Divorce laws and fertility decisions

Bellido, Héctor and Marcén, Miriam

Universidad de Zaragoza

11 April 2011

Divorce laws and fertility decisions

Héctor Bellido

Miriam Marcén

Departamento de Análisis Económico

Universidad de Zaragoza

Abstract:

This paper explores the effect of divorce law reform on fertility. By modifying the value of marriage, the adoption of no-fault and unilateral divorce may impact fertility decisions. To identify the effects of those reforms on fertility, we use a quasi experiment exploiting the legislative history of divorce liberalization across Europe. Results suggest that divorce law reforms have a negative and permanent effect on fertility. These findings are robust to alternative specifications and controls for unobserved country-specific factors, time-varying factors at the country level, the liberalization of abortion, and the availability of the birth-control pill. Supplemental analysis, developed to understand the mechanisms through which divorce law reforms affect fertility, shows that both marital and out-of-wedlock fertility declines, but that the impact on marital fertility varies depending on whether couples are married prior to or after divorce law reform.

Keywords: Fertility Rate, Divorce Law, Abortion Law; Oral Contraception

JEL: J13; J12; K36

Address: Héctor Bellido

Dpto. de Análisis Económico, Universidad de Zaragoza

Facultad de CC. Económicas y Empresariales, Gran Vía, 2, 50005 Zaragoza (Spain).

Teléfono: 976 76 10 00 Ext. 4621 Fax: 976 76 19 96 E-mail: hbellido@unizar.es

Address: Miriam Marcén

Dpto. de Análisis Económico, Universidad de Zaragoza

Facultad de CC. Económicas y Empresariales, Gran Vía, 2, 50005 Zaragoza (Spain).

Teléfono: 976 76 10 00 Ext. 4684 Fax: 976 76 19 96 E-mail: mmarcen@unizar.es

I. INTRODUCTION

Over the past fifty years, European countries have experienced a considerable decrease in the fertility rate, from a Total Fertil_ity Rate (TFR) of 2.84 on average in 1960, to TFRs lower than 1.9 in almost all European countries in 2006, with the lowest TFRs being for Greece (1.4), Italy (1.34), Spain (1.38), and Portugal (1.36), according to Eurostat. These levels, below the replacement rate of 2.1, are an ongoing concern for policy-makers and researchers alike. The search for explanations of this decline in fertility (see for a review Feyrer et al. 2008) has covered much ground: the dramatic increase in female labour force participation (Ahn and Mira 2002; Brewster and Rindfuss 2000; Engelhardt et al. 2004; Michael 1985), the increase in earnings which raised the opportunity cost of women's time (Becker 1981), technological progress (Galor and Weil 1996; Greenwood and Seshadri 2002), the decline in infant mortality (Doepke 2005; Sah 1991), the law reforms that made abortion more accessible, and the availability of the birth control pill (Ananat et al. 2007; Goldin and Katz 2000, 2002; Guldi 2008), among others. In this paper, we present evidence suggesting that divorce law reforms have also played an important role.

We are not the first to study empirically the effect of divorce law reform on fertility but, to our knowledge, there is no existing literature that has examined reform's impact on European fertility rates. The majority of papers have focussed on the effect of public policies that regulate the aftermath of divorce in the US. Aizer and McLanahan (2006) studied the effect of the enforcement of child support on fertility, and they determined that it affects the birth selection process. Halla (2010) showed that the adoption of the joint custody regime positively affects fertility in the US. Less work has been done on the analysis of the fertility effects of the divorce law reforms that regulate how spouses get a divorce. Alesina and Giuliano (2007) and Drewianka (2008), both using US data, found that the implementation of divorce law reforms has a negative effect on the fertility rate.

By simply plotting the crude birth rate and the population covered by divorce reform in Europe, Figure 1, it is difficult to infer a causal relationship, since the fall in the fertility rate appears to precede changes in the law by a few years, although the fall in the birth rate continues after the introduction of divorce law reforms. Of course, this is not a conclusive empirical analysis and it does not clarify the theoretical approaches that suggest that reform affects fertility in a variety of ways (see for a review Drewianka 2008). By modifying the value of marriage, the liberalization of divorce law, regardless of the regime adopted - no-fault,

separation system, or unilateral divorce - is expected to impact on fertility.[1] For example, the decrease in the costs associated with divorce due to legal reform (Brinig and Crafton 1994; Peters 1992), which makes out-of-marriage options more relevant under the bargaining approach (Brinig and Crafton 1994, McElroy and Horney 1981); the weakness of marriage as an insurance under the new divorce law regime (Grossbard-Shechtman et al. 2002); and the decline in the benefits derived from marriage due to divorce law reform (Allen 1992), all make marriage less attractive, not only for those who are married but also for those contemplating marriage. This decline in the value of marriage is predicted to negatively affect marital fertility in the extent to which children are considered as marriage-specific capital (Becker et al. 1977; Stevenson 2007; Weiss and Willis 1985). However, out-of-wedlock fertility should remain constant or grow, since there are more single people who may wish to bear children. Thus, the effect on the whole fertility rate should be negative or non-significant, if the increase in out-of-wedlock fertility compensates for the decline in marital fertility.

Although the pattern of marital and non-marital fertility seems to confirm predictions - marital fertility falls and non-marital fertility increases, after the approval of divorce reforms, see Figure 2- it is also possible to find other explanations in the economic literature for the impact of divorce law reform on fertility. As the costs of divorce have been reduced with the liberalization of divorce laws, the costs of entering into a bad marriage (in which couples are more likely to divorce) are also reduced. Then, the decision to marry may be easier to take, especially if there are individuals who want to have children in a marital setting (Alesina and Giuliano 2007; Drewianka 2008). As a consequence, we would expect a decrease in out-of-wedlock fertility and an increase in marital fertility. Marital fertility can also rise because couples who are already married may utilize investment in marriage-specific capital, strategically over-investing in children to increase the value of their marriage, when divorce reforms are adopted (Stevenson 2007). On the other hand, if agreements are difficult to sustain when divorce is easier to obtain under a new divorce law regime (Stevenson 2007), we would expect that couples would not want to procreate until they envision good long-term prospects for their relationships. In the same way as those who are married, couples who cohabit can also have less incentive to rear children until they are sure that their relationship is lasting, due to the increase in outside options (more divorce) generated by the divorce liberalization. In this setting, we would expect a decline in fertility by delaying births. Therefore, given that there are several forces operating through marital and non-marital fertility, whether divorce laws have an impact on fertility decisions appears to be an empirical issue.

[1] No-fault grounds for a divorce include irretrievable breakdown, irreconcilable differences and/or incompatibility. Almost all European countries implicitly (at least after a required separation period) or explicitly permitted unilateral divorce (divorce can be granted at the request of either spouse) under the reforms that have occurred since 1970. The only two countries that do not have unilateral regimes in the period covered by this work are Ireland and Italy (González and Viitanen, 2009). In these two countries, if a spouse opposes a divorce, then the divorce is not necessarily granted.

In our analysis, we construct a panel of 18 European countries spanning the period from 1960 to 2006, using data from Eurostat, to analyze the effect of changes in divorce laws on fertility rates.[2] We identify the causal relationship by exploiting the legislative history of divorce liberalization across European countries. Our results suggest that the introduction of divorce law reform decreases fertility rates, and that the effect appears to be permanent. These results are consistent with the use of different measures of fertility rates - the two main measures used are the Total Fertility Rate and the Crude Birth Rate - and with the use of fertility rates by age of the mother. Results show that fertility falls in all age groups, with the decline being greater for women between 20 and 34 years.

These findings contribute to the growing literature on the impact of changes in divorce law on socio-economic outcomes. Using methodologies very similar to ours, much of the recent literature has focused on the impact of divorce law reform on divorce rates, generally finding a positive relationship between the permissiveness of the laws and the probability of divorce (Friedberg 1998; Gray 1998; Peters 1986, 1992; Wolfers 2006 for the US, and González and Viitanen 2009 for Europe). Other researchers have studied the effect of the change in divorce laws on suicide, domestic violence, and spousal homicides (Dee 2003; Stevenson and Wolfers 2006), marriage rates (Drewianka 2008; Mechoulan 2006; Rasul 2006), marriage-specific investments (Stevenson 2007), labour supply (Gray 1998; Peters 1986) and child outcomes (Gruber 2004; Johnson and Mazingo 2000). Not only do we add to this literature by examining divorce law reforms, but we provide additional evidence that imply that our results are not driven by unobserved country-specific factors, time-varying factors at the country level, the liberalization of abortion, or the availability of the birth-control pill.

First, we introduce controls for fixed and trending unobserved factors at the country level that might be correlated with fertility, such as changing social norms or slow-moving demographic trends. In addition, we include a host of country level variables which seem to be related to fertility rates in our main specification. For instance, given that fertility rates are lower among women who participate in the labour market (Alba et al. 2009; Kalwij 2000) and those who are more educated (Bloemen and Kalwij 2001; Breierova and Duflo 2004; Leon 2004), the massive incorporation of women in work since the 1970s, as can be seen in Figure 3, may be driving our results. After including all these controls, the coefficients that capture the effect of divorce law reform change very little.

A potential concern with this analysis is that it omits reforms that introduced changes in the abortion laws, and the introduction of the oral contraceptive pill. In Europe, while the share

[2] The countries considered in the analysis are: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

of population covered by no-fault unilateral reforms increased since the 1970s, a trend of profound changes occurred in the area of family planning. The timing of reforms differs by a few years and, in several cases, the liberalization of abortion laws and the introduction of the pill were prior to divorce law reform. Then, given that abortion laws and the introduction of the pill have been found to have a negative impact on fertility rates, using US data (Ananat et al. 2007; Guldi 2008), it is arguable that the coefficients capturing the effect of divorce law reform in Europe may be measuring the response of fertility rates to those reforms, in addition to or instead of the response of fertility rates to changes in divorce laws. To examine this issue, we add to our main specification controls for legislative variations across countries, in the timing of abortion reforms, and for the introduction of the pill. This information was compiled from Brooks (1992), Henshow and Morrow (1990), the United Nations Population Division (2003), National Agencies for the Regulation of Medicines, and from the International Planned Parenthood Federation (IPPF). Results are robust to the introduction of all these controls. These findings suggest that our analysis is identifying the role of divorce law reforms, as opposed to other reforms affecting the ability to control fertility and also to fixed and time-variant (observed and unobserved) factors at the country level.

In the final section, we examine how divorce law reforms operate by analysing the effect on out-of-wedlock fertility and on marital fertility, separately. We find that the marital fertility rate decreases as a consequence of the liberalization of divorce laws, but that the effect is transitory; after a decade, no effect can be discerned. On the contrary, the impact on out-of-wedlock fertility is not clear (coefficients measuring this effect are not significant in all specifications) until 7-8 years following the adoption of the divorce law reforms, when out-of-wedlock fertility negatively responds to the divorce law reforms. Thus, our results suggest that the decrease in the TFR might be driven by two forces: first, after the adoption of reforms, the TFR may fall due to the reaction of marital fertility, and after 7-8 years it may be driven by the reaction of the out-of-wedlock fertility. We also explore whether the timing of marital births is influenced by divorce law reforms, using data from several issues of the UN Demographic Yearbooks. Results suggest that divorce law reform may have different effects on fertility, depending on whether couples were married before or after the divorce law reform.

The remainder of the paper is organized as follows: Section II presents the empirical strategy, Section III describes the data, baseline results and robustness checks are discussed in Section IV, in Section V we analyse the mechanisms through which divorce law reforms operate, and Section VI sets out our main conclusions.

II. Empirical Strategy

Our empirical approach makes use of the variation in the timing of divorce law liberalization across European countries, to identify the effects of those divorce law reforms on fertility rates. This is a standard strategy in the economic literature analysing the effects of divorce law reform for the case of US and Europe (see for example Friedberg 1998; González and Viitanen 2009 and Wolfers 2006). But, is it a natural experiment? To utilize the legislative history of divorce law to make inferences about the causal effect of divorce reform, the variation in the timing of liberalization should not mirror pre-existing divergences in country-level specific characteristics. In order to evaluate this assumption, we use country-level characteristics for each of the 18 countries. Data come from different sources (see Appendix). As dependent variable, we use the "time to liberalization," measured as the year in which divorce law reforms were adopted in each country, minus 1970, the year in which the first reform in the period analysed was introduced (see for a similar strategy, Bailey 2006, although studying the availability of the contraceptive pill).

Table 1 presents the estimates and robust standard errors from cross-country regressions of "time to liberalization" on selected 1960 (Panel A) and 1970 (Panel B) country-level attributes. As can be seen in Table 1, none of the characteristics is statistically significant. Although these results should be taken with precaution due to the scarcity of data, the absence of a statistical relationship to those potential determinants of divorce law reform gives more credibility to our empirical strategy, considering divorce reform as a valid natural experiment. Despite these striking findings, we certainly acknowledge that differences in the social norms, divorce taboos, countries' judiciary, legislatures, and political regimes could result in considerable variation in the timing of the implementation of the divorce law reforms, but the exact year in which divorce law reforms were adopted seems to be exogenous. As in previous work, and given the results reported in Table 1, we favour the use of the legislative history of divorce law reform to capture the effects on fertility of those legal changes.

Initially, our estimation strategy enables a difference-in-differences approach, following the methodology proposed by Friedberg (1998) to capture the effect of divorce law reform. We estimate the following expression:

$$Fertiltiy\ rate_{s,t} = \beta Reform_{s,t} + \Sigma_s\ Country\ fixed\ Effects_s + \Sigma_t\ Time\ fixed\ Effects_t +$$

$$[\Sigma_s\ Country_s * Time_t + \Sigma_s\ Country_s * Time^2{}_t] + \varepsilon_{s,t} \qquad (1)$$

where $Reform_{s,t}$ is a dummy variable that takes a value of "1" when country s has a no-fault unilateral divorce law regime in year t, and "0" otherwise. The parameter β is interpreted as the average change in the total fertility rate that can be assigned to the change in the legal system of divorce. From a theoretical point of view, as mentioned above, the sign of this parameter is unclear, since these new divorce regimes can have positive and negative effects on fertility. Equation (1) also includes country fixed effects and year fixed effects to control for evolving unobserved country attributes, and linear and quadratic trends, which allow us to capture trends in country-level unobserved factors affecting fertility. Regressions are estimated by population-weighted least squares. [3]

This methodology only identifies discrete series break (static model). However, it is conceivable that the impact of divorce law liberalization has very different short-run and long-run effects, which may induce a gradual change in the fertility rates. To tackle this issue, we also estimate the dynamic response of fertility rates to divorce law reform (dynamic model) as in Wolfers (2006):

$$Fertility\ rate_{s,t} = \Sigma_k\ \beta_k Reform_{s,t,k} + \Sigma_s\ Country\ fixed\ Effects_s + \Sigma_t\ Time\ fixed\ Effects_t +$$

$$[\Sigma_s\ Country_s * Time_t + \Sigma_s\ Country_s * Time^2_t] + \varepsilon_{s,t} \qquad (2)$$

with the variable $Reform_{s,t,k}$ being a dummy set equal to "1" when the country s has implemented a new divorce law regime in year t for k periods, and "0" otherwise. These dummy variables are supposed to capture the entire dynamic response of fertility to the new legal regime, while the country-specific time trends identify pre-existing trends. A negative sign of the β parameter indicates that the fertility rate in the country s has fallen after k periods, since the change in divorce law. The interpretation of a positive sign would be just the opposite.

