

Marital Property Regimes and Investments: Evidence from Spain

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Abstract

In this paper, I estimate the causal effects of the default marital property regime on marital investments and outcomes, utilising the regional variation in marital property systems in Spain and the 2005 divorce reform. I find that the separate property regime promotes female labour force participation, a family model of no more than two children, and lower marriage rate, while the community property regime encourages higher fertility and lower female labour supply. These results provide empirical support to property rights theory in that the ownership of physical assets matters for relationship-specific investments, and that joint ownership provides stronger incentives to make relationship-specific investments, while non-integration encourages general investments.

JEL codes: J12, J13, J22, K36

Keywords: marriage, marital property, fertility, female labour supply, property rights theory, marital dissolution

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1 Introduction

Marriage is a romantic and economic union. The nature of the economic union, to a large extent, is determined by the marital property regime. The marital property regime defines the ownership structure over marital assets, specifying which assets are exclusive property and which are jointly owned, and the division of jointly owned assets upon dissolution of the marriage.¹ The choice of the default marital property system is a central question in family law, with different systems of jurisprudence selecting different types of property regimes. In economics, the impact of the type of the marital property regime on marriage-specific investments and marital outcomes has not been studied, despite its relevance reflected in the long-standing interest jurists have held in it. In the Spanish law literature, for instance, debates on the merits and economic effects of various marital property systems date back at least to the nineteenth century (Alonso Martínez, 1884; Duran i Bas, 1883). Before discussing how to estimate the effect of the property regime on several marriage-related outcomes, it is worthwhile to review the main types of marital property regimes and the origins of the variation in default regimes.

There are two main types of marital property systems, depending on the degree of community of the couple's assets: separate and community property. The separate property regime dictates that each spouse remain the exclusive owner of the assets he or she has obtained and take them upon dissolution of the marriage, while under the community property regime most assets acquired during the marriage become jointly owned and are divided by some predetermined rule (usually by half) if the marriage ends. The two marital property regime types originate in different legal traditions. Separation of property is the statutory marital property system in Roman law, while the community property system was the default under Germanic customary law. In Western Europe, the transition from Roman to Germanic law that occurred in the Germanic successor states to the Western Roman Empire between the fifth and eight centuries² resulted in either the adoption of some form of community property as the sole default regime or the co-existence of the two regime types. This duality of the Roman and Germanic law has influenced the statute law of modern European and American

¹A marriage can be dissolved by the death of one of the spouses or divorce. If the dissolution is due to death, the division of marital assets occurs between the surviving spouse and the heirs of the deceased. In this paper, I focus on the case when dissolution is by divorce and omit the discussion of inheritance.

²Examples of codified law from this period that combine elements of Roman, Germanic and Catholic law include the Lex Salica (around 507-511), the Lex Ripuaria (around 630), the Visigothic Code also known as Liber Iudiciorum (654), the Lex Saxonum (782-803), and the Lex Frisionum (late eight-early ninth century).

countries; for example, the USA has both community property and separate property (common law) states, in Italy spouses are asked to choose between the two systems at the time of the marriage, and in Spain the property regime type varies by region. Spain is a particularly good example of the long-term coexistence of Roman and Germanic legal traditions. Catalonia and the Balearic Islands have had separate property as the default regime, adopted during the Roman Empire's rule, while other Spanish regions have used some form of community property, adopted during the Visigothic Kingdom in the seventh century (Visigothic Code, 654). The translation of the Visigothic Code to Castilian, the *Fuero Juzgo* (enacted in 1241), remained in effect until the creation of the Spanish Civil Code in the late nineteenth century (1889).³

The degree of community of marital assets affects both the incentives to make relationship-specific and general investments (which are more productive outside of the relationship), and the ease of exiting the relationship. The latter is determined by the general cost of divorce and the costs of liquidation. Since the separate property system does not generate joint assets holdings, it produces little to no liquidation costs; hence, it is expected that divorce and separation is easier, therefore more frequent under this property system. In contrast, under the community property system, liquidating the jointly owned assets is likely to be a lengthy and costly procedure. The incentives to invest in the relationship depend on the ownership structure, the type of investment, i.e. whether it is more productive within or outside of the relationship, and the complementarity between different types of investments.

The Grossman-Hart-Moore theory of property rights (Grossman and Hart, 1986; Hart, 1995; Hart and Moore, 1990) predicts that under contractual incompleteness⁴ the ownership of physical assets matters for relationship-specific investments. The intuition behind this result is that the ownership of an asset gives the owner control over production decisions, hence the distribution of ex post surplus, which shapes his incentives to make investments ex ante. The more assets one party owns, the more surplus he can extract from the relationship, therefore the higher his incentive to invest in it. Building on the Grossman-Hart-Moore results, Cai (2003) shows that if there

³The *Fuero Juzgo* is the first legal reference for the *sociedad de gananciales* (common acquisitions), the default regime of the central and southern Spanish regions. Some northern regions, namely Aragon, Navarre, and Vizcaya, obtained privileges and adopted other variants of the community property system between the twelfth and sixteenth centuries. The latest property regime adoption date is that of the *fuero del Baylío*, in the eighteenth century; however, this property system is not recognized as a default system in the Spanish Civil Code. For more details, see the Appendix.

⁴The incomplete contracts assumption is that investments and production decisions are sufficiently complex so that they cannot be specified in a contract ex ante. Assuming that the parties in the relationship can observe investment and production choices but they are non-verifiable to any third party also yields ex ante noncontractibility.

are two types of investments, relationship-specific and general (where general is more productive in the outside option), joint ownership is suboptimal if the investments are complements but it creates the strongest incentives to make specific investments if the investments are substitutes. Intuitively, joint ownership discourages general investments because each co-owner can easily appropriate the other's investment; if investments are substitutes, this implies that it encourages specific investments. In the marital setting, all assumptions needed for the Grossman-Hart-Moore results and for those of Cai (2003) hold. Contractual incompleteness and the increasing productivity of investment in the outside option with respect to ownership hardly need to be defended. Given that the main outcomes of interest in this paper are fertility and female labour supply, the assumption of relationship-specific and general investments being substitutes is also quite natural. It follows that the separate property regime provides stronger incentives for female labour force participation and weaker incentives for childcare and homemaking than the community property system. The lower level of specific investments imply that under separate property the value of marriage is likely lower, resulting in a lower marriage rate.

I estimate the causal effects of the marital property regime on female labour supply, fertility, marriage and divorce rate using regional variation in the legal default marital property system in Spain and the 2005 divorce reform. The Spanish setting is ideal to study the impact of marital property regimes. Spain is a plurilegislative country where regions have considerable autonomy. Regarding marriage, the provisions of the Spanish Civil Code are universally applicable across the country, with the exception of marital property regimes that are regulated by the local civil law, resulting in variation in the default. In Catalonia and the Balearic Islands, the default property regime is separate property, while in the other provinces of Spain it is community property. Otherwise marital legislation is uniform, including divorce laws. Divorce was legalized in 1981, and it underwent a major reform in 2005. The 1981 law obliged couples to obtain legal separation and spend at least one year separated before they were allowed to file for divorce. Altogether, it would take 1.5-5 years from the date of filing for separation to obtain divorce, not counting procedural delay and depending on whether it was bilateral or unilateral. In July 2005, two sweeping reforms of family law came into effect, the legalization of same-sex marriage and an extensive divorce reform.⁵ These reforms were largely unexpected, first, because the Socialist government that introduced them had obtained a surprise victory in the previous year, and second, because there had been little to no political discourse about either a marriage or a divorce reform during

⁵Legalization of same-sex marriage: Act 13/2005 of the 1st of July 2005. Modification of the Civil Code regarding separation and divorce: Act 15/2005, of the 8th of July 2005.

the preceding two terms when the conservative Popular Party (PP) governed. In 2004, the Socialist Party (PSOE) won the general elections, despite expectations set by pre-election polls that indicated a clear advantage of the incumbent Popular Party. Three days before the election the Madrid train bombings occurred, the deadliest terrorist attack ever carried out in Spain. Both the popular press and scientific papers suggested that the mishandling of this attack greatly contributed to the defeat of the Popular Party (Bali, 2007; Montalvo, 2011). As for the lack of political discourse on same-sex marriage and divorce, at the time the Popular Party had been in power for two consecutive terms (since 1996), and showed no intention to carry out major family law reforms. The introduction to the reform motivates it by referring to respecting one's will to no longer stay married, in line with the constitutional guarantee of free development of personality, and by reducing the personal costs that result from the double dissolution procedure, especially the damage caused to the parent-child relationship by a long divorce procedure.⁶ The motivation of reform does not claim to have a desired effect on any of the outcomes I consider in this paper; combined with its unexpectedness, this means that the 2005 reform can be viewed as an exogenous source of variation. The key element of the 2005 divorce reform was the elimination of mandatory separation before divorce, which lowered the costs of divorce in two ways. First, abolishing the double dissolution procedure made divorce easier for all couples, independent of the property regime they were married under. Second, it likely brought about a decrease in the liquidation cost by reducing the time that passes between the spouses' decision to divorce and finalizing the divorce and the related property division process. This second effect only applies to the community property system. Therefore, the 2005 divorce reform is considered as a shock to the community property regimes that made them more similar to the separate property system, through a substantial decrease in the cost of liquidation. The impact of this shock is what I identify and interpret the results as the causal effects of the marital property regime.

Using a difference-in-differences approach with the 2005 divorce reform as the policy change that demarcates the two time periods, separate property default regions (Catalonia and the Balearic Islands) as the control units, and community property default regions (all other regions of Spain) as the treated units, I show that the 2005 divorce reform increased female employment by 5-10%, increased female labour force participation by 4-12%, and decreased the share of home makers in the total working age population by 13-17% compared to the baseline (average across the default community property regions in 2004). Moreover, the reform caused a shift in the family structure towards a family model with fewer children, by increasing the first-born

⁶Act 15/2005, *Exposición de motivos*

fertility rate by 3% and the second-born fertility rate by 4-11%, and decreasing the third-born fertility rate by 8-18%. The marriage rate decreased following the reform, by 7-12% . The divorce rate seems to be unaffected by the reform, apart from a temporary decrease lasting a few years after the reform, which was likely an effect of both the pent-up demand for divorce and that while divorce became easier under community property as well, it was still less costly and faster to obtain (without a liquidation process) under the separate property regime. Although most of the discussion in this paper is about married couples, since cohabiting couples and those living in registered partnerships are naturally living under the separate property system, the results can be interpreted as relevant to them.

The economics literature on divorce laws focuses on the impact of the change from bilateral to unilateral and from fault to no-fault divorce on a wide range of outcomes, including divorce rate⁷, marriage rate⁸, fertility⁹, female labour supply¹⁰, domestic violence¹¹, investment in the spouse's education¹² and long-run implications for children exposed to unilateral divorce¹³. The effect of the marital property regime on marriage-related outcomes has been largely neglected. Bayot and Voena (2015) is a notable exception, presenting a model of household-specific investment which takes into account the marital property regime, using the Italian legislative framework where spouses are obliged to choose between common acquisitions and separation of property at the time of the marriage. Some of the differences between my paper and theirs originate in the distinct characteristics of Italian and Spanish family law. Italy has an affirmative choice system that is uniform across the country, while Spain has regional defaults with the possibility to opt out. In addition, a divorce reform occurred in Spain that allows for a differences-in-differences method to be used, while in Italy there has not been a similar policy change. Another paper that addresses the impact of property regimes is Brassiolo (2013). The author utilizes the same variation in default property regimes in Spain as I do, but he estimates the impact of a shock to the separate property system that resulted from two modifications of the Catalan Civil Code introducing and then refining the regulation of the compensation for domestic work¹⁴, on female labour supply and the divorce rate, and finds that the introduction of said compensation caused a

⁷Friedberg, 1997; González and Viitanen, 2009; Kneip and Bauer, 2009; Peters, 1986; Peters, 1992; Wolfers, 2006.

⁸Rasul, 2003; Rasul, 2006.

⁹Stevenson, 2007.

¹⁰Chiappori et al., 2002; Gray, 1998; Stevenson, 2007; Stevenson, 2008; Voena, 2015.

¹¹Brassiolo, 2016; Stevenson and Wolfers, 2006.

¹²Stevenson, 2007.

¹³González and Viitanen, 2018; Gruber, 2004.

¹⁴Act 8/1993 and Act 9/1998

decrease in female labour supply and a temporary increase in the divorce rate. Interpreting the introduction of compensation for domestic work as making the separate property system more like community property, by providing insurance to the financially weaker spouse using the assets of the wealthier spouse, the results of Brassiolo (2013) on female labour supply are in line with my findings that the community property regime provides less incentive to work in the labour market. Regarding divorce, the Catalan reforms entail a reduction in the general divorce cost without changing the liquidation cost component (which remains negligible under separate property), the effect of which cannot be identified using the 2005 reform, hence this result cannot be compared to mine. My conceptual approach is considerably different from both Bayot and Voena (2015) and Brassiolo (2013) where spouses behave collectively in each period, following Chiappori et al. (2002), while I derive the majority of the hypotheses relying on property rights theory, treating marriage as a relationship subject to contractual incompleteness in which spouses make investments non-cooperatively. The main contributions of my paper are to provide estimates of the causal effects of marital property systems on marital investments and outcomes and the conceptual innovation of using property rights theory in the context of marriage.

The paper is structured as follows. Section 2 describes the institutional background, Section 3 presents the model, Section 4 describes the empirical strategy and data, Section 5 reports the results, and Section 6 concludes.

2 Marriage and Divorce in Spain

Spain is a plurilegislative country where regions hold considerable autonomy; Aragon, the Balearic Islands, the Basque Country, Catalonia, Galicia, and Navarre even have their own civil law. The main legislative source is the Spanish Civil Code, while the regional civil law is codified in compilations of civil laws or, in case of Catalonia, the Civil Code of Catalonia (*Código Civil de Cataluña/Codi Civil de Catalunya*).

Regarding the applicability of the difference civil laws coexisting in Spain¹⁵, the Spanish Civil Code states that the provisions of its Preliminary Title and those of Title IV of Book I (on marriage) are universally applicable in Spain, with the exception of the provisions related to marital property systems. For the rest, fully respecting any regional law, the provisions of the Civil Code shall apply on a subsidiary basis.¹⁶

A person is subject to local civil law based on his or her civil citizenship. Civil citizenship is primarily acquired by birth, with the child holding the same civil citizen-

¹⁵*Código Civil de España* Preliminary Title, Chapter V

¹⁶*Código Civil de España* art. 13

ship as the parents.¹⁷ Marriage does not alter civil citizenship. Further, civil citizenship can be acquired based on residence and request: two years continued residence and the person requesting civil citizenship of the given region, or ten years continued residence, unless the person declares that he or she does not want the local civil citizenship.¹⁸

The rest of this section summarizes the legislation of marital property regimes in Spain and the divorce reforms of 1981 and 2005.

2.1 Marital Property Regimes

The marital property regime determines the ownership structure of the marital assets. The ownership structure describes which assets are considered as separate (exclusive) property of each spouse and which assets are jointly owned, and a sharing rule over the joint property in case the marriage is dissolved by death or divorce.

Marital property regimes are distinguished by the degree of community of assets (integration), that is, how much of the total assets of the spouses is jointly owned. There are two main types of marital property systems: separate and community property. Under separate property, assets remain exclusive property of the title holder, while under community property most assets obtained during the marriage become jointly owned. Community property has many variants that differ on exactly which assets become common and which are kept separate.¹⁹

The Spanish Civil Code and all local civil laws in Spain give priority to whatever property regime the couple agrees on in a marital contract (*capitulaciones matrimoniales*, see the Appendix for details). If the spouses do not sign a contract specifying a marital property system, they will be married under the local legal default which is regulated by the civil laws applicable in the given region.

There is large variation in default marital property systems in Spain, with six default regimes, as shown in Table 1 and Figure 1²⁰. In addition, there exist property

¹⁷If the parents have different civil citizenship upon birth or adoption of their child, then the child is given that parent's civil citizenship with respect to whom filiation is determined first; in absence of that, the civil citizenship of the place of birth, and lastly, the Common Law (*derecho común*) citizenship. Within six months of birth, either parent may attribute his or her own civil citizenship to the child, and the child is also free to choose between the parents' and the birthplace civil citizenship after his or her fourteenth birthday.

¹⁸*Código Civil de España* arts. 14-15.

¹⁹Generally speaking, they vary with respect to the default sharing rule over common assets as well, specifying equal or equitable division. Since in Spain all community property systems prescribe equal division, I do not emphasize this distinction.

²⁰The maps were created by me, on mapchart.net.

systems that the Spanish Civil Code and some local civil laws recognize as popular or traditional alternatives to the default system, resulting in an even greater variation (see the Appendix for details). In most regions, some form of the community property system is the default, while in Catalonia and the Balearic Islands the default is separation of property. Figure 1 illustrates this regional division.

In what follows, I summarize the relevant legislation separately for each jurisdiction of Spain: first the common law (*derecho común*), codified in the Spanish Civil Code, and then local civil laws. More details on the administrative division of Spain and on marital property systems can be found in the Appendix.

Type	Autonomous community	Province	Default marital property system
Community property	Andalusia	Almería, Cádiz, Córdoba,	<i>sociedad de gananciales</i>
		Granada, Huelva, Jaén,	
		Málaga, Sevilla, Huelva	
	Aragon	Huesca, Teruel, Zaragoza	<i>consorcio conyugal</i>
	Asturias	Asturias	<i>sociedad de gananciales</i>
	Canary Islands	Las Palmas, Santa Cruz de Tenerife	<i>sociedad de gananciales</i>
	Cantabria	Cantabria	<i>sociedad de gananciales</i>
	Castile and Leon	Ávila, Burgos, León,	<i>sociedad de gananciales</i>
		Palencia, Salamanca,	
		Segovia, Soria	
	Castile-La Mancha	Albacete, Ciudad Real,	<i>sociedad de gananciales</i>
		Cuenca, Guadalajara, Toledo	
	Extremadura	Badajoz*	<i>sociedad de gananciales, fuero del Baylio</i>
		Cáceres	<i>sociedad de gananciales</i>
	Galicia	A Coruña, Lugo, Ourense, Pontevedra	<i>sociedad de gananciales</i>
	Madrid	Madrid	<i>sociedad de gananciales</i>
Murcia	Murcia	<i>sociedad de gananciales</i>	
Navarre	Navarra	<i>sociedad conyugal de conquistas</i>	
Basque Country	Álava*, Guipúzcoa, Vizcaya*	<i>sociedad de gananciales, comunicación foral</i>	
La Rioja	La Rioja	<i>sociedad de gananciales</i>	
Ceuta	Ceuta	<i>fuero del Baylio</i>	
Melilla	Melilla	<i>sociedad de gananciales</i>	
	Valencia except 2008-2016	Alicante, Castellón, Valencia	<i>sociedad de gananciales</i>
Separate property	Balearic Islands	Illes Balears	<i>separación de bienes</i>
	Catalonia	Barcelona, Girona, Lleida, Tarragona	<i>separación de bienes</i>
	Valencia 2008-2016	Alicante, Castellón, Valencia	<i>separación de bienes</i>

* The default regime varies by municipality.

