poland in 1996. In other words, if we abandon the assumption of a regime of zero transaction costs, the legal system (as representative of the institutions of the economy) becomes crucial [Coase (1992)] as it can be understood as a guide to confront uncertainty [North (1990)].

Since the seminal studies reviewed above, the interest in the analysis of the effect of institutions on economic performance has been growing steadily in the literature. Nowadays the authors working in this area of research are frequently at the top of the rankings of citations.[8] Finally, two general conclusions can be reached from the recent literature[9] [as predicted by North (1999)]: institutions matter and they can be as important as capital accumulation, human capital or R&D explaining economic prosperity and economic change [Helpman (2008)].

2.2 Inefficiency and change in the institutional matrix

Ideally institutions are socially efficient and are created to provide correct information and guidance on human transactions. But, as it was highlighted by North (1981, 1990 and 1999), institutions are usually inefficient as human agents have an imperfect and partial knowledge of the political-economic system for which they are created. Humans act on beliefs about how the political-economic system works. Then, the dominant belief becomes institutions through, for instance, the political and legislative process. That is to say, institutions are partially the outcome of a political process that also suffers from high transaction costs and scarce information. Politicians may tend to maximize the probability of being elected rather than producing the most efficient regulations. In fact, the public choice literature has provided several examples on how the political process may produce outcomes that diverge from the general preferences of the society (see, for instance, the median voter theory of Black (1948) and Downs (1957), and its criticisms, for example, Romer and Rosenthal (1979)]. Moreover, institutions that had been efficient in the past may become inefficient because they are difficult to change [North (1999) and Helpman (2008)] and thus may become outdated with respect to current economic and social conditions.

Finally, another source of "wrong" institutions can be the "import" or "transplant" of institutions designed for other countries or other socio-economic environments. The extension of European legal institutions such as the Civil Law system or the Common Law system to other regions during colonizations is a case of legal transplant and, some argue, can have long-lasting economic implications [La Porta *et al*. (1997 and 1998), Djankov *et al*. (2003) and La Porta *et al*. (2008)]. Apart from these historical examples, there are very recent examples of "transplants" (even though in very different circumstances) such as the introduction of a German-inspired property Law in China in 2007 or several other reforms in the legal environment of formerly socialist republics.[10] In any case, background informal institutions may play a very important role on the success or failure of a transplanted institution.[11]

Can we expect that time and learning will correct the "wrong" institutions? North (1990) is rather pessimistic about the process of institutional change as the information feedback is usually insufficient to correct beliefs and "models". As a result, current institutions can

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8. Thomson Scientific's Essential Science Indicators. http://sciencewatch.com/dr/sci/08/may4-08_4/. **9.** Several examples of the most recent literature in this area of research are analyzed in the next sections. **10.** After the fall of many socialist or central planned economies, Civil Law was "imported" by several countries in the 90's such as Russia (ex-USSR). **11.** In general, it can be said that the issue of legal transplants and their effects generates a "tremendous heat" and it can lead to wrong conclusions about the "superiority" of certain systems or solutions with respect to others (La Porta *et al*. 2008). For instance, the Doing Business Project of the World Bank has been criticised several times because it promotes certain simplifications in the business regulations (such as the process of registering a property), inspired in the principles of Common-Law countries, that may not fit in countries with other legal cultures (Arruñada, 2007).

be inefficient and reduce economic development instead of improving economic performance. In other words, they may increase transaction costs instead of reducing them, create coordination problems and disincentive agents to participate in the market.

2.3 Classification of institutions

2.3.1 FORMAL CONSTRAINTS AND INFORMAL CONSTRAINTS

Consistently with the complexity of the economy, institutions take very different forms. North (1990 and 1994) proposed to classify them in "informal constraints", "formal constraints" and "enforcement".

As it was said before, "informal constraints" would include conventions, norms of behaviour, codes of conduct, customs, traditions, etc. They are especially difficult to measure but their action is essential to explain why formal rules (the Law) may exert different results in different economies. In fact, it is not clear that formal rules can modify or "abrogate" pre-existing informal constraints. However, after admitting their crucial role, the key role among "institutions" is played by formal rules in any complex society. Only very simple or primitive human structures could be explained just analyzing "informal constraints".

"Formal constraints" would include the Law in a specific country. In the case of Spain or other societies based on Civil Law, that concept would include any written rule (the Constitution, Laws and other kinds of legislations, Decrees, Statutes, etc.) but also private contracts[12] and certain judicial decisions. Thus, all the rules of organization of the polity, the property rights and all other "economic rules" should be included in this type of institutions [North (1990)].

Several recent research projects have proposed new ways to measure "formal constraints". Moreover, these studies have been successful in finding significant effects of those constraints on economic performance. Among many others, La Porta *et al*. (2002) measured the regulations of entry of start-up firms and found that too heavy regulations do not produce any benefits for new firms. Botero *et al*. (2004) investigated the regulation of labour markets, providing a measure of restrictiveness. They found that more stringent regulations were related to higher unemployment. However, Djankov *et al*. (2008) measured the regulations affecting the financial markets and concluded that they need to be regulated to achieve efficient results. The Doing Business project of the World Bank has analyzed the latter regulations among many others following the methodology proposed in the cited papers since 2004.[13] Also other international projects (such as the World Global Competitiveness index of the World Economic Forum)[14] began to include "institutions" (generally referring to formal constraints) as a "pillar" to observe in order to characterize competitiveness. The complexity and cost of those projects denote the importance that "institutions" (as a field of research) is achieving in the economics profession.

2.3.2 ENFORCEMENT

Enforcement would include the mechanisms created to enforce the formal (and informal) constraints. In other words, the violation of a formal constraint may be put on trial before a judge (although other options may be available) and the violation of an "informal constraint" may deserve certain types of social punishment.

Some enforcement mechanisms are provided by the public sector. The most representative example is the judicial system where a third-party (the judge) solves a specific conflict

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12. As article 1091 of the Spanish Civil Code (1889) establishes: *"Las obligaciones que nacen de los contratos tienen fuerza de ley entre las partes contratantes y deben cumplirse al tenor de los mismos"* (obligations arising from contracts have force of law between the contracting parties). **13.** The last release of the Doing Business Project took place in September 2009 ("Doing Business 2010: reforming through difficult times"). **14.** The last release also took place in September 2009.

between private or public parties. Notaries would be another public instrument of enforcement that corresponds to more specific types of contracts and transactions.

On the private side, arbitration may be available and also requires the participation of a third-party. However, theoretically, several other mechanisms of "self-enforcement" may be used, such as an agreement between the parties themselves or the use of primitive violence or coercion of one party over the other [Moreno Catena and Cortés Domínguez (2004)]. Those mechanisms are probably more common in the case of enforcement of "informal constraints".

Finally, if there is enough information in the economy or it is not excessively costly to produce it, several complementary mechanisms of enforcement may appear, such as "reputation" or "prestige" [North (1990)]. A company or a professional with good reputation may increase its profits in the market if the customers know that no problems will appear later on (therefore "reputation" may be a substitute of other instruments of *ex-post* enforcement).

Enforcement is always costly, especially when a third-party is involved. Agents such as the judge or the arbitrator have limited information about the conflict which has to be solved. Moreover, those agents are influenced by incentives which may not coincide with those of the parties. Therefore enforcement is imperfect [North (1990)] and as a result, violating the Law (or other constraints such as the private contracts) may be a successful and profitable strategy [Becker (1968), Stigler (1970), Ehrlich (1972) and North (1999)].

In addition, North (1990) stresses that enforcement mechanisms are the main difference in the institutional structure between the Third World and the developed economies. This fact was analyzed by Djankov *et al*. (2003) for the specific case of judges, concluding that, at least at the formal level, the functioning of the courts differ significantly throughout the world. Similar results have been persistently found by several surveys such as the World Business Environment Survey of the World Bank (between 1999 and 2000) or the Doing Business project (World Bank) since 2004.[15] That fact has relevant implications for development. Different systems of legal enforcement would be related to different levels of investor protection [La Porta *et al*. (1997 and 1998)], to different levels in the availability of funding [Padilla and Requejo (2000), Fabbri *et al*. (2004) and Japelli *et al*. (2005)] and to lower entry of new firms [Desai *et al*. (2005)].

To sum up, there exists a growing consensus about the notion that enforcement matters for economic development. If enforcing the Law or the contracts is too costly, several individuals may decide not to participate in the markets thus hampering economic development.

2.4 Institutions of the housing markets

North (1990) stresses in his research that the "housing market" is an example of a market that is affected by an especially complex matrix of institutions. He considers the case of a specific transaction such as selling a house and analyzes several institutional determinants related to it. His interest is based on the following aspects: on the one hand, the housing market is deficiently analyzed by the neoclassical theories. North sustains that its prices rarely reflect all the transaction costs, as it is especially costly for the participants to obtain the relevant information of the goods dealt within the market. That information ranges from credit conditions to the respect of informal (and formal) rules by neighbours. On the other hand, in the housing market it is easy to find "wrong" institutions that increase transaction costs instead of reducing them.

As a matter of fact the interest in the analysis of the housing market goes well beyond the specific example proposed by North (1990). The housing market as a whole, including both property and tenancy relationships, is a deeply regulated market with a rich set of public

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15. The methodology of the Doing Business Project for this issue is based on Djankov *et al*. (2003).

interventions and very complex enforcement instruments. Some of those institutions are correctly designed while others are outdated or deficiently planned and thus exert undesired effects.

Several examples of unexpected effects produced by public interventions can be found in the economic literature. Taking the case of Spain (although similar policies can be found in several other countries), a stream of literature finds that the fiscal incentives introduced to help individuals to access house property have both harmed the tenancy market [López García (1996), and García Vaquero and Martínez (2005)] and have been regressive [Sanz (2000), Bilbao Terol *et al*. (2006)]. Also, fiscal benefits or tax deductions designed to favor tenants in the tenancy market have usually benefited landlords, thus having a weak positive effect [Susin (2002), Lafarrere and Le Blanc (2004), and Gibbons and Manning (2006)].

Nevertheless, as it was already said, the housing market is affected by more permanent and wide-ranging institutions as general market regulations and enforcement instruments. Zoning and land regulations are probably one the most complex areas of the Law and have attracted the attention of several economic research projects. In several countries, zoning regulations promote directly or indirectly a model of "compact" city in order to save in transportation costs and energy. However, several studies blame the zoning and planning regulations for increasing land prices [Asabere and Huffman (1999), Glaeser and Ward (2006), and Barker (2008)] or argue that the reduced transport costs related to "artificially" compact cities do not overcome other quality and environmental costs [Mills and De Ferranti (1971), and Brueckner and Fansler (1983)].

Also enforcement institutions have a critical role in the housing market. Both the notaries and the property registry can be considered specific instruments of enforcement of this market. They provide full security to real estate transactions if they are well designed. However, they are costly to maintain and may reduce market activity if they fail. The Doing Business Project of the World Bank (2009)[16] has recommended a simplification of the requisites related to registering property (and the role of notaries) arguing that very costly procedures hamper economic activity.[17]

The examples given above are just a small sample of the institutions that were introduced in the housing market and produced unexpected effects (probably due to obsolescence or to poor design). Other examples of institutions that may affect the housing markets in an unexpected way or may exert negative economic effects are the tenancy market regulations[18] (introducing rent control or compulsory terms) or slow or inefficient instruments to enforce tenancy contracts. Those are the institutions analyzed in this book.

2.5 Tenancy markets, property markets and justice

During the 20th century and especially after the Second World War, the house tenancy market has lost weight with respect to the property market all over Europe. However, the reduction in the tenancy market weight is particularly extreme in Spain. The first Census compiling this statistic (1970) showed a proportion of house property around 60%. The last data available [Ministry of Housing (2008)], showed that the proportion had increased and was above 94% in some provinces. That can be seen as a controversial development as several studies stressed that a too much reduced tenancy share is inefficient and may decrease economic growth through a reduced mobility of workers [Hardmand and Ioannides (1999), and Barceló (2006)]. In fact, it is observed that economics with bigger tenancy markets show higher regional mobility (for instance France or Germany) [Maclennan *et al*. (1998), Barceló (2006)] and

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16. As it was already said, the first database of the Doing Business Project corresponds to the year 2004. **17.** However, Arruñada (2007) criticized the over-simplification that may derive from the ideas of the Doing Business Project pointing out that simplification may also reduce information and legal certainty, increasing the costs of future dealings. **18.** Therefore, those regulations are examples of "formal constraints".

at the same time the economic literature stresses that lower mobility is related to higher unemployment [Layard *et al*. (1991)].

Over the last decades several other factors may have affected the evolution of the property share in Spain. Among those are fast falling interest rates [Blanco and Restoy (2007)] especially after 1993, the liberalization of the banking sector since 1980 that may have played an indirect role by favouring the access of households to credit [Kumbhakar and Lozano-Vivas (2004), and Iacoviello and Minetti (2003)] or a tax regime that provides incentives to buying rather than to renting [García-Vaquero and Martínez (2005)]. However, as it was already mentioned, other factors such as the institutions of the housing market may have affected the relative shares of tenancy and property markets, influencing the preferences of consumers towards buying. Two of those factors are the tenancy laws (as an example of "formal constraints"), which introduced constraints in private tenancy contracts, and the role of the judicial system that may disincentive some of the agents through an ineffective enforcement of the contracts.

2.5.1 THE EFFECT OF "FORMAL CONSTRAINTS" IN THE HOUSING MARKET

Chapter 3 of this book aims to analyze the effects on the tenancy market of two restrictions introduced by the typical European tenancy laws: "rent control" policies and "compulsory terms" that prevent the eviction of the tenant for a certain period.

Rent control policies generally tend to "freeze" rents and allow only exceptional upward adjustments in the rent paid by the tenant (thus reducing the profitability of the contract for the landlord). However, in Spain and other European countries, the design of the "rent control" is less severe and usually includes automatic rent increases linked to the rate of inflation (the Consumer Price Index or similar indices).

The effect of rent control policies have been studied extensively by the economic literature, both theoretically as in Basu and Emerson, 2000 and 2003 or in Raess and Ungern-Sternberg, 2002, and empirically as in Johnson, 1951 or Sims, 2007, probably because they can be found in most developed countries (particularly in the U.S.). However, the specific type of "rent control" found in Europe has not received the same attention. The same problem can be identified in the case of the rules that allow the tenant to decide the duration of the contract and thus protect him against eviction for a certain period. The latter rules are typically European and are very rarely found in other countries.

The "compulsory term" or "protection against eviction" rules can be found in Spain and the rest of the European countries with different "time extents" of protection (for instance, 5 years in Spain, 3 in France or 6 months in the UK for certain types of contracts[19]).

The effect of both types of rules, taking into account the regulatory specificities found in Europe (limited protection against eviction plus positive inflation clauses), are tackled theoretically [using an asymmetric information framework similar to Basu and Emerson (2000)] in order to analyze their effects in the housing market.

2.5.2 THE EFFECT OF ENFORCEMENT PROCEDURES IN THE HOUSING MARKET

If there is a violation of a tenancy contract such as unpaid rent by the tenant, the landlord will try to enforce the contract using the enforcement mechanisms available. Although some extra-judicial solutions may be found (arbitration in some cases)[20], the judicial system is the main enforcement mechanism available for the parties.

The effects of a slow or a costly judicial system in the specific case of conflicts related to tenancy contracts have not received much attention in the economic literature. In any case, it is reasonable to assume that, if enforcing those contracts is slow or costly, landlords will bear

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19. "Assured shorthold tenancy". **20.** However, only the judicial system can execute an eviction in Spain.

higher costs and uncertainty and therefore some of them may decide not to rent their dwellings. As a result the relative share of the tenancy market would decrease.

First of all, testing that hypothesis requires an extensive research on the efficiency of the judicial system. As it was already discussed, North (1990) believed that the main differences among institutions across nations could be found in the "enforcement" procedures. Some attempts to compare judicial systems worldwide can now be found in the literature. Djankov *et al*. (2003) compared the "efficiency" with which the judicial system evicts a delinquent tenant across 109 countries and found important differences, even among the most developed economies. However, Djankov measured "efficiency" indirectly, through the use of a "formalism index". He assumed that higher formal procedures were related to low predictability and longer expected times of execution and in fact found some evidence in this direction.

Casas-Arce and Saiz (2006) tested the hypothesis at international level (thus, again comparing different countries) analyzing the effect of judicial formalism [based on Djankov *et al*. 2003)] on the share of rented dwellings. They found that an increased rate of formalism (implying indirectly higher costs of utilization of the system and slower decisions) implied a reduction of the weight of the tenancy market. However, neither study analyzes the case of Spain in depth nor uses direct measures of efficiency. In turn, this book aims to provide an estimation of the effects of judicial inefficiency on the housing tenure decision in Spain. For that purpose, two different perspectives are investigated (chapters 4 and 5).

On the one hand, chapter 4 provides a discussion on the performance of the judicial system in Spain in the long run (1966-2008). The chapter adapts the methodology of Djankov *et al*. (2003) to the Spanish case and provides a measure of formalism for the Spanish justice. The measure is calculated for the whole judicial system in Spain in the case of solving two different conflicts: a general private (civil) conflict derived from an unpaid debt and the case of a tenant eviction. However, as it was already discussed, "formalism" is just an indirect way to measure "inefficiency". Therefore, some direct measures of efficiency such as the congestion rate, the pending cases rate and the resolution rate are calculated, and the effects of the introduction of the most recent Civil Procedural Law in 2000 are discussed.[21] Indeed, the reduced formalism implied by the introduction of the new Civil Procedural Law seems to be a good explanation for the developments in judicial efficiency since 2000.

On the other hand, chapter 5 analyzes the effect of judicial inefficiency in the housing tenure decision in Spain through panel data techniques. Direct measures of "inefficiency" (congestion rates, pending cases rates and resolution rates) are calculated for all the Spanish provinces for different stages of the judicial procedure[22] to solve a tenancy conflict for the period 2001-2007. Therefore, chapter 5 tests the hypothesis discussed above (whether an increased inefficiency in the enforcement of tenancy conflicts implies a reduced weight of the tenancy market) for the specific case of Spain, using disaggregated data at the local level.

2.6 A note on geography

Geography has been also considered a determinant of economic development and, similarly to institutions and history, it has been long ignored by the economic literature.

Several research papers have stressed the role of geography on economic growth through its effects on transport costs, diseases or agricultural productivity [Gallup *et al*. (1998), and Sachs (2001)]. Many of the "geographical" effects can be changed through time [Henderson *et al*. (2000)] if proper investments are done, such as transportation costs and the spatial distribution of economic activities, but others are persistent and difficult to change (diseases, climate).

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21. Law 1/2000, of January 7th (Civil Procedural Law). **22.** The "declaratory" stage of a conflict derived from an unpaid rent and the "execution" stage.

In any case, the most recent research relativizes the role of geography on economic development and stresses that, once it is taken into account the role of institutions, geography does not matter or its effect is very secondary [Acemoglu *et al*. (2001), Acemoglu *et al*. (2002), Rodrik *et al*. (2004) and Segura-Cayuela (2008)].

The debate about the primacy of institutions over geography has not ended in the literature. Nevertheless, as the research experiments carried out in this book do not depend on typical economic geography problems, "geography" as a determinant of market outcomes has not been taken into account.

3 The institutions of house tenancy markets in post-war Western Europe: an economic analysis[1]

3.1 Introduction

In several European countries the weight of the tenancy market relative to the total stock of principal residences has diminished over the 20th century. Chart 3.1 shows, from public data of the European central banks, recent evidence for 12 European countries.

Several explanations could be provided to understand that general trend, ranging from the finance literature that takes housing as an investment good, to the more general housing economics literature that also takes housing as a consumption good [Henderson and Ionnides, (1983) and Rosen *et al*. (1984) for some early references]. For instance, during the last decades, there have been improvements in the access to credit or a significant development of the financial markets [Iacoviello and Minetti (2003), Kumbhakar and Lozano-Vivas (2004), Blanco and Restoy (2007)] that may have favoured the property market. Also, some fiscal regimes have privileged buying versus renting [López-García, (1996), and García-Vaquero and Martínez (2005)]. However, in general, market regulations and institutions are usually neglected in more broad economic studies.

In more specific literature that takes into account the market regulations, a weak tenancy market and a diminishing rate of tenancy, relative to property, is related, among other factors, to the introduction of rent control policies. The basic microeconomic intuition that relates a rent ceiling with a diminishing quantity and quality of the residences in the tenancy market has been supported by several empirical analyses [Johnson (1951), Glaeser and Luttmer (2003), and Sims (2007)]. In fact, there seems to be a consensus among economists about the effects of rent control [Alston *et al*. (1992)]. The analysis carried out in several theoretical models also point to the same conclusions [e.g., Basu and Emerson (2000), Raess and Ungern-Sternberg (2002), Basu and Emerson (2003)].

However, most of the research on rent control has studied the type of market intervention enforced in cities or States of the United States [for a summary, Turner and Malpezzi (2003)]. In contrast, less work has been done about the specific effects of the European type of tenancy restrictions. Exceptions to that are Peña and Ruiz-Castillo (1984) for Spain, Munch and Svarer (2002) for Denmark or Lyytikäinen (2006) for Finland. However, the focus of those studies is not the analysis of the design of the regulations themselves.

Moreover, the regulations in force in the different European countries introduced not only rent control policies but also another restriction that protected the tenants against eviction for a certain term. Both of them may have had an effect on the general diminishing trend of the tenancy figures. At the same time partially liberalizing Laws, like the ones passed in the UK (England and Wales) and Finland may have had the opposite effects.

The aim of this chapter is to analyze the regulations specifically directed to the tenancy markets in Europe and to provide an analysis of their economic implications. The structure of this chapter proceeds as follows: first of all, the chapter identifies the most common market regulations affecting the European tenancy contracts by analyzing the different national Laws (section 3.2). Then, those regulations are introduced in a model of tenancy markets to theoretically test for their effects. For that purpose an adapted version of the model of Basu and Emerson (2000) is used (section 3.3). Finally, some conclusions linking the European regulations with the results of the model are provided (section 3.4).

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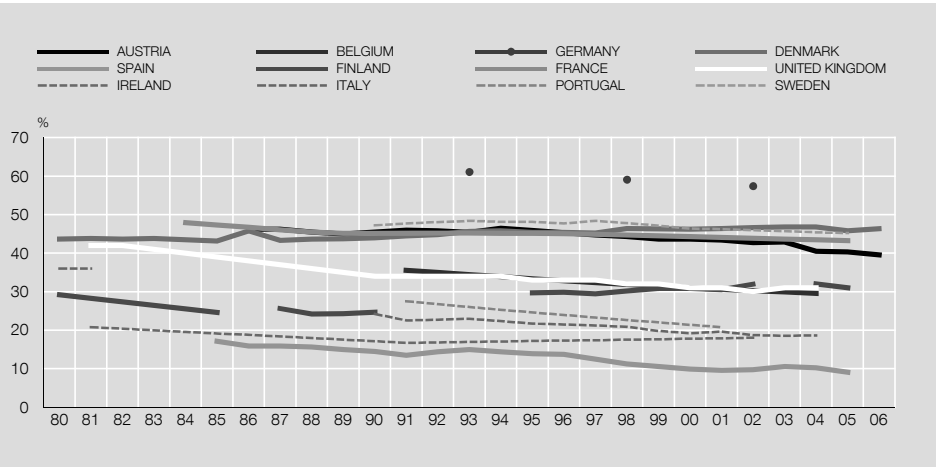
1. This chapter was presented in the forum of the III Harvard Course in Law and Economics (Harvard University, USA) (2006), in the research seminar of the Banco de España-Eurosystem (2006) and in the forum of the II Joint Summer School of the ESF Programme GlobalEuronet "Globalizing Europe" (Tartu University, Estonia) (2007). A previous version of this chapter was published (Mora, 2008) as a working paper of the Department of Economic History and Institutions of Universidad Carlos III de Madrid.

SHARE OF RENTED DWELLINGS IN 12 EU COUNTRIES CHART 3.1



SOURCE: ECB Statistical Data Warehouse (2007).

3.2 The regulations of house tenancy markets in Europe

Tenancy is still today heavily regulated in Europe. At the beginning of the 20th century tenancy was not so heavily regulated and "contractual freedom" inspired the contents of tenancy contracts following the principle of "autonomy" of the private parties[2] [Rodríguez-Aguilera and Peré (1965)].

During the 20th century "contractual freedom" was restricted with the introduction of some tenancy regulations (rent ceilings, compulsory terms, control over the increase of the rent…). Some of them had the objective of improving the situation of the tenants in a context of flats shortage after the First or Second World War in several European countries or the Civil War in the case of Spain.

Limiting the analysis to one of those restrictions, the control over the increase of the rent paid by the tenant, Arnott (1998) classified the different types of rent control into "two generations". A "first generation" rent control would include rent freezes and exceptional upward adjustments. A "second generation" rent control would include automatic percentage rent increases linked to the rate of inflation (or similar indices). While in the United States tenancy markets were gradually deregulated and very few cities maintained the controls after 1950, in Europe the first generation rent controls survived longer due to the long lasting effects of the Wars. Arnott (1998) identifies the surge of the second generation controls with the inflationary crisis of 1973. The old controls, as they did not allow for inflation correction, seemed too inefficient in a context of high inflation.

As it was already mentioned, rent control is only one of the market regulations introduced in the European tenancy markets in the 20th century. Another main market regulation can also be identified in the different European systems: "compulsory terms" as a way to temporarily protect the tenant against eviction. It is possible to classify those regulations by their severity: the protection could be permanent, therefore rendering the length of the contract to the will of the tenant, or temporary (a protection given to the tenant for a few years time). The most recent regulations in the different European countries opt for the temporary solution (3 to 5 years).

The aim of this section is to offer an overview of the history of those regulations (rent control and compulsory terms). A detailed analysis is provided for Spain, as a benchmark, Italy, UK and Finland. The last three cases as examples of countries that passed some relevant reforms over the last decades. Finally, section 3.2.5 offers an overview of the most recent regulations for a multiplicity of European countries (see table 3.1).

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2. That is present, for instance, in article 1255 of the Civil Code of Spain (1889) or article 1322 of the Civil Code of Italy (1942). Those articles follow the French tradition (article 1134 of the French Civil Code, 1804).

RECENT LEGAL REGIMES OF THE TENANCY CONTRACTS IN EUROPE

TABLE 3.1

COUNTRY	LAW IN FORCE IN THE PERIOD OF STUDY	TERM	RENT	OTHER CLARIFICATIONS
Austria	ABGB (Civil Code) (1811) and MRG (1981) as special Statute.	Minimum term of 3 years.	The rent and the rent increase is thoroughly regulated. The Law sets the maximum rent at the time of conclusion of the contract. The increase in the rent is possible but it has an upper bound (the consumer price index).	
Belgium	Statute of 1991 (comprehensive amendment in 1997).	Minimum term of 3 years.	An index-clause can be introduced to increase the rent (although increasing it further than the "cost of living" can be declared void in courts). A market rent review can take place each three years (without the risk of being declared void in court).	
Denmark	Rent Act (consolidated as Act 347 of 14/05/2001). Rent Control Act (consolidated as Act 348 of 14/05/2001).	No minimum term is established by the Law although notice from the landlord to terminate the contract is subject to severe conditions. The landlord may give notice if he intends to use the apartment for himself.	Increase is allowed if justified (the value of the property must be significantly higher than the rent paid in proportion to that). An increase via an "index-clause" is generally not allowed. In small multi-storey properties the rent is determined by the usual rent paid for properties of equal location, size, type, facilities and condition.	
England and Wales	Rent Act 1977. Housing Acts 1980, 1988, 1996 and Common Law.	Several regimes are in force. From 1997 the "assured shorthold tenancy" is the default form of tenancy (the parties can contract for the term they wish but the tenant has the right to stay in the property for the initial 6 months in any case).	There is not a public general control over the increase in the rents although a specific rent increase may be submitted to control (courts, assessment committee). "Rent regulation" properly disappeared after the Housing Act of 1988.	Tenancies created before 15 January 1989 are governed by Rent Act 1977. After that date (and before 28 February 1997) tenancies can be "assured tenancy" or "assured shorthold tenancy".
Finland	Statute 482/1995. Statute 653/1987 (derogated).	No restriction. Under previous Statutes, the grounds for eviction were strict. Although landlord's need to use the apartment for himself was a valid ground to evict the tenant.	No restriction. Usually the rent increase is linked to the consumer price index.	More general rent regulation existed before Statute 482/1995 such as a linkage to a public index.
France	Mermaz act, Law 89-462 (1989).	Minimum term of 3 years (if the landlord is an individual).	If the tenancy contract provides the possibility of increasing the rent, the increase cannot exceed the construction cost index (provided publicly). In case of extension, the new rent must refer to the average rent of the neighborhood.	Previous Acts introduced similar restrictions: Law 82-526 (Quillot Act), Law 86-1290 (Quilès-Méhaignerie).
Germany	Civil Code (BGB). Amendments of 2001 and 2002.	The landlord has to give a reason listed in the BGB to terminate the contract.	If the rent exceeds in 20% the rent charged in comparable premises the landlord can be fined. An increase in the rent can only take place after one year of tenancy. The increase can be agreed freely or linked to a cost-of-living index. If the increase is not agreed in the contract the landlord can still ask for it but it cannot exceed the customary in the area of the premise (and in any case cannot exceed 20% increase in 3 years).	

SOURCE: National Legislations, government Law databases and EUI Tenancy Law Project.

RECENT LEGAL REGIMES OF THE TENANCY CONTRACTS IN EUROPE (cont.) TABLE 3.1

COUNTRY	LAW IN FORCE IN THE PERIOD OF STUDY	TERM	RENT	OTHER CLARIFICATIONS
Ireland	«Common Law» system plus some Statutes (Residential Tenancies Bill 2003).	Tenant can ask for an extension (up to 4 years) after 6 months of tenancy.	No restrictions under the regime applicable before 2003.	
Italy	Law 392/1978. Reform introduced by Law 431/1998.	Minimum term of 4 years.	Before 1998 the rent and rent increase was regulated. From 1998 there is no regulation on this respect (rent increases can be freely updated by agreement of landlord and tenant).	
Portugal	Civil Code (1966). Decree-Law 321-B/1990.	Minimum term of 5 years.	The parties can choose between a "free rent regime" or a "conditioned rent regime". Free regime: the rent and its increase are freely agreed. Although in the residence tenancy (in contracts up to 8 years) the increase is regulated (increase related to the consumer price index). Conditioned regime: the rent is set by the Law (that takes into account the average rents of similar premises). The conditioned regime can be mandatory under certain circumstances.	A new Law (6/2006) has been passed.
Spain	Royal Decree-Law 2/1985. Law 29/1994 (Urban Tenancy Act).	Minimum term of 5 years (Law 29/1994).	The rent increase is linked to the consumer price index.	Under Royal Decree-Law 2/1985 (between 1985 and 1995) there was no compulsory extension of the contracts.
Sweden	Special Tenancy act (1968), introduced in the Land Code (1970).	No minimum term established by the Law. However, the Law establishes a strict regime for the landlord. For instance, it is not a sufficient ground to terminate the contract that the landlord need the apartment for his own use.	Prices are normally determined by collective bargaining by associations. The courts do some rent control.	

SOURCE: National Legislations, government Law databases and EUI Tenancy Law Project.

3.2.1 SPAIN

The tenancy market was not deeply regulated in Spain before 1931. General rules of contractual freedom were applicable into the tenancy market with the exception of some partial decrees limiting the length and rent of the tenancy contracts for specific cases and cities during the decade of 1920.[3] It must be highlighted that the Spanish Civil Code (1889), was mainly liberal and established in its article 1255 that private parties were free to agree any terms and conditions in a contract as long as they were respectful with the "Law, morality and public order".

In 1931[4] the limitations to contractual freedom that were already introduced with the cited partial decrees became permanent. However, it is not possible to find a complete piece

3. Royal Decree of 21 June 1920. Its effects were extended by other Royal Decrees in 1921, 1922, 1923, 1924 and 1925. **4.** Decree of 29 December 1931.

of regulation on tenancy markets until 1946, when the government of Franco passed the first "*Ley de Arrendamientos Urbanos*" (Urban Tenancy Act).[5] Since then, a "*Ley de Arrendamientos Urbanos*" has been always in force in the Spanish tenancy market (the first as said, from 1946, and later on, with the regulations of 1964, 1985 or the most recent one of 1994). The introduction of limitations to contractual freedom took place mainly as a reaction to the profound changes of the Spanish society before the Civil War such as the rural exodus to the big cities and, after 1936, the shortage of housing caused by the Civil War. In any case, more general populist reasons intervened in the initiatives as a way to gain support for the newly established political regimes (on one hand, the Spanish Second Republic, and after 1939, Franco's dictatorship).

The Law of 1946 established a strict regulation over the tenancy contracts and made nearly inapplicable the principles of the Civil Code. As Rodríguez-Aguilera and Peré (1965) noted, the new Law responded to a new "social sensitivity". That regulation introduced, among others, two important regulations: "compulsory terms" and "regulated rents". At this stage, the interventions were severe. The protection against eviction for the tenant, that is, the compulsory term to be introduced in the contract, was unlimited. Even the close relatives of the tenant were able to succeed him as tenants in the same dwelling and with his same conditions. With respect to the rules governing the rents, the Law established fixed one-time increments in the rent paid for the flats rented before the end of the Civil War and freezed the rents for the new contracts.

