

Property Division at Divorce and Demographic Behavior: An Economic Analysis and International Comparison¹

by

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Abstract

Countries differ in the rules they apply for dividing marital property in case of divorce. In this paper we examine how various institutions regulating the division of property at divorce can possibly affect the decision to divorce, to marry, to have children in or outside marriage, to supply labor, and choice of mate. We present an analytical framework and derive predictions regarding the effects of rules for property division at divorce. We then present stylized facts using a cross-country comparison.

Introduction

Countries differ in the rules they apply for dividing marital property in case of divorce. Some countries follow common law, as is the case of the United Kingdom and most states in the United States. In common law divorce systems, those who marry do not have a clear sense of the rules for division of marital property in the eventuality of a divorce. Instead, judges' discretion and a variety of circumstances will influence the actual division of assets in case of divorce.

Other countries set fixed rules that are well defined. A few European countries have established a well-defined 50/50 division rule of division of assets in case of divorce, but the extent of the assets subjected to such rule varies from country to country. For instance, the Netherlands has the broadest definition of marital assets subject to a 50/50 division rule should a couple divorce: this definition includes all assets belonging to a couple, including assets obtained before marriage and individual inheritances. In France, Belgium, Italy, Spain, the state of Quebec in Canada, and a few states in the U.S. the fifty/fifty rule is applied to a narrower definition of assets, typically aiming solely at assets acquired during marriage. Other European countries have rules for division of property at divorce that take better account of what each spouse accumulates before and after marriage.

In this paper we examine how such rules for division of property at divorce can possibly affect individual decisions regarding marriage and divorce. We examine effects of division of property rules on the following sets of behavior: (1) an individual's decision to marry, (2) the decision to have children in or out of wedlock, (3) labor force participation, (4) cohabitation, (5) choice of mate, (6) the decision to divorce. The next section reviews the

literature on the effects of divorce laws, most of which deals with effects on divorce decisions.

We then address the issue of effects of division of property rules at the theoretical level by providing a one-period model analyzing the effect of a universal community property rule on the decision to divorce, to make compensating payments at divorce, and on the decision to marry. We also examine how such rule could affect the decision to have children in or out of wedlock, to cohabit, to mate assortatively, and to participate in the labor force. Our theoretical framework assumes that individuals are rational and that marriage typically involves a household production aspect. We assume there are only two types of agents: homemakers who (potentially) work in household production and do not have alternative sources of income or wealth, and providers who do not work in household production and (potentially) provide the income to compensate the homemakers. Even though women are more often homemakers than men, we keep our theoretical analysis gender neutral.²

We also present stylized facts comparing various Western countries with different rules for division of marital property. We categorize countries according to a number of types of division rules. We find interesting regularities distinguishing countries following the Anglo-saxon Common Law system, the Western European Community Property system (including a distinction between Universal Community Property and Community Property of Acquired Assets), and the Germanic system placing more emphasis on separation of assets. We compare countries in terms of percent married, divorced, cohabiting, having children out of wedlock, and assortative mating, using our calculations based on micro data from the Family Fertility Surveys collected in 14 different countries in the early 1990s.

Previous Literature

Economists have written on how divorce rules may possibly affect the behavior of married people. A major concern of this literature is the possible effect of divorce laws on the probability of divorce. Becker (1981) applied the Coase theorem to conclude that divorce laws do not affect the decision to divorce, only the direction and size of inter-spousal transfers before and during divorce. Becker's conclusion depends on assumptions of no transaction costs, perfect transferability of wealth and property, and no allocative effects of wealth and / or income distribution.

In contrast to Becker, a number of authors have argued that divorce laws are expected to influence the decision to divorce. For instance, Lloyd Cohen (1998) questions the assumption of no transaction costs. He considers that divorce laws affect the probability of divorce because the cost of exit from marriage is higher for women than for men. Cohen assumes that the wife's human capital consists principally of her reproductive capacity and that men face high agency costs when trying to control their wife's body and its reproductive capacity.

The assumption of perfectly transferable wealth and property has also been questioned. Transfers between spouses are problematic mainly because some assets present public good characteristics and are more costly to obtain if the partners split up. The most obvious example is children (as argued e.g. by Weiss and Willis 1985).

As for the third assumption on which the Coase theorem depends, the absence of wealth effect and of income redistribution effects, it is often neglected in economic analyses of the Coase theorem. The wealth effect is usually viewed as a redistribution of income between the parties that changes consumption patterns only and is assumed to be of no interest or to be negligible at the aggregate level. However, income redistribution effects can result in one of the parties transferring the burden imposed by the legal assignments of rights to the other party or to a third party.³ Usually the wealth effect The income redistribution effect is overlooked by assuming that there was consent over the legislation or terms implying freedom of contract. Our analysis principally questions this third assumption.

Whether changes in divorce law actually cause changes in the divorce rate or not is an empirical question. A number of studies have documented that divorce laws influence divorce rates. Most of these studies consist of comparisons between no-fault divorce laws and the laws that preceded no-fault divorce in the U.S. These older laws required both partners' consent (i.e. they were not unilateral) and they required proof of fault at divorce. For instance, Dorothy Stetson and Gerald Wright (1975), Allen Parkman (1992), Leora Friedberg (1998) have all shown that nofault divorce increased the divorce rate. Jane M.Binner and Antony W.Dnes (2001) present recent results on actual effects of divorce laws using times series data from England and Wales.

In contrast, using the Current Population Srvey of March/April 1979 and information on state divorce laws, Elisabeth Peters (1986) showed neutral effect of the law. More recently, using panel data Yoram Weiss and Robert Willis (1993,1997) have shown no connection between divorce rates and the laws regarding no-fault divorce and division of property at divorce. Furthermore, Weiss and Willis (1993, 1997) showed that divorce laws had no impact on the well-being of women after divorce. Keeping legal regime constant they showed that marriages were more stable if they involved more property ownership. In view of the advantages of panel data over other data, the results of Weiss and Willis have been used to strengthen the argument in favor of the Coasian theorem stating that divorce laws do not matter.

How do we reconcile these facts? Why do divorce laws have an impact on aggregate time series or cross section data but not on panel data? If transaction costs matter, why would this not show up in panel data analyses? One step in the right direction is to separate transaction cost effects of divorce laws from income distribution effects of these laws. Such distinction is not found in the existing theoretical literature, except for Simon Clark (1999).

We expect in fact that divorce laws in general, and laws specifying rules about the division of marital property in particular, will affect not only the

likelihood of divorce, but also a number of decisions made during marriage (such as intra-marriage consumption, marital fertility, and labor supply) as well as decisions regarding marriage (e.g. marriage versus cohabitation versus unattached status, choice of mate) and some of its alternatives: out-of-wedlock births and labor force participation. We expect these effects due to wealth or income distribution effects of divorce laws.

Empirical studies showing effects of divorce on cohabitation include Randy Ressler and Melissa Waters (1995) and Olivia Ekert-Jaffé and Catherine Sofer (1996). These studies have shown that divorce rates as well as labor force participation of women increase cohabitation. Jeffrey Gray's (1993, 1998) study of the effect of divorce law changes in the U.S. showed that passage to No-Fault divorce had opposite effects on married women's labor supply in states with common law systems and community property systems. A change to unilateral divorce by itself was not associated with significant changes in married women's employment or hours of work.⁴ In states with common law, a change to unilateral divorce led to decreases in married women's labor supply, whereas in states with community property rules a switch to unilateral divorce led to increases in married women's labor force participation. Gray did not examine the effects of these laws on all women's labor supply, including long run effects involving women's career choices.