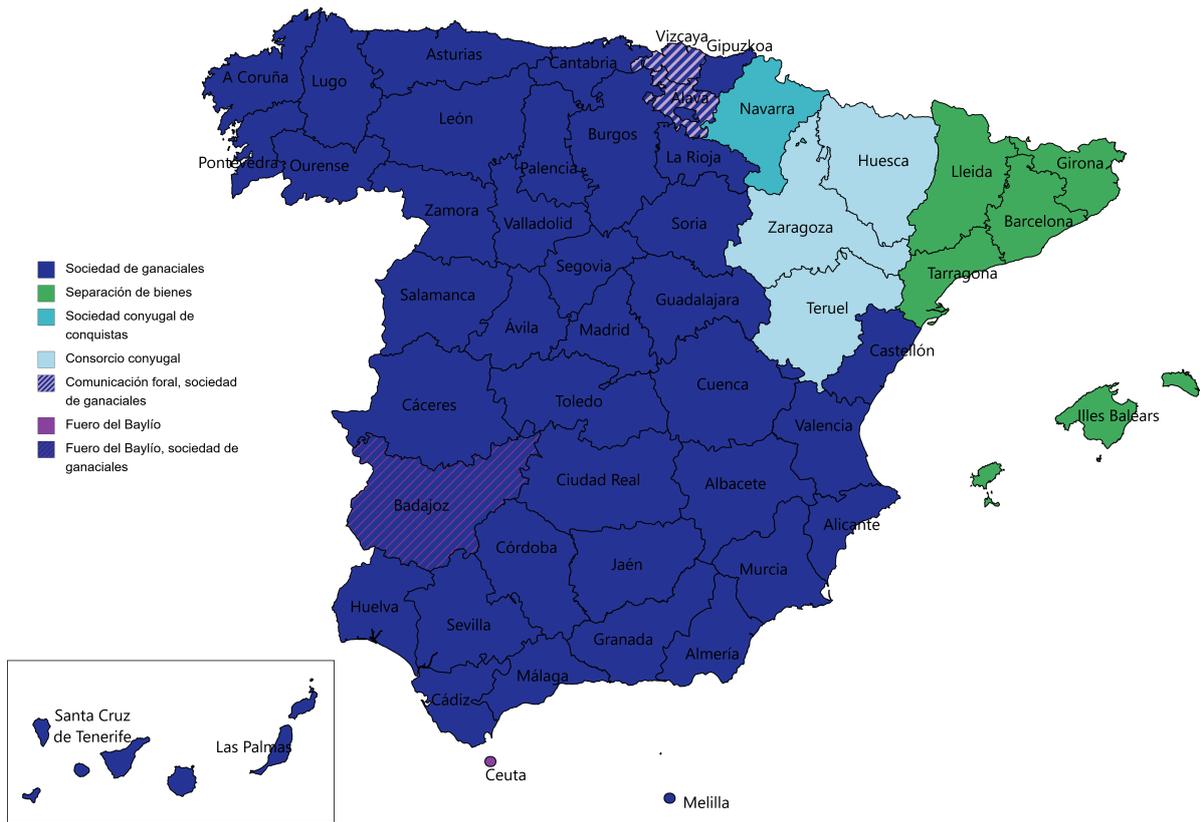
Table 1: Marital Property Regimes in Spain

Spanish Civil Code

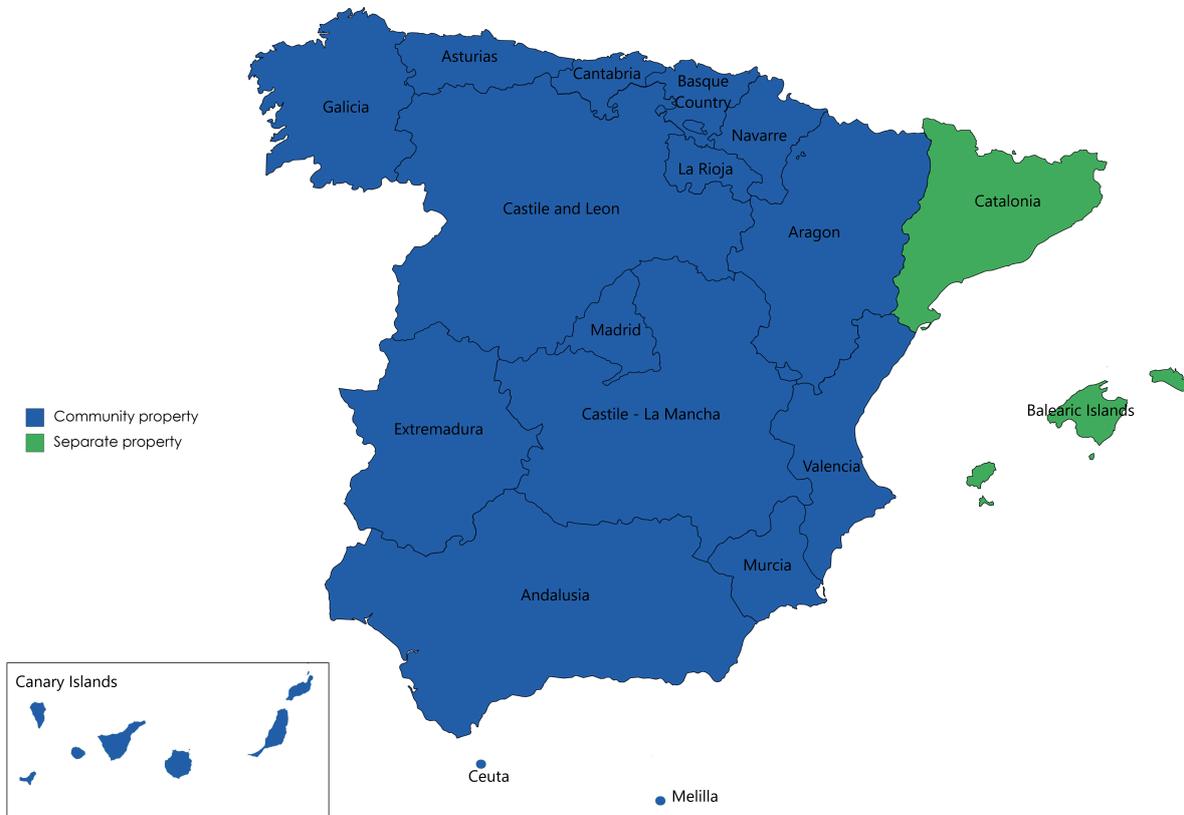
The Spanish Civil Code states that unless the spouses agree on a different marital property regime and sign the corresponding contract (*capitulaciones matrimoniales*), the marital property regime is *sociedad de gananciales*²¹ which is a system of community property, more precisely, common acquisitions. Common acquisitions is a property system whereby most goods acquired during the marriage fall under joint ownership, with each spouse holding an *undivided half-interest* in the jointly owned goods.

It is worth emphasizing both undivided and half-interest. It is not that each spouse owns 50% of each asset that is part of the community property. Instead, they jointly

²¹ *Código Civil de España* arts. 1315-1316



(a) Default regimes by province



(b) Regime type by region

Figure 1: Default Marital Property Regimes in Spain

own a pool of assets without having ownership of a specific share in any of these common assets. The translation to half-interest to an actual share in each asset only occurs when the marriage is dissolved, either by death of one of the spouses or by divorce. In the first case, the community property is divided between the surviving spouse and the heirs of the deceased; in the second case, between the spouses.

Most assets that are acquired during the marriage are common, including labour income and profits earned by either spouse, while inheritance, gifts, and assets that were bought prior to the marriage remain separate property.²² The expenses of the marriage, such as childcare costs and household maintenance costs, should be borne jointly, in proportion to the resources of each spouse. Domestic work counts as a contribution towards the costs of the marriage, and the spouse working significantly more at home²³ is entitled to a financial compensation if the marriage ends. The use of the family home and furniture should be arranged with the consent of both spouses, even if it is owned exclusively by one of them.

The regime of community property is terminated by marital dissolution (due to death or divorce), annulment, legal separation, judicial decree, or the spouses agreeing on a different marital regime in a marital contract.²⁴ Termination of the regime means that the assets the spouses acquire afterwards are their exclusive property, not gains of the matrimony.²⁵ Dividing the pool of common assets between the spouses, thereby realizing their share is the liquidation process. Liquidating the community property is a potentially lengthy and costly procedure.²⁶ The Civil Code states that after its termination the community property system should be liquidated but it does not set a deadline. While there are advantages of liquidating the community property regime as part the separation or divorce process - corresponding taxes can be lower and there are no costs of a separate judiciary procedure - the legislation allows couples to defer liquidation even until after divorce is finalized.

The Spanish Civil Code describes two more marital property regimes: participation in gains (*régimen de participación en las ganancias*) and separate property (*régimen de*

²²Personal property of no extraordinary value and goods needed for one's profession are also separate property.

²³Some regions grant this compensation only if the person did not work outside the home.

²⁴*Código Civil de España*, arts. 1392-93.

²⁵This interim regime is known as *comunidad post-ganancial* where the ownership status of the spouses is most similar to that of co-heir before the partition of the estate. Reference on partitioning an estate: *Código Civil de España*, arts. 1051-1072.

²⁶It starts with taking inventory of all the common assets and estimating their value, estimating the value of outstanding liabilities incurred by the spouses and paying outstanding debts, and finally the net assets of the community are divided by the spouses (or the respective heirs, if the marriage was dissolved by death). *Código Civil de España* arts. 1396-1410.

separación de bienes).²⁷ Participation in gains means that at the time of the termination of the regime, the initial net wealth, meaning wealth at the celebration of the marriage, and the final net wealth is calculated for each spouse, and the spouse for whom the gain is smaller receives half the difference in gains.²⁸ Participation in gains is not a default marital property regime anywhere in Spain.

Separate property is a marital property system in which the economic union of the spouses is very limited. The goods held by each spouse at the celebration of the marriage and all goods which one subsequently acquires pursuant to any title belongs to that spouse. Separate property applies if the spouses agreed upon it in a nuptial contract, or if they agreed on not having common acquisitions but did not agree on an alternative.²⁹

Regional Civil Law

In Aragon, the default property regime is the *consorcio conyugal* which is a community property system.³⁰ The differences between *consorcio conyugal* and common acquisitions are quite subtle, for example, the decision at the beginning of the marriage about which assets should become part of the community property and which should remain separate.

In Navarre, the default regime is *sociedad conyugal de conquistas* which is a community property system.³¹ In addition to *sociedad conyugal de conquistas*, the civil law of Navarre also recognizes universal community and separate property as marital property systems. Just like *consorcio conyugal*, *conquistas* is a property system similar to common acquisitions with slight differences; for example, the spouses have the right to add assets to the common pool even if it was purchased exclusively using one's private property and conversely, can grant private ownership to one spouse even if the asset was purchased using common funds.

In the Basque Country, the default regime is common acquisitions, except for couples who are from certain areas of Vizcaya and Álava province³², where the default regime is *régimen de comunicación foral de bienes*. This property system consists of universal community and common acquisitions, depending on the presence of common

²⁷ *Código Civil de España* Part III, Chapter V-VI

²⁸ *Código Civil de España* arts. 1411-1434

²⁹ *Código Civil de España* art. 1435

³⁰ *Código del Derecho Foral de Aragón* art 193, Book II, Chapter IV.

³¹ *Compilación del Derecho Civil Foral de Navarra*, Book I, Title VI

³² Vizcaya province except for the following municipalities: Villas de Balmaseda, Bermeo, Durango, Ermua, Guernica/Gernika-Lumo, Lanestosa, Lekeitio, Markina-Xemein, Ondarroa, Otxandio, Portugalete, Plentzia, Urduña/Orduña, Bilbao; and two municipalities in Álava province, Laudio/Llodio and Aramaio.

children and how the marriage ended. If the couple did not have common children, then no matter how the marriage dissolved, the regime is common acquisitions. If the marriage produced children and was ended by the death of one spouse, universal community applies. If the marriage was dissolved by annulment, separation or divorce, common acquisitions applies.³³

Galicia has its own civil law, but the marital property regime is regulated the same way as in common law jurisdiction, with common acquisitions as the default.³⁴

The *fuero del Baylío* (literally: privilege of the Baylío) is legislation applicable in about a dozen municipalities in the province of Badajoz, in Extremadura³⁵ and in the province of Ceuta.³⁶ The default marital property regime of the *fuero del Baylío* is universal community: once the marriage has been celebrated, everything owned by the spouses becomes community property.³⁷

In Catalonia, default marital property regimes are regulated by the Catalan Civil Code (*Código Civil de Cataluña/Codi civil de Catalunya*), and the default marital property regime is separation of property. Under the separate property system, all assets acquired before the marriage and during the marriage by one spouse remains the property of that spouse.³⁸ A spouse who has worked significantly more at home than the other is entitled to financial compensation in case of annulment, separation or divorce.³⁹ The Catalan Civil Code also recognizes common acquisitions⁴⁰, participation in gains⁴¹, the *asociación a compras y mejoras*⁴², the *agermanament*⁴³, and the *pacto de convivença*⁴⁴. The last three of which are community property system variants which are traditional in certain parts of Catalonia. See the Appendix for details. Over the last thirty years, Catalonia introduced several important modifications to the regulation of

³³*Derecho Civil Vasco* Title III

³⁴*Ley 2/2006, de 14 de junio, de derecho civil de Galicia* Book IX, Chapter I-II

³⁵Alburquerque, Alconchel, Atalaya, Burguillos del Cerro, Cheles, Fuentes de León, Higuera de Vargas, La Codosera, Jerez de los Caballeros (and because they fall into the same municipality, also in Brovales, La Bazana, Valuengo), Oliva de la Frontera, Olivenza (and surroundings San Benito, San Francisco de Olivenza, San Jorge, San Rafael, Santo Domingo), Táliga, Valencia de Mombuey, Valencia del Ventoso, Valverde de Burguillos, Valle de Matamoros, Valle de Santa Ana, Villanueva del Fresno, Zahínos.

³⁶Source: *Boletín Oficial de las Cortes Generales, Proposición de Ley, 17/10/1984*

³⁷The *fuero del Baylío* has not been codified yet, but it has been recognized in case law.

³⁸If an asset was bought, it belongs to the holder (by whom it was formally bought), even if it was paid for using the other spouse's funds, in which case donation is assumed.

³⁹*Código Civil de Cataluña*, Book II, Chapter II

⁴⁰*Código Civil de Cataluña*, arts. 232-30–232-38

⁴¹*Código Civil de Cataluña*, arts. 232-13–232-24

⁴²*Código Civil de Cataluña*, arts. 232-25–232-27

⁴³*Código Civil de Cataluña*, arts. 232-28

⁴⁴*Código Civil de Cataluña*, arts. 232-29

marital contracts and the consequences of marital dissolution through reforms of the Catalan Civil Code. Three main reforms, Act 8/1993, Act 9/1998, and Act 25/2010, occurred over the period which is considered in this paper. All three addressed compensation for domestic work, each introducing more extensive regulation. The 1998 reform also extended the regulation of the consequences of marital dissolution, separation and divorce agreements, alternative dispute resolution, and scope of marital contracts. The 2010 reform introduced several modifications to family law, including marital contracts, issues related to cohabiting with the children of one's partner such as the contribution to household expenses and adoption, and the consequences of divorce and separation such as alimony, the use of the family home, and custodial arrangements. In the analysis below, I control for these reforms since they might have had an effect on the outcomes of interest of this paper.

In the Balearic Islands, the default marital property system is separate property with subtle differences in each island.⁴⁵ The regulation of marital contracting follows that of the Spanish Civil Code.

Valencia has had community property (*gananciales*) as its default system throughout most of the period considered in this paper. However, in 2007 a law was passed in Valencia region (provinces Alicante, Castellón, Valencia)⁴⁶ entering into effect on April 25, 2008, that changed the default property regime from common acquisitions to separate property. The Constitutional Court ruled this measure unconstitutional on April 28, 2016, reinstating common acquisitions (*gananciales*) as the default property regime. Therefore, marriages celebrated in Valencia region between the 25th of April 2008 and 28th of April 2016 had separate property as the default regime; those celebrated before or after had common acquisitions. Since it cannot be ruled out that this legislative change occurred at least partly in response to the 2005 divorce reform, I omit Valencia from every specification estimated.

2.2 Divorce

Marital legislation in Spain underwent three main reforms since the restoration of democracy in 1976. Act 30/1981⁴⁷ legalized divorce, Act 13/2005⁴⁸ legalized same-sex marriage, and Act 15/2005⁴⁹ eliminated mandatory separation before divorce and fault in case of unilateral divorce among other measures that made divorce easier. The

⁴⁵*Compilación del Derecho Civil de Baleares* Mallorca and Menorca: Book I, Title I; Ibiza and Formentera: Book III, Title I, Chapter I-II.

⁴⁶*Ley de Régimen Económico Valenciano 10/2007*

⁴⁷July 7, 1981, entering into effect on August 9, 1981.

⁴⁸July 1, 2005.

⁴⁹July 8, 2005, entering into effect on July 10, 2005.

legalization of same-sex marriage did not imply any changes to the regulation of marital dissolution, hence it will not be discussed here in more details. The content of the two divorce reforms is summarized below.

Act 30/1981, introduced separation and divorce into Spanish family law. Before 1981, a marriage could only be dissolved by annulment, which was rarely granted, or by the death of one of the spouses.⁵⁰ According to the 1981 law, spouses could file for separation or divorce jointly or separately, after having been married at least for one year. Filing for divorce had to be preceded by a period of mandatory separation whose length depended on whether the spouses had filed for separation jointly or not and, in case of unilateral separation, if fault could be proven. Bilateral separation or divorce was the fastest to obtain, followed by unilateral where the demandant could prove fault on part of his or her spouse, and then unilateral without fault grounds. Obtaining a divorce by mutual agreement would take at least 1.5 years plus procedural delay, while obtaining a unilateral no-fault divorce would take at least 5 years plus procedural delay.^{51 52}

Act 15/2005 eliminated the mandatory separation period prior to divorce and fault grounds in case of unilateral divorce, reduced the required duration of marriage before being able to file for separation or divorce from one year to three months, introduced alternative dispute resolution instead of a court procedure for mutual agreement divorces⁵³, and substantially extended the the sections of the Civil Code addressing custody, visitation and other childcare provisions during and following divorce.

This reform made divorce easier in several ways, independent of the property system the couple was married under. By eliminating the need to prove fault in case of

⁵⁰More precisely, divorce was legal in Spain once before, during the Second Republic. Little is known about divorces during the Civil War; during the Francoist era divorce was again illegal.

⁵¹The spouses could file jointly for separation after six months of not having lived together. In case of unilateral separation, the claimant had to prove fault (abandonment, infidelity or violence) on part of his or her spouse. Without the consent of the other spouse and lacking fault grounds, three years of de facto separation was necessary to obtain legal separation. The legally acceptable reasons for divorce were the following. At least one year of no marital cohabitation since filing for separation in the bilateral case or since separation declared in the unilateral case. At least two years of no marital cohabitation since the start of de facto separation by mutual agreement or unilateral with fault proven. At least five years of no marital cohabitation if no fault can be proven and one wants to divorce unilaterally. Immediate divorce was granted only if one spouse was found guilty of attempted murder the other spouse or his/her ancestors or descendants.

⁵²*Código Civil de España* (1981), arts. 81-86.

⁵³Act 15/2015 of July 23, 2015 took this possibility to avoid the judiciary process one step further by allowing for divorce or separation to be administered by a public notary or court clerk, if it is by mutual agreement and the couple has no children who are minors or incapacitated. *Código Civil de España* arts. 82, 87.

unilateral divorce or separation, Spain moved to a pure no-fault divorce regime. Reducing the time required to pass between the celebration of marriage and filing for its dissolution and allowing to file directly for divorce lowers the emotional costs of remaining in a marriage which at least one spouse no longer wishes to continue with. The recognition of alternative dispute resolution and the extended regulation of custodial agreements decreases the length of the divorce procedure, likely decreasing emotional and financial costs related to it.

However, the elimination of mandatory separation has had another effect, beyond the decrease in psychological costs, on marriages under the community property regime. This effect originates in the need to liquidate the community property upon divorce. Not only is liquidation costly in terms of money, but the length of the procedure may result in a financial hardship for the economically weaker spouse, as the common gains of the couple no longer increase but the parties may have difficulties in withdrawing their share of the marital assets. Moreover, the spouse who does not wish to divorce might actively hold the other up in selling the marital assets and dividing the proceeds. This problem is much less likely to arise under the separate property regime, where the property system does not generate large holdings of common assets. The elimination of mandatory separation before divorce likely brought forward the liquidation process, substantially decreasing the risk of interim financial difficulties of the economically weaker spouse under the community property regime.

3 Model

The difference in incentives to wealth accumulation, investment in children, and in the efficiency of insuring the wife and the children's welfare after dissolution of the marriage that distinct marital property systems provide has long been a subject of interest of jurists. In Spain, the debate on the relative merits of the separate and the community property regime dates back to the late nineteenth century, when the first Spanish Civil Code was redacted and a legal default property system had to be selected. The writings of Alonso Martínez (1884) and Duran i Bas (1883) highlight the arguments in favour of and against having common acquisitions (*gananciales*) as the single default regime in Spain, and those for an exception to be made in Catalonia so as to keep the separate property system as the legal default. The late twentieth century brought several changes that reshaped the incentives of marital property systems, among them the legalization of divorce and the increased participation of women in education and in the labour market. Faced with the possibility of divorce, the incentives that marital property systems provide for women to work outside the home and to have children

largely depend on the probability of marital dissolution and the assets they receive if divorce occurs.

In what follows, I argue that the separate property regime provides stronger incentives for female labour force participation and weaker incentives for childcare and homemaking than the community property regime. This pattern is a result of four factors. First, marital investments and production choices are observable to the parties but non-verifiable to an outsider, which makes them *ex ante* non-contractible. Consequently, parties will make investment choices non-cooperatively and there is room for inefficiencies. Second, the marital property system determines which assets each spouse receives if they divorce. In other words, the ownership structure affects the outside options. Third, some investments spouses can make are worth more in the relationship, such as domestic work or childcare, and others are worth more outside of the relationship, such as labour force participation or education. Let us call the first type specific investment and the second type general investment. Fourth, general and relationship-specific investments are substitutes. The substitutability assumption is quite natural in a family setting, as spouses have to allocate their time between working outside the home and domestic tasks. Under these conditions, joint ownership (community property) provides the largest incentives of all ownership structures to make specific investments by discouraging general investments.⁵⁴ The intuition for this result is that since asset ownership affects this outside options in which general investment is productive, exclusive ownership of assets incentivizes general investment. General and specific investments are substitutes, therefore the more assets a party owns exclusively, the lower the incentive to make specific investments. Under joint ownership, every asset is co-owned, meaning that parties can appropriate each other's general investment, which lowers the incentive to make such investments and increases the incentive to make specific investments.

The marriage rate is likely to be lower under separate property. Due to the lower level of relationship-specific investment, the value of the relationship itself decreases, leading to a lower probability of entry.

Divorce and separation rates are likely to be higher under separation of property. The probability of divorce is influenced by the outside options and the cost of divorce. Under separation of property, spouses are likely to make more general investments which leads to better outside options. Furthermore, since co-owned asset holdings are non-existent or small, liquidation costs are likely to be negligible, making divorce and separation relatively less costly than under community property.