In 1964 the government passed a new Law through a new Decree.[6] Several amendments to the old legislation had been introduced in the previous decade (Law of 22 December of 1955 among others), and it was necessary to publish a new legal text to rationalize and clarify the regulation. The new Law ruled the tenancy market until 1985 but it did not introduce significant changes in the rules governing the term of the contract (the indefinite extension of the term was still in force). On the other hand, a very timid change in the rules governing the rents was introduced. The Law allowed to increment the rents in the contracts signed after 1956 after the fifth year of renewal. The increase was tied to an official index related to the "cost of life" published by the Instituto Nacional de Estadística (INE) (National Statistics Institute).

The statistical information available about the tenancy market in Spain is very scarce, although it is reasonable to infer that during the period in which the regulations were in force the proportion of rented dwellings diminished. The census of 1970 showed that 30,1% of the main residences were rented in Spain while in 1981 that proportion had fallen to 20,8%.

Public opinion increasingly perceived that those types of regulations were not having any positive impact on the housing market and that the situation was now different from that of the post-war period. As a consequence, in 1985, with the so-called "Decreto Boyer"[7], the Government took a relevant step to liberalize the tenancy market by eliminating the compulsory extensions for all tenancy contracts signed after its enactment. However, the rents were still tied to the consumer price index (CPI) and the Decree was not applicable to all the contracts signed before 9th may 1985. Therefore its liberalizing measures did not apply to an important part of the tenancy market.

The measures taken aimed to revitalize the tenancy market but the figures of the censuses suggest that the effect of the new rules was quite limited: the census of 1991 showed a further reduction in the weight of the tenancy market (15.2% of the main residences) although it can be said that the pace of reduction had also slowed down.[8]

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5. Law of 31 December 1946. **6.** Decree 4104/1964 of 24 December 1964. **7.** Royal Decree 2/1985 of 30 April 1985. **8.** As the preamble of the Law 29/1994 states: *"El Real Decreto-Ley 2/1985 ha tenido resultados mixtos (…) Ha permitido que la tendencia a la disminución en el porcentaje de viviendas alquiladas que se estaba produciendo a principios de la década de los ochenta se detuviera, aunque no ha podido revertir sustancialmente el signo de la tendencia* (…)".

In 1994, the Parliament enacted the most recent Urban Tenancy Act (Ley de Arrendamientos Urbanos 29/1994).[9] Two objectives of the Law must be highlighted. First, it aimed to reduce the instability caused by the very short terms of the contracts that were signed under the *"Decreto Boyer"* and to fit the problem of the coexistence of very different types of contracts (the new contracts after 1985 and the "old" rigid contracts from before). For that, the Law of 1994 reintroduced compulsory terms for a limited period of 5 years. On the other hand, it maintained a rent control that tied the increments in the rent to the CPI. Finally it also included some rules for the contracts signed before 1985 (that were still regulated by the norms of 1964) in order to allow them to expire in the medium term.

This short historical survey shows that the two types of intervention that this chapter aims to analyze were in force in Spain without interruption (with the exception of the "Decree Boyer") since 1931 (or 1946 if we only count for the Law level regulations). On the other hand, it is possible to identify an evolution from very severe interventions, like the rules on terms and rents of the Law of 1946, to milder interventions, as the ones passed with the Decree Boyer and the Law of 1994. In the classification of Arnott, the rent control in Spain turned into a "second generation" type in the decade of 1960, at least for a part of the tenancy market. The modernization of the regime of the compulsory extensions of the tenancy contract had to wait until 1985.

3.2.2 ITALY

As it was highlighted in the case of Spain, the general rules applying to the tenancy contracts in Italy were liberal. The Civil Code of 1942 established in its article 1322 that the content of the contracts is free, although it must respect the Law. However, in Italy, as in Spain, it is possible to find several special regulations since the decade of the 1920's that partially introduced restrictions affecting the rents and the term of the contracts [Breccia and Bargelli (2005)].

The first complete Law on tenancy contracts was not passed until 1978.[10] It introduced a quite severe rent control system as the rent was determined by the criteria introduced by the legal text. In fact, the Law included different coefficients depending on the population of the municipality, age of the building, floor number, cadastral type, state of repair or preservation. On the other hand, the Law established a compulsory and extensible term of 4 years. Other compulsory terms of 6 to 9 years were applicable depending on the activity to be developed in the dwelling (6 years if the property was going to have industrial use).

In 1992,[11] a new Law deregulated rents for the new contracts and introduced some rules to deregulate the older contracts under some restrictions. No changes were passed for the case of compulsory terms. That Law can be deemed as the introduction of the second generation rent control in Italy.

Those steps towards liberalization were confirmed in 1998 with the enactment of the most recent tenancy Law in 1998 (Law 431/1998[12]), which confirmed the liberalization of the rents introduced by the brief reform of 1992. With the new Law, the parties can freely negotiate the rent as well as the increase of the rent in future periods, although there are some special cases in which the increase in the rent is limited (a maximum of 75% of a "cost of life" measure). On the other hand, the Law 431/1998 maintained the rules related to the duration of the contract by establishing a minimum term of four years.

The reforms of Italian regulations towards a more liberal framework for the tenancy contracts were influenced by the idea that the market was not working properly. 36% of the dwelling stock was rented in 1980 but just 22,5% in 1991 (see chart 3.1). Recent data from 2004 show that the decreasing pattern continued, reducing the share to just 18,6%. Thus, the partially liberalizing measures do not seem to have inverted the downward trend. However, as in the case of Spain the pace of reduction seems to have slowed down recently.

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9. Law 29/1994 of 24 November 1994. **10.** Law 392/1978 *("sull'equo canone")* of 27 July. **11.** Decree-Law of 11 July 1992 (converted in Law 359/1992 of 8 August). **12.** Law 431/1998 of 9 December.

3.2.3 FINLAND

As in the previous cases, at the beginning of the 20th century, the legal basis of the tenancy contracts was again liberal in the sense that mainly non-compulsory restrictions were applying to the tenancy contracts [Ralli (2005)]. After the First World War, Finland passed through different periods of regulation and deregulation. Rent control was introduced for the first time during the First World War but was lifted by the first Law on tenancies of 1925.[13] Following the same pattern, the second period of rent control took place during the Second World War, but in this case, the restrictions were maintained after the end of the conflict. In fact, the restrictions applied to several cities until the decade of 1960.

Then, a more deep rent regulation, that proceeded to freeze the rents of the tenancy contracts, took place in 1968 (thus, as an example of first generation rent control). In 1969, as a reaction to the effects of the rent freeze, tenants were also given protection against eviction in an unlimited basis. The restrictions were also introduced in the Constitution in 1970.

The regulations affecting the tenancy market in Finland were gradually relaxed afterwards. The rent freeze was substituted by a complex system of rent regulation in the decade of 1970 and was confirmed, with some reforms in the Law 634/1987.

Heavy regulation was accompanied by a relative contraction of the tenancy market. From 1970 to 1990 the rented share of the dwelling stock shrank from 32.5% to 24.7% (see Chart 3.1).

In the decade of 1990 the market was gradually liberalized again in three steps: from 1991 some buildings constructed after the beginning of the year in specific zones of Finland were freed from rent control. The measure was extended to all the new contracts in 1992. Finally, the new tenancy Law of 1995[14] deregulated all tenancy contracts (the only exception that still survived to the deregulation were the special rules for the state-subsidized rental dwellings of the ARAVA program). On the other hand, the new Law did not include any restrictions with respect to the term contracted. Any short-term agreement was possible. It can be concluded that Finland is the only example of total liberalization of the tenancy market in the European Union.

Lyytikäinen (2006) identifies the abolishing of the rent control with both a rise in the rent paid and an increase in the share of rented dwellings. On the one hand, the average rent per square meter increased by 57% between 1990 and 2004. On the other, the share of the housing market that was rented increased to 31% in 2004.

3.2.4 UNITED KINGDOM

The UK (England and Wales in this study) does not have a specific "housing Law". Thus, the applicable norms to the tenancy contracts stem from more general branches of Law such as property Law and contract Law [Cowan and Laurie (2005)]. However, as it was said when analyzing the examples of some continental countries, some restrictions applicable to the tenancy market were introduced by enacting special regulations.

The history of such special regulations (statutes) in the case of England and Wales is especially rich. The first example of rent control and protection against eviction is found during the First World War with the "Increase in Rent and Mortgage Interest Act" of 1915.[15] The end of the War was not taken as an opportunity to de-regulate the market and in fact several other Acts[16] preserved or even extended the rent controls [Diamond (1960)]. As a matter of fact, the restrictions (rent control in this case) did not disappear until 1965. It was then when rent control was substituted by rent regulation as an evolution from a "first generation" to a "second generation" rent control.

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13. Law 166/1925 of 12 May. **14.** Law 481/1995 of 31 March. **15.** Increase of Rent and Mortgage Interest (War Restrictions) Act, December 1915. **16.** Increase of Rent and Mortgage Interest (Restrictions) Act, 1920. The Rent and Mortgage Restrictions Act, 1923. Furnished Houses (Rent Control) Act, 1946. Landlord and Tenant (Rent Control) Act 1949.

Paish (1972) highlights some effects of these long-lasting restrictions in England. According to him, they clearly had a negative effect over the maintenance of the dwellings. Also, they reduced the mobility of tenants who rented a rent-controlled dwelling (as they found unprofitable to move) and also reduced the number of units being let, as an important part of the formerly rented dwellings were gradually channeled towards the property market.

Some empirical studies in specific cities of the United States have found similar effects to those observed in England and Wales. Sims (2007) found that de-regulation in Boston increased the number of houses to let (but also the rent paid). The same author found that rent restrictions reduced the quality of the dwellings being rented. That result was previously found for other historical experiences of rent control as in New York [Olsen (1972) and Early (1999)].

Later on, the Rent Act of 1977 established a "protected tenancy" which included a second generation rent control, although the increase in the rent responded to complex provisions and also maintained a permanent protection against eviction for the tenant. Thus, the tenant could stay in the dwelling as long as he needed.

Thus, the market had to wait until the enacting of the Housing Act of 1988 to see any significant liberalization. The Housing Act of 1988 abolished the rent regulation. As far as compulsory terms are considered, the Act introduced a new type of regulated contract, the "assured shorthold tenancy" with a protection term against eviction for just 6 months. However, it also included an "assured tenancy" contract, with similar conditions to the old "protected tenancy". Finally, a new Housing Act of 1996 introduced further changes in favor of the generalization of the "assured shorthold tenancy".

Consequently, England and Wales have suffered an evolution from a liberal concept of tenancy contracting to a strict system of contract restrictions, finally returning again to a quite liberal concept of tenancy contract in which the main restriction is the "compulsory" term of 6 months, that is quite short compared to regulations of other European countries.

The figures of the tenancy market in England and Wales also show quite important changes. In 1900, just 10% of households were owner-occupiers while in 2000 that proportion reached 70% [Cowan and Laurie (2005)]. In 2004, the share of rented dwellings in the UK was 31% (see chart 3.1). We can observe a slow reduction in the proportion of rented dwellings during the last decades although more recently this proportion remained stable.

3.2.5 RECENT REFORMS

These cases suggest the existence of a general pattern in the evolution of tenancy market regulation in Europe over the 20th century: initially all countries moved from a liberal concept of tenancy relations toward a more protective and regulated approach. That change was influenced by the War experience. The introduction of very restrictive regulations coincides with significant reductions in the share of rented dwellings. Later on, all countries tended to reduce the burden imposed on the landlord and tried to reduce tenant's protection although no country (with the exception of Finland) liberalized completely the tenancy market. In fact, de-regulation was paralleled by an increase in rented dwellings in Finland and stabilization in other cases. Those effects can be taken as partial evidence, admittedly very weak, that the restrictive European regulations may have produced some negative effects in the European markets. As it was said before, there are some other important factors affecting the tenancy market that are not taken into account in this partial-equilibrium argument (i.e. improved access to credit, changing mobility patterns, etc).

All European countries nowadays have some kind of "second generation" controls (with the exception of Finland). Table 3.1 shows two key features of the current European regulations in 12 EU member states (Austria, Belgium, Denmark, England/Wales, Finland, France, Germany, Ireland, Italy, Portugal, Spain and Sweden): the minimum length of the tenancy contract (if such term exists, see column TERM) and the rules governing the increase of the rent paid by the tenant (see column RENT).

Across Europe, direct regulation of the rent that a landlord can charge at the moment of signing a contract has completely disappeared. On the other hand the negotiation of the increase in the rent paid by the sitting tenant after the first year of contract is not free but regulated in several countries following a "second generation" type of control. For instance in Austria, Belgium, France, Germany, Spain or Portugal the increase of the rent is tied to an index set by the Law (see table 3.1). In Austria, Portugal and Spain that limit is the Consumer Price Index (CPI). Similarly, in Belgium the maximum increase is the "cost of living". In France the maximum increase is given by the "construction cost index" (set by the Government). Other countries had similar restrictions until recent years (Finland).

In relation to the second issue, the Law usually protects the tenant against eviction for a certain period (see column "TERM") by setting a "compulsory term" (for instance five years in Spain). Therefore the tenant may decide not to move for five years or to move after the first one, but the landlord cannot reduce the length of the contract. Even when the owner needs the residence for his own use the rules are very restrictive. It is after those five years when a real re-negotiation between the landlord and the tenant could be initiated. In other countries other terms are applied (four years in Italy or three years in France). Other jurisdictions, like the ones in several cities of the United States or Asia, do not introduce this second restriction or establish a simpler "infinite" or unconditional protection.

3.3 A model for European tenancy markets

The objective of this section is to explore theoretically the effects of the European-type of tenancy market regulations on the quantity of houses being let in the market. For this purpose, the model proposed by Basu and Emerson (2000) is modified and adapted to the general European framework. Understanding the impact of restrictive institutions can help to identify one of the possible determinants of the significant reduction of the share of the tenancy market in Europe.

3.3.1 THE BASU AND EMERSON MODEL FOR TENANCY MARKETS AND THE EUROPEAN INSTITUTIONS

In their original model, Basu and Emerson (2000) study a very restrictive "first generation" type of rent control. In their setup, once the contract is signed, the landlord cannot update the rent until the end of the contract and, as the Law protects the tenant against eviction forever, the tenant decides how long he wants to stay in the residence. Under these conditions, the tenant can take a residence for a rent (freely negotiated at that moment) and keep it until he decides to move out. In this context, due to the eroding effect of inflation, it is of extreme relevance for the landlord to know the kind of tenants he takes (type understood as "long-stayer" or "short-stayer" as, with inflation, the rent in real terms is being reduced, period after period). In this institutional setting, inflation acts as a tax on landlord's income with redistributive consequences, adverse to owners and favourable to tenants. These stylized institutions differ quite considerably to what the Law regulates nowadays in Europe (see table 3.1).

Even though no database is available about the average length of the contracts for the different countries and years, in Europe nowadays policymakers are aware of the existence of inflation as an "ever" increasing "cost of living" in the economy as it was stressed in section 3.2. Therefore European legislations allow the landlord to increase the contracted rent, period after period, by a rate linked to some indicator of past inflation (CPI or a similar index). As it was also analyzed before, that would be a "second generation" rent control. Note that those measures are related to the increase of prices in the whole economy (and not specifically to the increase of price or rent in the tenancy market).

Another main feature of the typical European regulation is that, although the Law protects the tenant against eviction, the protection does not last forever (and usually just for 3 to 5 years). This is in contrast with the Basu and Emerson (2000) model in which the protection lasts forever.

3.3.2 BASICS OF THE MODEL

Basu and Emerson (2000) propose a partial equilibrium model for the tenancy market in which the market is affected by a problem of information asymmetry and adverse selection. There are two types of agents in the model: landlords (several or limited in number, therefore allowing for the analysis of market power) and tenants.

The main aspect of the tenants' side of the market is that they are distributed in groups or types that differ in how long they stay in the residence. To be consistent with the usual contracts signed in the rental markets in Europe (where the contracts are usually signed on a yearly basis) and to apply later the model to Europe it can be assumed that a type 1 tenant stays 1 year in the residence. A type 2 stays 2 years and so on. A fraction i of the tenants is of type i (all types together sum up to a probability, p, of 1). If t represents time, the following can be written:

$$t_1 < t_2 < t_3 < \ldots < t_n \qquad [3.1]$$

Therefore, the length of the contract will be defined by the tenant's type as it is the tenant who decides when to move [as he is protected against eviction forever in the Basu and Emerson (2000) setup].

The tenant knows his type, but the landlord does not have that information before the tenant decides to leave the residence. Therefore, the landlord will not be able to choose the tenants' type.

An essential issue of the model is that it assumes that there is inflation $(1 - \beta)$ in the economy and that fact is not corrected by any mechanism. The rent asked by the landlord will diminish over time in real terms period after period. Therefore the landlord receives the real value β after one period (or the fraction β of the rent if the rent is different from 1). Also, it is necessary to take into account that a landlord does not value the same a rent he receives today compared to the rent that he will receive tomorrow. Therefore a discount factor (δ) has to be introduced in the model.

v_i is the value of the rents that a landlord receives from his tenants if only type i tenants show up. Each tenant of type i will generate the following income (if the rent R = 1):

$$1 + \beta + \beta^2 + (\ldots) + \beta^{t-1}$$

Summing up for an infinite succession of type i tenants and taking into account the discount factor, we have:

$$v_i = \left\{1 + \beta\delta + [\beta\delta]^2 + (\ldots) + [\beta\delta]^{t_i - 1} + \delta^{t_i} v_i\right\} \qquad [3.2]$$

Then, the following holds:

$$\text{If} \quad i < j \quad \text{then} \quad v_i > v_j \qquad [3.3]$$

On the other hand, $v_{(i)}$ is the value of the rents that a landlord receives when only types i or above show up.

$$v_{(i)} = \sum_{k=i}^{n} \left(\frac{p_k}{\sum_{j=i}^{n} p_j} \right) \left\{1 + \beta\delta + [\beta\delta]^2 + (\ldots) + [\beta\delta]^{t_k - 1} + \delta^{t_k} v_{(i)} \right. \qquad [3.4]$$

Where p_k is the probability of getting a type k tenant into the apartment. Then, the following holds,

$$\text{If} \quad i < j \quad \text{then} \quad v_{(i)} > v_{(j)} \qquad [3.5]$$

As it can be noted, from the point of view of a landlord, the higher the value of v the better. Therefore he would prefer to have short stayers rather than long stayers. That is because the effect of inflation, that erodes the value of rent in real terms.

In their model, Basu and Emerson (2000) introduced adverse selection through limiting the types of tenants that will be finally renting a residence. If the rent is very high some types of tenants will not find it affordable to rent and therefore will opt for other options, like remaining in the family home. This outside option is assumed to be the same for the different types of tenants and it is assumed to have a similar value in any case. Therefore, the different outputs of the model are generated by heterogeneity on the tenants side (as it was said, some of them are short stayers while others want to rent the flat for very long periods).

The adverse selection mechanism works in that case because the model proposes that the short stayers are the first ones to decide not to rent when the rent is high. Supposing that renting a residence gives the tenant a utility of T and remaining in the parents home (or equivalent options) a utility NT, the difference (D) between both utilities must be positive for an individual to prefer renting.

$$T - NT = D > 0 \qquad [3.6]$$

For a tenant it is not important the rent R but that rent expressed in present value terms (v_i), thus already "eroded" by the inflation. Therefore a tenant will rent if:

$$T - NT = D \geq Rv_i \qquad [3.7]$$

Note that v_i depends on i, so if $j > i$ then $v_i > v_j$.

On the other hand, Basu and Emerson (2000) call V(R) the landlord's expected present value of the rents he receives when the rent (in nominal terms) is R. See chart 4.2.

$$V(R) \text{ reaches its maximum when } R = D/v_n \qquad [3.8]$$

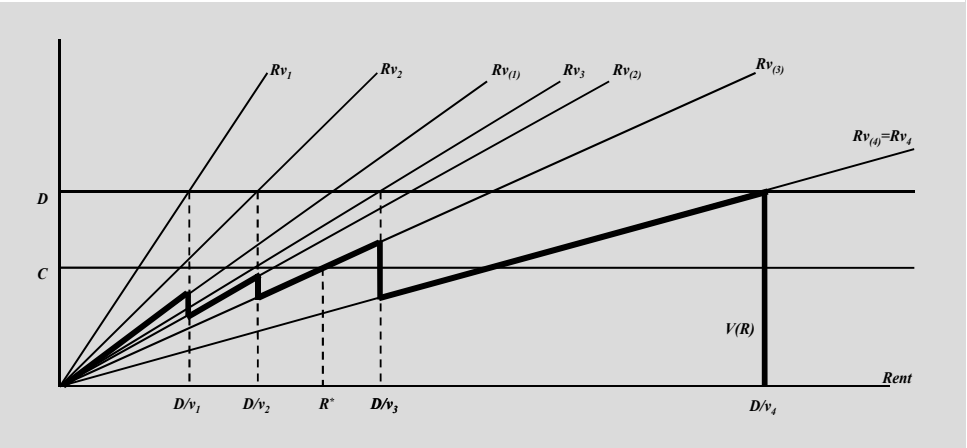
Being D/v_n a critical level of the rent at which the higher type of tenant (so far the type n or the type 4 in chart 3.2) decides not to rent. C represents the cost for the landlord of leasing out a residence, for instance, preparing the apartment to be rented paying some administrative fees. Please note that the costs may be proportionally higher the shorter the periods the tenants stay in the flat (for instance, it may be necessary to paint walls or refurnish floors more frequently), although that circumstance is not included in this setup.

We have the following critical values of V(R) as a result,

$$\left\{\begin{array}{c} V(R) = v_{(1)} \text{ if } R \leq D/v_1 \\ V(R) = v_{(2)} \text{ if } D/v_1 < R \leq D/v_2 \\ V(R) = v_{(3)} \text{ if } D/v_2 < R \leq D/v_3 \\ V(R) = v_{(4)} \text{ if } D/v_3 < R \leq D/v_4 \\ V(R) = 0 \text{ if } D/v_4 < R \end{array}\right\}$$

Chart 3.2 can be explained as follows: the curves $v_{(i)}$ define the height of the V(R) curve at the breaking points.

EQUILIBRIUM WITH FOUR TYPES OF TENANTS CHART 3.2



SOURCE: Self elaboration.

The results obtained in this basic setup are the following: if we have a monopolistic landlord, he will charge a rent $R=D/v_n$. So only the higher type (n) will stay in the market (all the rest of the types will find it un-affordable to rent and will opt for other options). The higher type that stays in the market is the tenant that wants to rent the residence for four years in chart 3.2. On the other hand, when there are competitive landlords, the height of the peaks [defined by the breaking points in the V(R) line as highlighted before] play an important role. The rent R* will be defined by C=V(R) that is, the intersection between the line C and the V(R) curve. The rent paid in the market will approach the cost of preparing the residence to be rented.

The rent R obtained in that case will define which types (if any) of tenants will decide not to rent. The lower the C the lower the equilibrium rent and therefore the less types of tenants that will be "excluded" from the market.

3.3.3 THE BASIC MODEL WITH INFLATION (CPI) ADJUSTED RENTS

Basu and Emerson (2000) based their model on the existence of inflation in the economy and the absence of mechanisms to correct for it. As it was already said, the inflation will erode the real value of the rent and therefore the landlord will be interested in having short-staying tenants instead of long-stayers. What are the effects for the model if the landlord is allowed to increase the rent exactly to overcome the erosion produced by the inflation (as general inflation or Consumer Price Index, CPI)? The question is relevant for the European case as in Europe the Law (see table 3.1) allows for inflation escalation in the contracts.

With inflation escalation (following β in the model), and in the case the landlord always hosts tenants that want to stay just "i" periods (with R=1 euro), the following holds, including a discount factor $\delta \in (0, 1)$:

$$v_i = \left\{1 + \delta + \delta^2 + (...) + \delta^{t_i - 1} + \delta^{t_i} v_i\right\} \qquad [3.9]$$

Which is equivalent to:

$$v_i = \frac{(1 - \delta^{t_i})}{(1 - \delta)(1 - \delta^{t_i})} = \frac{1}{(1 - \delta)} \qquad [3.10]$$

Equation 3.10 does not depend on any sub-index. Therefore the type of tenant is irrelevant for the landlord in this case as expected.

In line with this, it is possible to analyze how other expressions simplify when inflation escalation is allowed. As before, v(i) represents the stream of income a landlord receives when type i tenants or above make themselves available for the landlord.

$$v_{(i)} = \sum_{k=i}^{n} \left[\left(\frac{p_k}{\sum_{j=i}^{n} p_j} \right) (1 + \delta + \delta^2 + (...) + \delta^{t_k - 1} + \delta^{t_k} v_{(i)}) \right] \qquad [3.11]$$

That, properly simplified, is again:

$$v_{(i)} = \frac{1}{(1 - \delta)} \qquad [3.12]$$

Once more the type of the tenant is irrelevant for the landlord when rent escalation following the inflation is allowed (equation 3.12 does not depend in any sub-index).

With those results it is not possible to differentiate between those that find it worthwhile to rent and those who prefer to stay out of the tenancy market.

As $Rv_i \leq T - NT$ and v_i does not depend any more on the type, then we have,

$$\frac{R}{(1 - \delta)} \leq T - NT \qquad [3.13]$$

Therefore the type of the tenant is not important in the decision of renting. In any case condition 3.13 is required to hold to have a tenancy market (otherwise no one would be willing to rent).

As a criticism to the considerations made above it should be said that concluding that the introduction of rent escalation (following β in the model) removes the mechanism of adverse selection is not true in all the cases. Only if the CPI (taken as β) coincides with the observed increase in the rents contracted in the market (the sub-index of rented property of the CPI), the correction by β would eliminate the adverse selection mechanism in the market. The next section is devoted to discuss that topic.

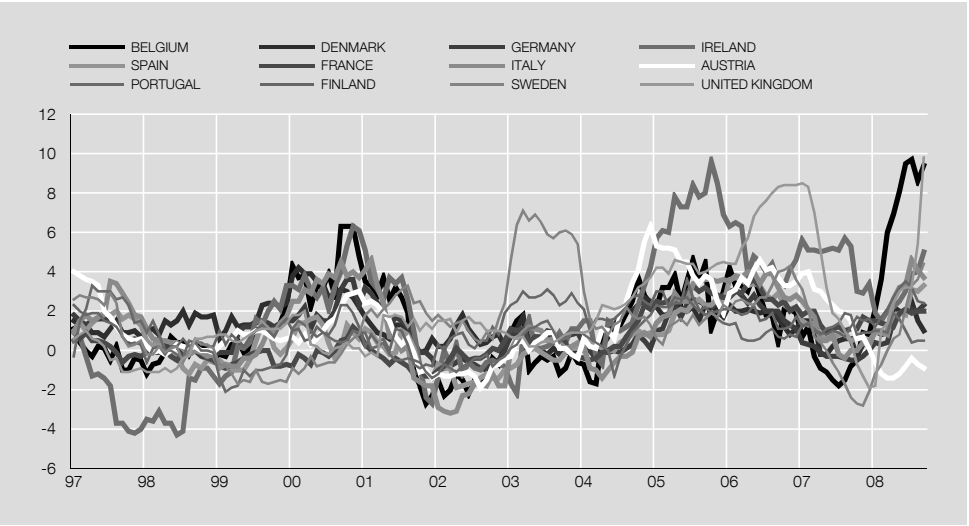
3.3.4 EUROPEAN RENT ESCALATION AND ADVERSE SELECTION

Overcoming the adverse selection problem is only possible if the allowed rent escalation follows the increase in the rents observed in the tenancy market (the sub-index of rented property in the CPI or a similar index representing just the tenancy market) and not a general price index (as it is often the case in Europe). Of course, an escalation following a general price index solves the problem if the increase in the rents in the tenancy market specifically coincides with it. Objectively, that situation is difficult to occur and it is not the general case for the European economies. Chart 3.3 graphs the difference between the HICP inflation (harmonized inflation) in housing (rents plus gas, water and electricity as provided by the indicators of Eurostat) and the general or overall inflation. As it can be seen, that difference is usually well above 0 (the thick black line). The chart indicates that housing is more inflationary than the overall HICP that is usually taken into account in the European regulations.

The incentive for a landlord to prefer short stayers versus long stayers is related to the fact that the rent he gets is eroded, period after period (once signed a contract), compared to that asked in the new contracts in the market. If the landlord gets short stayers he will be able to reset the rent he asks as soon as he has a new tenant and therefore he would

HOUSING COMPONENT OF THE HARMONISED INFLATION INDICES (HICP) MINUS GENERAL HICP IN 12 EU COUNTRIES

CHART 3.3



SOURCE: Eurostat (2008).

be able to charge the rent at the market level, fully updated to the inflation and rent market increase of the last periods. If the Law allows to fully update the rent, period after period, following the observed market increase in the tenancy market specifically, the incentive for the landlord to have short stayers disappears. He would get the same revenue (if there is not extra costs) updating the rent of the sitting tenant or changing the tenant for a new one in the market.

Therefore, does the updating of the rent following just the "inflation" (understood as the general "consumer price index" or "cost of living") remove the incentive of the landlord to have short stayers? The answer is no, if the increase in the rent index (i.e. the specific "inflation" of the tenancy market) is higher and that is the general case in Europe (Chart 3.3).

These statements can be tested in the model. For convenience, the rate at which the rents grow in the market can be stated as $1 - \gamma$. On the other hand, forcing somehow the notation, lets call θ the rate at which the regulation allows the landlord to update the rent period after period (note that it is possible to rewrite it as $\theta = 1 - \beta$). θ may be understood as the CPI index (or as a "cost of life" index) in the European regulations.

It can be demonstrated that in a market where the Law allows to escalate the rent following θ and $\theta < 1 - \gamma$, then there is a problem of adverse selection in the tenancy market.

The stream of income that the landlord receives (when having just tenants who stay i periods) would be (if R = 1 euro):

$$1+(\gamma+\theta)+(\gamma+\theta)^2+(...)+(\gamma+\theta)^{t_i-1}+1+(\gamma+\theta)+(\gamma+\theta)^2+(...)+(\gamma+\theta)^{t_i-1}+(...) \quad [3.14]$$

Taking into account a discount factor δ as before, we can now construct the expressions we need to set up the model.

$$v_i = \left\{1+\delta(\gamma+\theta)+[\delta(\gamma+\theta)]^2+(...)+[\delta(\gamma+\theta)]^{t_i-1}+\delta^{t_i}v_i\right\} \quad [3.15]$$

That is,

$$v_i = \frac{1-[\delta(\gamma+\theta)]^{t_i}}{[1-\delta(\gamma+\theta)(1-\delta^{t_i})]} \quad [3.16]$$

Then, the following holds (a proof is provided in the annex 3.A)

$$\text{If} \quad i < j \quad \text{then} \quad v_i > v_j \qquad [3.17]$$

As before, $v_{(i)}$ represents the stream of income a landlord receives when type i tenants or above make themselves available for the landlord.

$$v_{(i)} = \sum_{k=i}^{n} \left(\frac{p_k}{\sum_{j=i}^{n} p_j} \right) [1 + [\delta(\gamma + \theta)] + [\delta(\gamma + \theta)]^2 + (...) + [\delta(\gamma + \theta)]^{t_k - 1} + [\delta(\gamma + \theta)]^{t_k} v_{(i)})] \qquad [3.18]$$

That can be rewritten as follows,

$$v_{(i)} = \frac{\sum_{k=i}^{n} p_k (1 - \delta^{t_k}) v_k}{\sum_{j=i}^{n} p_j - \sum_{k=i}^{n} p_k \delta^{t_k}} \qquad [3.19]$$

Then the following also holds (a proof is provided in the annex 3.B):

$$\text{If} \quad i < j \quad \text{then} \quad v_{(i)} > v_{(j)} \qquad [3.20]$$

As it is possible to conclude from the equations set out so far, the landlord prefers short stayers than long stayers as the income he receives will be higher with short stayers. Also the agents are not indifferent with respect to time. A long stayer pays less per period (in real terms) than a short stayer. The decision of renting is affected by that fact.

As before:

$$T - NT = D > Rv_i \qquad [3.21]$$

As it was said, if $i < j$ then $v_i > v_j$. Thus, short stayers will be the first types of tenants to decide not to rent because they "suffer" a higher value v. Therefore there is a clash between the interests of the landlord and the behavior of the potential tenants when they make their decisions. The landlord's expected present value of the rent will reach its maximum when $R = D/v_n$. That is, $D = Rv_n$.

If the rent escalation allowed is below the rate of rent increase in the tenancy market (what was called "rent index"), the adverse selection problem continues to affect the market outcomes.

Therefore, even though the Law in Europe allows for rent escalation following the general inflation or a similar index, it does not avoid the adverse selection problem to affect the market outcomes when the rent signed in the new contracts grows faster than the rate of inflation. The inefficiency in the market will be higher if the difference between the CPI (or other general index of inflation considered in the Law) and the specific rent index grows.