III. Data

For the main analysis, we use the Total Fertility Rate (TFR) for the period 1960 - 2006. [4] The data for the fertility rate are publicly available from Eurostat. TFR is defined there as "*the mean number of children that would be born alive to a woman during her lifetime if she were to pass through her childbearing years conforming to the fertility rates by age of a given year. It is therefore the completed fertility of a hypothetical generation, computed by adding the fertility*

[3] We also repeat the analysis by introducing clusters at the country level. Results do not substantially change.

[4] To fill in the gaps, we use data from several issues of the UN Demographic Yearbooks, and the available data points, plus a linear, a quadratic trend, and mid-points. We also run regressions with the unbalanced and shorter versions (considering fewer years in the sample and dropping each country in turn) of the panel. Results are quite robust to all these samples.

rates by age for women in a given year (the number of women at each age is assumed to be the same).”

Figure 2 shows the temporal evolution of the Total Fertility Rate in Europe. From 1960 to 1964, the average Total Fertility Rate slightly increases, reaching a rate of 2.88. Subsequently, there is a clearly observed decline in the average Total Fertility Rate until 1994, with this average rate being lower than the replacement level since 1975. That was followed by a period of relative stability around an average rate of 1.60. This stable rate was interrupted by an acceleration since 2003 that continues until the end of our sample in 2006. This behaviour is not limited to this particular definition of the fertility rate. Other measures, represented in Figure 4, such as the Crude Birth Rate (measured as the number of births per 100 people) and the Birth Rate (number of births per 100 women) for Europe, have a similar pattern to that of the average Total Fertility Rate.

This quick glance at fertility rates does not appear to reveal the presence of a causal link between the reforms of the divorce laws and those rates. However, given that the drop in the Total Fertility Rate continued while European countries introduced their reforms, it is possible to argue that those reforms impacted the Total Fertility Rate. The timing of the main reforms in no-fault and unilateral divorce laws was summarized by Gonzalez and Viitanen (2009). The period of reforms began in 1970, when Denmark implemented a divorce law reform that allowed unilateral divorce after a period of separation. After 1970, four European countries allowed divorce, two passed only no-fault divorce, eleven permitted divorce when a couple had lived apart for a specified period of time (allowing unilateral divorce after separation in the 1970s and 1980s), two allowed this regime in 1993, and another one in 2000. Only two countries recognized unilateral divorce, the right to divorce at the request of either spouse. In our empirical analysis, we categorize all these legal changes as *no-fault unilateral divorce* because all modify the value of marriage, regardless of the regime (as described previously), and because much of the empirical literature does not distinguish between those types of reforms, at least when using US divorce law reforms. This strategy can make our results comparable with previous works. [5] In the following sections, we provide evidence of the effect of those divorce law reforms on fertility rates.

[5] As a robustness check, we have repeated the analysis by separating the different regimes. Results show a greater effect on fertility for those countries that allowed divorce during the period analysed.

IV. Results

A. Baseline Regression

Table 2 reports the estimates for Equation (1). As can be seen in the first column, which includes country and year fixed effects, a change in divorce law is associated with a decline in the fertility rate. This is maintained even after adding country-specific linear and quadratic time trends in Columns (3) and (5), although the estimated coefficient on the divorce law reform increases (decreases in absolute value) by almost 14% after including those controls in the specifications. This is presumably because in these specifications, not only are we removing country fixed characteristics but also time-varying unobservable factors that could bias the results presented in Column (1).

To examine the impact of the liberalization of divorce laws, we also use an alternative strategy proposed by Wolfers (2006), which allows us to analyse the dynamic response of the fertility rate to the implementation of divorce law reforms. Table 2 also shows regressions for Equation (2) in Columns (2), (4) and (6). In all three specifications, the dynamic estimates show a negative response of fertility following the adoption of no fault or unilateral divorce, and that this effect does not fade over the subsequent years. As in the previous case, the magnitude of the impact of divorce law reform decreases in absolute value when quadratic trends are added. All in all, results suggest that divorce reforms that occurred in Europe contributed to the decline in fertility, and that the impact was not transitory.

We also provide additional evidence to demonstrate that our results are not driven by omitted economic and demographic variables. The impact of these variables correlated with the outcome of interest, if omitted, would be captured by the coefficients measuring the effect of the divorce law reform. We add controls to our baseline regression for several standard determinants of TFR that could have explained the drop in our outcome of interest (see Tables 3 and 4).

The first variable considered is Female Labour Force Participation, with data from the OECD (see Appendix). The relationship between Female Labour Force Participation and the Total Fertility Rate has been extensively analyzed in the economic literature, establishing a negative relationship between both (Mishra and Smyth 2010; Smith-Lovin and Tickamyer 1978). Then, it is arguable that the increase in Female Labour Force Participation that occurs since the mid-1960s (see Figure 3) could cause the decline in the Total Fertility Rate, although other papers suggest that it was the drop in the Total Fertility Rate that instigated the rise in Female Labour Force Participation (Bloom et al. 2009; Mishra et al. 2010). Despite the endogeneity concerns that the introduction of this variable may generate, its inclusion in Column (2) of Table 3 does not change the estimated coefficients of the impact of divorce law

reform. The striking feature is that the coefficient picking up the Female Labour Force Participation effect is not significant. This can be due to the fact that this coefficient may not be fully capturing the relationship between both variables. Ahn and Mira (2002) suggested that the relationship between Female Labour Force Participation and the Fertility Rate is not linear but has a U-shape. Until the early 1980s, a negative relationship is observed between both variables, but since the late-1980s the relationship between them turns out to be positive.[6] To examine this issue, we have also included a quadratic term for Female Labour Force Participation in Column (2) of Table 4. In this case, the coefficients picking up the effect of Female Labour Force Participation on the Total Fertility Rate are significant, pointing to a quadratic relationship between them. With respect to the effect of divorce reform, results do not change; the coefficients are still negative and significant.

The fall in the Total Fertility Rate can also be attributed to the rise of female schooling in the European countries considered (Leon 2004). Female education can lower fertility by way of the increase in the opportunity cost of women's time (Barro and Becker 1988; Willis 1973) or by affecting the age of marriage (Breierova and Duflo 2004), which can delay births and so lower the level of completed fertility (Kalwij 2000). To capture the impact of female education, we introduce the Female Gross Enrolment Ratio constructed by UNESCO (see Appendix) in Column (3) of Table 3. Results on the effect of the divorce law reforms do not change, even after the inclusion of a quadratic term for female education in Column (3) of Table 4.[7] The quadratic term for the female education proxy is also significant, but negative, pointing to an inverted U-shaped relationship between the Female Gross Enrolment Ratio and the Total Fertility Rate.

The decline in the infant mortality could also contribute to the decline of the Total Fertility Rate. The lower the infant mortality, the fewer children need to be replaced. But, on the other hand, falling mortality rates lower the cost of having a surviving child, and for this reason fertility should increase as mortality declines (Doepke 2005; Sah 1991). To control for this determinant of fertility, we incorporate in the analysis the ratio of the number of deaths of children under one year of age during the year, to the number of live births in that year, using data from Eurostat. After adding this variable, the dynamic response of the Total Fertility Rate to the introduction of the new divorce regimes is quite similar (Column (4) in Tables 3, linear relationship, and 4, quadratic relationship).

The per capita GDP has also been included as a control in Column (5) of Table 3 and Table 4 (with a quadratic term), since several studies have found that fertility has fallen in

[6] Other papers, such as Kogel (2004), do not find a positive correlation between fertility and female employment. They just present evidence of a reduction in the negative association between them since the mid-1980s, (see Engelhardt et al. 2004, for a review of this literature).

[7] Results are also quite robust to the use of other measures of female education provided by UNESCO, which allow us to consider separately the Gross Enrolment Ratio by level of education (secondary and tertiary) and the introduction of the Total Gross Enrolment Ratio (male and female education).

economic expansions and risen during contractions (Butz and Ward 1979; Hazan and Berdugo 2002).[8] Results are unchanged to the introduction of per capita GDP. Unstable employment and unemployment might also influence the variation in the Total Fertility Rate by increasing uncertainty about future wages, which may encourage women to postpone (or even abandon) childbearing (Adserà 2004; Ahn and Mira 2001; Gutierrez-Domenech 2007, Doiron and Mendolia 2011).[9] Column (8) of Table 3 and Column (7) of Table 4 (adding the quadratic term) show the estimated effect of the unemployment rate on the Total Fertility Rate, with the expected negative sign. Our coefficients of interest are insensitive -they are still negative and statistically significant- to its inclusion in the model.[10]

Other public policies, such as tax exemptions, the maternity leave, and parental benefits, among others, can account for a sizeable fraction of the fluctuation in the Total Fertility Rate (see, for example, Acs 1996; Averett and Whittington 2001; Demeny 1986; Dickert-Conlin and Chandra 1999; Gauthier et al. 1997; Georgellis and Wall 1992; Kearney 2004; Lalive and Zweimüller 2009; Manuelli and Seshadri 2009; Milligan 2005; Whittington 1992; Whittington et al. 1990; Zhang et al. 1994). This is relevant in our analysis, since improvements in family policies may raise the level of fertility (Björklund 2006), compensating for the impact of the divorce law reforms. Unfortunately, it is difficult to incorporate all these policy changes in our analysis. As a proxy of the effect of public policies, we can first use per capita GDP, since the greater the GDP the more family policies may be implemented. As shown before, this does not affect our estimates. Another possibility is the use of data on women in parliament, since female legislators are more likely to place priority on women's, children and family issues (Chattopadhyay and Duflo 2004; Swers 2002). We then introduce the percentage of women in each national parliament on the total of seats of the parliament, as a proxy of the variation in public policies using data from the Inter Parliamentary Union in Columns (6) and (7) (adding the per capita GDP) of Table 3 and in Column (6) of Table 4 (with the quadratic term). Our results are robust to the inclusion of all these controls.

The marriage rate is another variable added as control to our main specification, since it has been considered to be one of the principal determinants of fertility (Bongaarts 1978). The lower the marriage rate, the lower the marital fertility. Since children are a marital-specific investment (Becker et al. 1977; Stevenson 2007), we would expect that the decline in the

[8] The per capita GDP can also be considered as a proxy of the increase in female and male earnings, which are also expected to affect the fertility decisions (Galor and Weil 1996; Macunovich 1995; Ward and Butz 1980).

[9] Although we have not included a control for male employment, which is another potential determinant of fertility (Ahn and Mira 2001), the introduction of the unemployment rate may be partly capturing the importance of both female and male employment.

[10] The youth unemployment rate and the great number of temporary contracts may also have an important effect on the drop in the fertility rate by increasing uncertainty regarding future careers and earnings, as well as by lowering current income for young men and women. But, because of the scarcity of the data, which is only available since the 1980s, we cannot add these as regressors. We have a similar problem with the fluctuations of the price of households. We would expect that their effects can be captured by the controls for fixed and trending unobserved factors at the country level incorporated in the analysis.

marriage rate, which can be seen in Figure 3, leads to a drop in the Total Fertility Rate. With a similar argument, we can justify the introduction of the divorce rate, since the greater the divorce rate, the lower the marital fertility. Again, our results do not vary substantially, even after adding quadratic terms for all these regressors (see Tables 3 and 4).

To check whether our results are sensitive to the measure of fertility used in the previous analysis, we ran several simple robustness checks. We use three additional dependent variables: the Crude Birth Rate, defined as the number of births per 100 inhabitants; the Birth Rate, measured as the number of births per 100 women, and the Log(TFR) which is the Total Fertility Rate in logarithm. Results are presented in Figure 5, which shows that, though the magnitude of the impact varies a little (which is not striking due to the change in the denominator of the dependent variable), the behaviour of the impact is quite similar. The growing negative impact of the reforms stabilizes after 7-8 years of the adoption of No-fault Unilateral Divorce Laws, and 13-14 years after the negative and significant effect is smoothed.

Finally, we have also used as a dependent variable the fertility rate by age of women, to test whether we are capturing the behaviour of a specific group of women (De Cooman et al. 1987). As an increase in women's education may decrease the fertility rate of younger women, one can argue that we are capturing the decrease in the Total Fertility Rate of those women who spend more years in education, rather than the entire response to divorce law reforms. Figure 6 presents the response of the TFR for women aged 15 to 19, 20 to 24, 25 to 29, 30 to 34, 35 to 39, and 40 to 44. All coefficients are negative, indicating that the Total Fertility Rate decreases as a consequence of the implementation of the new divorce law regimes, irrespective of the age of the women. However, there are slight differences; the greater impact is observed for those women aged 25 to 29, which points to an effect of divorce laws on the timing of births.

B. Is it the divorce law, or is it the liberalization of abortion laws?

While reforms in laws of divorce were introduced throughout Europe, all but one country (Ireland) established new abortion laws that overturned previous legislation. Eight of the eighteen countries permitted abortion for cause since the mid-1960s. Under this regime, reasons for allowing abortion include: rape, incest, severe foetal abnormality, and physical and mental health problems of the mother. Five countries adopted abortion on demand, that is, without restrictions, although gestation limits (i.e. first trimester, or until viability) were established in most countries. The remaining four countries passed both regimes during the period analysed. Abortion laws were classified using Brooks (1992), Henshow and Morrow (1990), and information from the United Nations Population Division (2003).

These reforms decreased the cost of abortion, which of course could have an effect on fertility (Ananat et al. 2007; Guldi 2008; Levine et al. 1999). Women can now abort pregnancies that would have resulted in unwanted births. Another concern is that the effect of abortion reforms may be confounded with the impact of divorce law reforms. To tackle this issue, as in previous works on the impact of abortion laws on several socio-economic variables, we use a quasi experiment exploiting the variation in the timing of abortion reforms to capture the effect of abortion reforms on the Total Fertility Rate (see, for example, Ananat et al. 2007; Donohue and Levitt 2001; Guldi 2008). We introduce as explanatory variables dummies to control for the years since abortion laws by grounds (on demand or by cause) were adopted. [11]

Results are shown in Table 5. Columns (1), (3) and (5) include the estimates of the main specification, and Columns (2), (4) and (6) show the response of the Total Fertility Rate to the divorce law reforms, after adding controls for abortion law reform. As can be seen, results are quite similar. Then, even adding controls for abortion, we find that divorce law reforms negatively impact the Total Fertility Rate. With respect to the impact of abortion law reforms, the effect is not clear, although when country-specific linear trends are added, all the coefficients are negative and significant, pointing to a decrease of the Total Fertility Rate as a consequence of the introduction of the new abortion laws. [12]

C. Is it divorce law, or is it the Pill?

Another important feature that occurred in the 1960s was the emergence of the oral contraceptive, better known as *The Pill*. It gave women the opportunity to safely decide when to have children and allowed the separation between sexual activity and procreation (Goldin and Katz 2000, 2002). This is important in our analysis, since one may surmise that it was the use of the pill that caused the drop in the number of births in Europe. Although, for the case of European countries, the literature is quite limited, several papers have pointed to access to the Pill as an important determinant of the decline in post-1960 US fertility (Bailey 2006, 2009, 2010; Guldi 2008). [13] The *power of the Pill* is gaining attention among researchers, not only for the analysis of its impact on fertility, but also on other socio-economic outcomes - always using US data - such as female labour force participation (Goldin and Katz 2000, 2002), female education (Ananat and Hungerman 2011; Hock 2007), marriage (Edlund and Machado 2011) and even children's outcomes (Ananat and Hungerman 2011; Pantano 2007).