Gray argues that the adoption of unilateral divorce led to an implicit redistribution of assets towards the husband in common law states and towards the wife in community property states. He then interprets his findings by assuming that married women's increased labor supply indicates a better bargaining position in marriage. Grossbard-Shechtman (1995) interprets Gray's findings differently : along with most of the labor supply literature she views increased labor supply as an indication of a decreased reservation wage. She posits that after the introduction of unilateral divorce, married women's reservation wage went down in states with community property relative to those in states with common law due to the operation of competitive markets for marital homemaking and compensating differentials. In common law states, where women interested in being homemakers were getting relatively weak protection all along, and the introduction of no-fault divorce made things worse, women became less interested in supplying marital homemaking services after the change in law, leading to a decrease in the supply of in-marriage homemaking by women and therefore an increase in married women's reservation wage. In contrast, in community property states, men reacted to the new laws by reducing their demand for marital homemaking, thereby bringing down the reservation wage of married female homemakers and causing an increase in married women's labor supply.

Theoretical Framework for Analyzing the Effects of Divorce Laws

We analyze the effect of divorce laws viewing the situation of a married couple like that of any two partners who may enter a contract that is mutually beneficial, such as labor contracts, rental contracts, or marriage contracts. The

effect of a change in divorce law will be immediate on those already married. As for new entrants in the marriage market, they will be able to adjust in advance to the change in law and will react differently after the change in law relative to how they would have reacted if the law had not changed.

Unexpected new opportunities create new anticipations that can be realized only by divorcing from a partner. This is where explicit *ex ante* enforceable contracts play an important role in minimizing the total cost of divorce by determining arrangements for the care of children and assignment of property rights between spouses as discussed in Grossbard - Shechtman and Lemennicier (1999).

Because of these unexpected and new anticipations and the expected exit costs at the time of divorce, private contracts as well as legal regimes have an influence on marriage and divorce rates. And the reason is not because of transaction costs effects, which are close to zero in this case, but because of income distribution and wealth effects. Once a rule of divorce has been fixed by law, which is typically beyond the choice of any private parties, each partner adapts his behavior before marriage to escape from the burden imposed by the rule in case the contract terminates. And this behavior alters marriage and divorce rates as well as fertility in or outside marriage and accumulation of specific home investment in human capital like quality of children, love for the partner, and loyalty to the partner.

The correct model to analyze the long run effects of a legal change is a lifetime one-period model that allows for individuals to adapt their behavior and strategically adjust to the legal regime in which they start making decisions. In such model, every successive generation of decision-makers considers one legal regime only.⁵ We start by comparing unilateral divorce versus divorce requiring mutual consent, a familiar topic in the literature on the law-and-economics of divorce. We then examine the effects of rules regarding the division of assets at divorce.

By definition⁶ any law or absence of law assigns rights in marriage and thereby alters the distribution of income between people.⁷ This also holds for divorce laws. A law that allows unilateral divorce leads to a very different distribution of rights than one requiring mutual consent.⁸ For instance, consider the case where the husband expects a better life after the breakdown of marriage, leading him not to worry about the consequences of divorce while his spouse worries because she will lose all specific investments in her marriage (specific home investment in human capital like quality of children or love and loyalty from a partner).⁹ Furthermore assume unilateral divorce, but that the husband will stay married if he received a compensation of \$50,000 each year. If his spouse is poor, she might not be willing or able to pay her husband \$50,000 for not breaching their marriage contract. With unilateral divorce the man will quit and the woman will suffer from the divorce. In contrast, if the \$50,000 were taken from the husband and given to his wife, the woman might want to increase her specific investment in the marriage using the additional wealth she obtained, something the husband would not do if he got the compensation.

If we assume that the wife is poor and has more of a preference for specific investments in the marriage, a wealth effect thus results from a change in law that leads to the husband compensating the wife rather than vice versa. This wealth effect takes the form of more specific investments in the marriage. Furthermore, to the extent that the husband cannot contract freely, he will feel the law (and an unanticipated change in the law) as a coerced interference in his choices. He will try to evade from such interference in his private life by avoiding marriage. In contrast, the legal change will induce more women to enter marriage, now a more attractive institution. Assuming traditional gender roles, the net impact of this change is a decreased demand for marriage by men and an increased supply by women, leading to an indeterminate effect on number of marriages and a lowering of compensation women get for homemaking, possibly leading to a lower reservation wage, higher labor supply, and other implications (see Grossbard-Shechtman 1995).

In contrast, if the change in law leads to the wife compensating the husband rather than vice versa, in the long run women will try to avoid marriage. There will be a decrease in the supply of women interested in being married homemakers (part-time or full-time). However, marriage is now more attractive to men, leading to an increase in men's demand. The net result is an increase in the compensation women can expect for being married homemakers, resulting in a higher reservation wage, lower labor supply, etc.

The model

We consider a model where individuals make decisions about marriage taking account of the wealth effect or income distribution effect by looking at the size of their expected assets in case they marry and divorce. Each individual starts with an expectation regarding the at-divorce size of their own assets and of their future spouse's assets. For instance, a 50/50 rule of property division at divorce implies a more generous divorce settlement for low income spouses than would be the case if the divorce rule is based on individual earnings during the marriage. What is covered under the definition of marital property may vary. The more encompassing the definition of marital property, the more low income spouses stand to gain from a 50/50 rule.

Marriage is a complex institution that involves homemaking, affection, companionship, insurance and so forth. We conceive of married households as firms producing goods, in the spirit of the New Home Economics (see Mincer 1962, Becker 1965). Anyone who participates in this production process we call a homemaker. If participation in homemaking in a marriage is asymmetric, one spouse is called the homemaker.¹⁰ We call the other spouse the provider. We will assume that the lower earning spouse is the homemaker and that the provider has an initial wealth far higher than the homemaker.

A *provider's decision* to marry and stay married is a function of a comparison between the value of a homemaker's (hourly) marginal productivity and the (hourly) cost of such homemaking, under a number of expected scenarios. We call VMP_{mf} the homemaker f 's marginal productivity

in homemaking which depend of the assortive mating of both partners f and m and on y , the transfer that the provider pays the homemaker for homemaking services. This transfer often takes the form of in-kind transfers, such as access to credit cards or country clubs. The homemaker may be a part-time homemaker who also holds a regular job in the labor market.

The provider's decision to marry and stay married is a function of whether he or she expects the present value of a future flow of VMP_{mf} to be < or > y , i.e. whether $(VMP_{mf} - y) >$ or < than zero and of his well being if divorced. Thus the expected gain from entering a marriage from a provider m's point of view is :

$$(1) E(G_m) = (1 - p_m) \left(\frac{F}{2} + VMP_{mf} - y \right) + p_m (F + W_m - C_f)$$

where p_m is the probability of divorce estimated by the provider, E is the expected operator, F initial wealth owned by the provider, shared with the spouse if married and not shared if divorced, W_m is alternative income in case of divorce, and C_f is the compensation that possibly needs to be paid to the ex-spouse to convince him or her not to divorce. The stochastic variables are W_m and VMP_{mf} .

One way of thinking about F is as a house owned by the provider before marriage and that he or she divides with a spouse after marriage. Therefore, the spouse gets $F/2$ as long as the marriage lasts. We start by assuming that in case of divorce, the entire F goes to the provider.

The model can lead to the derivation of the probability of divorce, as p_m is a function of both VMP_{mf} , W_f and W_m , where W_f is the homemaker's alternative income outside this marriage.