3.3.4.1 Between extreme cases

Let's derive a general result explaining how the inefficiency in the tenancy market increases when the difference between the rent price index and the allowed escalation (CPI) increases. The following is proposed:

$$\text{If} \quad \theta < \theta' \quad \text{then} \quad v_{i(\gamma+\theta)} < v_{i(\gamma+\theta')} \quad \text{and} \quad v_{(i)(\gamma+\theta)} < v_{(i)(\gamma+\theta')} \qquad [3.22]$$

Having a given rate of rent increase in the market $(1 - \gamma)$, an increase in the allowed rate of escalation (θ to θ'), will yield that $v_{i(\gamma+\theta)} < v_{i(\gamma+\theta')}$ and $v_{(i)(\gamma+\theta)} < v_{(i)(\gamma+\theta')}$ *ceteris paribus*. The expression $v_{i(\gamma+\theta)}$ denotes that v_i now depends on the measure $\gamma+\theta$. It is worth noting that an increase in θ (having γ constant) is a bad new, a priori, for a tenant, as the real rent he will pay increases.

From the fundamental equations already proposed it is possible to derive the following (when R = 1).

$$(1-\delta^{t_i})v_i = 1+\delta(\gamma+\theta)+[\delta(\gamma+\theta)]^2+(...)+[\delta(\gamma+\theta)]^{t_i-1} \qquad [3.23]$$

By inspection of equation 3.23 it is easy to see that the higher the θ, the higher is the value of v_i (if γ is constant).

Also,

$$v_{(i)(\gamma+\theta)} = \frac{\sum_{k=i}^{n} p_k(1-\delta^{t_k})v_{k(\gamma+\theta)}}{\sum_{j=i}^{n} p_j - \sum_{k=i}^{n} p_k\delta^{t_k}} \qquad [3.24]$$

Then the higher the θ, the higher the value of $v_{(i)}$.

Graphically, when observing the shape of the V(R) curve it is important to stress that the curves representing $v_{(i)}$ and v_i are steeper the higher is $\gamma + \theta$ (i.e. the lower is the escalation allowed by the Law the flater are those lines). Therefore it is of interest to observe the "peaks" generated by those curves because those peaks will determine the rent paid in the market when several landlords compete. The height of a peak is defined by $(D)v_{(i)}/v_i$. Therefore it is necessary to analyze the value of $v_{(i)}/v_i$ when the allowed escalation changes.

Having that k > i (the tenant of type k stays longer that a tenant of type i) the following must hold when $\theta < \theta'$,

$$\frac{v_{k(\gamma+\theta)}}{v_{i(\gamma+\theta)}} < \frac{v_{k(\gamma+\theta')}}{v_{i(\gamma+\theta')}} \qquad [3.25]$$

Lets define τ as the extra time a type k stays in the residence with respect to a type i. Then, from the general derivation calculated in 3.16, the following holds,

$$\frac{v_{k(\gamma+\theta)}}{v_{i(\gamma+\theta)}} = \frac{1-\delta^{t_i}}{1-\delta^{t_i+\tau}} \cdot \frac{1-[\delta(\gamma+\theta)]^{t_i+\tau}}{1-[\delta(\gamma+\theta)]^{t_i}} \qquad [3.26]$$

And having that,

$$\frac{\partial\left(\frac{v_{k(\gamma+\theta)}}{v_{i(\gamma+\theta)}}\right)}{\partial\theta} > 0 \qquad [3.27]$$

It is obtained that an increase in θ (i.e. a reduction of the gap between the market rent increase and the "CPI") yields an increase in $\frac{v_{k(\gamma+\theta)}}{v_{i(\gamma+\theta)}}$.

From 3.25, the following must hold (for $\theta < \theta'$).

$$\frac{V_{(i)\,(\gamma+\theta)}}{V_{i(\gamma+\theta)}} < \frac{V_{(i)\,(\gamma+\theta')}}{V_{i(\gamma+\theta')}} \qquad [3.28]$$

Inequality 3.28 is indicating that the higher the rent escalation θ allowed by the Law, the higher the "peak" (at the break points).

If there are several landlords competing to get the tenants and a cost C of preparing a residence to be rented, the equilibrium rent is defined graphically by the point of hit between C and the V(R) curve. If we observe that the escalation allowed is lower (and therefore the lines and the peaks get flatter and shorter respectively), the equilibrium rent must increase as the V(R) line moves to the right and the peaks are now shorter.

A higher rent excludes more types of potential tenants from the market. As θ grows, the peaks of the V(R) line get higher and the break points move to the left having as result a smaller R (so less types are excluded, that is a relief for the adverse selection problem).

On the other hand, in a monopolistic case, the rent will be set up at D/v_n. Hence the equilibrium rent will change slightly depending on the value of v_n [as $v_n(\gamma+\theta) < v_n(\gamma+\theta')$]. So when the escalation allowed is higher, the equilibrium rent for the case of monopoly is lower.

The statements made above indicate that allowing for a higher rate of escalation mitigates the inefficiency of the market.

3.3.4.2 If there is a reduction in the market rents

If γ is exactly equal to the amount that the government allows for escalation (the "cost of living" or the CPI) no adverse selection will take place.

What happens to the old tenancy relations in a market where the rents agreed in the new contracts are diminishing through time? In that case the rents of the market (the rents agreed in the new contracts signed one period after another) would be falling. i.e. the new tenants (the tenants that just arrived to the market) would be paying less than the old tenants renting similar flats. How can a landlord keep the tenant? The only way is to reduce the rent he asks at a rate (falling) near to the one of the market.

In this case, there is not a problem of adverse selection and therefore the Law as usually passed in Europe does not produce the inefficiencies studied when there is a persistent reduction of market rents.

3.3.5 ANALYSIS OF CONTRACTS WITH LIMITED TERM OF PROTECTION FOR THE TENANT

As it was already discussed, the Law in Europe does not generally protect the sitting tenant forever. In fact, the Law usually protects the tenants against eviction for a short number of periods (usually 3 to 5 years). After that term, the tenant and the landlord will have to renegotiate the contract. Thus, the continuation of the relation is not guaranteed. Therefore the contract is virtually new after the relation reaches the term of protection.

The aim of this section is to introduce this limited protection for the tenant into the model. A relevant issue for the landlord in the model is that he cannot distinguish between tenants' types. With a Law that protects the tenants for m periods, the landlord knows that the "higher" type of tenant that exists in the economy is a type t_m. That is to say that a landlord is not willing to keep a tenant more than m periods as for any $n > m$, $v_m > v_n$ and $v_{(m)} > v_{(n)}$. Therefore, in this context of asymmetric information, if the Law protects the tenant for m periods, the higher types disappear (after m periods the landlord will evict the tenant if he does not pay the actual market rent).

If before introducing the restriction the higher type of tenant in the economy was a type k and afterwards a new Law including a protection term of m periods is passed and if $k < m$, that "limited term of protection" is neutral and does not produce any effect in the economy. Thus, in the next paragraphs we assume that the higher type of tenant (k) existing in the market is willing to stay longer in the residence than the protection term (m periods established by the Law). Therefore, we study the case in which the Law is a constraint.

3.3.5.1 Introducing the term in the model

The analysis should cover how the expressions for v_i and $v_{(i)}$ change if the limited protection term is present and thus if there is a new equilibrium in the market.

v_i does not change if we change the different types of tenants that exist in the economy. Although note that a value v exists only for the types $i \leq m$. On the other hand, $v_{(i)}$ changes. Now, the tenants that may "show up" correspond to a less number of types. Lets call $v_{(i,m)}$ to the value for the expression $v_{(i)}$ when just types i to m can show up. Then the following condition holds:

$$v_{(i,m+1)} < v_{(i,m)} \qquad [3.29]$$

To prove 3.29, we know that,

$$v_{(i,m+1)} - v_{(i,m)} = \frac{\sum_{k=i}^{m+1} p_k(1-\delta^k)v_k}{\sum_{j=i}^{m+1} p_j(1-\delta^j)} - \frac{\sum_{k=i}^{m} p_k(1-\delta^k)v_k}{\sum_{j=i}^{m} p_j(1-\delta^j)} \qquad [3.30]$$

Then, equation 3.30 can be expressed as follows,

$$v_{(i,m+1)} - v_{(i,m)} = \frac{\sum_{k=i}^{m} p_k(1-\delta^k)v_k \left(\frac{\sum_{k=i}^{m} p_k(1-\delta^k)}{\sum_{j=i}^{m} p_j(1-\delta^j)} - \frac{\sum_{k=i}^{m+1} p_k(1-\delta^k)}{\sum_{j=i}^{m} p_j(1-\delta^j)} \right) + p_{m+1}(1-\delta^{m+1})v_{m+1}}{\sum_{j=i}^{m+1} p_j(1-\delta^j)} \qquad [3.31]$$

That is below zero:

$$v_{(i,m+1)} - v_{(i,m)} = \frac{P_{m+1}(1-\delta^k)\left(v_{m+1} - \frac{\sum_{k=i}^{m} p_k(1-\delta^k)}{\sum_{j=i}^{m} p_j(1-\delta^j)} v_k \right)}{\sum_{j=i}^{m+1} p_j(1-\delta^j)} < 0 \qquad [3.32]$$

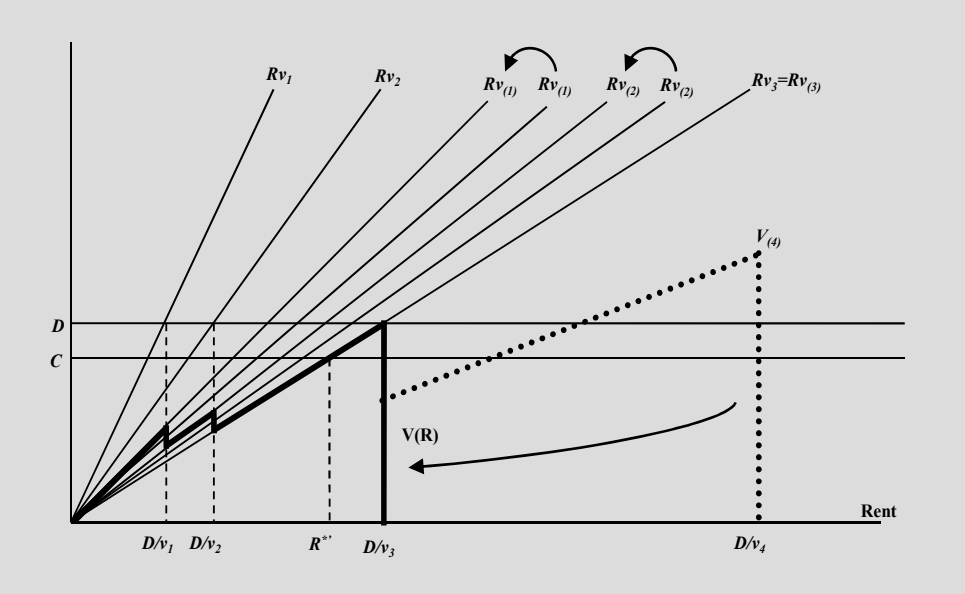
When the Law protects the tenant against eviction for a longer time, the value of $v_{(i)}$ diminishes (i.e $v_{(i,m+1)} < v_{(i,m)}$). If a Law reduces the number of periods of protection against eviction from m+1 to m we should expect an increase of the value of $v_{(i)}$. In chart 3.4 a situation where the Law reduces the maximum term of protection from m = 4 to m = 3 is represented.

3.3.5.2 Case of having a monopolistic landlord

Reducing the number of periods of protection yields a reduction in the rent charged by the monopolist, therefore less (lower) types of tenants are excluded from the market.

As it was discussed already, the monopoly charges a rent equal to $R = D/v_t$. Where t represents the higher type existing in the economy. If the number of periods of protection against eviction are reduced, t will be lower. With a lower t the value v_t is higher. With a higher v_t the rent R charged by the monopolist will be lower if the outside option does not change.

EFFECTS OF A REDUCTION IN THE PROTECTION TERM CHART 3.4



SOURCE: Self elaboration.

3.3.5.3 Case of having competitive landlords

When the number of periods of protection is reduced, the equilibrium rent also decreases. That could exclude, therefore, less (lower) types of tenants from the market. That is, the landlords will charge a rent determined by the cost C of letting the dwelling to be rented into the market. Graphically, as the curves defined by v_i continue to be in the same place, but the curves defined by v(i) are now steeper, there is now a new V(R) line. This V(R) line maintains the places were the "breaks" (peaks) (D/v_1, D/v_2...) can be found, but the height of the peaks are now higher. The coincidence between the V(R) line and the C line will yield an equilibrium rent that is lower than before.

3.3.6 SUMMARIZING THE RESULTS OF THE MODEL

The aim of the model was to analyze the effects in the market of the introduction of two highly spread (and typically European) institutions: a maximum allowed increase in the rent asked by the landlord (rent control) and the protection against eviction for the tenant for a limited number of periods (protection against eviction).

If the rent escalation allowed is below the rate of rent increase in the tenancy market, an adverse selection problem affects the market outcomes. The adverse selection problem gets worse as the difference between the allowed escalation and the market rent increase grows. That will increase the equilibrium rent and, through the mechanism of the model, it will exclude some tenants from the market. On the other hand, it was concluded that the longer the time that the Law protects the tenant against eviction, the higher is the rent paid in equilibrium (therefore more tenant types are excluded from the market). Note that the effects of both restrictions go in the same direction.

3.4 Conclusions

This chapter provides an economic analysis of the regulations affecting the European tenancy contracts. Although rent control has drawn the attention of the main part of the literature on tenancy markets, the analysis of the regulations in place in Europe points to the existence of another main intervention in the market called "protection against eviction" or "compulsory term" that has been usually neglected. Moreover, from the same analysis of European institutions it is relevant to note that all countries had similar regulations during the 20th century and

that most of them shared the same evolution from a liberal approach towards the tenancy relations to a more regulated and restrictive type of regulations. Both types of European regulations (rent control and protection terms against eviction) are tested theoretically in an information asymmetry model of tenancy markets proposed by Basu and Emerson (2000). The model, which was originally designed for analyzing contracts with no inflation clause and potentially infinite length, is adapted to include rent escalation and limited protection against eviction. The results of the model show that those interventions (rent control and compulsory terms) entail some negative effects as they may drive some participants out of the tenancy market.

Therefore the model provides a partial-equilibrium explanation, based on the European tenancy Laws, for the diminishing weight of the tenancy markets in Europe during the 20th century. Moreover, the introduction of several legal restrictions in the tenancy market in several European markets was coincident with the reduction in the proportion of rented dwellings in the housing market.

ANNEX 3.A Proof for expression 3.17

It has been followed the demonstration of Lemma 1 of Basu and Emerson (2000) to provide a proof for 3.17.

It was the aim to demonstrate that:

$$\text{If } i < j \text{ then } v_i > v_j$$

Lets assume that $t_j = t_{i+1}$ and that v_j^k is the present value of rents earned by a landlord whose first k tenants are of type i and all others of type j.

It is possible to see that $v_j^1 > v_j$. For a rent R = 1, v_j^1 is the following:

$$v_j^1 = 1 + \delta(\gamma + \theta) + [\delta(\gamma + \theta)]^2 + (...) + [\delta(\gamma + \theta)]^{t_i - 1} + \delta^{t_i} v_j \qquad [3.33]$$

And because $t_j = t_{i+1}$

$$v_j^1 - v_j = \delta^{t_i} v_j - [\delta(\gamma + \theta)]^{t_i} - \delta^{t_i + 1} v_j \qquad [3.34]$$

$$v_j^1 - v_j = (1 - \delta)\delta^{t_i} \left(v_j - \frac{(\gamma + \theta)^{t_i}}{(1 - \delta)} \right) \qquad [3.35]$$

So, it can concluded that,

$$\frac{(\gamma + \theta)^{t_i}}{(1 - \delta)} < v_j \qquad [3.36]$$

That implies that $v_j^1 > v_j$. And as Basu and Emerson (2000) comment, if $v_j^k > v_j^{k-1}$, as $\lim_{k \to \infty} v_j^k = v_i$, it must be true that $v_i > v_j$.

ANNEX 3.B Proof for expression 3.20

It was the aim to demonstrate that:

$$\text{If} \quad i < j \quad \text{then} \quad v_{(i)} > v_{(j)}$$

As already discussed, v_k has the following value:

$$v_k = 1 + \delta(\gamma + \theta) + [\delta(\gamma + \theta)]^2 + (...) + [\delta(\gamma + \theta)]^{t_k - 1} + \delta^{t_k} v_k \qquad [3.37]$$

That is,

$$(1 - \delta^{t_k}) v_k = 1 + \delta(\gamma + \theta) + [\delta(\gamma + \theta)]^2 + (...) + [\delta(\gamma + \theta)]^{t_k - 1} \qquad [3.38]$$

Then, note that $v_{(i)}$ can be expressed as follows:

$$v_{(i)} = \frac{\sum_{k=i}^{n} \left(\frac{p_k}{\sum_{j=i}^{n} p_j} \right) [1 + \delta(\gamma + \theta) + [\delta(\gamma + \theta)]^2 + (...) + [\delta(\gamma + \theta)]^{t_k - 1}]}{1 - \sum_{k=i}^{n} \left(\frac{p_k}{\sum_{j=i}^{n} p_j} \right) \delta^{t_k}} \qquad [3.39]$$

With 3.38 and 3.39 the following expression is obtained:

$$v_{(i)} = \frac{\sum_{k=i}^{n} \left(\frac{p_k}{\sum_{j=i}^{n} p_j} \right) (1 - \delta^{t_k}) v_k}{1 - \sum_{k=i}^{n} \left(\frac{p_k}{\sum_{j=i}^{n} p_j} \right) \delta^{t_k}} \qquad [3.40]$$

That after doing some algebra is exactly the expression used for 3.24 (and 3.21),

$$v_{(i)} = \frac{\sum_{k=i}^{n} p_k (1 - \delta^{t_k}) v_k}{\sum_{j=i}^{n} p_j - \sum_{k=i}^{n} p_k \delta^{t_k}} \qquad [3.41]$$

$v_{(i)}$ is a weighted average of v_i, v_{i+1}, ..., v_n. If $j > i$ then $v_{(i)}$ is obtained from $v_{(j)}$ distributing the weight that j had among the rest of the values of v *(i.e.* for i, i + 1, ..., j –1).

As conclusion it is found that if $k < j$ and $v_k > v_j$ (done in the last section), then it must follow that $v_{(i)} > v_{(j)}$ (when $j < i$).

4 A characterization of the judicial system in Spain: analysis with formalism indices[1]

4.1 Introduction

4.1.1 LITERATURE REVIEW

As Coase (1960) highlighted, carrying on market transactions needs not only contracting, but also undertaking the inspection needed to make sure that the terms of the contract are being observed. The same can be said about the Law and its enforcement. It is not only important to have "good" regulations, but also to be able to enforce them.

"Contracting" and "enforcing" are important economic problems. As it was discussed in chapter 2, if they are overly costly many transactions may not take place. Enforcement of private contracts has many examples, one of them of an essential economic meaning: the respect and maintenance of private property against external threats.

Since the early statements about the importance of good "institutions" for economic performance [North (1990)], it has been found several times that the protection afforded to property rights or, more in general, the possibility of enforcing the Law, is directly related to economic development. Acemoglu *et al.* (2001) found that better "protection against expropriation" had positive effects on the country's income. Rodrik *et al*. (2004) measured the quality of institutions as the prevalence of the "rule of Law" (that is a wider concept that also captures the protection afforded to property rights) and also found that was significant in explaining development.

The enforcement of contracts and regulations can take place through purely private mechanisms (such as arbitration) or through public means. Judicial enforcement would be the paradigmatic case of the use of public means and it is the focus of this chapter. Therefore, following what it was said above, a deficient judicial system may imply costs to the economy and constitute a deterrence of economic transactions. At international level, several studies analyze more particularly the effect of well-functioning judicial systems on the economy. First of all, "good" judicial systems (together with good legal environments) seem to promote greater development of financial markets. La Porta *et al.* (1997and 1998), argue that different systems of legal enforcement (such as the different Law families, i.e. Roman/Civil Law, Common Law, etc.) are related to different levels of investor protection (Common law countries having a stronger protection if compared to Civil law countries). Weaker investor protection leads to smaller debt and equity markets.

In fact, a good judicial system is considered essential to ensure the availability of cheap funds that promote economic development [Padilla and Requejo (2000)]. Jappelli *et al.* (2005) analyzed a panel of the Italian provinces and found that credit is more widely available when there is a higher judicial efficiency. Similarly, a lower proportion of credit-constrained households (for a panel of Italian judicial districts) was also observed [Fabbri *et al.* (2004)].

Besides the financial system itself, some effects of well-functioning judicial systems are observed in the area of firm dynamics. Desai *et al.* (2005) found that greater judicial interference and greater formalism of the judicial procedures are associated with lower entry of new firms in the markets. Desai *et al.* utilized as a measure of formalism the indicator proposed by Djankov *et al.* (2003) that will be analyzed in the next sections.

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1. This chapter was presented in the IV annual Conference of the SIDE-ISLE (Università di Bologna) (2008), in the Law Department seminar of Universitat Pompeu Fabra (2008) and in the research seminar of the Master of Law and Economics of Universidad de Salamanca (2009). A previous version of this study was published (Mora, 2009) as a working paper of FEDEA.

4.1.2 EVIDENCE FOR SPAIN

Between 1999 and 2000 the World Bank conducted an international survey "World Business Environment Survey" administered to enterprises that included some questions to assess the judicial system of the country and its effectiveness in enforcing property rights. The results for some of the questions for Spain, and also for France, Italy, Germany, UK and the United States, are included in table 4.1. Spain is below the average of the OECD countries in the questions about the judicial system if we compare countries with similar income. Batra *et al.* (2003), using this survey, observed that countries with higher discontent with affordability and quickness of the judicial system seemed to perceive also less fairness and impartiality.

From 2004, the Doing Business Project of the World Bank publishes a more ambitious survey called "Enforcing Contracts". It includes three indicators on the efficiency of contract enforcement on the basis of how a company has to go through the judicial system to recover an overdue payment. Specifically it follows the step-by-step evolution of a commercial sale dispute between two businesses that have their conflict solved by a local court in the biggest city of the country (in the case of Spain, a court of first instance, *juzgado de primera instancia,* of Madrid). The amount of the claim is assumed to be fixed and equal to 200% of the country's income per capita. The indicators observed are the number of required interactions between the parties and the court in order to finalize the procedures, the estimated cost incurred during the dispute and the estimated time to resolve the dispute. Results for Spain (and again for France, Italy, Germany, UK and US) are also included in table 4.1. Spain holds the position 52 out of 183 analyzed countries in the 2009 and 2010 reports.[2] The Doing Business project provides the results and rankings in this issue just for the most recent years, therefore we lack the information on this indicator during the last decades.

Justice has also attracted the attention of private and public authorities in Spain. The Círculo de Empresarios (2003) conducted a survey among Spanish enterprises (members of the organization) about the situation of the Spanish justice. In general, justice in Spain gets a medium or low level of satisfaction. The results reflect the opinion that Spanish justice is too slow and that predictability of the judgments is low. An almost complete agreement exists among the enterprises when they are asked if the "simplification of the procedures" would be a good measure (among others) to apply to the Spanish justice.

From the public administration perspective, there have been more efforts to analyze the situation of justice in Spain during the last years. Some statistics on judicial activity are available in Spain since 1995. In fact, analyzing the efficiency of the Judiciary is an important issue for national public authorities not only for the reasons already cited (i.e. the judicial system may be a determinant of competitiveness) but also because maintaining the system is costly and requires a high public expenditure (0,35% of GDP in Spain, 2003, 0,5% if we also include prisons) [Jiménez and Pastor (2007)] and employs an important number of public workers (57000) for whom an appropriate system of incentives and productivity is an important issue [Cabrillo and Pastor (2001), and Cabrillo and Fitzpatrick (2008)].

At the research level it is possible to find for the Spanish case similar results to those of Japelli *et al.* (2005). Padilla *et al.* (2007) found that better efficiency of justice is related to a better functioning of credit markets across the Spanish provinces and regional Governments *(Comunidades Autónomas)*.

4.1.3 OBJECTIVES OF THIS CHAPTER

The objective of this chapter is to provide an analysis of the degree of formalism of the judicial system in Spain as the main public mechanism of contract enforcement and to provide a dis-

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2. The last release of the Doing Business Project took place in september 2009 ("Doing Business 2010: reforming through difficult times").

DOING BUSINESS (WORLD BANK) RANKINGS AND INDICATORS FOR «ENFORCING CONTRACTS» (2006-2010) TABLE 4.1

	EASE OF DOING BUSINESS RANK	DOING BUSINESS/ENFORCING CONTRACTS				WORLD BUSINESS ENVIRONMENT SURVEY			
		RANK	PROCEDURES (NUMBER)	TIME (DAYS)	COST (% OF DEBT)	JUSTICE IS NEVER QUICK	JUSTICE IS NEVER AFFORDABLE	NEVER ABLE TO ENFORCE DECISIONS	JUDICIARY IS A MAJOR OBSTACLE TO BUSINESS
FRANCE	–	–	–	–	–	47,0%	16,3%	2,1%	4,1%
1999	–	–	30	331	17,4	–	–	–	–
2006	–	–	30	331	17,4	–	–	–	–
2007	–	–	29	331	17,4	–	–	–	–
2008	–	–	29	331	17,4	–	–	–	–
2009	31	8	29	331	17,4	–	–	–	–
2010	31	6	29	331	17,4	–	–	–	–
GERMANY									
1999	–	–	–	–	–	20,6%	18,6%	4,2%	8,0%
2006	–	–	30	394	14,4	–	–	–	–
2007	–	–	30	394	14,4	–	–	–	–
2008	–	–	30	394	14,4	–	–	–	–
2009	27	9	30	394	14,4	–	–	–	–
2010	25	7	30	394	14,4	–	–	–	–
ITALY									
1999	–	–	–	–	–	62,4%	43,8%	8,9%	16,3%
2006	–	–	41	1390	29,9	–	–	–	–
2007	–	–	41	1210	29,9	–	–	–	–
2008	–	–	41	1210	29,9	–	–	–	–
2009	74	158	41	1210	29,9	–	–	–	–
2010	78	156	40	1210	29,9	–	–	–	–
SPAIN									
1999	–	–	–	–	–	41,2%	13,5%	4,2%	12,2%
2006	–	–	40	515	17,2	–	–	–	–
2007	–	–	40	515	17,2	–	–	–	–
2008	–	–	39	515	17,2	–	–	–	–
2009	51	52	39	515	17,2	–	–	–	–
2010	62	52	39	515	17,2	–	–	–	–
UNITED KINGDOM									
1999	–	–	–	–	–	17,3%	18,2%	1,0%	2,0%
2006	–	–	30	404	23,4	–	–	–	–
2007	–	–	30	404	23,4	–	–	–	–
2008	–	–	30	404	23,4	–	–	–	–
2009	6	23	30	404	23,4	–	–	–	–
2010	5	23	30	399	23,4	–	–	–	–
UNITED STATES									
1999	–	–	–	–	–	23,2%	25,3%	7,1%	2,2%
2006	–	–	33	300	14,4	–	–	–	–
2007	–	–	32	300	14,4	–	–	–	–
2008	–	–	32	300	14,4	–	–	–	–
2009	4	9	32	300	14,4	–	–	–	–
2010	4	8	32	300	14,4	–	–	–	–

SOURCE: World Bank Doing Business Project (2009) and The World Business Environment Survey (2000).

cussion on its efficiency.[3] The analysis covers the period 1966-2008 therefore providing a long run view of the system that is not given by the sources already cited. This will allow to show the effects on formalism of several changes in the Spanish procedural Laws like the one that took place in 2000 (under the new Civil Procedural Law of 2000).

Specifically, a judicial formalism index is provided for the period analyzed. For that purpose the methodology of Djankov *et al.* (2003) is followed once it has been adapted to the Spanish legal environment and once some important assumptions made by the authors have been relaxed. The most important one is that Djankov *et al.* (2003) fix the amount of the dispute. That assumption limits their analysis to one single procedure. In this chapter all the different civil procedures of the Spanish system are analyzed for the period under study.[4] An analysis of the effects of formalism in the Charts of effective efficiency[5] of the Spanish justice is also provided in this chapter. Finally a comparison with the results of previous literature is also discussed.

The chapter is organized as follows. Section 4.2 summarizes the methodology of Djankov *et al.* (2003) and presents the adaptations and assumptions made for studying the Spanish legal system. Section 4.3 describes the main issues of the Spanish procedures during the period of study and discusses the results of the different indicators. Section 4.4 makes some international comparisons of the results obtained in this work. Section 4.5 discusses the case of the special procedures needed to evict a non-paying tenant. Section 4.6 draws some final conclusions.

4.2 Methodology

4.2.1 THE "FORMALISM" INDICATOR PROPOSED BY DJANKOV *ET AL.* (2003) AND DESCRIPTION OF THE VARIABLES

Djankov *et al.* (2003) used data from the judicial systems and procedures in 109 countries to construct an index of procedural formalism of dispute resolution. The authors observe and "map" two types of possible disputes between private parties to be solved before the courts: the collection of a check (an unpaid debt) and the procedure to evict a non-paying tenant. Both of them, especially the first one, are "representative" cases of civil disputes before the national courts. An analysis of their formalism can be considered representative of the whole system. From their set of results, they conclude that, *ceteris paribus,* higher procedural formalism predicts longer duration of dispute resolution and also lower enforceability of contracts (therefore expected duration is highly correlated with formalism). The result would suggest that the legal structure is an essential dimension of judicial efficiency rather than the level of development of the country by itself.

The source of data they use is a questionnaire that covers all the stages of the typical procedure that a company or an individual must follow to recover a debt. The authors make some assumptions to simplify the analysis: they consider that the case is solved by the courts in the country's largest city and they also fix the amount (of the unpaid debt). Fixing the amount implies that they analyze just one single procedure in the Spanish case.

The questions and stages of the procedures analyzed are guided by the 1994 International Encyclopaedia of Laws-Civil Procedure (Kluwer Law International).

The formalism index proposed by the authors is composed of 7 sub-indicators: "Professionals vs. Laymen", "Written vs. Oral", "Legal justification", "Statutory regulation of evidence", "Control of Superior Review", "Engagement formalities" and a measure of the

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3. Special attention is paid to the procedures directed to evict a non paying tenant. **4.** Please note that Balas *et al.* (2008) provide the value of the index for Spain between 1950 and 2000 but their work suffer from the same assumptions as Djankov *et al.* (2003). **5.** Measured as the resolution rate, the congestion rate and the pending cases rate of the judicial system.

number of "independent procedural actions". Each sub-indicator is scored from 0 to 1 (several intermediate results are possible). Each sub-indicator is composed of several variables that are assigned the score of 0 or 1. The formalism index is the unweighted sum of the sub-indicators and, thus, has a result out of a maximum score of 7. Higher scores mean more "formalism" and, thus, more complexity and longer expected duration of the procedure. Table 4.2 contains more information on the variables included in each sub-indicator.

The sub-index for "professionals vs. Laymen" analyzes the intervention of professional judges (versus laymen) in all the procedures and their specialization for solving specific cases. It also considers whether legal representation is mandatory or not to act before a court, as legal representation is costly. The higher is the "professionalism" required or the lower is the specialization, the higher will be the index. More specialization of the courts is understood as a way of introducing "mass production" into the judicial system and therefore of, hypothetically, increasing the number of cases solved.

The sub-index for "Written vs. Oral elements" analyzes, among other issues, if it is compulsory in all the steps of the procedure to have all the notifications made by written documents and if they need to be "legalized" by a judicial officer. The sub-index also analyzes the formalism of the decisions of the court and the steps to enforce them. More written elements increase the score of the sub-index.

The sub-index for "legal justification" measures whether it is necessary to justify all the actions and requests (such as the claim or complaint) to the court in legal terms, with legal reasoning (or by expressly citing legal concepts and norms) or if simpler requests merely justified on grounds of "equity" are enough. Legal justification usually requires legal training and as a result, legal representation becomes necessary. The sub-index also takes into account if resolutions by the court need to be legally justified or they can be based simply on "equity". More "legal justification" increases the value of the sub-index.

The sub-index for "statutory regulation of evidence" deals with the rules governing the "evidence" discussed and considered by the judge (oral interrogation of the parties or a witness, written documents…). It also considers if the evidence must be recorded in all cases. More rigid criteria make the sub-index have higher scores.

The sub-index for "control of superior review" considers whether enforcement of a court decision can be suspended if the decision is appealed. Also it considers the possible content and scope of the appeal. Automatic suspensions and a comprehensive review of the previous decision (including revision of old evidence already discussed) make the sub-index to increase.

The sub-index for "engagement formalities" considers certain formalities that may be present in the procedure, such as a compulsory stage of "pre-conciliation". "Pre-conciliation" is not "wrong" in itself. In fact, it may solve the conflict without the need for a full judicial procedure. What the indicator measures is whether it is "compulsory" or not. If it is compulsory, it may be superfluous in some cases.

The sub-index "engagement formalities" also takes into account whether a judicial officer must "legalize" the documents received or sent by the court. Higher formalities or added steps (such as compulsory pre-conciliation) increase the result of the sub-index.

The sub-index for the number of "independent procedural actions" counts the number of "steps" needed to complete filing, service, trial, judgment and enforcement. The sub-index is constructed according to the values obtained in the full sample of countries. It takes value 0 for the country with a lower number of actions and one for the country with the maximum amount.

Djankov *et al.* (2003) observe that the sub-indicators move in the same direction and are positively correlated with the overall index of formalism. Therefore, they consider not necessary to design a specific methodology for the construction of the formalism index.

4.2.2 APPRAISAL AND CRITICISM OF THE INDICATOR

An important question arises from the indicator of Djankov *et al.* (2003). Is "judicial formalism" a good policy indicator? Does reducing formalism improve judicial systems? Is it desirable to reduce formalism in all cases?