[11] We have not incorporated in our analysis other methods that offer women a safe and quite effective alternative to the surgical abortion, such as mifepristone or RU-486, licensed in most European countries since the late 1980s, inasmuch as, despite the widespread introduction of this drug, women's access to and use of this technology remains limited by the abortion legislation (see Entre Nous 2005).

[12] Note that we do not aim to study the effect of abortion law reforms on fertility (see Ananat et al. 2007, for an extensive analysis using US data).

[13] See Carro and Mira (2006) for an analysis of the Spanish case.

In the case of Europe, as can be seen in Figure 7, when the population with access to the Pill reached almost 50%, the Crude Birth Rate began to decrease. Note that, in Figure 7, we use information on the year in which the pill was first authorised but, in some countries (such as Spain and Ireland), it was not prescribed as a contraceptive until the late 1970s; its use was restricted to regulate the menses.[14] Thus, it is possible that those restrictions delayed the drop of the Total Fertility Rate if the Pill was the main determinant of this fertility behaviour. The information on the year in which the Pill was available was compiled by the authors from each National Agency for the Regulation of Medicines, and from the International Planned Parenthood Federation (IPPF). To our knowledge, there is no previous research using this kind of information for all the European countries considered in this analysis.

To capture the effect of the Pill, we use a similar quasi experiment to that utilized for the case of divorce law reforms, and for the abortion laws. This natural experiment is also a common strategy in the Pill literature (see, for example, Bailey 2006, 2009, 2010; Guldi 2008).[15] In our work, we add to the main specification dummies to control for the years since the Pill is accessible. Table 6 reports the results. Columns (1), (3) and (5) include the estimates of Equation (2), and Columns (2), (4) and (6) show the dynamic response of the Total Fertility Rate to divorce law reforms after controlling for access to the Pill. Once again, our results on the Total Fertility Rate's reaction to divorce law reforms are not being quite affected. More surprising are the differences in the short- and long-run effects of the Pill. The Pill seems not to have decreased the Total Fertility Rate until 13 years after it was introduced.

Finally, Table 7 presents the results of the main specification in Columns (1), (3) and (5), and the estimates after adding all controls in Columns (2), (4) and (6). Although the magnitude of the negative effect diminishes after adding all controls, we still find that divorce law reforms had a negative and significant effect on the Total Fertility Rate, and that this effect is lasting. After this analysis, we are confident that we are capturing the effect of divorce law reforms, rather than other observed or unobserved factors, or other reforms that directly affect family planning. [16] Our estimates suggest that the introduction of the new divorce law regimes decreased the Total Fertility Rate by about 0.1-0.2 each two years after their adoption. The magnitude of the effect is sizable, taking into account that the average Total Fertility Rate declined from 2.84 in 1960 to 1.66 in 2006.

[14] We have also run the analysis using the information on the year in which the Pill was allowed as a contraceptive. Results are quite similar.
[15] An alternative strategy could be the use of data on the use or sales of the Pill, but this is not possible since this information is quite scarce.
[16] Of course, these estimates should be treated with a certain caution, since we have included some variables that may generate endogeneity concerns.

V. How do divorce laws operate through marital and non-marital fertility?

A. Fertility by marital status

Up to this point, we have empirically studied the impact of divorce law reforms on the Total Fertility Rate. In this section, we explore the mechanisms through which these reforms affect fertility. To address this issue, we would have liked to have information on what motivated fertility decisions, but this information is not available for all countries analysed, in the period covered. Instead, we examine whether fertility's response to divorce law reform differs, depending on the marital status of individuals. This is also an interesting issue since, as explained above, it has been suggested that these legal reforms affect marital and non-marital fertility in different ways.

Results on the marital fertility rate are shown in Table 8. There, the dependent variable is defined as the number of births within marriage per 500 inhabitants (see Appendix).[17] The dynamic estimates show that the negative effect on marital fertility rates following the adoption of no-fault and unilateral divorce dissipates over the subsequent decade. Coefficients become non-significant, albeit negative, so the effect of divorce law reforms on the marital fertility rate appears to be transitory. These findings are consistent with certain theoretical predictions proposed in the economic literature. The decrease in the value of marriage because of the fall in divorce costs (Brinig and Crafton 1994; Peters 1992), in addition to the rise in the couple's instability, as expected, seem to drive the behaviour of the marital fertility rate at least until 10 years after the legal shift in divorce laws. However, thenceforth, no effect is observed. This can be due to an increase in the number of marriages, since the decision to get married can be less difficult to take under the new divorce law regimes (Alesina and Giuliano 2007; Drewianka 2008). It can also be due to an increase in the number of couples already married who decide to have children to compensate for the decrease in the value placed on the marriage institution (Stevenson 2007), although we admit that this change in the behaviour of married couples seems at odds, given that it has been found that children have a negative effect on the duration of relationships, (Svarer and Verner 2008).

Another possibility is that the reaction in marital fertility is driven by the decisions of those who got married after the reform. As time went by, the number of couples who got married before the reform grew older, and so they were less likely to have children, but the number of marriages that took place after the adoption of the new divorce legal regime

[17] We also re-ran the analysis using as dependent variable the number of births within marriage over the number of women and over the number of women aged 15-49. Results are quite similar.

increased. Since, as documented by Weiss and Willis (1997), the divorce legal regime at the time of marriage is relevant in determining the likelihood of divorce, if a great number of couples who got married under the new divorce law regime are those who were able to sort themselves better at marriage, in order to enhance the stability of their marriages and increase the quality of the match, then the divorce rate for them should fall (Matouschek and Rasul 2008; Mechoulan 2006; Weiss and Willis 1997). This is considered in the literature as the *selection effect*. As a consequence of that, we would expect the marital fertility rate to remain constant or even increase as the number of couples married under the new law rises. This potential explanation can shed light on the somewhat puzzling change in the response of marital fertility over time. A more detailed analysis of marital fertility by duration of marriage (see the following subsection) helps us to confirm this prediction.

The effect on the non-marital fertility rate, calculated as non-marital births per 500 inhabitants (see Appendix) is not so clear immediately after the reform, but 3-4 years later the effect is negative and significant. [18] Results are reported in Table 9. When using the illegitimacy ratio, defined as the number of non-marital births per 10 births, the negative and statistically significant impact of the divorce law legal reforms on the illegitimacy ratio is not observed until 7-8 years after the adoption of the new regimes (see Table 10). [19] Our findings are in line with those of Drewianka (2008), who suggested that unilateral divorce law increases the legitimacy ratio. As proposed in the theoretical literature, the decrease in the costs of divorce can make entering marriage easier, even for those who are more likely to enter into a low quality match (Alesina and Giuliano 2007; Drewianka 2008). This could explain the reduction in the non-marital birth rate. Additionally, since divorce law reforms increased the number of outside options, not only for those who are married, but also for those who cohabit (there are more divorced people to enter into a new relationship), individuals would be less likely to bear a child until they envision a stable relationship.

Our findings suggest that the negative effect on the Total Fertility Rate, which encompasses both in- and out-of-wedlock fertility, after the adoption of the new divorce regime, seems to be driven by the reaction of the marital fertility rate. But, 7-8 years later, the reduction in the Total Fertility Rate is maintained by the decrease in the non-marital fertility rate.

[18] As in the case of the marital birth rate, we have also run this analysis changing the denominator of the dependent variable to total number of women and the number of women aged 15-49. Results do not vary.
[19] Results are also consistent with the inclusion of all controls.

B. Fertility by duration of marriage

For further evidence on the mechanisms through which divorce law reforms operate, we also examine the impact of divorce law reforms on marital fertility by considering marriages of the same duration. As described in Lillard (1993), the probability of pregnancy in a marital setting rises during the first five years of marriage, and declines thereafter, but if divorce law reforms increase the probability of marital dissolution over the marriage duration, this pattern can change. Since divorce costs are reduced with the liberalization of divorce laws, the decision to marry immediately after becoming pregnant can be easier, since a bad marriage can more easily be dissolved (Alesina and Giuliano 2007; Drewianka 2008), and it would be reasonable to expect an increase in the fertility of those married for less than a year. However, the considerable increase in the likelihood of marital dissolution over the first year of marriage (Lillard 1993), due to the new divorce regimes, can reduce the number of conceptions. Thus, the impact of divorce law reform on marital fertility during the first year of marriage seems to be an empirical question.

As long as the marriage continues, the probability of dissolution tends to decline, because those couples who survive are more experienced in dealing with potential breakdowns (Becker et al. 1977). For instance, they may be capable of behaving strategically by over-investing in children, a marital-specific investment (Stevenson 2007), bringing about an increase in marital fertility after the changes in the law, to increase the value of their marriages and make them more difficult to break. It is not clear whether this impact can be permanent though, the longer the duration of the marriage, the greater the hazard of another pregnancy (Lillard 1993), and the probability of over-investing in children is higher. Nevertheless, women, who have traditionally been responsible for the child after divorce, can also be less motivated to have another child if they feel more fearful of being deserted, which becomes easier under divorce law reform. This negative response is expected to be more pronounced after 9-10 years of marriage, which is the average duration of marriages prior to divorce (Stevenson and Wolfers 2007). Then, again, the response of marital fertility as the duration of marriage increases is ambiguous.

To explore this issue empirically, we use data from 1960 to 1998 on the number of births by total duration of married life. This dataset is available in several special issues of the UN Demographic Yearbooks.[20] The marital duration is defined as *the number of completed years elapsed between the exact dates of marriage of the wife and the exact date of birth of the*

[20] Since 1998, this information has been removed from the minimum list of recommended tables and no data is shown in the UN Demographic Yearbooks. For robustness, we have also checked all our results by using data until 1998 and results are unchanged.

child. We recognise that this can bias our results, since it is not limited to first marriages and the decision to become pregnant can differ if the wife has been married more than once. Another problem with this dataset is that the duration of marriage is not just calculated by difference of years. This implies that the coefficients measuring the fertility response of couples of marital duration *r* to a divorce law reform *k* years after its adoption in year *t* are capturing the reaction of those who gave birth in year *t*, and the response of those who had a child in year *t+1* only if the time that elapsed between the exact date of marriage of the wife and the exact date of birth of the child is greater than *r* years but lower than *r+1*.[21]

Results on the static and dynamic response of fertility by duration of marriage are displayed in Tables 11 to 18.[22] In all those regressions, the dependent variable is defined as the number of legitimate births of couples of marital duration *r* over the total number of legitimate births.[23] We show results for 8 (under 1 year of duration, each two years since then until 9 years married, and the intervals 10-14, 15-19, 20 and over) of the 14 available categories in the UN Demographic Yearbooks.[24] Table 11 presents our estimates for the response of fertility to divorce law reform, for those who have been married for less than 1 year. Even though the static reaction is not significant, once the dynamic effect is taken into consideration, it is observed that the marital fertility rate decreases as a result of the divorce law reforms 5-6 years after adoption. The effect is not significant immediately after the implementation of divorce law reforms, and 3-4 years later it is not clear (only in one specification, which includes country-specific time trends, do we detect a statistically significant and negative coefficient). These findings suggest that so-called "shot-gun" marriages are not driving the behaviour of the marital fertility of those married for less than 1 year. Rather, the unstable situation of couples during this first year of marriage, which increases after divorce law reform (as time passes, the number of outside options also rises), is more likely to be the responsible of the reduction in this marital fertility rate.

Table 12 shows results on the legitimate fertility of couples who have been married for 3 years. As can be seen in Columns (1), (3) and (5), the discrete jump in the average marital fertility rate due to the introduction of divorce law reforms is positive and significant. The coefficients' change is unappreciable after adding controls for country-specific linear and quadratic time trends. The dynamic response seems to be the same. All but one of our estimates are positive and statistically significant, pointing to an increase in the marital fertility rate of

[21] For instance, the UN classified in the category "births after 2 years of marriage" the child of a couple who was born on October 1973 and the parents were married in December 1970, rather than placing the child in the category "births after 3 years of marriage".

[22] Results are also quite similar after adding all controls, but because of endogeneity concerns we prefer the estimates without controls.

[23] We have also run this analysis using other denominators, such as the total number of births, the total population, the total number of women and the number of women aged 15-49. Differences with the results shown here are not discernible.

[24] Results are quite similar in those categories not included in the paper (2 years married, 4 years married, 6 years married and 8 years married). We excluded the category with a duration of marriage "unknown".

those married for 3 years, as a result of changes in divorce law. This may indicate that couples decide to invest in children to compensate for the decrease in the value placed in the marriage after the reform. One can also surmise that this response of the marital fertility rate is due to the fact that couples surviving three years of marriage are in a stable relationship, with a long-term perspective, and so they can feel more confident in having a child. Although these explanations appear to be valid since their predictions coincide with the results obtained, they have little to do with the changes in the behaviour observed when the marital duration increases.

Focusing on the dynamic effects of divorce law reforms on fertility, Columns (2), (4) and (6) of Tables 13, 14 and 15 - which report the response of those married for 5, 7, and 9 years, respectively - clearly show two distinct patterns in the reaction of those couples. After the adoption of the new divorce regimes, the effect is not significant, or negative and statistically significant, and some years later the impact becomes positive and significant. Results do not vary when we include country-specific time trends. Note that this startling change in the behaviour of couples does not occur in the same period: the greater the duration of the marriage, the less the number of positive and significant coefficients found. Then, it is hard to find a unique explanation for this puzzling response, unless we consider that marriages that took place before and after divorce law reforms behave in different ways.

As explained above, since divorce law reforms also have a selection effect on the composition of marriages, those who were married under the new regime are less likely to divorce (Matouschek and Rasul 2008; Mechoulan 2006), altering their incentive to have children. By using data on the total marital fertility, this hypothesis was hard to test, but we can probe this further by using the dataset on births by duration of marriage, since it allows us to observe separately the responses of couples married under different regimes. For instance, the sample of marriages of 5 years duration contains both kinds of couples (couples married under the old regime and under the reformed divorce law), but our estimates of the dynamic effect do not consider the response of those couples together. For instance, the coefficient measuring the response of the marital fertility rate of those married 5 years ago, after 1-2 years of the adoption of the reform, is unable to capture the behaviour of those married under the new regime; the reaction of those who were married the same year as the changes in the law is picked up by the coefficient measuring the impact of the divorce law reforms 5-6 years after adoption. The response of couples who married two years after the reform is captured by the coefficient measuring the effect of divorce law reforms 7-8 years after adoption, and so on.

