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Choice of enterprise form: Spain, 1886-1936

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Choice of Enterprise Form: Spain, 1886-1936

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Abstract

Economists have long neglected study of an important contractual decision, a firm's choice of legal form. Enterprise form shapes the relations among a firm's owners as well as many features of a firm's interactions with the rest of the economy. Using unusual firm-level data on Spain 1886-1936, we estimate nested logit models of the determinants of enterprise form choice. In 1919, Spain introduced a new enterprise form that compromised between partnerships and corporations, and displaced larger partnerships and smaller corporations. This *Sociedad de Responsabilidad Limitada* was especially important for small and median-sized enterprises whose owners were not related.

Keywords:

Law and finance, law and economics, legal form of enterprise, Spanish economic history, limited partnership, limited-liability company

JEL: K20, N43, N44

Entrepreneurs creating a new multi-owner firm face a fundamental contracting decision: the enterprise's legal form. In most legal regimes today, multi-owner firms can be corporations or partnerships, and there are variants on these basic structures. A firm's enterprise form shapes owners' liability, the firm's access to public equity markets, and the rights of minority owners. The ability to formalize and commit to specific organizational forms enables firms to more readily attract outside funding and to contract with other economic agents. Decisions about legal form also shape the owners' scope for contracting on cash-flow and control rights. Economists have studied each of these issues in isolation, but have not considered the prior organizational choice that creates the structure within which these contracting problems unfold.

This paper uses micro-data on firm formation and multinomial choice models to study decisions about legal form in a context that offers both rich data and the absence of some complicating influences: Spain in the period 1886-1936. The focus on a single country overcomes complications that might appear with another approach, such as cross-country regressions. Using micro-evidence from a single country allows us to abstract from potentially confounding influences such as differences in national banking systems or the organization of equity

markets.¹ Most importantly, Spain introduced an entirely new legal form in 1919. The *Sociedad con Responsabilidad Limitada* (SRL) allowed entrepreneurs to combine some contractual features of the corporation with the partnerships greater flexibility. Discrete-choice model allows us to ask which firms preferred this new form as well as conduct counter-factual exercises about what would have happened in the absence of the new form.

Our econometric results support three conclusions. First, family connections among owners played an important role in the decision about legal form. Neither the limited partnership nor the SRL appealed to enterprises whose owners were all related. This result resonates with a long historical literature about the limited partnership, but ours is the first solid empirical evidence on this score. Second, counter-factual exercises show that after 1919, about two-third of firms organized as SRLs would have been ordinary partnerships in that form's absence, and about one-third would have been corporations. The SRL play not noticeable role in the limited partnership's demise. Three, and most strikingly, counter-factual calculations demonstrate that if the SRL had been introduced in the 1890s, few firms would have taken advantage of the form. As Spanish politicians argued, the new enterprise form reflected a new type of business in the

¹ For a cross-country approach to the determinants of firm formation in the period 2003-2005, see Kappler et al (2010).

1920s.

Spain's business code offered a clear, discrete set of legal forms from which to choose. The commercial registration system allows us to sample from the universe of multi-owner firms created in that period, and the notarial system yields a set of contracts with consistently-defined provisions. For the United States, the United Kingdom, and other major economies in this period as well as more recently, there is no source that reports the organizational form of all firms; official records usually pertain to corporations alone, and so miss the partnership forms used by the majority of smaller and medium-sized enterprises. Thus the Spanish data have strengths not available from other sources.

Recent decades have seen the introduction of new legal forms for business enterprises in many economies. During the 1990s, every U.S. state introduced a new limited-liability partnership (LLP) form. Many states have also created or reformed the limited-liability company (LLC), which allows owners to achieve many benefits of the corporation in a form suitable to a smaller enterprise. (Hansmann et al, 2006). Until the nineteenth century, most multi-owner firms in Continental Europe were partnerships, as corporations remained rare in comparison to the US (Lamoreaux and Rosenthal 2005; Guinnane et al 2007). Most countries other than Britain allowed the LLP from the early nineteenth century, and forms similar to the LLC appeared starting in Germany in 1892. Development of enterprise forms remains an active interest of policymakers in

several contexts. The European Union (EU) and its member states have also considered revision to their menu of enterprise forms. These efforts reflect a desire to harmonize company law across the Union. The EU discussions also reflect the widespread conviction that better company law could encourage economic growth by making it easier to form a broader range of businesses, including new firms.²

