

The Effect of Divorce Laws on Divorce Rates in Europe^{*}

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Abstract:

This paper analyzes a panel of 18 European countries spanning from 1950 to 2003 to examine the extent to which the legal reforms leading to “easier divorce” that took place during the second half of the 20th century have contributed to the increase in divorce rates across Europe. We use a quasi-experimental set-up and exploit the different timing of the reforms in divorce laws across countries. We account for unobserved country-specific factors by introducing country fixed effects, and we include country-specific trends to control for time-varying factors at the country level that may be correlated with divorce rates and divorce laws, such as changing social norms or slow moving demographic trends. We find that the reforms were followed by significant increases in divorce rates. Overall, we estimate that the introduction of no-fault, unilateral divorce increased the divorce rate by about 1, a sizeable effect given the average rate of 4.2 divorces per 1,000 married people in 2002.

JEL Codes: J12, J18, K3

Keywords: divorce rates, legislation.

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1. Introduction

The recent rise in divorce rates in industrialized countries has generated a great deal of attention from researchers and policy makers. Many worry about the negative economic consequences of divorce for women and children, and there is some evidence that more liberal divorce laws have negative effects on long-term outcomes for children (Gruber, 2004). On the other hand, recent research suggests that divorce may increase physical and psychological well-being for both partners (Gardner and Oswald, 2005; Stevenson and Wolfers, 2006). Thus it seems clear that divorce legislation has potential effects on large segments of the population and on several important dimensions related to both economic and psychological well-being.

The rise in divorce rates has been very pronounced in Europe since the 1960's. Virtually all European countries experienced less than 2.5 divorces per 1,000 married people in 1960, and many had divorce rates below 1. By 2002, most European countries had divorce rates around 5 per 1000 married people or higher.

Many European countries reformed their divorce legislation during the last four decades of the 20th century, allowing divorce under mutual consent and "no-fault" grounds or even unilaterally. This raises the question of whether these reforms that tended to "make divorce easier" were at least partially responsible for the widespread increase in divorce rates.

This question has relevant policy implications, since several countries have recently been considering additional reforms in their divorce laws.¹ They are also pertinent given current initiatives studying the possible harmonization of family law within the European Union (Boele-Woelki, 2005; European Commission, 2005).

We use panel data on 18 European countries from 1950 to 2003 to analyze the effect of changes in divorce laws on divorce rates. We identify this causal relationship by exploiting the variation across countries in the timing and nature of the reforms, while controlling for fixed and trending unobserved factors at the country level that may be related to both divorce laws and divorce rates. We also analyze the extent to which the effects of the reforms are transitory or permanent.

Our analysis builds on a previous body of literature, both theoretical and empirical, that analyzed the effect of no-fault and unilateral divorce on divorce rates in the United States. So far, empirical estimates of the effect of divorce law on divorce rates have produced mixed results.² We contribute to the debate by examining the impact of different divorce law reforms on the divorce rate using a long panel of European data. There are several advantages to using European data versus US state-level data. First, there is a greater range of divorce law regimes, and changes in those regimes, across Europe than across the US. Some countries actually legalized divorce fairly recently,

¹ Reforms liberalizing divorce took place in France and Spain in 2005, while there are current initiatives in the US in favour of making divorce easier in some states (such as New York) and more restrictive in others (such as Ohio).

² See Peters (1986, 1992), Allen (1992), Friedberg (1998), Wolfers (2006).

which provides a useful benchmark against which to compare other reforms. Second, since there is less mobility across Europe, there is also presumably much less divorce-driven migration (or “divorce law shopping”) in Europe than in the US, and thus this factor is less likely to affect the estimates of the effects of law changes.

We find that the reforms that “made divorce easier” (by introducing no fault and/or unilateral grounds for divorce) were followed by significant increases in divorce rates. Moreover, the effect seemed permanent (allowing for the time scale of the panel) with strong, significant long-term effects. According to our estimates, the combined effect of introducing no-fault, unilateral divorce amounts to an increase in the divorce rate of 1 annual divorce per 1,000 married people. This effect is sizeable given that the aggregate divorce rate was 4.2 in 2002. The remaining unexplained increase in divorce rates would be due to other factors, such as changes in social norms across Europe.

The remainder of the paper is organized as follows. Section 2 summarizes the previous literature on the effect of divorce laws on divorce rates. The subsequent section describes divorce laws in Europe and the main reforms that took place since 1950. Section 4 discusses the data and the econometric specification, while section 5 presents the main results and some additional regressions and robustness checks. The final section summarizes the results and concludes.

2. Theoretical Background and Related Literature

Conventional wisdom suggests that making divorce easier should lead to higher divorce rates. This is in fact the argument used in recent years by certain groups in the US

claiming that no-fault and unilateral divorce laws are contributing to the destruction of the traditional family and should therefore be reversed.³

This argument is certainly valid in the case of reforms that legalize divorce, since before the reform the cost of separation is infinite and even “efficient” divorces could not take place.⁴ Thus we expect that a reform that legalizes divorce, even under strict “fault” grounds, would be followed by increases in the divorce rate.

Under a strict “fault” regime, the right to file for a divorce is available unilaterally to an innocent party if his/her spouse is guilty of a serious matrimonial offense, such as adultery or physical abuse. In such case, it is necessary to present proof of fault in court before a judge. In this scenario, efficient divorces would take place, provided that the surplus was enough to compensate the partner who wants to stay married and cover the costs associated with the legal proceedings (and provided that certain assumptions hold, such as utility being transferable between partners).

³ For instance, Americans for Divorce Reform (www.divorcereform.org) claim that *“No fault” doubled an already high divorce rate shortly after it was introduced. (...) The radical swing from 100% fault-based divorce to 100% unilateral non-binding marriage is a failed experiment. It pushed us into a whole new form of family life that is not sustainable.*’

⁴ We define a divorce as “efficient” when it maximizes the joint welfare of the spouses. This is only feasible when combined utility from divorce is higher than from marriage (see Fella et al., 2004).