Homemakers are also comparing the total hourly payment for homemaking y with their alternative, the wage in the labor market W_f . The homemakers' decision rule regarding divorce is a function of whether $W_f <$ or > y . From the homemaker's point of view as long as the hourly pay for marital homemaking y exceeds the pay for work outside marriage, i.e. $(y - W_f) > 0$, the person might choose to be married and active in marital homemaking. This is the decision rule if the probability of divorce is close to zero. However, that probability is not zero, and the expected gain from marriage from the homemaker f's point of view is :

$$(2) E(G_f) = (1 - p_f) \left(\frac{F}{2} + y - W_f \right) + p_f (W_f + C_f)$$

where p_f is the probability of divorce estimated by the homemaker. The estimated probability of divorce is a function of alternative incomes and of the value of the homemaker's marginal productivity as perceived by the partners to the marriage contract.

Next, we look at decision rules about marriage. Assume that S_m and S_f are respectively the expected well being of the provider and the homemaker if they remain single. The inequality :

$$(3) E(G_m) + E(G_f) > S_m + S_f$$

implies that there is a net gain for m and f to enter marriage.

The model shows clearly that the expected well being if married is positively dependent on the assortive mating as well as the division of labor that influence VMP_{mf} , the value of marginal productivity of the homemaker f married to provider m. Also, the expected well being depends on the hourly pay for work in marital homemaking, y , the initial assets of the provider benefiting the homemaker, $\frac{F}{2}$, and the compensation for the homemaker in case of divorce, C_f . This expected wellbeing depends negatively on the homemaker's alternative income outside from marriage W_f , of the transfers y or C_f during or after the marriage given by the provider to the homemaker. These expected gains from marriage depend on the divorce laws that influence compensation C_f and the rules about division of property at divorce that regulate the division of F after marriage. We are overlooking the existence of other premarital assets and not considering the accumulation of assets in the marriage.

Before we examine the effect of various property division rules on the decision to marry or divorce, we examine a simple one period spot market model without wealth effects and with unequal income distribution. In this simple model, who bears the burden of divorce has no impact on individual action.

a) One period spot market model with no wealth or income distribution effect, i.e. $F=0$.

Assume that W_m , W_f and VMP_{mf} are determined at a given time (which is of course unrealistic, but is often assumed in economic models of this type).¹¹ We present a number of possible situations that may characterize a particular couple. In Figure 1, the horizontal axis is VMP, the provider's valuation of the spouse's productivity at homemaking. The vertical axis is W_f , the homemaker's wage in the labor force.

Any point on this diagram describes possible values of W_f , VMP_{mf} , and y for a particular couple. We can either assume that the level of y is predetermined at a level accepted by both partners, or we can assume that the couple bargains over y . If y is given, its level can be based on the competition between women and men in the marriage market where various individuals choose to participate as either provider or homemaker. It is also possible that y is institutionally determined by religious norms or copied from past family norms.

In Figure 1, we distinguish 6 zones. For simplicity, we call the provider ‘he’ and the homemaker ‘she’ throughout the entire analysis, even though it is very possible that the homemaker is a man.

- i) **Zone I: the Stability Zone.** This is a rectangle I, where $VMP_{mf} > y > W_f$. In this case marriage is stable, for both the homemaker is better off being married ($y > W_f$) and the provider is better off ($VMP_{mf} > y$) than outside the marriage.
- ii) **Zone II: Possible Stability Zone.** In this zone, the following holds: $W_f < VMP_{mf} < y$. This is a zone where the homemaker needs to compensate the provider for the marriage to continue. She needs to reduce her y to the level of VMP to entice the provider to stay in the marriage. Otherwise, as long as the marriage is costing the provider more than what he gets out of it, he will prefer to divorce. She will find it worthwhile to reduce that y until $VMP_{mf} = y$, since this is still more than her alternative in the labor market, W_f .
- iii) **Zone III: Divorce Zone with Conflict.** In this zone, $VMP_{mf} < W_f < y$. This is a zone where the provider pays the homemaker a y that exceeds his VMP. He would like to divorce. But she is better off staying married as she has not a better alternative outside of marriage relative to what she is paid by her provider. There is a conflict inducing redistribution costs as partners cannot both consent either to divorce or to stay married.
- iv) **Zone IV: Zone with No-Conflict Divorce.** Here, $VMP_{mf} < y < W_f$. There is no doubt about divorce being worthwhile as both partners loose if they stay married.
- v) **Zone V: Divorce Zone with Conflict.** This zone is similar to zone III, in the sense that it also leads to divorce, but one expects conflict about it. Here, $W_f > VMP_{mf} > y$. The homemaker is better off with a divorce, but the provider is better off staying married. There is a conflict inducing redistribution costs as partners cannot both consent either to divorce or to stay married.
- vi) **Zone VI. Possible Stability Zone.** In this zone, $VMP_{mf} > W_f > y$. This implies that at such low compensation for her homemaking, the homemaker would rather divorce. But the provider benefits considerably from that homemaking. If he raises her y above her opportunity cost w , she will agree to stay married. Given that his VMP_{mf} exceeds W_f , he will raise her y above W_f and they will stay married.

All couples having values of W_f , VMP_{mf} and y above the diagonal will divorce with or without conflicts. If a couple is in zone III or V, there is a

conflict about divorce given the original given values of y . If they are in zone IV, they will divorce without conflict. All couples under the diagonal will stay married. In zone I, there is no conflict about staying married. If the couple is in zone II or V, given the original given values of y , one member of the couple wants to be married, and the other does not. A change in y will then induce the other partner to stay married.

The probability of divorce depends simply on a comparison of VMP_{mf} and W_f , but the probability of conflict over divorce also depends on the given values of y . A higher value of given y does not affect the total probability of divorce. If we call A the total set of possibilities, then the divorce probability remains $(III + IV + V) / A$. The total probability of a divorce with conflict $(III$ and $V) / A$ is also constant. What will change with the given value of y is the probability of a conflict of type III or V. **The higher y , the more it is likely that a conflict of type III will occur, and the less it is likely that a conflict of type V will occur.** There will also be conflicts about the compensation needed to buy the homemaker out of a divorce.

In terms of predictions of divorce probability and possible need to compensate a spouse, our analysis leads us to the same insight that had been obtained by Elizabeth Landes (1978) or by Elizabeth Peters (1986) : the rate of divorce is independent of the law while compensation is not. These conclusions are easy to derive if one rewrites equations (1) and (2) without compensation

$$(1') E(G_m) = (1 - p_m)(VMP_{mf} - y) + p_m(W_m)$$

$$(2') E(G_f) = (1 - p_f)(y - W_f) + p_f(W_f)$$

If both are positive, this corresponds to Zone I, and the marriage is satisfactory to both parties. If both are negative, we are in zone IV, and divorce is desirable to both parties. But assume that one gains from marriage and the other does not, as is the case in areas II, III, V and VI. We now assume that both partners have the same estimated probability of divorce, $p_m = p = p_f$. We then add the two expected gain functions and obtain:

$$(3') E(G_f) + E(G_m) = (1 - p)(VMP_{mf} - W_f) + p(W_f + W_m)$$

If $VMP_{mf} > W_f$ we are under the diagonal and there exists a value of y that will make marriage beneficial to the partner who would be hurt by a divorce. The change in y will modify areas III and V, the conflict zones but not the divorce rate.

Starting from point A in area II or A' in area VI, a change in y reintroduces A and A' in area I, as shown in Figure 2.