The rest of this section is divided into two subsections. Subsection 3.1 presents the

⁵⁴This is the main result of Cai (2003), derived in the more general context of an investment game.

formal model which treats marriage as a relationship where investments and production decisions are ex ante non-contractible and characterizes general and relationship-specific investments under non-integration and pure joint ownership. Subsection 3.2 discusses the assumptions of the model and the related findings from the family and labour economics literature.

3.1 A Property Rights Model of Marriage

The model builds on Cai (2003) who in turn builds on the Grossman-Hart-Moore property rights theory (Grossman and Hart, 1986; Hart, 1995; Hart and Moore, 1990) to include two types of investments, general and relationship-specific. The purpose of the alterations I have made to the model of Cai (2003) is to better capture the marital context, while most of his results remain applicable.

Two parties, 1 and 2 (indexed by i), are engaged in a relationship that lasts two periods. There are two assets, a_1 and a_2 whose ownership is determined at date 0. At date 1, the parties make investments that enhance their productivity in the second period.⁵⁵ At date 2, production takes place, and returns are realized.⁵⁶ Returns depend both on investments and the ownership of assets. Investments and production choices are observable to the parties ex post but not verifiable in court, which makes them ex ante non-contractible.

Let A be the set of all assets $A = \{a_1, a_2\}$. The ownership structure is a partition of A , denoted $\mathcal{A} = \{A_1, A_2, A_{12}\}$, $A_1 \subseteq A$ are the assets owned exclusively by 1, $A_2 \subseteq A$ are the assets owned exclusively by 2, and $A_{12} \subseteq A$ are the jointly owned assets. Joint ownership means that the assets have co-owners with equal rights: neither can be excluded from using the asset and both have veto power over the use or sale of the asset. I assume that the ownership structure is exogenous, specified by the legal default marital property system.

Two ownership structures will be considered, non-integration and joint ownership. Non-integration models separation of property, denoted \mathcal{A}^S , under which $A_1 = \{a_1\}$, $A_2 = \{a_2\}$, $A_{12} = \emptyset$. Joint ownership models the community property regime, denoted

⁵⁵In the marital setting, one can think of acquiring work experience or giving birth to a child as investment, and generating labour income or child quality as production.

⁵⁶For the sake of simplicity, and because I believe that in a marital context this type of renegotiation is less likely to occur, I do not discuss renegotiation of production choices at date 2, but it can be included in the model. Assume that renegotiation entails a transfer p from one party to the other, and that the parties split the increase in surplus resulting from renegotiation 50-50, as in Grossman and Hart (1986). The date 1 investment problem is then solved by the agents by maximizing the payoffs augmented by the renegotiation gains.

\mathcal{A}^C , under which $A_1 = A_2 = \emptyset$ and $A_{12} = \{a_1, a_2\}$.⁵⁷ The definition of joint ownership also has to include a default sharing rule in case the relationship is dissolved. Assume that there is a market for assets that values them by the function v . If the relationship brakes down, the market value of the jointly owned assets is divided so that 1 receives $\alpha v(A_{12})$ and 2 receives $(1 - \alpha)v(A_{12})$ where $\alpha \in (0, 1)$. Most community property systems stipulate equal division, so that $\alpha = 0.5$.

Following Grossman-Hart-Moore, assume that agents choose investments simultaneously and non-cooperatively at date 1. There are two types of investment, general and relationship-specific. The agents choose both the type and the level of the investments. General investments are more productive outside the relationship, while specific investments are productive in the relationship. Furthermore, assume that general and specific investments are substitutes. In the marital context, examples of general investment are labour force participation or education, which will continue to generate returns even after the marriage has ended, while specific investments are those that only generate value within the marriage, such as homemaking, or that generate more value within the marriage than outside of it, such as caring for the children of the couple. The substitutability assumption is quite natural in a family setting, as spouses have to allocate their time between working outside the home and domestic tasks.

Formally, let $l_i \geq 0$ denote i 's general investment and $e_i \geq 0$ i 's specific investment. $R_i(e_i)$ is the return on i 's relationship-specific investment, where R is positive, continuously differentiable, strictly increasing and strictly concave.⁵⁸ The outside option $O_i(l_i; \mathcal{A})$ depends on general investment and the ownership structure. O_i is non-negative, continuously differentiable, increasing and concave in l_i . Asset ownership is assumed to increase the marginal productivity of the general investment in the outside option. Formally, for all $l_i, i = 1, 2$,

$$O'_i(l_i; \{a_1, a_2\}) \geq O'_i(l_i; \{a_i\}) \geq O'_i(l_i; \emptyset) \quad (\text{A1})$$

Investments yield more in the relationship than on the market in marginal terms (relationship-specificity): for all $\mathcal{A}, i = 1, 2$

$$R'_i(\cdot) > O'_i(\cdot; \mathcal{A}_i). \quad (\text{A2})$$

⁵⁷This ownership structure is in fact universal community. Most community property systems allow for some assets to be kept separate and therefore would be described more precisely by a hybrid structure where only some assets are co-owned. In the interest of simplicity, and to better highlight the different investment incentives these two ownership structures provide, I do not include hybrid structures in the model. Pure joint ownership is a good approximation of all community property systems as long as the spouses are neither very wealthy prior to marriage, nor inherit large sums during the marriage (both would remain separate assets), as is likely the case for most of the population.

⁵⁸Notice that it is independent of the ownership structure, which is the usual assumption in property rights theory, based on the idea that while parties cooperate both have unrestricted access to all assets.

Investments costs are given by $C_i(l_i, e_i)$. Assume that C_i is non-negative, continuously differentiable, increasing, and convex in both arguments. General and specific investments are perfect substitutes⁵⁹

$$C_i(l_i, e_i) = C_i(l_i + e_i) \quad (\text{A3})$$

Now I add some elements to the outside option that are not present in Cai (2003) but are necessary to describe the divorce payoffs.

$$\tilde{O}_i(l_i; \mathcal{A}) = \begin{cases} O_i(l_i; \mathcal{A}) - d + \xi_i = O_i(l_i; \emptyset) + v(A_i) - d + \xi_i & \text{if } \mathcal{A} = \mathcal{A}^S \\ O_i(l_i; \mathcal{A}) - d + \xi_i = O_i(l_i; \emptyset) + 0.5(1 - \lambda)v(A_{12}) - d + \xi_i & \text{if } \mathcal{A} = \mathcal{A}^C \end{cases} \quad (1)$$

First, divorce has costs – independent of the property system – captured by $d > 0$. Second, community property has to be liquidated upon divorce, diminishing the value of the marital assets. Liquidation costs include the procedural costs and other legal fees associated with the liquidation process and the costs arising from the delay in receiving one’s share of the assets after divorce. This is modelled as liquidation eliminating $\lambda \in [0, 1)$ part of assets. Under the separate property system liquidation costs are likely to be much smaller than under community property, hence there $\lambda = 0$. Notice that this also implies that, if half the marital assets are about the same value as one’s separate holding, the relationship is less likely to break down under community because the outside options are less likely to bind. In other words, divorce (or separation) are more likely under separation of property. Finally, I add an individual-specific shock to the outside option, $\xi_i \sim N(0, \sigma_i)$, to ensure that the individual rationality constraints can always bind with some probability, ending the relationship. The distribution of the shock is common knowledge and its realization is observable to both parties after investments have been made and observed.

At date 2, agents make production decisions (whether or not to engage in joint production) and bargain over the net surplus. Assume that the ownership structure cannot be renegotiated at this point. Further, let the bargaining protocol be Nash bargaining⁶⁰ and assume that information is symmetric and that the parties have equal bargaining power; these imply that the parties will split the net surplus by half. Define the net surplus of the relationship as $S((e_i, l_i)_{i=1,2}; \mathcal{A}) = R_1(e_1) + R_2(e_2) - \tilde{O}_1(l_1, \mathcal{A}) - \tilde{O}_2(l_2, \mathcal{A})$.

⁵⁹Assumptions (A1) and (A2) are the standard Grossman-Hart-Moore ones. The investment substitutability assumption (A3), embodied in the cost functions, has been introduced in the extension by Cai (2003). Cai (2003) also uses a weaker version of (A2), stating the condition in levels, not in marginal terms.

⁶⁰Nash bargaining assumes that parties receive their outside options during the bargaining or in the event bargaining breaks down, the latter of which seems appropriate for the case of marriage.

The agents will continue with the relationship (remain married) if both participation constraints hold.⁶¹

$$R_i(e_i) \geq \tilde{O}_i(l_i, \mathcal{A}) \quad (P_i)$$

In other words, the marriage subsists if $S \geq 0$. In this case, each spouse receives their outside options and half of the net surplus of the relationship:

$$U_i^m = \tilde{O}_i(l_i, \mathcal{A}) + \frac{S}{2} \quad (2)$$

If both participation constraints bind or one binds but the net surplus is too small to allow for compensation of the party who wants to leave⁶², the relationship breaks down, and both parties receive their outside options.

First best Fix the ownership structure $\bar{\mathcal{A}}$. If investment levels are ex ante contractible, the optimal investment choice if the spouses remain married maximizes

$$R_1(e_1) + R_2(e_2) - C_1(e_1 + l_1) - C_2(e_2 + l_2) \quad (3)$$

leading to $l_1^{m,*} = l_2^{m,*} = 0$. Assuming that the solutions are interior, $e_i^{m,*}$ $i = 1, 2$ solves

$$R'_i(e_i) = C'_i(e_i + l_i) \quad (4)$$

In case of divorce, $l_1^{d,*}, l_2^{d,*}, e_1^{d,*}, e_2^{d,*}$ maximize the expected net outside option payoff

$$E \left[\tilde{O}_1(l_1, \bar{\mathcal{A}}) + \tilde{O}_2(l_2, \bar{\mathcal{A}}) - C_1(e_1 + l_1) - C_2(e_2 + l_2) \right] \quad (5)$$

yielding $e_1^{d,*} = e_2^{d,*} = 0$ and $l_i^{d,*}$ solving

$$O'_i(l_i, \bar{\mathcal{A}}) = C'_i(e_i + l_i) \quad (6)$$

$l_1^{m,*}, l_2^{m,*}, e_1^{m,*}, e_2^{m,*}, l_1^{d,*}, l_2^{d,*}, e_1^{d,*}, e_2^{d,*}$ are the first best investment levels.

Equilibria under contractual incompleteness Returning to the case when investment and production is ex ante non-contractible, if the net surplus of the relationship is positive, then the parties maintain it, maximizing their respective payoff as in (2) net of investment cost $C_i(e_i, l_i)$. Focusing on equilibria in pure strategies and interior solutions, the optimal investment levels $(\hat{l}_i^m, \hat{e}_i^m)$ satisfy the first order conditions

$$\frac{1}{2}R'_i(e_i) = C'_i(e_i + l_i) = \frac{1}{2}O'_i(l_i, \bar{\mathcal{A}}) \quad (7)$$

⁶¹Recall that the realization of the outside option shock is observable before date 2 choices, so that agents can observe whether participation constraints hold before bargaining over the net surplus.

⁶²In this sense, the setup allows for both bilateral and unilateral divorce.

If the relationship is dissolved, parties simply receive their outside options. The optimal investment levels maximize the expected outside option payoffs, leading to $\hat{e}_i^d = \hat{e}_i^d = 0$ and $(\hat{l}_i^d, \hat{l}_i^d)$ that solve

$$O'_i(l_i, \bar{A}) = C'_i(l_i) \quad (8)$$

Due to the stochastic term in the outside options, they can be binding under any parameter values, therefore both staying married and getting divorced are equilibria of the game with the associated investments.

Comparing (7) with (4) and using the assumptions made on the payoff and cost functions, it can be seen that there is underinvestment relative to the first best case. Moreover, (7) and assumptions (A1), (A2) imply that the general investment l_i increases with the asset holding A_i which, in turn, leads to lower specific investment e_i by the substitutability assumption (A3). The intuition is that since higher asset ownership increases the marginal product of the general investment, the agent will increase that, while substituting away from the relationship-specific investment.⁶³

This means that under community property (joint ownership), there will be more relationship-specific investment and less general investment than under separate property (non-integration).⁶⁴ Still, even under joint ownership, specific investments remain below the first best, because through ex post surplus sharing one party can always appropriate part of the returns generated by the investment of the other.

In this model, a divorce reform like the 2005 in Spain amounts to a reduction in the divorce cost d and a reduction in the liquidation cost λ . This has two implications. First, a reduction in d makes the outside option more likely to bind under both regimes, implying higher divorce rate post-reform, although the resulting increase should not be different across regimes. Second, as $\lambda \rightarrow 0$ and $v(a_i) \approx 0.5v(a_1, a_2)$ for $i = 1, 2$, the latter meaning that the value of assets a_1 and a_2 are not very different and there are no significant benefits to selling the assets together, the outside options under the two property systems become alike; a reduction in the liquidation cost λ makes community property more like separate property. The difference in payoffs, hence in the incentives to invest, between the two regimes originate from the different outside options. When they become more similar, one expects to see a convergence in the investment choices under the two regimes. While this model, and property rights theory in general, does not discuss how the parties form the relationship in the first place, lower relationship-specific investment likely affects the perceived value of the relationship, thereby entry

⁶³In the standard Grossman-Hart-Moore model, where investments are perfect complements, more assets lead to an increase in all type of investments.

⁶⁴Cai (2003) shows that joint ownership provides the highest incentives for specific investments among all ownership structures including type 1-, type 2- integration and outsider ownership.

rates into the relationship.

3.2 Discussion

The key assumptions of the model above are the standard Grossman-Hart-Moore ones and that general and relationship-specific investments are substitutes.

Grossman and Hart (1986) motivate the contractual incompleteness assumption, i.e. that investments and production decisions cannot be specified in a contract at the beginning of the relationship, saying that it may be prohibitively difficult to think about and unambiguously describe these choices as a function of many states of the world. This applies quite well to marriage. In addition, as mentioned before, many investment and production choices within marriage may be observable by the spouses but not verifiable by a third party. Take parenting, for example. The spouses know very well who spends more time with the children and what are their respective parenting skills but to an outsider this can be extremely difficult to verify. The assumption that asset ownership affects outside options is similarly intuitive in a marital setting.

Regarding substitutability, not only is it an intuitively appealing, there is ample evidence from the labour economics literature that supports it. Several studies have shown that after the birth of a child women fall behind men in their earnings (e.g. Adda et al. (2017), Fernández-Kranz et al. (2013), Goldin et al. (2017), Kleven, Landais, Posch, et al. (2019), and Kleven, Landais, and Søgaaard (2019)). An even more striking finding is that their earnings never recover, not even decades after returning to work (Kleven, Landais, and Søgaaard (2019)). The results of Adda et al. (2017) also indicate that women foresee this trade-off, adjusting labour force participation and occupational choices depending on their intended fertility.

Turning to marriage, separation and divorce, a key factor is the cost of divorce. In the labour and family economics literature, the effect of a reduction in the cost of divorce is studied in two settings, unilateral versus bilateral and fault versus no-fault divorce, and the evidence is mixed. Some document a rise in divorces following the move from mutual agreement to unilateral or from fault to no-fault divorce (e.g. Allen (1992), Friedberg (1997), González and Viitanen (2009), Gruber (2004), and Kneip and Bauer (2009)), while others find no evidence of an increase (e.g. Peters (1986), Peters (1992), and Wolfers (2006)). The impact of separation requirements on the divorce rate is a less explored topic in the literature; an exception is Zhylyevskyy (2012), who finds that eliminating mandatory separation increases the divorce rate by 4 %. The evidence is also inconsistent on the impact on marriage rates (e.g. Alesina and Giuliano (2007) and Rasul (2003)). However, moving from unilateral to bilateral and from fault to no-fault divorce generates a reduction in the cost of divorce independent of the

marital property system. In contrast, liquidation costs are very different under separate and community property, and mandatory separation before divorce likely also implies different costs depending on the property system, as explained in the previous section.

Due to the absence of community property liquidation costs, in the broadest sense, divorce and separation are easier under the separate property system, hence they should be more frequent. Figures 6 and 7 show that prior to the 2005 reform, this was indeed the case. A reform that decreases the general divorce cost (d in the model) likely generates an increase in divorce rates for all property regimes, while a decrease in the liquidation cost might generate an additional increase in divorce and separation rates in the community property regime as it raises the outside option, increasing the probability that the participation constraint binds. An important point related to separations is that for couples who want to divorce, separation in itself is not a valuable option; it matters only to the extent that it affects the cost of divorce. Once separation is no longer mandatory, its incidence is expected to fall. Figure 7 indicates that in Spain this is indeed what happened: separation rates fell to almost zero after 2005. Individuals who are against divorce, for example, on religious grounds, might opt for a canonical annulment or separation without ever filing for divorce, but the data show that they must be a small minority in Spain.

The next section discusses how to identify the effects of marital property regimes on investments, marriage, divorce and separation.

4 Empirical Strategy and Data

The causal effects of marital property regimes on marital investments and outcomes are identified using the variation that results from the various regional default property regimes in Spain and from the 2005 divorce reform. The estimation method is difference-in-differences with the 2005 divorce reform as the policy change that demarcates the two time periods, regions where the default is separate property as the control units (Catalonia and the Balearic Islands), and community property default regions (all other regions of Spain) as the treated units.⁶⁵ As discussed in the Introduction, the 2005 divorce reform can be viewed as an exogenous source of variation because it was unexpected and it did not target any of the outcomes of interest. It is regarded as a shock to the community property systems that made them more similar to separation of property, and the estimated coefficients are interpreted as the effect of the property regime.

⁶⁵In the analysis using survey data individuals are assigned to treated or control based on their region of residence at the time when the data was recorded.

The models estimated are of the form

$$\text{Outcome}_{a,t} = \beta_0 + \sum_{k=1}^{14} \beta_k \times \text{year } k \text{ after 2005 reform}_t \times \text{Community property default}_a + \gamma \text{Community property default}_a + X_{a,t}\eta + \sum_t \delta_t \text{Year}_t + \sum_a \lambda_a \text{Area}_a + \nu_{a,t} \quad (9)$$

where a indexes area, which can be region or province, and t indexes time (year).

The outcomes considered belong to one of four groups: female labour supply, fertility, marriage, and marital dissolution. The following paragraphs provide the definition of the dependent variables and discuss the observed trends across property system default regions from 1981 to 2018.

Female labour supply is measured by female employment rate, female labour force participation rate, and home makers' share in total working age population. Female employment and female labour force participation rate follow the standard definitions.⁶⁶ Home makers' share in total working age population is defined as the number of inactives who are engaged in domestic production divided by the population aged 16 years or older. This variable is not available by gender on province level; however, the national level gender decomposition suggests that home makers are almost exclusively women. Figure 3 shows the trends of these variables by default property regime region, excluding Valencia⁶⁷, and the decomposition by sex for homemakers. In line with the reasoning in Section 3, both female employment rate and female labour force participation rate have always been higher for the separate property default region than for community property default, while the share of home makers has always been lower. A slight decrease in the gap between the default regions can be observed for labour force participation and homemakers' share following 2005.

Fertility is measured by the global fertility rate and a family composition variable called "percent born by order of birth". The global fertility rate is defined as the number of children born in the given province and year per 1,000 (resident) women aged 15-49.⁶⁸ Fertility rates by order of birth are defined similarly: the number of first born, second born, third born, and fourth or later born children, respectively, per 1,000 women aged 15-49. percent born by order of birth is the ratio of fertility rate by order of birth and the global fertility rate, multiplied by 100 in order to report it as percentage. I believe that this is a better measure of family composition (with respect to children), than crude fertility rates by order of birth. Figure 4 shows percent born by order of

⁶⁶Note, however, that INE defines the total working age population as population aged 16 and older, not as population aged 15-64 as often seen in other data sources.

⁶⁷Hereafter all such graphs show date excluding Valencia region.

⁶⁸This is the standard definition used by INE.

birth and global fertility rate by default region. On the left panel, the dashed lines correspond to separate property default, the solid lines to community property default. Order of birth is colour-coded, with two shades each: blue is first born, orange is second born, green is third born and purple is fourth and later born. Throughout this period, families have been more likely to have fewer children in the separate property default region, indicated by a larger share of first borns among all newborns and a lower share of children of higher order of birth. The second panel of the figure, showing the evolution of global fertility rate, also indicates some convergence between the trends in different default regions following the reform.

The marriage rate is defined as the number of marriages per 1,000 persons in the given province and year. In Spain, the number of marriages are recorded both by place of celebration and place of residence. Marriage rate by marriageable is defined as the number of marriages per 1,000 18-50 years old persons, which I believe to be a better measure than the crude marriage rate, given that marriages are illegal among the very young and infrequent among the elderly. Setting marriageable age as 18-50 years old was based on the marriage census data, which indicates that the bulk of the population marries between age 18 and 50, with women marrying somewhat younger than men. See Figure 2. Figure 5 shows the marriage rates by marriageable (per 1,000 marriageable aged persons) by place of residence and celebration. Since the early 80s, the marriage rate has declined, from about 5.5 marriages per 1,000 persons per year to 3.5, with the marriage rate in community property default region exceeding that of the separate property region for most years. The corresponding rate by 1,000 marriageable decreased from about 12 to 7-8 by the 2010s. There difference between the series by place of celebration and by place of residence seems to be minimal.