One criticism questions the basic assumptions of the indicator: informal justice is said to be more vulnerable to subversion by the powerful, *i.e.* reducing time and cost of the procedure may also reduce its fairness.

As mentioned above, the indicator proposed by Djankov *et al.* (2003) penalizes formalism. In fact, the indicator takes as a model the "neighbourhood model", inspired by the Common Law (as a consequence "Common Law" countries generally perform better both in Djankov *et al.* (2003) and in the Doing Business Project). Common Law countries have less tradition of written norms but, from the perspective of Roman/Civil Law, the lack of legal justification of the procedures is considered to give rise to risk of loss of "legal certainty" and thus a risk of increased partiality.

Another criticism points out that the indicators may not be representing the whole picture of institutions but just the reaction of the system to very specific case-studies [Ménard and Du Marais (2008)]. Moreover, other specific case-studies challenge the assumptions of the sub-indices of Djankov *et al.* (2003). For instance, Garoupa *et al.* (2008) conclude that specialized courts in Madrid, after controlling for other relevant variables, may not be faster than the regular courts.

More in general, the results of the Doing Business Project, which takes as methodology the paper of Djankov *et al.* (2003) among others, have been criticised by Arruñada (2007). Arruñada, who analyzes the procedures needed for setting up a firm, criticises that this type of indicators may concentrate the efforts of the reformers in simplifying the regulations rather than evaluating their real effects.

In favour of Djankov *et al.* (2003), it can be said that their conclusions coincide also with those of the World Business Environment Survey completed before their work. Batra *et al.* (2003), following that survey, also concluded that reduced time and cost of the procedures are associated with perceptions of more fairness and impartiality.

It can be highlighted, in any case, that formalism must not be considered as "desirable" or "undesirable" by itself but, from the results of Djankov *et al.* (2003), it can be related to longer and more costly procedures.

When adapting the indicators to the Spanish case some of the assumptions made by Djankov *et al.* (2003) will be relaxed, thus giving some relief to the criticisms already cited.

4.2.3 ADAPTED INDICATORS FOR SPAIN AND SPANISH DATA

The objective of this chapter is to provide a description of the Spanish judicial system through the analysis of the resolution of a representative civil dispute through court decisions.

The representative dispute is the action to recover a debt such as a check collection [that is also a dispute chosen by Djankov *et al.* (2003) in their indicators)].[6] The dispute takes place between two or more private parties (therefore there is no public administration involved) and it is assumed to be solved by a *"juez de primera instancia"* (court of first instance). Other solutions, such as arbitration are not taken into account.

In order to improve the indicators and address some of the criticisms generated by them, some assumptions made by Djankov *et al.* (2003) are relaxed: it is not necessary to assume that the conflict is solved in a particular place or city in Spain as the procedures are homogeneous throughout the country and it is not assumed to be a conflict for a particular amount. As will be seen in the next section, the type of procedure used in Spain depends

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6. This chapter also discusses the case of tenant eviction in section 4.5.

heavily on the amount in dispute.[7] Therefore, all the possibilities are analyzed (8 in the last decades) unlike in Djankov *et al.* who only analyze the procedures for a very specific case. As it was already said, Balas *et al.* (2008) suffer from the same assumptions as Djankov *et al.*

For the Spanish case there is no data on "judicial quality" (understood as effective average time needed to get a decision from the court) if we try to describe the system over a long period of time. Therefore, having a measure of formalism as an approach to expected duration is useful.

For the comparability of data over time and across types of procedures, it is an advantage to be dealing with just the case of Spain as quite stable social conditions can be assumed in relation to justice, legal culture and corruption.

The formalism index proposed for the Spanish economy is composed of the six first components explained above. As this study only analyzes Spanish justice, the seventh component is not included. Therefore, the formalism index proposed has a maximum score of 6. Table 4.2 contains more information on the sub-indices and variables. The last two columns contain some legal foundations for the scores given in this chapter for Spain.

4.3 The Spanish judicial system, 1966-2008

4.3.1 CIVIL PROCEDURAL LAWS

As it was mentioned in the previous section, the objective of this study is to provide a description of the judicial system by analyzing a representative dispute resolved through the courts. That representative dispute is the action to recover a debt such as a check collection.

For such cases, and in general for all disputes arising under private contracts, in Spain the procedures are regulated by the "Civil Procedure Law" (CPL, *Ley de Enjuiciamiento Civil).* The latter establishes the rules of access to the court system, the formalisms that the parties must comply with, the role of the judge or court, the rules governing evidence, the control by superior instances and any other related issues. Two general Civil Procedure Laws has been passed in Spain since the 19th century, the first one in 1881 *(Ley de Enjuiciamiento Civil*, *Real Decreto de Promulgación de 3 de febrero de 1881,* CPL 1881), that governed the procedures until 2001, and the most recent one, Law 1/2000 *(Ley 1/2000, de 7 de enero, de Enjuiciamiento Civil,* CPL 2000) in force since 8th January 2001. Several minor reforms and amendments have been passed during the last decades.

From these Laws it can be concluded that in Spain there is not just one procedure to recover debts. The type and characteristics of the procedure will depend on the estimated amount of the debt. Under the CPL 1881 there were 4 types of procedures, *"juicio de mayor cuantía", "juicio de menor cuantía", "juicio verbal"* (named as "old" in the tables and Charts to distinguish it from the new procedures passed under CPL 2000) and *"juicio de cognición"* (that was not regulated in the main text of the CPL but in a more specific piece of legislation, Decree of 21st November 1952). The CPL 2000 introduced a new set of procedures: *"juicio ordinario", "juicio verbal"* (type I and II) and a special "fast" procedure suitable for debt recovery under certain circumstances called *"proceso monitorio".* All new disputes that come before the courts after 8th January 2001 must take the form of one of the procedures of the CPL 2000. As it was mentioned above, although the names seem similar, the old type of *"juicio verbal"* is a different procedure compared to the *"juicio verbal"* introduced by the CPL 2000.

Table 4.3 describes the applicability of the different procedures by amount. As it can be seen, several amendments changed the amounts that define the applicability of the different procedures. For instance, to collect an unpaid debt of €1000 after 2001 the applicable

7. For instance, the disputes concerning the property of a book or a car would be solved through different procedures because they have very different values.

DESCRIPTION OF THE VARIABLES AND ADAPTATION NOTES FOR SPAIN (a) (b)

TABLE 4.2

	VARIABLE	DESCRIPTION AND ADAPTATION	NOTES UNDER CPL 1881	NOTES UNDER CPL 2000
TOTAL PROFESSIONALS VS LAYMEN	General jurisdiction court	The variable measures whether a court of general or of limited jurisdiction would be chosen or assigned to hear the case under normal circumstances. A court of general jurisdiction is a state institution, recognized by the law as part of the regular court system, generally competent to hear and decide regular civil or criminal cases. A limited jurisdiction court would hear and decide only some types of civil cases. Specialized debt-collection or housing courts, small-claims courts, and arbitrators or justices of the peace are examples. Equals one for a court of general jurisdiction, and zero for a court of limited jurisdiction. For the Spanish case it is possible to say that, in general, courts are of general jurisdiction, that is the case of the *"juzgados de primera instancia"* (first instance courts). The existance of very specific cases of "limited" jurisdiction such as *"juzgados de violencia de género"* cannot be taken as representative of the whole system. The *"juzgados de paz"* (justices of the peace) only exist in municipalities that do not have first instance courts.	Article 51 *et seq.*	Article 813.
	Professional vs non-professional judge	The variable measures whether the judge, or the members of the court or tribunal, could be considered as professional. A professional judge is one who has undergone a complete professional training as required by law, and whose primary activity is to act as judge or member of a court. A non-professional judge is an arbitrator, administrative officer, practicing attorney, merchant, or any other layperson who may be authorized to hear and decide the case. Equals one for a professional judge, and zero for a non-professional judge. Judges in Spain are always professional. On the other hand, in Spain the parties have the option to have their conflict solved by an *"árbitro"* (non-professional judge) although in that case the case would be solved outside the judicial system.	Article 51 *et seq.*	–
	Legal representation is mandatory	The variable measures whether the law requires the intervention of a licensed attorney. The variable equals one when legal representation is mandatory, and zero when legal representation is not mandatory. In Spain legal representation should be understood as the assistance by *"abogado"* and *"procurador".* Therefore only the full mark is given when both are mandatory and half mark is given when only *"abogado"* is compulsory (for instance the case of the *"juicio de cognición"* under CPL 1881). Zero mark is given to the *"proceso monitorio"* under CPL 2000 as, although the opposition may need representation, it ends by itselt the procedure.	Article 51 *et seq.*	Articles 23, 437.
INDEX WRITTEN VS ORAL ELEMENTS	Filing	Equals one if the complaint is normally submitted in written form to the court, and zero if it can be presented orally.	Articles 524 *et seq.,* 720. Also article 29 Decree 21-11-52.	Article 437.
	Service of Process	Equals one if the defendant's first official notice of the complaint is most likely received in writing, and zero otherwise.	Articles 525 *et seq.,* 722. Also articles 30 and 38 Decree 21-11-52.	Article 161.
	Opposition	Equals one if under normal circumstances the defendant's answer to the complaint should be submitted in writing, and zero if it may be presented orally to court. Written complaints and answers are the normal case in Spain although under the *"juicio verbal"* (under both CPLs) the defendant's answer is done as part of the *"vista"* and therefore not necessarily in a written form. Opposition of the defendant in the proceso monitorio transforms it in a *"juicio verbal"* or *"ordinario"* (the opposition ends the *"proceso monitorio").*	Articles 503 *et seq.,* 687 *et seq.,* 722. Also article 40 Decree 21-11-52.	Articles 443, 815.
	Evidence	Equals one if evidence is mostly submitted to the court in written form, in the form of attachments, affidavits, or otherwise, and zero if most of the evidence, including documentary evidence, is presented at oral hearings before the judge. In Spain the complaint is supported by evidence that is usually sustained with written documents. In some cases, as *"juicio verbal"* (CPL 1881) in which the first approach to the court is done through a standarized form *(papeleta),* special rules apply. Also in the *"juicio verbal"* under CPL 2000.	Articles 504 and 579 *et seq.,* 699 *et seq.,* 720 *et seq.* See especially 522. Also article 49 Decree 21-11-52.	Article 440, 812, 814.

SOURCE: Self elaboration, Djankov *et al.* (2003) and Spanish Civil Procedural Laws.

a. Please note the singularities of the regulation of the *"proceso monitorio"* (CPL 2000). If there is opposition to the demand under a *"proceso monitorio"*, the procedure ends and it is transformed in a *"proceso ordinario"* or *"verbal"*.
b. Judgment is understood as *"sentencia"*. The *"proceso monitorio"* ends with an *"auto"*. See explanations to the indicators.

DESCRIPTION OF THE VARIABLES AND ADAPTATION NOTES FOR SPAIN (a) (b) (cont.) TABLE 4.2

	VARIABLE	DESCRIPTION AND ADAPTATION	NOTES UNDER CPL 1881	NOTES UNDER CPL 2000
INDEX WRITTEN VS ORAL ELEMENTS	Final arguments	Equals one if final arguments on the case are normally submitted in writing, and zero if they are normally presented orally in court before the judge. In Spain the part of the procedure understood as "final arguments" may be identified as *"actos conclusivos"* or *"formulación de conclusiones".* That part of the procedure does not exist in all cases, for instance: *"juicio verbal"* and *"juicio de cognición"* (CPL 1881) and orality has been extended under CPL 2000.	Articles 667 *et seq.*, 701. There are not *"actos conclusivos"* in the case of *"juicio verbal (old)"* and of *"cognición".*	Article 433.
	Judgment	Equals one if the judge issues the final decision in the case in written form, and zero he issues it orally in an open court hearing attended by the parties. The defining factor is whether the judge normally decides the case at a hearing. If the judge simply reads out a previously made written decision, the variable equals one. Conversely, for an orally pronounced judgment that is later transposed into writing for enforcement purposes, the variable equals zero. The indicator is understood as to penalize formalism assuming that originally oral judgments may be less constrained in pre- established formalisms. Please note that the proceso monitorio (CPL 2000), finishes with an *"auto",* there is not *"sentencia".* Half marks is given in that case although the *"auto"* is also written. The regulation for *"sentencias"* contains some especialities and formal pre-requisites (Article 209 CPL 2000, Article 248 LOPJ).	Articles 364, 678, 701 *et seq.,* 731 *et seq.*	Articles 210, 816 *et seq.*
	Notification of judgment	Equals one if normally the parties receive their first notice of the final decision in written form, by notice mailed to them, publication in a court board or gazette, or through any other written means. The variable equals zero if they receive their first notice in an open court hearing attended by them (that case, *"sentencia in voce"* is not usual in Spain). All final decisions are assumed to be written in Spain in general terms, including the *"auto"* in the proceso monitorio (CPL 2000).	Article 270 *et seq.*	Article 212.
	Enforcement of judgment	Equals one if the enforcement procedure is mostly carried out through the written court orders or written acts by the enforcement authority, and zero otherwise. Zero is also given when the parties can enforce themselves the judgment (a general term of 20 days is given in Spain under CPL 2000) not being neccesary further intervention by the judge.	–	Article 548 *et seq.*
LEGAL JUSTIFICATION	Complaint must be legally justified	The variable measures whether the complaint is required, by law or court regulation, to include references to the applicable laws, legal reasoning, or formalities that would normally require legal training. Equals one for a legally justified complaint, and zero when the complaint does not require legal justification (specific articles of the law or case-law). If "legal representation" is not compulsory and the demand may be sent to the court in a formalized form (like a *"papeleta")* value 0 is given.	Articles 524, 680, 720. Also article 29 Decree 21-11-52.	Articles 399, 437.
	Judgment must be legally justified	The variable measures whether the judgment must expressly state the legal justification (articles of the law or case-law) for the decision. Equals one for a legally justified judgment, and zero otherwise. Legal justification is compulsory in Spain (including the case of an *"auto",* although read the notes to previous indicators). Half mark is considered for *"proceso monitorio"* under CPL 2000 in order to reflect the more simple nature of the procedure if there is no opposition.	Article 248 LOPJ (Spanish Judiciary Act).	Articles 208 *et seq.*
	Judgment must be on Law (not on equity)	The variable measures whether the judgment may be motivated on general equity grounds, or if it must be founded on the law. Equals one when judgment must be on law only, and zero when judgment may be based on equity grounds.	–	–
STATUTORY REGULATION OF EVIDENCE	Judge cannot introduce evidence	Equals one if, by law, the judge cannot freely request or take evidence that has not been requested, offered, or introduced by the parties, and zero otherwise. In the *"proceso monitorio"* (CPL 2000) "evidence" is understood as the documentary evidence sent to the tribunal with the complaint (no "interrogations" take place under that procedure),	Article 652.	Article 429.
	Judge cannot reject irrelevant evidence	Equals one if, by law, the judge cannot refuse to collect or admit evidence requested by the parties, even if she deems it irrelevant to the case, and zero otherwise.	Articles 497.5, 566, 639.	Articles 285, 446.

SOURCE: Self elaboration, Djankov *et al.* (2003) and Spanish Civil Procedural Laws.

a. Please note the singularities of the regulation of the *"proceso monitorio"* (CPL 2000). If there is opposition to the demand under a *"proceso monitorio"*, the procedure ends and it is transformed in a *"proceso ordinario"* or *"verbal"*.
b. Judgment is understood as *"sentencia"*. The *"proceso monitorio"* ends with an *"auto"*. See explanations to the indicators.

DESCRIPTION OF THE VARIABLES AND ADAPTATION NOTES FOR SPAIN (a) (b) (cont.) TABLE 4.2

	VARIABLE	DESCRIPTION AND ADAPTATION	NOTES UNDER CPL 1881	NOTES UNDER CPL 2000
STATUTORY REGULATION OF EVIDENCE	Out-of-court statements are inadmisible	Equals one if statements of fact that were not directly known or perceived by the witness, but only heard from a third person, may not be admitted as evidence. The variable equals zero otherwise. In Spain the judge or tribunal is free to admit or not the statement depending on the circumstances.	Article 659.	–
	Mandatory pre-qualification of questions	Equals one if, by law, the judge must pre-qualify the questions before they are asked of the witnesses, and zero otherwise.	Articles 639, 641.	Articles 302, 368.
	Oral interrogation only by judge	Equals one if parties and witnesses can only be orally interrogated by the judge, and zero if they can be orally interrogated by the judge and the opposing party.	Articles 652.	Articles 302, 368.
	Only original documents and certified copies are admissible	Equals one if only original documents and "authentic" or "certified" copies are admissible documentary evidence, and zero if simple or uncertified copies are admissible evidence as well.	Article 597.	Article 318.
	Authenticity and weight of evidence defined by law	Equals one if the authenticity and probative value of documentary evidence is specifically defined by the law, and zero if all admissible documentary evidence is freely weighted by the judge.	Article 596 *et seq.*	Articles 319, 326.
	Mandatory recording of evidence	Equals one if, by law, there must be a written or magnetic record of all evidence introduced at trial, and zero otherwise.	–	Articles 145 *et seq.*
CONTROL OF SUPERIOR REVIEW	Enforcement of judgment is automatically suspended until resolution of the appeal	Equals one if the enforcement of judgment is automatically suspended until resolution of the appeal when a request for appeal is granted. Equals zero if the suspension of the enforcement of judgment is not automatic, or if the judgment cannot be appealed at all. In spain, in general terms, the judgments can be "provisionally" enforced even in the case of appeal. Under CPL 2000, no "appeal" (understood as *"apelación")* is possible against the *"proceso monitorio"* (opposition transforms the proceso monitorio in other type of procedure).	Articles 383, 384, 385, 702.	Articles 524 *et seq.*
	Comprehensive review in appeal	Equals one if issues of both law and fact (evidence) can be reviewed by the appellate court. Equals zero if only new evidence or issues of law can be reviewed in appeal, or if judgment cannot be appealed. An *"apelación"* can review both the law and the evidence. A *"casación"* only reviews the law.	Articles 862, 897 *et seq.*	Article 456 *et seq.*
	Interlocutory appeals are allowed	Equals one if interlocutory appeals are allowed, and zero if they are always prohibited. Interlocutory appeals are defined as appeals against interlocutory or interim judicial decisions made during the course of a judicial proceeding in first instance and before the final ruling on the entire case. *"Autos"* and *"providencias"* are considered "interim decisions" in this variable.	Article 376.	Articles 451 *et seq.* 455.
ENGAGEMENTS FORMALITIES	Mandatory pre-trial conciliation	Equals one if the law requires plaintiff to attempt a pre-trial conciliation or mediation before filing the lawsuit, and zero otherwise. Pre-trial conciliation was compulsory before Law 34/1984 (with the exception of the *"juicio verbal")*. Afterwards (and also under CPL 2000) conciliation is voluntary. Thus, the value of the indicator has diminished.	Article 460. Amendment by Law 34/1984	–
	Service of process by judicial officer required	Equals one if the law requires the complaint to be served to the defendant through the intervention of a judicial officer, and zero if service of process may be accomplished by other means.	Articles 525, 680 *et seq.,* 722. Article 38 Decree 21-11-52.	Articles 152, 276, 439. Judgment SAP Barcelona 20-12-2004.
	Notification of judgment by judicial officer required	Equals one if the law requires the judgment to be notified to the defendant through the intervention of a judicial officer, and zero if notification of judgment may be accomplished by other means.	Article 252.	Articles 161, 815.

SOURCE: Self elaboration, Djankov *et al.* (2003) and Spanish Civil Procedural Laws.

a. Please note the singularities of the regulation of the *"proceso monitorio"* (CPL 2000). If there is opposition to the demand under a *"proceso monitorio",* the procedure ends and it is transformed in a *"proceso ordinario"* or *"verbal"*.
b. Judgment is understood as *"sentencia".* The *"proceso monitorio"* ends with an *"auto".* See explanations to the indicators.

APPLICABILITY OF THE DIFFERENT PROCEDURES IN NOMINAL TERMS TABLE 4.3

	JUICIO MAYOR CUANTÍA	JUICIO MENOR CUANTÍA	JUICIO COGNICIÓN	JUICIO VERBAL (OLD)
1966-1984	> 3,005 €	301- 3,005 €	60 - 301 €	< 60 €
1985-1991	> 601,012 €	3,005 - 601,012 €	301 - 3,005 €	< 301 €
1992-2000	> 961,619 €	4,808 - 961,619 €	481 - 4,808 €	< 481 €
	PROCESO MONITORIO	JUICIO ORDINARIO	JUICIO VERBAL (I)	JUICIO VERBAL (II)
2001-2008	< 30,000 €	> 3,000 €	< 3,000 €	< 900 €

SOURCE: Spanish Civil Procedural Laws.

procedure would be the *"juicio verbal".* But if the estimated amount is €4000, the procedure would be a *"juicio ordinario"*. The new procedures under CPL 2000 are not clearly heirs of the old types as it will be seen.

The period under study is 1966-2008 to cover the most recent reforms in the procedural Laws. During that period, various amendments changed the amounts applicable to each procedure. The first set of amounts was defined by Law 46/1966 and was applicable until 1985 (when Law 34/1984 entered into force). The last change in the amounts, before the new CPL 2000 entered into force, was made by Law 10/1992.

4.3.2 FORMALISM INDICES FOR THE SPANISH PROCEDURES

As it was explained above, to analyze the "formalism" for the Spanish case requires the construction of an index for each of the applicable procedures. Therefore, the objective here is to obtain a measure of formalism for each of the 8 procedures cited in the previous subsections and observe their evolution through time. That will allow to obtain a comparison between them in a tractable manner and also a comparison over time. Finally, a compound indicator, taking into account the different possibilities is provided.

Charts 4.1 to 4.6 show the results for the 6 sub-in-dicators that compose the "formalism index" used here (Professionals vs. Laymen, Written vs. Oral, Legal justification, Statutory regulation of evidence, Control of Superior Review and Engagement formalities). Extensive information is provided in table 4.2. Chart 4.7 shows the result for the "formalism index". The vertical lines in years 1985, 1992 and 2001 indicate relevant changes in the procedures due to a change in the whole Law (with the approval of the new CPL in 2000) or minor changes made by Law 34/1984 and Law 10/1992.

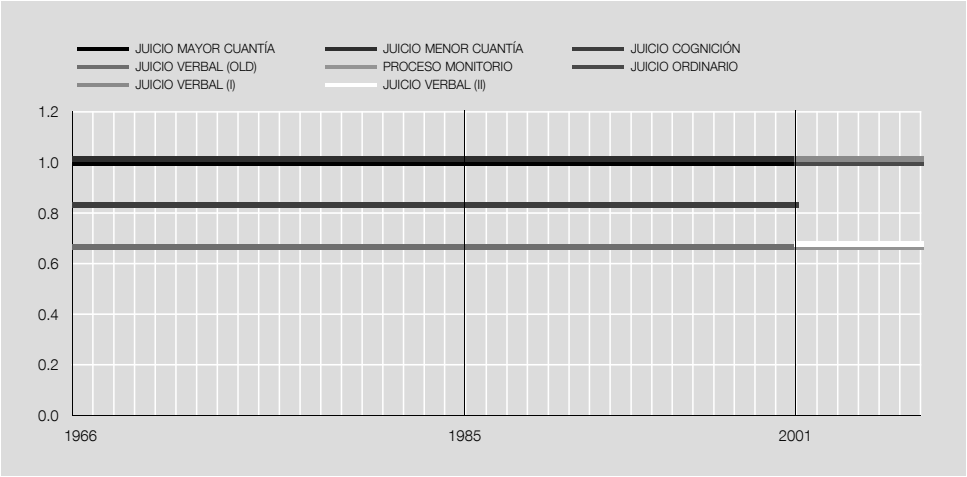
As expected, the procedures that are established by the CPL for solving cases involving lower amounts are also less "formal" *("juicio verbal* old" before 2000 and *"juicio verbal* II" after 2000) (see chart 4.7). Also higher sub-indicators are related to higher nominal amounts (charts 4.1-4.6). An exception is the "Proceso monitorio" (after 2000) that also has a low degree of formalism, although it can be used to solve disputes involving quite large amounts. In fact the "proceso monitorio" was especially created to be a "simple" procedure to use under strict circumstances.

All the sub-indicators have shown some improvement (that is, lower scores are obtained for all or some of the procedures) in recent years. The improvements are reflected in the global indicator of formalism (chart 4.7). All the quantitative results are included in Table 4.4.

With respect to the problem of the consistency of the indicators, as observed in the study of Djankov *et al.* (2003), the sub-indicators move in the same direction and are positively correlated with the overall index of formalism. Table 4.5 provide the correlations among the formalism index and its components. All correlations are high and positive.

TOTAL PROFESSIONAL VS LAYMEN INDEX

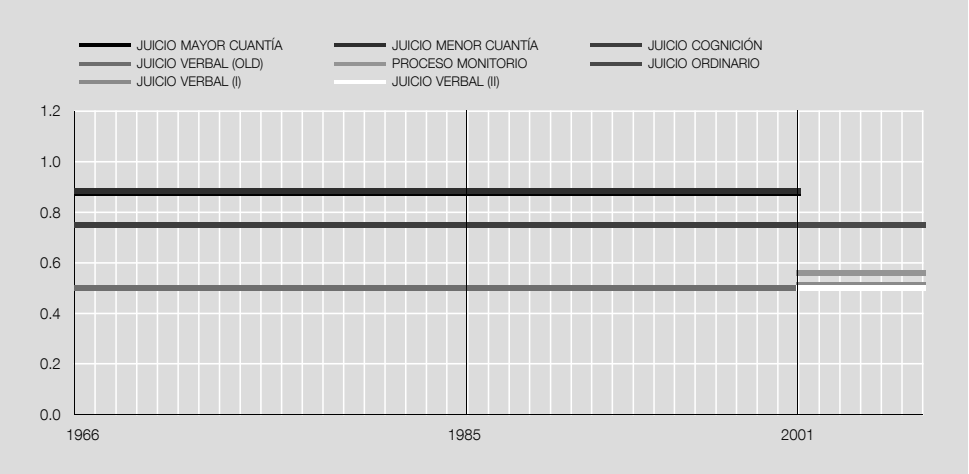
CHART 4.1



SOURCE: Self elaboration.

WRITTEN VS ORAL ELEMENTS INDEX

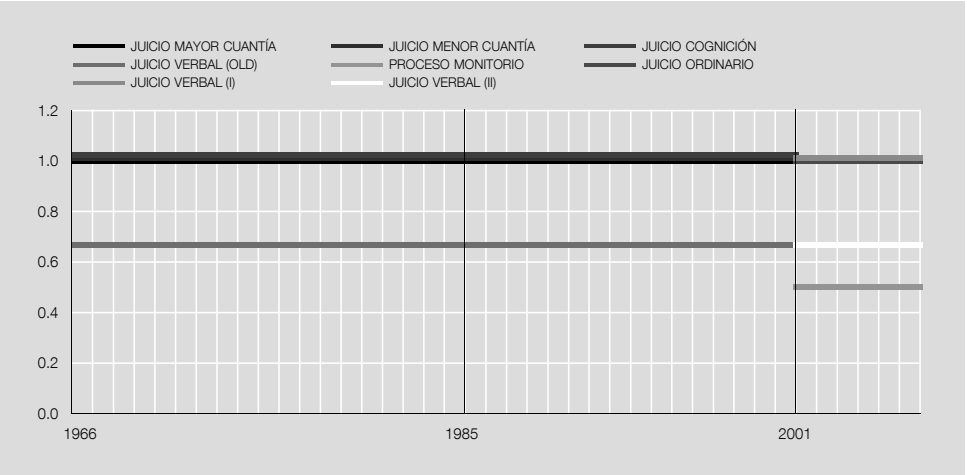
CHART 4.2



SOURCE: Self elaboration.

LEGAL JUSTIFICATION INDEX

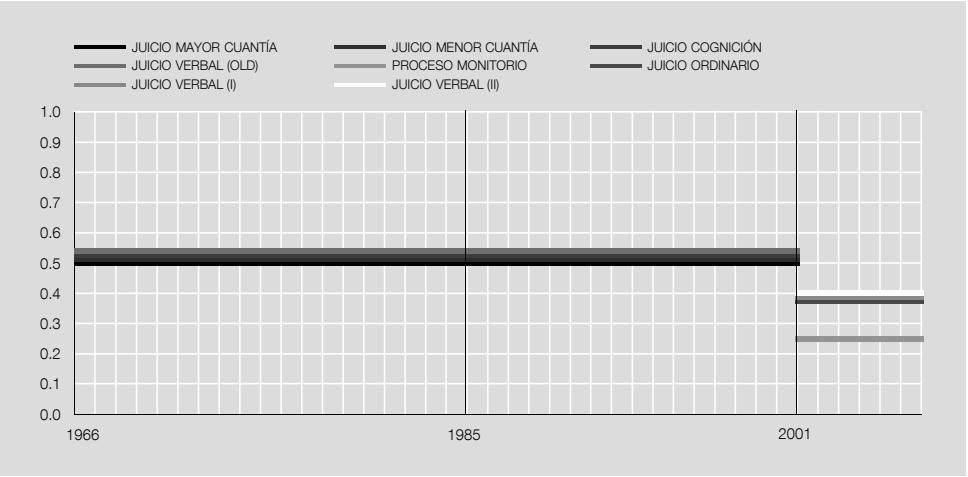
CHART 4.3



SOURCE: Self elaboration.

STATUTORY REGULATION OF EVIDENCE INDEX

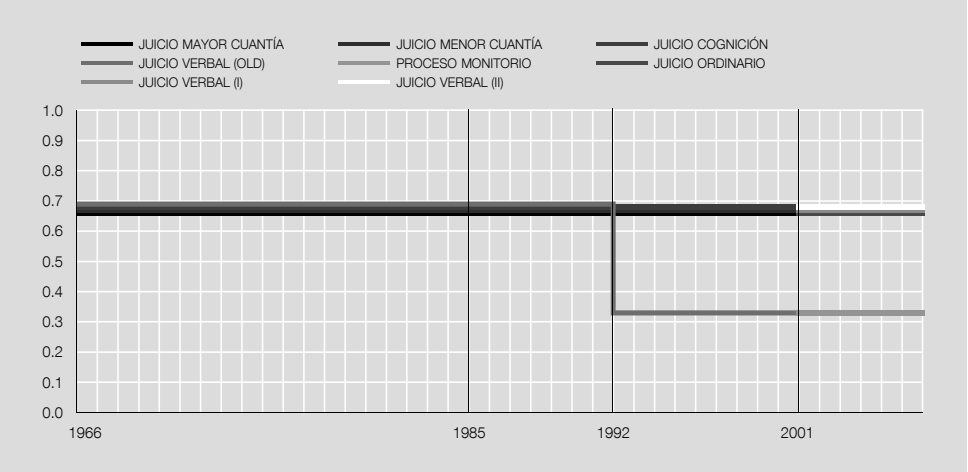
CHART 4.4



SOURCE: Self elaboration.

CONTROL OF SUPERIOR REVIEW INDEX

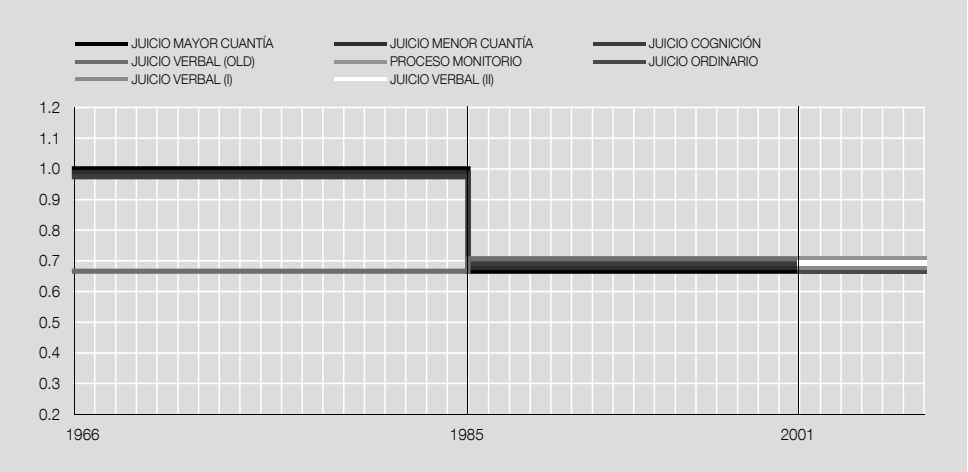
CHART 4.5



SOURCE: Self elaboration.

ENGAGEMENT FORMALITIES INDEX

CHART 4.6



SOURCE: Self elaboration.