If $VMP_{mf} < W_f$ we are above the diagonal, the area where divorce will take place because no one will be able to prevent the other partner to leave by modifying y . We thus have the following two situations of conflicts:

- Zone V conflict:

$$E(G_m) = (1 - p)(VMP_{mf} - y) + p(W_m) > 0$$

$$\text{whereas } E(G_f) = (1 - p)(y - W_f) + p(W_f) < 0$$

because $W_f > VMP_{mf} > y$

and

- Zone III conflict:

$$E(G_m) = (1 - p)(VMP_{mf} - y) + p(W_m) < 0 \text{ because } y > W_f > VMP_{mf}$$

$$\text{whereas } E(G_f) = (1 - p)(y - W_f) + p(W_f) > 0.$$

Without compensation (mutual consent) the damage caused to the partner who does not want to divorce is at its maximum : in the first case $W_f - y$ is the damage to the homemaker, if the provider refuses to divorce (see area V); and in the second $y - VMP_{mf}$ is the damage to the provider (see Zone III), if the homemaker refuses to divorce. At the same time if unilateral divorce is authorized, in the first case the provider loses $VMP_{mf} - y$ while the homemaker loses nothing. In the second case, the provider loses nothing but the homemaker will lose $y - W_f$.

It is easy to show that a divorce rule of mutual consent *with compensation* is identical to a rule of unilateral divorce except that the burden of the damage does not fall on the same shoulders.¹² This is where the Coase theorem reenters the picture.

Let us go back to the case of mutual consent. In the case of Zone III, to buy out the consent of his partner, the provider has to pay a compensation of $y - W_f$. The well being of the homemaker is the same as in the marriage and the provider loses $y - W_f$. But this amount is less than $VMP_{mf} - y$. In the same spirit, if the couple is in Zone V, to buy out the consent of the provider the homemaker would have to pay $VMP_{mf} - y$ which is less than $W_f - y$. The provider will lose nothing. The compensations C_f or C_m are respectively equal to $y - W_f$ and $VMP_{mf} - y$.

The conclusion of this analysis and of Landes or Peters' analysis is that divorce laws do not matter as far as the expected rate of divorce is concerned. The only thing that the law alters is who will bear the burden of divorce : the provider or the homemaker? This is where wealth effects as well as income distribution effects play an important role.

b) One period spot market model with wealth or income distribution effects: $F > 0$.

In the following model who bears the burden of divorce makes a difference for individual action.

We now go back to the original equations (1) and (2) with positive wealth F and compensation C_f , and use them instead of simplified gain equations 1' and 2'. Figure 1 is then modified into Figure 3.

The presence of wealth effects increases both the areas of divorces and marriages. The following areas are added when we compare Figure 1 and

Figure 3 : A +B +C for divorces and D+G+H+J for marriages. Conflict zone III increases as well from III to III +B and C.

If both expected gains are positive , this corresponds to Zone I and J, the marriage is satisfactory to both parties. If both are negative , we are in zone IV and A, and divorce is desirable to both parties. But assume, once again, that one spouse gains from marriage and the other does not, as is the case in areas II, D,G,H III,B,C, V and VI.

Assume that both partners have the same estimated probability of divorce, $p_m = p = p_f$. We then add the two expected gain functions and obtain:

$$(3'') E(G_f) + E(G_m) = (1 - p)(F + VMP_{mf} - W_f) + p(F + W_f + W_m)$$

If $VMP_{mf} > W_f$ we are under the diagonal and there exists a value of $y + F/2$ that will make marriage beneficial to the partner who would be hurt by a divorce The change in $y + F/2$ will modify areas III and V, the conflict zones but not the new divorce rate.

If $VMP_{mf} < W_f$, we are above the diagonal, the areas where divorce will take place because no one will be able to prevent the other partner to leave by modifying $y + \frac{F}{2}$. We thus have the following two situations of conflicts:

- Zone V conflict:

$$E(G_m) = (1 - p_m)\left(\frac{F}{2} + VMP_{mf} - y\right) + p_m(F + W_m - C_f) > 0$$

$$\text{whereas } E(G_f) = (1 - p_f)\left(\frac{F}{2} + y - W_f\right) + p_f(W_f + C_f) < 0$$

$$\text{because } W_f > VMP_{mf} + \frac{F}{2} > y + \frac{F}{2}$$

and

- Zone III conflict:

$$E(G_m) = (1 - p_m)\left(\frac{F}{2} + VMP_{mf} - y\right) + p_m(F + W_m - C_f) < 0 \text{ because } y > W_f >$$

$$VMP_{mf} + \frac{F}{2}$$

$$\text{whereas } E(G_f) = (1 - p_f)\left(\frac{F}{2} + y - W_f\right) + p_f(W_f + C_f) > 0.$$

Without compensation (mutual consent) the damage caused to the partner who does not want to divorce is at its maximum : in the first case $W_f - y + \frac{F}{2}$ is the damage to the homemaker, if the provider refuses to divorce (see area V); and in the second

$$y - VMP_{mf} + \frac{F}{2} \text{ is the damage to the provider (see Zone III), if the homemaker refuses to divorce. Comparing Figures 1 and 3, the introduction of wealth, even with simplified assumptions like ours, complicates the picture}$$

substantially. It can be seen, however, that if divorce is forbidden, areas of inefficient marriages are larger now than in the absence of wealth and unequal income distribution.

At the same time if unilateral divorce is authorized, in the first case the provider loses $VMP_{mf} + F - y$ as he stops to share his wealth with the homemaker, this loss is far less than in absence of wealth effect, while the homemaker loses $\frac{F}{2}$. In the second case, the provider wins $\frac{F}{2}$, while the homemaker will lose $y + \frac{F}{2} - W_f$. The presence of unequal wealth at the beginning of marriage shows how divorce laws and division of marital property at divorce matter.

In terms of Figure 3, with unilateral divorce the diagonal shifts to line ab, implying that the rate of divorce increases significantly, while the rate of marriage diminishes accordingly. Areas of conflicts increase as well.

It is easy to show that a divorce rule of mutual consent with compensation is not identical to a rule of unilateral divorce. Let us go back to the case of mutual consent. In the case of Zone III, to buy out the consent of his partner, the provider has to pay a compensation of $(y - W_f) + \frac{F}{2}$. The well being of the homemaker is the same as in the marriage and the provider loses $(y - W_f) + \frac{F}{2}$. This implies a rule of division of marital property known as « communauté universelle, » CU. The homemaker benefits from the wealth accumulated by the provider before marriage when she consents to divorce. As before for the provider this amount is less than $VMP_{mf} + \frac{F}{2} - y$.

If the rule of division of property is « communauté réduite aux acquêts, » CA, i.e. the compensation will never be enough to maintain the well being of the homemaker at the level of the marriage and the diagonal is going through the line ab like with unilateral divorce. The homemaker will not really consent to the divorce and as in unilateral divorce she will react to protect her interest by not investing in the marriage. In others words unilateral divorce and mutual consent with a division of marital property as a « communauté réduite aux acquêts » are similar in their effects and stand in contrast to mutual consent and « communauté universelle » CU rules.

In the same spirit, if the couple is in Zone V, the homemaker would have to pay $VMP_{mf} - y$ to buy out the consent of the provider, which is less than $W_f - y + \frac{F}{2}$. The provider not only will lose nothing but will gain. The compensations C_f or C_m are respectively equal to $y - W_f + \frac{F}{2}$ and $VMP_{mf} - y$. In contrast to the conclusion reached by Landes and Peters, the conclusion of our

analysis is that divorce laws matter as far as the expected rate of divorce is concerned.

This theoretical framework can be used to analyze the effects of many separate aspects of legal systems regulating divorce. Eventually, we would like to develop systematic comparisons of the various rules currently used in the countries we study.

Towards a More General Analysis of the Effects of Rules of Division of Property at Divorce

The previous section showed that there are real effects to rules dealing with division of property at divorce.¹³ Countries can be ranked as far as their rules for letting a homemaker without premarital wealth obtain some of her husband's wealth in case of divorce. The marriage and divorce system that makes wealthy providers share their premaritally accumulated or inherited wealth with a homemaker coming to the marriage without wealth is the system of universal community property. We first compare a country with universal community property (Communaute universelle, CU) with any other country not offering this benefit to a homemaker who divorces. We then present a brief overview of actual systems about division of property at divorce, rank them as far as the protection they offer to homemakers, and make a number of predictions.