The introduction of “no-fault” divorce (i.e. allowing for divorce on grounds other than fault, such as mutual consent) would reduce the cost of divorce, since it removes the requirement of presenting proof of fault in court. Thus we expect “no-fault” divorce to increase the divorce rate relative to a “fault” regime by increasing the number of efficient divorces that actually take place.

Finally, economic theory suggests that, under certain assumptions, reforms that allow for unilateral divorce (i.e. dropping the requirement of mutual consent) should not have any effect on divorce rates. Just like under “no-fault”, only efficient divorces would take place, except that the direction of the side payments would be reversed.

Note that this argument is a direct application of the Coase theorem to marital bargaining, which suggests that the introduction of unilateral divorce should have no effect on the incidence of divorce (Becker et al., 1977; Becker, 1981; Peters, 1986). Under mutual consent, for a divorce to take place the spouse who wishes to leave would have to compensate the one who wants to stay married. Under unilateral divorce, the separation will take place unless the spouse who wishes to stay compensates the one who wishes to leave. Thus the unilateral reform would only reassign existing property rights between spouses, assuming full transferability, perfect information and no transaction costs.

However, many have pointed that the assumptions behind the Coase theorem may fail to hold in the context of marital bargaining (Parkman, 1992; Clark, 1999; Fella et al., 2004; Mechoulan, 2005; Stevenson and Wolfers, 2006). If this is the case, then unilateral divorce may have an effect on the incidence of divorce. This can be true even in the

absence of transaction costs and informational asymmetries. Clark (1999) and Fella et al. (2004) focus on how assets are allocated within a marriage and on the different bargaining outcomes for the asset allocation upon divorce. Hence both the asset allocation and the right to dissolve a marriage (e.g. no fault versus unilateral) determine the gains and losses, and the incidence of divorce.

There have been several attempts to test the theoretical predictions with US data. Peters (1986, 1992) and Allen (1992) used cross-sectional data to test whether people living in states with unilateral divorce were more likely to divorce than others. They used different sets of controls and arrived at different conclusions. Peters (1986, 1992) estimated an effect of unilateral laws close to zero; while Allen found that unilateral divorce increased the probability of divorce by 1.4 percent.

Later work has strengthened the identification strategy by using panel data, which allows for the inclusion of state fixed effects and state-specific trends. Using a panel from 1968 to 1988, Friedberg (1998) found that unilateral divorce reforms had significant and permanent effects on divorce rates, accounting for about one sixth of the increase in divorce rates during the period. In a recent paper, Wolfers (2006) revised Friedberg's results with a longer panel and a slightly modified methodology, and found that unilateral divorce does not have permanent effects on the divorce rate. No consensus has been reached on the subject to date.

This paper contributes to this literature by estimating the extent to which the divorce law reforms in Europe have contributed to the increase in divorce rates using a panel of 18 European countries from 1950 to 2003. We extend on the previous analyses by

offering insights on the impact of several different types of reforms (rather than just the move to a unilateral divorce as examined in the previous literature). The long panel and the different timing and nature of the reforms that took place during the period across European countries offer an appealing identification strategy for the estimation of the effect of divorce laws on divorce rates.

3. Divorce Laws in Europe, 1950-2003

Most European countries had laws regulating divorce dating from the first half of the 20th century or earlier. The exceptions were Italy, Spain and Ireland, where divorce was banned until 1970, 1981, and 1996, respectively.⁵ During the 1950's and 1960's, many countries allowed divorce only on the basis of "fault", the fault grounds typically including adultery and physical violence. Under a "fault" regime, a divorce can only be granted to the innocent party if he/she presents proof of fault in court. Some countries (mostly in Scandinavia) also allowed divorce after a certain separation period.

The so-called "no-fault revolution" accelerated in the 1970's, when many countries introduced grounds for divorce in addition to (or in replacement of) fault, typically the "irretrievable breakdown" of the marriage, of which mutual consent was usually considered proof. Many countries went further and at some point introduced "unilateral

⁵ Divorce was also banned for Catholic marriages in Portugal until 1975 (implemented in 1977). Note that about 99% of the marriages were Catholic around that time (see Coelho and Garoupa (2004) for more details on the Portuguese legislation).

divorce”, which allowed divorce on request by only one of the spouses, thus dropping the pre-requisite of mutual agreement.

The characterization of the different reforms across Europe (over 20 of them between 1970 and 2000) is complicated by the large variation regarding specific details such as the breadth of no-fault grounds or differing separation requirements. Friedberg (1998) notes the difficulty in categorizing situations where separation during a certain period of time is the only ground for unilateral divorce. Mechoulan (2005) also stresses the importance of correctly classifying the different reforms. Thus we explore the sensitivity of the results to different definitions of unilateral divorce.

Table 1 summarizes the main changes in divorce laws that took place in 18 European countries between 1950 and 2003.⁶ Ten countries had already introduced no-fault grounds for divorce before 1950, while the remaining eight moved to a no-fault regime between 1971 and 1997.⁷

⁶ The dates correspond to the year when a certain reform was implemented, which is often the year after the legislation was passed.

⁷ Germany, Austria and Switzerland had what has been called a “weak fault” regime already before 1950 (Smith, 2002). We include “weak fault” as “no-fault” since these regimes specified “*a rather open-ended, non-specific fault ground that can flexibly accommodate a wide range of provable matrimonial offenses, possibly even of a relatively minor character*” (Smith, 2002, p. 215). These regimes also allowed divorce on the basis of a three-year separation.