RESULTS FOR THE INDICATORS TABLE 4.4

UNDER CPL 1881	JUICIO MAYOR CUANTÍA	JUICIO MENOR CUANTÍA	JUICIO COGNICIÓN	JUICIO VERBAL	EVICTION PROCEDURE
Total professional vs laymen	1.00	1.00	0.83	0.67	0.67
Index written vs oral elements	0.88	0.88	0.75	0.50	0.50
Legal justification	1.00	1.00	1.00	0.67	0.67
Statutory regulation of evidence	0.50	0.50	0.50	0.50	0.50
Control of superior review (before 1991	0.67	0.67	0.67	0.67	0.67
Control of superior review (after 1991)	0.67	0.67	0.67	0.33	0.33
Engagements formalities (before 1984)	1.00	1.00	1.00	0.67	0.67
Engagements formalities (after 1984)	0.67	0.67	0.67	0.67	0.67
Formalism index (before 1984)	5.04	5.04	4.75	3.67	3.67
Formalism index (after 1984)	4.71	4.71	4.42	3.67	3.67
Formalism index (after 1991)	4.71	4.71	4.42	3.33	3.33
UNDER CPL 2000	PROCESO MONITORIO	JUICIO ORDINARIO	JUICIO VERBAL I	JUICIO VERBAL II	EVICTION PROCEDURE
Total professional vs laymen	0.67	1.00	1.00	0.67	0.83
Index written vs oral elements	0.56	0.75	0.50	0.50	0.50
Legal justification	0.50	1.00	1.00	0.67	0.83
Statutory regulation of evidence	0.25	0.38	0.38	0.38	0.38
Control of superior review	0.33	0.67	0.67	0.67	0.67
Engagements formalities	0.67	0.67	0.67	0.67	0.67
Formalism index	2.98	4.46	4.21	3.54	3.88

SOURCE: Self elaboration.

CORRELATIONS OF THE FORMALISM INDEX AND ITS SUB-INDICES TABLE 4.5

	PROFESSIONALS VS. LAYMEN	WRITTEN VS. ORAL	LEGAL JUSTIFICATION	STATUTORY REGULATION OF EVIDENCE	CONTROL OF SUPERIOR REVIEW	FORMALISM INDEX
Professionals vs. Laymen	1					
Written vs. Oral	0.668	1				
Legal justification	0.910	0.66	1			
Statutory regulation of evidence	0.314	0.512	0.558	1		
Control of superior review	0.7	0.491	0.804	0.311	1	
Formalism index	0.904	0.806	0.966	0.591	0.822	1

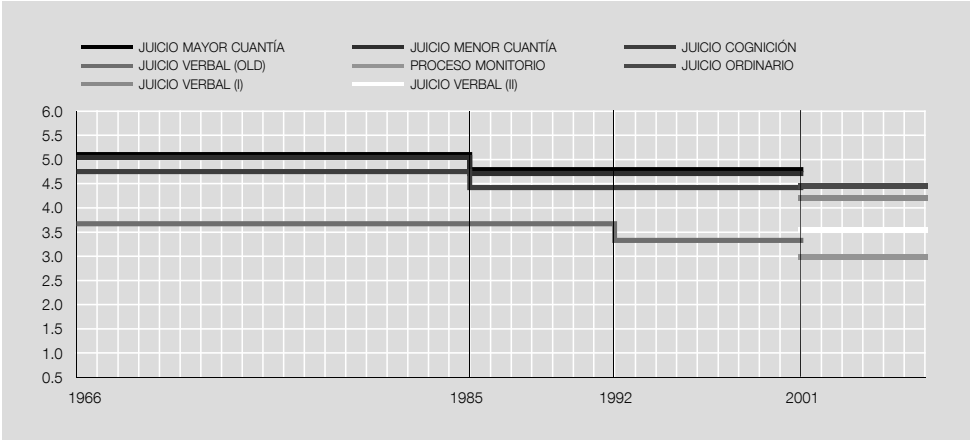
SOURCE: Self elaboration.

4.3.3 A COMPOUND INDICATOR OF FORMALISM

The previous results give us the levels of "formalism" of each of the procedures allowing to make comparisons among them. It would be desirable to obtain a single indicator of formalism to represent the situation of the whole system independently of the specific procedure needed for a specific dispute. That indicator can be constructed since data on the usage of the different types of civil procedures over time (1995-2006) are available.

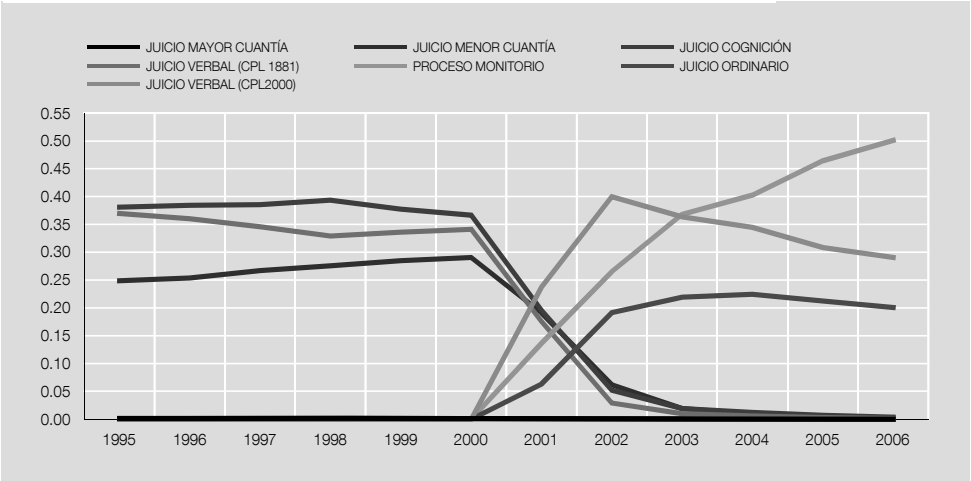
Chart 4.8 represents the proportion (in %) of disputes resolved by each type of procedure between 1995 and 2006. The data are taken from the public database of the CGPJ (Consejo General del Poder Judicial, General Council of the Judicial Power) and represent the disputes resolved by the first instance (and first instance plus "instrucción") courts excluding "family conflicts" and executions. After 2000, all the new cases that were filled in the Spanish courts took the form of one of the new procedures, therefore in a few years all the cases resolved by the system will be dealt with the new procedures. Meanwhile, as can be seen in the

FORMALISM INDEX CHART 4.7



SOURCE: Self elaboration.

SOLVED CONFLICTS BY TYPE OF PROCEDURE CHART 4.8



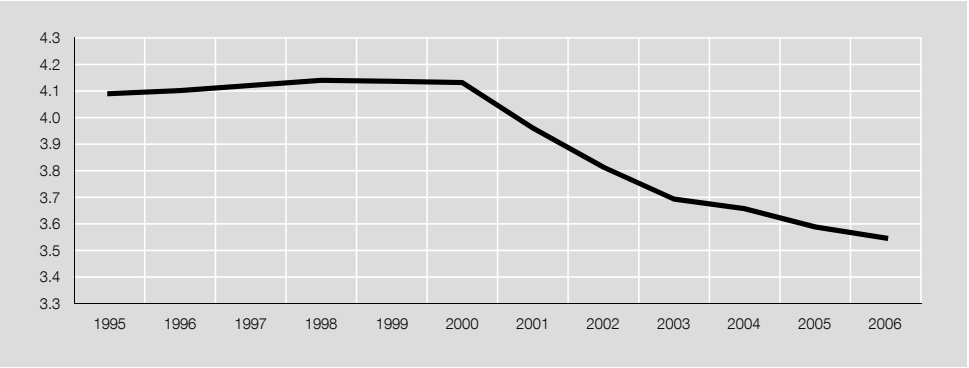
SOURCE: Consejo General del Poder Judicial (2009).

Chart, in the first years after 2000 it is still possible to find a relevant, but diminishing, proportion of disputes solved under the form of the old procedures.

The data have two important drawbacks: the period available is very limited and the data does not differentiate between the two "types" of "juicio verbal" (after 2001), as explained above.

Chart 4.9 (data in table 4.6) shows a composite indicator of formalism taking into account the proportion of solved cases explained above. It is assumed that half of the new cases between 0 and €3000 took the form of a *"juicio verbal* I". Chart 4.9 shows that the implementation of the new Law 1/2000 implied a significant reduction in the "formalism" of the Spanish judicial system. It can be expected that the measure of formalism will stabilize around the results of 2006 as the weights of the old procedures in the system approach to 0. That reduction in general formalism can be explained by the introduction of some reforms in the judicial system by the CPL 2000. The CPL 2000 introduced a simple fast procedure *(proceso monitorio)* for a quite wide range of amounts (up to 30,000 euros). More specifically in the *"proceso monitorio"* legal representation is not mandatory unless the procedure is transformed in another type of procedure (due to the opposition of the debtor). Also the complaint may be

COMPOSITE INDICATOR OF JUDICIAL FORMALISM IN SPAIN CHART 4.9



SOURCE: Self elaboration.

GLOBAL FORMALISM INDEX FOR SPAIN, 1995-2006 TABLE 4.6

YEAR	FORMALISM
1995	4.09
1996	4.10
1997	4.12
1998	4.14
1999	4.14
2000	4.13
2001	3.96
2002	3.81
2003	3.69
2004	3.66
2005	3.59
2006	3.55

SOURCE: Self elaboration.

submitted to the court in a simplified form. Moreover, the number of steps needed to complete the procedure may be very limited under CPL 2000: the *"proceso monitorio"* begins with the presentation by the creditor of the documents which demonstrate that a debt was left unpaid by a debtor. If, faced with those documents, the debtor acknowledges before the judge that the debt exists and he is willing to pay, the procedure ends without any further steps. On the other hand, as we have seen, the CPL 2000 inherited some of the previous simplifications, such as the elimination of the pre-trial conciliation. All those innovations lead to a decrease in the formalism index.

4.3.4 EFFECTS OF FORMALISM IN THE JUDICIAL SYSTEM CHARTS

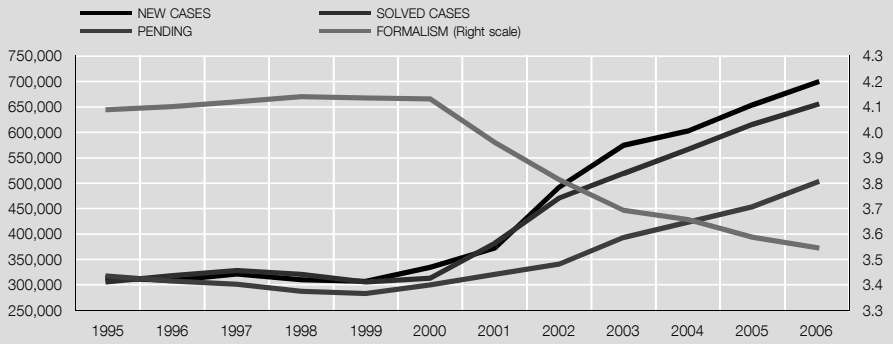
The CGPJ offers data (for 1995-2006) on the number of cases resolved per year by the judicial system, the number of new cases that entered the judicial system during the year and the number of cases still pending at the end of the year. From these Charts, it is possible to compute 3 relative measures of the efficiency of the judicial system: the resolution rate (equation 4.1) is defined as the ratio between the cases resolved and the cases that entered the system for a specific year (both measured at the end of the year), the pending cases rate (equation 4.2) is defined as the ratio between pending cases in a specific year and the cases resolved in the same period (both measured at the end of the year), and the congestion rate (equation 4.3) is defined as the ratio between the sum of pending cases (measured at the beginning of the

CORRELATIONS OF THE FORMALISM INDEX AND FIGURES OF THE JUDICIAL SYSTEM TABLE 4.7

	RESOLUTION RATE	PENDING CASES RATE	CONGESTION RATE	FORMALISM
Resolution date	1			
Pending cases rate	0.541	1		
Congestion rate	0.111	0.896	1	
Formalism	0.708	0.872	0.656	1

SOURCE: Self elaboration.

FORMALISM AND JUDICIAL SYSTEM FIGURES CHART 4.10



SOURCE: Self elaboration and Consejo General del Poder Judicial (2009).

period) plus new cases in a specific year and the cases resolved in the same year (both measured at the end of the year). Higher resolution rate, lower pending cases rate and lower congestion rate are related to greater efficiency of the judicial system.

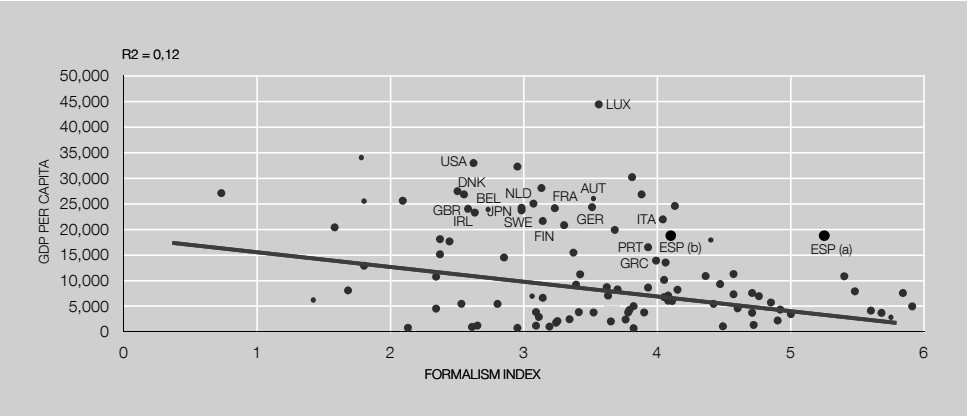
$$\text{Resolution rate}_{i,t} = \frac{\text{Cases resolved}_{i,t}}{\text{New cases}_{i,t}} \qquad [4.1]$$

$$\text{Pending cases rate}_{i,t} = \frac{\text{Pending cases}_{i,t}}{\text{Cases resolved}_{i,t}} \qquad [4.2]$$

$$\text{Congestion rate}_{i,t} = \frac{\text{Pending cases}_{i,t} + \text{New cases}_{i,t}}{\text{Cases resolved}_{i,t}} \qquad [4.3]$$

Table 4.7 shows that formalism is positively correlated with all three measures in the case of the years 1995-2006 (see Chart 4.10 for a graphical intuition). This could be interpreted as evidence, although admittedly very weak, that a reduction of formalism might have had a positive impact on the system through a reduced congestion and pending cases rate. On the other hand, the improvements in formalism may also have attracted a higher amount of new cases to the courts (an increase in litigation) and, therefore, a reduction in the resolution rate. This

GDP PER CAPITA AND FORMALISM CHART 4.11



SOURCES: Self elaboration, Heston *et al.* (2006), Djankov *et al.* (2003).

a. Djankov *et al.* (2003).
b. Mora-Sanguinetti.

would suggest that a net improvement in the judicial system needs not only reforms in the procedures but also more resources, in order to cope with the new disputes reaching the courts.

4.4 Comparison with the results of Djankov et al. *(2003) and other international indicators*

As it was mentioned above, the indicator of formalism proposed in the previous sections relaxes some of the assumptions made in Djankov *et al.* (2003) and takes into account all the procedures related to debt recovering, unlike the indicator proposed by Djankov *et al.* Therefore it would be interesting to compare the results of both pieces of research.

The indicator of formalism of Djankov *et al.* was composed of 7 sub-indicators of which the last one ("independent procedural actions") had to be removed from the indicator proposed in this chapter. Therefore, in order to obtain comparable results in both cases, the seventh sub-indicator should be removed from the results from Djankov *et al.* (2003). Their result for the formalism index in Spain (data from 2002), once the seventh sub-indicator is removed, is 4,96. The formalism index proposed in this chapter for 2002 takes the value of 3,81. In the case of Djankov *et al.,* Spain is in position 106 out of 109 countries. Therefore Djankov *et al.* (2003) conclude that Spain has a very formal system of justice. On the findings set out in this chapter, Spain would be in position 79 out of 109 countries. Thus, Spain would be in a mid-position. The latter result should hold as all the different procedures for debt recovery are taken into account, and not only a very specific case.

Conversely, another way to compare the indicators would be to add to the indicator obtained in this chapter the component that is lacking when compared with Djankov *et al.* (2003) ("independent procedural actions"). Djankov *et al.* (2003) provide the value of each of the sub-indicators and therefore it is possible to add the value given by them to the component that is needed. Note that this is a strong assumption as adding their component for "independent procedural actions" to the indicator proposed in this chapter would mean considering that the value they offer for "independent procedural actions" (0,29 in 2002) is constant across the different types of procedures. The formalism indicator obtained in this chapter for 2002 was 3,81. If the result for "independent procedural actions" (0,29) is added it is obtained a result of 4.1 that is significantly lower than their result for formalism in Spain (5,25). With a value of 5,25 (obtained by Djankov *et al.* 2003) Spain is in position 101 out of the 109 analyzed countries. With the results obtained in this chapter Spain is in position 81 (out of 109).

Chart 4.11 represents the regression between the average (1995-2004) GDP per capita (in constant prices) and the formalism index taken from Djankov *et al.* (2003) adding an

extra observation for Spain with the value of the formalism index obtained in this chapter (once the seventh sub-indicator of Djankov *et al.* 2003 is added). Formalism is significantly and negatively correlated to the average GDP per capita. Therefore, less formalism seems to be related to wealthier economies. As can be seen in the Chart, Spain is above the expected level of formalism given its GDP per capita and, therefore, its formalism may constitute an obstacle to development. On the other hand, the measure of formalism obtained in this chapter is more consistent with the level of development of Spain if we compare it with the original measure obtained by Djankov *et al.* (2003).

In conclusion Spain gets significantly better results when the assumptions made by Djankov *et al.* (2003) are relaxed. In fact, the World Bank, when measuring the institutions related to contract enforcement in the Doing Business Project, gives Spain a mid-position in the classification that would be consistent with the results of this chapter. Following the Doing Business project ("2010" release), Spain would be in positions 97, 81 and 30 out of 183 countries if we classify the countries by the number of procedures, by the duration of the procedures and by the estimated cost of litigation respectively.

4.5 A special case: evaluation of the procedures needed to evict a non-paying tenant

A well functioning tenancy market depends heavily on the correct enforcement of its contracts. Delays in the eviction of non-paying tenants are a strong disincentive to rent and that may entail a reduction in the weight of the tenancy market in the housing market (this hypothesis is tested in chapter 5).

A weak tenancy market entails negative effects for the labour markets. In fact, it can be seen that there is a negative relationship between home ownership and mobility [Maclennan *et al.* (1998)] and that a high percentage of geographical mobility takes place among workers that were renting their homes [Barceló (2006)]. The reduced mobility implied by inefficient tenancy markets is related to higher unemployment [Layard *et al.* (1991)] and a reduced efficiency of the economy [Hardman and Ionnides (1999)]. On the other hand, a strong tenancy market is beneficial to relieve the pressures in the property market [Arce and López-Salido (2007)].

Unlike the case of recovering a general debt, which was analyzed in the previous sections, the procedure for tenant eviction is a single, special procedure of Spanish Law, which does not depend on the amounts owed (although the quantity of the rent disputed may change some characteristics of the procedure).

Apart from the "substantive" Law on Tenancy (understood as the "Urban Tenancy Act") that has changed several times during the recent decades (the last change taking place under Law 29/1994), the procedures applicable in the case of a dispute are included in the applicable CPLs. The Civil Procedural Law of 1881 established a special, unique, procedure for eviction called *"juicio de deshaucio"* that resembles the *"juicio verbal* (old)" analyzed above. The new CPL 2000 establishes that such a dispute should be resolved under the *"juicio verbal"* procedure (I or II, depending on the amount owed) but excluding the other procedures.

Note that these procedures lead to a judgment that gives back full rights over the dwelling to the owner and force the tenant to leave the property. However, the non-paying tenant may still decide not to comply with the judgment (and thus, not to leave the property although he no longer has any more rights over it). In that case, a further procedure would be required: execution of the judgment (that concludes with a forced eviction).[8] The analysis herein is carried out for the main procedure and not for the execution.

Table 4.4 contains the results for the indicator of "eviction procedure" (extensive information is provided in table 4.2). As it was already said, the results are those of the *"juicio verbal* (old)" before CPL 2000, and a similar result to those of the new *"juicio verbal"* afterwards. Un-

8. *"Lanzamiento".*

like the indicator describing a very general case of debt recovery, the "formalism" in the case of eviction has increased slightly. That can be explained by the fact that, depending on the amount, the litigants may need legal representation after 2001, while under CPL 1881 that legal representation was not needed, at least in part of the procedure.

4.6 Conclusions

Djankov *et al.* (2003) proposed a measure of procedural formalism that was related to higher complexity and expected duration of the dispute within the judicial system. At international level, they did not find significant improvements in fairness or quality related to higher formalism. In this chapter is it proposed to adapt those indicators to the Spanish legal system to observe the evolution of formalism over time and the different procedures. The results show that the level of formalism in the Spanish economy is lower than the one obtained in Djankov *et al.* (2003). In fact, the level of formalism obtained in this research would be more consistent with the Spanish GDP per capita.

In addition, it can be concluded that formalism has decreased over time in Spain during recent decades. Particularly, the new CPL 2000 has reduced significantly the formalism of the whole system. This effect can be explained by the different initiatives introduced by the CPL 2000, such as the creation of a simple fast procedure *(proceso monitorio)* for a quite wide range of amounts (up to 30000 euros). This has also allowed more disputes to be broad before a court without legal representation. Moreover, some steps in the procedures have disappeared in recent years, as the compulsory pre-trial conciliation (in 1984). Nevertheless, it should be stressed that "formalism" is just an "indirect" measure of judicial efficiency. This chapter also shows that the direct measures of efficiency (resolution rate, pendency cases rate and congestion rate) suffered worsenings over the last decade. This counterintuitive result may be partly derived from the coincident reductions in formalism. In other words, a less formal system may have attracted much more conflicts to the system, thus reducing in the end the efficiency of the courts. However, in the case of tenancy market conflicts (such as the procedures needed to evict a non-paying tenant), the formalism index developed in this chapter does not show any improvements in the most recent decades.

Finally, as to the issue of how to achieve further reductions in formalism, the methodology applied in this chapter would support several refinements in the Spanish judicial system. In particular, reducing the number of procedures in which the litigants need legal representation would be a positive step in that direction. Related to that, reducing the complexity of the complaint or the opposition would help to make the initial steps of the procedure less formal. If legal justification of the complaint is not compulsory, legal representation may be not necessary, at least in the initial steps of the procedure. That would reduce the costs for the litigants. The indicators would also support giving more freedom to the judges to assess the admissibility and weight of evidence. Also they support simplifying and reducing the number of notifications needed during the procedure. A very different problem that would need to be tackled is the one detected when inflation is taken into account (see annex 4.A). The analysis of the applicable amounts in real terms shows that the more formal procedures may be used to resolve disputes involving minor amounts over time due to the eroding effect of inflation. Thus, inflation may increase formalism over time.

Annex 4.A Applicable amounts in real terms

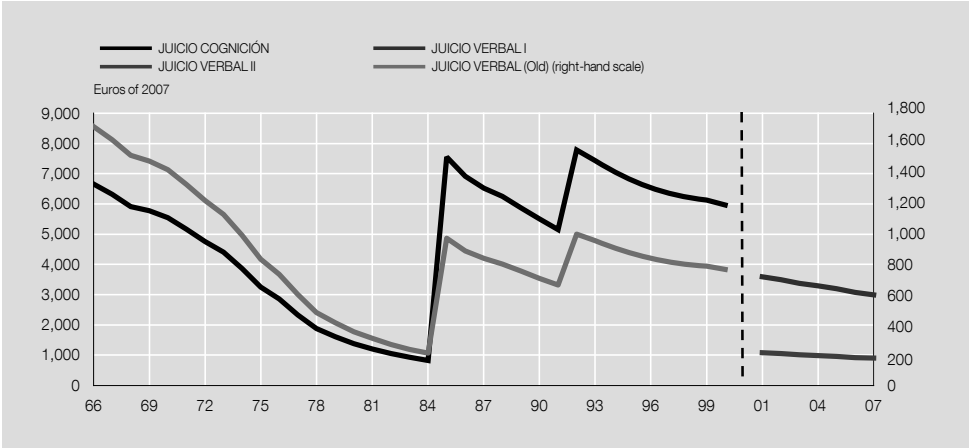
A problem with the system of procedures explained above (section 4.3) is that it establishes a rigid set of amounts that can only be changed by a new Law. As a result, the Law was not taking into account the effect of inflation and, therefore, year after year the limits of the different procedures were falling in real terms. Table 4.3 describes the applicable amounts for each procedure in nominal terms. For instance, the applicable amount for a *"juicio ordinario"* was in 2001 €3000 or more, and this amount remained unchanged in the following years.

Chart 4.A.1 shows the amounts applicable to the different procedures in real terms, therefore after adjusting for inflation. As a consequence, over time smaller amounts were brought under more "complex" procedures. The "steps" in the Chart coincide with the cited amendments in the CPLs.

Inflation entails several costs. Probably the best known is the distortion caused by inflation in money demand. Dolado *et al.* (1997) have identified other costs for the Spanish economy, some of them related to rigid regulations such as the ones governing taxation.

In this respect, in the same way that inflation may lead to distortions in revenue through incomplete or delayed indexation of tax brackets, the lack of indexation of the amounts to which Spanish civil procedures apply may produce unexpected changes in formalism. More formal procedures become applicable to actions for lower amounts if inflation is present in the economy. Thus, inflation may increase the formalism of the judicial system.

APPLICABILITY OF THE DIFFERENT JUDGMENT TYPES CHART 4.A.1



SOURCE: Self elaboration and Instituto Nacional de Estadística (INE) (2009).
Note: Nominal amounts of the procedures (see table 4.3) corrected by monthly CPI indices.

5 Is judicial inefficiency increasing the house property market weight in Spain? Evidence at the local level[1]

5.1 Introduction

Since the Spanish Civil War (1936-1939) the weight of the house property market has been increasing persistently in Spain. Although the official statistical information available is very scarce, using the census database it is known that the proportion rose from 63.4% to 82.2% between 1970 and 2001. Moreover, following the estimations of the Spanish Ministry of Housing (2008) the average property rate rose in a further 2.1 percentage points in the period 2001-2007.

Several factors may have affected the evolution of the property share in Spain over the last decades. Among those are the interest rates that have fallen down [Blanco and Restoy (2007)] especially after 1995, the liberalization of the banking sector since 1980 that may have played an indirect role [Kumbhakar and Lozano-Vivas (2004, and Iacoviello and Minetti (2003)], the tenancy laws that have become more stringent after the II World War [Mora (2008)], or the favorable fiscal regime of buying versus renting [López García (1996), and García-Vaquero and Martínez (2005)].

Several studies have pointed out that the factors mentioned above are not exclusive of Spain and that the increase in the property rate can be found in several other markets of the European Union and also in the United States [Louvot-Runavot (2001)]. Nonetheless, the weakness of the tenancy market as compared to the property market is somehow exceptional in Spain. This situation is generally regarded as undesirable for several economic reasons. The most important one is perhaps that a weak tenancy market is related to lower mobility of persons and workers [Maclennan *et al*. (1998) and Barceló (2006)] which tend to increase the unemployment rate [Layard *et al*. (1991)] and to reduce the efficiency of the economy [Hardman and Ionnides (1999)]. More recently, Arce and Lopez-Salido (2007) stressed how a well developed house renting sector can be a crucial device to avoid housing prices bubbles and an excessive concentration of resources in the building sector. As a result of these concerns, and especially during the housing boom experienced in Spain in the last decade, the Spanish authorities have paid systematic attention to the problems of the housing market.

In this context a new Law was passed in December 2009 introducing new regulatory measures aiming to protect the owners of rented dwellings.[2] These reforms were directed to improve the functioning of the tenancy market, and thus, to reduce the weight of the property market. Those measures included, on one hand, a reform of the Spanish "Civil Procedural Law" (CPL, *Ley de Enjuiciamiento Civil*[3]) in order to speed up evictions and the collection of rents by the owners and, on the other hand, a reform of the Spanish Tenancy Law *(Ley de Arrendamientos Urbanos*[4]) giving the owner more legal grounds to shorten up the term of the tenancy contract.

Underlying those measures is the idea that both a slow judicial system (implying a cumbersome procedure to evict a non-paying tenant or simply a lengthy period to execute a decision) and too strict rules governing the tenancy contracts (such as rules limiting the possibilities of the landlord to recover the flat for his own use) have been detrimental for the tenancy market as they reduce the effective supply and may have contributed to reduce the share of rented dwellings. That is the result found, in a general (international) basis by some papers in the economic literature. For instance, Djankov *et al*. (2003) proposed a measure of formal-

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1. This chapter was presented in the research seminar of the Banco de España-Eurosistema (2009). A version of this chapter has been published as a working paper of the Banco de España (Mora-Sanguinetti, 2010). **2.** Law 19/2009 of November 23rd (*de medidas de fomento y agilización procesal del alquiler y de la eficiencia energética de los edificios*). **3.** Law 1/2000, of January 7th (Civil Procedural Law). **4.** Law 29/1994, of November 24th.

ism of the judicial system when evicting a non-paying tenant. They concluded that higher formalism is related to more difficult evictions and higher unpredictability of the procedures.[5] Casas-Arce and Saiz (2006) used the measure of Djankov *et al*. (2003) to explain the decision between owning and renting in a set of countries. They found that more formalism is expected to reduce the weight of the tenancy market although their conclusions are directed to an international analysis.

5.1.1 ORGANIZATION AND OBJECTIVES OF THIS CHAPTER

This chapter aims to analyze the impact of an inefficient judicial system in Spain on the housing tenure outcomes. In order to do that, I exploit the cross-province variation existing in the weight of the house property market in Spain and in the performance of the judicial system when it solves tenancy conflicts (and when it executes decisions). Landlords are supposed to quit the tenancy market when they are opposed to an environment in which it is very difficult to enforce tenancy contracts. Thus, the present research aims to assess to what extent the efficiency of the judicial system explains the variation of the weights of the property market in the Spanish provinces.

In order to do that I have constructed an index of judicial efficiency for each Spanish province based on official judicial data.[6] Then, its impact in the property share is estimated after controlling for a set of other relevant economic and demographic factors.

The overall organization of this chapter is as follows. Section 5.2 presents a descriptive analysis of the cross province variation of the property rate in Spain and constructs the judicial efficiency indicator used in the main estimations. Section 5.3 explores the empirical literature that discusses how to model the housing tenure decisions. It also presents the variables used in this research. Section 5.4 presents the estimations using panel data techniques. Finally, section 5.5 offers the conclusions of this study. Two annexes complete the chapter. Annex 5.A presents alternative estimations when other judicial efficiency measures are taken into account. Annex 5.B explores theoretically the hypothesis tested in this chapter.

5.2 Measuring the judicial efficiency and the property rate in the Spanish economy

The owner who wants to collect an unpaid rent or wants to evict a tenant for whatever reason (non-payment, vandalism) in Spain has to use the procedures set up by the CPL.[7] This chapter is interested on measuring the efficiency of the judicial system when dealing with those procedures (specifically applied to the tenancy market conflicts).

As it was analyzed in chapter 4, the CPL is the basic procedural regulation of the judicial system. It establishes the rules of access to the court system, the formalisms that the parties must observe, the role of the judge, the rules governing evidence, the control by superior instances and all related issues. Therefore that Law is a main determinant of the "aggregated" slow (or fast) performance of the judicial system in Spain (see chapter 4). Although it is a national-wide Law, its application differs among Spanish provinces. A reasonable explanation for that is that the workload of the judges may be different among the provinces and that the resources invested in the justice Administration differ at least at a region[8] level. However,

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5. The results and methodology by Djankov *et al*. (2003), although very relevant, cannot be used in the experiment that is proposed in this chapter because, as it was said, they work on an international level and for a specific year. Therefore, they cannot capture the variability in the efficiency within a specific country. The latter may be caused by differences in the application of the Civil Procedural Law and not by the Civil Procedural Law by itself (see chapter 4 for a discussion on the topic). **6.** Other indices are also constructed and tested in the annex 5.A. **7.** It must be noted that some extrajudicial solutions may be found by the parties, as sending the case to arbitration. However, only a judge can execute an eviction in Spain. **8.** The *"Comunidades Autónomas"* (regions) have some powers related to the administration of justice in Spain. Even though the "judicial power" is not propertly transferred to the regions, the management of the means of the "judicial power" is influenced by the policies developed by the regions. For instance, they decide how much money is invested in new courts each year in their territories, even though the new courts are integrated in a system that is centrally governed.

JUDICIAL SYSTEM VARIABLES TABLE 5.1

TYPE OF PROCEDURE	VARIABLE	OBS	MEAN	STD. DEV	MIN	MAX
Declaratory	Prtresolution	350	0.92	0.14	0.39	1.18
Declaratory	Prtpendency	350	0.41	0.16	0.13	1.59
Declaratory	Prtcongestion	350	1.53	0.36	1.03	4.17
Execution	Exresolution	350	0.87	0.20	0.42	2.02
Execution	Expendency	350	2.77	0.98	0.46	7.59
Execution	Excongestion	350	3.97	1.20	1.20	9.99

SOURCES: CGPJ (2009) and self elaboration.

courts are not specialized in Spain and therefore no information exists on the means invested by type of conflict. In any case, it is possible to observe that the efficiency of the judicial system diverges among the different provinces of Spain over time so that a panel with information on the functioning of the judicial system could be constructed. It is reasonable to expect that in the most inefficient provinces, in which it is more difficult to evict a non-paying tenant or it is more difficult to have the rent paid through the judicial system, landlords will opt to quit the tenancy market (and thus the share of tenancy in the province will diminish).

For tackling this problem, a relevant question arises: What are the specific procedures needed for recovering an unpaid rent (by a tenant) in Spain? The Civil Procedural Law (2000) establishes a specific procedure for recovering such a debt: first, a *"declaratory judgment"* will "declare" the existence of the debt and will declare the obligation of the debtor to pay. We can call that "first stage" or "first procedure" because there is still the possibility that the tenant decides not to pay the debt. In such a case, a final or definitive, procedure *("executory process")* takes place. In the "executory" stage the creditor asks the judge to "execute" the debt. As a result of this final procedure, the judge will seize the amount from the bank accounts of the debtor and probably will evict him from the dwelling.