Economists now broadly accept the idea that institutions affect economic performance.³ This paper advances the literature on institutions in two ways. First, we focus on how firms dealt with specific legal rules, in contrast to the more common approach of trying to link “good” or “bad” institutions to economic performance at the national level. Second, enterprise form is unusual among institutions in that the legal rules determine the options but still allow firms to choose among those options. Industrial organization economists study similar questions, such as whether a firm franchises its retail outlets, or more broadly whether firms are vertically integrated.⁴ Legal form reflects economic institutions

² For recent European discussion see European Commission (2011).

³ This literature is vast. Recent, important examples include La Porta et al (2008) and Acemoğlu and Robinson (2012).

⁴ For a recent review of vertical integration, see Lafontaine and Slade (2007). Lafontaine et al (2013) focuses on franchising.

in two ways: what the government allows, and what the firm chooses.

A recent literature stresses the effect of legal rules governing entry and their effect on growth via the creation of new firms. The World Bank's "Doing Business" project views some constraints on legal form as a barrier to entry for new firms, and has advocated liberalizing the rules governing formation of new firms. Critics of the "Doing Business" project take the view that these barriers to entry do not have the damaging implications the World Bank view implies.⁵ Requiring a firm to adopt a specific legal form allows the enterprise to credibly signal the important features of their structure and operations to financial markets and customers alike.

I. Law and enterprise form

Spain's business code owes much to French legal traditions, a trait

⁵ For the "Doing Business" project Djankow et al (2002), as well as Klapper, Laeven, and Rajan (2006)." Arruñada (2007, 2008) argues that what "Doing Business" views as a barrier to entry provides legal certainty and reduces long-run transactions costs for firms in operation. The legal forms we study are a consequence of the rules Arruñada stresses. The small literature on the choice of enterprise form includes Abramitzky et al (2010); Hilt and O'Banion (2009); and Gómez-Galvarriato and Musacchio (2004).

common to many civil-law countries. The 1885 Spanish code allowed firms to organize as ordinary partnerships, as limited partnerships, or as corporations. The ordinary partnership required unlimited liability of its owners. In a limited partnership, some owners could restrict their liability to the sum they had invested, but could not participate in management. All investors in Spanish corporations had limited liability. Another important difference makes the partnership subject to hold-up problems. Partnerships are effectively at-will and so cannot lock in capital effectively; if a partner wanted to withdraw, he could leave and take his investment with him. Corporations, on the other hand, are legal persons with locked-in capital. An investor who wants out of a corporation can only sell his shares to someone else.⁶

The Spanish commercial code of 1885, which governs company formation to this day, departs from this tradition in one important way. Ordinarily civil-law countries required firms to use one of the legal forms specifically described in the law. The business code, however allowed firms to modify the standard forms, so long as the resulting firm respected the code's other requirements (§117, 122). Firms took advantage of this flexibility to adopt features of the new enterprise forms appearing elsewhere in Europe. The practice remained rare, however, until

⁶ Appendix Table A.1 provides an overview of the central features of each legal form for Spain and, for comparison, four large industrial economies.

1919, when the Ministry of Justice issued instructions to commercial registries requiring the recognition of the new SRL. The SRL resembled a partnership in which owners could lock in capital and all had limited liability. The rules governing the SRL relied on the 1885 code's partnership rules and case law until 1953, when Spain passed its first legislation governing the SRL.⁷

II. Data on choices of legal form in Spain

To enjoy the commercial code's protection, a firm registered its formation and provided a summary of its articles of association to the provincial branch of the commercial registry. We have assembled three distinct databases from this