All but two of the countries had incorporated some form of unilateral divorce by 2003. Many of them did not explicitly recognize unilateral demand as a ground for divorce, but implicitly allowed it by considering a (typically long) separation period as proof of the irretrievable breakdown of the marriage. Thus we consider two alternative definitions of unilateral divorce. The first one includes all regimes that in practice allowed for unilateral divorce, even if a divorce could only be granted unilaterally after a long separation requirement (the length of the separation requirement in years is specified in parenthesis in Table 1). A second, stricter definition of unilateral divorce only includes countries that explicitly consider unilateral demand as a ground for divorce, and where the separation requirement is no longer than 2 years.⁸

Four countries had explicitly incorporated unilateral divorce by 2003, and another 12 countries implicitly allowed for a spouse to divorce unilaterally after a required separation period, which was considered proof of the irretrievable breakdown of the marriage. The different countries also vary in terms of the separation period required in the case of unilateral demand, with only Finland and Sweden allowing for unilateral divorce without any separation requirement. This large variation in the timing of the reforms will be exploited in the econometric analysis in order to identify the effect of the law changes on divorce rates.⁹

⁸ Note that this second, stricter definition is closer to the one found in the papers that analyze the US case.

⁹ The information on divorce legislation across countries was gathered from Boele-Woelki et al. (2003, 2004), Dutoit (2000), and Smith (2002).

[TABLE 1 ABOUT HERE]

4. Data and Methodology

The longitudinal data on divorce rates cover 18 European countries from 1950 to 2003 inclusive. The data for the annual number of divorces, population and married population figures are publicly available from Eurostat. Data from the United Nations and/or national statistical offices were used for data points not available from that source.¹⁰

The main dependent variable in the analysis is the divorce rate, defined as annual divorces per thousand married people. The analysis is also performed using divorces per thousand people, in order to facilitate the comparison with previous studies (results are available upon request).¹¹

We favor the use of annual divorces per married people because marriage rates vary across countries and have changed significantly during the second half of the 20th century, thus affecting the population “at risk” of divorce. We may also worry that the divorce law changes may impact the quality and quantity of the marriage market matches.

¹⁰ The detailed sources are available upon request. In particular, there were many gaps in the series for married population. Thus we impute married population by country using the available data points, plus a linear and a quadratic trend. Specifications with only linear trends and with linear, quadratic and cubic trends were also estimated and did not affect the results.

¹¹ Both Friedberg (1998) and Wolfers (2003) used divorces per thousand people as the main dependent variable in their analyses.

On one hand, the marriage rate may increase due to “reduced exit costs”, which in turn may lead to lower quality matches and more divorces. On the other hand, easier divorce may reduce the benefits of marriage and hence decrease the proportion of the ever-married population. However, even large effects on the number of new marriages would affect the stock of marriages very slowly.¹²

The aggregate number of divorces per thousand married people in the 18 countries in the sample was 1.2 in 1960, while it had risen to 3.6 by 2002 (see Figure 1).

[FIGURE 1 ABOUT HERE]

The analysis relies on a number of quasi-experiments to assess the impact of different divorce law reforms on divorce rates. First of all, four countries that used to ban divorce introduced no-fault divorce legislation between 1971 and 1997 (Ireland, Italy, Portugal and Spain). Another four countries that allowed divorce only on the basis of fault adopted *no fault* legislation during the 1970’s (see Table 1).

All countries but Ireland and Italy had introduced some form of *unilateral* divorce by 2003, most of them with separation requirements. Thirteen countries underwent reforms that introduced some form of unilateral divorce between 1960 and 2003, while Finland, Norway and Sweden had already introduced (implicitly) unilateral divorce before 1950. Typically, countries with “de facto” unilateral legislation considered a certain separation period to be proof of the “irretrievable breakdown” of the marriage, which was in turn a

¹² See Gonzalez and Viitanen (2006) for an explicit analysis of the effect of divorce legislation on marriage rates.

ground for divorce. Finally, four countries adopted *explicitly unilateral* divorce legislation between 1974 and 1993 (two of them, Finland and Sweden, with no separation requirement).

Examining the impact of the *no-fault* and *unilateral* reforms on the divorce rates is clearly quasi-experimental, relying on identification from the variation in the timing of the reforms across reform countries. However, a direct comparison of reform and control countries would imply assuming that the variation in the legislative reforms across countries is exogenous. This seems a questionable assumption since countries that had higher divorce rates in 1950 were also more likely to introduce reforms that liberalized divorce in subsequent years (see Figure 2). It is likely that countries differ in both observable and unobservable dimensions, such as social norms, that are related to both divorce rates and legislative activity.

We account for pre-existing differences across countries through the inclusion of country fixed-effects in the regressions. Moreover, it is still conceivable that such unobservable factors as social norms or demographic trends are evolving over time at different paces in different countries. For instance, countries where the stigma associated with divorce was diminishing faster would experience higher increases in divorce rates and could also be more likely to pass laws making divorce easier. We account for this possibility in two ways. First, we include controls that directly measure (or proxy for) the changes in economics conditions, social norms and demographic trends, such as female labor force participation rates. Second, we include country-specific linear, quadratic and cubic trends in our different regression specifications. Hence we can be reasonably confident that we are removing both fixed and time-varying unobserved factors at the

country level that could otherwise bias our results. If anything, we may worry that part of the effect of the reforms might be captured by the country-specific trends.