Then, if the changing response is due to the selection effect, we would expect to observe a variation in the coefficients picking up the response of these couples married under the new regime. Results presented in Tables 13 to 15 seem to confirm this forecast: the estimates that capture the reaction of the marriages that took place under the new divorce laws are always positive and significant, but the coefficients measuring the response of those married under the

old regime are not significant, or negative and significant. It is important to note that, in some of our estimates, the response changes one year earlier than we would expect. In Table 13, we would expect that the first positive and significant coefficient would be the estimate measuring the effect of divorce law reforms 5-6 years after adoption, since it is supposed to be capturing the behaviour of those married in the same year as the implementation of the divorce law reform. However, we see that the coefficient picking up the impact of the reforms 3-4 years after implementation is also positive and significant. One can argue that this contradicts our prediction, but because of the way in which the duration of married life is calculated (see the explanation above), the coefficient measuring how divorce law reforms affect the marital fertility rate of those married for 5 years, 3-4 years after the introduction of the legal reform, could be partly capturing the behaviour of those married under the new regime. A similar pattern is observed in Tables 14 and 15. Therefore, our findings suggest that the selection effect matters in determining how divorce law reforms operate through marital fertility.

When considering the fertility effect of divorce law reform on marriages of 10 years or longer duration (see Tables 16, 17, and 18), we observe that those reforms had a negative or non-significant effect on the marital fertility rate. As before, this can be explained by the selection effect, since in those cases almost all estimates capture the performance of those married under the old regime. The negative response is more clearly observed for those married under the old legal system and thus, since the average duration of marriage is about 9-10 years (Stevenson and Wolfers 2007), then wives married during that period are more fearful of the break-up of their marriages, and under the new divorce regime they are less likely to want a child. This decreases the marital fertility rate of these women.

V. Conclusions

This paper aims to analyse the effect on fertility of the liberalization of divorce laws that occurred in the second half of the twentieth century, in several European countries. Since divorce law reform may modify the value of marriage, and given that children have been considered to be a marital-specific investment, it is expected that the implementation of these new regimes affects fertility decisions. To examine this issue, we use data from 18 European countries for the period 1960 to 2006.

Our results suggest that divorce law reforms have a negative and permanent effect on fertility, regardless of the definition of fertility rate used. Moreover, we provide additional evidence to show that our findings are capturing the effect of divorce law reforms, and not the effect of other major socio-economic changes in Europe during the period under review. The response of the fertility rate to divorce law reform is quite robust to the introduction of a whole

array of explanations that can also be responsible for the drop in the fertility rate since the late 1960s. These findings are also consistent to alternative specifications and controls for unobserved country-specific factors, and time-varying factors at the country level.

We further explore the mechanisms that conduct the reaction of fertility to divorce law reforms by analysing the effect on out-of-wedlock fertility, as well as on marital fertility. We find that both decrease after the introduction of divorce law reforms, but the fall in marital fertility does not seem to be permanent, indicating that the negative response of the fertility rate to divorce law reform is maintained over time by the decline in the non-marital fertility rate.

Finally, we study the impact of divorce law reform on legitimate fertility by duration of marriage. The clear result of this analysis is that the fertility behaviour of couples who married under the new divorce law regime differs from those married before the reforms. Thus, we suggest that the *selection effect*, which implies improvements in marriage match quality in response to divorce law reforms, (Matouschek and Rasul 2008; Mechoulan 2006; Rasul 2006), plays an important role in fertility decisions.

References

Acs, G. (1996) The Impact of Welfare on Young Mothers' Subsequent Childbearing Decisions, *Journal of Human Resources*, **31**, 898–915.

Adserà, A. (2004) Changing fertility rates in developed countries. The impact of labour market institutions, *Journal of Population Economics*, **17**, 17–43.

Ahn, N. and Mira, P. (2001) Job Bust, Baby Bust? Evidence from Spain, *Journal of Population Economics*, **14**, 505–521.

Ahn, N. and Mira, P. (2002) A Note on the Changing Relationship Between Fertility and Female Employment Rates in Developed Countries, *Journal of Population Economics*, **15**, 667–682.

Aizer, A. and McLanahan, S. (2006) The Impact of Child Support Enforcement on Fertility, Parental Investments, and Child Well-Being, *Journal of Human Resources*, **41**, 28-45.

Alba, A., Alvarez, G. and Carrasco, R. (2009) On the estimation of the effect of labour participation on fertility, *Spanish Economic Review*, **11**, 1–22.

Alesina, A. and Giuliano, P. (2007) Divorce, Fertility and the Shot Gun Marriage, *IZA* DP No. 2157.

Allen, D. (1992) Marriage and Divorce: Comment, *The American Economic Review*, **82**, 679-685.

Ananat, E., Gruber, J. and Levine, P., (2007) Abortion Legalization and Lifecycle Fertility, *Journal of Human Resources*, **42**, 375-397.

Ananat, E. and Hungerman, D. (2011) The Power of the Pill for the Next Generation, Review of Economics and Statistics, Forthcoming.

Averett, S. and Whittington, L. (2001) Does Maternity Leave Induce Births?, *Southern Economic Journal*, **68**, 403–417.

Bailey, M. (2006) More power to the pill: The impact of contraceptive freedom on women's life cycle labor supply, *The Quarterly Journal of Economics*, **121**,289-320.

Bailey, M. (2009) More Power to the Pill, Quarterly Journal of Economics, Erratum and Addendum.

Bailey, M. (2010) Momma's Got the Pill: How Anthony Comstock and Griswold v. Connecticut Shaped U.S. Childbearing, *American Economic Review*, **100**, 98-129.

Barro, R. and Becker, G. (1988) A Reformulation of the Economic Theory of Fertility, *Quarterly Journal of Economics*, **103**, 1-25.

Becker, G. (1981) A Treatise on the Family Cambridge, MA: Harvard University Press

Becker, G., Landes, E. and Michael, R. (1977) An Economic Analysis of Marital Instability, *The Journal of Political Economy*, **85**, 1141-1187.

Björklund, A. (2006) Does Family Policy Affect Fertility? Lessons from Sweden, *Journal of Population Economics*, **19**, 3-24.

Bloemen, H. and Kalwij, A. (2001) Female labour market transitions and the timing of births: a simultaneous analysis of the effects of schooling, *Labour Economics*, **8**, 593–620.

Bloom, D., Canning, D., Fink, G. and Finlay, J. (2009) Fertility, female labor force participation, and the demographic dividend, *Journal of Economic Growth*, **14**, 79–101.

Bongaarts, J. (1978) A Framework for Analyzing the Proximate Determinants of Fertility, *Population and Development Review*, **4**, 105-132.

Breierova, L. and Duflo, E. (2004) The Impact of Education on Fertility and Child Mortality: Do Fathers Really Matter Less Than Mothers?, NBER Working Paper 10513.

Brewster, K. and Rindfuss, R. (2000) Fertility and Women's Employment in Industrialized Nations, *Annual Review of Sociology,* **26**, 271–96.

Brinig, M. and Crafton, S. (1994) Marriage and Opportunism, *Journal of Legal Studies,* **23**, 869–894.

Brooks, J. (1992) Abortion Policy in Western Democracies: A Cross-National Analysis, *Governance*, 5, 342-357.

Butz, W. and Ward, M. (1979) The Emergence of Countercyclical U.S. Fertility, *American Economic Review*, **69**, 318-328.

Carro, J. and Mira, P. (2006) A Dynamic Model of Contraceptive Choice of Spanish Couples, *Journal of Applied Econometrics*, **21**, 955-980.

Chattopadhyay, R. and Duflo, E. (2004) women as polity makers: evidence from a randomized policy experiment in India, *Econometrica*, 72, 1409–1443.

Dee, T. (2003) Until Death Do You Part: The Effects of Unilateral Divorce on Spousal Homicides, *Economic Inquiry*, **41**, 163-182.

Demeny, P. (1986) Pronatalist Policies in Low-Fertility Countries: Patterns, Performance, and Prospects, *Population and Development Review*, **12**, 335–358.

De Cooman, E., Ermisch, J. and Joshi, H. (1987) The Next Birth and the Labour Market: A Dynamic Model of Births in England and Wales, *Population Studies*, **41**, 237-268.

Dickert-Conlin, S. and Chandra, A. (1999) Taxes and the Timing of Births, *Journal of Political Economy*, **107**, 161–177.

Doepke, M. (2005) Child mortality and fertility decline: Does the Barro-Becker model fit the facts?, *Journal of Population Economics*, **18**, 337-366.

Doiron, D. and Mendolia, S., (2011) The impact of job loss on family dissolution, Journal of Population Economics DOI 10.1007/s00148-010-0353-5.

Donohue, J. and Levitt, S. (2001) The Impact of Legalized Abortion on Crime, *Quarterly Journal of Economics*, **116**, 379–420.

Drewianka, S. (2008) Divorce law and family formation, *Journal of Population Economics*, **21**, 485-503.

Edlund, L. and Machado, C. (2011) Pill Power: The Prequel, IZA DP No. 5468.

Engelhardt, H., Kögel, T. and Prskawetz, A. (2004) Fertility and Women's Employment Reconsidered: A Macro-Level Time-Series Analysis for Developed Countries, 1960-2000, *Population Studies*, **58**, 109-120.

Entre Nous, The European magazine for sexual and reproductive health (2005), World Health Organization, No. 45.

Feyrer, J., Sacerdote, B. and Stern, A. (2008) Will the Stork Return to Europe and Japan? Understanding Fertility within Developed Nations, *Journal of Economic Perspectives*, **22,** 3-22.

Friedberg, L. (1998) Did Unilateral Divorce Raise Divorce Rates? Evidence from Panel Data, *American Economic Review*, **88,** 608–627.

Galor, O. and Weil, D. (1996) The Gender Gap, Fertility and Growth, *American Economic Review*, **86**, 374–387.

Gauthier, A. and Hatzius, J. (1997) Family Benefits and Fertility: An Econometric Analysis, *Population Studies*, **51**, 295–306.

Georgellis, Y. and Wall, H. (1992) The fertility effect of dependent tax exemptions: Estimates for the United States, *Applied Economics*, **24**, 139–145.

Goldin, C. and Katz, L. (2000) Career and Marriage in the Age of the Pill, *The American Economic Review*, **90**, 461-465

Goldin, C. and Katz, L. (2002) The Power of the Pill: Oral Contraceptives and Women's Career and Marriage Decisions, *The Journal of Political Economic,* **110**, 730-770.

González, L. and Viitanen, T. (2009) The Effect of Divorce Laws on Divorce Rates in Europe, *European Economic Review*, **53**, 127-138.

Gray, J. (1998) Divorce-Law Changes, Household Bargaining, and Married Women's Labour Supply, *American Economic Review*, **88**, 628-42.

Greenwood, J. and Seshadri, A. (2002) The U.S. Demographic Transition, *The American Economic Review*, **92**, 153–159.

Grossbard-Shechtman, S., Ekert-Jaffe, O. and Lemennicier, B. (2002) Property division at divorce and demographic behavior: an economic analysis and international comparison, Paper presented at the American Economics Association Annual Meetings, Atlanta, GA.

Gruber, J. (2004) Is Making Divorce Easier Bad for Children? The Long Run Implications of Unilateral Divorce, *Journal of Labor Economics*, **22**, 799-833.

Guldi, M. (2008) Fertility Effects of Abortion and Birth Control Pill Access for Minors, *Demography*, **45**, 817-827.

Gutierrez-Domenech, M. (2007) The impact of labour market on the timing on marriage and births in Spain, *Journal of Population Economics*, **21**, 83-110.

Halla, M. (2010) The Effect of Joint Custody on Family Outcomes, Unpublished Manuscript, Johannes Kepler University of Linz.

Hazan, M. and Berdugo, B. (2002) Child Labour, Fertility, and Economic Growth, *The Economic Journal*, **112**, 810–828.

Henshaw, S. and Morrow, E. (1990) Induced Abortion: A World Review, *Family Planning Perspectives,* **22**, 76-89.

Hock, H. (2007) The pill and the college attainment of American women and men. Available at SSRN: http://ssrn.com/abstract=1023042

Johnson, J. and Mazingo, C. (2000) The Economic Consequences of Unilateral Divorce for Children, University of Illinois CBA Office of Research Working Paper 00-0112, Available at SSRN: http://ssrn.com/abstract=236227 or doi:10.2139/ssrn.236227

Kalwij, A. (2000) The effects of female employment status on the presence and number of children, *Journal of Population Economics*, **13**, 221–239.

Kearney, M. (2004) Is There an Effect of Incremental Welfare Benefits on Fertility Behaviour? A Look at the Family Cap, *Journal of Human Resources*, **39**, 295–325.

Kogel, T. (2004) Did the association between fertility and female employment within OECD countries really change its sign?, *Journal of Population Economics*, **17**, 45–65.

Lalive, R. and Zweimüller, J. (2009) How does Parental Leave Affect Fertility and Return to Work? Evidence from two Natural Experiments, *The Quarterly Journal of Economic*, **124**, 1363-1402.

Leon, A. (2004) The Effect of Education on Fertility: Evidence from Compulsory Schooling Laws Unpublished manuscript, University of Pittsburgh.

Levine, P., Staiger, D., Kane, T. and Zimmerman, D. (1999) Roe v. Wade and American Fertility, *American Journal of Public Health*, **89**, 199-203.

Lillard, L. (1993) Simultaneous equations for hazards Marriage duration and fertility timing, *Journal of Econometrics*, **56,** 189-217.

Macunovich, D. (1995) The Butz-Ward Fertility Model in the Light of More Recent Data, *Journal of Human Resources*, **30**, 229–255.

Manuelli, R. and Seshadri, A. (2009) Explaining International Fertility Differences, *The Quarterly Journal of Economics*, **124**, 771-807.

Matouschek, N. and Rasul, I. (2008) The Economics of the Marriage Contract: Theories and Evidence, *Journal of Law and Economics*, **51**, 59-110.

McElroy. M. and Horney, J. (1981) Nash-Bargained Household Decisions: Towards a Generalization of the Theory of Demand, *International Economic Review,* **22**, 333-349

Mechoulan, S. (2006) Divorce Laws and the Structure of the American Family, *Journal of Legal Studies*, **35**, 143-174.

Michael, R. (1985) Consequences of the Rise in Female Labor Force Participation Rates: Questions and Probes, *Journal of Labor Economics*, **3**, Part 2: Trends in Women's Work, Education, and Family Building, S117-S146.

Milligan, K. (2005) Subsidizing the Stork: New Evidence on Tax Incentive and Fertility, *Review of Economics and Statistics*, **87**, 539–555.

Mishra, V., Nielsen, I. and Smyth, R. (2010) On the relationship between female labour force participation and fertility in G7 countries: evidence from panel cointegration and Granger causality, *Empirical Economics*, **38**, 361–372.