⁷ Guinnane and Martínez-Rodríguez (2014) provides more detail on the development of Spanish company law. Martínez-Rodríguez (2015) focuses on the SRL's formalization in 1919, which reflected a bureaucratic regulation rather than a new statute. The episode illustrates the central role of notaries and the commercial registry, as Arruñada (2010, 2012) has argued. Spanish notaries (like civil-law notaries in general) both advise their clients and certify that contracts meet the law's requirements. Like most civil-law countries, Spain allows firms to organize under the commercial code or the civil code. We focus on the former; firms organized under the civil code were generally much smaller and less important for economic performance

registry. The first source records totals of the number of firms organized under each legal form, along with the total capital in these firms, for every year 1886-1936. These reports (“Yearbooks”) provide a rare complete picture of how firms organized.⁸ The other two sources have firm-level data taken from the firm’s articles of association. The first micro-level source encodes a publication that reports selected information on *every* Spanish firm that registered in the years 1925, 1926, and 1927. The information available in this source, which we call “Firm Census,” is limited to the variables published in the original source. The second micro database (“Firm Sample”) comprises a random sample of enterprises from the archives of fifteen peninsular provincial commercial registries. For each of these provinces, we randomly selected two firms formed in every year in the period 1886-1936. Our data reflect the firm’s initial characteristics as provided to the commercial registry at formation. Attributes such as capital stock could change over the firm’s life. Partnerships rarely changed hands. The individuals we consider a corporation’s “owners,” however, are those who signed the articles of association. Our sources do not include subsequent performance measures, so we cannot, unfortunately, ask how legal form affected profitability or longevity.

⁸ Appendix A provides additional detail and descriptive statistics.

Figure 1 uses the Yearbooks to summarize the distribution of new firms by legal form along with the total registrations for all of Spain over our period. The majority of firms in 1886 were ordinary partnerships, with a small but stable fraction organized as limited partnerships. Corporations accounted for a modest share of new firms. The period prior to the SRL's formalization in 1919 saw the slow decline of the partnership and the equally slow rise of the corporation. The loss of Spain's remaining colonies in 1899 led to the repatriation of considerable capital and an increased number of new corporations starting in that year. The limited partnership suffered declining use after the SRL's 1919 introduction. By 1936 only a handful of companies registered as limited partnerships. The new SRL and the growing role of the corporation also made the ordinary partnership considerably less popular than earlier. Figure 1 also reports the total number of firm registrations, annually. Spain experienced slow growth of new firms up to World War I, then a short boom in new registrations that ended early in the 1920s. Spain's wartime boom reflects the advantage of being neutral in a Europe at war.

Table 1 summarizes three important dimensions of our firms.⁹ Measured by capitalization and owners, the SRLs were somewhat larger than either of the partnership forms, and the corporations much larger than all other forms. We

⁹ Table 1 is limited to Firm Sample; Appendix Table A.2 reports analogous information for the other sources.

constructed the two “family connections” variables from surnames and internal references (for example, “and his son...”).¹⁰ Owners who are all related preferred the ordinary to the limited partnership; when the owners combined relatives and non-relatives, the limited partnership was more common. Table 1 also summarizes the practice of stating a contractual duration in a firm’s articles of association. This was optional, and most firms leave it open, but corporations are most likely to include a fixed duration in their articles, and to make it longer than 10 years.

We group firms into sectors using a standard industrial classification for Spain. For the econometric analysis we further combine these sectors into four groups: factories, trading enterprises, mining and infrastructure firms, and a (residual) miscellaneous category. (See Appendix Table A.4) Corporations

¹⁰ Spaniards use both the father’s and mother’s (first) surname, and women do not change their surname at marriage. These customs make it possible to identify relatives with more certainty than would otherwise be the case. Consider the ordinary partnership “Carrasco y Viuda e Hijos de Marsal,” a firm in the Firms Sample database registered in Alicante in 1934 (firm number 2029). The owners are a widow, Adela Carrasco López and her children Ramón, Alfonso, and Adela Marsal Carrasco, as well as Adela’s brother Antonio Carrasco López. These naming practices allow us to identify those who are related through a female line.

dominate two sectors, mining and the heterogeneous category of agriculture processing, utilities, and construction. Within a given sector, firms organized as corporations have larger total capital investments than firms organized in other ways. The SRL was at first most popular in two large sectors, factories and trade. The new form also appealed to a range of professional and service-related firms, such as the liberal professions, travel, and health services.