The crude divorce rate is defined as the number of divorces per 1,000 persons in the given year and region. Divorce rate by marriageable is the number of divorces per 1,000 marriageable (aged 18-50) persons. Mutual agreement and contested divorce rates are derived from the decomposition of the total number of divorces. Separation rates are defined analogously. Divorce rate by type (total, mutual agreement, contested) are shown in Figure 6 for the period 1989-2018. Divorce rates have been rising since 1989, with a sharp increase from 2004 to 2006, stabilizing at a higher level than before the reform. For total and mutual agreement divorces, the corresponding rates have always been higher in the default separate property region than in the community property region. Mutual agreement divorces seem to have continued to increase after the peak around 2005. The contested divorce rate shows a different pattern, with the separate property default region having a higher rate until 2005, and an essentially identical trend afterwards. Separation rate by type is depicted in Figure 7. The total

separation rate fell to almost zero between 2004 and 2006, suggesting a strong effect of the 2005 reform. Since then, trends across different default marital property system regions are almost identical. Contested separations follow a somewhat different pattern, where the gap between the trends belonging to the two default regime regions started to decrease in the late 90s and was almost gone by 2004.

The following controls are used for the province and region level specifications, denoted by $X_{a,t}$.⁶⁹ Local civil law indicators for all property systems other than common acquisitions and separate property, described in the section on regional civil law (*fuero del Baylío, asociación a compras y mejoras*, etc.), capture the subtle difference between community property regime variants. Indicators for the three reforms of the Catalan Civil Code (1993, 1998, 2010) are included to control for the change in Catalan outcomes that might have resulted from changes in family law other than the 2005 reform. Age profiles by gender, defined as the resident population of the province segmented into age groups of 5 years normalized by the total population of the region, control for the potentially different population composition of different areas.⁷⁰ The share of students aged 16 years or older in the total working age population, defined as the number of inactives who are students divided by the total working age population, is used because participation in higher education delays both the entry to the labour force and childbearing. GDP share, defined as the GDP of the given province in the given year divided by the national GDP of that year, is used as a proxy for the relative wealth of the territory. As a robustness check, I also used the GDP share multiplied by the population share of the given territory ($GDP_{a,t} / \sum_a GDP_{a,t} \times Population_{a,t} / \sum_a Population_{a,t}$) to disentangle populousness and productivity, and found that the estimations were remarkably robust to this change.⁷¹ Unemployment rate by gender is included among the controls when the outcome is marriage, divorce or separation rate. The idea behind the addition of this covariate is that individuals of both sexes have better options in the marriage (or remarriage) market if they are employed or have higher income. For female labour supply and fertility choices, controlling for unemployment would confound the results; hence, for these outcomes on the share of students in the working age population is used as a labour market control. Five lags of the separation rate are added when the outcome is divorce rate, because prior to 2005, separation had to pre-

⁶⁹There is a slight abuse of notation, as not all controls are area- and time-varying; some only vary by area, some only by time, and some by both.

⁷⁰0-4 years old females/total female population,..., 80-84 year old females/total female population, 85+ year old females/total female population; and the same for males.

⁷¹Perhaps unsurprisingly, as the correlation coefficient between the two factors, GDP share and population share is 0.98 on province level for the period 1981-2018. Estimation results are available by request.

cede divorce. The maximum number of lags was set to be five years, as it used to be the longest period of mandatory separation prescribed by law.

The first post-reform year is taken to be 2005. The reference year is 2004; therefore all coefficients of the type *year k after reform* \times *community property default* express a change compared to the 2004 value of the outcome at hand. Standard errors are clustered at the appropriate level of aggregation, province or region. Since Valencia region, with its three provinces, is excluded from all analysis, there are 49 provinces and 18 regions.⁷²

The main identifying assumption of differences-in-differences is parallel counterfactual trends across treated and control units. Parallel trends before the policy change are viewed as evidence supporting this assumption. For this purpose, I present regression results using leads of the treatment variable and the set of controls described above in the Appendix, along with coefficient plots. If parallel trends do not seem to hold since 1981, I cut the sample at the year which is preceded by at least two consecutive significant coefficients. The estimates reported in Section 5 were obtained using the samples restricted after the parallel pre-trends checks.

I would like to emphasize that the effect I estimate is only the *default* effect. The property system actually chosen by a couple can differ from the regional default. Still, the default matters because it probably has a strong influence on the individual property regime choice. First, many people might not change from the default simply because the opt-out is costly⁷³, or due to status quo bias⁷⁴. Second, to the extent that the choice of the default expresses local norms and customs, people might prefer it because it is the culturally most acceptable option to them.

Data

Most of the data used in this paper were collected and published by the Spanish Statistical Office (*Instituto Nacional de Estadística*, hereafter INE): the number of marriages, annulments, divorces and separations, population by age and gender, labour market statistics, GDP by province, fertility statistics, and data from two surveys, the Fertility Survey of 1999 and of 2018. In addition to these data, I use annulment, separation and divorce statistics for the period 1989-1996 published by the General Council of the Judiciary (*Consejo General del Poder Judicial*, hereafter CGPJ) and the number of all marriage-

⁷²Occasionally, data for Ceuta and Melilla is missing, which is why the total number of observations is sometimes less than the number of provinces times the number of years.

⁷³Notary fees are regulated, so it is not very costly in monetary terms: a marital contract costs about 30-70 euros, which is quite affordable by Spanish standards.

⁷⁴See the seminal paper of Zeckhauser and Samuelson (1988). Keller et al. (2011) cite many examples.

related contracts for 1976-2016 published by the Directorate General of Registries and Notaries (*Dirección General de los Registros y del Notariado*, hereafter DGRN). These data, by the CGPJ and the DGRN, are only available in printed sources and were digitized by me. I never use data from before 1981, because marital investment behaviour was likely different when divorce was still illegal. Further details on the data are relegated to the Appendix. Summary statistics are also reported in the Appendix.

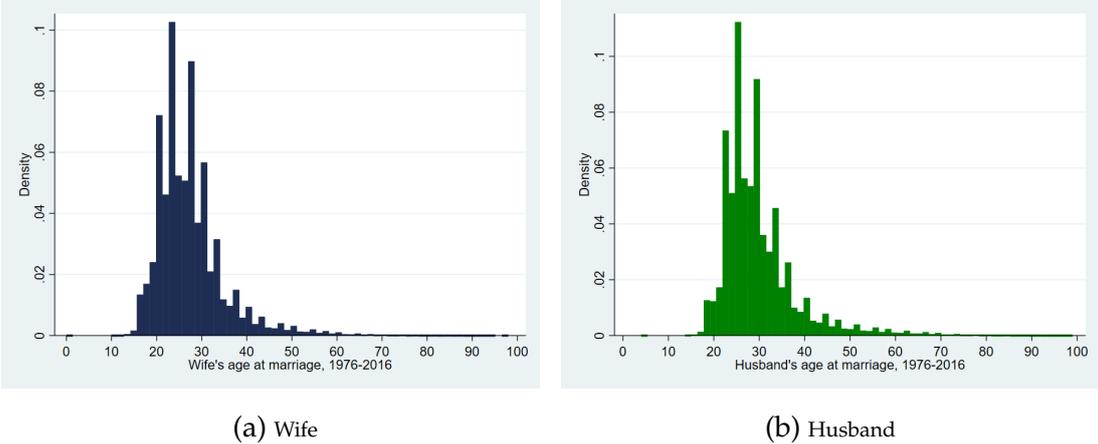


Figure 2: Age at Marriage (Source: Boletín Estadístico de Matrimonio, INE)

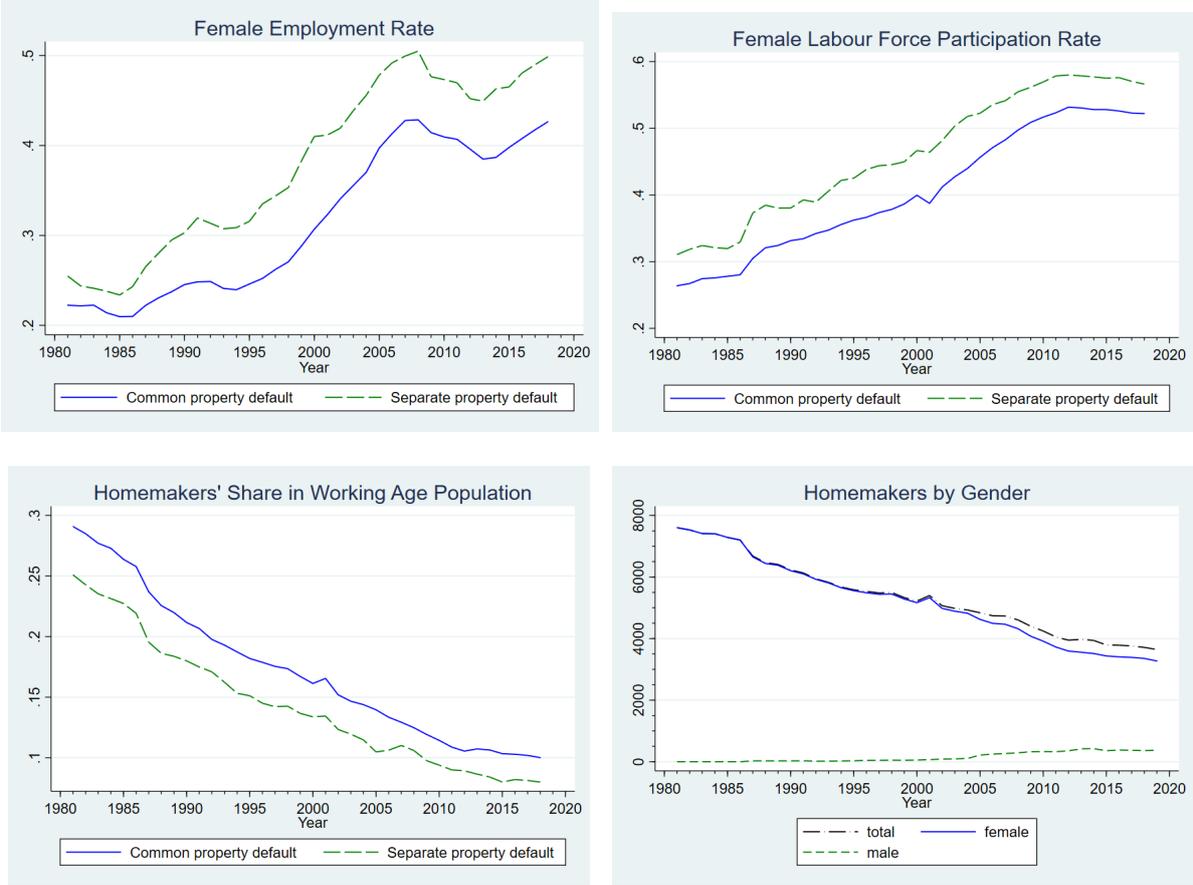


Figure 3: Trends, Female Labour Supply

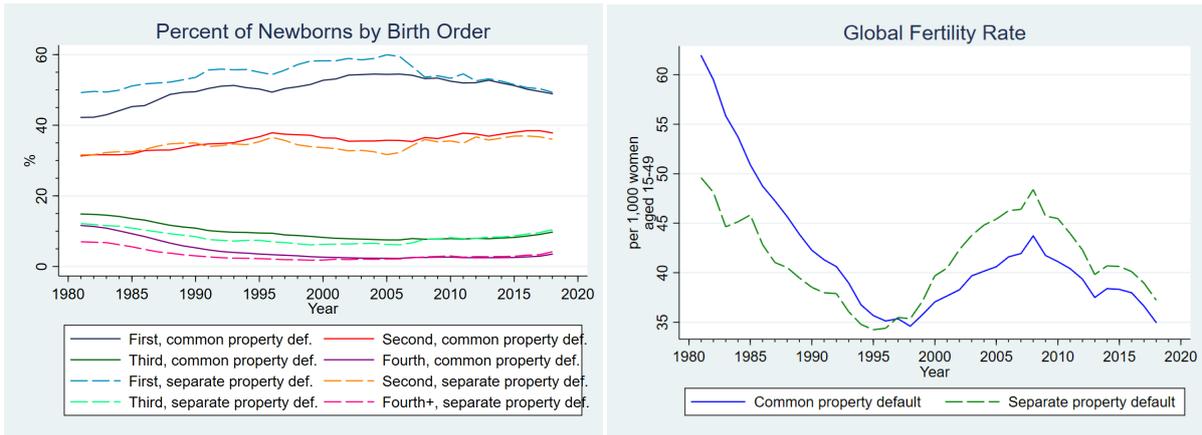


Figure 4: Trends, Fertility

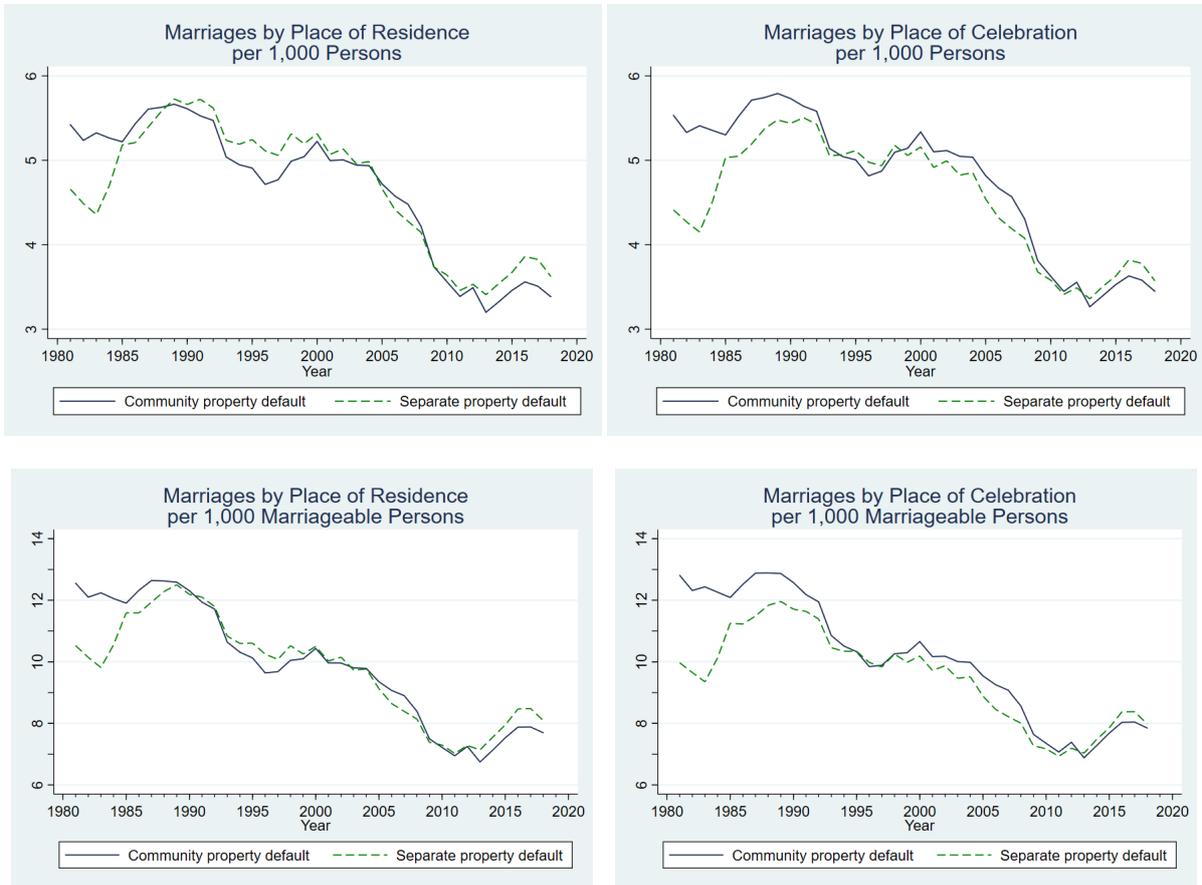


Figure 5: Trends, Marriage Rate

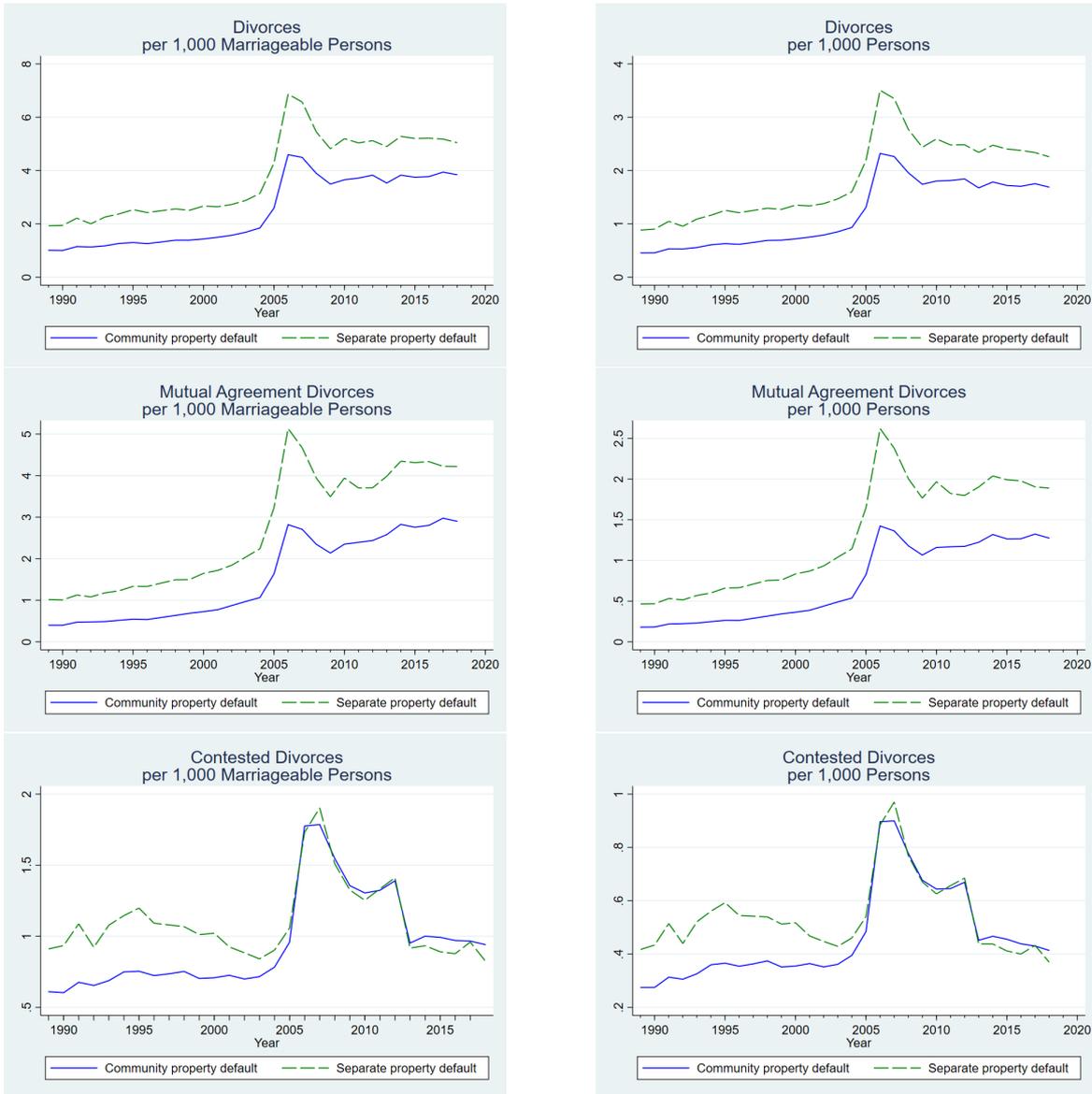


Figure 6: Trends, Divorce Rate by Type

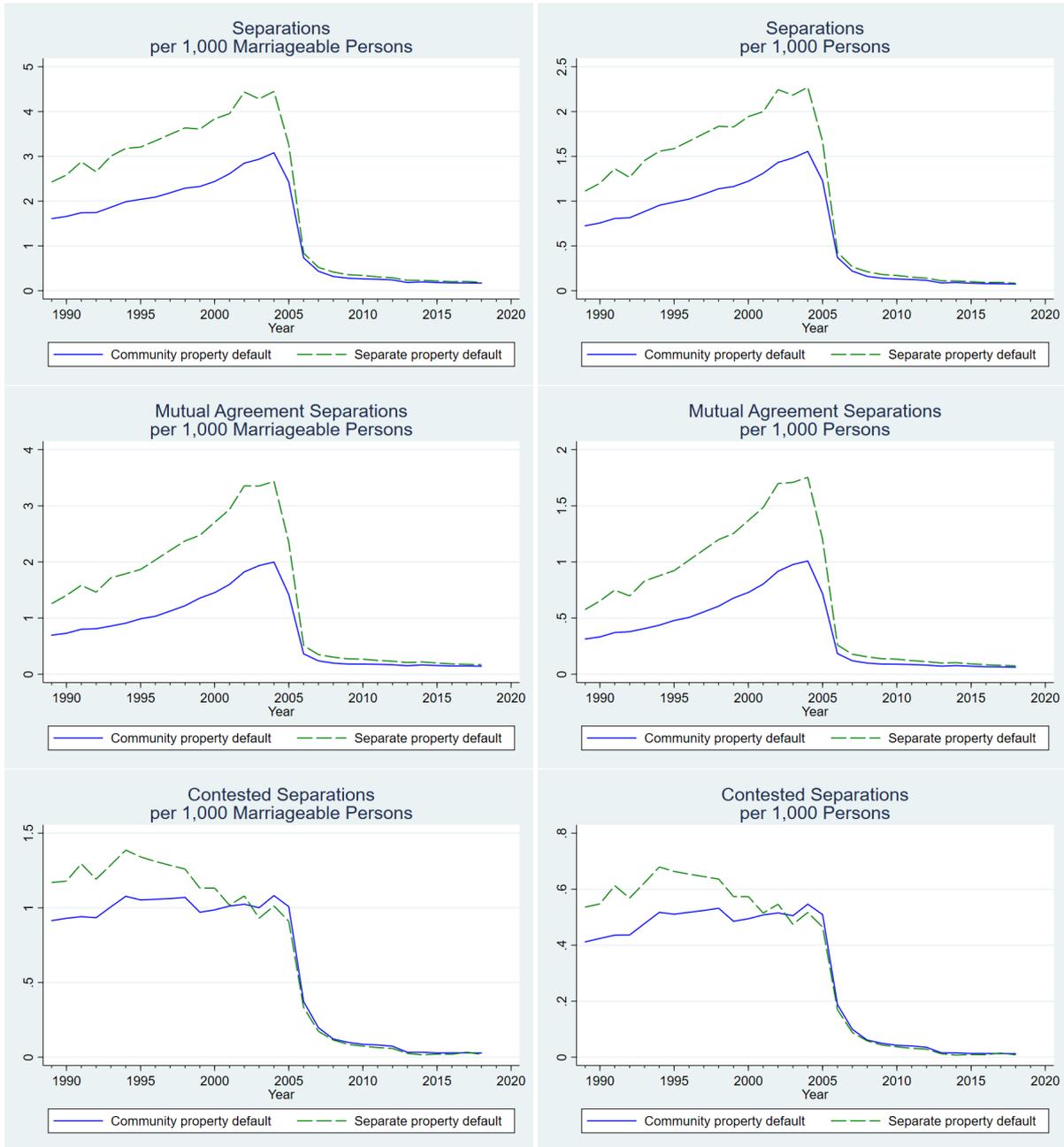


Figure 7: Trends, Separation Rate by Type

5 Results

In this section, I report estimation results using province and region level data and a full set of controls, including province or region and year fixed effects, indicators of local civil law and reforms of the Catalan Civil code, labour market controls and the ratio of the GDP of the territory to national GDP. These results are interpreted in Subsection 5.1 as percentage changes over the average of the given variable in the community default region in 2004 (see Table 2). Subsection 5.2 describes various robustness checks,

including an individual-level analysis using survey data and omitting Barcelona and Madrid from the province-level specifications.