Mishra, V. and Smyth, R., (2010). Female labor force participation and total fertility rates in the OECD: New evidence from panel cointegration and Granger causality testing, *Journal of Economics and Business*, **62**(1), 48-64.

Pantano, J. (2007) Unwanted fertility, contraceptive technology and crime: Exploiting a natural experiment in access to the pill, University of California- Los Angeles, PWP-CCPR-2007-028.

Peters, H. (1986) Marriage and Divorce: Informational Constraints and Private Contracting, *American Economic Review*, **76**, 437-54.

Peters, H. (1992) Marriage and Divorce: Reply, *American Economic Review*, **82**, 687–93.

Rasul, I. (2006) Marriage Markets and Divorce Laws, *Journal of Law, Economics, and Organization*, **22**, 30-69.

Sah, R. (1991) The Effect of Child Mortality Changes on Fertility Choice and Parental Welfare, *Journal of Political Economy*, **99**, 582-606.

Smith-Lovin, L. and Tickamyer, A. (1978) Nonrecursive Models of Labor Force Participation, Fertility Behavior and Sex Role Attitudes, *American Sociological Review*, **43**, 541-557.

Stevenson, B. (2007) The Impact of Divorce Laws on Marriage: Specific Capital, *Journal of Labour Economics*, **25**, 75-94.

Stevenson, B. and Wolfers, J. (2006) Bargaining in the Shadow of the Law: Divorce Laws and Family Distress, *Quarterly Journal of Economics*, **121**, 267–88.

Stevenson, B. and Wolfers, J. (2007) Marriage and Divorce: Changes and their Driving Forces, *Journal of Economic Perspectives*, **21**, 27–52.

Svarer, M. and Verner, M. (2008) Do children stabilize relationships in Denmark?, *Journal of Population Economics*, **21**, 395–417.

Swers, M. (2002) The Difference Women Make: the Policy Impact of Women in Congress Chicago: University of Chicago Press.

United Nations Population Division, Department of Economic and Social Affairs (2003) Abortion Policies: A Global Review, www.un.org/esa/population/publications/abortion/

Ward, M. and Butz, W. (1980) Completed Fertility and Its Timing, *Journal of Political Economy*, **88**, 917-941.

Weiss, Y. and Willis R. (1985) Children as collective goods and divorce settlements, *Journal of Labor Economics*, **3**, 268–292.

Weiss, Y. and Willis, R. (1997) Match Quality, New Information, and Marital Dissolution, *Journal of Labor Economics*, **15**, S293–S329.

Whittington, L. (1992) Taxes and the Family: The Impact of the Tax Exemption for Dependents on Marital Fertility, *Demography,* **29**, 215–226.

Whittington, L., Alm, J. and Peters, H. (1990) Fertility and the Personal Exemption: Implicit Pronatalist Policy in the United States, *American Economic Review*, **80**, 545–556.

Willis, R. (1973) A New Approach to the Economic Theory of Fertility Behaviour, *Journal of Political Economy*, **81**, 14-64.

Wolfers, J. (2006) Did unilateral divorce laws raise divorce rates? A reconciliation and new results, *American Economic Review*, **96**, 1802-1820.

Zhang, J., Quan, J. and Van Meerbergen, P. (1994) The Effect of Tax-Transfer Policies on Fertility in Canada 1921–1988, *Journal of Human Resources*, **29**, 181–201.

Table 1.- 1960 and 1970 Country-Level Predictors of Liberalization of Divorce Laws

(Dependent variable: Time Elapsed since Liberalization)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
A: Country-Level Characteristics from 1960									
	TFR	FLFP	Education: GER	% Infant Mortality	Per Capita GDP	% Women in Parliament	Unemployment Rate	Divorce Rate	Marriage Rate
Point estimate	-2.423	-0.068	-0.032	0.024	-0.054	-0.133	-0.127	-0.129	0.019
S.e.	(2.790)	(0.212)	(0.032)	(0.052)	(0.775)	(0.287)	(0.475)	(2.170)	(0.242)
R-squared	0.047	0.006	0.022	0.004	0.001	0.009	0.002	0.0001	<0.0000
B: Country-Level Characteristics from 1970									
	TFR	FLFP	Education: GER	% Infant Mortality	Per Capita GDP	% Women in Parliament	Unemployment Rate	Divorce Rate	Marriage Rate
Point estimate	2.544	-0.124	-0.019	-0.014	0.140	-0.088	-0.707	-1.319	-0.444
S.e.	(3.555)	(0.257)	(0.024)	(0.061)	(0.647)	(0.383)	(0.517)	(1.866)	(0.759)
R-squared	0.023	0.016	0.010	0.001	0.007	0.003	0.049	0.018	0.013

Note: The dependent variable is the year in which divorce law reforms were adopted in each country, minus 1970, the year when the first reform in the period analysed was introduced. Regressors are population-weighted state aggregates. The point estimates are obtained by regressing the dependent variable on each country characteristic individually. Results from regressions including all the variables in a given panel are not altered. Robust standard errors are reported in parenthesis. There are 18 observations in each regression.

Table 2.- Baseline Regression: Static and dynamic effects of divorce law reforms

(Dependent variable: Total Fertility Rate)

	(1)	(2)	(3)	(4)	(5)	(6)
No Fault Unilateral	-0.262***		-0.236***		-0.225***	
	(0.036)		(0.028)		(0.028)	
No Fault Unilateral 1-2		-0.179***		-0.167***		-0.166***
		(0.045)		(0.034)		(0.032)
No Fault Unilateral 3-4		-0.266***		-0.255***		-0.242***
		(0.048)		(0.036)		(0.036)
No Fault Unilateral 5-6		-0.332***		-0.325***		-0.297***
		(0.051)		(0.039)		(0.041)
No Fault Unilateral 7-8		-0.407***		-0.406***		-0.356***
		(0.056)		(0.043)		(0.048)
No Fault Unilateral 9-10		-0.403***		-0.411***		-0.331***
		(0.059)		(0.047)		(0.054)
No Fault Unilateral 11-12		-0.409***		-0.438***		-0.329***
		(0.063)		(0.051)		(0.060)
No Fault Unilateral 13-14		-0.406***		-0.447***		-0.311***
		(0.066)		(0.054)		(0.065)
No Fault Unilateral >15		-0.359***		-0.444***		-0.225***
		(0.067)		(0.059)		(0.075)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Country*time	No	No	Yes	Yes	Yes	Yes
Country*time^2	No	No	No	No	Yes	Yes
Observations	846	846	846	846	846	846
R-squared	0.865	0.869	0.925	0.929	0.943	0.946

Note: Sample: 1960–2006, (balanced panel). Estimated using country population weights. The countries considered in the analysis are: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom. Standard errors in parentheses. ***Statistical significance at 1%. **Statistical significance at 5%.* Statistical significance at 10% level.

Table 3.- Robustness Check: Static and dynamic effects of divorce law reforms

(Dependent variable: Total Fertility Rate)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
No Fault Unilateral 1-2	-0.166***	-0.165***	-0.200***	-0.192***	-0.170***	-0.166***	-0.170***	-0.137***	-0.163***	-0.172***	-0.170***
	(0.032)	(0.032)	(0.031)	(0.030)	(0.032)	(0.032)	(0.032)	(0.030)	(0.032)	(0.031)	(0.027)
No Fault Unilateral 3-4	-0.242***	-0.243***	-0.289***	-0.251***	-0.249***	-0.242***	-0.250***	-0.214***	-0.253***	-0.248***	-0.256***
	(0.036)	(0.036)	(0.035)	(0.034)	(0.036)	(0.036)	(0.036)	(0.034)	(0.036)	(0.034)	(0.030)
No Fault Unilateral 5-6	-0.297***	-0.298***	-0.355***	-0.303***	-0.304***	-0.297***	-0.305***	-0.254***	-0.308***	-0.305***	-0.302***
	(0.041)	(0.042)	(0.040)	(0.039)	(0.042)	(0.042)	(0.042)	(0.039)	(0.041)	(0.039)	(0.035)
No Fault Unilateral 7-8	-0.356***	-0.358***	-0.416***	-0.359***	-0.369***	-0.356***	-0.371***	-0.331***	-0.372***	-0.378***	-0.385***
	(0.048)	(0.048)	(0.045)	(0.045)	(0.048)	(0.048)	(0.048)	(0.044)	(0.048)	(0.045)	(0.041)
No Fault Unilateral 9-10	-0.331***	-0.335***	-0.378***	-0.340***	-0.344***	-0.332***	-0.347***	-0.324***	-0.346***	-0.361***	-0.382***
	(0.054)	(0.054)	(0.051)	(0.050)	(0.054)	(0.054)	(0.055)	(0.050)	(0.054)	(0.051)	(0.045)
No Fault Unilateral 11-12	-0.329***	-0.333***	-0.364***	-0.345***	-0.341***	-0.329***	-0.344***	-0.303***	-0.341***	-0.353***	-0.356***
	(0.060)	(0.060)	(0.057)	(0.056)	(0.060)	(0.060)	(0.061)	(0.056)	(0.060)	(0.057)	(0.050)
No Fault Unilateral 13-14	-0.311***	-0.317***	-0.335***	-0.329***	-0.331***	-0.312***	-0.334***	-0.257***	-0.317***	-0.333***	-0.286***
	(0.065)	(0.066)	(0.062)	(0.061)	(0.066)	(0.065)	(0.067)	(0.061)	(0.065)	(0.062)	(0.055)
No Fault Unilateral >15	-0.225***	-0.238***	-0.218***	-0.270***	-0.254***	-0.226***	-0.260***	-0.208***	-0.224***	-0.260***	-0.223***
	(0.075)	(0.076)	(0.070)	(0.070)	(0.077)	(0.075)	(0.077)	(0.069)	(0.074)	(0.071)	(0.064)
%Female Labour Force Participation		0.003									0.002
		(0.004)									(0.004)
Gross Enrolment Ratio: Female Education			0.009***								0.004***
			(0.001)								(0.001)
% Infant Mortality				-0.046***							-0.039***
				(0.005)							(0.004)
Per capita GDP (thousands)					0.021		0.024*				-0.042***
					(0.013)		(0.014)				(0.013)
% Women in Parliament						-0.0004	-0.002				-0.004*
						(0.003)	(0.003)				(0.002)
Unemployment rate as % civilian labour force								-0.035***			-0.029***
								(0.003)			(0.003)
Crude Divorce Rate									0.091***		0.149***
									(0.031)		(0.026)
Crude Marriage Rate										0.092***	0.071***
										(0.010)	(0.009)
Observations	846	846	846	846	846	846	846	846	846	846	846
R-squared	0.946	0.946	0.952	0.952	0.946	0.946	0.946	0.953	0.946	0.951	0.965

Note: Sample: 1960–2006, (balanced panel). Estimated using country population weights. Standard errors in parentheses. ***Statistical significance at 1%. **Statistical significance at 5%. * Statistical significance at 10% level. In all specifications are included: Year FE, Country FE, Country*Time and Country*Time2.

Table 4.- Robustness Check: Static and dynamic effects of divorce law reforms

(Dependent variable: Total Fertility Rate)

Controls:	(1)	(2) FLFP	(3) Education: GER	(4) % Infant Mortality	(5) Per Capita GDP	(6) % Women in Parliament	(7) Unemployment Rate	(8) Divorce Rate	(9) Marriage Rate
No Fault Unilateral 1-2	-0.166***	-0.145***	-0.219***	-0.180***	-0.121***	-0.149***	-0.119***	-0.108***	-0.157***
	(0.032)	(0.032)	(0.030)	(0.030)	(0.032)	(0.032)	(0.030)	(0.031)	(0.030)
No Fault Unilateral 3-4	-0.242***	-0.205***	-0.315***	-0.237***	-0.181***	-0.214***	-0.174***	-0.138***	-0.247***
	(0.036)	(0.036)	(0.035)	(0.033)	(0.036)	(0.036)	(0.034)	(0.036)	(0.034)
No Fault Unilateral 5-6	-0.297***	-0.244***	-0.385***	-0.284***	-0.218***	-0.256***	-0.213***	-0.203***	-0.312***
	(0.041)	(0.042)	(0.040)	(0.038)	(0.042)	(0.042)	(0.039)	(0.040)	(0.039)
No Fault Unilateral 7-8	-0.356***	-0.289***	-0.452***	-0.338***	-0.269***	-0.304***	-0.287***	-0.272***	-0.395***
	(0.048)	(0.049)	(0.046)	(0.044)	(0.048)	(0.048)	(0.045)	(0.046)	(0.045)
No Fault Unilateral 9-10	-0.331***	-0.255***	-0.423***	-0.315***	-0.229***	-0.272***	-0.288***	-0.248***	-0.381***
	(0.054)	(0.055)	(0.051)	(0.050)	(0.054)	(0.054)	(0.050)	(0.052)	(0.051)
No Fault Unilateral 11-12	-0.329***	-0.240***	-0.415***	-0.317***	-0.219***	-0.265***	-0.270***	-0.257***	-0.378***
	(0.060)	(0.062)	(0.057)	(0.055)	(0.060)	(0.061)	(0.055)	(0.057)	(0.056)
No Fault Unilateral 13-14	-0.311***	-0.221***	-0.392***	-0.300***	-0.200***	-0.240***	-0.198***	-0.216***	-0.364***
	(0.065)	(0.067)	(0.062)	(0.060)	(0.066)	(0.066)	(0.061)	(0.062)	(0.061)
No Fault Unilateral >15	-0.225***	-0.164**	-0.286***	-0.236***	-0.122	-0.161**	-0.172**	-0.139**	-0.303***
	(0.075)	(0.076)	(0.071)	(0.069)	(0.076)	(0.075)	(0.069)	(0.070)	(0.070)
Control		-0.072***	0.016***	-0.022***	0.228***	-0.021***	0.003	-0.609***	0.381***
		(0.015)	(0.002)	(0.006)	(0.030)	(0.005)	(0.008)	(0.077)	(0.057)
Control Square/100		0.118***	-0.006***	-0.044***	-0.533***	0.063***	-0.153***	18.926***	-1.958***
		(0.023)	(0.001)	(0.008)	(0.069)	(0.013)	(0.030)	(1.921)	(0.382)
Observations	846	846	846	846	846	846	846	846	846
R-squared	0.946	0.948	0.953	0.954	0.950	0.948	0.955	0.953	0.953

Note: Sample: 1960–2006, (balanced panel). Estimated using country population weights. Standard errors in parentheses. ***Statistical significance at 1%. **Statistical significance at 5%. * Statistical significance at 10% level. In all specifications are included: Year FE, Country FE, Country*Time and Country*Time2.