III. Modelling firm-level decisions about legal form

Entrepreneurs creating a multi-owner firm choose an enterprise form to minimize contracting problems given the characteristics of the firm and its owners, subject to the legal system's constraints. We model this decision using multinomial discrete-choice models. We have two questions: How do the firm's characteristics affect the choice of form? And how did the expansion of the menu of choices represented by the SRL's introduction affect these choices? There is no natural ordering for the choice of legal form, so we restrict our attention to unordered choice models. After considering several alternatives, we rely on nested logit (NL) models.¹¹

¹¹ Appendix B discusses alternative modelling approaches and provides robustness checks for our econometric models.

The NL model can be derived from random-utility maximization, so the estimates imply, for each firm, a rank-ordering of preferences over legal forms. These orderings reflect a relationship between firm characteristics and what owners thought would best mitigate contracting problems. The NL model also reveals the impact of the new SRL on other enterprise forms. When Spain introduced the new SRL, some entrepreneurs preferred that form to any of the older alternatives. For others, the new SRL was irrelevant in that they preferred some alternative. Our approach allows us to study what firms would have done in the absence of the new form, and, less formally, to examine the characteristics of firms forced to make a sub-optimal enterprise form choice.

The econometric models require an assumption: that a firm's attributes are all fixed when its founders decide on the legal form. We thus abstract from the possibility that legal form is decided as part of a negotiation over other firm attributes. Concerns over possible endogeneity of regressors should focus on the possibility that a potential owner might hold out for limited liability or some other firm attribute, for example, thus implying that the participation of some owners was contingent on choice of enterprise form. Given our sources, there is no tractable solution to this endogeneity problem, so we must be cautious in interpreting our results as "causal."

We first apply the NL model to the Firms Census database because it is larger and allows us to study the post-SRL world in detail. We then turn to the

Firms Sample. We define variables in the two databases identically unless otherwise noted.

A brief overview will guide our discussion: First, firms that contemplated long-term investments in illiquid projects would be reluctant to organize as partnerships because of potential hold-up problems. On the other hand, because a corporation can lock in capital, this form may not protect the interests of minority investors; minority owners may find the management and/or the majority owners in a corporation making decisions that reflect some private interest over that of maximizing the firm's value. This problem would be most serious for corporations in jurisdictions with prescriptive rules for corporate organization. Spanish corporations were more flexible than corporations in other jurisdictions, so minority oppression might not have been a serious drawback to using this form. An SRL's owners could write complex rules to protect minority owners from oppression.

We have two indicators for the role of concerns about untimely dissolution issues. First, in some sectors a firm's physical capital can easily be liquidated, while in others it cannot. Thus sector serves as a proxy for concerns about this form of hold-up. Mining and infrastructure firms are those most engaged in investments of the type that would create untimely dissolution problems. Second, a firm's articles of association could stipulate that it was open-ended or would last only for a specific period. We construct a dummy for whether the firm has a

stated duration, and define another variable as the interaction of that dummy with the number of years stated for firms that have a stipulated duration.¹²

Second, enterprise size affects choice of legal form in two ways. Only the corporate form permits access to equity markets, which eases the task of raising capital for the largest enterprises. (The SRL's equity shares could not be listed on exchanges.) In addition, the corporation requires formalities (such as publication of a balance-sheet) that entail fixed costs, and imply that smaller enterprises would prefer another form. We capture firm-size effects with the natural log of stated capital and its square. We also include a dummy for whether the firm has any unpaid capital. Firms could and did have nominal capital in excess of what owners had paid in. Shareholders remained liable to pay in more capital, according to rules stipulated in the firm's articles. The difference between nominal and paid-in capital also enhanced the firm's borrowing ability.