5.1 Main Results

Table 3 provides evidence that separation of property incentivizes that women work in the labour market. The estimated effects are positive and significant for female employment rate and female labour force participation and negative and significant for homemakers's share in the working age population. The coefficients on labour force participation and homemakers's share are indicative of a long-run, stable effect, while the increase in female employment was transitory, ending around 2010. The effect sizes, as percentages of the respective average in the community property default provinces in 2004, are 5-10% for female employment, 4-12% for female labour force participation, and 13-17% for homemakers' share.

Table 4 indicates that family models differ across marital property regimes: under separation of property, people are more likely to have one or two children and less likely to have three. As a result of the 2005 reform, the share of first borns in all newborns has increased by 3% of its 2004 value, the share of second borns increased by 4-11% and that of third borns decreased by 8-18%. There has been no effect on the share of fourth and higher order born children. Overall, fertility has increased as a result of the reform, as shown by the significant positive coefficients on global fertility rate, with a range of 3-6% of the relevant 2004 value. Beyond the effect signs and sizes, the impact dynamics are very interesting. First born share converges quickly following the reform, as is also visible on Figure 4. Second born share responds with a few years lag, which is reasonable if the bulk of the effect comes from newlyweds (it takes time to produce multiple children), and the increase persists, while third born share in fertility responds faster and then shows a similar long-run effect, somewhat increasing in magnitude. The effect sizes also increase with order of birth. Both of these suggest that the impact on fertility mostly originates from a shift from the third to the second born.

Table 5 presents the estimated effect on the marriage rate which is significant and negative for the 2010s. Four measures of the marriage rate are shown, crude rates (marriages per 1,000 persons) by place of residence and by place of celebration and rates by marriageable (marriages per 1,000 marriageable persons) also by place of residence and celebration. The sign and significance of the estimated coefficients are robust to the way marriage rate is measured. The effect size is 7-12% by marriageable and about

half of this for the corresponding crude rates.⁷⁵

Table 6 shows that divorce rates temporarily decreased in response to the reform and separation rates have risen in the long run, both of which effects originate in the mutual agreement processes. Contested divorces and separations seem to be unaffected by the reform, apart from a single significant coefficient right after the reform (in 2005 or 2006). Recall that the property system-independent part of the effect of the reform on divorce and separation rates cannot be estimated by the current design. Figure 6 and 7 show that divorce rates rose and separation rates fell sharply after the reform in both separate and community property default regions. The interpretation of the transitory decrease of the divorce rate (22-38% of its 2004 value) under default community property is that there was likely a large pent-up demand for divorce prior to the elimination of mandatory separation, but because it is generally much easier to divorce under separation of property, where there is no need to liquidate the marital assets, the demand for divorce could be satisfied there faster. Once all these people divorced, the difference between the two default regime regions disappeared. The increase in the mutual agreement separation rate, which is what translates to an increase in the total separation rate, signals a convergence between the two default regimes, as separations rates have always been higher in the separate property default region. However, since all types of separations fell close to zero after 2005, this finding is of less interest.

To summarize, the evidence is supportive of fewer relationship-specific and more general investments under separate property: women participate more in the labour force, are less likely to be homemakers, and have fewer children. The lower marriage rate is also indicative of a lower level of specific investments. In the long run, the divorce rate seems to be unaffected by the property regime.

Finally, note that it is possible that under the new divorce regime more newlyweds would opt out from the community property system, choosing separation of property, which would reinforce the effect of the reform. Figure 8 suggests that demand for the separate property system might have increased, as the number of marriage-related contracts, which includes agreements on the marital property system, soared in the community property default region around the time of the reform.

⁷⁵Marriageable population accounts for about half of the total, so it is not surprising that the effect sizes are double of those of the crude rates.

5.2 Robustness Checks

5.2.1 Excluding Barcelona

A possible worry about the results discussed above is that they might be driven by Barcelona, one of the richest and most populous provinces of Spain and, without doubt, the dominant province of Catalonia, which might also have unobservable characteristics resulting in different marital outcomes. Barcelona does not seem to follow different trends in terms of any of the outcomes I consider in this paper compared to the other separate property default provinces of Catalonia and the Balearic Islands.⁷⁶ Nevertheless, to address this issue, I estimate specifications that use the full set of controls described in Section 4 omitting Barcelona province in the first modified version and both Barcelona and Madrid in the second. The motive to exclude Madrid as well is that it is the natural counterpart of Barcelona, the leading province of the default community property territory. Since these robustness checks had to be carried out using province-level data, this is what I use for divorce and separation as well.⁷⁷ Results are robust both to the exclusion of Barcelona alone and to the exclusion of Madrid and Barcelona. The sign and significance of the estimated coefficients remains stable across specifications, and the magnitude changes only slightly. In the Appendix, figures show the estimated coefficients with and without Barcelona and Madrid side-by-side, illustrating this robustness check. Detailed regression results are available upon request.

5.2.2 Individual Level Analysis

The main advantage of the individual-level analysis is that one can control for several factors that likely affect fertility and labour supply decisions for which aggregate level data is difficult or outright impossible to obtain, for example, medical conditions that result in infertility, reasons why one had fewer children than desired, and characteristics of interviewee's partner. The disadvantage is that a dynamic specification analogous to those I use for aggregate level data cannot be estimated. Moreover, the 1999 and the 2018 Fertility Survey had a very different design, which substantially restricts that set of controls that can be used when data from both are needed.

⁷⁶Figures illustrating this fact are available upon request.

⁷⁷The disadvantage is that province-level divorce and separation data is only available since 1998, and the use of lags of the separation rate when divorce is the dependent variable further decreases the sample, which is why I opt to use regional data for the main results.

The models estimated are of the form

$$\begin{aligned} \text{Outcome}_{i,r,t} = & \beta_0 + \beta_1 \text{Post-reform}_{i,t} \times \text{Community property default}_r \\ & + \gamma \text{Community property default}_r + \delta_t \text{Post-reform}_t + X_i \eta + \sum_r \lambda_r \text{Region}_r + \mu_{i,r,t} \end{aligned} \quad (10)$$

where i indexes the individual, r the region of residence, t the year of the survey. $\text{Post-reform}_{i,t}$ is simply defined by survey data: all data from the 1999 survey is considered as pre-reform and all data from the 2018 survey as post-reform.

$\text{Community property default}_r$ is defined by the region where the interviewee was resident at the time of the survey. This might be problematic only if respondents got married in a different default region than where they live now. Since all regions except Catalonia and the Balearic Islands fall into the community property default group, what I assume here is only that people did not move in or out of Catalonia or the Balearic Islands in the time elapsed between getting married (if they are married) and taking part in the survey. I believe that the number of respondents for whom this assumption does not hold is very likely to be negligible.

X_i includes region fixed effects, age, degree of urbanization of the place of residence, and highest achieved education, with some additional controls depending on the dependent variable at hand.

Female labour supply outcomes are indicators for the interviewee being employed, active, or a home maker at the time of the survey. In addition to the controls mentioned above, an indicator for currently studying, an indicator for having been employed previously, and the current partner's age, educational achievement and employment status were added.

Desired fertility is measured by the number of children survey participants said they would have liked to have, and an indicator for the fertility gap, that is, when the number of children the individual had at the time of the survey and the number she wished she had had did not coincide. Some controls related to fertility were added: an indicator for known spontaneous infertility (not a result of sterilization) for both outcomes, and the three most important reasons according to the interviewee of why she had more or fewer children than she would have liked for fertility gap.⁷⁸

Realized fertility is measured by the number of biological children of the interviewee. To look at family composition, indicators were defined for having one child, two children, or three children. 42% of the individuals in the sample had no children, 20%

⁷⁸In both the 1999 and the 2018 Fertility Survey, respondents were presented with a list of approximately 20 potential reasons, and they were asked to choose the three most important. These were recoded to eliminate minor differences in the two designs.

had one, 29% had two, 7% had three, and the remaining 2% had four or more. Since so few people in the sample had four or more children, I omitted fourth-born fertility from the analysis. The sample was restricted to those whose first child was born in or after 1981. An indicator for infertility was added to the common set of controls.

The individual-level counterpart of the marriage rate is an indicator for having ever been married. 39% of the sample has never married, 59.5% got married once and 1.5% married twice.⁷⁹ Because such a small part of the sample married more than once and because remarriage is likely to be different from a first marriage, for instance, because of the presence of children from a previous marriage, I chose to focus on first marriages only. Omitting the people who married more than once is a loss of 1.5% of the sample. Divorce and separation is treated similarly as marriage: the outcome is an indicator for having ever divorced or legally separated. Given the design of the 1999 Fertility Survey, which codes divorce and legal separation as the same outcome, the two cannot be distinguished. 93.1% of individuals in the sample never divorced or separated, Of the 6.9% who did, 6.7% divorced once and 0.2% divorced twice. The sample used to estimate the results I present was restricted to those who married at most once, in order to study the first divorce or separation.

The estimation results with a full set of controls are reported in Table 7. Detailed results, with an expanding set of controls, are available upon request. The effect of the reform on being employed is positive and significant: an increase of 4 percentage points in the probability of being employed. The estimated effects on being active and being a home maker have the same sign as those of the province-level results but are not statistically significant. With respect to fertility, the estimates indicate a highly significant 3 percentage point increase in first-born fertility and a marginally significant decrease of 1.3 percentage point in third born fertility. Interestingly, there is a strong effect on desired fertility, both when measured by the presence of any fertility gap and the desired number of children. My interpretation of these findings is that the observed shift in the family composition following the 2005 reform was not due to a change in preferences but a change in constraints, supporting my hypothesis that the reform had an effect through changing the outside option to marriage. There is no evidence of a significant change in neither the divorce rate, nor the marriage rate.

To summarize, these individual-level results are qualitatively supportive of the ones obtained using aggregate data: separation of property encourages women to work more outside the home and to have fewer children than they would under the community property system.

⁷⁹Only 2 people out of 20,036 married three times.

	Community Property Default		Separate Property Default	
	Mean	Standard deviation	Mean	Standard deviation
Global fertility rate	38.473	7.118	44.574	1.436
Percent born, first	54.518	4.033	58.072	3.441
Percent born, second	35.575	2.638	32.408	2.481
Percent born, third	7.498	2.062	7.146	0.978
Percent born, fourth+	2.410	1.494	2.372	0.582
Female employment rate	0.345	0.057	0.458	0.031
Female labour force participation rate	0.414	0.055	0.512	0.045
Homemakers/total working age population	0.150	0.026	0.116	0.010
Marriages by residence per 1,000 persons	4.660	0.784	4.974	0.352
Marriages by celebration per 1,000 persons	5.150	0.721	5.220	0.564
Marriages by residence per 1,000 marriageable aged persons	9.505	1.262	9.805	0.684
Marriages by celebration per 1,000 marriageable aged persons	10.572	1.527	10.301	1.209
Observations (province)	44		5	
Divorces per 1,000 persons	1.092	0.315	1.667	0.118
Mutual agreement divorces per 1,000 persons	0.600	0.193	1.174	0.059
Contested divorces per 1,000 persons	0.491	0.191	0.493	0.059
Divorces per 1,000 marriageable persons	2.166	0.558	3.220	0.147
Mutual agreement divorces per 1,000 marriageable persons	1.191	0.345	2.269	0.056
Contested divorces per 1,000 marriageable persons	0.975	0.357	0.951	0.091
Separations per 1,000 persons	1.788	0.381	2.306	0.065
Mutual agreement separations per 1,000 persons	1.162	0.198	1.766	0.022
Contested separations per 1,000 persons	0.626	0.248	0.540	0.043
Separations per 1,000 marriageable persons	3.555	0.645	4.457	0.013
Mutual agreement separations per 1,000 marriageable persons	2.313	0.338	3.413	0.044
Contested separations per 1,000 marriageable persons	1.241	0.455	1.043	0.057
Observations (region)	16		2	

Table 2: Average Outcome Values by Default Property Region in 2004

	Female employment rate	Female labour force participation rate	Homemaker's share in working age population
2005 * Community property default	0.0196** (0.00817)	0.0174* (0.00881)	0.000732 (0.00372)
2006 * Community property default	0.0183** (0.00895)	0.0199** (0.00857)	-0.00668* (0.00371)
2007 * Community property default	0.0294** (0.0136)	0.0335*** (0.0111)	-0.0187*** (0.00536)
2008 * Community property default	0.0253 (0.0181)	0.0347** (0.0167)	-0.0226*** (0.00617)
2009 * Community property default	0.0337* (0.0173)	0.0362** (0.0156)	-0.0181*** (0.00614)
2010 * Community property default	0.0308** (0.0143)	0.0325** (0.0134)	-0.0193*** (0.00635)
2011 * Community property default	0.0181 (0.0136)	0.0379*** (0.0124)	-0.0245*** (0.00647)
2012 * Community property default	0.0135 (0.0116)	0.0404*** (0.0131)	-0.0255*** (0.00676)
2013 * Community property default	0.000151 (0.0122)	0.0348*** (0.0122)	-0.0176*** (0.00621)
2014 * Community property default	-0.00348 (0.0111)	0.0395*** (0.0107)	-0.0214*** (0.00653)
2015 * Community property default	-0.00322 (0.0109)	0.0332*** (0.0109)	-0.0158** (0.00655)
2016 * Community property default	-0.000428 (0.0120)	0.0392*** (0.0123)	-0.0207*** (0.00689)
2017 * Community property default	0.00185 (0.0111)	0.0443*** (0.0118)	-0.0228*** (0.00697)
2018 * Community property default	0.00350 (0.0108)	0.0485*** (0.0117)	-0.0230*** (0.00654)
Community property default	-0.0797*** (0.0171)	-0.0824*** (0.0161)	0.0128 (0.00821)
Number of provinces	49	49	49
Number of years	38	38	19
Observations	1848	1848	931

Standard errors in parentheses, clustered by province

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 3: Estimation Results: Female Labour Supply

	Percent born				Global fertility rate
	First	Second	Third	Fourth+	
2005 * Community property default	0.943 (1.062)	0.385 (0.674)	-0.631** (0.312)	-0.0202 (0.150)	1.231* (0.661)
2006 * Community property default	1.349** (0.571)	-0.457 (0.505)	-0.139 (0.216)	0.0768 (0.211)	1.219** (0.471)
2007 * Community property default	0.824 (0.973)	-0.168 (0.591)	0.141 (0.405)	0.0516 (0.250)	1.533*** (0.498)
2008 * Community property default	1.995*** (0.732)	-0.147 (0.645)	-0.808** (0.349)	0.0261 (0.178)	0.713 (0.805)
2009 * Community property default	1.509** (0.726)	0.631 (0.754)	-0.801** (0.312)	-0.0556 (0.230)	1.473* (0.763)
2010 * Community property default	1.769** (0.806)	0.520 (0.607)	-0.914** (0.413)	0.0830 (0.287)	1.410** (0.599)
2011 * Community property default	-1.338 (1.304)	3.709*** (0.766)	-0.433 (0.463)	0.500* (0.272)	2.269*** (0.605)
2012 * Community property default	0.786 (0.570)	1.509** (0.583)	-0.275 (0.447)	0.417 (0.264)	2.260*** (0.510)
2013 * Community property default	0.551 (0.542)	2.594*** (0.518)	-1.032*** (0.325)	0.375* (0.221)	2.245*** (0.509)
2014 * Community property default	0.597 (0.492)	2.308*** (0.356)	-0.773** (0.356)	0.393* (0.209)	1.899*** (0.566)
2015 * Community property default	0.568 (0.790)	2.789*** (0.520)	-1.261*** (0.406)	0.453 (0.284)	0.995* (0.565)
2016 * Community property default	0.723 (0.669)	3.019*** (0.564)	-1.217*** (0.319)	0.0974 (0.227)	1.218** (0.563)
2017 * Community property default	0.791 (0.626)	2.661*** (0.529)	-1.052*** (0.338)	0.270 (0.233)	0.770 (0.686)
2018 * Community property default	0.0753 (0.799)	3.849*** (0.579)	-1.362*** (0.433)	0.169 (0.260)	1.200* (0.701)
Community property default	-1.851** (0.760)	1.029* (0.611)	0.0840 (0.299)	0.196 (0.261)	1.488 (1.261)
Number of provinces‡	49	49	49	49	49
Number of years	38	38	38	20	21
Observations	1846	1846	1846	978	1027

Standard errors in parentheses, clustered by province

‡ Tarragona omitted for 2005 and 2006 for fertility due to a coding error in the data

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 4: Estimation Results: Fertility

	Marriages			
	per 1,000 persons		per 1,000 marriageable persons	
	by place of residence	by place of celebration	by place of residence	by place of celebration
2005 * Community property default	0.159 (0.148)	0.0971 (0.147)	0.305 (0.290)	0.191 (0.294)
2006 * Community property default	0.174 (0.166)	0.158 (0.166)	0.338 (0.328)	0.309 (0.333)
2007 * Community property default	0.210 (0.189)	0.256 (0.194)	0.410 (0.375)	0.500 (0.390)
2008 * Community property default	0.128 (0.225)	0.107 (0.206)	0.238 (0.442)	0.184 (0.411)
2009 * Community property default	0.0112 (0.204)	0.00818 (0.212)	0.00242 (0.408)	-0.0208 (0.430)
2010 * Community property default	-0.0594 (0.196)	-0.0667 (0.205)	-0.134 (0.385)	-0.172 (0.415)
2011 * Community property default	-0.139 (0.198)	-0.403* (0.229)	-0.352 (0.404)	-0.882* (0.472)
2012 * Community property default	-0.0439 (0.193)	-0.268 (0.229)	-0.132 (0.391)	-0.577 (0.467)
2013 * Community property default	-0.273 (0.170)	-0.469** (0.206)	-0.634* (0.343)	-1.028** (0.420)
2014 * Community property default	-0.290* (0.163)	-0.511** (0.201)	-0.661* (0.331)	-1.113*** (0.409)
2015 * Community property default	-0.333* (0.170)	-0.558** (0.218)	-0.746** (0.347)	-1.216*** (0.447)
2016 * Community property default	-0.313* (0.165)	-0.511** (0.203)	-0.705** (0.336)	-1.120*** (0.415)
2017 * Community property default	-0.411** (0.160)	-0.597*** (0.198)	-0.917*** (0.314)	-1.303*** (0.396)
2018 * Community property default	-0.354* (0.192)	-0.535** (0.231)	-0.801** (0.378)	-1.193** (0.460)
Community property default	-0.249 (0.165)	-0.183 (0.182)	-0.505 (0.326)	-0.516 (0.379)
Number of provinces	49	49	49	49
Number of years	25	25	25	25
Observations	1225	1225	1225	1225