Table 5.-Total Fertility Rate: Static and dynamic effects of divorce law reforms and abortion law reforms

(Dependent variable: Total Fertility Rate)

	(1)	(2)	(3)	(4)	(5)	(6)
No Fault Unilateral 1-2	-0.179***	-0.138***	-0.167***	-0.123***	-0.166***	-0.160***
	(0.045)	(0.045)	(0.034)	(0.033)	(0.032)	(0.031)
No Fault Unilateral 3-4	-0.266***	-0.236***	-0.255***	-0.219***	-0.242***	-0.265***
	(0.048)	(0.049)	(0.036)	(0.036)	(0.036)	(0.035)
No Fault Unilateral 5-6	-0.332***	-0.285***	-0.325***	-0.281***	-0.297***	-0.334***
	(0.051)	(0.052)	(0.039)	(0.039)	(0.041)	(0.041)
No Fault Unilateral 7-8	-0.407***	-0.344***	-0.406***	-0.315***	-0.356***	-0.377***
	(0.056)	(0.058)	(0.043)	(0.044)	(0.048)	(0.048)
No Fault Unilateral 9-10	-0.403***	-0.370***	-0.411***	-0.335***	-0.331***	-0.394***
	(0.059)	(0.062)	(0.047)	(0.049)	(0.054)	(0.054)
No Fault Unilateral 11-12	-0.409***	-0.441***	-0.438***	-0.404***	-0.329***	-0.474***
	(0.063)	(0.065)	(0.051)	(0.053)	(0.060)	(0.060)
No Fault Unilateral 13-14	-0.406***	-0.476***	-0.447***	-0.425***	-0.311***	-0.504***
	(0.066)	(0.068)	(0.054)	(0.057)	(0.065)	(0.065)
No Fault Unilateral >15	-0.359***	-0.471***	-0.444***	-0.429***	-0.225***	-0.438***
	(0.067)	(0.069)	(0.059)	(0.063)	(0.075)	(0.072)
Abortion on demand 1-2		-0.030		-0.196***		-0.167***
		(0.049)		(0.038)		(0.035)
Abortion on demand 3-4		0.011		-0.177***		-0.130***
		(0.049)		(0.039)		(0.037)
Abortion on demand 5-6		0.034		-0.185***		-0.104**
		(0.049)		(0.039)		(0.040)
Abortion on demand 7-8		0.059		-0.195***		-0.093**
		(0.050)		(0.041)		(0.044)
Abortion on demand 9-10		0.056		-0.236***		-0.118**
		(0.050)		(0.043)		(0.048)
Abortion on demand 11-12		0.061		-0.260***		-0.109**
		(0.050)		(0.044)		(0.052)
Abortion on demand 13-14		0.071		-0.237***		-0.033
		(0.062)		(0.053)		(0.058)
Abortion on demand >15		0.220***		-0.275***		0.031
		(0.047)		(0.056)		(0.066)
Abortion for cause 1-2		-0.257***		-0.294***		-0.179***
		(0.050)		(0.038)		(0.035)
Abortion for cause 3-4		-0.224***		-0.275***		-0.103***
		(0.052)		(0.040)		(0.039)
Abortion for cause 5-6		-0.165***		-0.240***		-0.002
		(0.054)		(0.042)		(0.044)
Abortion for cause 7-8		-0.127**		-0.223***		0.068
		(0.054)		(0.044)		(0.049)
Abortion for cause 9-10		-0.160***		-0.266***		0.074
		(0.056)		(0.046)		(0.055)
Abortion for cause 11-12		-0.174***		-0.315***		0.069
		(0.057)		(0.049)		(0.061)
Abortion for cause 13-14		-0.079		-0.232***		0.199***
		(0.058)		(0.051)		(0.066)
Abortion for cause >15		0.037		-0.188***		0.357***
		(0.045)		(0.051)		(0.076)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Country*time	No	No	Yes	Yes	Yes	Yes
Country*time^2	No	No	No	No	Yes	Yes
Observations	846	846	846	846	846	846
R-squared	0.869	0.885	0.929	0.941	0.943	0.958

Note: Sample: 1960–2006, (balanced panel). Estimated using country population weights. Standard errors in parentheses. ***Statistical significance at 1%. **Statistical significance at 5%.* Statistical significance at 10% level. Adding the dynamic effect of abortion laws on demand and for cause.

Table 6.-Total Fertility Rate: Static and dynamic effects of divorce law reforms and oral contraception

(Dependent variable: Total Fertility Rate)

	(1)	(2)	(3)	(4)	(5)	(6)
No Fault Unilateral 1-2	-0.179***	-0.210***	-0.167***	-0.193***	-0.166***	-0.204***
	(0.045)	(0.045)	(0.034)	(0.034)	(0.032)	(0.032)
No Fault Unilateral 3-4	-0.266***	-0.318***	-0.255***	-0.302***	-0.242***	-0.305***
	(0.048)	(0.048)	(0.036)	(0.036)	(0.036)	(0.036)
No Fault Unilateral 5-6	-0.332***	-0.399***	-0.325***	-0.388***	-0.297***	-0.377***
	(0.051)	(0.052)	(0.039)	(0.039)	(0.041)	(0.042)
No Fault Unilateral 7-8	-0.407***	-0.481***	-0.406***	-0.477***	-0.356***	-0.447***
	(0.056)	(0.056)	(0.043)	(0.043)	(0.048)	(0.048)
No Fault Unilateral 9-10	-0.403***	-0.475***	-0.411***	-0.485***	-0.331***	-0.424***
	(0.059)	(0.060)	(0.047)	(0.047)	(0.054)	(0.054)
No Fault Unilateral 11-12	-0.409***	-0.475***	-0.438***	-0.508***	-0.329***	-0.414***
	(0.063)	(0.064)	(0.051)	(0.051)	(0.060)	(0.060)
No Fault Unilateral 13-14	-0.406***	-0.459***	-0.447***	-0.508***	-0.311***	-0.386***
	(0.066)	(0.066)	(0.054)	(0.054)	(0.065)	(0.065)
No Fault Unilateral >15	-0.359***	-0.402***	-0.444***	-0.502***	-0.225***	-0.289***
	(0.067)	(0.067)	(0.059)	(0.059)	(0.075)	(0.073)
The Pill Allowed 1-2		-0.069		-0.016		0.009
		(0.045)		(0.038)		(0.035)
The Pill Allowed 3-4		-0.049		0.017		0.044
		(0.048)		(0.042)		(0.039)
The Pill Allowed 5-6		-0.039		0.043		0.068
		(0.051)		(0.047)		(0.044)
The Pill Allowed 7-8		-0.056		0.043		0.068
		(0.056)		(0.052)		(0.050)
The Pill Allowed 9-10		-0.134**		-0.019		0.003
		(0.060)		(0.058)		(0.055)
The Pill Allowed 11-12		-0.211***		-0.083		-0.065
		(0.064)		(0.062)		(0.060)
The Pill Allowed 13-14		-0.309***		-0.167**		-0.156**
		(0.068)		(0.067)		(0.065)
The Pill Allowed >15		-0.371***		-0.214***		-0.206***
		(0.072)		(0.072)		(0.073)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Country*time	No	No	Yes	Yes	Yes	Yes
Country*time^2	No	No	No	No	Yes	Yes
Observations	846	846	846	846	846	846
R-squared	0.869	0.876	0.929	0.934	0.943	0.950

Note: Sample: 1960–2006, (balanced panel). Estimated using country population weights. Standard errors in parentheses. ***Statistical significance at 1%. **Statistical significance at 5%.* Statistical significance at 10% level. Adding the dynamic effect of the pill.

Table 7.-Total Fertility Rate: Static and dynamic effects of divorce law reforms with all controls

(Dependent variable: Total Fertility Rate)

	(1)	(2)	(3)	(4)	(5)	(6)
No Fault Unilateral 1-2	-0.179***	-0.067**	-0.167***	-0.121***	-0.166***	-0.087***
	(0.045)	(0.031)	(0.034)	(0.024)	(0.032)	(0.024)
No Fault Unilateral 3-4	-0.266***	-0.077**	-0.255***	-0.159***	-0.242***	-0.118***
	(0.048)	(0.035)	(0.036)	(0.028)	(0.036)	(0.030)
No Fault Unilateral 5-6	-0.332***	-0.132***	-0.325***	-0.202***	-0.297***	-0.153***
	(0.051)	(0.037)	(0.039)	(0.030)	(0.041)	(0.034)
No Fault Unilateral 7-8	-0.407***	-0.168***	-0.406***	-0.247***	-0.356***	-0.191***
	(0.056)	(0.041)	(0.043)	(0.034)	(0.048)	(0.040)
No Fault Unilateral 9-10	-0.403***	-0.149***	-0.411***	-0.232***	-0.331***	-0.167***
	(0.059)	(0.044)	(0.047)	(0.038)	(0.054)	(0.045)
No Fault Unilateral 11-12	-0.409***	-0.158***	-0.438***	-0.245***	-0.329***	-0.174***
	(0.063)	(0.047)	(0.051)	(0.042)	(0.060)	(0.050)
No Fault Unilateral 13-14	-0.406***	-0.113**	-0.447***	-0.221***	-0.311***	-0.135**
	(0.066)	(0.050)	(0.054)	(0.046)	(0.065)	(0.056)
No Fault Unilateral >15	-0.359***	-0.111**	-0.444***	-0.268***	-0.225***	-0.126**
	(0.067)	(0.051)	(0.059)	(0.051)	(0.075)	(0.061)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Country*time	No	No	Yes	Yes	Yes	Yes
Country*time^2	No	No	No	No	Yes	Yes
Observations	846	846	846	846	846	846
R-squared	0.869	0.876	0.929	0.934	0.943	0.950

Note: Sample: 1960–2006, (balanced panel). Estimated using country population weights. Standard errors in parentheses. ***Statistical significance at 1%. **Statistical significance at 5%.* Statistical significance at 10% level.Adding all controls.

Table 8.-Marital Birth Rate: How do divorce law reforms operate through marital status?

(Dependent variable: Marital Birth Rate (Marital Births/500 People)

	(1)	(2)	(3)	(4)	(5)	(6)
No Fault Unilateral	-0.503***		-0.388***		-0.422***	
	(0.100)		(0.083)		(0.088)	
No Fault Unilateral 1-2		-0.291**		-0.203**		-0.235**
		(0.123)		(0.102)		(0.103)
No Fault Unilateral 3-4		-0.507***		-0.396***		-0.436***
		(0.131)		(0.109)		(0.116)
No Fault Unilateral 5-6		-0.620***		-0.486***		-0.535***
		(0.141)		(0.118)		(0.132)
No Fault Unilateral 7-8		-0.746***		-0.579***		-0.632***
		(0.153)		(0.129)		(0.152)
No Fault Unilateral 9-10		-0.620***		-0.430***		-0.479***
		(0.163)		(0.140)		(0.172)
No Fault Unilateral 11-12		-0.553***		-0.361**		-0.421**
		(0.173)		(0.152)		(0.191)
No Fault Unilateral 13-14		-0.476***		-0.277*		-0.340
		(0.182)		(0.162)		(0.209)
No Fault Unilateral >15		-0.257		-0.095		-0.150
		(0.185)		(0.177)		(0.238)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Country*time	No	No	Yes	Yes	Yes	Yes
Country*time^2	No	No	No	No	Yes	Yes
Observations	846	846	846	846	846	846
R-squared	0.924	0.926	0.951	0.952	0.958	0.959

Note: Sample: 1960–2006, (balanced panel). Estimated using country population weights. Standard errors in parentheses. ***Statistical significance at 1%. **Statistical significance at 5%.* Statistical significance at 10% level.

Table 9.-Non-Marital Birth Rate: How do divorce law reforms operate through marital status?

(Dependent variable: Non-Marital Birth Rate (Out of wedlock births/500 people))

	(1)	(2)	(3)	(4)	(5)	(6)
No Fault Unilateral	-0.157**		-0.036		-0.048*	
	(0.061)		(0.029)		(0.025)	
No Fault Unilateral 1-2		-0.108		-0.012		-0.079***
		(0.076)		(0.035)		(0.028)
No Fault Unilateral 3-4		-0.152*		-0.040		-0.138***
		(0.081)		(0.037)		(0.032)
No Fault Unilateral 5-6		-0.199**		-0.072*		-0.204***
		(0.087)		(0.040)		(0.036)
No Fault Unilateral 7-8		-0.273***		-0.140***		-0.308***
		(0.095)		(0.044)		(0.042)
No Fault Unilateral 9-10		-0.331***		-0.204***		-0.408***
		(0.101)		(0.048)		(0.047)
No Fault Unilateral 11-12		-0.398***		-0.264***		-0.495***
		(0.107)		(0.052)		(0.052)
No Fault Unilateral 13-14		-0.424***		-0.291***		-0.549***
		(0.113)		(0.055)		(0.057)
No Fault Unilateral >15		-0.352***		-0.242***		-0.545***
		(0.115)		(0.060)		(0.065)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Country*time	No	No	Yes	Yes	Yes	Yes
Country*time^2	No	No	No	No	Yes	Yes
Observations	846	846	846	846	846	846
R-squared	0.813	0.816	0.962	0.964	0.977	0.980

Note: Sample: 1960–2006, (balanced panel). Estimated using country population weights. Standard errors in parentheses. ***Statistical significance at 1%. **Statistical significance at 5%.* Statistical significance at 10% level.

Table 10.-Ilegitimacy Rate: Non-Marital Birth over Total Births: How do divorce law reforms operate through marital status?

(Dependent variable: Out of wedlock births/10 Births)

	(1)	(2)	(3)	(4)	(5)	(6)
No Fault Unilateral	-0.182**		-0.033		-0.052	
	(0.089)		(0.043)		(0.036)	
No Fault Unilateral 1-2		-0.140		-0.020		-0.104**
		(0.111)		(0.053)		(0.041)
No Fault Unilateral 3-4		-0.171		-0.036		-0.161***
		(0.118)		(0.057)		(0.047)
No Fault Unilateral 5-6		-0.208		-0.061		-0.230***
		(0.126)		(0.061)		(0.053)
No Fault Unilateral 7-8		-0.264*		-0.119*		-0.339***
		(0.137)		(0.067)		(0.061)
No Fault Unilateral 9-10		-0.324**		-0.201***		-0.471***
		(0.146)		(0.073)		(0.069)
No Fault Unilateral 11-12		-0.389**		-0.272***		-0.584***
		(0.155)		(0.079)		(0.077)
No Fault Unilateral 13-14		-0.410**		-0.306***		-0.656***
		(0.163)		(0.084)		(0.084)
No Fault Unilateral >15		-0.300*		-0.254***		-0.672***
		(0.166)		(0.092)		(0.096)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Country*time	No	No	Yes	Yes	Yes	Yes
Country*time^2	No	No	No	No	Yes	Yes
Observations	846	846	846	846	846	846
R-squared	0.859	0.859	0.969	0.969	0.983	0.984

Note: Sample: 1960–2006, (balanced panel). Estimated using country population weights. Standard errors in parentheses. ***Statistical significance at 1%. **Statistical significance at 5%.* Statistical significance at 10% level.