Our initial estimation strategy follows Friedberg's methodology (Friedberg, 1998). Friedberg estimates the following equation:

$$(1) \quad \begin{aligned} divorce\ rate_{i,t} = & \beta law_{i,t} + \sum_i country\ fixed\ effects_i + \sum_t time\ fixed\ effects_t \\ & + \sum_i country_i * time_t + \varepsilon_{i,t} \end{aligned}$$

The variable *law* is a dichotomous variable set to equal one when a reform is effective in country *i* and year *t*. Hence, the coefficient β is interpreted as the average rise in the divorce rate due to the legal change. In our setup, we introduce different dummies for each of the legislative changes (*legal*, *no fault*, *unilateral*) and interpret each of the coefficients equivalently. Country and year fixed effects in Equation (1) control for pre-existing differences in country-specific divorce probabilities, as well as for evolving unobserved factors that affect divorce in all countries in the sample. A less restrictive specification allows for country specific time trends, which control for, for example, social and demographic trends within a country.

Equation (1) is estimated by population-weighted least squares on an unbalanced panel. We also estimate specifications that add quadratic and cubic trends for each country, as well as additional control variables. The standard errors are clustered at the

country level in order to account for possible serial correlation in the error terms.¹³ The total number of observations is 916.¹⁴

A potential problem with this methodology is that it might confound pre-existing trends in divorce rates with the dynamic response of a policy shock, as suggested by Wolfers (2006). In other words, β in equation (1) only captures a discrete series break. Wolfers (2006) adopted an alternative approach that traced out the full adjustment path, and his results indicated that Friedberg's approach might have led to misleading conclusions on the impact of divorce legislation on the divorce rate. Hence to account for the dynamic response to the legislative change we estimate the following equation:

$$(2) \quad \text{divorcerate}_{i,t} = \sum_{k \geq 1} \beta_k \text{law in effect for } k \text{ periods}_{i,t} + \sum_i \text{country fixed effects}_i + \sum_t \text{time fixed effects}_t + \sum_i \text{country}_i * \text{time}_t + \varepsilon_{i,t}$$

Whereas in Equation (1) the *law* dummy captures the full adjustment process, equation (2) traces out the adjustment path with the inclusion of dummies for the law having been effective for 1-2 years, 3-4 years and so on. These variables capture the dynamic response of divorce while the country-specific time trends identify pre-existing trends. It is of considerable interest to examine the full adjustment process as there is often “a temporary boost to divorce rates as a backlog of long dead marriages are given an opportunity for legal burial under new legislation” (Smith, 2002, p. 220). Thus these

¹³ This concern, and possible solutions, is addressed in Bertrand et al., 2001.

¹⁴ The data on the annual number of divorces is missing for the fifties and/or 2003 for some countries.

additional specifications allow us to detect to what extent the effects of the reforms are temporary or permanent.

5. Results

5.1 Main specifications

Table 2 reports the results of regressions that estimate the effect of the reforms that legalized divorce. These reforms are analyzed separately since they are qualitatively different from the rest in that divorce rates were (by definition) zero before the reform. Moreover, the theoretical discussion in the literature focuses on no-fault and unilateral reforms, thus we use the analysis of the legalizing countries only as a benchmark. The regressions reported in Table 2 thus include only observations for Ireland, Italy, Portugal and Spain (see the divorce rates series in Figure 2a).

The dependent variable is the annual number of divorces per thousand married people. The table shows specifications that always include year dummies and, as controls, total fertility rates, unemployment rates and female labor force participation rates (coefficients not shown). Standard errors are clustered at the country level, and the regressions are estimated by GLS, weighting each observation by married population.

[TABLE 2 ABOUT HERE]

The analysis suggests that legalizing divorce resulted in an average divorce rate of 0.7 to 0.8 divorces per thousand married population a year (see discrete jump specifications). Divorce rates jumped from 0 to about 0.9 in the two years right after the reform (see

dynamic specifications), then decreasing slightly during the following few years. The effect of these reforms was, however, permanent. Fifteen years after the legalization, the divorce rate had reached about 0.8 annual divorces per thousand married people.¹⁵

Table 3 reports the results of analogous specifications where we estimate the effects of the introduction of no-fault and unilateral divorce. The first two specifications are estimated for the subsample of countries with a fault regime in 1950 that introduced no-fault divorce since then (see divorce rate series in Figure 2b). Note that these countries also introduced de facto unilateral divorce at the same time, although always with a separation requirement.

[TABLE 3 ABOUT HERE]

The introduction of no-fault divorce had an average effect of 0.68 on divorce rates, and this effect was strongly significant even with clustered standard errors. The dynamic specifications show that the increase in divorce rates following the introduction of no-fault grounds peaked five to six years after the reform, with an increase of 0.8. The effect, however, remained positive and significant even fifteen years after the reform, when divorce rates were still 0.64 above their original level.

¹⁵ We have also estimated specifications where we account for the fact that two of the legalizing countries introduced de-facto unilateral divorce at the time of legalization, while the other two did not. The increase in divorce rates was higher in the countries that introduced unilateral divorce.

The following two specifications are restricted to the subsample of countries with a no-fault regime in 1950 that introduced de facto unilateral divorce since then (see divorce rates in Figure 2c; 2d for Denmark). Since unilateral demand was only effective after the required separation period, the unilateral dummy takes value one starting the year when enough time had elapsed since the law was implemented for a couple to be able to fulfill the separation requirement. For instance, the reform introducing de facto unilateral divorce was implemented in Austria in 1978, but since the separation requirement was six years, the unilateral indicator takes value one starting in 1984.

The results show that de facto unilateral legislation increased divorce rates by about 0.4 (see discrete jump specification), and this increase was significant at the 90% confidence level. The increase in divorce rates following the reforms appeared to peak ten years after the reform (see dynamic specification), but it was still positive and significant fifteen years after the legislation became effective.

Finally, the last two columns of Table 3 show specifications for the subsample of countries that explicitly introduced unilateral divorce (see divorce rates series in Figure 2d). These reforms were followed by an average increase in divorce rates of about 0.5, but this increase was not significant. The estimated dynamic effects are positive and sizeable, suggesting that the effect of unilateral divorce was permanent rather than transitory, but essentially none of the coefficients are significant.