Standard errors in parentheses, clustered by province

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 5: Estimation Results: Marriage

	Divorces						Separations					
	per 1,000 persons			per 1,000 marriageable persons			per 1,000 persons			per 1,000 marriageable persons		
	Total	Mutual agreement	Contested	Total	Mutual agreement	Contested	Total	Mutual agreement	Contested	Total	Mutual agreement	Contested
2005 * Community property default	-0.250*** (0.0722)	-0.234*** (0.0397)	-0.0157 (0.0594)	-0.476*** (0.142)	-0.443*** (0.0815)	-0.0317 (0.113)	0.275*** (0.0563)	0.160*** (0.0363)	0.115*** (0.0301)	0.546*** (0.117)	0.311*** (0.0758)	0.234*** (0.0605)
2006 * Community property default	-0.435*** (0.0726)	-0.584*** (0.0550)	0.149** (0.0599)	-0.825*** (0.154)	-1.099*** (0.125)	0.275** (0.117)	0.492*** (0.0809)	0.446*** (0.0453)	0.0469 (0.0468)	0.932*** (0.141)	0.841*** (0.0781)	0.0908 (0.0889)
2007 * Community property default	-0.337*** (0.105)	-0.350*** (0.0753)	0.0137 (0.0640)	-0.676*** (0.215)	-0.640*** (0.170)	-0.0349 (0.127)	0.435*** (0.0783)	0.410*** (0.0489)	0.0249 (0.0432)	0.822*** (0.143)	0.774*** (0.0918)	0.0482 (0.0829)
2008 * Community property default	-0.265** (0.117)	-0.315*** (0.0697)	0.0495 (0.0873)	-0.519** (0.226)	-0.573*** (0.145)	0.0550 (0.168)	0.408*** (0.0795)	0.399*** (0.0478)	0.00964 (0.0457)	0.767*** (0.148)	0.748*** (0.0889)	0.0194 (0.0880)
2009 * Community property default	-0.217* (0.120)	-0.196** (0.0895)	-0.0212 (0.0552)	-0.410 (0.241)	-0.344* (0.182)	-0.0662 (0.107)	0.377*** (0.0936)	0.358*** (0.0549)	0.0192 (0.0566)	0.711*** (0.174)	0.667*** (0.102)	0.0442 (0.107)
2010 * Community property default	-0.332** (0.144)	-0.287** (0.125)	-0.0451 (0.0482)	-0.637** (0.299)	-0.535* (0.260)	-0.102 (0.0938)	0.412*** (0.0982)	0.378*** (0.0551)	0.0342 (0.0607)	0.787*** (0.183)	0.712*** (0.103)	0.0751 (0.114)
2011 * Community property default	-0.125 (0.111)	-0.0591 (0.0777)	-0.0657 (0.0652)	-0.189 (0.225)	-0.0689 (0.164)	-0.121 (0.127)	0.310** (0.127)	0.328*** (0.0781)	-0.0179 (0.0678)	0.590** (0.234)	0.607*** (0.145)	-0.0172 (0.130)
2012 * Community property default	-0.0517 (0.0852)	-0.0516 (0.0562)	-0.000209 (0.0497)	-0.0799 (0.179)	-0.0827 (0.132)	0.00266 (0.0947)	0.274* (0.131)	0.309*** (0.0819)	-0.0356 (0.0671)	0.534** (0.245)	0.580*** (0.152)	-0.0455 (0.130)
2013 * Community property default	-0.0438 (0.0825)	-0.0425 (0.0548)	-0.00158 (0.0564)	-0.0972 (0.170)	-0.0805 (0.120)	-0.0174 (0.113)	0.268* (0.134)	0.297*** (0.0854)	-0.0288 (0.0693)	0.514* (0.247)	0.550*** (0.157)	-0.0366 (0.133)
2014 * Community property default	0.0584 (0.146)	-0.0592 (0.103)	0.118 (0.0694)	0.0950 (0.303)	-0.133 (0.226)	0.228 (0.137)	0.256* (0.140)	0.308*** (0.0867)	-0.0514 (0.0779)	0.520* (0.258)	0.592*** (0.159)	-0.0722 (0.149)
2015 * Community property default	0.00767 (0.101)	-0.0688 (0.0771)	0.0762 (0.0771)	-0.0136 (0.218)	-0.164 (0.168)	0.149 (0.159)	0.279* (0.154)	0.314*** (0.0949)	-0.0346 (0.0779)	0.566* (0.280)	0.605*** (0.171)	-0.0385 (0.148)
2016 * Community property default	-0.0266 (0.122)	-0.0809 (0.103)	0.0538 (0.0699)	-0.0854 (0.263)	-0.196 (0.228)	0.109 (0.139)	0.323** (0.152)	0.315*** (0.0963)	0.00808 (0.0737)	0.645** (0.281)	0.606*** (0.178)	0.0395 (0.141)
2017 * Community property default	-0.0239 (0.104)	-0.0637 (0.0823)	0.0400 (0.0734)	-0.0546 (0.228)	-0.145 (0.185)	0.0903 (0.149)	0.368** (0.165)	0.336*** (0.103)	0.0311 (0.0816)	0.732** (0.303)	0.646*** (0.191)	0.0851 (0.155)
2018 * Community property default	-0.0247 (0.106)	-0.114 (0.0810)	0.0879 (0.0726)	-0.0402 (0.237)	-0.236 (0.189)	0.193 (0.145)	0.445** (0.167)	0.389*** (0.107)	0.0560 (0.0829)	0.881*** (0.299)	0.748*** (0.192)	0.133 (0.156)
Community property default	0.292 (0.603)	-0.629 (0.591)	0.924* (0.475)	1.637 (1.337)	-0.540 (1.263)	2.182** (0.911)	-0.00705 (0.653)	-0.160 (0.412)	0.152 (0.417)	-0.700 (1.208)	-0.741 (0.748)	0.0387 (0.815)
Number of regions	18	18	18	18	18	18	18	18	18	18	18	18
Number of years	21	21	21	21	21	21	21	21	21	21	21	21
Observations	364	364	364	364	364	364	377	377	377	377	377	377

Standard errors in parentheses, clustered by region

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

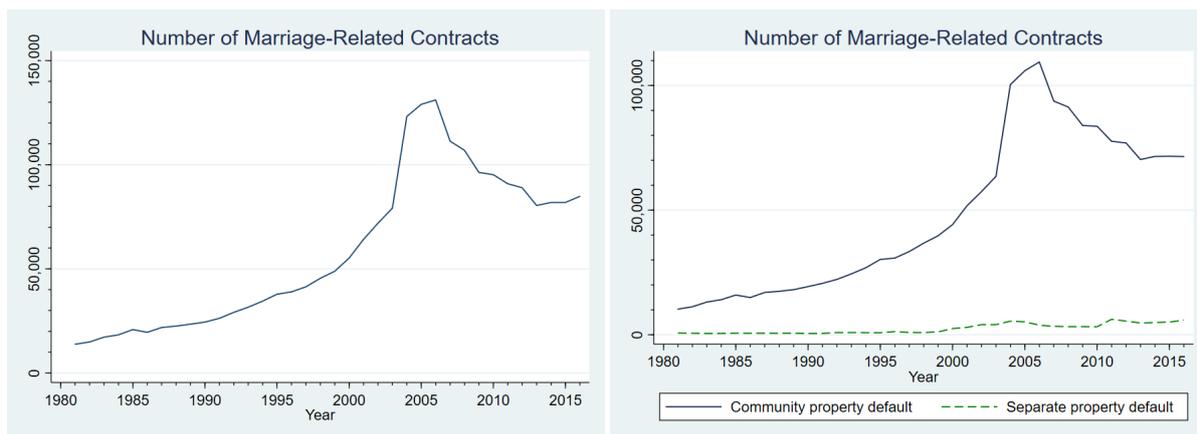
Table 6: Estimation Results: Divorce and Separation

	Labour supply			Desired fertility		Realized fertility: number of children				Marriage	
	Employed	Active	Home maker	Desired no. children	Fertility gap	Total	One	Two	Three	Married	Divorced/separated
Post-2005 reform	0.0772*** (0.0105)	0.133*** (0.0226)	-0.171*** (0.0172)	-0.294*** (0.0200)	-0.0461*** (0.00307)	-0.185*** (0.0144)	-0.0695*** (0.00759)	-0.0425* (0.0208)	-0.00232 (0.00594)	-0.223*** (0.00386)	0.0101*** (0.00310)
Community property default	-0.221*** (0.00704)	-0.135*** (0.0161)	0.104*** (0.0112)	0.0496 (0.0442)	-0.0129*** (0.00301)	0.103*** (0.0202)	-0.0448*** (0.00474)	0.0319** (0.0150)	0.0324*** (0.00441)	-0.0190*** (0.00592)	-0.0260*** (0.00348)
Post-2005 reform *Community property default	0.0375*** (0.00996)	0.0253 (0.0259)	-0.0320 (0.0186)	0.187** (0.0763)	0.0252*** (0.00505)	-0.0334 (0.0312)	0.0315*** (0.00644)	-0.0311 (0.0224)	-0.0129* (0.00667)	0.00939 (0.00933)	0.00684 (0.00522)
Region fixed effects	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Age, urban, education	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Previous employment	✓	✓	✓								
Current partner's age, education, employment status	✓	✓	✓								
Infertility				✓	✓	✓	✓	✓	✓		
Reasons for fertility gap					✓						
Observations	13427	13427	13427	2328	8774	17063	17063	17063	17063	19742	19742

Standard errors in parentheses, clustered by region

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 7: Robustness Check: Estimates with Survey Data (Fertility Survey 1999, 2018)



(a) National

(b) By default marital property regime, excluding Valencia

Figure 8: Marriage-Related Contracts

6 Conclusion

In this paper, I present causal effects of the default marital property regime on female labour supply, fertility, marriage, divorce, and separation. I show that under the separate property regime female employment and labour force participation is higher, while the likelihood of having more than two children and being a homemaker is lower than under the community property system. The lower marriage rate under separate property also reflects less relationship-specific investment.

The main contribution of this paper is twofold. First, my paper is the first one to provide estimates of the causal effects of marital property systems on a range of marital investments and outcomes. Second, the use of property rights theory in the context of marriage is a conceptual innovation. Property rights theory predicts that the incentives to make general versus relationship-specific investments depends on the ownership of assets and on the complementarity of investments; if investments are substitutes, then joint ownership provides the greatest incentives to make relationship-specific investments, relative to which non-integration incentivizes general investments. My findings confirm these predictions, providing empirical support to property rights theory in a setting in which it has not been tested before. In addition, this paper contributes to the behavioural literature on default effects by quantifying the effect of default marital property regimes, and to the law and economics literature by studying the impact of family law on economic outcomes.

Exploring the economic consequences of intrafamily ownership structures and contracts and, more generally, utilizing the insights of the theory of incomplete contracts in family and labour economics are exciting topics for future research.

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Appendix A Marital Legislation: Details

A.1 Marital Contracts

A marital contract specifying the matrimonial property regime (*capitulaciones matrimoniales*) can be signed before or after the celebration of the marriage.⁸⁰ In this contract, the spouses can agree on the use of any marital property system, replacing or customizing the legal default one. A marital contract is null and void under the same conditions as any other contract, for instance, if it was signed under false information or duress. To be valid, it must be authorized by a notary. It may be modified during the marriage with the consent of both parties, with the modification agreement being subject to the same validity and registration requirements as the original contract.⁸¹ The regulation of marital agreements is practically uniform across Spain. Since nuptial contracts are related to the marital property regime, local civil laws could prescribe provisions that are different from those of the Spanish Civil Code; however, even those local civil codes that devote a chapter to marital contracts, for example the *Compilación del Derecho Civil de Baleares* and the *Compilación del Derecho Civil Foral de Navarra*, essentially contain the same format, content and registration requirements as the Spanish Civil Code.

A.2 Common and Separate Assets Under Different Defaults

Common acquisitions (Sociedad de gananciales) The most important jointly owned assets are profits earned by either spouse during the marriage, labour income, profit and interest earned on goods owned by either spouse (even if the asset itself is separate property), goods that were paid for using common assets, and undertakings started during the marriage by either spouse at the expense of the community property.⁸² Separate property are goods acquired prior to the marriage, inheritance, gifts, other assets bought at the cost of separate property, compensation or damages paid on it, clothes and personal objects that do not have extraordinarily high value, and the tools necessary for one's job.⁸³ Expenses that should be borne jointly in the common acquisitions regime are the maintenance of the family, food and education of the children in common, insurance expenses, acquisition and maintenance of the community property, ordinary administration cost of separate property, and regular costs of business con-

⁸⁰If it is signed before marriage, at most one year can pass between the date of the agreement and the celebration of the marriage.

⁸¹*Código Civil de España*, Book IV, Title III, Chapter II

⁸²*Código Civil de España* art. 1347

⁸³*Código Civil de España* art. 1346

ducted by either spouse.⁸⁴

Consortio conyugal At the beginning of the matrimony, the jointly owned assets are those that the spouses decide to contribute to the community property and those donated to them as wedding gifts. During the marriage, assets become part of the community property if they are donated to the couple, or the spouses decide to hold some goods in joint ownership, or if they were purchased at the expense of common income; labour income including compensation for the termination of work of either spouse; profits and interest on goods held by either spouse; companies founded during the marriage and shares obtained at the expense of common goods.⁸⁵ Separate property are goods that the couple decided to keep separate at the beginning of the marriage, accession and gains on own assets, any preferential acquisition or access to property belonging privately to one of the spouses, and those bought with common funds if the spouses establish the exclusive attribution to one of them, inheritance, pension entitlements and life insurance payments.⁸⁶

Separate property (Separación de bienes) All assets acquired before the marriage and during the marriage by one spouse remains the property of that spouse. If an asset was bought, it belongs to the holder (by whom it was formally bought), even if it was paid for using the other spouse's funds, in which case donation is assumed. If the goods are bought for the use of the family, they belong to both spouses, each holding half.⁸⁷ If the ownership of an asset is doubtful, each spouse is assumed to hold half of it. A spouse who has worked significantly more at home than the other is entitled to financial compensation in case of annulment, separation or divorce, with the amount of compensation depending on the duration and intensity of domestic production, limited to no more than a quarter of the difference between the increases in the assets of the spouses. In view of a possible marital dissolution, it is possible to agree on the increase, decrease or waiver of said economic compensation in a marital contract.⁸⁸

Sociedad conyugal de conquistas Common goods are those included in the common asset pool by covenants or provisions, assets acquired at the expense of the common goods or by any acquisition right belonging to the *conquistas* regime, assets acquired at the expense private goods if the spouses agree on making them common, labour

⁸⁴Código Civil de España art. 1362

⁸⁵Código del Derecho Foral de Aragón art. 210

⁸⁶Código del Derecho Foral de Aragón art. 211-212.

⁸⁷Note that this is not the case of undivided half-interest, as with community property. Here, each spouse owns 50% of the given asset.

⁸⁸Código Civil de Cataluña Book II, Chapter II

income, profits on both common and private goods, tenant rights for contracts signed during the marriage, and accessions or increases of the common goods. Assets that are not clearly exclusive are assumed to be part of the common goods. Separate property are those assets that were acquired prior to marriage and any accrued income on them, those bought with assets that are separate property, those acquired at the expense of the common goods if both spouses state that it should be owned by only one of them, compensation of damages on private property, and inherent property rights and assets that are non-transferable inter vivos. The family home and household goods belong to the spouse who bought them. If they both contributed towards the price or used some common assets, the ownership will be proportional to their respective contribution. The expenses related to the support of the family, ordinary administration costs of all assets, and expenses related to the profession of each and activities that benefit the couple should be borne jointly.⁸⁹

A.3 Traditional Property Systems in Catalonia

The *asociación a compras y mejoras*, literally "association of purchases and improvements", is the tradition marital property system in Camp de Tarragona. Either spouse can share ownership of the goods that the other has bought or obtained by work (these are the purchases) and of the increase in the value of the goods owned (the improvements).

Agermanament, literally "twinning", is universal community, that is, all pre-marital and marital assets are jointly owned by the spouses. It is traditionally used in the city of Tortosa.

The *pacto de convivença*, literally "cohabitation agreement", is the traditional marital property regime in Valle de Arán⁹⁰ in Lleida province, whereby the spouses have to contribute equally to the household costs and divide the gains from the marriage equally upon dissolution of the marriage, if they do not have children.

None of these are default, not even in the territories where it the traditional choice. In order to choose one of these property systems, the spouses have to sign a marital contract. In all matters that are not specified in the nuptial contract, the Catalan Civil Code, or the Constitution, the terms of the property regime are governed by the customs of the region. Failing that, the participation system serves as a governing regime for *asociación a compras y mejoras* and common acquisitions for *agermanament*.

⁸⁹ *Compilación del Derecho Civil Foral de Navarra*, Book I, Title VI

⁹⁰ Arrés, Bausen, Bosost/Bossòst, Las Bordas/Bòrdes, Es Caneján, Les Alto Arán/Naut Aran, Viella Mitg Arán/Vielha e Mijaran, Vilamós

A.4 Fuero del Baylío



Figure A.1: Towns Where the Fuero del Baylío Applies

A.5 Origins of the Default Marital Property Systems

Jurisdiction	Default property system	Origin	First legal reference	Current legal reference
Derecho común	sociedad de gananciales	VII. century	Fuero Juzgo (1214) 4, 2, 17	Art. 1316 Código Civil de España (1889)*
Aragon	consorcio conyugal		Fuero Municipal de Teruel (1175)	Art. 193.3 Código de Derecho Foral de Aragón (2011)
Balearic Islands	separación de bienes	Roman Law		Art. 3.1, 67.1 Compilación del Derecho Civil Foral de las Islas Baleares (1990)**
Catalonia	separación de bienes	Roman Law		Art. 231-10.2 Código Civil de Cataluña (2010)
Galicia	sociedad de gananciales	VII. century	Fuero Juzgo (1214) 4, 2, 17	Art. 171 Ley de Derecho Civil de Galicia (2006)
Navarre	sociedad conyugal de conquistados	1558	Ley 38 Cortes de Tudela (1558)	Ley 87 Fuero Nuevo de Navarra (1973)***
Tierra Llana de Vizcaya	comunicación foral	1526	Fuero Nuevo de Vizcaya (1526)	Art. 127 Ley de Derecho Civil Foral del País Vasco (2015)
Rest of Basque Country	sociedad de gananciales	VII. century	Fuero Juzgo (1214) 4, 2, 17	Art. 127 Ley de Derecho Civil Foral del País Vasco (2015)
Fuero del Baylío	régimen del Fuero del Baylío	1778	Pragmática Sanción de Carlos III of 20/12/1778	Pragmática Sanción de Carlos III of 20/12/1778
Valencia 2008-2016	separación de bienes	2007	Ley de Régimen Económico Matrimonial Valenciano (2007)	declared void by the Constitutional Court on 28/04/2016

* last amendment in 1981

** last amendment in 2017

*** last amendment in 2019

Table A.1: Adoption Dates of the Default Marital Property Systems in Spain (Source: Table Compiled by Javier Fajardo)

A.6 Reforms of the Catalan Civil Code (1993, 1998, 2010)

Act 8/1993, of September 30, had a dual purpose. First, to restructure the part of the Catalan Civil Code so that provisions related to marital property regime, which had been scattered throughout the text, would be better organized, and second, to introduce the possibility of financial compensation for the spouse who had worked at home upon dissolution of the marriage. A spouse who worked at home or for the other spouse for little or no compensation became entitled to a compensation if the marital regime were to be ended by judicial decree, annulment, separation or divorce. The amount of the compensation would be determined by the judge, taking into account the effect of the claimant's work on the family, the amount of inequality in wealth between the spouses and other circumstances. The compensation could be paid in money or with the assets of the spouse who was supposed to pay, as he or she chose, within a period not exceeding three years.