Universal Community Property versus other systems. Given that the Netherlands is one of the countries with CU, for simplicity we will call a country with universal community property Holland, and the country without it France. The following prediction followed from our theoretical model :

1. *Lower predicted divorce rate in Holland.* As discussed above, the effects of divorce rules operate via effects on $y - W_f + \frac{F}{2}$ or on $y - W_f$. We assume that in Holland the divorce rule regarding division of property is more generous to the homemaker : $y - W_f + \frac{F}{2}$ is higher than in France where it is assumed that the homemaker gets $y - W_f$. As explained above, this leads us to predict a lower divorce rate in Holland than in France.

We expect a redistribution effect. If in Holland the homemaker can expect a higher total compensation in the form of access to the provider's property, we *expect fewer other benefits to the potentially divorcing homemaker*. This could lead to implications regarding the homemaker's share in consumption. To the extent that women are homemakers, Dutch homemakers may get less access to material goods usually appreciated by women than is the case in countries where men do not typically share their premaritally accumulated assets.

In other words, given that $y - W_f + \frac{F}{2}$ includes a factor F that is considered excessively high by the providers (actual or in potentia), there will be efforts to lower the y that homemakers receive.

2. *More associative mating in Holland.* Given that potential providers know what marriage entails, they will try to raise expected VMP_{mf} from marriage and therefore be more careful in their choice of spouse. This can often be accomplished via associative mating. For instance, we expect more educational homogamy, religious homogamy, or ethnic homogamy in the Netherlands. We actually only have data on educational homogamy. This prediction recognizes that homogamy leads to marital stability. This has been documented in research. For instance, Weiss and Willis (1997) and Evelyn Lehrer (forthcoming) report that educational and religious homogamy are associated with lower divorce rates in the U.S.

This prediction applies more to high wage men or men expecting large inheritances. In the Netherlands there will be more attempt on the part of traditionally minded marriage-oriented high wage men marrying low wage women or women who are not employed in the labor force, to marry women like themselves in terms of education and religion. These men are forced to pay their wife a higher $y + F$ and therefore stand more to lose from a potential divorce. The same holds for high wage women or women expecting high inheritances who are on the provider side of marriage (and potential divorce) transactions.

This prediction on homogamy does not necessarily apply to age homogamy, as explained in prediction 4. All sorts of homogamy may vary by age, education or social class.

3. *More traditional homemaker/provider marriages in Holland.* In Holland, where total expected gain from marriage is higher for women, more women may consider a career as married homemaker than in France. We therefore predict that more traditional division of labor between men and women is likely to be observed in Holland, including less labor force participation of women. Indeed, women's LFP was substantially lower in Holland than in other Western European countries (see Blau, Ferber, and Winkler 1998).

4. *More older men/younger women marriages in Holland.* Homemakers being protected more in Holland than in France, we expect more traditional homemaker/provider types of marriage in Holland, marriages often associated with the husband being substantially older than the wife. This is obvious if homemaking is reduced to childbearing and childrearing as in the Bergstrom and Bagnoli (1993) model on differences in age at marriage. In that model, women are by definition interested solely in homemaking. That makes them marriageable as soon as they can have children, whereas men have to accumulate assets to make themselves marriageable. The arguments we present in this paper lead one to expect further gaps in age at marriage in countries with CU, as men who are potential providers in marriage have more reasons to search hard before settling down in marriage, whereas women have much less to lose than in other systems: in case of divorce, at least they come out with a nice property settlement.¹⁴

5. *More married couples in Holland.* Marriage is a more attractive institution to homemakers in Holland, increasing the supply of potential

married homemakers. Men will be more reluctant to marry, as they stand more to lose in case of divorce, leading to a lower demand for homemakers. If few substitutes to marriage are available for men, men's demand will decrease less than women's supply will increase, and there will be more marriages in Holland.

6. *Less cohabitation in Holland.* In the Western world, consensual unions have often become an alternative to traditional homemaker/provider marriage, and they often imply egalitarian gender roles (see Olivia Ekert-Jaffe and Catherine Sofer 1991, 1996 and Kathleen Kiernan and Eva Lelievre 1995). Such marriages are less likely to be popular in Holland, to the extent that divorce laws such as universal community property combine with an unequal distribution of premarital assets and creative incentives for relatively poor women to become homemakers and marry wealthy providers. In terms of our model, the higher the total expected compensation of a homemaker at divorce $y - W_f + \frac{F}{2}$, the more marriage is attractive to (potential) homemakers relative to cohabitation. The same reasoning makes men less interested in marriage, if they are more likely to be the providers with wealth, and they may be interested in encouraging women to cohabit with them rather than marry them (but if they have wealth they may also worry about having outofwedlock rather than official children). Again, this depends on the availability of substitutes for men and women.

7. *Fewer out of wedlock births in Holland.* The higher the total gain of marriage to potentially married homemakers, the less women are likely to have children out of wedlock. Since many other factors influence fertility inside and outside of marriage, this is more likely to hold for outofwedlock fertility relative to marital fertility. It can be assumed that men's demand for children is mostly for legal children and that it does not vary as much as women's supply.

8. *More couples in Holland.* To the extent that cohabitation is preparation for marriages, one expects more couples (cohabiting or married) in Holland than in France.

A More General Comparison of Divorce Systems. Our model simplified the analysis substantially by only consider providers with assets and homemakers without assets. We further simplified the analysis by considering universal community property as opposed to any other system. In fact, no two countries have exactly the same institutional framework. Even if two countries' divorce laws are the same, other policies may influence gains of marriage or divorce, such as tax laws or welfare benefits to single parents.

Eventually, we hope that this theory will be tested. There are many challenging problems that need to be addressed when testing our predictions. Interpreting how particular rules regarding the division of property at divorce affects individual benefits of marriage for homemakers and providers is not straightforward. Furthermore, we face the usual problems associated with any cross-country comparisons, such as lack of control for many institutional

differences we do not take into account. Many methods such as fixed effects models allow researchers to avoid the problems of institutional differences, but we are interested in comparing legal systems, so that would not work for us.

The dimensions that need to be considered in a cross-country comparison of rules regarding division of property at divorce are the following:

- *fixed laws about division of property at divorce versus discretion of a judge.* Here the major distinction is between Common Law systems and systems with default agreements on property, where one has to enter a special marriage contract to change the rules.
- *Laws based on separation of assets versus community property.* The Germanic system starts with the assumption of separation of assets, then adding clauses to make it fairer to homemakers. Most of the rest of continental Europe has community property as its default system.
- *Community Property:* If community property is the rule, how universal is it? Does it include all assets owned by a couple? Some countries like the Netherlands and Norway include premaritally acquired assets in community property. Most countries do not. They have restricted community property, usually restricted to assets accumulated during the marriage. This is called ‘communaute d’acquets’ in French, and stands in contrast to communaute universelle. We will use the symbols CA and CU to describe these two systems of community property.

In order to rank the various systems as to their generosity towards a poor homemaker potentially married to a wealthy provider, we learned from a number of European legal sources (see Jean Patarin et Imre Zajtay 1974, Alain Verbeke 1991, Marie-Therese Meulders-Klein 1994, Dietrich Bernstroof 1996, Juriclasseeur 1996, and Anders Agell 1997?). We present our ranking in the next section.