Table 11.-Marital Fertility (less than 1 year married): Static and dynamic effects of divorce law reforms

(Dependent variable: Marital Births (less than 1 year married)/ Total Marital Births)

	(1)	(2)	(3)	(4)	(5)	(6)
No Fault Unilateral	-0.007		-0.005		0.001	
	(0.007)		(0.005)		(0.005)	
No Fault Unilateral 1-2		0.005		0.003		0.003
		(0.009)		(0.006)		(0.005)
No Fault Unilateral 3-4		-0.007		-0.012*		-0.010
		(0.009)		(0.007)		(0.006)
No Fault Unilateral 5-6		-0.018*		-0.025***		-0.023***
		(0.010)		(0.007)		(0.008)
No Fault Unilateral 7-8		-0.025**		-0.037***		-0.032***
		(0.011)		(0.008)		(0.009)
No Fault Unilateral 9-10		-0.028**		-0.045***		-0.038***
		(0.012)		(0.009)		(0.011)
No Fault Unilateral 11-12		-0.026**		-0.047***		-0.039***
		(0.013)		(0.010)		(0.012)
No Fault Unilateral 13-14		-0.023*		-0.050***		-0.040***
		(0.013)		(0.011)		(0.013)
No Fault Unilateral >15		-0.008		-0.048***		-0.035**
		(0.014)		(0.012)		(0.015)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Country*time	No	No	Yes	Yes	Yes	Yes
Country*time^2	No	No	No	No	Yes	Yes
Observations	702	702	702	702	702	702
R-squared	0.597	0.607	0.826	0.837	0.880	0.887

Note: Sample: 1960–1998, (balanced panel). Estimated using country population weights. Standard errors in parentheses. ***Statistical significance at 1%. **Statistical significance at 5%.* Statistical significance at 10% level.

Table 12.-Marital Fertility (3 years married): Static and dynamic effects of divorce law reforms

(Dependent variable: Marital Births (3 years married)/ Total Marital Births))

	(1)	(2)	(3)	(4)	(5)	(6)
No Fault Unilateral	0.011***		0.012***		0.010***	
	(0.001)		(0.001)		(0.001)	
No Fault Unilateral 1-2		0.007***		0.009***		0.006***
		(0.002)		(0.001)		(0.001)
No Fault Unilateral 3-4		0.013***		0.016***		0.011***
		(0.002)		(0.002)		(0.001)
No Fault Unilateral 5-6		0.015***		0.019***		0.012***
		(0.002)		(0.002)		(0.002)
No Fault Unilateral 7-8		0.015***		0.021***		0.011***
		(0.002)		(0.002)		(0.002)
No Fault Unilateral 9-10		0.013***		0.020***		0.007***
		(0.002)		(0.002)		(0.002)
No Fault Unilateral 11-12		0.014***		0.022***		0.007**
		(0.002)		(0.002)		(0.003)
No Fault Unilateral 13-14		0.015***		0.025***		0.007**
		(0.003)		(0.003)		(0.003)
No Fault Unilateral >15		0.012***		0.024***		0.003
		(0.003)		(0.003)		(0.003)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Country*time	No	No	Yes	Yes	Yes	Yes
Country*time^2	No	No	No	No	Yes	Yes
Observations	702	702	702	702	702	702
R-squared	0.757	0.766	0.836	0.850	0.897	0.905

Note: Sample: 1960–1998, (balanced panel). Estimated using country population weights. Standard errors in parentheses. ***Statistical significance at 1%. **Statistical significance at 5%.* Statistical significance at 10% level.

Table 13.-Marital Fertility (5 years married): Static and dynamic effects of divorce law reforms

(Dependent variable: Marital Births (5 years married)/ Total Marital Births))

	(1)	(2)	(3)	(4)	(5)	(6)
No Fault Unilateral	0.005***		0.005***		0.003***	
	(0.001)		(0.001)		(0.001)	
No Fault Unilateral 1-2		0.001		0.002*		0.002
		(0.001)		(0.001)		(0.001)
No Fault Unilateral 3-4		0.005***		0.006***		0.006***
		(0.002)		(0.001)		(0.001)
No Fault Unilateral 5-6		0.009***		0.011***		0.010***
		(0.002)		(0.001)		(0.002)
No Fault Unilateral 7-8		0.012***		0.015***		0.013***
		(0.002)		(0.002)		(0.002)
No Fault Unilateral 9-10		0.013***		0.016***		0.014***
		(0.002)		(0.002)		(0.002)
No Fault Unilateral 11-12		0.012***		0.016***		0.013***
		(0.002)		(0.002)		(0.002)
No Fault Unilateral 13-14		0.011***		0.016***		0.012***
		(0.002)		(0.002)		(0.003)
No Fault Unilateral >15		0.008***		0.016***		0.011***
		(0.002)		(0.002)		(0.003)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Country*time	No	No	Yes	Yes	Yes	Yes
Country*time^2	No	No	No	No	Yes	Yes
Observations	702	702	702	702	702	702
R-squared	0.776	0.795	0.852	0.873	0.890	0.905

Note: Sample: 1960–1998, (balanced panel). Estimated using country population weights. Standard errors in parentheses. ***Statistical significance at 1%. **Statistical significance at 5%.* Statistical significance at 10% level.

Table 14.-Marital Fertility (7 years married): Static and dynamic effects of divorce law reforms

(Dependent variable: Marital Births (7 years married)/ Total Marital Births))

	(1)	(2)	(3)	(4)	(5)	(6)
No Fault Unilateral	-0.001		-0.001		-0.003***	
	(0.001)		(0.001)		(0.001)	
No Fault Unilateral 1-2		-0.002*		-0.001		-0.001
		(0.001)		(0.001)		(0.001)
No Fault Unilateral 3-4		-0.001		0.0003		0.0004
		(0.001)		(0.001)		(0.001)
No Fault Unilateral 5-6		0.001		0.003**		0.003**
		(0.001)		(0.001)		(0.001)
No Fault Unilateral 7-8		0.004***		0.006***		0.007***
		(0.001)		(0.001)		(0.002)
No Fault Unilateral 9-10		0.006***		0.009***		0.009***
		(0.002)		(0.001)		(0.002)
No Fault Unilateral 11-12		0.006***		0.010***		0.010***
		(0.002)		(0.002)		(0.002)
No Fault Unilateral 13-14		0.007***		0.011***		0.011***
		(0.002)		(0.002)		(0.002)
No Fault Unilateral >15		0.005***		0.011***		0.012***
		(0.002)		(0.002)		(0.003)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Country*time	No	No	Yes	Yes	Yes	Yes
Country*time^2	No	No	No	No	Yes	Yes
Observations	702	702	702	702	702	702
R-squared	0.690	0.709	0.807	0.830	0.847	0.861

Note: Sample: 1960–1998, (balanced panel). Estimated using country population weights. Standard errors in parentheses. ***Statistical significance at 1%. **Statistical significance at 5%.* Statistical significance at 10% level.

Table 15.-Marital Fertility (9 years married): Static and dynamic effects of divorce law reforms

(Dependent variable: Marital Births (9 years married)/ Total Marital Births))

	(1)	(2)	(3)	(4)	(5)	(6)
No Fault Unilateral	-0.001**		-0.002***		-0.004***	
	(0.001)		(0.001)		(0.001)	
No Fault Unilateral 1-2		-0.002**		-0.002***		-0.002***
		(0.001)		(0.001)		(0.001)
No Fault Unilateral 3-4		-0.002*		-0.001		-0.002***
		(0.001)		(0.001)		(0.001)
No Fault Unilateral 5-6		-0.000		0.001		-0.000
		(0.001)		(0.001)		(0.001)
No Fault Unilateral 7-8		0.001		0.002**		0.001
		(0.001)		(0.001)		(0.001)
No Fault Unilateral 9-10		0.002		0.004***		0.002*
		(0.001)		(0.001)		(0.001)
No Fault Unilateral 11-12		0.003**		0.006***		0.004***
		(0.001)		(0.001)		(0.001)
No Fault Unilateral 13-14		0.003**		0.007***		0.005***
		(0.001)		(0.001)		(0.002)
No Fault Unilateral >15		0.002*		0.008***		0.006***
		(0.001)		(0.001)		(0.002)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Country*time	No	No	Yes	Yes	Yes	Yes
Country*time^2	No	No	No	No	Yes	Yes
Observations	702	702	702	702	702	702
R-squared	0.684	0.695	0.809	0.830	0.866	0.874

Note: Sample: 1960–1998, (balanced panel). Estimated using country population weights. Standard errors in parentheses. ***Statistical significance at 1%. **Statistical significance at 5%.* Statistical significance at 10% level.

Table 16.-Marital Fertility (10-14 years married): Static and dynamic effects of divorce law reforms

(Dependent variable: Marital Births (10-14 years married)/ Total Marital Births))

	(1)	(2)	(3)	(4)	(5)	(6)
No Fault Unilateral	-0.010***		-0.011***		-0.012***	
	(0.002)		(0.002)		(0.002)	
No Fault Unilateral 1-2		-0.009***		-0.009***		-0.009***
		(0.003)		(0.002)		(0.002)
No Fault Unilateral 3-4		-0.010***		-0.011***		-0.010***
		(0.003)		(0.002)		(0.002)
No Fault Unilateral 5-6		-0.009***		-0.009***		-0.008***
		(0.003)		(0.002)		(0.002)
No Fault Unilateral 7-8		-0.006*		-0.007**		-0.005
		(0.003)		(0.003)		(0.003)
No Fault Unilateral 9-10		-0.003		-0.003		-0.001
		(0.004)		(0.003)		(0.003)
No Fault Unilateral 11-12		-0.002		-0.002		0.002
		(0.004)		(0.003)		(0.004)
No Fault Unilateral 13-14		-0.001		-0.000		0.003
		(0.004)		(0.004)		(0.004)
No Fault Unilateral >15		-0.001		0.0003		0.005
		(0.004)		(0.004)		(0.005)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Country*time	No	No	Yes	Yes	Yes	Yes
Country*time^2	No	No	No	No	Yes	Yes
Observations	701	701	701	701	701	701
R-squared	0.649	0.655	0.838	0.842	0.888	0.892

Note: Sample: 1960–1998, (balanced panel). Estimated using country population weights. Standard errors in parentheses. ***Statistical significance at 1%. **Statistical significance at 5%.* Statistical significance at 10% level.

Table 17.-Marital Fertility (15-19 years married): Static and dynamic effects of divorce law reforms

(Dependent variable: Marital Births (15-19 years married)/ Total Marital Births))

	(1)	(2)	(3)	(4)	(5)	(6)
No Fault Unilateral	-0.005***		-0.006***		-0.006***	
	(0.001)		(0.001)		(0.001)	
No Fault Unilateral 1-2		-0.004***		-0.005***		-0.005***
		(0.001)		(0.001)		(0.001)
No Fault Unilateral 3-4		-0.005***		-0.006***		-0.006***
		(0.001)		(0.001)		(0.001)
No Fault Unilateral 5-6		-0.006***		-0.007***		-0.007***
		(0.001)		(0.001)		(0.001)
No Fault Unilateral 7-8		-0.007***		-0.008***		-0.007***
		(0.001)		(0.001)		(0.001)
No Fault Unilateral 9-10		-0.006***		-0.008***		-0.007***
		(0.002)		(0.001)		(0.001)
No Fault Unilateral 11-12		-0.006***		-0.008***		-0.006***
		(0.002)		(0.001)		(0.001)
No Fault Unilateral 13-14		-0.005***		-0.008***		-0.005***
		(0.002)		(0.002)		(0.002)
No Fault Unilateral >15		-0.005***		-0.008***		-0.004**
		(0.002)		(0.002)		(0.002)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Country*time	No	No	Yes	Yes	Yes	Yes
Country*time^2	No	No	No	No	Yes	Yes
Observations	702	702	702	702	702	702
R-squared	0.792	0.794	0.892	0.894	0.946	0.949

Note: Sample: 1960–1998, (balanced panel). Estimated using country population weights. Standard errors in parentheses. ***Statistical significance at 1%. **Statistical significance at 5%.* Statistical significance at 10% level.

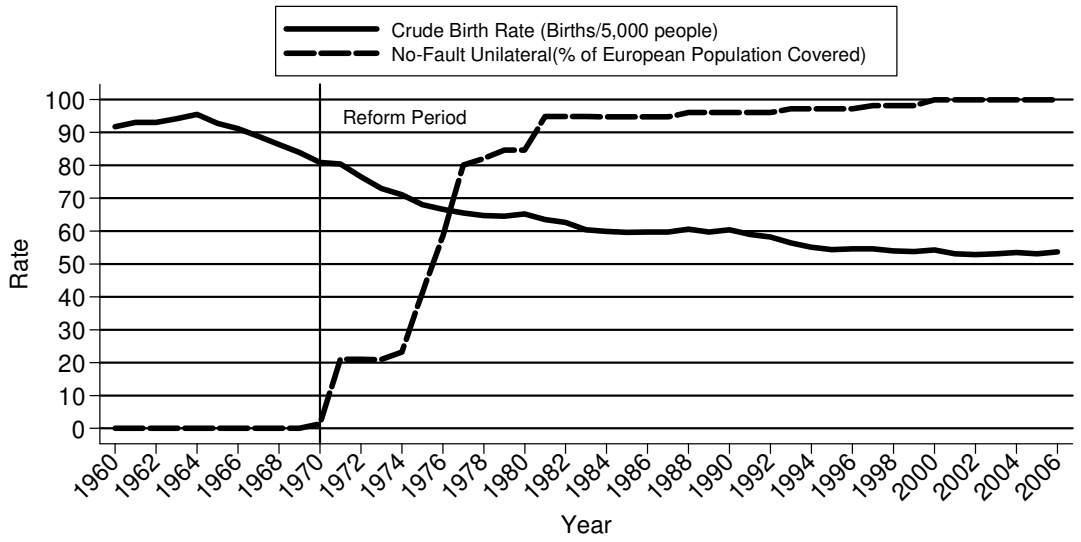
Table 18.-Marital Fertility (more than 20 years married): Static and dynamic effects of divorce law reforms

(Dependent variable: Marital Births (more than 20 years married)/ Total Marital Births))

	(1)	(2)	(3)	(4)	(5)	(6)
No Fault Unilateral	-0.0005		-0.001***		-0.001***	
	(0.001)		(0.0003)		(0.0002)	
No Fault Unilateral 1-2		-0.001		-0.001***		-0.001***
		(0.001)		(0.0004)		(0.0003)
No Fault Unilateral 3-4		-0.0003		-0.001***		-0.001***
		(0.001)		(0.0004)		(0.0004)
No Fault Unilateral 5-6		-0.0003		-0.001***		-0.001***
		(0.001)		(0.0004)		(0.0004)
No Fault Unilateral 7-8		-0.0001		-0.001***		-0.001***
		(0.001)		(0.0005)		(0.0004)
No Fault Unilateral 9-10		0.0002		-0.002***		-0.001***
		(0.001)		(0.001)		(0.0005)
No Fault Unilateral 11-12		0.0004		-0.002***		-0.001**
		(0.001)		(0.001)		(0.001)
No Fault Unilateral 13-14		0.001		-0.002***		-0.001**
		(0.001)		(0.001)		(0.001)
No Fault Unilateral >15		0.001		-0.002**		-0.001
		(0.001)		(0.001)		(0.001)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Country*time	No	No	Yes	Yes	Yes	Yes
Country*time^2	No	No	No	No	Yes	Yes
Observations	702	702	702	702	702	702
R-squared	0.600	0.601	0.931	0.932	0.970	0.970

Note: Sample: 1960–1998, (balanced panel). Estimated using country population weights. Standard errors in parentheses. ***Statistical significance at 1%. **Statistical significance at 5%.* Statistical significance at 10% level.