So far we have separately analyzed the different subsamples of countries that introduced each specific type of reform. A more compact specification would include all countries and analyze no-fault and unilateral reforms at once. The results of such

specifications are reported in Table 4, where the sample includes all 14 countries where divorce was legal during the whole period. The first two columns use de facto unilateral as the definition of unilateral divorce, while the remaining two columns use the stricter definition of unilateral.

[TABLE 4 ABOUT HERE]

The results for no-fault are very similar to those reported in Table 3. The average effect of no-fault divorce amounts to a 0.6 increase in divorce rates. The effect increases in size during the first few years following the reform (reaching 0.8) and falls slightly afterwards, but it remains positive and significant in the long term (at 0.6).

The estimates for unilateral divorce also confirm the results in Table 3. The introduction of unilateral divorce appears to have increased divorce rates, by about 0.4 if we use the more open definition of unilateral and by 0.5 if we opt for the stricter one. As for the dynamic effects, both definitions lead to positive and sizeable estimates even fifteen years after the reforms became effective.

The magnitudes of the estimated effects are sizeable compared with the average divorce rate of 3.4. Taking the first column of Table 4 as the preferred specification, the combined effect of no-fault and unilateral legislation amounts to an increase of 1 annual divorce per thousand married people. This is a substantial effect since the average divorce rate in the 14 countries was 4.2 in 2002.

5.2 Additional specifications and robustness checks

The results seem robust to a number of alternative specifications. We estimate models with all 18 countries and control for the three types of reforms at once. We also explore the sensitivity on the results to the exclusion of the country-specific linear and quadratic trends. Regressions were also estimated with additional minor changes in the definition of unilateral for those countries where there was any doubt about the timing or the nature of the reforms.¹⁶

The use of a 54-year-long panel may raise doubts about the validity of the time trends, especially when including linear and quadratic trends. Thus we also estimated regressions with a shorter, balanced version of the panel spanning from 1960 to 2002 with similar results.

We may also worry that only a few countries may be driving most of the results, so we estimated the regressions dropping one individual country at a time. The results did not seem overly sensitive to the exclusion of any specific country. However, and as expected, the significance of reforms legalizing divorce relied on the inclusion of Italy and Spain, and the significance of no-fault dropped with the exclusion of Germany. Also, the explicitly unilateral coefficients dropped in size and significance when excluding Sweden from the sample.

¹⁶ Essentially Belgium, Greece and Switzerland.

All of the robustness checks supported the main conclusions: that the reforms that liberalized divorce in Europe tended to increase divorce rates significantly, and that the effects were permanent.¹⁷

6. Conclusions

This paper analyzes a panel of 18 European countries spanning from 1950 to 2003 to examine the extent to which the legal reforms leading to “easier divorce” that took place during the second half of the 20th century have contributed to the increase in divorce rates across Europe.

According to the Coase theorem, unilateral divorce should not affect divorce rates since it simply reassigns existing property rights between spouses. However, some previous studies for the US found significant increases in divorce rates following reforms that introduced unilateral divorce.

We find that countries allowing unilateral divorce experienced significant increases in divorce rates in the years following the reform, with an average increase of 0.4 to 0.5 divorces per thousand married population. Moreover, the effects of introducing no-fault divorce legislation (unilateral or not) seemed stronger both in size and significance, leading to increases in the divorce rate of about 0.6 to 0.7. These effects are substantial given that the four countries that legalized divorce experienced long-term increases in their divorce rates of 0.8 to 0.9 as a result of the reforms. The combined effect of no-fault and unilateral divorce legislation is estimated at about 1 divorce per thousand married population, or about 0.6 standard deviations.

¹⁷ The full regression results mentioned in this section are available upon request.

These results support and extend the findings of previous studies that used US data to address the effect of divorce legislation on divorce rates. Like Friedberg (1998) and Wolfers (2006), we find that unilateral divorce appears to increase divorce rates. But we also show that it was the generalization of no-fault, de facto unilateral divorce that really contributed to rising divorce rates in Europe.

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Figure 1. Aggregate Divorce Rate in 18 European Countries, 1960-2002