We thus have the more general predictions that

The more homemaker-friendly the rules of division of property at divorce, the:

1. *Lower the predicted divorce*
2. *Higher the rate of More associative mating*
3. *More popular traditional homemaker/provider with women outside the labor force*
4. *More older men/younger women*
5. *More married*
6. *Less cohabitation*
7. *Fewer out of wedlock births*
8. *More couples*

In making actual cross-country comparisons, many other policy and legal differences may be relevant. Given our interest in studying implications for cohabitation, marriage and divorce, it is important to know if a country treats cohabitation like marriage or not. In Sweden and France, for instance, there is

practically no difference between the legal protection that homemakers receive from marriage and cohabitation. Another factor of great importance, we believe, is religion. Even though all the countries we studied are Christian, it is possible that Christian denomination (Catholic, Lutheran, Calvinist, etc.) behave differently and that these religious differences explain much of the international variation we observe.

Some Stylized Facts

We now present the results of a preliminary empirical investigation. Our data are drawn from the common core of the Family Fertility Surveys (FFS), a project that was coordinated by the Population Activities Unit of the UN economic Commission for Europe. The aim of this project was to construct a standardized, comparable database in order to put family-building in a multidimensional biographical perspective and to unveil interactions between educational, occupational, residential and familial facets of individuals' lives (Patrick Festy and France Prioux 2002). The data were collected between 1988 and 1996 for 24 industrial countries of the UN/ECE, among them 14 Western countries.¹⁵ The entire life span of the respondents was covered, but our focus will be on young women. For the Netherlands, we used statistics published in UN/ECE (2001).

While all Western and industrialized, the fourteen countries that we studied differ substantially in the types of rules they use for division of property at divorce. The first two columns in Table 1 list type of rule for division of property at divorce and either country or Canadian province.

We have listed the countries or provinces starting with the countries with rules that we consider offer the least protection to married homemakers: the Common law countries. Unfortunately, Great Britain is missing from the FFS, but the project included three countries with Common Law (CL) : the USA, Canada except for Quebec and Ontario, and New Zealand. The United States has states that follow CL and others that follow restricted community property rules (CA). We then list two countries--Austria and the former West Germany—that have rules of separate assets but include added values in case of marriage dissolution. We list Switzerland right under Germany, even though its cantons all have different legislation about divorce, but most of these follow Germanic law. The rest of the countries listed in Table 1 have community property of marital assets that they subject to a 50/50 division rule in case of divorce. However, some countries include more assets than others when calculating the community property (CA versus CU). The CA countries and provinces are France and Belgium, Quebec, Ontario, Spain and Italy. We have listed the latter separately, for they were late in legalizing divorce (in Italy in 1975 and in Spain in 1981). The CU countries are the Scandinavian countries and the Netherlands. However, in the Scandinavian countries it is much more common for heirs to stipulate that their inheritances will not be covered in community property than is the case in the Netherlands.

The next column in Table 1 reports the proportion of women age 35 who have never been in couple, whether married or cohabiting. Demographers

generally consider celibacy at this age as a proxy for the definitive celibacy rate, which is the rate that is most consistent with our one period model.

The proportion of women who have never been in a couple follows our prediction 8. Other than New Zealand, the Common Law countries and Canadian provinces have relatively high rates of women who never were in couple. The same is also the case with the next group of countries: Germany, Austria, and Switzerland, where divorce rules are not considered very 'women-friendly'. Other than Italy and Finland, all the CA countries, where Community Property prevails, have lower than average rates of women who never were in couple.

Preliminary evidence for prediction 1 is found in the columns 'divorced' (we made a distinction between those divorced for the first time and those who are divorced after more than one marriage). It can be seen that in the Common Law countries, the percent of women who are either divorced or separated from a partner is higher than average, especially for women who were only coupled once. One obvious exception is Sweden, where a very high percentage of all women age 35 either divorced or separated from their first partner. [Naturally, where separation rates are high, remarriage and re-cohabitation rates are higher, as there is a larger second union market. Sweden also has the lowest percent of women whose first couple separated and they remained alone (25.5%). That percentage was also low in New Zealand and the U.S., where CL prevails, and first union separations are high]. The highest percent of women whose first couple separated and they remained alone is found for Spain and Italy, which reflects the influence of the Catholic Church.

When comparing the percent married and cohabiting, we need to take account of the legal differences between those two institutions, and these differences are many and changing over time. In the early 1990s, when this data was collected, most women age 35 had good reasons to prefer marriage to cohabitation in terms of the protection marriage offered, with the lone exception of Sweden (since then, other countries such as France, have been following the Swedish example). Not surprisingly, Sweden is far ahead of the rest of the countries as far as the percent of women in a first couple and cohabiting (see prediction 6). The other above average numbers are for one CL country (New Zealand) and two Germanic law countries: Austria and the former West Germany. The CA and CU countries with low cohabitation rates are not all catholic. They also include Finland, Norway, the Netherlands, and the province of Ontario in Canada.

We also find that the highest proportions of women who have been married by age 35 are found in CA or CU countries: Belgium (actually Flanders only), Spain, Norway, Italy, and the Netherlands. The lowest proportions of ever married women at age 35 are found for Sweden, Germany and British Columbia (a CL province of Canada). This is evidence supporting prediction 5.

We get a better indication of what marriage, cohabitation, and divorce mean in various countries when we compare the ratio of extant to terminated marriages and informal unions. In the U.S., for instance, it appears from the

‘cohabitant’ and ‘ex-cohabitant’ columns, that by age 35 only 8.7% of all women who had started their first union in cohabitation were still cohabitating with the same partner. In Sweden, in contrast, 38.3% of all women age 35 who had started their first union in cohabitation were still cohabitating with the same partner. Common law province British Columbia (17.3% of cohabitants still together) and the U.S. stick out as having a much higher rate of separated cohabitants than the rest of our countries and Canadian provinces (in Quebec and Ontario 37% were still together). So we see that informal unions were less stable in Common Law jurisdictions.¹⁶ Formal marriages were also less stable in those same countries, as discussed above. The separation rate of informal unions seems to be a positive function of the divorce rate of the formal marriages. There seems to be a trickling down effect of the divorce laws: the less the protect women, the less marriages are stable, then leading to even less stable cohabitations.

As far as the ratio of out-of-wedlock to married births is concerned (prediction 7) it appears from Table 2, column 3, that CL country New Zealand has the highest ratios of out-of-wedlock births. Rates are also very high in Sweden and two Germanic countries: Germany and Austria. In the countries with high rates of out-of-wedlock births and weak protection for homemakers in marriage, it is mostly uneducated women who give birth out-of-wedlock, often alone, whereas in Sweden (and more recently in France) out-of-wedlock births and cohabitation have become well-accepted alternatives for highly educated couples. In countries with CA, even if women have children out-of-wedlock, they generally have fewer children out-of-wedlock relatively to countries with laws less protective of homemakers.

As far as women’s labor supply is concerned, the subject of prediction 3, we used a table reported by Blau et al (1998) for rates of participation of women in the labor force (ages 15-64), and a table reported by Daphne Spain and Suzanne Bianchi (1996) for hours of paid work (this table also includes a wider range of age groups). We predicted that where homemakers are less protected, more women will participate in the labor force and those who do will work more hours. In 1992, the highest rates labor force participation—ranging between 65% and 79% in the labor force--were observed for Sweden, Finland, Norway, the U.S. and Canada, including two countries who mostly have a CL system. The lowest rates—ranging between 42% and 55.5% in the labor force--were observed for Spain, Italy, Belgium, and the Netherlands, all CA or CU countries. As for paid hours worked, the highest numbers of weekly hours worked—ranging from 19 to 27—were observed for Sweden, the U.S., Finland, Norway, and Canada, including two countries with CL systems. The lowest hours were observed in the Netherlands (10 hours a week) and Italy (11 hours a week).¹⁷

Prediction 3 could also possibly be tested by examining the percent of couples with a husband considerably older than the wife. Table 2, col. 1, presents percentages of couples—married and cohabiting—with a relatively large age gap between husband and wife (it also includes women older than their husband). Age heterogamy is highest in Italy, Switzerland, and Austria,

including two Germanic law countries. Age heterogamy appears to be lower in CL countries relative to the CA countries we have examined so far. This is consistent with prediction 3.