Third, family ties among owners may affect the choice of legal form. If two close kin create a firm, the limited partnership (and thus limited liability for some owners) may be superfluous because the kin insure each other informally, and because each will want the other playing an active role in running the firm. Owners who are not close relatives may prefer a form that allows them to limit

¹² We top code the duration variable at twenty years. Only a few firms state a longer duration.

exposure, that is, the limited partnership. The limited partnership form does not allow such owners to participate in management but that again may not be a concern for certain investors. Because it relies on a published source that did not report this information, we do not have the relationship variables for the Firms Census source. For the Firms Sample database we use the number of owners and the family relationships to capture aspects of the legal-form decision that could reflect owner identity.

Four, organizing any type of firm required costs. All new firms paid the notary who drafted the articles of association and incurred fees for the commercial registry. In addition, the government imposed taxes that depended in part on the firm's total capital (Gaceta de Madrid (1916), 687-690). Tax considerations today are an important element of decisions about enterprise form, but that was not the case in Spain in our period. Extant firms faced a number of taxes that changed over the period we study and bear no simple relation to form. Prior to 1900, the relevant tax was levied on each town, and the local mayor raised the necessary funds from local firms. In 1900 Spain introduced the first modern tax on corporations of certain types. Corporations classified as "industrial" paid a lower tax rate under this regime, providing an incentive to organize in this way.

The choice of legal form might also reflect local considerations. Notaries outside the main commercial centers had less experience organizing corporations. A notary inexperienced with the corporation form could impose additional

transaction costs for entrepreneurs organizing their firm that way. And if one reason to organize a corporation was to tap liquid markets for investors, either privately or by listing on the stock market, then a firm located outside financial centers such as Madrid or Barcelona (or places with smaller exchanges, such as Bilbao or Valencia) might think twice about the corporate form.¹³

IV. Results

The NL model requires judgment about which alternatives are similar and thus belong in the same nest. Figure 2 describes our approach. We group the enterprise forms with limited liability for at least some owners into one nest, and place the ordinary partnership in its own, “degenerate” nest. Table 2 reports the NL estimates for the Firms Census model. (Appendix Table B.1 reports descriptive statistics for the estimation sub-samples.) Several alternative nesting structures seem plausible, but the data reject the other candidates as inconsistent with the random utility-maximization model that underlies NL (see below). The estimates are relative to the ordinary partnership. The choice of normalization does not affect estimated probabilities. The nesting (or “dissimilarity”) parameter (which we constrain to “1” for the degenerate nest) lies on the unit interval,

¹³ In the years 1886 through 1936 a total of eight Spanish provinces did not see the registration of *any* corporations.

implying that the model is consistent with utility maximization. Because the model has several branches the individual parameters are even more difficult to interpret than is normally the case for nonlinear models. Wald tests reject the null hypothesis that any of the branches are redundant in the sense the model cannot distinguish that form from the ordinary partnership. We cannot, however, reject the null that any branch is equal to any other.¹⁴ Individual regressors do have substantially different effect for different forms, however.¹⁵

The estimates imply a ranking over legal form options for each firm. We compare the “predicted” legal form (the highest-ranked form, according to the model) to the form the enterprise actually took. With more than two outcomes this is a demanding standard. The predictions generated by the model reported in Table 2 correspond to firm choices in about 58 percent of cases. This statistic varies considerably across enterprise forms. The model correctly predicts about 77 percent of ordinary partnerships and 79 percent of corporations. The limited partnership and SRL are more difficult: the model does not predict *any* limited

¹⁴ For the individual branches, the smallest Wald χ^2 is 61.64, which with 19 degrees of freedom rejects at any confidence level.

¹⁵ For example, the null hypothesis that the year effects are the same for the limited partnership the SRL the χ^2 statistic is 6.89, which with 2 d.f. has a “p-value” of .0319.

partnerships (six percent of firms) and only about 16 percent of SRLs. With four alternatives, it is also useful to examine the first and second-ranked forms. Under this more forgiving criterion, the model predicts 94 percent of partnerships, 83 percent of corporations, and 81 percent of SRLs. But the limited partnerships remain a problem; in fact, the model implies that for 64 percent of actual limited partnerships, that form was the firm's *last* choice.