Act 9/1998, of July 15, re-created the book of family law within the Catalan Civil Code. Compared to the previous compilation of family law, the new one was enlarged (271 articles versus 91) and reorganized (8 titles instead of 4). With this restructuring came many innovations of which I will cover only those that are directly relevant to marital contracting, property systems or dissolution. First, regarding marital contracting, the new Catalan family law explicitly allowed for marital contracts to be written in anticipation of the marriage breaking down.⁹¹ The previous wording did not allow for provisions in case of a marital crisis to be included. Second, as part of the regulation of the separate property regime, provisions related to financial compensation for working at home were extended and made more precise, following Act 8/1993 which introduced this right of the home-maker spouse. Under this law, the spouse who had been working at home or for the other spouse without sufficient compensation, leading to an economic inequality between the spouses, is entitled to financial compensation upon annulment, separation or divorce. This compensation has to be paid in cash, unless a judge decides otherwise. The right to compensation for working at home is compatible with other rights to financial compensation corresponding to the spouse who is the beneficiary (e.g. alimony and child support), and it has to be taken into account when determining the amount of these. Finally, it can only be exercised when filing for annulment, separation or divorce and cannot be requested at a later step of the process.⁹² Third, in the process of annulment, separation or divorce, either spouse can request the division of assets held in pro indiviso ownership throughout the marriage. Fourth, detailed regulation of the consequences of annulment, separation and divorce was introduced, including the contents of a settlement agreement and the use of alternative dispute resolution.⁹³

Act 25/2010, of July 29, brought forth many corrections and innovations of the Catalan Civil Code related to the needs of modern family models, nuptial contracts in anticipation of a marital crisis, compensation for domestic work, alimony, and parental duties following divorce, among others. It aimed at answering to the needs of families of a single parent and his/her children and remarried parents cohabiting with children from their previous marriages with a more careful regulation of adoption and contribution to family expenses. In response to the legalization of same-sex marriage in 2005, it adapted the regulation of stable non-marital partnership which used to be a form of legally recognized partnership partly aimed at same-sex couples. Recognizing the insufficient regulation of marital agreements in anticipation of a marital breakdown it established formal and content requirements, limiting the contracting power of the

⁹¹Act 9/1998, Art. 15.

⁹²Act 9/1998, arts. 41-42.

⁹³Act 9/1998, arts. 76-86.

parties regarding arrangements on alimony and compensation for domestic work, and included protective measures for the spouse to whose interests the agreement might be detrimental at the time of compliance. Provisions related to compensation for domestic work were reviewed, providing clearer normative guidelines to what the claimant should prove to receive compensation and to the calculation of the amount. The regulation of the consequences of marital dissolution was extended, adding a revocation option in case of amicable separation agreements, better enforcing parental responsibilities towards children after divorce, refining the regulation of alimony and the attribution of the use of the family home, and allowing for a broader use of mediation.

Appendix B Data Description and Summary Statistics

B.1 Data

INE

The annual data on population by age and gender, available by province or region, are from the semestral series “Resident population by date, sex and age” 1971-2019.

The total number of marriages by place or residence and celebration for couples of difference sex are available since 1941 from INE under Vital Statistics: Marriages (*Estadística de matrimonios. Movimiento natural de la población*). The anonymized census of marriages for each year is published in the *Boletín estadístico de matrimonio*. This data set contains the date of the marriage, where the marriage was celebrated, if it was civil or Catholic, and some basic information on each spouse: age, nationality, marital status, municipality of residence. I used these data to define marriageable age based on the age at marriage for each spouse.

All labour market data is from INE’s Economically Active Population Survey (*Encuesta de población activa*). These data are available since 1976. Due to a Commission Regulation passed in 2000 regarding the definition of unemployed⁹⁴, INE warns that the number of inactives is not directly comparable before and after 2001. The year fixed effects I use in each model should absorb the resulting variation, allowing me to use the entire series.

Data on GDP by province and autonomous community comes from the Spanish Regional Accounts (*Contabilidad regional de España*), published by INE.

⁹⁴Commission Regulation (EC) No 1897/2000, of 7 September 2000, implementing Council Regulation (EC) No 577/98 on the organisation of a labour force sample survey in the Community concerning the operational definition of unemployment.

The global fertility rate by province and the fertility rate by province and order of birth are among the fertility statistics published by INE, available since 1975.

The 1999 Fertility Survey was conducted with 7,749 women aged 15-49. I use the 1999 data pooled with the more extensive 2018 survey. Some design elements of the 1999 survey limit the analysis on the pooled sample, especially regarding marriage and divorce. While the 1999 survey includes a section on relationship history, the way questions were asked does not allow for distinguishing marriages from more casual past relationships, making it impossible to reconstruct individual relationship time-lines from the data. Moreover, divorce and legal separation are recorded as the same way of ending a relationship, leading to divorce and separation being a single outcome in the individual level analysis.

The 2018 Fertility Survey by INE is a rich dataset obtained from a survey conducted with 14,446 women and 2,591 men aged 18-55, representative of the Spanish population, in the spring of 2018. Men are omitted from the analysis below, mainly because for them the autonomous community of residence was deleted from the publicly available dataset during the anonymization process, which makes it impossible to assign them to marital property default regions. After cleaning the data, 14,021 women remained in the main sample, 1,110 of whom resided in Valencia region which was excluded from the analysis, resulting in a sample size of 12,911.

General Council of the Judiciary

Data on separations and divorces comes from the yearbooks of the General Council of the Judiciary (*Memoria del Consejo General del Poder Judicial*). Here, the number of annulments, divorces and separations are reported by region, year and whether the dissolution was contested or by mutual agreement. I was able to recover data starting with the year 1989. Before 1989, the data is reported by *colegios*, a grouping of provinces used by some authorities, which does not always coincide with autonomous communities. For 1997, the corresponding numbers are the result of linear interpolation using the series 1989-1996 and 1998-2018, as I was unable to find data for that year. The number of annulments have been negligible throughout this period, never exceeding 200 per year for the entire nation, so I chose to omit it from the analysis. See the Figure B.1.

Directorate General of Registries and Notaries

The number of marital contracts in each year and province was obtained from the records of the Directorate General for Registers and Notaries (*Anuario de la Dirección General de los Registros y del Notariado*). The yearbooks of the DGRN report the number

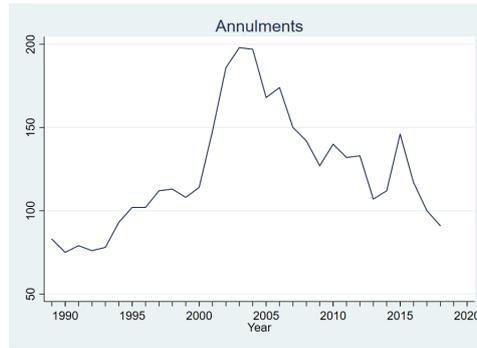


Figure B.1: Number of Annulments in Spain, 1989-2018

of all kinds of contracts that are subject to notarial registration, among them marriage-related contracts, by notary.

B.2 Summary Statistics

Variable name	Community property default		Separate property default		Total	
	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
Fertility rate	41.671	10.521	42.938	5.737	41.800	10.143
Fertility rate, 1st child	20.691	3.750	22.919	3.328	20.918	3.769
Fertility rate, 2nd child	14.645	2.973	14.786	2.053	14.659	2.892
Fertility rate, 3rd child	4.196	2.480	3.806	1.306	4.156	2.389
Fertility rate, 4th and later children	2.184	2.492	1.636	1.012	2.128	2.389
First born, percent	50.618	5.319	53.272	4.876	50.889	5.335
Second born, percent	35.573	3.364	34.392	2.981	35.453	3.346
Third born, percent	9.383	3.131	8.695	2.038	9.313	3.044
Fourth+ born, percent	4.426	3.640	3.641	1.711	4.346	3.500
Female employment rate	0.300	0.094	0.388	0.088	0.309	0.097
Female labour force participation rate	0.387	0.101	0.460	0.096	0.395	0.103
Home makers/total working age population	0.176	0.066	0.145	0.056	0.173	0.065
Marriages by residence per 1,000 persons	4.490	1.072	4.668	0.884	4.508	1.055
Marriages by residence per 1,000 marriageable aged persons	9.802	2.426	9.876	2.092	9.810	2.393
Marriages by celebration per 1,000 persons	4.864	1.064	4.793	0.829	4.857	1.042
Marriages by celebration per 1,000 marriageable aged persons	10.658	2.574	10.138	1.977	10.605	2.524
Province GDP/national GDP	0.016	0.025	0.042	0.049	0.018	0.030
Female unemployment rate	0.231	0.096	0.157	0.060	0.223	0.095
Male unemployment rate	0.144	0.075	0.109	0.061	0.140	0.074
Students aged 16+/total working age population	0.075	0.015	0.058	0.010	0.073	0.015
Total population	683760	840550	1493826	1763701	766419	1005217
Total male population	335664	405795	734975	858906	376410	487234
Total female population	348096	434828	758851	904840	390010	518062
Number of years	38		38		38	
Number of provinces	44		5		49	
Observations	1672		190		1862	

Table B.1: Summary statistics for province-level data, 1981-2018

Controls

Variable name	Community property default		Separate property default		Total	
	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
Divorces per 1000 persons	1.399	0.773	1.868	0.719	1.453	0.781
Mutual agreement divorces per 1000 persons	0.860	0.572	1.298	0.643	0.910	0.597
Contested divorces per 1000 persons	0.540	0.284	0.570	0.156	0.543	0.272
Divorces per 1,000 marriageable persons	2.919	1.598	3.755	1.414	3.015	1.599
Mutual agreement divorces per 1,000 marriageable persons	1.803	1.222	2.613	1.298	1.896	1.256
Contested divorces per 1,000 marriageable persons	1.116	0.550	1.142	0.283	1.119	0.526
Separations per 1,000 persons	0.763	0.645	1.083	0.857	0.799	0.679
Mutual agreement separations per 1,000 persons	0.435	0.375	0.713	0.590	0.467	0.414
Contested separations per 1,000 persons	0.327	0.303	0.370	0.303	0.332	0.303
Separations per 1,000 marriageable persons	1.557	1.268	2.166	1.691	1.627	1.335
Mutual agreement separations per 1,000 marriageable persons	0.888	0.734	1.421	1.152	0.949	0.810
Contested separations per 1,000 marriageable persons	0.669	0.603	0.745	0.614	0.678	0.604
Regional GDP/national GDP	0.043	0.047	0.107	0.083	0.050	0.056
Female unemployment rate, com. aut.	0.228	0.096	0.162	0.053	0.221	0.095
Male unemployment rate, com. aut.	0.140	0.070	0.119	0.057	0.138	0.069
Total population, com. aut.	1917672	2015134	3838324	2974090	2131078	2223052
Total male population, com. aut.	941451	986473	1889905	1460508	1046834	1089635
Total female population, com. aut.	976221	1028968	1948419	1513727	1084243	1133691
Number of years	30		30		30	
Number of regions	16		2		18	
Observations	480		60		540	

Table B.2: Summary statistics for regional date, 1989-2018

Variable name	Community property default		Separate property default		Total	
	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
Employed	0.549	0.498	0.679	0.467	0.566	0.496
Active	0.676	0.468	0.757	0.429	0.686	0.464
Homemaker	0.182	0.386	0.133	0.340	0.176	0.381
Desired number of children	2.224	0.831	2.187	0.851	2.220	0.834
Fertility gap	0.377	0.485	0.363	0.481	0.375	0.484
Age	37.087	10.505	36.930	10.317	37.067	10.480
Partner's age	41.253	10.089	41.020	9.629	41.224	10.032
Observations	17,449		2,587		20,036	

Table B.3: Summary statistics, pooled Fertility Survey 1999 and 2018, part I.

	Community property default		Separate property default		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Urban						
1 - Urban	6,275	36.0%	1,070	41.4%	7,345	36.7%
2 - Intermediate	6,628	38.0%	1,001	38.7%	7,629	38.1%
3 - Rural	4,546	26.1%	516	19.9%	5,062	25.3%
Total	17,449	100.0%	2,587	100.0%	20,036	100.0%
Practising religion						
0	10,065	72.5%	1,502	81.1%	11,567	73.5%
1	3,822	27.5%	351	18.9%	4,173	26.5%
Total	13,887	100.0%	1,853	100.0%	15,740	100.0%
Highest education achieved						
1 - Less than primary education	327	1.9%	39	1.5%	366	1.8%
2 - Primary education	2,563	14.7%	286	11.1%	2,849	14.2%
3 - First part of secondary education or equivalent	3,274	18.8%	501	19.4%	3,775	18.8%
4 - Second part of secondary education or equivalent	3,181	18.2%	508	19.6%	3,689	18.4%
5 - Post-secondary degree, not equivalent to university	1,105	6.3%	213	8.2%	1,318	6.6%
6 - Arts, design, sports degree equivalent to university degree (BA)	2,232	12.8%	331	12.8%	2,563	12.8%
7 - University degree up to 240 credits (BA/BSc)	2,287	13.1%	312	12.1%	2,599	13.0%
8 - University degree more than 240 credits (MA/MSc)	2,347	13.5%	371	14.3%	2,718	13.6%
9 - Doctoral degree	133	0.8%	26	1.0%	159	0.8%
Total	17,449	100.0%	2,587	100.0%	20,036	100.0%
Currently studying						
0	13,777	79.0%	2,058	79.6%	15,835	79.0%
1	3,672	21.0%	529	20.4%	4,201	21.0%
Total	17,449	100.0%	2,587	100.0%	20,036	100.0%
Has been employed before						
0	6,432	36.9%	729	28.2%	7,161	35.7%
1	11,017	63.1%	1,858	71.8%	12,875	64.3%
Total	17,449	100.0%	2,587	100.0%	20,036	100.0%
Partner's highest education achieved						
1 - Less than primary education	330	2.5%	29	1.5%	359	2.4%
2 - Primary education	2,379	18.3%	265	13.8%	2,644	17.7%
3 - First part of secondary education or equivalent	2,780	21.4%	416	21.7%	3,196	21.4%
4 - Second part of secondary education or equivalent	2,342	18.0%	402	20.9%	2,744	18.4%
5 - Post-secondary degree, not equivalent to university	737	5.7%	143	7.4%	880	5.9%
6 - Arts, design, sports degree equivalent to university degree (BA)	1,574	12.1%	204	10.6%	1,778	11.9%
7 - University degree up to 240 credits (BA/BSc)	1,153	8.9%	188	9.8%	1,341	9.0%
8 - University degree more than 240 credits (MA/MSc)	1,563	12.0%	256	13.3%	1,819	12.2%
9 - Doctoral degree	127	1.0%	17	0.9%	144	1.0%
Total	12,985	100.0%	1,920	100.0%	14,905	100.0%
Partner is employed						
0	2,058	15.8%	210	10.9%	2,268	15.2%
1	10,927	84.2%	1,710	89.1%	12,637	84.8%
Total	12,985	100.0%	1,920	100.0%	14,905	100.0%
Infertile						
0	15,418	95.4%	2,209	94.9%	17,627	95.4%
1	736	4.6%	119	5.1%	855	4.6%
Total	16,154	100.0%	2,328	100.0%	18,482	100.0%

Education coded according to the 2018 survey

Table B.4: Summary statistics, pooled Fertility Survey 1999 and 2018, part II.

	Community property default		Separate property default		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Reason for fertility gap: wants to continue studying						
0	17,408	99.8%	2,584	99.9%	19,992	99.8%
1	41	0.2%	3	0.1%	44	0.2%
Total	17,449	100.0%	2,587	100.0%	20,036	100.0%
Reason for fertility gap: health issues						
0	16,970	97.3%	2,540	98.2%	19,510	97.4%
1	479	2.7%	47	1.8%	526	2.6%
Total	17,449	100.0%	2,587	100.0%	20,036	100.0%
Reason for fertility gap: pregnancy, delivery and caring for children are difficult for a woman						
0	17,309	99.2%	2,560	99.0%	19,869	99.2%
1	140	0.8%	27	1.0%	167	0.8%
Total	17,449	100.0%	2,587	100.0%	20,036	100.0%
Reason for fertility: too old to have more children						
0	16,958	97.2%	2,513	97.1%	19,471	97.2%
1	491	2.8%	74	2.9%	565	2.8%
Total	17,449	100.0%	2,587	100.0%	20,036	100.0%
Reason for fertility gap: want to or has to work outside home						
0	16,416	94.1%	2,432	94.0%	18,848	94.1%
1	1,033	5.9%	155	6.0%	1,188	5.9%
Total	17,449	100.0%	2,587	100.0%	20,036	100.0%
Reason for fertility gap: insufficient financial resources						
0	16,376	93.9%	2,424	93.7%	18,800	93.8%
1	1,073	6.1%	163	6.3%	1,236	6.2%
Total	17,449	100.0%	2,587	100.0%	20,036	100.0%
Reason for fertility gap: house is too small						
0	17,258	98.9%	2,569	99.3%	19,827	99.0%
1	191	1.1%	18	0.7%	209	1.0%
Total	17,449	100.0%	2,587	100.0%	20,036	100.0%
Reason for fertility gap: too many household chores						
0	17,367	99.5%	2,568	99.3%	19,935	99.5%
1	82	0.5%	19	0.7%	101	0.5%
Total	17,449	100.0%	2,587	100.0%	20,036	100.0%
Reason for fertility gap: nurseries and kindergartens are too expensive						
0	17,404	99.7%	2,582	99.8%	19,986	99.8%
1	45	0.3%	5	0.2%	50	0.2%
Total	17,449	100.0%	2,587	100.0%	20,036	100.0%
Reason for fertility gap: marital status of the interviewee						
0	17,380	99.6%	2,573	99.5%	19,953	99.6%
1	69	0.4%	14	0.5%	83	0.4%
Total	17,449	100.0%	2,587	100.0%	20,036	100.0%
Reason for fertility gap: marital status of her partner						
0	17,051	97.7%	2,526	97.6%	19,577	97.7%
1	398	2.3%	61	2.4%	459	2.3%
Total	17,449	100.0%	2,587	100.0%	20,036	100.0%
Reason for fertility gap: unemployment (own or partner's)						
0	17,055	97.7%	2,537	98.1%	19,592	97.8%
1	394	2.3%	50	1.9%	444	2.2%
Total	17,449	100.0%	2,587	100.0%	20,036	100.0%
Reason for fertility gap: fear that the child might be born with health problems						
0	17,282	99.0%	2,567	99.2%	19,849	99.1%
1	167	1.0%	20	0.8%	187	0.9%
Total	17,449	100.0%	2,587	100.0%	20,036	100.0%
Reason for fertility gap: less freedom and time for other activities						
0	17,402	99.7%	2,579	99.7%	19,981	99.7%
1	47	0.3%	8	0.3%	55	0.3%
Total	17,449	100.0%	2,587	100.0%	20,036	100.0%
Reason for fertility gap: worries or problems that having a child entails						
0	17,248	98.8%	2,551	98.6%	19,799	98.8%
1	201	1.2%	36	1.4%	237	1.2%
Total	17,449	100.0%	2,587	100.0%	20,036	100.0%
Reason for fertility gap: still plans to have more children						
0	16,583	95.0%	2,465	95.3%	19,048	95.1%
1	866	5.0%	122	4.7%	988	4.9%
Total	17,449	100.0%	2,587	100.0%	20,036	100.0%
Reason for fertility gap: failure of birth control method used						
0	17,265	98.9%	2,565	99.1%	19,830	99.0%
1	184	1.1%	22	0.9%	206	1.0%
Total	17,449	100.0%	2,587	100.0%	20,036	100.0%
Reason for fertility gap: unawareness of birth control methods						
0	17,392	99.7%	2,580	99.7%	19,972	99.7%
1	57	0.3%	7	0.3%	64	0.3%
Total	17,449	100.0%	2,587	100.0%	20,036	100.0%
Reason for fertility gap: other						
0	16,955	97.2%	2,519	97.4%	19,474	97.2%
1	494	2.8%	68	2.6%	562	2.8%
Total	17,449	100.0%	2,587	100.0%	20,036	100.0%

Reasons for fertility gap coded according to the 1999 survey

Table B.5: Summary statistics, pooled Fertility Survey 1999 and 2018, part III.

Appendix C Parallel Pre-Trends Checks

The regressions run to check parallel pre-trends are of the form

$$\begin{aligned} \text{Outcome}_{a,t} = & \beta_0 + \sum_{j=2}^{24} \beta_j \text{year } j \text{ before reform}_t \times \text{Community property default}_a \\ & + \sum_{k=1}^{14} \beta_k \text{year } k \text{ after reform}_t \times \text{Community property default}_a \\ & + \gamma \text{Community property default}_a + X_{a,t}\eta + \sum_t \delta_t \text{Year}_t + \sum_p \lambda_p \text{Area}_a + \nu_{a,t} \quad (11) \end{aligned}$$

where a indexes area (region (autonomous community) or province) and t indexes time (year). The outcomes are marriage rate, fertility rate (global and percent born by order of birth), female employment rate, female labour force participation, home makers' share in total working age population⁹⁵, divorce rate and separation rate. Divorce and separation are measured on region level, the other variables are all province-level. The available time series for divorce and separation is shorter, starting with 1989; therefore, $j = 2, \dots, 16$ in this case.

The controls included in $X_{a,t}$ are

- Local civil law indicators (*fuero del Baylío, conquistas, consorcio conyugal*)
- Indicators for the three reforms of the Catalan Civil Code (1993, 1998, 2010)
- Age profiles by gender: age groups of 5 years, normalized by the total population of the province (region), by gender, with the last age group being 85+ (0-4 years old females/total female population,..., 80-84 year old females/total female population, 85+-year old females/total female population; same for males)
- Students aged 16+ divided by total working age population
- GDP share of the province (region): GDP of the province (region) divided by national GDP in year t

⁹⁵Data on home makers is not available by gender on province level; however, national level gender decomposition suggests that they are almost exclusively women. As a result of the European Commission's Regulation No 1897/2000, of 7 September 2000,(Regulation No 1897/2000, of 7 September 2000, implementing Council Regulation (EC) No 577/98 on the organisation of a labour force sample survey in the Community concerning the operational definition of unemployment), the number of inactives reported by INE before and after 2001 are not directly comparable. Since this policy change that affected recording the number of unemployed and inactive was implemented uniformly across Spain, the year fixed effects included in the model should absorb the resulting variation and allow me to use the full series starting with 1981.