The General Council of the Judicial Power *(Consejo General del Poder Judicial*, CGPJ) has published a database reporting the number of cases filed, solved and still pending in the Spanish judicial system by subject, region, court[9] and year. From that database a relative measure of efficiency can be constructed for the enforcement of each procedure: the congestion rate (see equation 5.1 below). The congestion rate is defined as the ratio between the sum of pending cases (measured at the beginning of the period) plus new cases in a specific year and the cases resolved in that same year [Padilla *et al*. (2007)]. A lower congestion rate is related to greater efficiency of the judicial system. Two alternative measures of efficiency (the resolution rate and the pending cases rate) are explained and tested in the annex 5.A (an explanation for them was also introduced in chapter 4).

$$\text{Congestion rate}_{i,t} = \frac{\text{Pending cases}_{i,t} + \text{New cases}_{i,t}}{\text{Cases resolved}_{i,t}} \qquad [5.1]$$

The CGPJ offers homogeneous data for the different procedures for the period 2001-2007.[10] The prefix *"prt"* precedes the efficiency measure related to procedures in the "declaratory stage" (or as we called it, "first" procedure): *prtcongestion*. The prefix *"ex"* precedes the efficiency measure related to the executions: *excongestion*. Table 5.1 shows the

9. The "courts" analyzed in this study are the *"juzgados de primera instancia"* and the *"juzgados de primera instancia e instrucción".* Those are the courts available for the parties at the "entry level". **10.** Note that the new CPL (2000) entered into force on 7th of January of 2001 and therefore it is not advisable to relate the data after 2001 with previous observations in this specific research.

JUDICIAL CONGESTION RATE BY PROVINCE (EXECUTION)

TABLE 5.2

PROVINCE	2001	2002	2003	2004	2005	2006	2007
Álava	1.2	1.88	1.25	2.62	4.28	1.23	2.28
Albacete	3.81	3	4.78	3.01	2.95	2.46	3.49
Alicante	3.77	4.68	6.01	4.46	5.72	6.23	5.64
Almería	3.08	4.38	3.92	4.14	3.54	3.6	4.11
Ávila	2.52	1.85	3.48	2.95	4.19	5.64	3.74
Badajoz	3.3	3.76	3.25	3.28	3.81	3.95	4.52
Baleares	3.44	3.3	4.94	6.7	6.36	8.99	9.47
Barcelona	4.07	4.8	5.34	4.79	4.76	4.99	4.98
Burgos	2.31	3.28	3.14	2.79	3.36	3.16	2.95
Cáceres	3.92	5.93	3.41	4.62	3.31	3.28	4.32
Cádiz	3.55	3.29	3.71	3.99	3.08	4.89	3.91
Castellón	4.72	5.5	9.99	5.33	5.4	6.42	5.95
Ciudad Real	3.62	5.5	6.89	4.11	5.02	5.02	5.3
Córdoba	2.13	3.08	3.52	4.92	3.69	3.15	2.79
A Coruña	3.56	3.96	3.24	3.7	4.27	4.39	4.6
Cuenca	2.99	4.81	4.11	4.26	5.48	5.56	4.84
Girona	2.87	4.33	3.77	4.24	4.23	4.7	5.3
Granada	2.62	3.07	3.48	4.04	3.81	5.94	4.53
Guadalajara	6.14	3.99	4.58	5.20	2.8	4.43	5.78
Guipúzcoa	2.12	1.94	1.65	2	2.52	2.68	2.39
Huelva	2.89	3.51	2.76	3.52	3.92	4.82	3.79
Huesca	2.69	3.88	4.31	2.90	2.97	3.27	3.93
Jaén	2.54	2.47	3.63	3.45	3.37	3.32	3.16
León	3.46	3.98	4.88	3.49	4.36	3.18	5.54
Lleida	4.52	4.31	5.01	4.13	4.47	4.5	5.3
La Rioja	2.75	2.32	2.93	3.99	3.95	3.15	3.43
Lugo	2.83	2.75	2.57	2.51	2.89	3.67	4.3
Madrid	3.83	4.66	5.22	5.23	4.89	5.74	5.53
Málaga	3.04	3.45	3.3	3.89	4.05	3.98	4.07
Murcia	5.34	4.88	4.53	4.83	5.32	5.39	4.78
Navarra	2.87	4.67	3.84	3.99	4.56	5.16	4.06
Ourense	3.92	2.91	3.16	3.43	4.04	4.47	4.86
Asturias	4.05	3.9	4.26	3.91	4.31	4.01	4.14
Palencia	2.88	3.27	2.58	4.4	4.58	3.08	4.13
Las Palmas	3.07	4.56	6.16	4.61	5.13	5.16	4.89
Pontevedra	2.72	3.25	3.19	3.46	3.86	5.23	4.11
Salamanca	2.16	3.42	2.55	2.9	2.32	3.35	3.04
Santa Cruz de Tenerife	2.91	3.03	4.65	4.51	5.55	5.17	4.99
Cantabria	2.85	2.89	3.44	3.45	4.05	3.84	3.15
Segovia	2.51	2.68	3.2	3.08	2.54	3.85	3.96
Sevilla	2.83	3.25	3.81	3.58	3.33	4.23	5.17
Soria	4.42	2.62	3.84	1.9	2.32	3.43	2.96
Tarragona	4.22	4.62	4.64	4.69	3.81	4.88	4.75
Teruel	3.25	6.07	5.56	5.41	5.17	6.11	4.75
Toledo	4.38	3.98	4.48	4.77	4.4	5.27	3.88
Valencia	5.23	5.71	6.12	5.29	5.64	6.39	6.13
Valladolid	1.3	4.28	2.1	4.03	3.86	4.07	3.72
Vizcaya	1.76	1.8	2.69	1.91	2.83	2.64	2.21
Zamora	3.62	3.58	3.22	2.77	2.76	3.75	3.93
Zaragoza	2.98	4.7	4.84	3.52	4.18	5.05	5.2

SOURCE: Self elaboration from CGPJ (2009) data.

DEPENDENT VARIABLE AND CONTROLS

TABLE 5.3

VARIABLE	OBS	MEAN	STD. DEV.	MIN	MAX	SOURCES
Prpr	350	88.66	3.58	77.37	95.58	Ministry of Housing
Ln GDPpc	364	9.69	0.19	9.27	10.18	INE (Regional accounts)
Usercost	300	-13.43	16.34	-67.84	31.59	Banco de España, INE, Ministry of Housing
Pricetorent	350	346	93.57	150.96	642.57	INE, Ministry of Housing
Density	364	285.27	859.74	8.80	5,260.92	INE (Padrón)
Ppop2039	364	31.32	2.69	25.05	38.31	INE (Padrón)
Credit	312	-444.78	24,441.21	-33,022.94	124,393.2	Banco de España, INE

SOURCE: Self elaboration (data for Ceuta and Melilla is not included in this table).

descriptive statistics for those computations (also for the alternative efficiency measures studied in the annex 5.A). Table 5.2 shows the results for the congestion rate when studied for the executions *(excongestion)* in the period 2001-2007.[11]

An average congestion rate of 3.97 over the period 2001-2007 (see table 5.1) indicates that around four cases (summing up the pending cases and the new cases arriving to the courts in a specific year) were waiting to be solved when the courts were able to solve just one. In the worst case, this amount was almost 10. As it can be seen, there was, on average, a difference of 5.98 congestion points between the most efficient and the least efficient province throughout the period.

Chart 5.1 represents this quotient for the years 2001 and 2007. A decrease in the efficiency of the system can be observed throughout the period. Looking at the figure it can also be seen that no specific provincial pattern seems to show up in the reduction of the efficiency of the judicial system. However, the Basque Country has a better performance all over the period.

What was the evolution of the property rate during this period (2001-2007)? The proportion of property among the total number of principal dwellings in Spain (called "*Prprop*" in the tables) is in fact chosen as dependent variable in this research. That proportion is the aggregate counterpart of the individual housing tenure decision. The data are obtained from the Spanish Ministry of Housing (2009) and are available for the period 2001-2007 for 50 Spanish provinces (then, excluding Ceuta and Melilla)[12]. This classification divides the principal houses in three groups: dwellings in the property market, dwellings in the tenancy market, and "transferred dwellings" (cessions or non-lucrative use of the houses). On average, in 2007, 88.2% of the dwellings were in the property market, 9.8% were in the tenancy market and 1.9% were "transferred houses" (cessions). Table 5.3 shows the descriptive statistics of this variable.

On average the share of property in the Spanish economy is very high (with a mean of 88.6% over the whole period) although some strong differences can still be found among provinces (share below 80% in the Balearic Islands, Las Palmas, Girona or Barcelona in several years and above 94% in Lugo, Soria or Castellón at the end of the period). Thus, there is some ground to explain and exploit inter-provincial differences. Table 5.4 presents the property shares between 2001 and 2007.

Moreover, some strong dynamics can be found at a provincial level. The province with the highest proportion of property in 2007 was 3.9% higher than the equivalent in 2001. More importantly it is to note that during this period there is a difference of at least 14% between the province with a higher proportion of property and that with the smaller one. Thus, some local factors may be affecting the provincial markets that are different from those that can be identified at an aggregate level.

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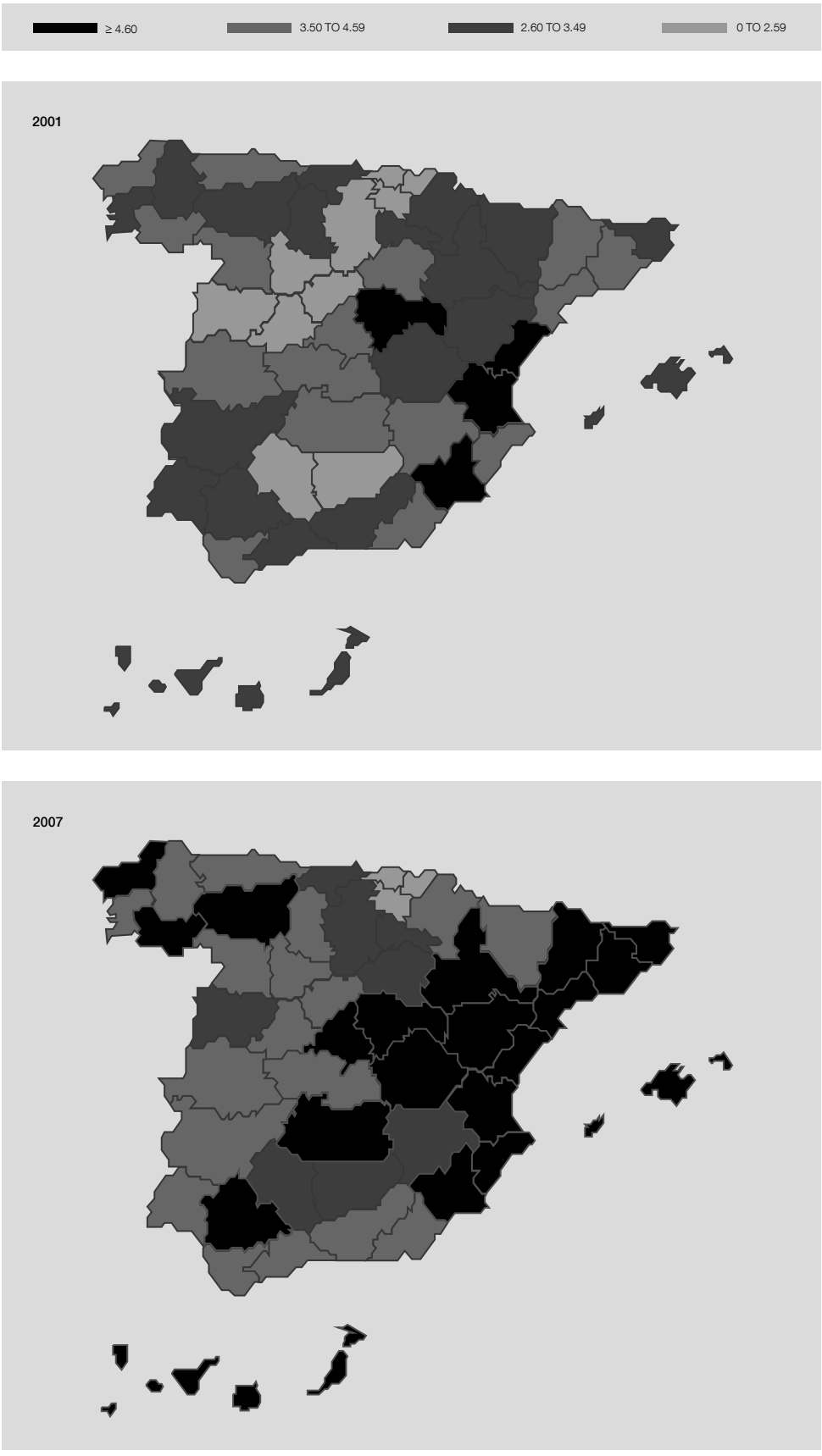
11. Excluding Ceuta and Melilla (no information is available for them). **12.** Note that the data is provided in November of each year and not in January. That fact is taken into account in the estimations.

CONGESTION RATE (EXECUTORY STAGE) CHART 5.1



SOURCE: Self elaboration and Consejo General del Poder Judicial (2009).

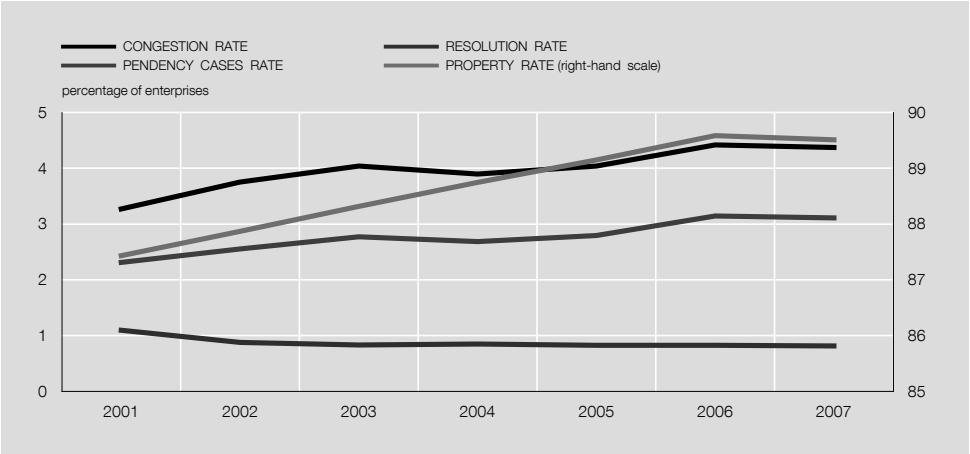
SHARE OF PROPERTY IN THE SPANISH PROVINCES

TABLE 5.4

PROVINCE	2001	2002	2003	2004	2005	2006	2007
Álava	91.65	91.27	90.61	90.22	89.73	89.31	88.63
Albacete	88.47	89.59	90.48	91.25	92.06	92.82	92.82
Alicante	89.04	89.5	89.98	90.41	90.86	91.36	91.36
Almería	85.6	86.26	87.13	88.19	88.97	89.79	89.79
Ávila	90.61	91.28	91.91	92.58	93.22	93.84	93.84
Badajoz	86.17	87.09	87.83	88.48	89.14	89.74	89.74
Baleares	77.37	78.41	79.76	81.16	82.21	82.91	82.91
Barcelona	80.88	80.42	80.12	80.14	79.94	79.91	79.91
Burgos	89.29	89.01	88.91	88.79	88.89	88.76	88.76
Cáceres	85.47	86.3	87.41	88.2	89.06	89.82	89.82
Cádiz	83.27	83.43	83.85	84.44	84.91	85.22	85.22
Castellón	89.01	90.17	91.2	92.29	93.27	94.44	94.44
Ciudad Real	89.68	90.15	90.71	91.08	91.62	92.59	91.95
Córdoba	88.73	89.27	89.83	90.35	91.1	91.67	91.67
A Coruña	84.79	85.46	86.18	87.05	87.69	88.2	88.2
Cuenca	91.32	90.66	89.97	89.33	88.86	88.29	88.29
Girona	82.46	81.95	81.55	80.33	79.45	78.85	78.85
Granada	86.43	87.42	87.99	88.74	89.54	90.05	90.05
Guadalajara	90.6	91.08	91.4	91.91	92.36	92.75	92.75
Guipúzcoa	90.12	89.55	88.90	88.36	88.12	87.58	87.58
Huelva	87.46	88.16	89.11	89.9	90.51	91.19	91.19
Huesca	88.49	88.47	88.3	88.21	87.88	87.33	87.33
Jaén	89.2	89.98	90.84	91.6	92.49	93.25	93.25
León	85.39	86.14	86.71	87.27	87.78	88.38	88.38
Lleida	85.78	87.52	89.03	90.34	91.58	92.71	92.71
La Rioja	88.78	89.52	90.40	90.97	91.38	91.99	91.99
Lugo	90.69	91.85	92.78	93.74	94.66	95.58	95.58
Madrid	84.49	84.24	83.91	83.62	83.13	83.37	83.06
Málaga	86.25	86.09	85.77	85.73	85.69	87.24	85.53
Murcia	88.01	88.67	89.3	90.1	90.81	91.54	91.54
Navarra	90.14	90.67	91.42	92.08	92.66	93.17	93.17
Ourense	90.03	89.2	88.61	87.78	87.16	86.51	86.5
Asturias	84.49	85.08	85.46	85.92	86.25	86.71	86.71
Palencia	88.78	89.36	89.89	90.55	91.33	91.95	91.93
Las Palmas	78.3	78.96	80.02	80.58	80.75	81.47	81.47
Pontevedra	85.94	85.58	85.48	85.89	86.2	85.87	86.19
Salamanca	88.85	89.3	89.73	90.3	90.85	91.33	91.33
Santa Cruz de Tenerife	81.45	82.08	82.9	83.34	83.86	84.58	84.58
Cantabria	88.9	89.29	89.85	90.29	90.98	91.36	91.36
Segovia	87.75	87.96	87.86	87.97	87.69	87.96	87.96
Sevilla	89.08	89.05	88.81	88.48	88.35	88.66	88.04
Soria	89.48	90.74	92.04	93.24	94.35	95.36	95.36
Tarragona	86.06	87.05	87.93	88.87	89.41	90.22	90.22
Teruel	89.35	90.25	91.14	92.2	93.18	94	94
Toledo	90.02	90.55	91.23	91.83	92.31	92.79	92.79
Valencia	89.79	90.16	90.44	90.68	90.93	91.21	91.21
Valladolid	88.56	89.22	89.64	90.02	90.46	90.9	90.9
Vizcaya	91.55	91.81	92.33	92.71	93.23	93.5	93.5
Zamora	90.82	91.29	91.86	92.36	92.83	93.27	93.27
Zaragoza	86.66	87.05	87.37	87.56	87.67	87.91	87.91

SOURCE: Ministry of Housing (2009) and self elaboration.

JUDICIAL EFFICIENCY (EXECUTORY STAGE) AND THE PROPERTY RATE IN SPAIN CHART 5.2



Source: Self elaboration and Consejo General del Poder Judicial (2009).

Chart 5.2 represents the average congestion rate (and also the resolution rate and the pending cases rate as defined in annex 5.A) over the period 2001 and 2007. That figure confirms the reduction in efficiency already observed in the maps. The figure also represents the average property rate in the same period. As it can be seen in this figure, a reduction in the efficiency of the judicial system when solving tenancy conflicts (by an increase in the congestion rate) took place at the same time that the property rate was increasing.

The aim of this chapter is to test econometrically (taking into account all the usual controls analyzed and identified in the literature) if there exist any significant relation between an increasing rate of inefficiency in the judicial system (when dealing with the conflicts related to the tenancy market) and the observed increase in the property share in the period analyzed. An increase in that proportion is expected if, *ceteris paribus,* the judicial system becomes more inefficient when solving conflicts affecting the rental market (that is, if renting becomes more "problematic").

5.3 Modeling the effects of institutions on the housing tenure outcomes

5.3.1 EMPIRICAL LITERATURE REVIEW

Several economic studies point out that a wide group of socio-economic factors (economic, demographic or social determinants) affect the decision of buying or renting a dwelling (from the point of view of a potential tenant or a potential buyer) or the decision of putting a property in the rental market (from the point of view of the potential landlord). Among them it can be included the permanent income of individuals, the relative price of buying versus renting (or the user cost), financial restrictions, taxation and some demographic variables.[13]

Although all the determinants affecting one side of the market will have an effect in the equilibrium share of property or tenancy of the economy (and thus would be affecting indirectly both sides in any moment), some studies split those factors as mainly "demand factors" or "supply" factors (affecting more directly the decisions of landlords). Other determinants, as prices would affect both sides of the contracts at the same time and should be treated as endogenous.

This subsection aims to provide a very partial survey of both the empirical literature and the most studied variables affecting the housing tenure choice. Special attention is paid to the "demand" or "supply" considerations if they were analyzed.

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13. Other factors cited in the introduction, such as the tenancy Laws are not studied in the rest of this work as they will not introduce any interregional variation to exploit in the estimations.

First of all, several works discussed the effect of pure demographic factors such as the proportion of young population or the proportion of married couples on the share of property of the economy (as an outcome of the housing tenure choice) [see Jaffe and Rosen (1979) or Green (1995)]. We would expect that the tenancy rate is positively related to the proportion of young population but negatively related to an increase in the share of married couples. Following the same references, those factors are usually identified as "demand" factors. In fact, the age of a landlord has not been a point of discussion in the same research.

In turn, another demographic factor, the population density, would be affecting mainly the landlord decisions (the supply side) and not the tenant side. Linneman (1986) argues that landlords face reduced costs of monitoring and higher efficiency in supplying housing services in the case of highly populated towns. Thus, we would expect to find a negative relation between homeownership and population density coming from the landlords' side [also Fisher and Jaffe (2003)].

The effect of wealth in the house tenure decision is also widely studied in the literature [De Leeuw and Ekanem (1971), and Haurin *et al*. (1996)]. In several studies it is found that, among other factors, the homeownership rate is positively related to GDP per capita or similar income measures (reducing the demand for tenancy), although that relation is not always significant [Fisher and Jaffe (2003)].[14]

Credit constraints and financial capacity are also determinants of the tenancy or property share observed in the economy. They affect mainly the tenant/buyer side as the financial constraint will prevent some tenants to buy a property [Jaffe and Rosen (1979), Hargreaves (2003), Lauridsen and Skak (2007), and Mayordomo (2008)]. In fact, this effect may be coincident with the age, as younger individuals may face higher constraints because their actual income is much lower than their future earnings [Lafayette *et al*. (1995)].

Finally, the price of renting versus buying affects both sides of the contracts. To put it another way, it can be understood as the outcome of the contracts in the market. In any case, the higher the price of buying (with respect to the price of renting a dwelling), the higher the number of individuals opting for renting a house. The opposite argument would hold for the other side of the contract (the landlord/seller). The measure of "prices" takes very different forms in the literature: in some cases some works have estimated the effect of rental prices [Jaffe and Rosen (1979)], while others opt for relative measures. For instance, Hendershott and Shilling (1980) studied the effect of the relative cost of owner-occupied dwellings and the rental prices. In turn, Rodríguez and Barrios (2004) and Barrios and Rodríguez (2004) calculated a user cost taking into account both the price of buying and the price of renting and some fiscal issues related to them. Several types of public intervention such as the fiscal incentives or the provision of public housing may play also a significant role [Rosen (1979), Rosen and Rosen (1980), and Lauridsen and Skak (2007)].

Thus, in general, while the demand of housing services is directly driven by a group of heterogenous factors ranging from demography to wealth, the supply side (landlords and sellers) is mainly affected by the interaction with costs, frictions and prices (derived from some heterogenous factors as the user cost of the properties, the actual relative prices of selling versus renting, the population density or the regulatory measures introduced by the tenancy laws). If more frictions are suffered in the tenancy market some landlords will decide to quit the tenancy market.

In this context, one extra "cost" that a landlord face and that is not studied in the previous literature is the "judicial inefficiency". The landlord, who cannot enforce a tenancy contract because the judicial system is slow or costly enforcing those contracts, will loose part of the flow of rents or will loose part of the value of his property. Thus, an owner may decide not to put his

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14. Theoretically it could even have the opposite sign (Henderson and Ioannides, 1983). See the discussion provided in the annex 5.B.

dwelling into the tenancy market affecting with his decision the share of property and tenancy observed in equilibrium. This argument is also discussed theoretically in the annex 5.B.

The judicial efficiency can be considered then, as an exogenous variable affecting the equilibrium price (together with the quantity of housing services in the market) affecting the equilibrium through movements in the supply curve (the theoretical framework explained in annex 5.B can be used to rationalize this argument). Therefore, in an econometric implementation the price should be treated as endogenous and thus it must be instrumented with demand factors (see next subsection). For instance, an exogenous shock increasing the judicial inefficiency will affect the equilibrium price and quantity of housing services through a shift in the supply side (or investment) of housing services but not through the "demand curve". Thus, it will be necessary to instrument the price (or the user cost) using strictly "demand" instruments (that is, demand shifters which are not affecting the supply).

5.3.2 EMPIRICAL STRATEGY

As it was already introduced, the objective of this chapter is to offer estimations of the effect of the inefficiency of the judicial system on the proportion of property in the economy. The judicial inefficiency can be understood as an extra cost that landlords face when they rent their properties in the market. Therefore, I propose to estimate a *supply* curve.

As it was discussed before, the "price" (taking the form of a relative rent or a user cost) will be an endogenous variable as we face a simultaneity problem. That is, the price and quantity are jointly determined by the demand and supply curves of the market. Thus, as my objective is to estimate a supply curve I will instrument the price using several demand shifters (proportion of young renters, wealth, credit availability and the proportion of social housing) (see subsection 5.3.4).

The following general model is proposed (equation 5.2)

$$\text{Share of property in the province}_{i,t} = \\ = c + \sum c_t T_t + \beta_1 \text{ "Price"}_{i,t} + \beta_2 \text{ Judicial inefficiency}_{i,t} + \beta_3 \text{ Density}_{i,t} + (\eta_i + \nu_{i,t}) \qquad [5.2]$$

Measuring β_2 is the focus of this research. We also expect that the population density is negatively related to the property share. The "price" will take the form of a user cost or a relative price and will affect both landlords and tenants. As I aim to estimate a supply curve, the price should enter the equation with a positive sign. Other controls such as regional effects and time effects will be included.

5.3.3 VARIABLES IN THE SUPPLY CURVE

Apart from the proportion of housing in the property (or the tenancy) market and the judicial efficiency measure, a supply curve should include also a measure of the price of buying (versus renting) or an approximation of the user cost and, following the literature, a measure of the population density.

5.3.3.1 Price and user cost

In the main estimations I will include a measure of "user cost" (Usercost) as independent variable (it will be treated as an endogenous variable in the estimations). The user cost in each year is constructed as follows (see equation 5.3):

$$\text{User cost} = \frac{\text{PViv}(i + \delta - \Delta\text{PViv})}{\text{PRent}} \qquad [5.3]$$

In equation 5.3 PViv is the price of the squared meter of the average house in the province (obtained from the official accounts of the Ministry of Housing) and PRent is the rent

INTEREST RATE ON LENDING FOR HOUSE PURCHASE TABLE 5.5

YEAR	I
2000	0.058
2001	0.059
2002	0.049
2003	0.039
2004	0.034
2005	0.033
2006	0.042
2007	0.052
2008	0.057

SOURCE: Banco de España (2009).

paid for renting a squared meter in the average dwelling offered for renting in the province. The Ministry of Housing of Spain provides the average rent just for 2006 so the series have been enlarged following the evolution of the component of the consumer price index that captures the evolution of the rents. The resulting variable is defined for the period 2001-2007. "i" is the interest rate[15] that changes across time but no across provinces (see table 5.5).

Finally, I also add a house depreciation rate "δ" of 2%.[16] Finally ΔPViv stands for the inter-annual increase in the housing price.

"Price to rent" is a variable constructed as the quotient of the price of the squared meter of the average house in the province and the rent paid for renting a squared meter in the average dwelling offered for renting in the province. As before, the variable is defined for the period 2001-2007.

5.3.3.2 Population density

As it was already discussed, it also seems advisable to control the results by the population density *("density")* of the province as a way to control for the diversity of provinces in Spain and for the "efficiency" of landlords [Linneman (1986)]. Related to that, previous works have found a reduced share of property in areas with higher urban population [Fisher and Jaffe (2003)]. The population distribution in Spain differs greatly among the provinces. On the one hand the population in Spain is concentrated in the coastal provinces (Barcelona, Valencia, Málaga, etc). On the other hand, some provinces inland are quite low populated and have not attracted much of the new immigrants (Soria, Teruel, etc). See table 5.3 for some summary statistics.

5.3.4 "DEMAND SHIFTERS" AND OTHER CONTROLS

5.3.4.1 Demographic variables

This chapter proposes to instrument the "price" by the following "demographic" variables: the proportion of "young" population in the Spanish provinces *(ppob2039)* defined as the ratio of the population that is 20 to 39 years old and that it is expected to have a higher proportion of tenancy than other population groups (although, at the same time, it is the group that applies more actively for mortgages) [Rodríguez and Barrios (2004)], the rate of nuptiality in the province, as it can influence the decision of buying a house *(nuptiality)* and the proportion of foreign population living in the province *(foreign)* because immigrants may be inclined towards renting

15. Interest rate on lending for house purchase **16.** Following the Spanish Census of 2001, 2% of the buildings were in poor condition. I opt to use that percentage, although other sources point to higher rates: Naredo *et al*. (2005) propose a rate of house demolition of 0,397%, the American Housing Survey arrives to a rate of 0,295 and in the case of France the rate would be 0,25.

as a result of their higher mobility. These variables are obtained from the official municipal population accounts (Padrón Municipal, INE). However, in the final estimations, the rate of nuptiality and the share of foreign population are not included as they do not have any significant impact in the relation.

5.3.4.2 "Financial" variables

Probably the most important controls to include in this study are those that can be grouped as "financial" variables: a measure of income per capita and two measures of easiness of access to credit and fi nancial services (bankarization of the province and credit constraint). Both of them were studied theoretically by Henderson and Ioannides (1983) (annex 5.B).

"ln GDPpc" represent the logarithm of the current GDP per capita once corrected by provincial purchasing power parities (PPPs). The source of the raw data is the regional accounts of the National Statistics Institute (INE). The information on provincial PPPs is obtained from Alcaide Inchausti *et al*. (2004) and Alcaide Inchausti and Alcaide Guindo (2008). Higher income is related in the literature with a higher weight of the property markets. The rate of temporary employment, that is another typical macro variable, showed up to be non significant in this study.[17]

An increased access to financial services may also make available more credit to the individuals, and therefore may increase the share of property in the province. No direct measures of "financial" or "credit constrained" families is available for the Spanish economy for the whole period. Just some surveys provide that information for very specific years. Thus, it is necessary to construct alternative variables providing similar information for all the period under analysis. Two variables are proposed in this study: a measure of "*bankarization*" and an *ad hoc* measure of credit constraint *("credit")*(see below).

"Bankarization", that could be understood as a proxy for banking competition, is a variable constructed as the quotient of the number of banks, savings banks and other financial offices in a specific province and the population of the province in the specific year. The hypothesis could be that if more banks compete in the province more credit could be available. This variable does not have significant effects on the share of property.

Finally, it would be interesting to control for a variable of *"credit constraint".* As it was already discussed, no specific variable is available at a provincial level in Spain for all the years of study. Thus, this study captures that concept through at *ad hoc* variable called *"credit". "credit"* would be the residual ($\mu_{i,t}$) of the following estimation (see equation 5.4):

$$\text{Number of Mortgages}_{i,t} = c + \lambda_1 \text{GDPpc}_{i,t} + \lambda_2 \text{ppob2039}_{i,t} + \lambda_3 \text{Coast}_{i,t} + \mu_{i,t} \quad [5.4]$$

The residual of the regression (5.4) will assign a positive sign to the provinces and years in which the number of mortgages given to the families (obtained from the statistics of the National Statistics Institute and the Banco de España) is still positive (on average) after controlling for its wealth (GDP per capita, with the same source as before), its population (taken as young population as defined before) and a dummy variable *("coast")* taking value 1 for the Mediterranean and Andalusian coastal provinces plus the Balearic islands and the Canary islands).[18] It seems necessary to control for the variable "*coast*" as those provinces are a typical destination of tourism and foreign real-estate investments and that would be influencing the number of mortgages observed in the statistics. Note that the dependent variable of regression [5.4] is the number of mortgages and not the quantity of those mortgages (although that information is also available). That seems better because taking the quantity of the mort-

17. Obtained from the EPA micro-data. **18.** "*Coast*" takes value 1 for the following provinces: Girona, Barcelona, Tarragona, Castellón, Valencia, Alicante, Murcia, Almería, Granada, Málaga, Sevilla, Cádiz, Balearic Islands and Canary Islands (provinces of Santa Cruz de Tenerife and Las Palmas).