The last prediction we looked at was that regarding associative mating. Prediction 2 implies that CA and CU countries should have more associative mating by education, i.e. less educational heterogamy, than CL countries and the Germanic countries. Column 2 in Table 2 indicates that the highest educational associative mating is found in Austria, Belgium, and Spain, including two countries with CA. Unfortunately, we could not calculate this statistic for the Netherlands. The Scandinavian countries do not follow our prediction, as they have CA or CU and high levels of educational heterogamy. This may reflect the acceptability of cohabitation at a young age, when one of the partners (usually the woman) is still a student. We intend to calculate heterogamy rates separately for married and cohabiting couples. If we exclude the Scandinavian countries, the stylized facts of Table 2, col. 2, are consistent with our prediction: CA countries have more educational homogamy than CL countries.

Looking at all these facts leads us to speculate that perhaps CU countries such as Sweden felt pressure to legalize cohabitation as men were reluctant to live by rules that are very unfriendly to providers. Interestingly, major legal changes raising cohabitation to the status of marriage was passed in Sweden as the generation of the 1940s grew up, the Swedish baby-boom.¹⁸ More recently, France and the Netherlands have also legalized cohabitation in this spirit, and these are two countries giving homemakers good deals in marriage. So at the cross-country level, there appears to be more legislation modifying the CA/CU bias towards homemakers in the countries where this bias was the most costly to men. Within each of these countries, the timing of the legalization of cohabitation corresponds with the coming of age baby-boomers. Male baby-boomers may have been politically very influential in making CA/CU laws less effective. Male baby-boomers tend to face favourable marriage market conditions and can possibly translate their power in the marriage market by changing marriage, cohabitation, and divorce customs and laws in a direction that favors providers rather than homemakers. A similar argument about the effect of baby-booms and sex ratios was applied to explain the popularisation of cohabitation in the U.S. (see David Heer and Grossbard-Shechtman 1981).

Conclusion

We have presented a theoretical analysis based on an economic analysis of marriage and divorce and a law-and-economics point of view. Assuming that men and women internalize the benefits and costs of the law and use those when planning their future, we predicted effects of divorce laws on individual career choices and marital choices. We made predictions regarding the effects of rules regarding the division of property at divorce on a number of demographic behaviors. We then looked at some tables for more than 14

different jurisdictions, and found that many of the stylized facts go in the direction of our predictions.

The empirical discussion that we offered is suggestive of potential effects of rules regarding division of marital property. It is hoped that further work can test whether the simple correlations apparent from our tables continue to hold if multi-variate models are estimated, taking account of other relevant variables such as income, wages, and religion. It is also hoped that more work can be devoted to comparing CL and CA states in the U.S.

Notes

¹ We thank Charlotte Aussillous, Martine Deville, and Benedicte Garnier for excellent research assistance.

² We don't attempt to be realistic in assuming part-time homemaking by both men and women, as this case is much more complex. We hope later work will address such cases.

³ Mainly because the assignment of rights is not the outcome of a free contract between people but the outcome of legislation that one of the partners imposed through a binding contract.

⁴ Based on an analysis of individual Current Population Survey data

⁵ One can also model the effect of a surprise change in legal regime on individuals who already made some strategic decisions. The Weiss and Willis model tests for surprise changes over an individual's multi-period time horizon.

⁶ By establishing rules of property rights (homesteading for example), the Law implies unequal distribution or redistribution of wealth between those who benefit from the rules. Then conflicts between individuals arise about these inequalities or redistributions of wealth if these redistribution effects are one side and not randomly distributed in the population. In the case of marriage and divorce, the lower status of the women in the past or in some countries of today illustrates such a non random redistribution of wealth by the law. In assuming no redistribution effects and in focusing on transactions costs alone, Coase eliminates from the economic analysis of law the main characteristic of modern positive law : the making of law and legislation to redistribute wealth in favour of the politically powerful and not to solve social dilemmas .

⁷ To say that the owner of a factory has to pay for the damage he causes to the neighboring homeowners is not the same as to say that the homeowners have to pay to prevent the damages that the owner of the factory has the right to impose on them. The usual solution is either to say that there are no wealth effects or they cancelled in the aggregate as with Coase or to establish *property* rights on the environment along an *homesteading rule* of property as stated by Murray Rothbard (1982). Establishing such a property right will tell who (the owner of the factory or the homeowners) has the right to use the environment to maximize his wealth.

⁸ We transpose an example of wealth effect developed by Donald Wittman (2001) in his lectures on Coase's theorem.

⁹ Here we assume a difference in taste vis-à-vis of specific investment in marriage, for instance raising children.

¹⁰ We started introduced the concept of marriage partners as producers of homemaking services into economic models of marriage in Grossbard (1976) and Grossbard-Shechtman (1984). Grossbard-Shechtman (2001) calls these services

Work-In-Marriage (WIM). These sources also discuss the concept of compensation for such homemaking services.

¹¹ This diagram is adapted from Lemennicier (1991), who borrowed it from Hall and Lazear (1984), who in turn borrow from Hashimoto and Yu (1980). A similar diagrammatic approach has also been used to discuss marriage contracts by E.Peters (1986) and A. Cigno(1991).

¹² It is also interesting to note that when divorce is forbidden, marriage is extended to inefficient areas V and III, while that is not the case with unilateral divorce. Unilateral divorce insures that remaining married is an act of mutual consent (see E.Landes 1978).

¹³ Other rules affecting the compensation of homemakers at divorce also matter, such as alimony payments. Divorce rules can take the form of expectation damage to the party who suffers a damage in case of divorce or reliance damage. Alimony is either based on expectation damage or reliance damage.

¹⁴ We thank Valerio Filoso for this insight.

¹⁵ We can rank the countries according to the period of the collect of the data : Norway (1988-89), Finland (1989-90), Belgium (Flemish region 1991, Bruxelles Region, 1992), Germany (1992), Netherland and Sweden (1993), France (1994), USA, Canada, New Zealand, Spain and Switzerland (1995), Italy (1996), for the women samples.

¹⁶ In the future we plan to separate CL from CA states in the U.S.

¹⁷ Not all our 14 countries were included in these tables.

¹⁸ Sweden did not participate in World War II and benefited from the war, leading to excellent economic conditions in the 1940s, and a population explosion.