To examine how the firm's characteristics affect the choice of legal form we rely on average marginal effects (AME), the mean change in the predicted probability that firms select a given form when we vary one or a set of regressors. By construction the AMEs sum to one for all choices facing a single firm. Some AMEs are large, but imprecisely estimated. Starting in 1927 compared to 1925 raises the probability of the firm choosing the SRL by .085, with a standard error of .0296. This trend reflects increasing awareness of and comfort with the new form. Increasing the firm's capitalization from the mean by ten percent reduces the probability of forming an ordinary partnership by .0989 (.0358) and increases the chance of a corporation by .1592 (.0565). More capital also makes the SRL less favored (.0602, with a standard error of .0291).¹⁶ A larger firm's preference

¹⁶ Table B.2 reports AMEs for all enterprise forms. The standard errors are estimated by 200 bootstrap replications. The capital AMEs account for both the log of capital and its square.

for a form that allows it to tap equity markets does not surprise. The negative effect for the SRL may reflect entrepreneurs' ability to more effectively sort when they do not want to issue tradeable shares; the SRL allows limited liability with locked-in capital at a smaller scale. Comparing the infrastructure sector to trade, the latter increases the chance of an ordinary partnership by .11 (.0662) and reduces the probability of the corporation by .1239 (.1119). Infrastructure firms, as noted, need the corporation's ability to lock-in capital.

V. Decisions 1886-1918: the Firms Sample database

We now turn to two parallel models using the Firm Sample database for the period prior to and following the SRL's introduction. We split the Firm Sample database in this way because the SRL's introduction in 1919 enlarges the choice set for that year and after. We divide our fifteen sampled provinces into five groups of three provinces each. To account for trends over the period 1885-1936, we use a linear spline, with the knot set at 1899, the year Spain began to see capital repatriated from its former colonies. The Firm Sample has information not available in the Firm Census. We know the number and identity of the owners when the firm was established, and use the indicators of family relations discussed above to infer relationships among owners. We enter the number of owners in total linearly. A first dummy variable is unity if all owners appear to be

related, and another is unity if only some owners appear to be related. The reference category is firms for which the owners appear not to be related. We interact these two dummies with the number of owners, allowing the connection between legal form and family connections to vary with firm size.

Table 4 reports estimates for the Firm Sample model before 1919. The information on owner numbers and family relationships improves the model's ability to distinguish between ordinary partnerships and other forms. The model correctly predicts 77 percent of firms overall, including 95 percent of ordinary partnership and about 70 percent of corporations. The limited partnership remains problematic, however; only 8 percent of actual limited partnerships have this as their predicted first choice, but about 85 percent have this option as their predicted second choice. This is admittedly a low standard when there are only three options.

The Firms Sample database has only 500 firms in the post-1919 period, which strains our ability to estimate 45 parameters. We report the estimates in Table 4. Unfortunately, only this database has the family variables in the SRL period, so we must accept the possible problems the small sample poses. This post-1919 model predicts 73 percent of partnerships, 26 percent of limited partnerships, 76 percent of corporations, and 57 percent of SRLs. This is a dramatic improvement for the limited partnership and the SRL; the family

composition of the owners allows the model to more accurately account for decisions concerning these two forms.

Point estimates for the AMEs in the two Firms Sample models are large but imprecisely estimated. We focus on the estimates for the SRL period as reported in Table 4. Comparing a firm with two related owners to one with two unrelated owners, the latter reduces the ordinary partnership's probability by .0817 (.086) and increases the limited partnership's probability by .077 (.0578). The effects are slightly larger comparing a three person firm with all related owners to one for which only two owners are related. In the post-1919 model these effects are much larger; a three-person firm with all related owners has a much smaller chance (.2978 (.1811)) chance of selecting the ordinary partnership and a similarly large chance (.294 (.2188)) chance of taking on the limited partnership. These "relatives" variables have little effect on either the corporation or the SRL.