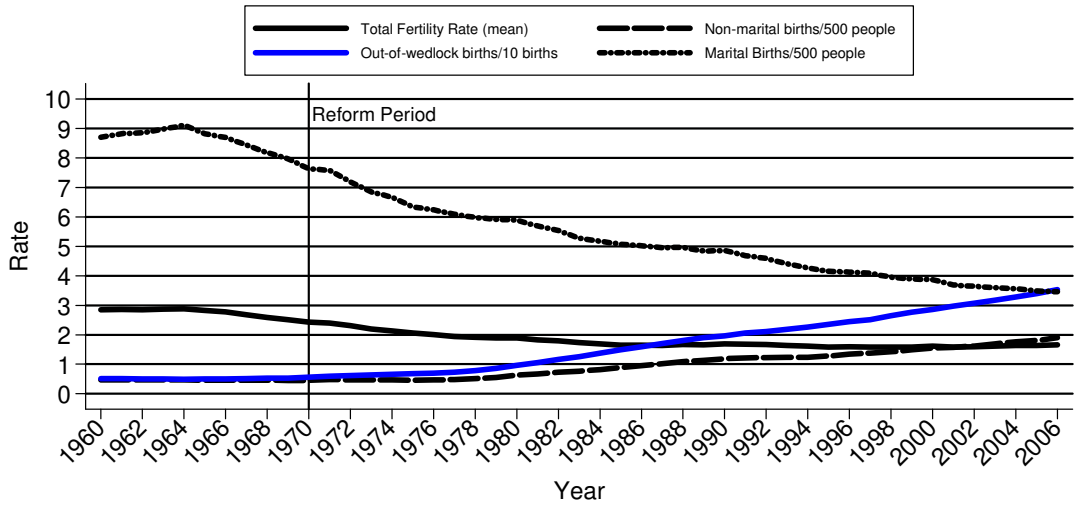
Figure 1:
Coverage of Divorce Law Reforms and Crude Birth Rate



Source: Eurostat

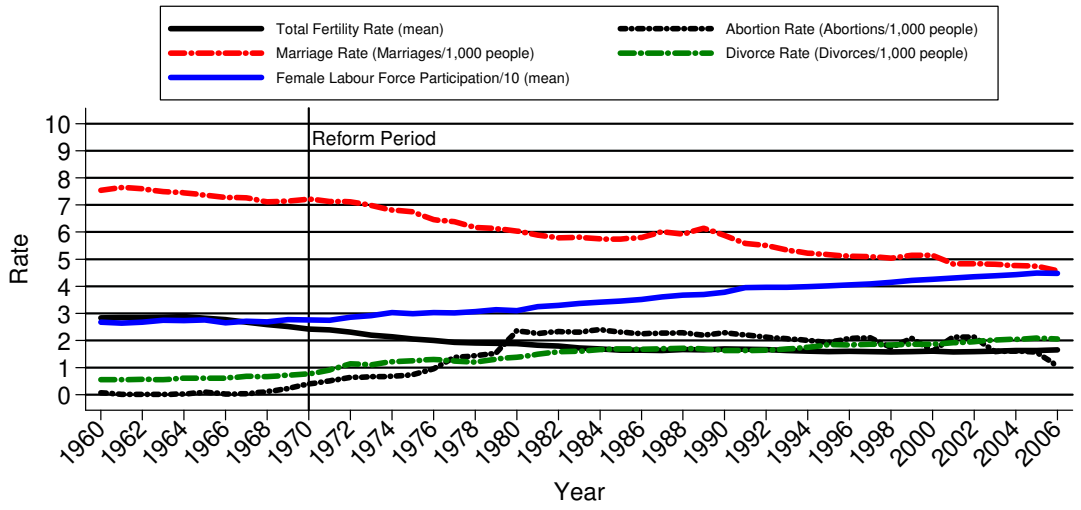
Notes: The countries considered in the analysis are: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Figure 2:
TFR, Marital Births, and Out-of-Wedlock Births
Europe 1960-2006



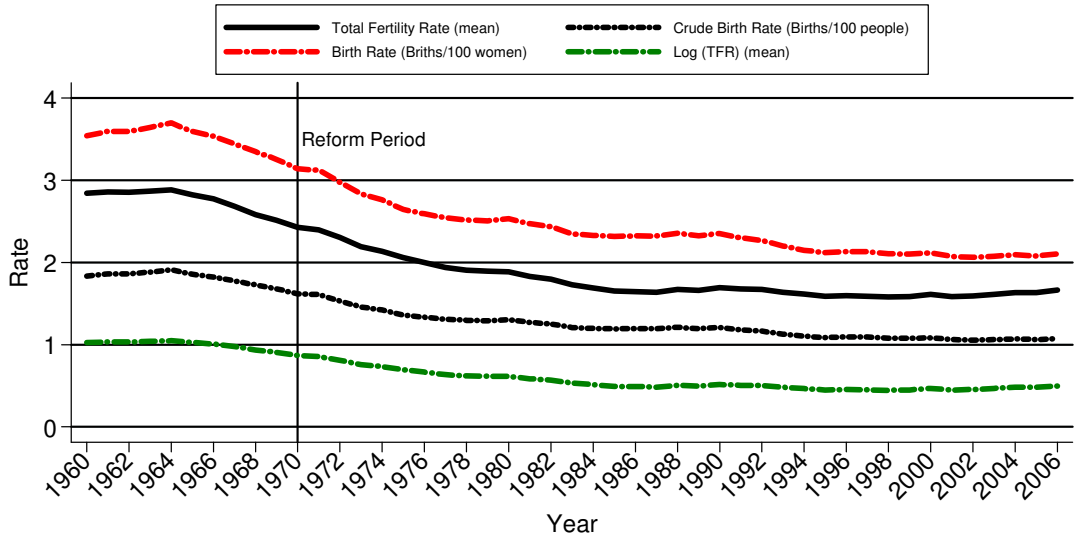
Source: Eurostat

Figure 3:
Births, Abortions, Marriages, FLFP, and Divorces
Europe 1960-2006



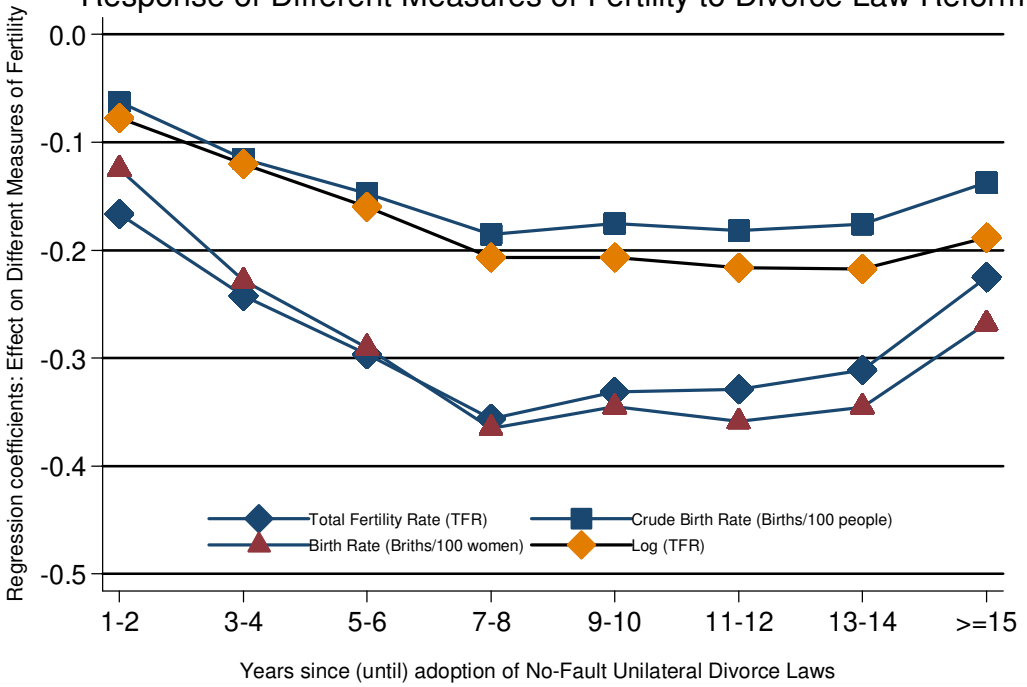
Source: See Appendix

Figure 4:
Birth Rates, Europe 1960-2006



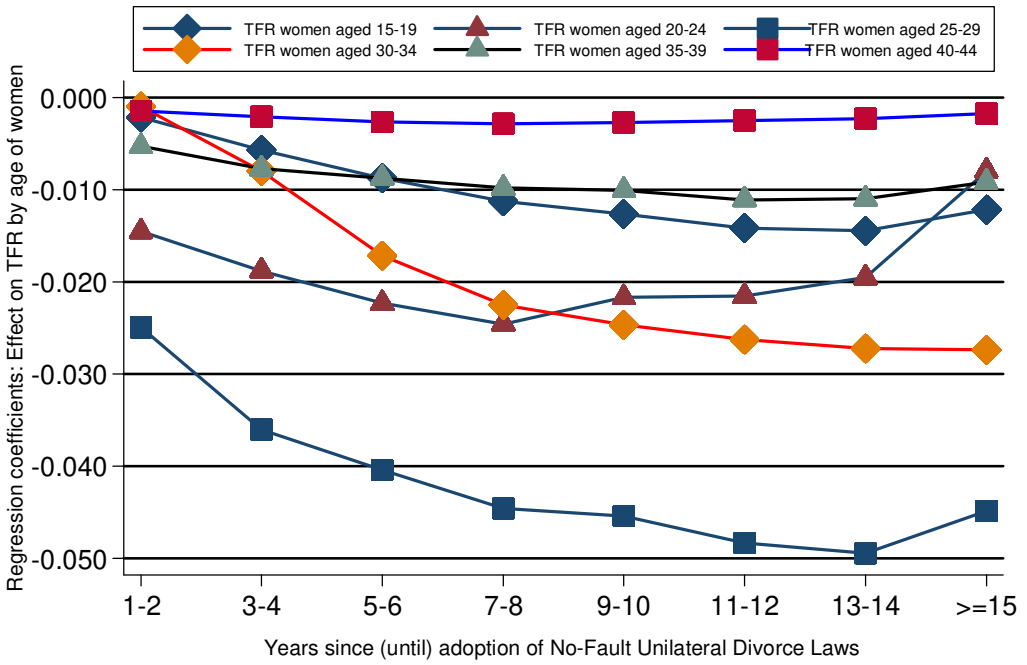
Source: Eurostat

Figure 5:
Response of Different Measures of Fertility to Divorce Law Reform



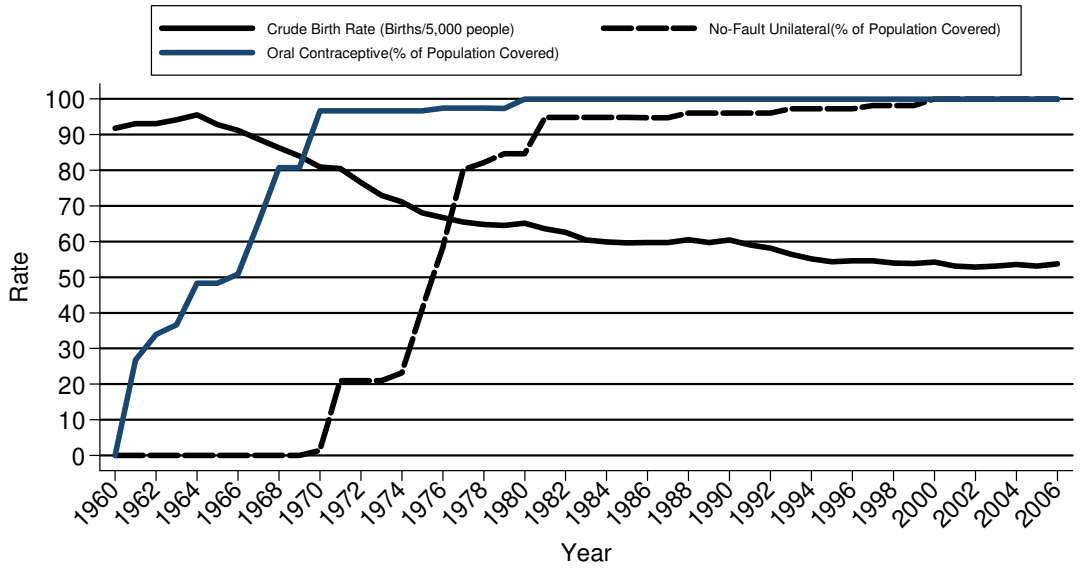
Notes: Estimated using country-specific quadratic trends. All coefficients are statistically significant at the 5% level.

Figure 6:
Response of TFR by age of women (15-44)



Notes: Estimated using country-specific quadratic trends. All coefficients but two ($\beta_{>15}$ and $\beta_{1\text{-}2}$ when the dependent variable is TFR of women aged 20-24 and 30-34, respectively) are statistically significant at the 5% level.

Figure 7: Coverage of Divorce Law Reforms, the Introduction of the Pill, and the Crude Birth Rate



APPENDIX Data sources and Definition of Variables

Variable	Definition	Source
Dependent Variable		
Total fertility Rate	The mean number of children that would be born alive to a woman during her lifetime if she were to pass through her childbearing years conforming to the fertility rates by age of a given year.	Eurostat and UN Demographic Yearbook
Marital Birth Rate	Number of births within marriage per five hundred inhabitants	Computed by authors using data from the Eurostat
Non-Marital Birth Rate	Out of wedlock births per five hundred inhabitants	Computed by authors using data from the Eurostat
Legitimacy Ratio	Out of wedlock births per ten births	Computed by authors using data from the Eurostat
Control Variables		
Female Labour Force Participation	Female Civilian Labour Force over number of women, in percentage	Computed by authors using data from the OECD and Eurostat
Gross Enrolment Ratio	Total female enrolment in education, regardless of age, expressed as a percentage of the official school-age population corresponding to the same level of education in given school-year	Unesco
Infant Mortality	The ratio of the number of deaths of children under one year of age during the year to the number of live births in that year. The value is expressed per 1000 live births.	Eurostat
Per Capita GDP	Gross Domestic Product divided by the population of each country, expressed in thousands	Computed by authors using data from the United Nations
Women in Parliament	Percentage of women in each national parliament on the total of seats of the parliament	Computed by authors using data from the Inter Parliamentary Union
Unemployment Rate	Unemployment rate as percentage of the civilian labour force	OECD
Crude Divorce Rate	The ratio of the number of divorces during the year to the average population in that year. The value is expressed per 1000 inhabitants.	Eurostat
Crude Marriage Rate	The ratio of the number of marriages during the year to the average population in that year. The value is expressed per 1000 inhabitants	Eurostat