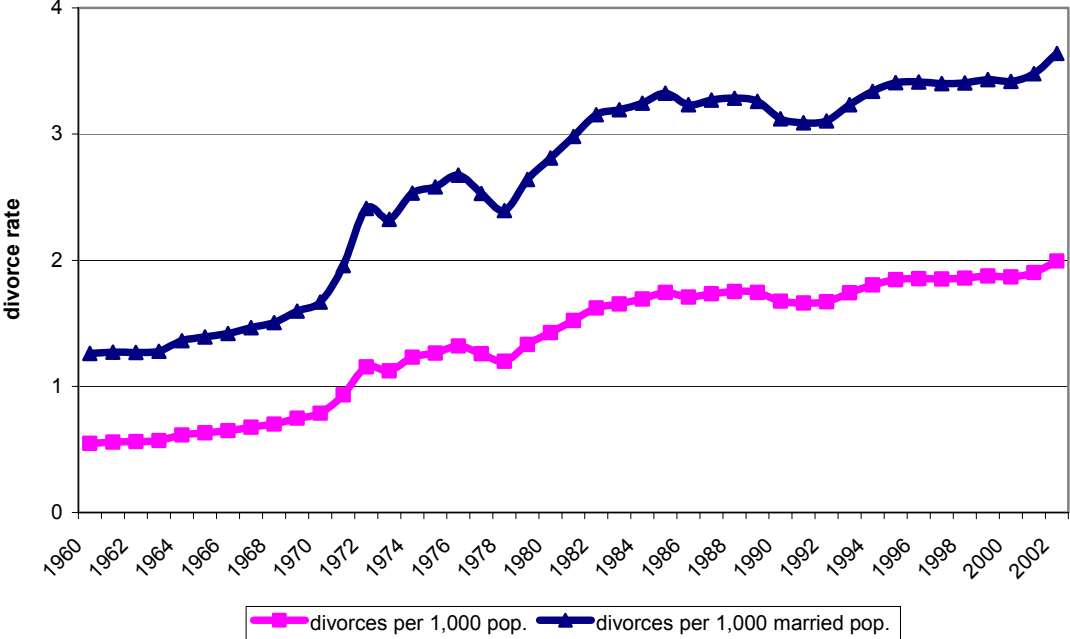
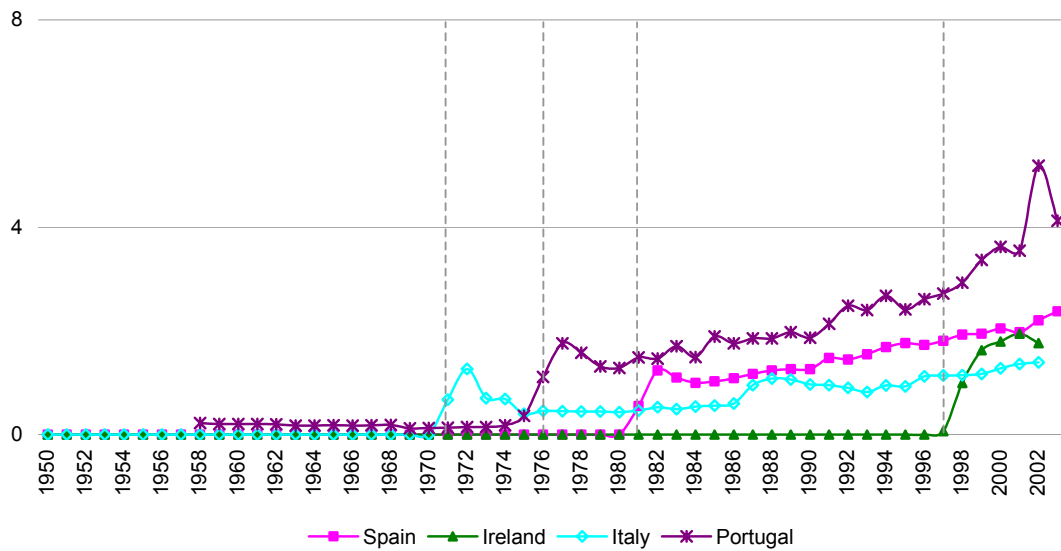
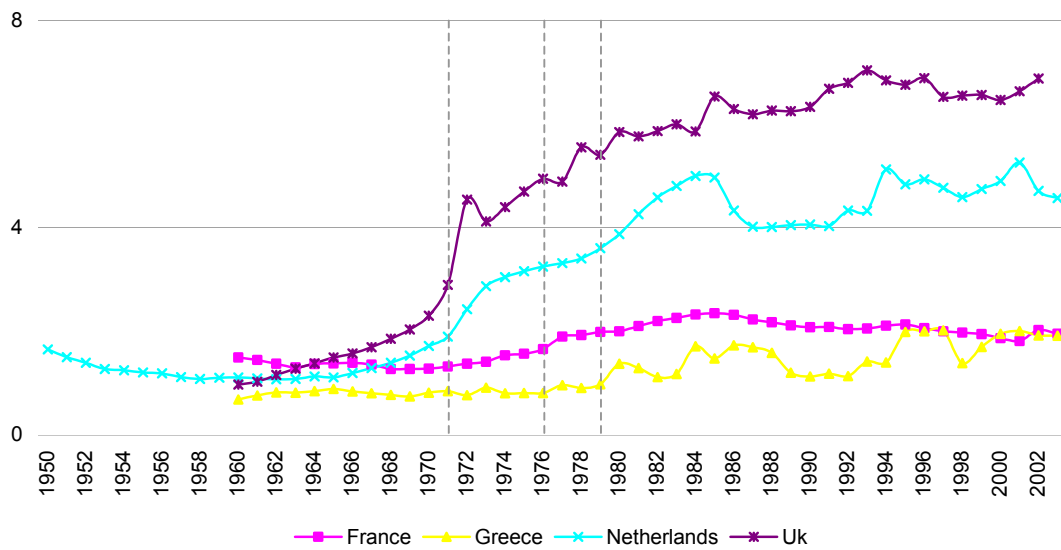


Figure 2. Divorce Rates in Eighteen European Countries, 1950-2003

a) Countries that legalized divorce during the period

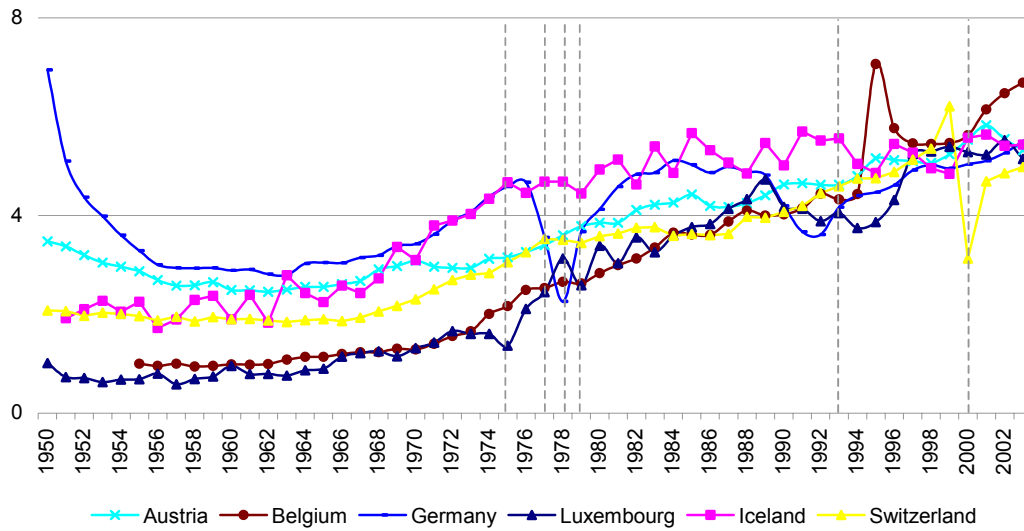


b) Countries that introduced no-fault during the period (excluding those in fig. a)