Our results offer new insights into the role of families in firm creation.¹⁷ In his famous discussion of families and other "F-connections," Ben-Porath

¹⁷ The literature on family ownership of firms tends to focus on the implications of family ownership for firm performance, which is not our focus. Recent contributions include Colli, Fernández-Pérez and Rose (2003); Colli (2003); and James (2006).

(1980) stresses that relatives typically pool risk, which would be one reason we find that family members in business together use a partnership form with unlimited liability. Ben-Porath also argues that family members can sustain exchange more efficiently than other agents because their familial ties imply a repeated-game context that would not be the case for individuals who could part company with any personal loss. In this respect, family-based businesses reduce transactions costs in the sense of Williamson (1979). The family-firm preference for the ordinary partnership over other forms may reflect the problem of contractual incompleteness as stressed by Grossman and Hart (1986). They argue that ownership amounts to an allocation of residual rights that creates distortions, but is a second-best solution to costly contracting. Two family members may be better able to contend with contractual incompleteness without allocation of “ownership” within a firm; that is, two brothers may be better-suited to sharing the management of an ordinary partnership than would two unrelated individuals. In a limited partnership, on the other hand, the law requires control rights to rest with a specified group of owners, the general partners.

The two databases differ in three ways. The Firm Census is mostly cross-sectional, while Firm Sample spans a fifty-year period. The former comprises every firm registered in Spain in those three years, while the latter has two firms chosen randomly from each of fifteen of Spain’s provinces in every year covered. These differences alone might lead to at least somewhat different results. But the

Firm Sample data also has information on the family connections among owners, and these variables drive the better predictive power. Family firms strongly preferred the ordinary partnership form. Limited partnerships only appealed when the firm included some owners who were not relatives. Most importantly, the post-1919 Firms Sample model does a much better job of predicting the use of the SRL: family firms were less likely to use this form in our period, and knowing which firms consisted of related owners allows the model to distinguish between the SRL and the partnership.

VI. Robustness

Appendix B reports several robustness checks for the models reported here. We briefly summarize these checks and refer the reader to the Appendix. First, the difference between the Firms Sample and Firms Census results raises the concern that the latter suffer from omitted variables bias, as the Firms Census database lacks the information on owner characteristics that seems so important in the Firms Sample model. We estimate a version of the pre-1919 Firms Sample model that drops the variables that rely on owner characteristics. The point estimates for other variables change little.

Second, our analysis takes as given that the legal forms reported by the commercial registry are distinct and the object of meaningful choices by entrepreneurs starting a new firm. One might worry that firms cared less about

legal form than we think. We address this concern by estimating models in which the real enterprise form is replaced by a placebo. We use two different placebos. In the first, the probability of each legal form is equal. In the second, we assign forms randomly but respect the unconditional distribution of legal forms for the database in question. These models cannot distinguish the four alternative placebo forms at all, in contrast to the results reported in Tables 2-4.

Finally, the NL model imposes more structure on choices than some alternatives, such as the multinomial probit model (MNP). Appendix B reports a version of the MNP model estimated using the Firms Census database. Given the structure of our data, the MNP model is poorly-identified. The model we report does not imply results much different from the NL models used in this paper, however.

VII. If there had never been an SRL? A counter-factual

The logic of choice models supports a counter-factual exercise: what would firms have done, after 1919, had the SRL not been a possibility, but nothing else changed? We pose this question by looking to the next-preferred option for firms that organized as SRLs. The Firm Census sample has 783 SRLs. (The model is reported in Table 2.) We consider first the 126 firms that were SRLs and for which the model assigns the SRL as the first choice. Ninety-four of these firms would have been ordinary partnership, and 19 would have been a

corporation. None would have chosen the limited partnership form. Most Spanish entrepreneurs apparently viewed the SRL as a form of partnership with limited liability. A small group treated it as a close substitute for the corporation, perhaps valuing its ability to lock in capital and offer limited liability at a small scale.¹⁸