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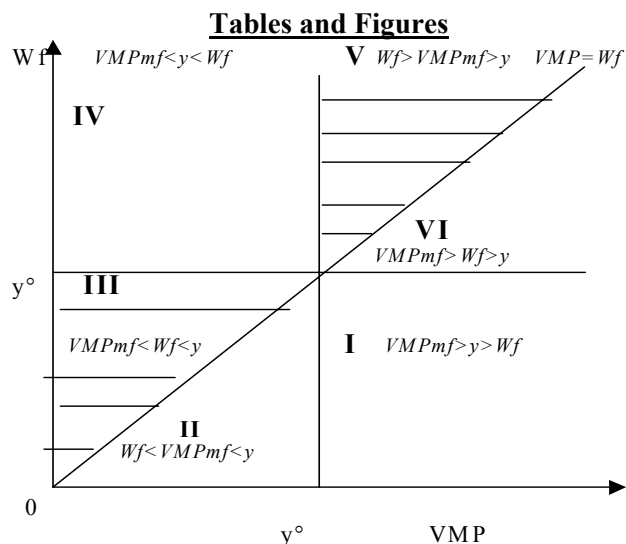


Figure 1. Homemaker/Provider Possibilities, No Wealth Effect

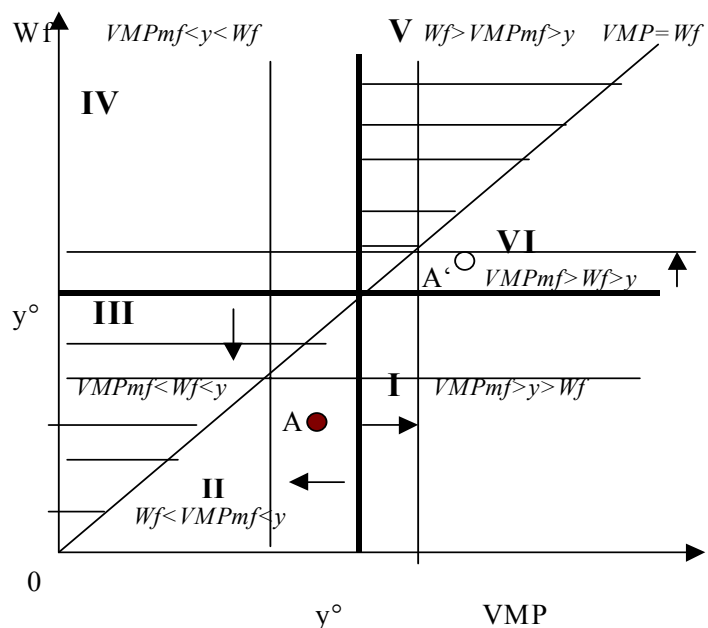


Figure 2. Homemaker/Provider Possibilities, Changes in the Compensation for Married Homemaking Services

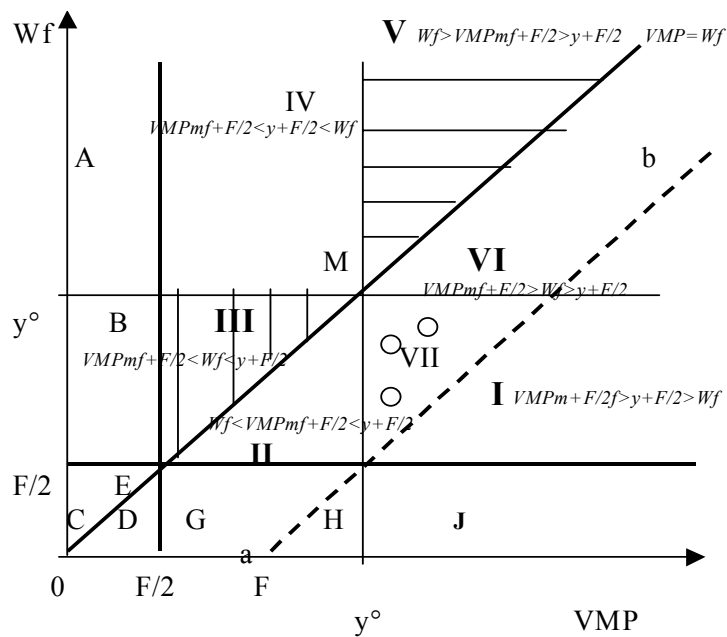


Figure 3. Homemaker/Provider Possibilities, Effects of Provider's Wealth

Table 1 : Partnership History for Women at Age 35, ECE/UN Countries by Rule of Division of Property at Divorce

Marriage settlement	Countries	Partnership history at age 35			Partnership status at or after the 1st couple at 35					Partnership status at or after the 2th couple at 35				
		Proportion of women never been in couple	Have been in couple never married	Proportion of women that have been married	Cohabitant	Ex-cohabitant	Still married	Divorced	No first couple	Cohabitant	Ex-cohabitant	Married	Divorced	No 2nd couple
Com.LAW	New Zealand	4.38	9.77	85.84	4.45	11.11	63.96	15.75	4.74	14.81	20.07	30.62	6.51	27.97
COM. LAW	Canada except Quebec & Ontar	8.16	4.2	87.6	1.47	5.5	66.33	18.31	8.16	13.23	10.86	28.56	5.00	42.35
COM. LAW	British Columbia	11.14	6.25	82.61	1.78	8.56	57.53	21.01	11.14					
CL/CA	U.S.A	7.96	5.9	86.16	1.07	11.6	49.78	29.54	8.00	6.30	18.97	34.31	14.08	26.34
Sep/CA	Austria	7.2	7.56	85.23	4.53	5.2	67.6	14.87	7.2	15.03	7.79	31.12	6.54	39.51
Sep/CA	Former West Germany	11.39	8.38	80.23	6.28	6.3	62.44	13.59	11.39	18.40	11.54	25.98	9.84	34.24
Sep/CA	Switzerland	7.03	7.82	85.15	3.08	9.82	68.31	11.75	7.03	13.62	6.25	37.25	4.37	38.49
CA	Belgium	3.31	2.9	93.79	2.1	1.09	81.73	11.77	3.31	15.86	10.04	26.79	5.58	41.74
CA	France	5.73	7.21	87.06	3.57	4.84	72.81	13.05	5.73	21.55	10.21	25.64	3.50	39.09
CA	Quebec. Ont.	7.17	6.22	86.6	3.04	5.1	65.4	19.1	7.17					
CA	Spain	5.98	2.32	91.7	1.23	1.32	86.12	5.35	5.98	18.33	7.18	13.09	0.82	60.59
CA	Italy	8.33	1.86	89.8	1.56	0.62	85.55	3.94	8.33	20.78	3.84	10.95	1.17	63.25
CA/CU	Finland	8.29	4.07	87.64	2.2	3.5	72.56	13.46	8.29	15.82	8.48	29.38	3.95	42.37
CU	Norway	4.6	3.92	91.48	2.39	3.41	77.17	11.93	5.11	20.55	8.34	30.00	3.89	37.22
CU	Sweden	4.93	23.21	71.86	12.01	19.3	51.78	11.98	4.93	25.28	15.28	24.72	9.27	25.46
CU	Netherlands	5	6	89	3.8	7.2	73	11	5					

Sep/CA means separation of assets with division of added value
CA means restricted Community Property
CU means extended Community Property
Belgium includes Flanders and Brussels only

Table 2: Associative Mating, Out-of-Wedlock Fertility and Rules about Division of Marital Property.

Rule for Division of Marital property	Country	Percent of age heterogamy*	Percent of educational heterogamy**	Ratio of out-of-Wedlock children***
CL/CA	Canada	26 %	21 ^a	0,30
CL/CA	USA	24 %	20 %	0,36
CL	New Zealand	24 %	28 ^a	0,66
Sep/CA	Austria	37 %	5 %	0,59
Sep/CA	Germany (RFA)	33 %	15 %	0,49
	Switzerland	37 %	14 %	0,15
CA	Belgium		6 %	0,10
CA	France	25 %	11 %	0,29
CA	Italy	46 %	13 %	0,24
CA	Spain	32 %	11 %	0,26
CA/CU	Finland	26%	51 ^a	0,16

CU	Sweden ^b		22 %	0,57
CU	Norway ^b		32 %	0,24

* Couples where the age gap between the husband and the wife exceeds 3 years.

** Couples where the educational gap between the husband and the wife exceeds 4 years.

*** Ratio of mean number of children of couples in a consensual union to mean number of children born to married couples

- a. Numbers were approximated : they are based on the highest levels achieved declared by the respondent. For the other countries, the number take into account both these levels and the age at school completion.
- b. For Sweden and Norway information on the age of the first partner was missing.