FISCAL REGIMES IN THE SPANISH AUTONOMOUS REGIONS TABLE 5.6

REGION *(COMUNIDAD AUTÓNOMA)*	2002	2003	2004	2005	2006	2007
Andalusia		O,T	O,T	O,T	O,T	O,T
Aragón						
Balearic Islands	O	O,T	O,T	O,T	O,T	
Canary Islands						O,T
Cantabria				O,T	O,T	O,T
Castile-La Mancha						
Castile and León				O	O,T	O,T
Catalonia		T	O,T	T	T	T
Valencian Community	O,T	O,T	O,T	O,T	O,T	O,T
Extremadura	O	O	O	O,T	O,T	O,T
Galicia		T	T	T	T	T
Madrid		T	T	T	T	T
Murcia	O	O	O	O	O	O
Navarre	F	F	F	F	F	F
Basque Country	F	F	F	F	F	F
Asturias		O,T	O,T	O,T	O,T	O,T
La Rioja	O	O	O	O	O	O

SOURCE: Agencia Tributaria (Spanish Ministry of Economics of Spain) and self elaboration.

O: regional home ownership tax deduction.
T: regional house tenancy tax deduction.
F: foral tax regime.

gages would bias the estimations in favour of provinces such as Madrid, Barcelona, Valencia, San Sebastian etc. in which the prices of housing are much higher than in the rest of Spain.

Thus, this variable ideally captures unexpected easiness of credit after controlling for the most typical and expected factors of concession of mortgages. Therefore it would be taken as a proxy for the inverse of credit constraint.[19] Table 5.3 presents some summary statistics of the variables already discussed.

5.3.4.3 Public support, rule of law and other variables

An issue that may add some variation among the Spanish provinces is the differential "government support" [see, among others, Atterhög (2005)] of renting or buying in the different regions or provinces of Spain. The provinces have no power to pass specific tax deductions for renting or buying a dwelling, although the regions *(Comunidades Autónomas)* do have that power.[20] Table 5.6 presents the evidence of regional tax deductions applied to home ownership (O) or tenancy (T) in the period 2002-2007.[21] It also highlights that the Basque Country and Navarre have a special (foral, F) tax system. It must be noted that no one of the deductions applicable in the rest of regions are "general deductions" because they apply to very specific groups (young residents, handicapped citizens, etc.) or to special circumstances (for instance small towns in risk of population loss).

As a result, it would be advisable to take into account the different taxing systems in the Basque Country and Navarre. However, note that as long as we are going to estimate the model using fixed effects or first differences (see section 5.4) a dummy variable, *"basque",* taking value 1 for the three Basque provinces (Alava, Guipuzcoa and Vizcaya) will be dropped

19. The residual takes positive values in all the years for the following provinces: A Coruña, Alicante, Asturias, Badajoz, Barcelona, Cáceres, Córdoba, Jaen, León, Madrid, Málaga, Ourense, Sevilla, Valencia and Toledo. **20.** Local taxes (as the IBI, "*impuesto de bienes inmuebles*") are not taken into account although they could add some variation. **21.** Law 21/2001 of 27 December established that the regions (*Comunidades Autónomas*) have the possibility to pass new deductions on the basis of personal or family circumstances or non-entrepreneurial investments.

in any case because of collinearity.[22] With respect to the rest of deductions, it does not seem advisable to construct variables to capture all those effects for the following reasons (taking into account the small number of observations available for this research): most of them apply to young population, thus their effect is captured by the proportion of young population in the Spanish provinces, *ppob2039*, that will be taken into account in the estimations. With respect to other deductions applicable for even more specific circumstances (handicapped citizens, targeted towns), their scope is too limited to be taken into account in this setup.

A final relevant question would be this: Are there other main interventions in the housing market in Spain? Spain has some strong instruments of intervention, such as a general house ownership deduction, a National Housing Plan and a Tenancy Law affecting the rules of the tenancy contracts. The Tenancy Law is the same for all the country and thus is not taken into account in this research. However, as result of the Housing plans, the number of social houses constructed in the provinces may differ. I take into account its effect in the market through the variable *"shousing"* that is defined as the proportion of social housing (houses sold or rented at prices below market price by the public administration) over the total number of houses in the specific year and province.

Other studies [Gwin and Ong (2004)] argue that the approach to the "rule of Law" may be different in different countries and that can influence the housing market. In the case of this research it can be argued that no significant variations in the "rule of Law" exist among the different provinces of a single country like Spain. Moreover, the relevant information about the "rule of Law" (if we can capture it as "delinquency" in the tenancy market) is already captured by the judicial system ratios.

5.4 Estimation and results

Following the variables discussed in section 5.3, the subsequent model (equation 5.5) will be estimated following two-step (instrumental variables) generalized method of moments (GMM estimation) [(Wooldridge (2001), Arellano (2002) and Baum *et al*. (2003)].[23]

Two sets of results are provided to take into account two different ways to transform the data: on the one hand table 5.7 provides the results when we include fixed effects (FE). On the other hand, table 5.8 provides the results when we take "first differences" (FD). In both cases I present standard errors robust to both heteroskedasticity and serial correlation.

$$Prprop_{i,t} = c + \sum c_t T_t + \beta_1 Usercost_{i,t} + \beta_2 Excongestion_{i,t-3} + \beta_3 Density_{i,t} + (\eta_i + \nu_{i,t}) \quad [5.5]$$

In equation (5.5) the dependent variable is the proportion of property in the province. As independent variables I include mainly "supply" factors: the rate of efficiency of the judicial system and density. Time dummies are included to take into account the cycle. Wald tests of significance for those time dummies are reported in the tables.

As it was already discussed, the user cost approximates the relation between the price to buy and the price to rent. Those prices are present in the decisions of both tenants and landlords and therefore connect both sides of the market. Thus, in this kind of "simultaneity", the user cost will be instrumented.

As instruments I choose a set of variables affecting directly the demand side of the market: the proportion of young population in the province, *ppob2039* and its lagged value, the proxy to credit constraint, *credit* and its lagged value, the lagged value of income per capita, *ln GDPpc* and the proportion of social housing in the province, *Shousing*. Also the lagged user cost will be included as instrument. For choosing the set of instruments and providing evidence of their valid-

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22. No dummy for Navarre is included in the panel data regressions as its differential effect must be captured by the fixed effects. Please note that Navarre is a province and a region at the same time. **23.** Under the presence of heteroskedasticity GMM estimators are more efficient than the IV robust ones.

EFFECTS OF THE JUDICIAL CONGESTION RATE AND THE USER COST (FE)

TABLE 5.7

MODEL	1	2
Method of estimation	2-Step GMM	2-Step GMM
Data transformation	FE	FE
Excongestion (t-3)	0.137	
	0.05**	
Excongestion (t-4)		0.213
		0.071***
User cost	0.079	0.064
	0.033***	0.031**
Density	-0.072	-0.051
	0.02***	0.02**
Time effects	Yes	Yes
Observations	250	200
Groups/Clusters	50	50
Hansen J statistic (P-value)	0.709	0.834
Wald Test for time dummies	0	0

SOURCE: Self elaboration.
Dependent variable: Share of property.
Standard errors robust to heteroskedasticity and serial correlation beneath coefficients.
Instrumented: User cost.
Instruments: User cost (t-1), Ppop2039, Ppop2039 (t-1), Credit, Credit (t-1), ln GDPpc (t-1), Shousing.
*** p < 1%.
** p < 5%.
* p < 10%.

EFFECTS OF THE JUDICIAL CONGESTION RATE AND THE USER COST (FD)

TABLE 5.8

MODEL	1	2
Method of estimation	2-Step GMM	2-Step GMM
Data transformation	FE	FE
Excongestion (t-3)	0.046	
	0.016***	
Excongestion (t-4)		0.064
		0.024***
User cost	0.000	0.003
	0.002	0.004
Density	-0.041	-0.029
	0.016**	0.018
Time effects	Yes	Yes
Observations	200	150
Groups/Clusters	50	50
Hansen J statistic (P-value)	0.11	0.376
Wald Test for time dummies	0.094	0.114

SOURCE: Self elaboration.
Dependent variable: Share of property.
Standard errors robust to heteroskedasticity and serial correlation beneath coefficients.
Instrumented: User cost.
Instruments: User cost (t-1), Ppop2039, Ppop2039 (t-1), Credit, Credit (t-1), ln GDPpc (t-1), Shousing.
*** p < 1%.
** p < 5%.
* p < 10%.

EFFECTS OF THE JUDICIAL CONGESTION RATE AND THE RELATIVE PRICE (FE) TABLE 5.9

MODEL	1	2
Method of estimation	2-Step GMM	2-Step GMM
Data transformation	FE	FE
Excongestion (t-3)	0.138	
	0.04***	
Excongestion (t-4)		0.115
		0.037***
Pricetorent	0.019	0.002
	0.019	0.016
Density	-0.041	-0.035
	0.017**	0.019*
Time effects	Yes	Yes
Observations	250	200
Groups/Clusters	50	50
Hansen J statistic (P-value)	0.123	0.336
Wald Test for time dummies	0	0.694

SOURCE: Self elaboration.
Dependent variable: Share of property.
Standard errors robust to heteroskedasticity and serial correlation beneath coefficients.
Instrumented: Pricetorent.
Instruments: Ppop2039, Ppop2039 (t-1), Credit, Credit (t-1), ln GDPpc (t-1), Shousing.
*** p < 1%.
** p < 5%.
* p < 10%.

ity, the Hansen J statistic (as overidentification test) is computed with satisfactory results in both cases.[24] Note that in general the strategy of including as instruments the lagged dependent variables of equation 5.5 has been avoided thus providing a more robust experiment.

Following section 5.2 the judicial efficiency has been studied in the two stages of the procedure (declaratory and execution) in the form of a congestion rate. *Prtcongestion* and *excongestion* enter the equation lagged several periods, up to four, taking into account that the decision to put a dwelling into the tenancy market may take into account the "judicial environment" observed some periods before. This fact would also mitigate any problems of endogeneity of the judicial variables. In any case, there are no reasons to suspect of the endogeneity of the judicial variables in this research. The courts taken into account in this study *("juzgados de primera instancia"* and *"juzgados de primera instancia e instruccion")* are not specialized courts and solve very different types of conflicts, ranging from inheritance conflicts to some bankruptcy proceedings, thus the distribution of tenancy conflicts (generated in part by the amount of tenancy and property contracts in the province) is not necessarily influencing the distribution of *"juzgados de primera instancia"* and *"juzgados de primera instancia e instrucción").*

As a first result it is important to note that the efficiency of the declaratory stage has no significant impact on the share of property. Therefore, this chapter focuses the analysis on the final or definitive step (execution). Nevertheless, this is an interesting result by itself as it will be discussed in the conclusions.

For completeness, tables 5.9 and 5.10 show the results of the estimation of this alternative model (equation 5.6) similar to the previous one, but including the measure of simple relative prices *(pricetorent)* instead of the user cost.

$$Prprop_{i,t} = c + \sum c_t T_t + \beta_1 \text{ Pricetorent}_{i,t} + \beta_2 \text{ Excongestion}_{i,t-3} + \beta_3 \text{ Density}_{i,t} + (...) + (\eta_i + \nu_{i,t}) \quad [5.6]$$

24. Note that I did not assume homoskedasticity. Otherwise, the Sargan's statistic would be reported.

EFFECTS OF THE JUDICIAL CONGESTION RATE AND THE RELATIVE PRICE (FD) TABLE 5.10

MODEL	1	2
Method of estimation	2-Step GMM	2-Step GMM
Data transformation	FE	FE
Excongestion (t-3)	0.049	
	0.15***	
Excongestion (t-4)		0.060
		0.024**
Pricetorent	-0.013	0.000
	0.014	0.011
Density	-0.042	-0.029
	0.17**	0.018
Time effects	Yes	Yes
Observations	200	150
Groups/Clusters	50	50
Hansen J statistic (P-value)	0.283	0.237
Wald Test for time dummies	0.028	0.424

SOURCE: Self elaboration.
Dependent variable: Share of property.
Standard errors robust to heteroskedasticity and serial correlation beneath coefficients.
Instrumented: Pricetorent.
Instruments: Ppop2039, Ppop2039 (t-1), Credit, Credit (t-1), ln GDPpc (t-1), Shousing.
*** p < 1%.
** p < 5%.
* p < 10%.

5.4.1 RESULTS

First of all it is worth noting that both the user cost (in tables 5.7 and 5.8) and the relative price (in tables 5.9 and 5.10) enter the equation with a positive sign. The sign confirms that we have estimated a supply curve once we take into account that the overidentification tests were passed satisfactorily. On one hand, when we include fixed effects, the effect of the user cost is significant and quite robust to different specifications. On the other hand, when we take first differences, the results for the variables are generally not significant. However, the sign keeps on being positive in the majority of cases. Also, it should be taken into account that taking first differences has a high cost in terms of estimation in the case of this panel. Note that the T is very short and therefore an important part of heterogeneity is lost when we loose one year in the estimations.

The variable density has the expected (negative) sign in all the cases. When we include fixed effects the variable is significant at 1% level and the results are quite robust to the different specifications. When we take first differences, the significance reduces to 5% and keeps the negative sign.

Finally, looking at the results for the judicial variables, we find the expected effects. First of all, it is found that a higher congestion or pendency rates have positive effects in the share of houses in the property market (by definition, in the case of the resolution rate the effect is the opposite). That is, a lower efficiency of the judicial system attracts more houses to the property market. That is to say that a "problematic" tenancy market prevents the owners/landlords to put their dwellings into the tenancy market.

Table 5.7 shows that an increase in one point in the congestion rate would increase the share of property in around 0.14-0.21 percentage points. Thus, taking the example of Madrid, the decrease in the congestion rate would attract to the rental market an amount of around 3200-4800 dwellings. Those results are significant at around 5% or 1% respectively.

5.5 Conclusions

This chapter presents some estimations of the effect of the efficiency of the judicial system on the proportion of property in the Spanish provinces. The problem is analyzed econometrically through panel data techniques. Specifically, the generalized method of moments (2-step GMM) is used in the estimations as several instrumental variables are taken into account. This study is the first one in the economic literature tackling the case of Spain at the local level.

The judicial efficiency is measured through the construction of a "congestion" indicator in two stages of the procedure: the declaratory stage and its final executory stage.

First of all, this research does not find any significant impact of the efficiency in the declaratory stage on the housing property share. However, this research concludes that an increase in the judicial efficiency in the execution stage would have a positive, although minor, impact on the share of property in the Spanish provinces. The effect amounts from 0.1 to 0.2 percentage points of the housing market (higher effects are found if other efficiency measures are taken into account) (see annex 5.A). That effect would be denoting that homeowners avoid the tenancy market when they cannot enforce their contracts.

The discussions presented in this research give some ground to improve the efficiency of the judicial system, at least in the execution stage, as a way to develop the Spanish tenancy market.

ANNEX 5.A Estimations with alternative judicial efficiency measures

Judicial efficiency can be measured in different ways. This research has opted to study the "congestion rate", even though other efficiency measures could be computed using the same database.

This annex offers the results of the study if two alternative efficiency measures are taken into account: the "resolution rate" and the "pending cases rate". The resolution rate is defined as the ratio between the cases resolved and the cases that entered the system for a specific year and for a type of procedure. The pending cases rate is defined as the ratio between pending cases in a specific year and the cases resolved in the same period (see equations grouped as 5.7).

$$\text{Resolution rate}_{i,t} = \frac{\text{Cases resolved}_{i,t}}{\text{New cases}_{i,t}}$$

$$\text{Pending cases rate}_{i,t} = \frac{\text{Pending cases}_{i,t}}{\text{Cases resolved}_{i,t}} \qquad [5.7]$$

Higher resolution rate or lower pending cases rate are related to greater efficiency of the judicial system.

As before, those measures are calculated for both stages of the procedures (declaratory and executory) The prefix *"prt"* precedes the efficiency measures related to procedures in the "declaratory stage" (or as we called it, "first" procedures): *prtresolution* and *prtpendency* (in the tables). The prefix *"ex"* precedes the type of efficiency measures related to the executions: *exresolution* and *expendency* (in the tables). Some summary statistics are included in table 5.1.

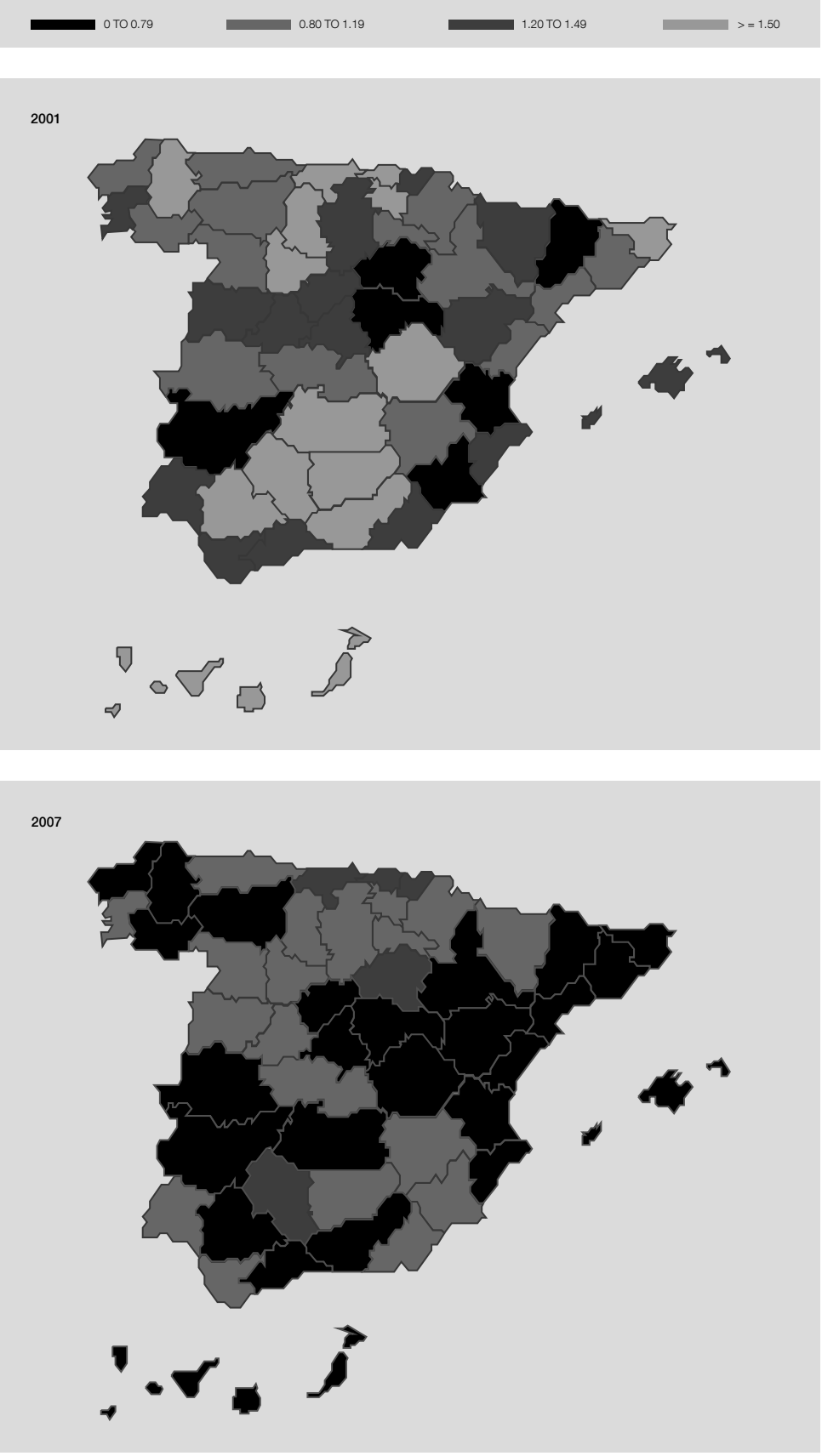
With respect to the first measure of efficiency related to executions, *exresolution,* the following can be said: on average the judicial system was able to solve nearly the same amount of cases that were entering the courts (resolution rate of 0.87). This does not imply a constant workload because some conflicts may be waiting in the pile at the beginning of the year (this aspect is better analyzed with more complete measures of efficiency as the pendency cases rate and the congestion rate). Even though some provinces underperformed quite radically (minimum of 0.42), others were able to solve two times more cases than the number of new cases entering the system, and thus were able to reduce the workload for future periods. Chart 5.A.1 represents the resolution rate in the Spanish provinces in 2001 and 2007. As it can be seen in the figure, the resolution rate diminished all over Spain (thus, the efficiency of the system diminished over time).

On average (see table 5.1), almost three times more cases were pending (waiting to be solved) with respect to the cases that the courts were able to solve. As before, although some provinces had, on average, very good results (pendency rate of 0.46), other provinces had more than seven times more cases waiting to be solved than the average workload they were able to solve in a year. Chart 5.A.2 represents the pendency rate in 2001 and 2007. The rate grew over the period denoting a reduction in the efficiency of the system.

As it happened with the case of congestion, no significant results are found when the models are computed taking into account the efficiency in the "declaratory" stage.

Table 5.A.1 shows the results of the estimations when we consider the pendency cases rate instead of the congestion rate as a measure of efficiency. The results are consistent with the previous ones. An increase of the pendency rate in one point would increase the

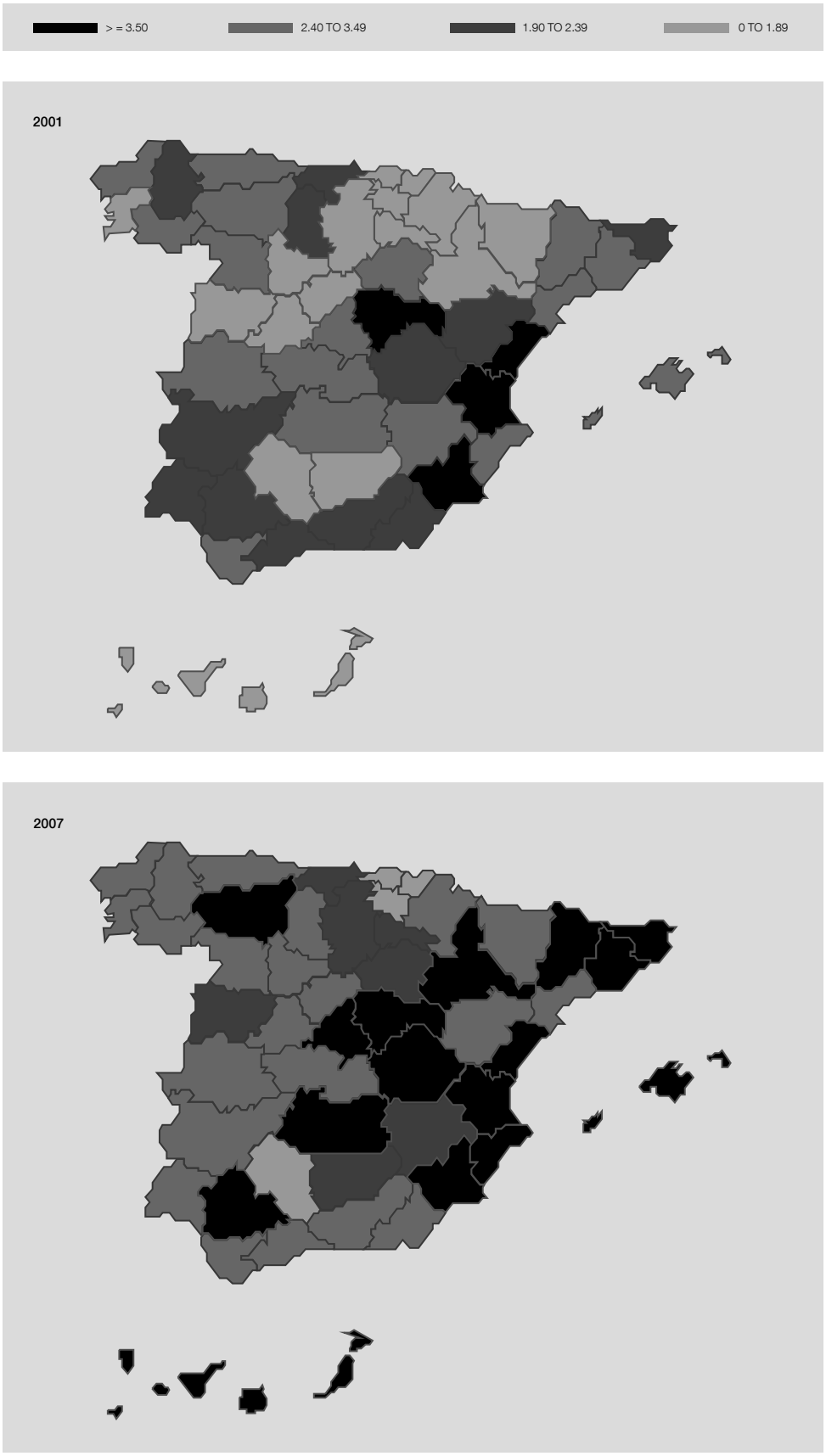
RESOLUTION RATE (EXECUTORY STAGE) CHART 5.A.1



SOURCE: Self elaboration and Consejo General del Poder Judicial (2009).

PENDENCY RATE (EXECUTORY STAGE)

CHART 5.A.2



SOURCE: Self elaboration and Consejo General del Poder Judicial (2009).

EFFECTS OF THE JUDICIAL PENDENCY RATE AND THE USER COST (FE)

TABLE 5.A.1

MODEL	1	2
Method of estimation	2-Step GMM	2-Step GMM
Data transformation	FE	FE
Expendency (t-3)	0.176	
	0.09**	
Expendency (t-4)		0.274
		0.134**
User cost	0.075	0.061
	0.031**	0.035*
Density	-0.070	-0.048
	0.02***	0.02**
Time effects	Yes	Yes
Observations	250	200
Groups/Clusters	50	50
Hansen J statistic (P-value)	0.729	0.810
Wald Test for time dummies	0	0

SOURCE: Self elaboration.
Dependent variable: Share of property.
Standard errors robust to heteroskedasticity and serial correlation beneath coefficients.
Instrumented: User cost.
Instruments: User cost (t-1), Ppop2039, Ppop2039 (t-1), Credit, Credit (t-1), ln GDPpc (t-1), Shousing.
*** p < 1%.
** p < 5%.
* p < 10%.

EFFECTS OF THE JUDICIAL PENDENCY RATE AND THE RELATIVE PRICE (FE)

TABLE 5.A.2

MODEL	1	2
Method of estimation	2-Step GMM	2-Step GMM
Data transformation	FE	FE
Expendency (t-3)	0.183	
	0.080	
Expendency (t-4)		0.150
		0.075**
Pricetorent	0.020	0.001
	0.018**	0.017
Density	-0.040	-0.035
	0.017**	0.02*
Time effects	Yes	Yes
Observations	250	200
Groups/Clusters	50	50
Hansen J statistic (P-value)	0.134	0.349
Wald Test for time dummies	0	0.765

SOURCE: Self elaboration.
Dependent variable: Share of property.
Standard errors robust to heteroskedasticity and serial correlation beneath coefficients.
Instrumented: Pricetorent.
Instruments: Ppop2039, Ppop2039 (t-1), Credit, Credit (t-1), ln GDPpc (t-1), Shousing.
*** p <1 %.
** p < 5%.
* p < 10%.

EFFECTS OF THE JUDICIAL PENDENCY RATE AND THE USER COST (FD)

TABLE 5.A.3

MODEL	1	2
Method of estimation	2-Step GMM	2-Step GMM
Data transformation	FD	FD
Expendency (t-3)	0.045	
	0.020**	
Expendency (t-4)		0.079
		0.046*
User cost	-0.001	0.002
	0.002	0.004
Density	-0.040	-0.028
	0.016**	0.018
Time effects	Yes	Yes
Observations	200	150
Groups/Clusters	50	50
Hansen J statistic (P-value)	0.146	0.379
Wald Test for time dummies	0.039	0.256

SOURCE: Self elaboration.
Dependent variable: Share of property.
Standard errors robust to heteroskedasticity and serial correlation beneath coefficients.
Instrumented: User cost.
Instruments: User cost (t-1), Ppop2039, Ppop2039 (t-1), Credit, Credit (t-1), ln GDPpc (t-1), Shousing.
*** p < 1%.
** p < 5%.
* p < 10%.

EFFECTS OF THE JUDICIAL PENDENCY RATE AND THE RELATIVE PRICE (FD)

TABLE 5.A.4

MODEL	1	2
Method of estimation	2-Step GMM	2-Step GMM
Data transformation	FD	FD
Expendency (t-3)	0.053	
	0.021**	
Expendency (t-4)		0.065
		0.045
Pricetorent	-0.017	-0.005
	0.014	0.013
Density	-0.042	-0.033
	0.017**	0.019*
Time effects	Yes	Yes
Observations	200	150
Groups/Clusters	50	50
Hansen J statistic (P-value)	0.39	0.273
Wald Test for time dummies	0.049	0.437

SOURCE: Self elaboration.
Dependent variable: Share of property. Standard errors robust to heteroskedasticity and serial correlation beneath coefficients.
Instrumented: Pricetorent.
Instruments: Ppop2039, Ppop2039 (t-1), Credit, Credit (t-1), ln GDPpc (t-1), Shousing.
*** p < 1%.
** p < 5%.
* p < 10%.

EFFECTS OF THE JUDICIAL RESOLUTION RATE AND THE USER COST (FE)

TABLE 5.A.5

MODEL	1	2
Method of estimation	2-Step GMM	2-Step GMM
Data transformation	FE	FE
Exresolution (t-3)	-0.05	
	0.315	
Exresolution (t-4)		-0.69
		0.284**
User cost	0.073	0.06
	0.03**	0.022***
Density	-0.067	-0.052
	0.021***	0.022***
Time effects	Yes	Yes
Observations	250	200
Groups/Clusters	50	50
Hansen J statistic (P-value)	0.727	0.803
Wald Test for time dummies	0	0

SOURCE: Self elaboration.
Dependent variable: Share of property. Standard errors robust to heteroskedasticity and serial correlation beneath coefficients.
Instrumented: User cost.
Instruments: User cost (t-1), Ppop2039. Ppop2039 (t-1), Credit, Credit (t-1), ln GDPpc (t-1), Shousing.
*** p < 1%.
** p < 5%.
* p < 10%.

EFFECTS OF THE JUDICIAL RESOLUTION RATE AND THE RELATIVE PRICE (FE)

TABLE 5.A.6

MODEL	1	2
Method of estimation	2-Step GMM	2-Step GMM
Data transformation	FE	FE
Exresolution (t-3)	-0.525	
	0.285*	
Exresolution (t-4)		-0.573
		0.256**
Pricetorent	0.023	0.012
	0.019	0.014
Density	-0.037	-0.028
	0.017**	0.019
Time effects	Yes	Yes
Observations	250	200
Groups/Clusters	50	50
Hansen J statistic (P-value)	0.121	0.217
Wald Test for time dummies	0	0.267

SOURCE: Self elaboration.
Dependent variable: Share of property. Standard errors robust to heteroskedasticity and serial correlation beneath coefficients.
Instrumented: Pricetorent.
Instruments: Ppop2039, Ppop2039 (t-1), Credit, Credit (t-1), ln GDPpc (t-1), Shousing.
*** p < 1%.
** p < 5%.
* p < 10%.

EFFECTS OF THE JUDICIAL RESOLUTION RATE AND THE USER COST (FD)

TABLE 5.A.7

MODEL	1	2
Method of estimation	2-Step GMM	2-Step GMM
Data transformation	FD	FD
Exresolution (t-3)	-0.102	
	0.068	
Exresolution (t-4)		-0.185
		0.093**
User cost	0.000	0.004
	0.003	0.004
Density	-0.041	-0.029
	0.017**	0.018
Time effects	Yes	Yes
Observations	200	150
Groups/Clusters	50	50
Hansen J statistic (P-value)	0.121	0.282
Wald Test for time dummies	0.752	0.206

SOURCE: Self elaboration.
Dependent variable: Share of property. Standard errors robust to heteroskedasticity and serial correlation beneath coefficients.
Instrumented: User cost.
Instruments: User cost (t-1), Ppop2039, Ppop2039 (t-1), Credit, Credit (t-1), ln GDPpc (t-1), Shousing.
*** p < 1%.
** p < 5%.
* p < 10%.

EFFECTS OF THE JUDICIAL RESOLUTION RATE AND THE RELATIVE PRICE (FD)

TABLE 5.A.8

MODEL	1	2
Method of estimation	2-Step GMM	2-Step GMM
Data transformation	FD	FD
Exresolution (t-3)	-0.111	
	0.079	
Exresolution (t-4)		-0.262
		0.1***
Pricetorent	-0.013	0.008
	0.015	0.007
Density	-0.042	-0.025
	0.018**	0.018
Time effects	Yes	Yes
Observations	200	150
Groups/Clusters	50	50
Hansen J statistic (P-value)	0.291	0.192
Wald Test for time dummies	0.267	0.284

SOURCE: Self elaboration.
Dependant variable: Share of property. Standard errors robust to heteroskedasticity and serial correlation beneath coefficients.
Instrumented: Pricetorent.
Instruments: Ppop2039, Ppop2039 (t-1), Credit, Credit (t-1), ln GDPpc (t-1), Shousing.
*** p < 1%.
** p < 5%.
* p < 10%.

property share of the province in around 0.17-0.27 percentage points (around 3900-6200 houses in Madrid). The results are significant at 5% level. In the case of estimating equation 5.6, the effect of the pendency rate would be around 0.15 percentage points (see table 5.A.2). Tables 5.A.3 and 5.A.4 show the results when first differences (FD) are taken.