- Unemployment rate by gender, when the outcome is marriage, divorce or separation rate
- Lagged separation rate with lags 1-5, when the outcome is divorce

The first post-reform year is taken to be 2005. The reference year is 2004; therefore all coefficients of the type n years before/after reform \times community property default express a change compared to the 2004 value. Standard errors are clustered by the appropriate level of aggregation (province or region). The three provinces of Valencia region are excluded from the analysis, leading to 49 clusters for province-level data and 18 clusters for regional data. For Ceuta and Melilla (both provinces and regions on their own), observations are occasionally missing, which is why the number of observations is sometimes less than number of provinces \times number of years. The fertility by birth observations for Tarragona in 2005 and 2006 are omitted due to a coding error in the data for those two years. This affects the regressions with fertility rate and with relative fertility (percent born by order of birth) as the dependent variable.

This section presents coefficient plots of the full control specifications. Regression results with an expanding set of controls are available upon request.

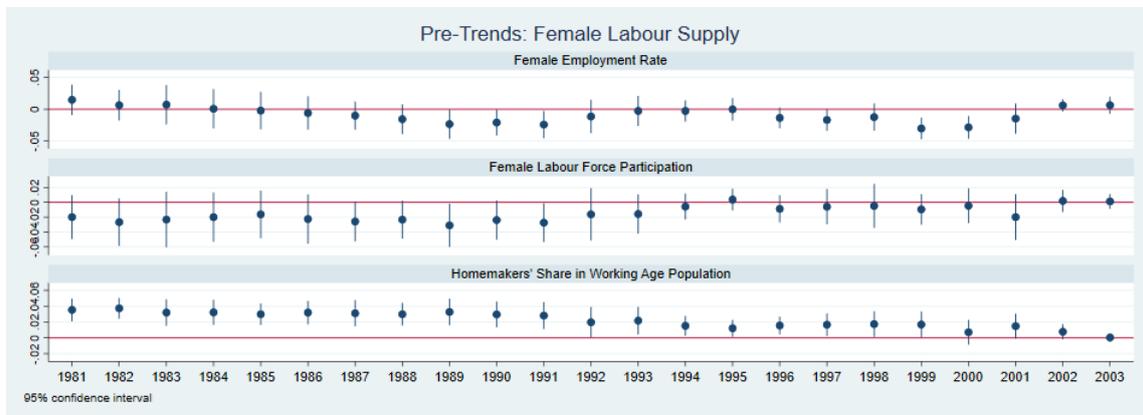


Figure C.1: Parallel Pre-Trends Checks, Female Labour Supply

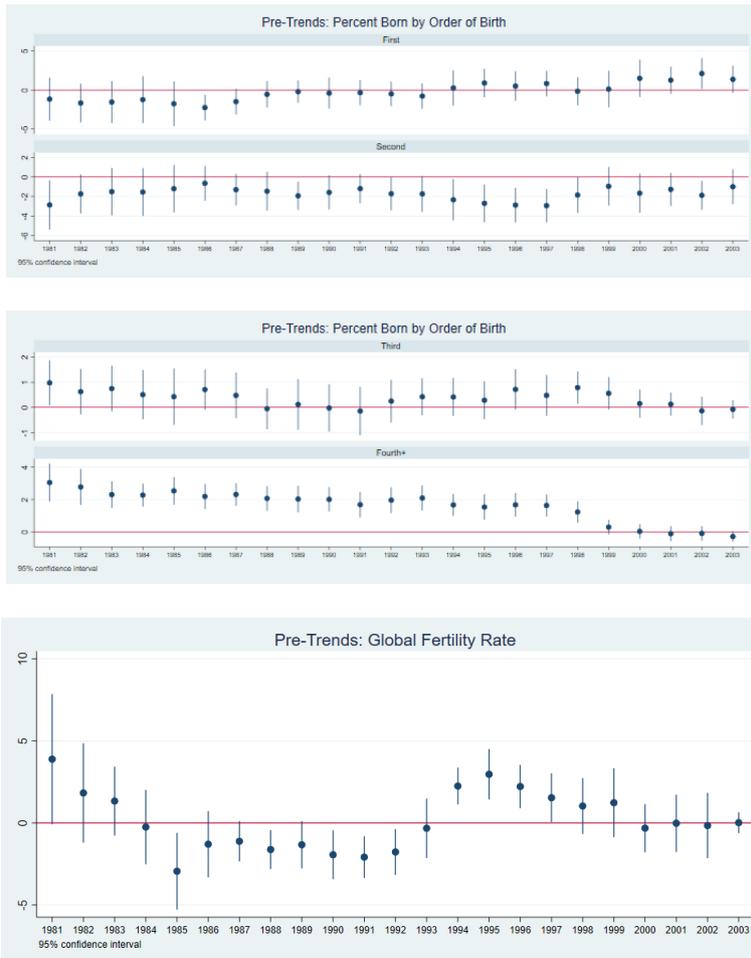


Figure C.2: Parallel Pre-Trends Checks, Fertility

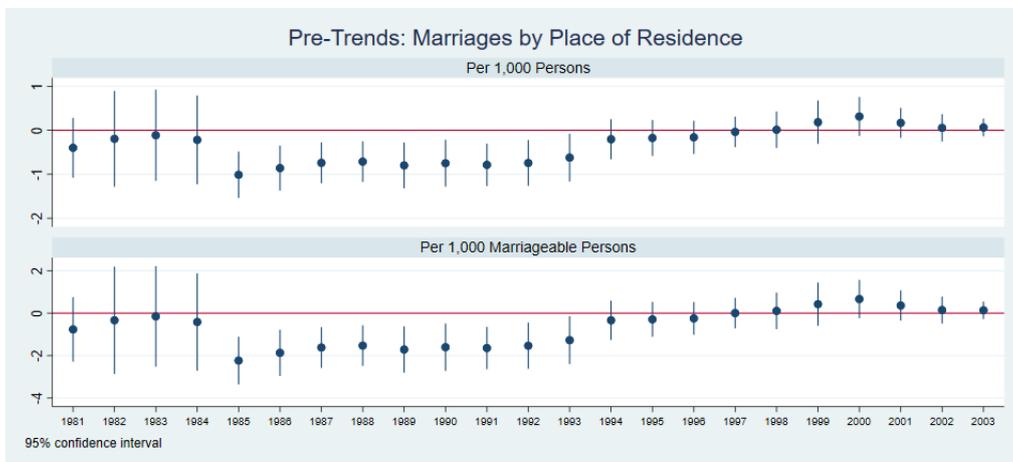
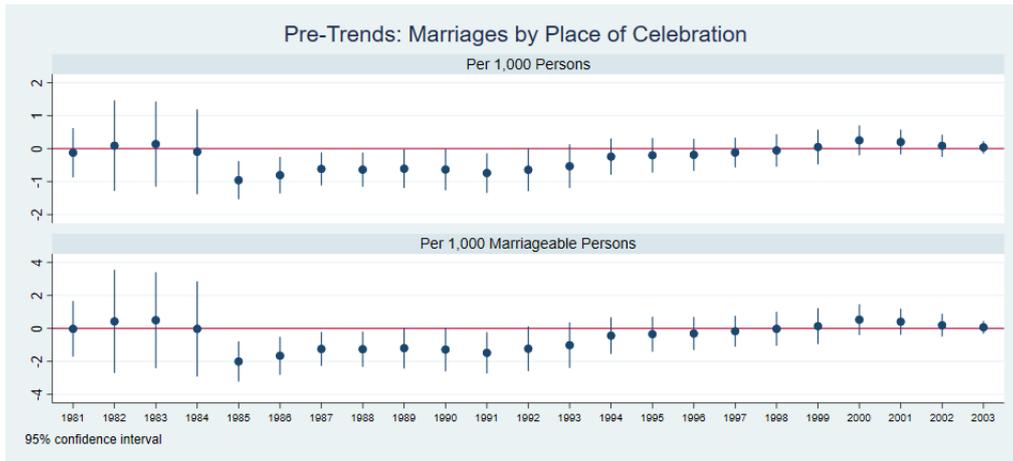


Figure C.3: Parallel Pre-Trends Checks, Marriage

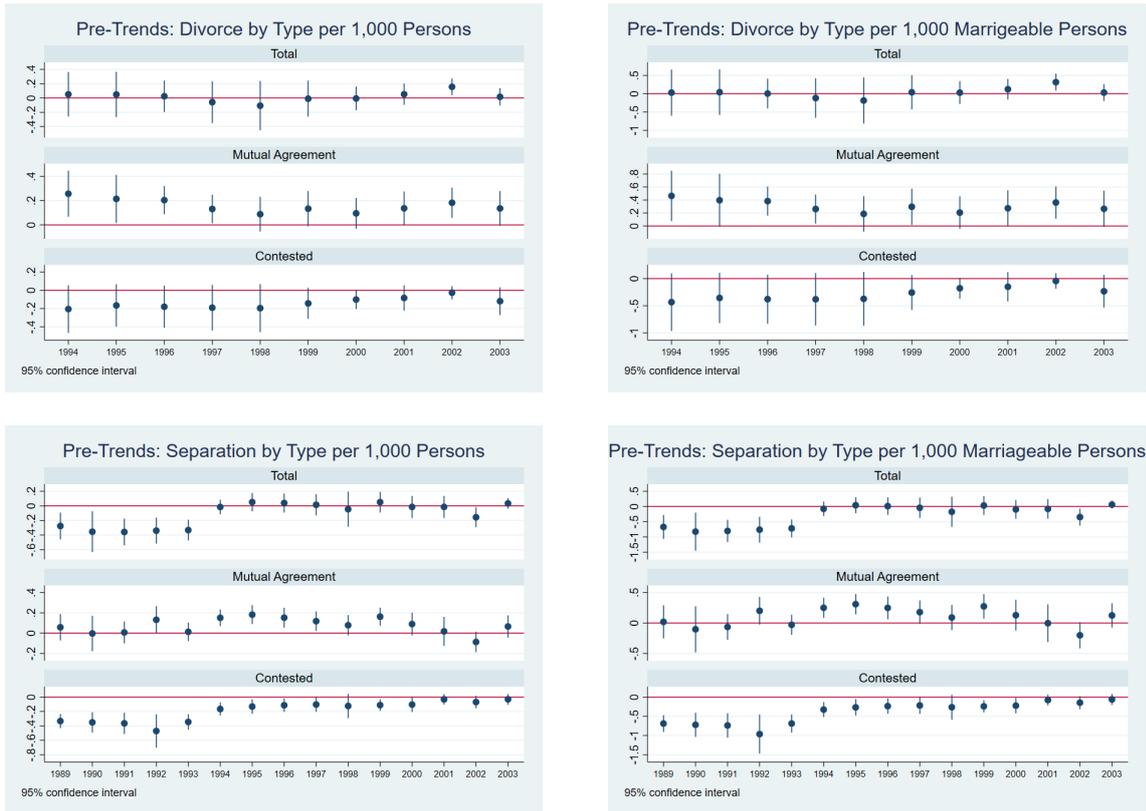
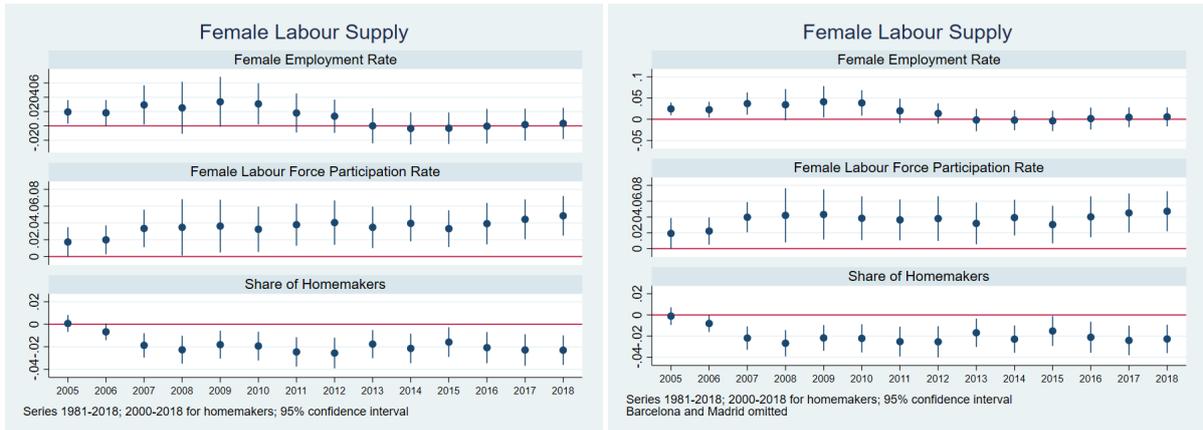


Figure C.4: Parallel Pre-Trends Checks, Divorce and Separation

Appendix D Robustness Checks



(a) 49 provinces

(b) without Barcelona and Madrid

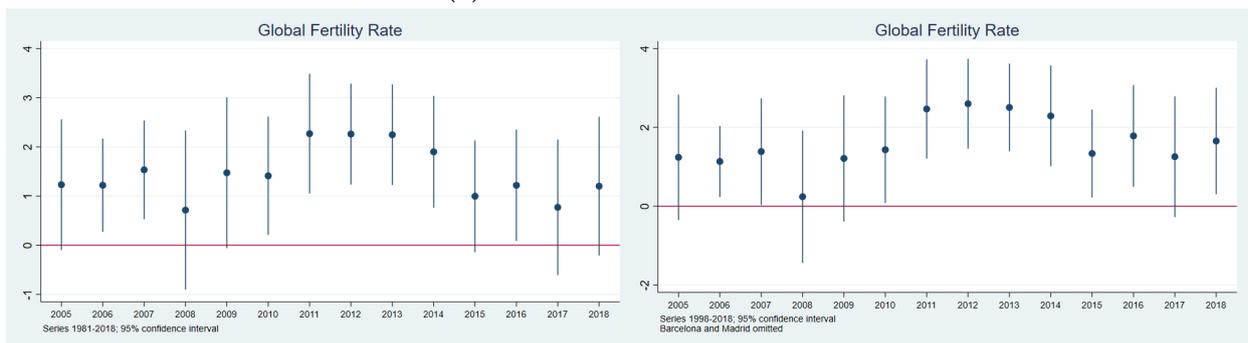
Figure D.1: Robustness Check, Female Labour Supply



(a) 49 provinces



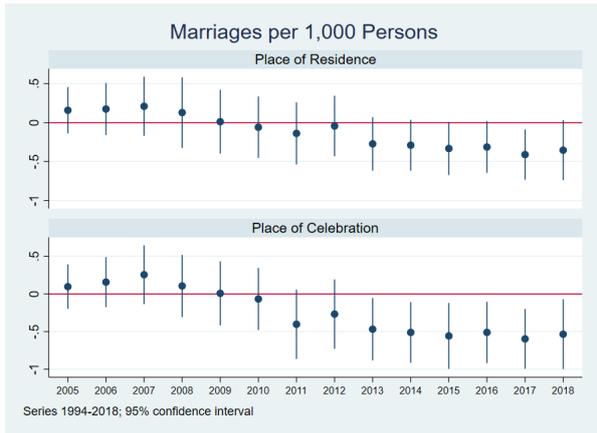
(b) without Barcelona and Madrid



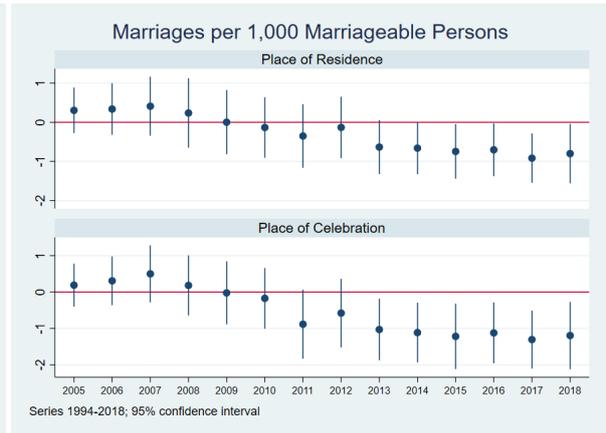
(c) 49 provinces

(d) without Barcelona and Madrid

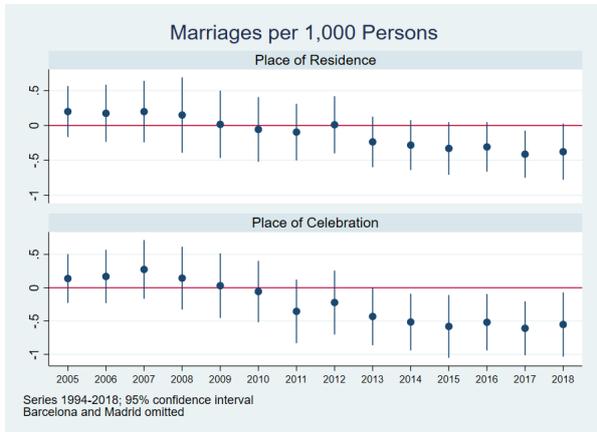
Figure D.2: Robustness Check, Fertility



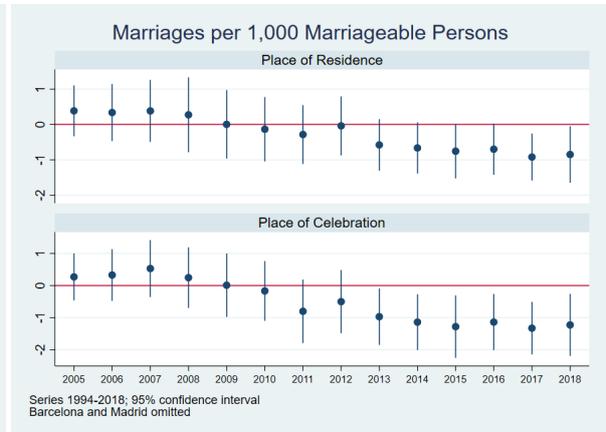
(a) 49 provinces



(b) 49 provinces



(c) without Barcelona and Madrid



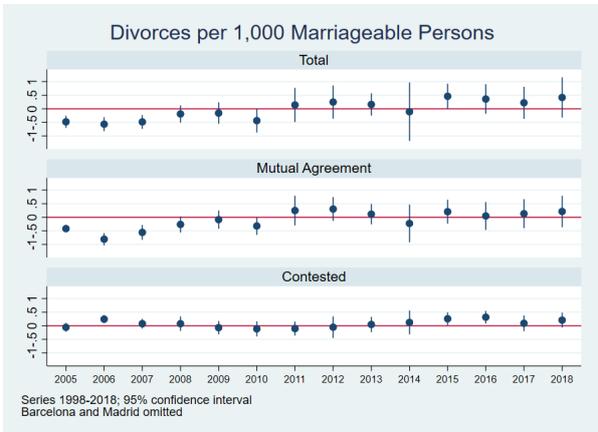
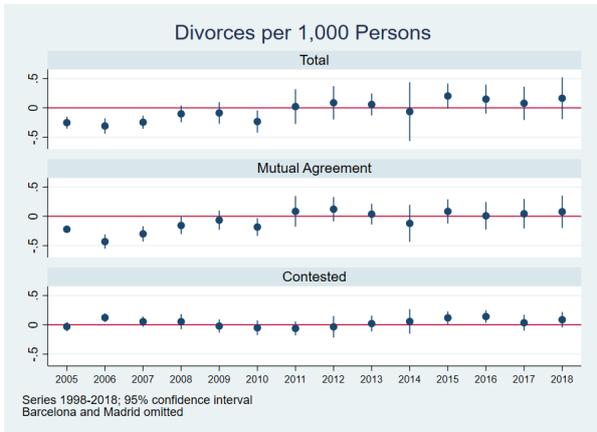
(d) without Barcelona and Madrid

Figure D.3: Robustness Check, Marriage Rate



(a) 49 provinces

(b) 49 provinces



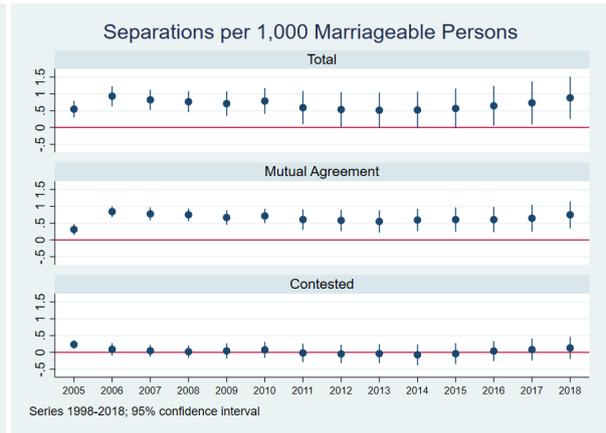
(c) without Barcelona and Madrid

(d) without Barcelona and Madrid

Figure D.4: Robustness Check, Divorce Rate



(a) 49 provinces



(b) 49 provinces



(c) without Barcelona and Madrid



(d) without Barcelona and Madrid

Figure D.5: Robustness Check, Separation Rate