The fact that a firm organized as an SRL when available implies that the firm preferred that alternative to the other possible forms. Thus eliminating the SRL alternative implies a loss. Looking at the types of firms forced into the “wrong” alternatives conveys a sense of the implications of a more restrictive menu. In the Firms Census model, the firms that would have been ordinary partnerships instead of SRLs were larger than the typical partnerships, with a median capitalization of 52,400 pesetas compared to 30,800 pesetas for actual partnerships. Those that would have been corporations were much smaller than the typical corporation, at about 293,000 pesetas.¹⁹ The post-1919 Firms Sample model implies something similar. Firms that were actual SRLs but counter-factual partnerships had more owners than actual partnerships, and the SRLs were much less likely to have related owners related (2 percent versus 36 percent). If the SRL

¹⁸ This counter-factual only considers the SRLs ranked most-preferred by the model. If we instead consider the next-preferred option after the SRL for all SRLs, even those ranked second or worse by the model, the results are similar.

¹⁹ In 1900, £1=32.56 pesetas =\$4.87. (Martin Aceña and Pons, 2005), 704.

had not existed, firms would have been forced to shoehorn themselves into a form best suited to a different kind of enterprise.

A final and more speculative calculation asks what firms would have chosen had the SRL been available in the 1890s. Using the estimates for the post-1919 model (Table 4) and the data for the pre-1919 period leads to a sharp conclusion: no firm prior to 1919 would rank that option first, and for 60 percent of all firms, the SRL would have been the last choice. The counterfactual has some limitations: it cannot account for the possibility that some firms would not have organized at all, or organized with other features, had the SRL's features not been available. If the SRL reduced the costs of organizing a multi-owner firm (at least for some enterprises) then it might account for an increase in the total number of multi-owner firms, a possibility outside our model's structure. This limitation is another implication of the implicit IIA we imposed by looking only at multi-owner firms, and ignoring the single-owner firms for which we lack data.

VIII. Conclusions

Spanish company law reflected the basic ideas current in most civil-law countries in the nineteenth century, offering entrepreneurs a choice of ordinary or limited partnerships, or corporations. Most firms organized as ordinary partnerships, with corporations common only in particular sectors and for the largest enterprises. Spain added to the menu of enterprise forms when it

introduced its version of the private limited-liability company in 1919. The SRL was immediately popular, displacing the ordinary and limited partnerships. We use three samples of Spanish firms to study the determinants of choice of legal form in the period 1886 through 1936.

The decision to employ one legal form over another form reflected trade-offs related to firm size, sector, the characteristics of owners, and the firm's other traits. A given attribute could be irrelevant along some margins and important along others. Most strikingly, we show for the first time that family connections play a particular role in the choice enterprise form. Family connections among firm owners alter the importance of contractual rules specified by the law. The ordinary partnership, to take our strongest results, appeals more to family groups because close relatives insure each other anyway, reducing the impact of the unlimited liability for all owners required for that form. Most importantly, we find that the SRL was a close substitute in some cases for the ordinary partnership and in others for the corporation. This should surprise; how could one legal form be a reasonable alternative to firms organizing in such different ways? The answer lies in the SRL's flexibility, which made it possible to adapt the form closely to the needs of a firm's organizers. Firms that would otherwise be partnerships could use the SRL to adapt the partnership-like structure they preferred. Firms that would otherwise be corporations could use the SRL to create their own preferred organization.

These results have implications beyond Spain. The choice of legal form transcends any particular country or period in the past two centuries. Many countries introduced legal forms similar to the SRL starting at the end of the nineteenth. Prominent examples include Germany's GmbH (1892), the U.K.'s Private Limited Company (1907), and France's SARL (1925). As noted at the outset, U.S. states have recently expanded the menu of organizational forms they offer to business enterprises. We do not expect that the introduction of a new legal form in New York State, for example, will mimic the patterns we find for Spain. But the new forms we see in recent decades share the feature of offering to smaller firms the possibility of organizing with limited liability without the reporting and other burdens of the corporation, and without sacrificing the contractual freedom of the partnership. The underlying issues are the same: the way heterogeneous firms select and adapt an enterprise form to minimize the costs of establishing and running them firm.

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