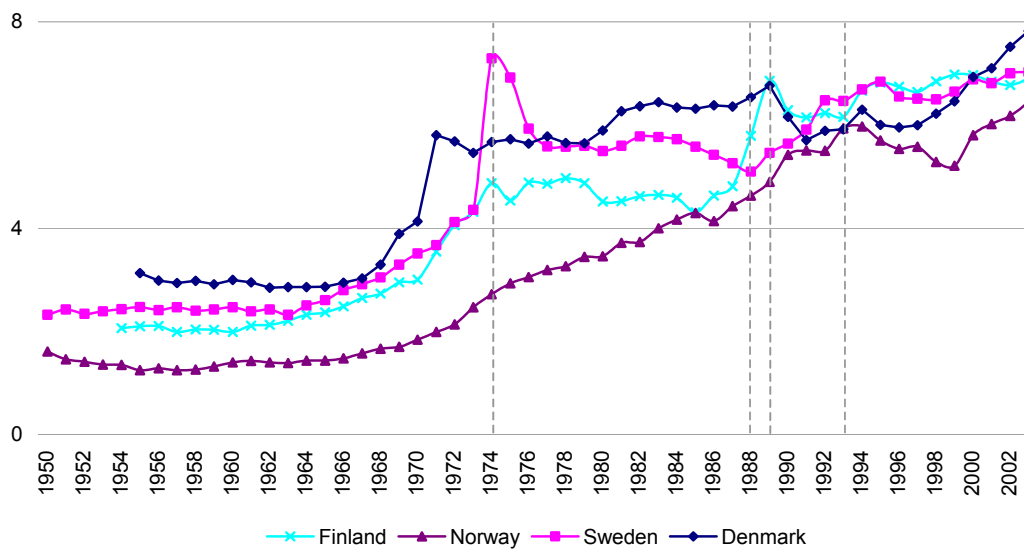


Note: The dotted lines indicate the years when the reforms took place.

c) Countries that introduced no-fault pre-1950, unilateral during the period



d) Countries that introduced explicit unilateral during the period



Note: The dotted lines indicate the years when the reforms took place.

Table 1. Divorce Laws by Country, 1950-2003.

Country	(1) Year when divorce allowed	(2) No-fault	(3) De Facto Unilateral	(3) Explicit Unilateral
Austria	pre-1950	pre-1950	1978 (6)	no
Belgium	pre-1950	pre-1950	1975 (10)	no
Denmark	pre-1950	pre-1950	1970 (3)	1989 (2)
Finland	pre-1950	pre-1950	pre-1950	1988 (0)
France	pre-1950	1976	1976 (6)	no
Germany inc. GDR after 1991	pre-1950	pre-1950	1977 (3)	no
Greece	pre-1950	1979	1983 (4)	no
Iceland	pre-1950	pre-1950	1993 (2)	no
Ireland	1997	1997	no	no
Italy	1971	1975	no	no
Luxembourg	pre-1950	pre-1950	1979 (3)	no
Netherlands	pre-1950	1971	1971 (2)	no
Norway	pre-1950	pre-1950	pre-1950	1993 (2)
Portugal	1977	1977	1977 (3)	no
Spain	1981	1981	1981 (5)	no
Sweden	pre-1950	pre-1950	pre-1950	1974 (0)
Switzerland	pre-1950	pre-1950	2000 (4)	no
UK*	pre-1950	1971	1971 (5)	no

Sources: Boele-Woelki et al. (2003, 2004), Dutoit (2000), and Smith (2002).

Notes: Column 1 shows the year when divorce was first allowed. Column 2 shows the year when no-fault grounds for divorce were first introduced. No-fault grounds for a divorce include irretrievable breakdown, irreconcilable differences and/or incompatibility. Column 3 shows the year when de facto unilateral, no-fault divorce was first allowed. Unilateral divorce does not require mutual consent and can be granted at the request of either spouse. Column 4 shows the year when unilateral divorce was explicitly introduced. The numbers in parentheses indicate the length of the separation period required in order to obtain a unilateral divorce.

* The divorce law for Scotland post-dates that of England and Wales by five years. The analysis does not take this into account.

Table 2. Static and dynamic effects of legalizing divorce; dependent variable: annual divorces per thousand married people

	Discrete jump 1	Dynamic 1	Discrete jump 2	Dynamic 2	Discrete jump 3	Dynamic 3
Legal	0.732 *** (0.067)		0.826 *** (0.036)		0.694 *** (0.080)	
Legal yrs 1-2		0.879 *** (0.083)		0.966 *** (0.065)		0.839 *** (0.096)
Legal yrs 3-4		0.775 *** (0.089)		0.794 *** (0.056)		0.720 *** (0.111)
Legal yrs 5-6		0.459 ** (0.129)		0.580 *** (0.038)		0.538 *** (0.048)
Legal yrs 7-8		0.946 *** (0.146)		1.061 *** (0.097)		0.924 *** (0.102)
Legal yrs 9-10		0.731 *** (0.066)		0.727 *** (0.046)		0.637 *** (0.096)
Legal yrs 11-12		0.823 *** (0.097)		0.990 *** (0.080)		0.885 *** (0.080)
Legal yrs 13-14		0.999 ** (0.223)		1.033 ** (0.223)		0.907 *** (0.148)
Legal yrs 15+		0.755 *** (0.082)		0.889 *** (0.051)		0.800 *** (0.061)
Country trends	No	No	Yes (F=3055)	Yes (F=3072)	Yes (F=17.7)	Yes (F=4988)
Quadratic trends	No	No	No	No	Yes (F=144)	Yes (F=209)
Adjusted R2	0.954	0.960	0.970	0.975	0.977	0.980