Finally, an increase in one point of the resolution rate (see Table 5.A.5) implies a reduction in the property rate of around 0.69 percentage points (that would be approximately 15,000 houses passing from the property market to the tenancy market and related options in Madrid). However, the effect is not always significant in the case of the resolution rate. In the case of estimating equation 5.6, the effect of the resolution rate would be around 0.55 percentage points (table 5.A.6). Tables 5.A.7 and 5.A.8 show the results when first differences (FD) are taken.

ANNEX 5.B Theoretical background

To integrate all the reasonings offered in this chapter, it seems useful to discuss how agents (on the demand or supply side of the market) behave in theoretical terms when they are confronted to the housing tenure choice. Moreover, it is useful to add to that theoretical background how those agents react when they are confronted to an inefficient judicial system.

Henderson and Ioannides (1983) offer a useful model for this issue as they study the behavior of both owner-occupiers and renters through their decisions to consume and invest in housing services. If the investment demand for housing is large enough relative to consumption demand, the individual will own a dwelling and will rent part of the free space in the housing market. Thus, he will be a landlord offering housing services. On the contrary, if the consumption demand is larger than the investment demand, the individual will opt for renting and will not own a house (we will observe him as a tenant consuming housing services but not investing).

In the model, the housing consumption demand will depend on several factors such as wealth, the income path or financial restrictions. For instance, an individual confronted to less wealth at the beginning of his lifetime will be a tenant if he is also confronted to financial restrictions.

It is even more relevant to observe how the investment side works. If the profitability of investing in housing diminishes, less "space" will be offered in the market (the number of "landlords" will diminish in the economy). In fact, the profitability of the investment in housing services is affected by several factors such as maintenance costs, taxation or depreciation. This chapter studies the effects on the market of a very specific transaction cost: the judicial inefficiency that will affect exclusively the landlords.

Following Henderson and Ioannides (1983) the individuals maximize the following multi-period utility function.

$$U(x, f(u)h_c) + V(w)$$

Where U stands for the utility obtained from the consumption bundle and V(w) stands for the indirect utility function of wealth remaining after period 1. The services obtained from a house (as a durable good) are determined by u (the rate of utilization) and h_c (the capacity). X stands for the consumption in period 1 of the numeraire.

If the individual is an owner, he will maximize the utility function subject to the following constraints:

$$y_1 = x + Ph_c + S$$
$$w = y_2 + S(1+r) + Ph_c - T(u)h_c$$

Where T(u) is the utilization cost function, Y represents income, P is the market purchase price of a unit of housing stock, S is savings and r is the rate of interest.

If the individual is a tenant, the constraints he faces are the following:

$$y_1 = x + Rh_c + S$$
$$w = y_2 + S(1+r) - \tau(u)h_c$$

Where R stands for the rental price of housing and $\tau(u)$ is the tenant cost function.

To introduce the judicial inefficiency (J) in the model of Henderson and Ioannides (1983) I could model the utilization cost function of the dwelling as:

$$T(u) = \alpha J u^2$$

J will increase the transaction costs for the landlord. Three different ways to measure J are explained in section 5.2 and annex 5.A. In any case, the judicial inefficiency (J) will take always positive values. α is a parameter and u is the rate of utilization. As required, T(u) is a convex function: T'(u)>0 and T"(u)>0.

On the other hand, the tenant cost function could take the following simple form that is not depending on the judicial efficiency:

$$\tau(u) = u^2$$

Where $\tau(u)$ is also a convex function. $\tau'(u)>0$ and $\tau"(u)>0$.

With those two cost functions, the equilibrium condition of the Henderson-Ioannides model will take the following form:

$$\frac{rP}{1+r} = R - \frac{u^2[\alpha J - 1]}{1+r}$$

That is,

$$u = \sqrt{\frac{R(1+r) - rP}{\alpha J - 1}}$$

Where, $\frac{\partial u}{\partial J} < 0$, $\frac{\partial u}{\partial R} > 0$, $\frac{\partial u}{\partial r} < 0$ and $\frac{\partial u}{\partial P} < 0$, if $1 - \alpha J > 0$

Thus, following that derivation, in equilibrium the rate of utilization will depend negatively on the judicial inefficiency. As it was already said, judicial inefficiency can be understood as a cost for the landlord.

$$u = f(\underset{-}{J}, \underset{-}{r}, \underset{+}{R}, \underset{-}{P})$$

Even though we consider J and r as exogenous variables affecting the equilibrium, R and P (together with the quantity of housing services in the market) are defined within the model. Therefore, in an econometric implementation they should be treated as endogenous and thus they must be instrumented. For instance, an exogenous shock increasing the judicial inefficiency will affect the equilibrium price and quantity of housing services through a shift in the supply side (or investment) of housing services but not through the demand curve as defined before. Thus, in the case of estimating econometrically the supply curve we will have to instrument the price (or the user cost) using for instance strictly "demand" instruments (that is, demand shifters which are not affecting the supply).

Theoretically, Henderson and Ioannides (1983) provide a discussion on some important factors affecting the equilibrium mainly thorough the demand side of housing services (that is, those who actually rent their consumption of housing services). In their model, higher wealth individuals will be renters, even though that is not the general finding in the empirical literature (see section 5.3) and the result is found without taking into account life cycle considerations. The issue of the life cycle is partly taken into account in this chapter through the use of the proportion of "young population" as instrument in the econometric model.

Capital market imperfections also play a role in the Henderson and Ioannides model and are taken into account in this chapter (although through a very imperfect measure). Following the theoretical model, those with a high wealth in the future but a low wealth in the present will opt for renting rather than for owning. That can be understood as a result of the difficulties that the agents face when they try to smooth consumption and investment through time if there are capital market imperfections.

6 Conclusions and policy implications

This book focuses on the effects of institutions on the functioning of the housing market in Spain and other European countries. The literature in economics provides precise and satisfactory answers to a multiplicity of problems affecting this market. However, there are several other developments of the tenancy and the property market which cannot be explained with traditional theories. North (1990) showed, through the analysis of a simple transaction such as selling a house, that the housing market is affected by a especially complex matrix of institutions. Moreover, its institutions are usually defficiently designed or outdated. That is, the housing market is affected by several "humanly devised constraints" that increase the transaction costs of the housing market instead of reducing them. Chapter 2 provides a general discussion on those points.

More specifically this book analyzes the effects of some "formal institutions" introduced in the housing market by the tenancy Laws in Spain and Europe (chapter 3) and the effect of inefficiency of the "enforcement institutions" (such as the judicial system) in the same market in Spain (chapters 4 and 5).

Chapter 3 concludes, after analyzing a set of tenancy market regulations in Spain and other European countries, that all European countries had similar regulations affecting their tenancy markets over the 20th century. Moreover, this research stresses that those countries shared the same evolution from a liberal approach towards the tenancy market relations to a more regulated and restrictive one. The regulations introduced not only "rent control policies" (with several European specificities) but also a less studied, typically European, restriction which can be called "protection against eviction" or "protection term".

Both restrictions are tested theoretically in an information asymmetry model from which it is possible to conclude that both entail some negative effects in the weight of the tenancy market in the European economies. If the inflation rate in the rents is higher than the inflation for the whole economy (measured through the general CPI, for instance), the landlords would suffer a real rent decrease and therefore will pressure the market to increase the equilibrium rent payed by the tenants. As a result, several tenants will leave the tenancy market.

Chapter 4 provides a measure of "procedural formalism" of the judicial system for the whole civil Law system on the one hand and for the specific tenancy conflict procedures on the other. From that research it is possible to conclude that the level of formalism of the Spanish judicial system has decreased over time during the most recent decades. The new Civil Procedural Law (2000) is responsible of the main improvements in the measure. Moreover, the results of the chapter contradicts the results of previous research in the area [Djankov *et al.* (2003)] who assigned to Spain much higher levels of formalism (that were in fact less consistent with the current Spanish GDP per capita). Nevertheless, the chapter also concludes that the reductions in formalism are not observed in the case of the special procedures applied to the tenancy market conflicts (such as the procedures needed to evict a non-paying tenant).

Finally, even though the literature stressed that reductions in formalism are positive for the judicial system efficiency, the chapter shows that the direct measures of efficiency in Spain (the resolution rate, the pendency cases rate or the congestion rate) suffered worsenings coincidently with the reductions in formalism. That counterintuitive result may be partly derived from the fact that a less formal system may attract more conflicts to the courts, reducing in the end the efficiency of judges.

Chapter 5 presents some estimations of the effect of judicial inefficiency on the proportion of property in the housing markets of the Spanish provinces. Judicial inefficiency is measured directly through the congestion rate, the pending cases rate and the resolution rate in two stages of the procedures directed to solve a tenancy conflict: in the declaratory stage

and in the final executory stage. The chapter does not find any significant impact of inefficiency in the declaratory stage on the housing property share. However, an increase of judicial efficiency in the execution stage seems to reduce the share of property in the Spanish provinces.

The research presented in the chapters of this book give some ground for some reforms in the institutions of the housing markets in Spain. On the one hand, a reduction in the protection term (protection against eviction) or a reform of the rent control rules towards liberalization would have, theoretically, some positive impacts for the tenancy market increasing its weight in the housing market.

With respect to the judicial system, this book shows that some more reductions in formalism could be achieved, for instance through the reduction in the number of procedures in which legal representation is mandatory. However, the results of chapter 4 also show that improvements in formalism should also be accompanied by an increase in the resources of the judicial system in order to cope with a higher number of conflicts arriving to the judges. Finally, chapter 5 stresses that in the case of achieving improvements in the efficiency of the procedures, it seems more effective to concentrate the efforts in the executory stage than in the declaratory stage.

7 Resumen: El efecto de las instituciones en los mercados de vivienda europeos: un análisis económico[1]

7.1 Introducción

Durante el siglo XX y en especial en su segunda mitad, el mercado de alquiler ha ido perdiendo peso a favor de la vivienda en propiedad tanto en la economía española como en la del resto de países europeos. El gráfico 7.1 muestra esta tendencia negativa en el peso del mercado del alquiler sobre el total de viviendas principales[2] para algunas economías europeas en los años más recientes.

En este contexto, y si bien la reducción en el peso del mercado de alquiler (a favor del mercado de vivienda en propiedad) es un hecho común a la práctica totalidad de países, el caso español es especialmente extremo. El primer censo que recogió esta información (1970) ya indicaba que la proporción de vivienda principal en propiedad estaba en torno al 60% (tasa de propiedad del 63,4%). En el año 2008 era posible encontrar provincias españolas en las que la tasa de vivienda principal en propiedad superaba el 94% (Castellón, Soria o Lugo).

Desde un punto de vista puramente económico, una fortaleza excesiva de la vivienda en propiedad genera algunas ineficiencias en el funcionamiento de la economía. Entre otros factores, este efecto se debe a que una reducida tasa de alquiler puede acabar disminuyendo la movilidad de los trabajadores [Hardman e Ionnides (1999) y Barceló (2006)]. De hecho, se observa que las economías con una mayor tasa de alquiler, como Francia o Alemania, también muestran una mayor movilidad interregional [Maclennan et ál. (1998) y Barceló (2006)]. Paralelamente, la literatura económica relaciona una baja movilidad con un mayor desempleo [Layard et ál. (1991)].

Numerosos factores pueden haber afectado a los mercados inmobiliarios impulsando al alza el mercado de la vivienda en propiedad. Entre ellos, y sobre todo para los últimos años, cabe citar la reducción general de los tipos de interés [Blanco y Restoy (2007)], junto con la liberalización bancaria [Iacoviello y Minetti (2003), y Kumbhakar y Lozano-Vivas (2004)] o los aumentos en la renta per cápita.

Frente a estos factores, ampliamente estudiados en la literatura, otros factores que se podrían englobar como «institucionales» pueden también haber influenciado las tasas de alquiler y propiedad (el capítulo 2 proporciona una discusión general sobre la importancia de las instituciones en el desarrollo económico). Entre ellos, cabría citar la regulación de los merca-

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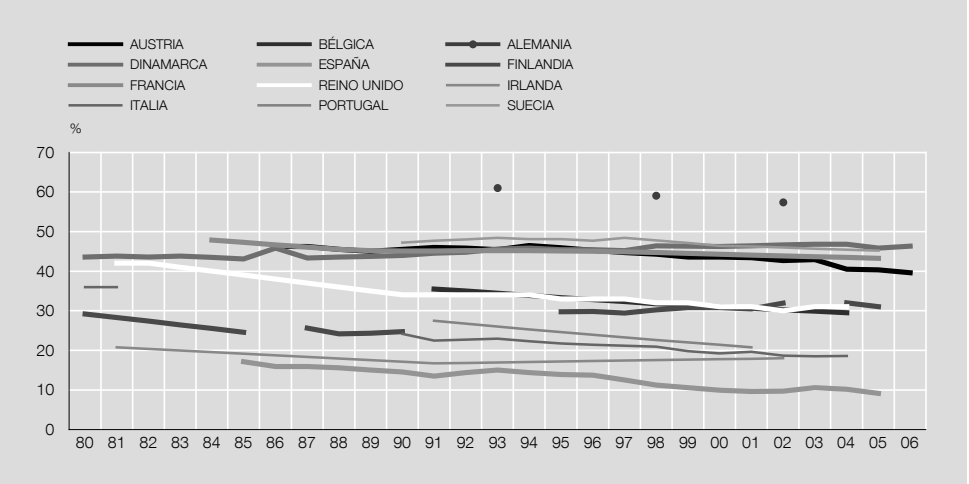
1. Una versión previa de los trabajos incluidos en este libro fue defendida como tesis doctoral *(Ph.D. dissertation)* en el Departamento de Historia Económica e Instituciones de la Universidad Carlos III de Madrid el día 15 de diciembre de 2009. La tesis fue supervisada por Stefano Battilossi (Universidad Carlos III de Madrid). El tribunal examinador estuvo formado por Leandro Prados de la Escosura (presidente) (Universidad Carlos III de Madrid), Fernando Gómez Pomar (secretario) (Universitat Pompeu Fabra), Francisco Cabrillo (Universidad Complutense de Madrid), Luis Garicano (London School of Economics and Political Science) y Nuno Garoupa (University of Illinois). La tesis tuvo además una doble evaluación externa realizada por Georg von Wangenheim (Universität Kassel) y Lucia dalla Pellegrina (Bocconi University). Estas evaluaciones, así como sendas estancias realizadas en el European University Institute (Florencia, Italia) (2004-2005) y el Departamento de Economía de la University of Iowa (2005 y 2008), permitieron que la tesis obtuviera la mención europea ("Doctor Europeus") en el título de doctor. Deseo expresar mi gratitud en primer lugar a Stefano Battilossi por su excelente labor como director. También deseo agradecer el trabajo de los dos evaluadores externos y, por supuesto, los comentarios y críticas del tribunal, que han sido parcialmente tenidas en cuenta en este «Estudio Económico». Estoy en deuda, además, con Beth Ingram y R. Ravikumar (University of Iowa) por su generosidad a la hora de permitirme utilizar los recursos del Departamento de Economía de la citada Universidad. Estoy también en deuda por sus comentarios y sugerencias con Santos Pastor, Rocío Albert, Pablo Hernández de Cos, Ángel Estrada, Llanos Matea, Paloma López García, María Gil, Carmen Martínez Carrascal, Jorge Martínez Pagés, Michael Bolliger, Raquel Vegas, Javier Jareño, Aitor Lacuesta, Julio García Durán, Pilar Arróniz, Philip Hill, Fernando Ferrer, Mario de las Heras, David Cabido y Eduardo López Román. Los diferentes capítulos de este «Estudio Económico» fueron además presentados en distintas conferencias y seminarios (indicados al inicio de cada capítulo) y se beneficiaron de los comentarios de los asistentes. **2.** Las viviendas principales son aquellas utilizadas como residencia primera o permanente. Se dividen en viviendas en propiedad (87,1% en España en 2007, según los datos del Ministerio de Vivienda), en alquiler (11,2%) y cedidas de forma no lucrativa (1,6%).

PROPORCIÓN DEL MERCADO DE ALQUILER (SOBRE EL TOTAL DE VIVIENDAS PRINCIPALES) EN 12 PAÍSES EUROPEOS GRÁFICO 7.1



FUENTE: Statistical Data Warehouse (Banco Central Europeo, 2007).

dos (las llamadas «instituciones formales») y el funcionamiento del sistema judicial como medio de ejecución de los contratos y pactos realizados en esos mercados (las llamadas «instituciones de ejecución»). En ambos casos se puede afirmar que no han sido suficientemente estudiadas en cuanto a sus efectos en los mercados inmobiliarios. En consecuencia, este libro se centra en el análisis de los efectos de la regulación de los mercados inmobiliarios, en especial las normativas vigentes en los mercados de alquiler, que podrían haber introducido desincentivos relativamente importantes para los arrendadores de vivienda, así como el efecto del buen o mal funcionamiento del sistema judicial a la hora de hacer cumplir los pactos y contratos efectuados en esos mercados.

7.2 El efecto de las «instituciones formales» en los mercados inmobiliarios

Las normativas aplicables al mercado de alquiler son similares para los distintos países europeos y suelen introducir dos tipos de restricción que tienden a proteger al inquilino frente al propietario. Por un lado, el llamado «control de rentas» *(rent control),* que limita los aumentos en el precio del alquiler una vez firmado el contrato, y, por otro, el establecimiento de un período mínimo dentro del cual el arrendatario tiene derecho a extender la vigencia del contrato aun en contra de los deseos del arrendador. En el caso español, estas normas están contenidas en la Ley 29/1994, de 24 de noviembre, de Arrendamientos Urbanos.

La primera de estas restricciones (el «control de rentas») ha sido estudiada de forma extensa tanto desde un punto de vista teórico [Basu y Emerson (2000), Raess y Ungern-Sternberg (2002), y Basu y Emerson (2003)] como empírico, especialmente para el caso de Estados Unidos [Johnson (1951) y Sims (2007)]. Sin embargo, la segunda de estas restricciones (períodos obligatorios de contrato), al ser típicamente europea, no ha recibido tanta atención, así como tampoco el caso de «control de rentas» en economías como las europeas, en las que el legislador ya tiene en cuenta la existencia de una inflación positiva a la hora de aprobar una nueva ley.

7.2.1 LAS INSTITUCIONES DE LOS MERCADOS DE ALQUILER EN LA EUROPA DE LA POSGUERRA: UN ANÁLISIS ECONÓMICO

El capítulo tercero de este libro se centra en el análisis de los efectos económicos de las normativas de alquiler típicamente europeas en el mercado de alquiler. El capítulo proporciona en

primer lugar evidencia de que las restricciones legales aplicables al mercado de alquiler son similares y han sufrido una evolución similar en los distintos países europeos (aunque con numerosas especificidades). Además, han estado vigentes al menos para gran parte del período para el que se conoce que ha existido una reducción de la proporción de vivienda alquilada en las distintas economías. En segundo lugar, el capítulo aborda el análisis del efecto de estas normativas en el mercado mediante un modelo teórico en la línea iniciada por Basu y Emerson (2000).

El modelo teórico adopta la estrategia de tratar el mercado de alquiler como un mercado con información asimétrica en el que los arrendadores tienen una información limitada del número de años que los inquilinos desean permanecer en la vivienda. Dado que la Ley permite al arrendatario decidir ese período (con un límite máximo), el arrendador no puede sustituirlo por otro nuevo por un plazo indeterminado y, lo que es más importante, a consecuencia de ello no puede renovar las condiciones del contrato para igualarlas a aquellas del mercado. Si la Ley, además, establece un «control de rentas» (como es el caso en Europa), las condiciones firmadas en un primer momento con un arrendatario que decide quedarse en la vivienda por un gran número de años serán cada vez más anticuadas. Como resultado, si el crecimiento de las rentas del alquiler en los nuevos contratos firmados en el mercado está por encima del nivel de actualización permitido por la Ley (usualmente el IPC), el arrendador sufrirá una pérdida de renta real.

Como conclusiones, el capítulo tercero de este libro aporta, en primer lugar, evidencias que señalan que ambos tipos de restricción (control de rentas y períodos obligatorios de contrato) se encuentran vigentes al mismo tiempo en múltiples países europeos durante los últimos años. A continuación, a través de un análisis con un modelo teórico, apunta a que estas restricciones influyen negativamente en el mercado de alquiler debido a que aumentan la renta de equilibrio y pueden expulsar a algunos de los inquilinos del mercado.

7.3 El efecto de las «instituciones de ejecución» en los mercados inmobiliarios: el papel del sistema judicial

Los arrendadores pueden verse afectados por un sistema judicial que sea lento o costoso a la hora de hacer cumplir los pactos estipulados en un contrato de alquiler. El problema sería especialmente relevante en un caso de impago o de desperfectos en la vivienda. Por tanto, no solo las leyes restrictivas pueden afectar al comportamiento de los arrendadores o vendedores de vivienda. En general, la literatura sobre instituciones ha destacado un gran número de ineficiencias derivadas de un mal funcionamiento (o de un funcionamiento excesivamente lento) del sistema judicial: desde un aumento del número de empresas y hogares restringidos en cuanto al acceso al crédito, a una reducción en la tasa de creación de nuevas empresas [Padilla y Requejo (2000), Jappelli et ál. (2005), Desai et ál. (2005) y Padilla et ál. (2007)].

Sin embargo, es interesante destacar que se ha dedicado menos trabajo a estudiar el efecto directo del funcionamiento del sistema judicial en los mercados de alquiler y propiedad de vivienda. Para una perspectiva internacional, es posible consultar el trabajo de Casas-Arce y Saiz (2006), que estiman el efecto del «formalismo judicial» en la decisión de alquilar. El «formalismo judicial» se podría definir como la dificultad general de utilizar el sistema judicial para resolver conflictos, lo cual está relacionado con el número y lentitud de los procedimientos necesarios para resolver un caso concreto. A mayor formalismo, mayor sería el coste y tiempo esperado para resolver un conflicto [Djankov et ál. (2003)]. Casas-Arce y Saiz utilizan, de hecho, para su estudio la tasa de formalismo que propusieron Djankov et ál. (2003). Sin embargo, hasta el momento no existe un análisis en profundidad de los efectos producidos por la ineficiencia judicial en la práctica sobre las proporciones de vivienda en alquiler y propiedad en España. Este libro aborda el problema para el caso español mediante dos de sus capítulos (los capítulos cuarto y quinto).

7.3.1 LA EJECUCIÓN DE CONTRATOS EN ESPAÑA SEGÚN LA LEY DE ENJUICIAMIENTO CIVIL EN EL PERÍODO DE 1966-2008: UN ANÁLISIS CON ÍNDICES DE FORMALISMO

El capítulo cuarto de este libro parte de la metodología publicada por Djankov et ál. (2003) para plantear una medida de «formalismo judicial» para España. Para ello, es necesario adaptar varios de los componentes del indicador original a las exigencias del Derecho Procesal Civil español. Si bien Djankov et ál. (2003) plantean su medida tan solo para un año, el capítulo cuarto ofrece una aproximación de esa medida para el período comprendido entre 1966 y 2008 y ofrece, además, el resultado corregido por la utilización de los distintos procedimientos civiles españoles para el período de 1995-2006. El capítulo aporta, por otro lado, una medida de formalismo concreta aplicada al caso de las resoluciones de los conflictos arrendaticios, que conformarían un procedimiento especial dentro del Derecho Procesal Civil español. Estas medidas de formalismo, de carácter no aplicado en tanto en cuanto se basan en las características de la regulación, se utilizan para explicar la eficiencia del sistema judicial español en la práctica (es decir, mediante el cómputo real de la capacidad de resolución y de la tasa de congestión y pendencia de los juzgados españoles).

El capítulo concluye que la tasa de formalismo judicial en España se ha reducido desde 1966, lo que debería implicar algunas mejoras en eficiencia desde entonces. Esta mejoría teórica o indirecta sería especialmente relevante a partir del año 2001, por el efecto de la introducción de la nueva Ley de Enjuiciamiento Civil[3]. Sin embargo, el trabajo también concluye que esta reducción en el formalismo ha atraído a los tribunales españoles un mayor número de casos para resolver, incrementando la carga de trabajo del sistema y, con ello, aumentando sus tasas de congestión y de pendencia (y reduciendo la tasa de resolución). Así, la reducción en el formalismo judicial habría provocado indirectamente una caída en la eficiencia efectiva del sistema, en vez de una esperada mejoría.

Respecto del resultado concreto para los conflictos arrendaticios, el capítulo concluye que no ha habido mejoras significativas en su tasa de formalismo, a diferencia de lo observado para el sistema judicial civil en su conjunto.

7.3.2 ¿ESTÁ AUMENTANDO LA INEFICIENCIA JUDICIAL LA TASA DE VIVIENDA EN PROPIEDAD EN ESPAÑA?: UN ANÁLISIS A NIVEL PROVINCIAL

El capítulo quinto pretende cuantificar, mediante un modelo econométrico, el efecto concreto del mal funcionamiento del sistema judicial en las tasas de vivienda en propiedad en España. Para ello se construye un panel con indicadores de eficiencia del sistema judicial a la hora de resolver conflictos y ejecutar resoluciones judiciales para todas las provincias españolas en el período de 2001-2007 (concretamente se calculan tres tipos de medida: la tasa de resolución, la tasa de pendencia y la tasa de congestión para todos los casos).

En el modelo econométrico se aplican distintos controles que pueden hacer cambiar las decisiones de los propietarios de vivienda más allá de su relación con el sistema judicial, como puede ser el coste de uso de la vivienda, la densidad poblacional, la proporción de población joven en la provincia, la riqueza de los posibles arrendatarios o su restricción al crédito.

El capítulo concluye, tras aplicar numerosas pruebas de robustez (estimaciones bietápicas mediante el método generalizado de los momentos, *two-step* GMM), que un aumento de la ineficiencia judicial implica un impacto positivo y significativo en la tasa de vivienda en propiedad en España. En otras palabras, la mayor dificultad para que el arrendatario vea cumplido su contrato y ejecutada una sentencia hará que este opte por abandonar el mercado de alquiler. Tal efecto, sin embargo, es pequeño en comparación con otros muchos factores (como la renta), lo cual sería esperable.

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3. Ley 1/2000, de 7 de enero, de Enjuiciamiento Civil. Esta Ley entró en vigor el 8 de enero de 2001.

7.4 Conclusiones

Más allá de las conclusiones concretas de cada uno de los capítulos que componen este libro, es posible afirmar, de forma global, que las «instituciones» importan a la hora de analizar el funcionamiento de los mercados inmobiliarios español y europeo y que, por tanto, deberían ser abordadas en los distintos estudios que se vienen realizando sobre ellos. De hecho, es posible observar que el análisis del efecto de las instituciones analizadas en este libro se encuentra ya en el debate público. El Ministerio de Vivienda (2008 y 2009) ha denunciado que tanto la protección excesiva de los inquilinos como la lentitud de los juzgados a la hora de resolver conflictos por impago del alquiler podrían estar reduciendo el mercado de alquiler en España, y que, por tanto, sería necesario reformarlos. Finalmente, en noviembre de 2009 las Cortes Generales aprobaron una Ley[4] que aborda estos aspectos. Estas iniciativas estarían, por tanto, más allá de las medidas más clásicas de política económica usualmente aplicadas a este mercado, como pueden ser las reformas en la fiscalidad de la vivienda o la dotación de vivienda protegida para compra o alquiler.

4. Ley 19/2009, de 23 de noviembre, de medidas de fomento y agilización procesal del alquiler y de la eficiencia energética de los edificios.

8 Conclusiones e implicaciones de política económica

Este libro analiza el efecto de las instituciones en el funcionamiento de los mercados de vivienda en España y otros países europeos. Del estudio de la literatura económica es posible destacar que esta proporciona un análisis preciso y completo de muchos aspectos del funcionamiento de los mercados inmobiliarios; sin embargo, las teorías económicas tradicionales son insuficientes para explicar muchos otros aspectos que sí pueden ser analizados si se tiene en cuenta que tanto el mercado de alquiler como el de propiedad están afectados por un conjunto muy complejo de instituciones [North (1990)]. Aunque las «instituciones» son creaciones humanas orientadas a reducir los costes de información y de transacción en los mercados, es muy común encontrar instituciones con un diseño deficiente o que han quedado desfasadas con respecto a la situación actual de los mercados, incrementando de esta manera dichos costes. El capítulo 2 de este libro proporciona una reflexión general sobre esos puntos.

De forma concreta, la investigación realizada en este libro estudia el efecto de las normativas de alquiler en el funcionamiento del mercado de alquiler en España y otros países europeos (capítulo 3). Esas normativas serían un ejemplo de «instituciones formales», siguiendo la clasificación de North. Por otro lado, este libro también efectúa un análisis de los efectos de la ineficiencia de las llamadas «instituciones de ejecución» en el funcionamiento del mercado inmobiliario español. Concretamente, los capítulos 4 y 5 analizan los efectos económicos de la ineficiencia judicial a la hora de hacer cumplir los contratos entre arrendadores e inquilinos.

El capítulo 3 realiza, en primer lugar, un análisis de las regulaciones que afectan al mercado de alquiler tanto en España como en otros países europeos. La investigación concluye que todos los países europeos aprobaron normativas similares a lo largo del siglo XX y que estas evolucionaron de una forma similar desde una concepción liberal del mercado de alquiler a una más intervencionista. Del análisis de estas regulaciones es posible concluir también que no solo se introdujeron medidas de «control de rentas», relativamente frecuentes fuera de Europa aunque con algunas especificidades, sino que también se aprobaron otro tipo de normas dirigidas a proteger al inquilino frente a la expulsión por parte del arrendador por un plazo mínimo obligatorio (cinco años, en el caso de España).

Estas restricciones han sido estudiadas en el capítulo 3 mediante un modelo de información asimétrica del que es posible concluir que ambas medidas implican algunos efectos negativos para el funcionamiento del mercado de alquiler. Concretamente, si la tasa de crecimiento de las rentas del alquiler pagadas en el mercado es superior a la tasa de inflación general de la economía, los arrendadores sufrirán una paulatina pérdida de renta real (hasta llegar al final del plazo obligatorio impuesto por la Ley). Como resultado, los arrendadores elevarían la renta, expulsando del mercado a parte de los inquilinos.

El capítulo 4 proporciona una medida de «formalismo judicial» para el sistema judicial español. Esta medida se calcula tanto para los procesos civiles en su conjunto como para los procesos arrendaticios (que son un proceso civil especial según las Leyes de Enjuiciamiento Civil). De su análisis es posible concluir que el grado de formalismo judicial se ha reducido en España en las últimas décadas y que este nivel estaría significativamente por debajo del asignado por otros estudios a nivel internacional, como el de Djankov et ál. (2003). El grado de formalismo encontrado en este libro sería además más coherente con el nivel de renta per cápita de España en la actualidad. Sin embargo, del análisis de estas tasas de formalismo también es posible concluir que no ha habido mejoras en el caso de los procesos civiles arrendaticios.

La literatura apunta a que las reducciones en las tasas de formalismo son positivas para el sistema judicial en tanto que, en principio, implican mejoras en su eficiencia. Sin em-

bargo, el capítulo señala que las medidas directas de eficiencia del sistema judicial español (tales como la tasa de resolución, la tasa de pendencia o la tasa de congestión) empeoraron en los momentos en los que la tasa de formalismo mostró una mayor mejoría. Este resultado, a primera vista contraintuitivo, puede ser debido a que, al reducirse la tasa de formalismo, el sistema judicial español se volvió también más accesible para los ciudadanos y las empresas, atrayendo, por tanto, una mayor carga de trabajo a los tribunales, que no pudieron resolver eficientemente.

El capítulo 5 presenta algunas estimaciones del efecto de la ineficiencia judicial en la proporción de vivienda en propiedad (e indirectamente en alquiler) en las distintas provincias españolas. La eficiencia judicial es medida en dos etapas distintas del proceso: en la fase de declaración y en la de ejecución de la sentencia. El capítulo no encuentra un efecto significativo de la ineficiencia judicial en las tasas de propiedad cuando la eficiencia es medida en la fase del juicio de declaración; sin embargo, un incremento de la eficiencia judicial a la hora de ejecutar sentencias reduciría la tasa de propiedad en las provincias españolas (aunque en una cuantía menor, como, por otra parte, sería esperable).

Las conclusiones alcanzadas en los distintos capítulos de este libro apuntarían a que algunas reformas de las instituciones en España (y en Europa, en algún caso) podrían mejorar el funcionamiento del mercado de vivienda. Así, por un lado, la reducción en el plazo de protección de los inquilinos o una reforma a favor de la liberalización de las reglas de «control de rentas» podrían mejorar teóricamente el funcionamiento del mercado de alquiler e incrementar su peso en el total del mercado de vivienda.

Por otro lado, la investigación realizada señala que el grado de formalismo judicial en España se podría reducir aún más de distintas maneras (como, por ejemplo, reduciendo el número de procesos o partes de los procesos en los que es necesario tener representación de abogado o procurador). Sin embargo, los mismos resultados apuntan a que, sin un necesario incremento de los recursos del sistema judicial, las mejoras podrían no traducirse en incrementos efectivos de la eficiencia de los tribunales. Por último, el capítulo 5 señala que, en el caso de que se aprueben medidas orientadas a mejorar la eficiencia judicial o a aumentar los recursos del sistema, sería conveniente concentrar estos esfuerzos en los mecanismos de ejecución de las sentencias antes que en mejorar los juicios de declaración.

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