Sample: 1950-2003, N = 206 (unbalanced panel). Estimated using country married population weights. All specifications include dummies for year and country as well as country-specific controls for total fertility rate, unemployment rate and female labor force participation rate and dummies if they are missing for any year. Standard errors are clustered by country and shown in parentheses. ***, ** and * denote statistical significance at 1%, 5% and 10% level, respectively.

Table 3. Static and dynamic effects of divorce law changes; dependent variable: annual divorces per thousand married people

	Static No fault	Dynamic No fault	Static De facto unilat.	Dynamic De facto unilat.	Static Explicit unilat.	Dynamic Explicit unilat.
No fault	0.678 ** (0.188)					
No fault yrs 1-2		0.629 * (0.260)				
No fault yrs 3-4		0.745 ** (0.235)				
No fault yrs 5-6		0.803 *** (0.095)				
No fault yrs 7-8		0.662 ** (0.170)				
No fault yrs 9-10		0.537 * (0.213)				
No fault yrs 11-12		0.710 ** (0.160)				
No fault yrs 13-14		0.698 * (0.249)				
No fault yrs 15+		0.644 ** (0.184)				
Unilateral			0.385 * (0.172)		0.473 (0.501)	
Unilateral yrs 1-2				0.308 (0.276)		0.065 (0.459)
Unilateral yrs 3-4				0.351 (0.208)		0.163 (0.586)
Unilateral yrs 5-6				0.160 *** (0.043)		0.584 (0.416)
Unilateral yrs 7-8				0.451 *** (0.071)		0.328 (0.473)
Unilateral yrs 9-10				0.585 * (0.272)		0.647 (0.660)
Unilateral yrs 11-12				-0.200 (0.277)		1.013 ** (0.312)
Unilateral yrs 13-14				0.378 ** (0.151)		0.506 (0.608)
Unilateral yrs 15+				0.396 ** (0.129)		0.583 (0.450)
Country trends	Yes (F=4304)	Yes (F=1939)	Yes (F=4387)	Yes (F=14379)	Yes (F=168)	Yes (F=30)
Quadratic trends	Yes (F=623)	Yes (F=581)	Yes (F=19057)	Yes (F=5326)	Yes (F=20)	Yes (F=14777)
Observations	185	185	367	367	207	207
Adjusted R2	0.993	0.993	0.937	0.941	0.962	0.964

Sample: 1950-2003 (unbalanced panel). Estimated using country married population weights. All specifications include dummies for year and country as well as country-specific controls for total fertility rate, unemployment rate and female labor force participation rate and dummies if they are missing for any year. Standard errors are clustered by country and shown in parentheses. ***, ** and * denote statistical significance at 1%, 5% and 10% level, respectively.

Table 4. Static and dynamic effects of divorce law changes; dependent variable: annual divorces per thousand married people

	Static	Dynamic	Static	Dynamic
	No fault + de facto unilateral	No fault + de facto unilateral	No fault + explicit unilateral	No fault + explicit unilateral
No fault	0.619 *** (0.161)		0.628 *** (0.140)	
No fault yrs 1-2		0.539 *** (0.168)		0.625 *** (0.182)
No fault yrs 3-4		0.705 *** (0.195)		0.601 *** (0.144)
No fault yrs 5-6		0.774 *** (0.176)		0.832 *** (0.177)
No fault yrs 7-8		0.729 *** (0.222)		0.737 *** (0.227)
No fault yrs 9-10		0.464 *** (0.144)		0.454 *** (0.135)
No fault yrs 11-12		0.549 *** (0.137)		0.555 *** (0.136)
No fault yrs 13-14		0.641 *** (0.195)		0.652 *** (0.191)
No fault yrs 15+		0.591 *** (0.151)		0.643 *** (0.149)
Unilateral	0.379 *** (0.105)		0.544 (0.603)	
Unilateral yrs 1-2		0.361 *** (0.119)		0.084 (0.469)
Unilateral yrs 3-4		0.415 *** (0.130)		0.397 (0.593)
Unilateral yrs 5-6		0.221 * (0.104)		0.780 (0.537)
Unilateral yrs 7-8		0.429 *** (0.121)		0.502 (0.437)
Unilateral yrs 9-10		0.603 *** (0.186)		0.638 (0.754)
Unilateral yrs 11-12		0.278 * (0.157)		0.903 * (0.492)
Unilateral yrs 13-14		0.431 ** (0.151)		0.469 (0.625)
Unilateral yrs 15+		0.357 *** (0.105)		0.641 (0.501)
Country trends	Yes (F=8.7e+07)	Yes (F=2.1e+08)	Yes (F=8.2e+08)	Yes (F=1.1e+08)
Quadratic trends	Yes (F=4.6e+09)	Yes (F=8.3e+06)	Yes (F=2.2e+09)	Yes (F=9e+05)
Adjusted R2	0.968	0.970	0.968	0.969

Sample: 1950-2003, N = 710 (unbalanced panel). Estimated using country married population weights. All specifications include dummies for year and country as well as country-specific controls for total fertility rate, unemployment rate and female labor force participation rate and dummies if they are missing for any year. Standard errors are clustered by country and shown in parentheses. ***, ** and * denote statistical significance at 1%, 5% and 10% level, respectively.